	DETAILED COMPETITIVE COMPARISONS	Real Options Valuation, Inc.	Oracle, Inc. / Crystal Ball	Palisades, Inc.
New Software	ROV Risk Simulator	★	★	★
	ROV BizStats	★	None	★
	ROV Modeling Toolkit	★	None	None
	ROV Quantitative Data Miner	★	None	None
	ROV Real Options SLS	★	None	None
	ROV Modeler, ROV Optimizer, ROV Valuator	★	None	None
	ROV Employee Stock Options Toolkit	★	None	None
	ROV Extractor and Evaluator	★	None	None
	ROV Web Models	★	None	None
	ROV Compiler	★	None	None
	ROV Visual Modeler	★	None	None
	ROV Dashboard	★	None	None

SIMULATION			
FUNCTIONALITY	RISK SIMULATOR 2011®	DECISION TOOLS Industrial 5.7	CRYSTAL BALL 11.1.2.1.000
64-Bit and 32-Bit Compatible	YES	YES	YES
Compatible with Excel VBA	YES	YES	NO
Comprehensive Simulation Reports, Statistcal Result, and Data Extraction	YES	YES	YES
Correlated Simulation and Distributional Truncation	YES	YES	YES
Correlation Copulas	YES	NO	NO
Creating Multiple Profiles on Simulation for Scenario Analysis on Simulation	YES	NO	NO
Decision Trees	Visual Modeler	YES	NO
Excel 2010, 2007, and 2003 Compatible	YES	YES	YES
Excel-based Functions	YES	YES	NO
Foreign Languages	10	7	3
Latin Hypercube	YES	YES	YES
Latin Hypercube Simulation	YES	YES	YES
Model Check and Verification	YES	YES	NO
Monte Carlo Simulation	YES	YES	YES
Multidimensional Simulation	YES	YES	YES
Normal, T, Quasi-Normal Copula	YES	NO	NO
Probability Distributions	45	40	26
Random Number Generators	6	8	1
RUNTIME Version	YES	NO	NO
Windows 7, VISTA, and Windows XP Compatible	YES	YES	YES

ANALYTICS			
FUNCTIONALITY	**RISK SIMULATOR 2011®**	**DECISION TOOLS Industrial 5.7**	**CRYSTAL BALL 11.1.2.1.000**
ANOVA Tables	YES	YES	NO
Chi-Square Tests of Independence	YES	YES	NO
Confidence Interval Analysis	YES	YES	NO
Data Diagnostics Tool (Autocorrelation, Distributive Lags, Correlation, Micronumerosity, Heteroskedasticity, Multicollinearity, Nonlinearity, Normality of Errors, Nonstationarity, Outliers, Stochastic Parameter Estimation, Distributional Fitting)	YES	NO	NO
Data Extraction of Simulation Forecasts	YES	YES	YES
Deseasonalization and Detrending	YES	NO	NO
Distributional Analysis (PDF, CDF, ICDF of Probability Distributions)	YES	YES	NO
Distributional Charts and Tables (Comparing Multiple Distributions and Their Moments)	YES	YES	YES
Distributional Designer (Custom Distributions)	YES	NO	NO
Distributional Fitting of Existing Data (Single and Multiple Variables with Correlations)	YES	YES	YES
Distributional Fitting Using Percentiles	YES	NO	NO
Distributional Hypothesis Tests	YES	YES	NO
Forecast charts with histogram, cumulative distribution, distributional fitting, and statistical analysis results	YES	YES	YES
Nonparametric Bootstrap Simulation	YES	YES	NO
Nonparametric Hypothesis Tests	YES	YES	NO
Normality Test	YES	YES	NO
Overlay Charts (Comparing Multiple Forecast Charts)	YES	YES	YES
Percentile Data Fitting	YES	NO	NO
Precision Control for Simulation Trials	YES	YES	YES
Principal Component Analysis or Discriminant Analysis	YES	YES	NO
Scenario Analysis	YES	YES	YES
Segmentation Clustering	YES	NO	NO
Sensitivity Analysis	YES	YES	YES
Six Sigma Analysis	**Modeling Toolkit**	YES	NO
Statistical Analysis	YES	NO	NO
Statistical Analysis of Data (Descriptive Statistics, Distributional Fitting, Histogram and Charts, Hypothesis Testing, Nonlinear Extrapolation, Normality Test, Stochastic Process Parameter Estimation, Time-Series Autocorrelation, Time-Series Forecasting, Trend Line Projection, and General Trend Lines)	YES	NO	NO
Structural Break Analysis	YES	NO	NO
Tornado and Spider Charts for Static Sensitivity Analysis	YES	YES	YES

FORECASTING			
FUNCTIONALITY	RISK SIMULATOR 2011®	DECISION TOOLS Industrial 5.7	CRYSTAL BALL 11.1.2.1.000
ARIMA P, D, Q (Autoregressive Integrated Moving Average Forecasting Models)	YES	NO	NO
Auto ARIMA Models	YES	NO	YES
Auto Econometric Modeling	YES	NO	NO
Basic Econometric Modeling	YES	NO	NO
Combinorial Fuzzy Logic	YES	NO	NO
Cubic Spline Models	YES	NO	NO
Exponential J and Logistic S Curves	YES	NO	NO
GARCH Volatility Forecasts (GARCH, GARCH-M, TGARCH, TGARCH-M, EGARCH, EGARCH-T, GJR GARCH, GJR TGARCH)	YES	NO	NO
LOGIT, PROBIT, and TOBIT Models for Limited Dependent Variables	YES	NO (Logit Only)	NO
Markov Chains	YES	NO	NO
Multiple Regression Analysis	YES	YES	YES
Neural Network Forecasts	YES	NO	NO
Nonlinear Extrapolation	YES	NO	NO
Programmable (XML) Forecasts	YES	NO	NO
Stepwise Regression (Forward, Backward, Combination, Correlation)	YES	YES	NO
Stochastic Processes (Random Walk, Brownian Motion, Mean-Reversion, Jump-Diffusion)	YES	NO	NO
Time Series Forecasting	YES	YES	YES
Trendlines Forecasting	YES	NO	NO

OPTIMIZATION			
FUNCTIONALITY	RISK SIMULATOR 2011®	DECISION TOOLS Industrial 5.7	CRYSTAL BALL 11.1.2.1.000
Dynamic Optimization	YES	YES	YES
Efficient Frontier Analysis	YES	YES	YES
Genetic Algorithm Optimization	YES	YES	NO
Goal Seek (Fast Search)	YES	NO	NO
Linear Optimization	YES	YES	YES
Multiphasic Optimization for Global Optimum Search	YES	NO	NO
Nonlinear Optimization	YES	YES	YES
Optimization for Binary Variables	YES	YES	YES
Optimization for Continuous Variables	YES	YES	YES
Optimization for Discrete Variables	YES	YES	YES
Precision, Tolerance, and Convergence Control	YES	YES	YES
Single Variable Optimization	YES	NO	NO
Static Optimization	YES	YES	YES
Stochastic Optimization	YES	NO	NO
Super Speed Simulation with Optimization	YES	NO	NO

STATISTICS			
FUNCTIONALITY	**RISK SIMULATOR 2011®**	**DECISION TOOLS Industrial 5.7**	**CRYSTAL BALL 11.1.2.1.000**
Foreign Languages	10	0	0
Multiple Models in One Profile	YES	NO	NO
Results Charts and Statistics	YES	NO	NO
Savable Profiles of Models	YES	NO	NO
Super Speed Computation	YES	NO	NO
Visualization Tool	YES	NO	NO
XML Editable and Programmable Profiles	YES	NO	NO
Detailed List of Supported Statistical Methods			
ANOVA: Randomized Blocks Multiple Treatments	YES	NO	NO
ANOVA: Single Factor Multiple Treatments	YES	NO	NO
ANOVA: Two Way Analysis	YES	NO	NO
ARIMA	YES	NO	NO
Auto ARIMA	YES	NO	NO
Autocorrelation and Partial Autocorrelation	YES	NO	NO
Autoeconometrics (Detailed)	YES	NO	NO
Autoeconometrics (Quick)	YES	NO	NO
Average	YES	NO	NO
Combinatorial Fuzzy Logic Forecasting	YES	NO	NO
Control Chart: C	YES	NO	NO
Control Chart: NP	YES	NO	NO
Control Chart: P	YES	NO	NO
Control Chart: R	YES	NO	NO
Control Chart: U	YES	NO	NO
Control Chart: X	YES	NO	NO
Control Chart: XMR	YES	NO	NO
Correlation	YES	NO	NO
Correlation (Linear)	YES	NO	NO
Count	YES	NO	NO
Covariance	YES	NO	NO
Cubic Spline	YES	NO	NO
Custom Econometric Model	YES	NO	NO
Data Descriptive Statistics	YES	NO	NO
Deseasonalize	YES	NO	NO
Difference	YES	NO	NO
Distributional Fitting	YES	NO	NO
Exponential J Curve	YES	NO	NO
GARCH	YES	NO	NO
Heteroskedasticity	YES	NO	NO
Lag	YES	NO	NO
Lead	YES	NO	NO

Limited Dependent Variables (Logit)	YES	NO	NO
Limited Dependent Variables (Probit)	YES	NO	NO
Limited Dependent Variables (Tobit)	YES	NO	NO
Linear Interpolation	YES	NO	NO
Linear Regression	YES	NO	NO
LN	YES	NO	NO
Log	YES	NO	NO
Logistic S Curve	YES	NO	NO
Markov Chain	YES	NO	NO
Max	YES	NO	NO
Median	YES	NO	NO
Min	YES	NO	NO
Mode	YES	NO	NO
Neural Network	YES	NO	NO
Nonlinear Regression	YES	NO	NO
Nonlinear Models	YES	NO	NO
Nonparametric: Chi-Square Goodness of Fit	YES	NO	NO
Nonparametric: Chi-Square Independence	YES	NO	NO
Nonparametric: Chi-Square Population Variance	YES	NO	NO
Nonparametric: Friedman Test	YES	NO	NO
Nonparametric: Kruskal-Wallis Test	YES	NO	NO
Nonparametric: Lilliefors Test	YES	NO	NO
Nonparametric: Runs Test	YES	NO	NO
Nonparametric: Wilcoxon Signed-Rank (One Var)	YES	NO	NO
Nonparametric: Wilcoxon Signed-Rank (Two Var)	YES	NO	NO
Parametric: One Variable (T) Mean	YES	NO	NO
Parametric: One Variable (Z) Mean	YES	NO	NO
Parametric: One Variable (Z) Proportion	YES	NO	NO
Parametric: Two Variable (F) Variances	YES	NO	NO
Parametric: Two Variable (T) Dependent Means	YES	NO	NO
Parametric: Two Variable (T) Independent Equal Variance	YES	NO	NO
Parametric: Two Variable (T) Independent Unequal Variance	YES	NO	NO
Parametric: Two Variable (Z) Independent Means	YES	NO	NO
Parametric: Two Variable (Z) Independent Proportions	YES	NO	NO
Power	YES	NO	NO
Principal Component Analysis	YES	NO	NO
Rank Ascending	YES	NO	NO
Rank Descending	YES	NO	NO
Relative LN Returns	YES	NO	NO
Relative Returns	YES	NO	NO
Seasonality	YES	NO	NO
Segmentation Clustering	YES	NO	NO
Semi-Standard Deviation (Lower)	YES	NO	NO
Semi-Standard Deviation (Upper)	YES	NO	NO

Standard 2D Area	YES	NO	NO
Standard 2D Bar	YES	NO	NO
Standard 2D Line	YES	NO	NO
Standard 2D Point	YES	NO	NO
Standard 2D Scatter	YES	NO	NO
Standard 3D Area	YES	NO	NO
Standard 3D Bar	YES	NO	NO
Standard 3D Line	YES	NO	NO
Standard 3D Point	YES	NO	NO
Standard 3D Scatter	YES	NO	NO
Standard Deviation (Population)	YES	NO	NO
Standard Deviation (Sample)	YES	NO	NO
Stepwise Regression (Backward)	YES	NO	NO
Stepwise Regression (Correlation)	YES	NO	NO
Stepwise Regression (Forward)	YES	NO	NO
Stepwise Regression (Forward-Backward)	YES	NO	NO
Stochastic Processes (Exponential Brownian Motion)	YES	NO	NO
Stochastic Processes (Geometric Brownian Motion)	YES	NO	NO
Stochastic Processes (Jump Diffusion)	YES	NO	NO
Stochastic Processes (Mean Reversion with Jump Diffusion)	YES	NO	NO
Stochastic Processes (Mean Reversion)	YES	NO	NO
Structural Break	YES	NO	NO
Sum	YES	NO	NO
Time-Series Analysis (Auto)	YES	NO	NO
Time-Series Analysis (Double Exponential Smoothing)	YES	NO	NO
Time-Series Analysis (Double Moving Average)	YES	NO	NO
Time-Series Analysis (Holt-Winter's Additive)	YES	NO	NO
Time-Series Analysis (Holt-Winter's Multiplicative)	YES	NO	NO
Time-Series Analysis (Seasonal Additive)	YES	NO	NO
Time-Series Analysis (Seasonal Multiplicative)	YES	NO	NO
Time-Series Analysis (Single Exponential Smoothing)	YES	NO	NO
Time-Series Analysis (Single Moving Average)	YES	NO	NO
Trend Line (Difference Detrended)	YES	NO	NO
Trend Line (Exponential Detrended)	YES	NO	NO
Trend Line (Exponential)	YES	NO	NO
Trend Line (Linear Detrended)	YES	NO	NO
Trend Line (Linear)	YES	NO	NO
Trend Line (Logarithmic Detrended)	YES	NO	NO
Trend Line (Logarithmic)	YES	NO	NO
Trend Line (Moving Average Detrended)	YES	NO	NO
Trend Line (Moving Average)	YES	NO	NO
Trend Line (Polynomial Detrended)	YES	NO	NO
Trend Line (Polynomial)	YES	NO	NO
Trend Line (Power Detrended)	YES	NO	NO

Trend Line (Power)	YES	NO	NO
Trend Line (Rate Detrended)	YES	NO	NO
Trend Line (Static Mean Detrended)	YES	NO	NO
Trend Line (Static Median Detrended)	YES	NO	NO
Variance (Population)	YES	NO	NO
Variance (Sample)	YES	NO	NO
Volatility: EGARCH	YES	NO	NO
Volatility: EGARCH-T	YES	NO	NO
Volatility: GARCH	YES	NO	NO
Volatility: GARCH-M	YES	NO	NO
Volatility: GJR GARCH	YES	NO	NO
Volatility: GJR TGARCH	YES	NO	NO
Volatility: Log Returns Approach	YES	NO	NO
Volatility: TGARCH	YES	NO	NO
Volatility: TGARCH-M	YES	NO	NO
Yield Curve (Bliss)	YES	NO	NO
Yield Curve (Nelson-Siegel)	YES	NO	NO

Modeling Toolkit	This modeling toolkit comprises over **800** functions, models and tools as well as over **300** Excel and SLS-based model templates using Risk Simulator, Real Options SLS, Excel, as well as advanced analytical functions in the Modeling Toolkit: ● Credit Analysis ● Debt Analysis ● Decision Analysis ● Forecasting ● Industry Applications ● Option Analysis ● Probability of Default ● Project Management ● Risk Hedge ● Six Sigma and Quality Analysis Tools ● Statistics Tools ● Valuation Model ● Yield Curve	★	None	None

Real Option Super Lattice Solver (SLS)	Abandonment, Contraction, Expansion, and Chooser Options	★	None	None
	American, Bermudan, Customized, and European Options	★	None	None
	Changing Volatility Options	★	None	None
	Example Advanced SLS models	★	None	None
	Exotic Single and Double Barrier Options	★	None	None
	Exotic Options Calculator with over 300+ Models	★	None	None
	Financial Options, Real Options, and Employee Stock Options	★	None	None
	Lattice Maker (Excel add-in)	★	None	None
	Multiple Underlying Asset and Multiple Phased Options	★	None	None
	Simultaneous and Multiple Phased Sequential Compound Options	★	None	None
	Specialized Options (Mean-Reversion, Jump-Diffusion, Rainbow)	★	None	None

	Standalone software with Excel add-in functionality (simulation and optimization compatible functions in Excel)	★	None	None
	Trinomial, quadranomial, pentanomial lattices for mean-reverting and jump-diffusion with dual-asset rainbow options		None	None
	Visible equations and functions Volatility computation models	★	None	None
	Type of Employee Stock Options ● Blackout Period ● Changing Forfeiture Rates ● Changing Risk-free Rates ● Changing Volatilities ● Forfeiture Rates (Pre- and Post-vesting) ● Stock Price Barrier Requirements ● Suboptimal Exercise Behavior Multiple ● Vesting Periods ● ALL OTHER EXOTIC VARIABLES	★	None	None

Consulting Services	Advanced Modeling Services	★	None	None
	Basic Model Building Services	★	★	★
	Employee Stock Options Valuation 2004 FAS 123	★	None	None
	Exotic Financial Instrument Valuation (Warrants, Convertibles, Swaptions, CDO, MBS, and many other customized instruments)	★	None	None
	Insurance and Actuarial Analysis	★	None	None
	Real Options Valuation Services	★	None	None
	Risk Analysis and Strategy Valuation	★	None	None
	Valuation Services	★	None	None

Training Services	Certified in Risk Management (CRM)	★	None	None
	Credit and Market Risk Analysis for Basel II (onsite seminars only)	★	None	None
	Risk Analysis Courses: • Analytical Tools • Basic Real Options (SLS software) • Forecasting (Risk Simulator) • Monte Carlo Simulation (Risk Simulator) • Optimization (Risk Simulator)	★	★	★
	Real Options for Analyst • Advanced real options analytics • Understanding the SLS software • Framing options	★	None	None
	Real Options for Executives • The basics of real options • Making strategic decisions in real options • Framing strategic options • Interpreting options results	★	None	None
	Valuing Employee Stock Options • Applying binomial lattices in the ESO Toolkit software to value employee stock options under the 2004 revised FAS 123	★	None	None
	Customized Seminars • Courses customized to your specific needs	★	★	★

MODELING TOOLKIT

Real Options Valuation, Inc. is proud to present its latest innovation, the **Modeling Toolkit (Premium Edition)**. This toolkit comprises over 800 analytical models, functions and tools, and about 300 analytical model Excel/SLS templates and example spreadsheets covering the areas of risk analysis, simulation, forecasting, Basel II risk analysis, credit and default risk, statistical models, and much more! This toolkit is a set of mathematically sophisticated models written in C++ and linked into Excel spreadsheets. There are over 1100 models, functions, with spreadsheet and SLS templates in this toolkit and the analytical areas covered include:

Analytics

1. Central Limit Theorem
2. Central Limit Theorem (Lottery Analysis)
3. Flaw of Averages
4. Mathematical Integration
5. Parametric and Nonparametric Hypothesis Tests
6. Projectile Motion
7. Regression Diagnostics
8. Ships in the Night
9. Statistical Analysis
10. Weighting of Ratios

Banking Models

11. Audit of Construction Lending
12. Banker's Construction Budget
13. Classified Breakeven Loan
14. Classified Loan Borrowing Base
15. Classified Loan Cash Budget and Overdraft
16. Federal Reserve Camels Rating
17. Firm in Financial Distress
18. Project Finance Risk Rating
19. Queuing Models
20. Reconciling Enron's Cash Flow
21. Risk Rating Model
22. Sample Cash Flows
23. Sensitivity Projections
24. Stochastic Loan Pricing Model
25. Valuation and Appraisal

Credit Analysis

26. Credit Default Swaps/Credit Spread Options
27. Credit Default Swaps Correlated Counterparty Defaults
28. Credit Premium
29. Credit Risk and Price Effects
30. External Debt Rating Spreads
31. Internal Credit Risk Rating
32. Profit-Cost of New Credit

Debt Analysis

33. Asset Equity Parity Model
34. Cox Model on Price and Yield of Risky Debt with Mean Reverting Rates
35. Debt Repayment and Amortization
36. Debt Sensitivity Models
37. Merton Price of Risky Debt Stochastic Asset and Interest
38. Vasicek Debt Option Valuation
39. Vasicek Price/Yield Risky Debt

Decision Analysis

40. Decision Tree Basics
41. Decision Tree, EVPI, Minimax, Bayes Theorem
42. Economic Order Quantity and Inventory Reorder Point
43. Economic Order Quantity and Optimal Manufacturing
44. Expected Utility Analysis
45. Inventory Control
46. Queuing Models

Exotic Options

47. American, Bermudan and European Options
48. Asian Arithmetic
49. Asian Geometric
50. Asset or Nothing
51. Barrier Options
52. Binary Digital Options
53. Cash or Nothing
54. Commodity Options
55. Complex Chooser
56. Credit Spread Options
57. Currency Options
58. Double Barriers
59. Exchange Assets
60. Extreme Spread
61. Foreign Equity Linked Forex
62. Foreign Equity Domestic Currency
63. Foreign Equity Fixed Forex
64. Foreign Takeover Options
65. Forward Start
66. Futures and Forward Options
67. Gap Options
68. Graduated Barriers
69. Index Options
70. Inverse Gamma Out-of-the-money Options
71. Jump Diffusion
72. Leptokurtic and Skewed Options
73. Lookback Fixed Strike Partial Time
74. Lookback Fixed Strike
75. Lookback Floating Strike Partial Time
76. Lookback Floating Strike
77. Min and Max of Two Assets
78. Option Collar
79. Options on Options
80. Perpetual Options
81. Simple Chooser
82. Spread on Futures
83. Supershares
84. Time Switch
85. Trading Day Corrections
86. Two Assets Barrier
87. Two Assets Cash
88. Two Assets Correlated
89. Uneven Dividends
90. Writer Extendible

Forecasting

91. Brownian Motion Stochastic Process
92. Data Diagnostics
93. Econometric, Correlations and Multiple Regression
94. Exponential J-Growth Curves
95. Forecasting Manual Computations
96. Jump-Diffusion Stochastic Process
97. Linear Interpolation
98. Logistic S-Growth Curves
99. Markov Chains and Market Share
100. Mean-Reverting Stochastic Process
101. Multiple Regression
102. Nonlinear Extrapolation
103. Stochastic Processes and Yield Curves
104. Stock Distribution at Horizon
105. Time-Series Analysis
106. Time-Series ARIMA

Industry Applications

107. Asset Liability Management ALM
108. Biotech – Manufacturing Strategy
109. Biotech – In-licensing and Deal Structuring
110. Biotech – Investment Valuation
111. Electric Utility – Efficient Frontier Generation
112. Electric Utility – Electricity Contract Risk
113. Information Technology – Forecasting Use
114. Information Technology – Decision Analysis
115. Pensions – Closed Group Portfolio Matching
116. Pensions – Accounting Modeling and Optimization
117. Real Estate – Commercial ROI

Optimization

118. Capital Investments (Part A)
119. Capital Investments (Part B)
120. Continuous Portfolio Allocation
121. Discrete Project Selection
122. Inventory Optimization
123. Investment Portfolio Allocation
124. Military Portfolio and Efficient Frontier
125. Optimal Pricing with Elasticity
126. Optimization of a Harvest Model
127. Optimizing Ordinary Least Squares
128. Stochastic Portfolio Allocation

Options Analysis

129. Binary Digital Instruments
130. Inverse Floater Bond Lattice Maker
131. Options Adjusted Spreads

on Debt
132. Options on Debt
133. Options Trading Strategies

Probability of Default

134. Empirical (Individuals)
135. External Options Model (Public Company)
136. Merton Internal Model (Private Company)
137. Merton Market Options Model (Industry Comparable)
138. Yields and Spreads (Market Comparable)

Project Management

139. Cost Estimation Model
140. Critical Path Analysis (CPM PERT GANTT)
141. Project Timing

Real Options SLS

142. Employee Stock Options - Simple American Call
143. Employee Stock Options - Simple Bermudan Call with Vesting
144. Employee Stock Options - Simple European Call
145. Employee Stock Options - Suboptimal Exercise
146. Employee Stock Options - Vesting and Suboptimal Exercise
147. Employee Stock Options - Vesting, Blackout, Suboptimal, Forfeiture
148. Exotic Options - American Call Option with Dividends
149. Exotic Options - Accruals on Basket of Assets
150. Exotic Options - American Call Option on Foreign Exchange
151. Exotic Options - American Call Option on Index Futures
152. Exotic Options - Barrier Option - Down and In Lower Barrier
153. Exotic Options - Barrier Option - Down and Out Lower Barrier
154. Exotic Options - Barrier Option - Up and In Upper Barrier Call
155. Exotic Options - Barrier Option - Up and In, Down and In Double Barrier Call
156. Exotic Options - Barrier Option - Up and Out Upper Barrier
157. Exotic Options - Barrier Option - Up and Out, Down and Out Double Barrier
158. Exotic Options - Basic American, European, versus Bermudan Call Options
159. Exotic Options - Chooser Option
160. Exotic Options - Equity Linked Notes
161. Exotic Options - European Call Option with Dividends
162. Exotic Options - Range Accruals
163. Options Analysis - Plain Vanilla Call I
164. Options Analysis - Plain Vanilla Call II
165. Options Analysis - Plain Vanilla Call III
166. Options Analysis - Plain Vanilla Call IV
167. Options Analysis - Plain Vanilla Put
168. Real Options - Abandonment American Option
169. Real Options - Abandonment Bermudan Option
170. Real Options - Abandonment Customized Option
171. Real Options - Abandonment European Option
172. Real Options - Contraction American and European Option
173. Real Options - Contraction Bermudan Option
174. Real Options - Contraction Customized Option
175. Real Options - Dual-Asset Rainbow Pentanomial Lattice
176. Real Options – Excel-based Options Models
177. Real Options - Exotic Complex Floating American Chooser
178. Real Options - Exotic Complex Floating European Chooser
179. Real Options - Expand Contract Abandon American and European Option
180. Real Options - Expand Contract Abandon Bermudan Option
181. Real Options - Expand Contract Abandon Customized I
182. Real Options - Expand Contract Abandon Customized II
183. Real Options - Expansion American and European Option
184. Real Options - Expansion Bermudan Option
185. Real Options - Expansion Customized Option
186. Real Options - Jump Diffusion Calls and Puts using Quadranomial Lattices
187. Real Options - Mean Reverting Calls and Puts using Trinomial Lattices
188. Real Options - Multiple Asset Competing Options (3D Binomial)
189. Real Options - Multiple Phased Complex Sequential Compound Option
190. Real Options - Multiple Phased Sequential Compound
191. Real Options - Multiple Phased Simultaneous Compound
192. Real Options - Simple Calls and Puts (Trinomial Lattices)
193. Real Options - Simple Two Phased Sequential Compound
194. Real Options - Simple Two Phased Simultaneous Compound
195. Real Options - Strategic Cases - High-Tech Manufacturing Strategy A
196. Real Options - Strategic Cases - High-Tech Manufacturing Strategy B
197. Real Options - Strategic Cases - High-Tech Manufacturing Strategy C
198. Real Options - Strategic Cases - Oil and Gas - Strategy A
199. Real Options - Strategic Cases - Oil and Gas - Strategy B
200. Real Options - Strategic Cases - R&D Stage-Gate Process A
201. Real Options - Strategic Cases - R&D Stage-Gate Process B
202. Real Options - Strategic Cases - Switching Option Strategy I
203. Real Options - Strategic Cases - Switching Option Strategy II
204. Trinomial Lattices - American Call
205. Trinomial Lattices - American Put
206. Trinomial Lattices - European Call
207. Trinomial Lattices - European Put
208. Trinomial Lattices - Mean Reverting American Call Option
209. Trinomial Lattices - Mean Reverting American Put Option
210. Trinomial Lattices - Mean Reverting European Call Option
211. Trinomial Lattices - Mean Reverting European Put Option
212. Trinomial Lattices - Mean Reverting American Abandonment
213. Trinomial Lattices - Mean Reverting American Contraction
214. Trinomial Lattices - Mean Reverting American Expansion
215. Trinomial Lattices - Mean Reverting American Abandonment, Contraction, Expansion
216. Trinomial Lattices - Mean Reverting Bermudan Abandonment, Contraction, Expansion
217. Trinomial Lattices - Mean Reverting Abandonment, Contraction, Expansion

218. Trinomial Lattices - Mean Reverting European Abandonment, Contraction, Expansion
219. Quadranomial Lattices - Jump Diffusion American Call
220. Quadranomial Lattices - Jump Diffusion American Put
221. Quadranomial Lattices - Jump Diffusion European Call
222. Quadranomial Lattices - Jump Diffusion European Put
223. Pentanomial Lattices - American Rainbow Call Option
224. Pentanomial Lattices - American Rainbow Put Option
225. Pentanomial Lattices - Dual Reverse Strike American Call (3D Binomial)
226. Pentanomial Lattices - Dual Reverse Strike American Put (3D Binomial)
227. Pentanomial Lattices - Dual Strike American Call (3D Binomial)
228. Pentanomial Lattices - Dual Strike American Put (3D Binomial)
229. Pentanomial Lattices - European Rainbow Call Option
230. Pentanomial Lattices - European Rainbow Put Option
231. Pentanomial Lattices - Exchange of Two Assets American Put (3D Binomial)
232. Pentanomial Lattices - Maximum of Two Assets American Call (3D Binomial)
233. Pentanomial Lattices - Maximum of Two Assets American Put (3D Binomial)
234. Pentanomial Lattices - Minimum of Two Assets American Call (3D Binomial)
235. Pentanomial Lattices - Minimum of Two Assets American Put (3D Binomial)
236. Pentanomial Lattices - Portfolio American Call (3D Binomial)
237. Pentanomial Lattices - Portfolio American Put (3D Binomial)
238. Pentanomial Lattices - Spread of Two Assets American Call (3D Binomial)
239. Pentanomial Lattices - Spread of Two Assets American Put (3D Binomial)

Risk Analysis

240. Integrated Risk Analysis
241. Interest Rate Risk
242. Portfolio Risk and Return Profile

Risk Hedging

243. Delta Gamma Hedge
244. Delta Hedge
245. Effects of Fixed versus Floating Rates
246. Foreign Exchange Cash Flow Model
247. Foreign Exchange Exposure Hedging

Sensitivity

248. Greeks
249. Tornado and Sensitivity Charts Linear
250. Tornado and Sensitivity Nonlinear

Simulation

251. Basic Simulation Model
252. Best Surgical Team
253. Correlated Simulation
254. Correlation Effects Model
255. Data Fitting
256. DCF, ROI and Volatility
257. Debt Repayment and Amortization
258. Demand Curve and Elasticity Estimation
259. Infectious Diseases
260. Recruitment Budget (Negative Binomial and Multidimensional Simulation)
261. Retirement Funding with VBA Macros
262. Roulette Wheel
263. Time Value of Money

Six Sigma

264. Confidence Intervals with Hypothesis Testing
265. Control Charts (c, n, p, u, X, XmR, R)
266. Delta Precision
267. Design of Experiments and Combinatorics
268. Hypothesis Testing and Bootstrap Simulation
269. Sample Size Correlation
270. Sample Size DPU
271. Sample Size Mean
272. Sample Size Proportion
273. Sample Size Sigma
274. Statistical Analysis (CDF, PDF, ICDF) Hypothesis Testing
275. Statistical Capability Measures
276. Unit Capability Measures

Valuation

277. APT, BETA and CAPM
278. Buy versus Lease
279. Caps and Floors
280. Convertible Bonds
281. Financial Ratios Analysis
282. Financial Statements Analysis
283. Valuation Model
284. Valuation - Warrant - Combined
285. Valuation - Warrant - Put Only
286. Valuation - Warrant - Warrant

Value at Risk

287. Optimized and Simulated Portfolio VaR
288. Options Delta Portfolio
289. Portfolio Operational and Capital Adequacy
290. Right Tail Capital Requirements
291. Static Covariance Method

Volatility

292. EWMA Volatility Models
293. GARCH Volatility Models
294. Implied Volatility
295. Log Asset Returns Approach
296. Log Cash Flow Returns Approach Probability to Volatility

Yield Curve

297. CIR Model
298. Curve Interpolation BIM
299. Curve Interpolation NS
300. Forward Rates from Spot Rates
301. Spline Interpolation and Extrapolation.xls
302. Term Structure of Volatility
303. US Treasury Risk Free Rate
304. Vasicek Model

List of Functions

Below is a comprehensive list of the functions in Modeling Toolkit that can be accessed either through the analytical DLL libraries or in Excel. Please keep checking back at the website for a more updated list. The software is continually evolving and newer applications and models are constantly added. Finally, the applicable Risk Simulator tools applicable when using the Modeling Toolkit are also listed at the end.

1. B2AEPMarketValueAsset
   Market Value of Asset using the Asset-Equity Parity Model.
2. B2AEPMarketValueDebt
   Market Value of Debt using the Asset-Equity Parity Model.
3. B2AEPRequiredReturnDebt
   Required Return on Risky Debt using the Asset-Equity Parity Model.
4. B2AltDistributionCallOption
   Computes the European Call option for an underlying asset returns distribution with skew and kurtosis, and is not perfectly normal. May return an error for unsolvable inputs.
5. B2AltDistributionPutOption
   Computes the European Put option for an underlying asset returns distribution with skew and kurtosis, and is not perfectly normal. May return an error for unsolvable inputs.
6. B2AnnuityRate
   Returns the percentage equivalent of the required periodic payment on an annuity (e.g., mortgage payments, loan repayment). Returns the percentage of the total principal at initiation.
7. B2AsianCallwithArithmeticAverageRate
   An average rate option is a cash-settled option whose payoff is based on the difference between the arithmetic average value of the underlying during the life of the option and a fixed strike.
8. B2AsianCallwithGeometricAverageRate
   An average rate option is a cash-settled option whose payoff is based on the difference between the geometric average value of the underlying during the life of the option and a fixed strike.
9. B2AsianPutwithArithmeticAverageRate
   An average rate option is a cash-settled option whose payoff is based on the difference between a fixed strike and the arithmetic average value of the underlying during the life of the option.
10. B2AsianPutwithGeometricAverageRate
    An average rate option is a cash-settled option whose payoff is based on the difference between a fixed strike and the geometric average value of the underlying during its life.
11. B2AssetExchangeAmericanOption
    Option holder has the right at up to and including expiration to swap out Asset 2 and receive Asset 1, with predetermined quantities.
12. B2AssetExchangeEuropeanOption
    Option holder has the right at expiration to swap out Asset 2 and receive Asset 1, with predetermined quantities.
13. B2AssetOrNothingCall
    At expiration, if in the money, the option holder receives the stock or asset. For a call option, as long as the stock or asset price exceeds the strike at expiration, the stock is received.
14. B2AssetOrNothingPut
    At expiration, if in the money, the option holder receives the stock or asset. For a put option, stock is received only if the stock or asset value falls below the strike price.
15. B2BarrierDoubleUpInDownInCall
    Valuable or knocked in-the-money only if either barrier (upper or lower) is breached, i.e., asset value is above the upper or below the lower barriers, and the payout is in the form of a call option on the underlying asset.
16. B2BarrierDoubleUpInDownInPut
    Valuable or knocked in-the-money only if either barrier (upper or lower) is breached, i.e., asset value is above the upper or below the lower barriers, and the payout is in the form of a put option on the underlying asset.
17. B2BarrierDoubleUpOutDownOutCall
    Valuable or stays in-the-money only if either barrier (upper or lower barrier) is not breached, and the payout is in the form of a call option on the underlying asset.
18. B2BarrierDoubleUpOutDownOutPut
    Valuable or stays in-the-money only if either barrier (upper or lower barrier) is not breached, and the payout is in the form of a put option on the underlying asset.
19. B2BarrierDownandInCall
    Becomes valuable or knocked in-the-money if the lower barrier is breached, and the payout is the call option on the underlying asset. Sometimes, cash is paid at maturity assuming that the option has not been knocked in.
20. B2BarrierDownandInPut
    Becomes valuable or knocked in-the-money if the lower barrier is breached, and the payout is the put option on the underlying asset. Sometimes, cash is paid at maturity assuming that the option has not been knocked in.
21. B2BarrierDownandOutCall
    Valuable or in-the-money only if the lower barrier is not breached, and the payout is the call option on the underlying asset. Sometimes, cash is paid at maturity assuming that the option has not been knocked out.
22. B2BarrierDownandOutPut
    Valuable or in-the-money only if the lower barrier is not breached, and the payout is the put option on the underlying asset. Sometimes, cash is paid at maturity assuming that the option has not been knocked out.
23. B2BarrierUpandInCall
    Becomes valuable or knocked in-the-money if the upper barrier is breached, and the payout is the call option on the underlying asset. Sometimes, cash is paid at maturity assuming that the option has not been knocked in.
24. B2BarrierUpandInPut
    Becomes valuable or knocked in-the-money if the upper barrier is breached, and the payout is the put option on the underlying asset. Sometimes, cash is paid at maturity assuming that the option has not been knocked in.
25. B2BarrierUpandOutCall
    Valuable or in-the-money only if the upper barrier is not breached, and the payout is the call option on the underlying asset. Sometimes, cash is paid at maturity assuming that the option has not been knocked out.
26. B2BarrierUpandOutPut
    Valuable or in-the-money only if the upper barrier is not breached, and the payout is the put option on the underlying asset. Sometimes, cash is paid at maturity assuming that the option has not been knocked out.
27. B2BDTAmericanCallonDebtLattice
    Computes the American Call option on interest-based

instruments and debt or bonds, and creates the entire pricing lattice.

28. B2BDTAmericanCallonDebtValue
    Computes the American Call option value on interest-based instruments and debt or bonds, and returns only one value instead of the entire lattice.
29. B2BDTAmericanPutonDebtLattice
    Computes the American Put option on interest-based instruments and debt or bonds, and creates the entire pricing lattice.
30. B2BDTAmericanPutonDebtValue
    Computes the American Put option value on interest-based instruments and debt or bonds, and returns only one value instead of the entire lattice.
31. B2BDTCallableDebtPriceLattice
    Computes the revised price lattice of a callable debt such that the options adjusted spread can be imputed. Allows for changing interest and interest volatilities over time.
32. B2BDTCallableDebtPriceValue
    Computes the present value of a coupon bond/debt that is callable, to see the differences in value from a non-callable debt. The lattice can be computed using the function call: B2BDTCallableDebtPriceLattice.
33. B2BDTCallableSpreadValue
    Computes the option adjusted spread, i.e., the additional premium that should be charged on the callable option provision.
34. B2BDTEuropeanCallonDebtLattice
    Computes the European Call option on interest-based instruments and debt or bonds, and creates the entire pricing lattice.
35. B2BDTEuropeanCallonDebtValue
    Computes the European Call option value on interest-based instruments and debt or bonds, and returns only one value instead of the entire lattice.
36. B2BDTEuropeanPutonDebtLattice
    Computes the European Put option on interest-based instruments and debt or bonds, and creates the entire pricing lattice.
37. B2BDTEuropeanPutonDebtValue
    Computes the European Put option value on interest-based instruments and debt or bonds, and returns only one value instead of the entire lattice.
38. B2BDTFloatingCouponPriceLattice
    Value of the floater bond's lattice (coupon rate is floating and can be directly or inversely related to interest rates; e.g., rates drop, coupon increases, the bond appreciates in price and the yield increases).
39. B2BDTFloatingCouponPriceValue
    Value of the floater bond (coupon rate is floating and can be directly or inversely related to interest rates; e.g., rates drop, coupon increases, the bond appreciates in price and the yield increases).
40. B2BDTNoncallableDebtPriceLattice
    Computes the pricing lattice of a coupon bond/debt that is not callable, to see the differences in value from a callable debt.
41. B2BDTNoncallableDebtPriceValue
    Computes the present value of a coupon bond/debt that is not callable, to see the differences from a callable debt.
42. B2BDTInterestRateLattice
    Computes the short rate interest lattice based on a term structure of interest rates and changing interest volatilities, as a means to compute option values.
43. B2BDTNonCallableSpreadValue
    Computes the straight spread on a bond that is non-callable in order to compare it with the option provision of an option adjusted spread model.
44. B2BDTZeroPriceLattice
    Computes the straight price lattice of zero bonds based on a term structure of interest rates and changing interest volatilities, as a means to compute interest-based option values.
45. B2BDTZeroPriceLattice2
    Computes the straight price lattice of zero bonds based on a term structure of interest rates and changing interest volatilities, as a means to compute interest-based option values. Returns the same results as the B2BDTZeroPriceLattice function but requires interest rates and interest volatilities as inputs, rather than the entire interest rate lattice.
46. B2BDTZeroPriceValue
    Computes the straight price of zero bonds at time zero, based on a term structure of interest rates and changing interest volatilities, as a means to compute interest-based option values.
47. B2BinaryDownAndInAssetAtExpirationOrNothing
    Binary digital instrument receiving the asset at expiration, only if a corresponding asset hits a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
48. B2BinaryDownAndInAssetAtExpirationOrNothingCall
    Binary digital call option receiving the asset at expiration if the asset hits a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
49. B2BinaryDownAndInAssetAtExpirationOrNothingPut
    Binary digital put option receiving the asset at expiration if the asset hits a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
50. B2BinaryDownAndInAssetAtHitOrNothing
    Binary digital instrument receiving the asset when it hits a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
51. B2BinaryDownAndInCashAtExpirationOrNothing
    Binary digital instrument receiving a cash amount at expiration, only if a corresponding asset hits a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
52. B2BinaryDownAndInCashAtExpirationOrNothingCall
    Binary digital call option receiving the cash at expiration if the asset hits a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
53. B2BinaryDownAndInCashAtExpirationOrNothingPut
    Binary digital put option receiving the cash at expiration if the asset hits a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
54. B2BinaryDownAndInCashAtHitOrNothing
    Binary digital instrument receiving a cash amount when a corresponding asset hits a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
55. B2BinaryDownAndOutAssetAtExpirationOrNothing
    Binary digital instrument receiving the asset at expiration, only if a corresponding asset does not hit a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
56. B2BinaryDownAndOutAssetAtExpirationOrNothingCall
    Binary digital call options receiving the asset at expiration, only if a corresponding asset does not hit a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
57. B2BinaryDownAndOutAssetAtExpirationOrNothingPut

Binary digital put options receiving the asset at expiration, only if a corresponding asset does not hit a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously

58. B2BinaryDownAndOutCashAtExpirationOrNothing
Binary digital instrument receiving a cash amount at expiration, only if a corresponding asset does not hit a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
59. B2BinaryDownAndOutCashAtExpirationOrNothingCall
Binary digital call option receiving a cash amount at expiration, only if a corresponding asset does not hit a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
60. B2BinaryDownAndOutCashAtExpirationOrNothingPut
Binary digital put option receiving a cash amount at expiration, only if a corresponding asset does not hit a lower barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
61. B2BinaryUpAndInAssetAtExpirationOrNothing
Binary digital instrument receiving the asset at expiration, only if a corresponding asset hits an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
62. B2BinaryUpAndInAssetAtExpirationOrNothingCall
Binary digital call option receiving the asset at expiration if the asset hits an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
63. B2BinaryUpAndInAssetAtExpirationOrNothingPut
Binary digital put option receiving the asset at expiration if the asset hits an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
64. B2BinaryUpAndInAssetAtHitOrNothing
Binary digital instrument receiving the asset when it hits an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
65. B2BinaryUpAndInCashAtExpirationOrNothing
Binary digital instrument receiving a cash amount at expiration, only if a corresponding asset hits an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
66. B2BinaryUpAndInCashAtExpirationOrNothingCall
Binary digital call option receiving the cash at expiration if the asset hits an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
67. B2BinaryUpAndInCashAtExpirationOrNothingPut
Binary digital put option receiving the cash at expiration if the asset hits an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
68. B2BinaryUpAndInCashAtHitOrNothing
Binary digital instrument receiving a cash amount when a corresponding asset hits an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
69. B2BinaryUpAndOutAssetAtExpirationOrNothing
Binary digital instrument receiving the asset at expiration, only if a corresponding asset does not hit an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
70. B2BinaryUpAndOutAssetAtExpirationOrNothingCall
Binary digital call options receiving the asset at expiration, only if a corresponding asset does not hit an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
71. B2BinaryUpAndOutAssetAtExpirationOrNothingPut
Binary digital put options receiving the asset at expiration, only if a corresponding asset does not hit an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
72. B2BinaryUpAndOutCashAtExpirationOrNothing
Binary digital instrument receiving a cash amount at expiration, only if a corresponding asset does not hit an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
73. B2BinaryUpAndOutCashAtExpirationOrNothingCall
Binary digital call option receiving a cash amount at expiration, only if a corresponding asset does not hit an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously
74. B2BinaryUpAndOutCashAtExpirationOrNothingPut
Binary digital put option receiving a cash amount at expiration, only if a corresponding asset does not hit an upper barrier or receives nothing otherwise. DT is monitoring steps: 1/12 monthly, 1/52 weekly, 1/250 daily, 0 continuously.
75. B2BinomialI3DAmericanDualStrikeCallOption
Returns the American option with the payoff [Max(Q2S2-X2,Q1S1-X1)] and valued using a 3D binomial lattice model.
76. B2BinomialI3DAmericanDualStrikePutOption
Returns the American option with the payoff [Max(X2-Q2S2,X1-Q1S1)] and valued using a 3D binomial lattice model.
77. B2BinomialI3DEuropeanDualStrikeCallOption
Returns the European option with the payoff [Max(Q2S2-X2,Q1S1-X1)] and valued using a 3D binomial lattice model.
78. B2BinomialI3DEuropeanDualStrikePutOption
Returns the European option with the payoff [Max(X2-Q2S2,X1-Q1S1)] and valued using a 3D binomial lattice model.
79. B2BinomialI3DAmericanExchangeOption
Returns the American and European call and put option (same values exist for all types) with the payoff [Q2S2-Q1S1] and valued using a 3D binomial lattice model.
80. B2BinomialI3DAmericanMaximumTwoAssetsCallOption
Returns the American option with the payoff [Max(Q2S2,Q1S1)-X] and valued using a 3D binomial lattice model.
81. B2BinomialI3DAmericanMaximumTwoAssetsPutOption
Returns the American option with the payoff [X-Max(Q2S2,Q1S1)] and valued using a 3D binomial lattice model.
82. B2BinomialI3DEuropeanMaximumTwoAssetsCallOption
Returns the European option with the payoff [Max(Q2S2,Q1S1)-X] and valued using a 3D binomial lattice model.
83. B2BinomialI3DEuropeanMaximumTwoAssetsPutOption
Returns the European option with the payoff [X-Max(Q2S2,Q1S1)] and valued using a 3D binomial lattice model.
84. B2BinomialI3DAmericanMinimumTwoAssetsCallOption
Returns the American option with the payoff [Min(Q2S2,Q1S1)-X] and valued using a 3D binomial lattice model.
85. B2BinomialI3DAmericanMinimumTwoAssetsPutOption
Returns the American option with the payoff [X-Min(Q2S2,Q1S1)] and valued using a 3D binomial lattice model.
86. B2BinomialI3DEuropeanMinimumTwoAssetsCallOption
Returns the European option with the payoff [Min(Q2S2,Q1S1)-X] and valued using a 3D binomial lattice model.
87. B2BinomialI3DEuropeanMinimumTwoAssetsPutOption
Returns the European option with the payoff [X-

Min(Q2S2,Q1S1)] and valued using a 3D binomial lattice model.

88. B2BinomialI3DAmericanPortfolioCallOption
Returns the American option with the payoff [Q2S2+Q1S1-X] and valued using a 3D binomial lattice model.
89. B2BinomialI3DAmericanPortfolioPutOption
Returns the American option with the payoff [X-Q2S2+Q1S1] and valued using a 3D binomial lattice model.
90. B2BinomialI3DEuropeanPortfolioCallOption
Returns the European option with the payoff [Q2S2+Q1S1-X] and valued using a 3D binomial lattice model.
91. B2BinomialI3DEuropeanPortfolioPutOption
Returns the European option with the payoff [X-Q2S2+Q1S1] and valued using a 3D binomial lattice model.
92. B2BinomialI3DAmericanReverseDualStrikeCallOption
Returns the American option with the payoff [Max(X2-Q2S2,Q1S1-X1)] and valued using a 3D binomial lattice model.
93. B2BinomialI3DAmericanReverseDualStrikePutOption
Returns the American option with the payoff [Max(Q2S2-X2,X1-Q1S1)] and valued using a 3D binomial lattice model.
94. B2BinomialI3DEuropeanReverseDualStrikeCallOption
Returns the European option with the payoff [Max(X2-Q2S2,Q1S1-X1)] and valued using a 3D binomial lattice model.
95. B2BinomialI3DEuropeanReverseDualStrikePutOption
Returns the American option with the payoff [Max(Q2S2-X2,X1-Q1S1)] and valued using a 3D binomial lattice model.
96. B2BinomialI3DAmericanSpreadCallOption
Returns the American option with the payoff [Q1S1-Q2S2-X] and valued using a 3D binomial lattice model.
97. B2BinomialI3DAmericanSpreadPutOption
Returns the American option with the payoff [X+Q2S2-Q1S1] and valued using a 3D binomial lattice model.
98. B2BinomialI3DEuropeanSpreadCallOption
Returns the European option with the payoff [Q1S1-Q2S2-X] and valued using a 3D binomial lattice model.
99. B2BinomialI3DEuropeanSpreadPutOption
Returns the European option with the payoff [X+Q2S2-Q1S1] and valued using a 3D binomial lattice model.
100. B2BinomialAdjustedBarrierSteps
Computes the correct binomial lattice steps to use for convergence and barrier matching when running a barrier option.
101. B2BinomialAmericanCall
Returns the American call option with a continuous dividend yield using a binomial lattice, where the option can be exercised at any time up to and including maturity.
102. B2BinomialAmericanPut
Returns the American put option with a continuous dividend yield using a binomial lattice, where the option can be exercised at any time up to and including maturity.
103. B2BinomialBermudanCall
Returns the American call option with a continuous dividend yield using a binomial lattice, where the option can be exercised at any time up to and including maturity except during the vesting period.
104. B2BinomialBermudanPut
Returns the American put option with a continuous dividend yield using a binomial lattice, where the option can be exercised at any time up to and including maturity except during the vesting period.
105. B2BinomialEuropeanCall
Returns the European call option with a continuous dividend yield using a binomial lattice, where the option can be exercised only at maturity.
106. B2BinomialEuropeanPut
Returns the European put option with a continuous dividend yield using a binomial lattice, where the option can be exercised only at maturity.
107. B2BlackCallOptionModel
Returns the Black model (modified Black-Scholes-Merton) for forward contracts and interest-based call options.
108. B2BlackPutOptionModel
Returns the Black model (modified Black-Scholes-Merton) for forward contracts and interest-based put options.
109. B2BlackFuturesCallOption
Computes the value of commodities futures call option given the value of the futures contract.
110. B2BlackFuturesPutOption
Computes the value of commodities futures put option given the value of the futures contract.
111. B2BlackScholesCall
European Call Option using Black-Scholes-Merton Model.
112. B2BlackScholesProbabilityAbove
Computes the expected probability the stock price will rise above the strike price under a Black-Scholes paradigm.
113. B2BlackScholesPut
European Put Option using Black-Scholes-Merton Model.
114. B2BondCIRBondDiscountFactor
Returns the discount factor on a bond or risky debt using the Cox-Ingersoll-Ross model, accounting for mean-reverting interest rates.
115. B2BondCIRBondPrice
Cox-Ross model on Zero Coupon Bond Pricing assuming no arbitrage and mean-reverting interest rates.
116. B2BondCIRBondYield
Cox-Ross model on Zero Coupon Bond Yield assuming no arbitrage and mean-reverting interest rates.
117. B2BondConvexityContinuous
Returns the debt's Convexity of second order sensitivity using a series of cash flows and current interest rate, with continuous discounting.
118. B2BondConvexityDiscrete
Returns the debt's Convexity of second order sensitivity using a series of cash flows and current interest rate, with discrete discounting.
119. B2BondConvexityYTMContinuous
Returns debt's Convexity or second order sensitivity using an internal Yield to Maturity of the cash flows, with continuous discounting.
120. B2BondConvexityYTMDiscrete
Returns debt's Convexity or second order sensitivity using an internal Yield to Maturity of the cash flows, with discrete discounting.
121. B2BondDurationContinuous
Returns the debt's first order sensitivity Duration measure using continuous discounting.
122. B2BondDurationDiscrete
Returns the debt's first order sensitivity Duration measure using discrete discounting.
123. B2BondHullWhiteBondCallOption
Values a European call option on a bond where the interest rates are stochastic and mean-reverting. Make sure Bond Maturity > Option Maturity.
124. B2BondHullWhiteBondPutOption
Values a European put option on a bond where the interest rates are stochastic and mean-reverting. Make sure Bond Maturity > Option Maturity.
125. B2BondMacaulayDuration
Returns the debt's first order sensitivity Macaulay's Duration measure.
126. B2BondMertonBondPrice
Bond Price using Merton Stochastic Interest and Stochastic Asset Model.
127. B2BondModifiedDuration

Returns the debt's first order sensitivity Modified Duration measure.

128. B2BondPriceContinuous
Returns the Bond Price of a cash flow series given the time and discount rate, using Continuous discounting.

129. B2BondPriceDiscrete
Returns the Bond Price of a cash flow series given the time and discount rate, using discrete discounting.

130. B2BondVasicekBondCallOption
Values a European call option on a bond where the interest rates are stochastic and mean-reverting to a long-term rate. Make sure Bond Maturity > Option Maturity.

131. B2BondVasicekBondPrice
Vasicek Zero Coupon Price assuming no arbitrage and mean-reverting interest rates.

132. B2BondVasicekBondPutOption
Values a European put option on a bond where the interest rates are stochastic and mean-reverting to a long-term rate. Make sure Bond Maturity > Option Maturity.

133. B2BondVasicekBondYield
Vasicek Zero Coupon Yield assuming no arbitrage and mean-reverting interest rates.

134. B2BondYTMContinuous
Returns Bond's Yield to Maturity assuming Continuous discounting.

135. B2BondYTMDiscrete
Returns Bond's Yield to Maturity assuming discrete discounting.

136. B2CallDelta
Returns the option valuation sensitivity Delta (a call option value's sensitivity to changes in the asset value).

137. B2CallGamma
Returns the option valuation sensitivity Gamma (a call option value's sensitivity to changes in the delta value).

138. B2CallOptionOnTheMax
The maximum values at expiration of both assets are used in option exercise, where the call option payoff at expiration is the maximum price between Asset 1 and Asset 2 against the strike price.

139. B2CallOptionOnTheMin
The minimum values at expiration of both assets are used in option exercise, where the call option payoff at expiration is the minimum price between Asset 1 and Asset 2 against the strike price.

140. B2CallRho
Returns the option valuation sensitivity Rho (a call option value's sensitivity to changes in the interest rate).

141. B2CallTheta
Returns the option valuation sensitivity Theta (a call option value's sensitivity to changes in the maturity).

142. B2CallVega
Returns the option valuation sensitivity Vega (a call option value's sensitivity to changes in the volatility).

143. B2CashOrNothingCall
At expiration, if the option is in the money, the option holder receives a predetermined cash payment. For a call option, as long as the stock or asset price exceeds the strike at expiration, cash is received.

144. B2CashOrNothingPut
At expiration, if the option is in the money, the option holder receives a predetermined cash payment. For a put option, cash is received only if the stock or asset value falls below the strike price.

145. B2ChooserBasicOption
Holder chooses if the option is a call or a put by the chooser time, with the same strike price and maturity. Typically cheaper than buying a call and a put together while providing the same level of hedge.

146. B2ChooserComplexOption
Holder gets to choose if the option is a call or a put within the Chooser Time, with different strike prices and maturities. Typically cheaper than buying a call and a put, while providing the same level of hedge.

147. B2ClosedFormAmericanCall
Returns the American option approximation model with a continuous dividend yield call option.

148. B2ClosedFormAmericanPut
Returns the American option approximation model with a continuous dividend yield put option.

149. B2CoefficientofVariationPopulation
Computes the population coefficient of variation (standard deviation of the sample divided by the mean), to obtain a relative measure of risk and dispersion

150. B2CoefficientofVariationSample
Computes the sample coefficient of variation (standard deviation of the sample divided by the mean), to obtain a relative measure of risk and dispersion

151. B2CommodityCallOptionModel
Computes the value of a commodity-based call option based on spot and futures market, and accounting for volatility of the forward rate.

152. B2CommodityPutOptionModel
Computes the value of a commodity-based put option based on spot and futures market, and accounting for volatility of the forward rate.

153. B2CompoundOptionsCallonCall
A compound option allowing the holder to buy (call) a call option with some maturity, in the future within the option maturity period, for a specified strike price on the option.

154. B2CompoundOptionsCallonPut
A compound option allowing the holder to buy (call) a put option with some maturity, in the future within the option maturity period, for a specified strike price on the option.

155. B2CompoundOptionsPutonCall
A compound option allowing the holder to sell (put) a call option with some maturity, in the future within the option maturity period, for a specified strike price on the option.

156. B2CompoundOptionsPutonPut
A compound option allowing the holder to sell (put) a call option with some maturity, in the future within the option maturity period, for a specified strike price on the option.

157. B2ConvenienceYield
The convenience yield is simply the rate differential between a non-arbitrage futures and spot price and a real-life fair market value of the futures price.

158. B2ConvertibleBondAmerican
Computes the value of a convertible bond using binomial lattices, and accounting for the stock's volatility and dividend yield, as well as the bond's credit spread above risk-free.

159. B2ConvertibleBondEuropean
Computes the value of a convertible bond using binomial lattices, and accounting for the stock's volatility and dividend yield, as well as the bond's credit spread above risk-free.

160. B2CreditAcceptanceCost
Computes the risk-adjusted cost of accepting a new credit line with a probability of default.

161. B2CreditAssetSpreadCallOption
Provides protection from an increase in spread but ceases to exist if the underlying asset defaults and is based on the price of the asset.

162. B2CreditAssetSpreadPutOption
Provides protection from an decrease in spread but ceases to exist if the underlying asset defaults and is based on the price of the asset.

163. B2CreditDefaultSwapSpread
Returns the valuation of a credit default swap CDS spread,

allowing the holder to sell a bond/debt at par value when a credit event occurs.

164. B2CreditDefaultSwapCorrelatedBondandSwapPrice
Computes the valuation of a bond with a credit default swap where both parties are correlated and each has a probability of default and possible recovery rates. At default, the holder receives the notional principal or par value of the bond.

165. B2CreditDefaultSwapCorrelatedBondPrice
Computes the valuation of a bond without any credit default swap where the bond or debt has a probability of default and possible recovery rate.

166. B2CreditDefaultSwapCorrelatedSwapPrice
Computes the price of a credit default swap where both parties are correlated and each has a probability of default and possible recovery rates. At default, the holder receives the notional principal or par value of the bond.

167. B2CreditRatingWidth
Computes the credit ratings width to generate the credit ratings table.

168. B2CreditRejectionCost
Computes the risk-adjusted cost of rejecting a new credit line with a probability of default.

169. B2CreditRiskShortfall
Returns the Credit Risk Shortfall given probability of default and recovery rates.

170. B2CreditSpreadCallOption
Provides protection from an increase in spread but ceases to exist if the underlying asset defaults. Only credit default swaps can cover default events (CSOs are sometimes combined with CDSs).

171. B2CreditSpreadPutOption
Provides protection from an decrease in spread but ceases to exist if the underlying asset defaults. Only credit default swaps can cover default events (CSOs are sometimes combined with CDSs).

172. B2CubicSpline
Interpolates and extrapolates the unknown Y values (based on the required X value) given some series of known X and Y values, and can be used to interpolate inside the data sample or extrapolate outside the known sample.

173. B2CurrencyCallOption
Option to exchange foreign currency into domestic currency by buying domestic currency (selling foreign currency) at a set exchange rate on a specified date. Exchange rate is foreign currency to domestic currency.

174. B2CurrencyForwardCallOption
Computes the value of a currency forward call option.

175. B2CurrencyForwardPutOption
Computes the value of a currency forward put option.

176. B2CurrencyPutOption
Option to exchange domestic currency into foreign currency by selling domestic currency (buying foreign currency) at a set exchange rate on a specified date. Exchange rate is foreign currency to domestic currency.

177. B2DeltaGammaHedgeCallBought
Computes the total amount of call values that has to be bought to perform a Delta-Gamma neutral hedge. Returns a negative value indicating cash outflow.

178. B2DeltaGammaHedgeCallSold
Computes the single unit of call value that has to be sold to perform a Delta-Gamma neutral hedge. Returns a positive value indicating cash inflow.

179. B2DeltaGammaHedgeMoneyBorrowed
Computes the amount of money that has to be borrowed to perform a Delta-Gamma neutral hedge. Returns a positive value indicating cash inflow.

180. B2DeltaGammaHedgeSharesBought
Computes the total value of stocks that has to be bought to perform a Delta-Gamma neutral hedge. Returns a negative value indicating cash outflow.

181. B2DeltaHedgeCallSold
Computes the single unit of call value that has to be sold to perform a Delta-neutral hedge. Returns a positive value indicating cash inflow.

182. B2DeltaHedgeMoneyBorrowed
Computes the amount of money that has to be borrowed to perform a Delta-neutral hedge. Returns a positive value indicating cash inflow.

183. B2DeltaHedgeSharesBought
Computes the total value of stocks that has to be bought to perform a Delta-neutral hedge. Returns a negative value indicating cash outflow.

184. B2DistributionBernoulliKurtosis
Returns the Bernoulli distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

185. B2DistributionBernoulliMean
Returns the Bernoulli distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

186. B2DistributionBernoulliSkew
Returns the Bernoulli distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

187. B2DistributionBernoulliStdev
Returns the Bernoulli distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

188. B2DistributionBetaKurtosis
Returns the Beta distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

189. B2DistributionBetaMean
Returns the Beta distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

190. B2DistributionBetaSkew
Returns the Beta distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

191. B2DistributionBetaStdev
Returns the Beta distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

192. B2DistributionBinomialKurtosis
Returns the Binomial distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

193. B2DistributionBinomialMean
Returns the Binomial distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

194. B2DistributionBinomialSkew
Returns the Binomial distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

195. B2DistributionBinomialStdev
Returns the Binomial distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

196. B2DistributionCauchyKurtosis
Returns the Cauchy distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.
197. B2DistributionCauchyMean
Returns the Cauchy distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.
198. B2DistributionCauchySkew
Returns the Cauchy distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).
199. B2DistributionCauchyStdev
Returns the Cauchy distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.
200. B2DistributionChiSquareKurtosis
Returns the Chi-Square distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.
201. B2DistributionChiSquareMean
Returns the Chi-Square distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.
202. B2DistributionChiSquareSkew
Returns the Chi-Square distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).
203. B2DistributionChiSquareStdev
Returns the Chi-Square distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.
204. B2DistributionDiscreteUniformKurtosis
Returns the Discrete Uniform distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.
205. B2DistributionDiscreteUniformMean
Returns the Discrete Uniform distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.
206. B2DistributionDiscreteUniformSkew
Returns the Discrete Uniform distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).
207. B2DistributionDiscreteUniformStdev
Returns the Discrete Uniform distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.
208. B2DistributionExponentialKurtosis
Returns the Exponential distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.
209. B2DistributionExponentialMean
Returns the Exponential distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.
210. B2DistributionExponentialSkew
Returns the Exponential distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).
211. B2DistributionExponentialStdev
Returns the Exponential distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.
212. B2DistributionFKurtosis
Returns the F distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.
213. B2DistributionFMean
Returns the F distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.
214. B2DistributionFSkew
Returns the F distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).
215. B2DistributionFStdev
Returns the F distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.
216. B2DistributionGammaKurtosis
Returns the Gamma distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.
217. B2DistributionGammaMean
Returns the Gamma distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.
218. B2DistributionGammaSkew
Returns the Gamma distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).
219. B2DistributionGammaStdev
Returns the Gamma distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.
220. B2DistributionGeometricKurtosis
Returns the Geometric distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.
221. B2DistributionGeometricMean
Returns the Geometric distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.
222. B2DistributionGeometricSkew
Returns the Geometric distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).
223. B2DistributionGeometricStdev
Returns the Geometric distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.
224. B2DistributionGumbelMaxKurtosis
Returns the Gumbel Max distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.
225. B2DistributionGumbelMaxMean
Returns the Gumbel Max distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.
226. B2DistributionGumbelMaxSkew

Returns the Gumbel Max distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

227. B2DistributionGumbelMaxStdev
Returns the Gumbel Max distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

228. B2DistributionGumbelMinKurtosis
Returns the Gumbel Min distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

229. B2DistributionGumbelMinMean
Returns the Gumbel Min distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

230. B2DistributionGumbelMinSkew
Returns the Gumbel Min distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

231. B2DistributionGumbelMinStdev
Returns the Gumbel Min distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

232. B2DistributionHypergeometricKurtosis
Returns the Hypergeometric distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

233. B2DistributionHypergeometricMean
Returns the Hypergeometric distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

234. B2DistributionHypergeometricSkew
Returns the Hypergeometric distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

235. B2DistributionHypergeometricStdev
Returns the Hypergeometric distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

236. B2DistributionLogisticKurtosis
Returns the Logistic distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

237. B2DistributionLogisticMean
Returns the Logistic distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

238. B2DistributionLogisticSkew
Returns the Logistic distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

239. B2DistributionLogisticStdev
Returns the Logistic distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

240. B2DistributionLognormalKurtosis
Returns the Lognormal distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

241. B2DistributionLognormalMean
Returns the Lognormal distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

242. B2DistributionLognormalSkew
Returns the Lognormal distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

243. B2DistributionLognormalStdev
Returns the Lognormal distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

244. B2DistributionNegativeBinomialKurtosis
Returns the Negative Binomial distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

245. B2DistributionNegativeBinomialMean
Returns the Negative Binomial distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

246. B2DistributionNegativeBinomialSkew
Returns the Negative Binomial distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

247. B2DistributionNegativeBinomialStdev
Returns the Negative Binomial distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

248. B2DistributionNormalKurtosis
Returns the Normal distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

249. B2DistributionNormalMean
Returns the Normal distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

250. B2DistributionNormalSkew
Returns the Normal distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

251. B2DistributionNormalStdev
Returns the Normal distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

252. B2DistributionParetoKurtosis
Returns the Pareto distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

253. B2DistributionParetoMean
Returns the Pareto distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

254. B2DistributionParetoSkew
Returns the Pareto distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

255. B2DistributionParetoStdev
Returns the Pareto distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

256. B2DistributionPoissonKurtosis
Returns the Poisson distribution's theoretical excess kurtosis

(fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

257. B2DistributionPoissonMean
Returns the Poisson distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

258. B2DistributionPoissonSkew
Returns the Poisson distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

259. B2DistributionPoissonStdev
Returns the Poisson distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

260. B2DistributionRayleighKurtosis
Returns the Rayleigh distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

261. B2DistributionRayleighMean
Returns the Rayleigh distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

262. B2DistributionRayleighSkew
Returns the Rayleigh distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

263. B2DistributionRayleighStdev
Returns the Rayleigh distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

264. B2DistributionTKurtosis
Returns the Student's T distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

265. B2DistributionTMean
Returns the Student's T distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

266. B2DistributionTSkew
Returns the Student's T distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

267. B2DistributionTStdev
Returns the Student's T distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

268. B2DistributionTriangularKurtosis
Returns the Triangular distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

269. B2DistributionTriangularMean
Returns the Triangular distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

270. B2DistributionTriangularSkew
Returns the Triangular distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

271. B2DistributionTriangularStdev
Returns the Triangular distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

272. B2DistributionUniformKurtosis
Returns the Uniform distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

273. B2DistributionUniformMean
Returns the Uniform distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

274. B2DistributionUniformSkew
Returns the Uniform distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

275. B2DistributionUniformStdev
Returns the Uniform distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

276. B2DistributionWeibullKurtosis
Returns the Weibull distribution's theoretical excess kurtosis (fourth moment), measuring the peakedness of the distribution and its extreme tail events. An excess kurtosis of 0 implies a normal tail.

277. B2DistributionWeibullMean
Returns the Weibull distribution's theoretical mean or expected value (first moment), measuring the central tendency of the distribution.

278. B2DistributionWeibullSkew
Returns the Weibull distribution's theoretical skew (third moment), measuring the direction of the distribution's tail. Positive (negative) skew means mean exceeds (is less than) median and the tail points to the right (left).

279. B2DistributionWeibullStdev
Returns the Weibull distribution's theoretical standard deviation (second moment), measuring the width and average dispersion of all points around the mean.

280. B2DistributionCDFBernoulli
Computes the Bernoulli distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution less than or equal to X.

281. B2DistributionCDFBeta
Computes the Beta distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

282. B2DistributionCDFBinomial
Computes the Binomial distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

283. B2DistributionCDFChiSquare
Computes the Chi-Square distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

284. B2DistributionCDFDiscreteUniform
Computes the Discrete Uniform distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

285. B2DistributionCDFExponential
Computes the Exponential distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

286. B2DistributionCDFFDist

Computes the F distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

287. B2DistributionCDFGamma
Computes the Gamma distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

288. B2DistributionCDFGeometric
Computes the Geometric distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

289. B2DistributionCDFGumbelMax
Computes the Gumbel Max distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

290. B2DistributionCDFGumbelMin
Computes the Gumbel Min distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

291. B2DistributionCDFLogistic
Computes the Logistic distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

292. B2DistributionCDFLognormal
Computes the Lognormal distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

293. B2DistributionCDFNormal
Computes the Normal distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

294. B2DistributionCDFPareto
Computes the Pareto distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

295. B2DistributionCDFPoisson
Computes the Poisson distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

296. B2DistributionCDFRayleigh
Computes the Rayleigh distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

297. B2DistributionCDFStandardNormal
Computes the Standard Normal distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

298. B2DistributionCDFTDist
Computes the Student's T distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

299. B2DistributionCDFTriangular
Computes the Triangular distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

300. B2DistributionCDFUniform
Computes the Uniform distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

301. B2DistributionCDFWeibull
Computes the Weibull distribution's theoretical Cumulative Distribution Function (CDF), that is, the cumulative probability of the distribution at all points less than or equal to X.

302. B2DistributionICDFBernoulli
Computes the Bernoulli distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

303. B2DistributionICDFBeta
Computes the Beta distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

304. B2DistributionICDFBinomial
Computes the Binomial distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

305. B2DistributionICDFChiSquare
Computes the Chi-Square distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

306. B2DistributionICDFDiscreteUniform
Computes the Discrete Uniform distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

307. B2DistributionICDFExponential
Computes the Exponential distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

308. B2DistributionICDFFDist
Computes the F distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

309. B2DistributionICDFGamma
Computes the Gamma distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

310. B2DistributionICDFGeometric
Computes the Geometric distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

311. B2DistributionICDFGumbelMax
Computes the Gumbel Max distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the

distribution's parameters, the function returns the relevant X value.

312. B2DistributionICDFGumbelMin
Computes the Gumbel Min distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

313. B2DistributionICDFLogistic
Computes the Logistic distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

314. B2DistributionICDFLognormal
Computes the Lognormal distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

315. B2DistributionICDFNormal
Computes the Normal distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

316. B2DistributionICDFPareto
Computes the Pareto distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

317. B2DistributionICDFPoisson
Computes the Poisson distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

318. B2DistributionICDFRayleigh
Computes the Rayleigh distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

319. B2DistributionICDFStandardNormal
Computes the Standard Normal distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

320. B2DistributionICDFTDist
Computes the Student's T distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

321. B2DistributionICDFTriangular
Computes the Triangular distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

322. B2DistributionICDFUniform
Computes the Uniform distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

323. B2DistributionICDFWeibull
Computes the Weibull distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

324. B2DistributionPDFBernoulli
Computes the Bernoulli distribution's theoretical Inverse Cumulative Distribution Function (ICDF), that is, given the cumulative probability between 0 and 1, and the distribution's parameters, the function returns the relevant X value.

325. B2DistributionPDFBeta
Computes the Beta distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

326. B2DistributionPDFBinomial
Computes the Binomial distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

327. B2DistributionPDFChiSquare
Computes the Chi-Square distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

328. B2DistributionPDFDiscreteUniform
Computes the Discrete Uniform distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

329. B2DistributionPDFExponential
Computes the Exponential distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

330. B2DistributionPDFFDist
Computes the F distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

331. B2DistributionPDFGamma
Computes the Gamma distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

332. B2DistributionPDFGeometric
Computes the Geometric distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

333. B2DistributionPDFGumbelMax
Computes the Gumbel Max distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or

probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

334. B2DistributionPDFGumbelMin
Computes the Gumbel Min distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

335. B2DistributionPDFLogistic
Computes the Logistic distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

336. B2DistributionPDFLognormal
Computes the Lognormal distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical and not exact probabilities.

337. B2DistributionPDFNormal
Computes the Normal distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

338. B2DistributionPDFPareto
Computes the Pareto distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

339. B2DistributionPDFPoisson
Computes the Poisson distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

340. B2DistributionPDFRayleigh
Computes the Rayleigh distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

341. B2DistributionPDFStandardNormal
Computes the Standard Normal distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

342. B2DistributionPDFTDist
Computes the Student's T distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

343. B2DistributionPDFTriangular
Computes the Triangular distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

344. B2DistributionPDFUniform
Computes the Uniform distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

345. B2DistributionPDFWeibull
Computes the Weibull distribution's theoretical Probability Density Function (PDF). The PDF of a discrete distribution returns the exact probability mass function or probability of occurrence but the PDF of continuous distributions are only theoretical values and not exact probabilities.

346. B2EquityLinkedFXCallOptionDomesticValue
Call options whose underlying asset is in a foreign equity market, and the fluctuations of the foreign exchange risk is hedged by having a strike price on the foreign exchange rate. Resulting valuation is in the domestic currency.

347. B2EquityLinkedFXPutOptionDomesticValue
Put options whose underlying asset is in a foreign equity market, and the fluctuations of the foreign exchange risk is hedged by having a strike price on the foreign exchange rate. Resulting valuation is in the domestic currency.

348. B2EWMAVolatilityForecastGivenPastPrices
Computes the annualized volatility forecast of the next period given a series of historical prices and the corresponding weights placed on the previous volatility estimate.

349. B2EWMAVolatilityForecastGivenPastVolatility
Computes the annualized volatility forecast of the next period given the previous period's volatility and changes in stock returns in the previous period.

350. B2ExtremeSpreadCallOption
Maturities are divided into two segments, and the call option pays the difference between the max assets from segment two and max of segment one.

351. B2ExtremeSpreadPutOption
Maturities are divided into two segments, and the put option pays the difference between the min of segment two's asset value and the min of segment one's asset value.

352. B2ExtremeSpreadReverseCallOption
Maturities are divided into two segments, and a reverse call pays the min from segment one less the min of segment two.

353. B2ExtremeSpreadReversePutOption
Maturities are divided into two segments, and a reverse put pays the max of segment one less the max of the segment two.

354. B2FiniteDifferenceAmericanCall
Computes the American call option using finite differencing methods, as an alternative to simulation, closed-form approximation models, and lattices.

355. B2FiniteDifferenceAmericanPut
Computes the American put option using finite differencing methods, as an alternative to simulation, closed-form approximation models, and lattices.

356. B2FiniteDifferenceEuropeanCall
Computes the European call option using finite differencing methods, as an alternative to simulation, closed-form approximation models, and lattices.

357. B2FiniteDifferenceEuropeanPut
Computes the European put option using finite differencing methods, as an alternative to simulation, closed-form approximation models, and lattices.

358. B2FixedStrikeLookbackCall
Strike price is fixed, while at expiration, the payoff is the difference between the maximum asset price less the strike price, during the lifetime of the option.

359. B2FixedStrikeLookbackPut
Strike price is fixed, while at expiration, the payoff is the maximum difference between the lowest observed asset price less the strike price, during the lifetime of the option.

360. B2FixedStrikePartialLookbackCall
Strike price is fixed, while at expiration, the payoff is the difference between the maximum asset price less the strike, during the starting period of the lookback to the maturity of the option.
361. B2FixedStrikePartialLookbackPut
Strike price is fixed, while at expiration, the payoff is the maximum difference between the lowest observed asset price less the strike, during the starting period of the lookback to the maturity of the option.
362. B2FloatingStrikeLookbackCallonMin
Strike price is floating, while at expiration, the payoff on the call option is being able to purchase the underlying asset at the minimum observed price during the life of the option.
363. B2FloatingStrikeLookbackPutonMax
Strike price is floating, while at expiration, the payoff on the put option is being able to sell the underlying asset at the maximum observed asset price during the life of the option.
364. B2FloatingStrikePartialLookbackCallonMin
Strike price is floating, while at expiration, the payoff on the call option is being able to purchase the underlying at the minimum observed asset price from inception to the end of the lookback time.
365. B2FloatingStrikePartialLookbackPutonMax
Strike price is floating, while at expiration, the payoff on the put option is being able to sell the underlying at the maximum observed asset price from inception to the end of the lookback time.
366. B2ForecastBrownianMotionSimulatedSeries
Computes the entire time-series of Brownian motion stochastic process forecast values.
367. B2ForecastDistributionValue
Computes the forecast price of an asset in the future, assuming the asset follows a Brownian motion random walk and returns the forecast price given the cumulative probability level.
368. B2ForecastDistributionValuePercentile
Computes the cumulative probability or percentile of an asset in the future, assuming the asset follows a Brownian motion random walk and returns the forecast cumulative percentile given the future price.
369. B2ForecastDistributionReturns
Computes the forecast return of an asset in the future, assuming the asset follows a Brownian motion random walk and returns the forecast percent return given the cumulative probability level.
370. B2ForecastDistributionReturnsPercentile
Computes the cumulative probability or percentile of an asset's returns in the future, assuming the asset follows a Brownian motion random walk and returns the forecast cumulative percentile given the return.
371. B2ForecastJumpDiffusionSimulatedSeries
Computes the entire time-series of a jump-diffusion stochastic process forecast values.
372. B2ForecastMeanReversionSimulatedSeries
Computes the entire time-series of a mean-reverting stochastic process forecast values.
373. B2ForecastIncrementalFinancialNeeds
Computes the incremental funds required to cover the projected organic sales growth of the company based on the projected year's financials.
374. B2ForecastIncrementalPercentSalesGrowthFinancedExternal
Computes the incremental funds as a percent of sales growth that is required from external funding to cover the projected organic sales growth of the company.
375. B2ForeignEquityDomesticCurrencyCall
Computes the value of a foreign-based equity call option struck in a domestic currency and accounting for the exchange rate volatility.
376. B2ForeignEquityDomesticCurrencyPut
Computes the value of a foreign-based equity put option struck in a domestic currency and accounting for the exchange rate volatility.
377. B2ForeignEquityFixedFXRateDomesticValueQuantoCall
Quanto call options are denominated in another currency than the underlying asset, with expanding or contracting protection coverage of the foreign exchange rates.
378. B2ForeignEquityFixedFXRateDomesticValueQuantoPut
Quanto put options are denominated in another currency than the underlying asset, with an expanding or contracting protection coverage of the foreign exchange rates.
379. B2ForwardRate
Computes the Forward Interest Rate given two Spot Rates
380. B2ForwardStartCallOption
Starts proportionally in or out of the money in the future. Alpha<1: call starts (1-A)% in the money, put starts (1-A)% out of the money. Alpha>1: call (A-1) % out of the money, puts (A-1)% in the money.
381. B2ForwardStartPutOption
Starts proportionally in or out of the money in the future. Alpha<1: call starts (1-A)% in the money, put starts (1-A)% out of the money. Alpha>1: call (A-1) % out of the money, puts (A-1)% in the money.
382. B2FuturesForwardsCallOption
Similar to a regular option but the underlying asset is a futures of forward contract. A call option is the option to buy a futures contract, with the specified futures strike price at which the futures is traded if the option is exercised.
383. B2FuturesForwardsPutOption
Similar to a regular option but the underlying asset is a futures of forward contract. A put option is the option to sell a futures contract, with the specified futures strike price at which the futures is traded if the option is exercised.
384. B2FuturesSpreadCall
The payoff of a spread option is the difference between the two futures' values at expiration. The spread is Futures 1 - Futures 2, and the call payoff is Spread - Strike value.
385. B2FuturesSpreadPut
The payoff of a spread option is the difference between the two futures' values at expiration. The spread is Futures 1 - Futures 2, and the put payoff is Strike - Spread.
386. B2GARCH
Computes the forward-looking volatility forecast using the generalized autoregressive conditional heteroskedasticity (p, q) model where future volatilities are forecast based on historical price levels and information.
387. B2GapCallOption
The call option is knocked in if the asset exceeds the reference Strike 1, and the option payoff is the asset price less Strike 2 for the underlying.
388. B2GapPutOption
The put option is knocked in only if the underlying asset is less than the reference Strike 1, providing a payoff of Strike Price 2 less the underlying asset value.
389. B2GeneralizedBlackScholesCall
Returns the Black-Scholes Model with a continuous dividend yield call option.
390. B2GeneralizedBlackScholesCallCashDividends
Modification of the Generalized Black-Scholes model to solve European call options assuming a series of dividend cash flows that may be even or uneven. A series of dividend payments and time are required.
391. B2GeneralizedBlackScholesPut
Returns the Black-Scholes Model with a continuous dividend yield put option.
392. B2GeneralizedBlackScholesPutCashDividends

Modification of the Generalized Black-Scholes model to solve European put options assuming a series of dividend cash flows that may be even or uneven. A series of dividend payments and time are required.

393. B2GraduatedBarrierDownandInCall
Barriers are graduated ranges between lower and upper values. The option is knocked in the money proportionally depending on how low the asset value is in the range.

394. B2GraduatedBarrierDownandOutCall
Barriers are graduated ranges between lower and upper values. The option is knocked out of the money proportionally depending on how low the asset value is in the range.

395. B2GraduatedBarrierUpandInPut
Barriers are graduated ranges between lower and upper values. The option is knocked in the money proportionally depending on how high the asset value is in the range.

396. B2GraduatedBarrierUpandOutPut
Barriers are graduated ranges between lower and upper values. The option is knocked out of the money proportionally depending on how high the asset value is in the range.

397. B2ImpliedVolatilityBestCase
Computes the implied volatility given an expected value of an asset, and an alternative best case scenario value and its corresponding percentile (must be above 50%).

398. B2ImpliedVolatilityCall
Computes the implied volatility in a European call option given all the inputs parameters and option value.

399. B2ImpliedVolatilityPut
Computes the implied volatility in a European put option given all the inputs parameters and option value.

400. B2ImpliedVolatilityWorstCase
Computes the implied volatility given an expected value of an asset, and an alternative worst case scenario value and its corresponding percentile (must be below 50%).

401. B2InterestAnnualtoPeriodic
Computes the periodic compounding rate based on the annualized compounding interest rate per year.

402. B2InterestCaplet
Computes the interest rate caplet (sum all the caplets into the total value of the interest rate cap) and acts like an interest rate call option.

403. B2InterestContinuousToDiscrete
Returns the corresponding discrete compounding interest rate given the continuous compounding rate.

404. B2InterestContinuousToPeriodic
Computes the periodic compounding interest rate based on a continuous compounding rate.

405. B2InterestDiscreteToContinuous
Returns the corresponding continuous compounding interest rate given the discrete compounding rate.

406. B2InterestFloorlet
Computes the interest rate floorlet (sum all the floorlets into the total value of the interest rate floor) and acts like an interest rate put option.

407. B2InterestPeriodictoAnnual
Computes the annualized compounding interest rate per year based on a periodic compounding rate.

408. B2InterestPeriodictoContinuous
Computes the continuous compounding rate based on the periodic compounding interest rate.

409. B2InverseGammaCallOption
Computes the European Call option assuming an inverse Gamma distribution, rather than a normal distribution, and is important for deep out-of-the-money options.

410. B2InverseGammaPutOption
Computes the European Put option assuming an inverse Gamma distribution, rather than a normal distribution, and is important for deep out-of-the-money options.

411. B2IRRContinuous
Returns the continuously discounted Internal Rate of Return for a cash flow series with its respective cash flow times in years.

412. B2IRRDiscrete
Returns the discretely discounted Internal Rate of Return for a cash flow series with its respective cash flow times in years.

413. B2LinearInterpolation
Interpolates and fills in the missing values of a time series.

414. B2MarketPriceRisk
Computes the market price of risk used in a variety of options analysis, using market return, risk-free return, volatility of the market and correlation between the market and the asset.

415. B2MathIncompleteGammaQ
Returns the result from an incomplete Gamma Q function.

416. B2MathIncompleteGammaP
Returns the result from an incomplete Gamma P function.

417. B2MathIncompleteBeta
Returns the result from an incomplete Beta function.

418. B2MathGammaLog
Returns the result from a log gamma function.

419. B2MatrixMultiplyAxB
Multiplies two compatible matrices, such as MxN with NxM to create an MxM matrix. Copy and paste function and use Ctrl+Shift Enter to obtain the matrix.

420. B2MatrixMultiplyAxTransposeB
Multiplies the first matrix with the transpose of the second matrix (multiplies MxN with MxN matrix by transposing the second matrix to NxM, generating an MxM matrix). Copy and paste function and use Ctrl+Shift Enter to obtain the matrix.

421. B2MatrixMultiplyTransposeAxB
Multiplies the transpose of the first matrix with the second matrix (multiplies MxN with MxN matrix by transposing the first matrix to NxM, generating an NxN matrix). Copy and paste function and use Ctrl+Shift Enter to obtain the matrix.

422. B2MatrixTranspose
Transposes a matrix, from MxN to NxM. Copy and paste function and use Ctrl+Shift Enter to obtain the matrix.

423. B2MertonJumpDiffusionCall
Call value of an underlying whose asset returns are assumed to follow a Poisson Jump Diffusion process, i.e., prices jump several times a year, and cumulatively, these jumps explain a percentage of the total asset volatility.

424. B2MertonJumpDiffusionPut
Put value of an underlying whose asset returns are assumed to follow a Poisson Jump Diffusion process, i.e., prices jump several times a year, and cumulatively, these jumps explain a percentage of the total asset volatility.

425. B2NormalTransform
Converts values into a normalized distribution.

426. B2NPVContinuous
Returns the Net Present Value of a cash flow series given the time and discount rate, using Continuous discounting.

427. B2NPVDiscrete
Returns the Net Present Value of a cash flow series given the time and discount rate, using discrete discounting.

428. B2OptionStrategyLongBearCreditSpread
Returns the matrix [stock price, buy put, sell put, profit] of a long bearish crebit spread (buying a higher strike put with a high price and selling a lower strike put with a low price).

429. B2OptionStrategyLongBullCreditSpread
Returns the matrix [stock price, buy put, sell put, profit] of a bullish credit spread (buying a low strike put at low price and selling a high strike put at high price).

430. B2OptionStrategyLongBearDebitSpread
Returns the matrix [stock price, buy call, sell call, profit] of a

long bearish debit spread (buying a high strike call with a low price and selling a lower strike call with a high price).

431. B2OptionStrategyLongBullDebitSpread
Returns the matrix [stock price, buy call, sell call, profit] of a bullish debit spread (buying a low strike call at high price and selling a further out-of-the-money high strike call at low price).

432. B2OptionStrategyLongCoveredCall
Returns the matrix [stock price, buy stock, sell call, profit] of a long covered call position (buying the stock and selling a call of the same asset).

433. B2OptionStrategyLongProtectivePut
Returns the matrix [stock price, buy stock, buy put, profit] of a long protective put position (buying the stock and buying a put of the same asset).

434. B2OptionStrategyLongStraddle
Returns the matrix [stock price, buy call, buy put, profit] of a long straddle position (buy an equal number of puts and calls with identical strike price and expiration) to profit from high volatility.

435. B2OptionStrategyLongStrangle
Returns the matrix [stock price, buy call, buy put, profit] of a long strangle (buy high strike call at low price and buy low strike put at low price (close expirations), profits from high volatility.

436. B2OptionStrategyWriteCoveredCall
Returns the matrix [stock price, sell stock, buy call, profit] of writing a covered call (selling the stock and buying a call of the same asset).

437. B2OptionStrategyWriteProtectivePut
Returns the matrix [stock price, sell stock, sell put, profit] of a long protective put position (buying the stock and buying a put of the same asset).

438. B2OptionStrategyWriteStraddle
Returns the matrix [stock price, sell call, sell put, profit] of writing a straddle position (sell an equal number of puts and calls with identical strike price and expiration) to profit from low volatility.

439. B2OptionStrategyWriteStrangle
Returns the matrix [stock price, sell call, sell put, profit] of writing a strangle (sell high strike call at low price and sell low strike put at low price (close expirations), profits from low volatility.

440. B2Payback
Computes the payback in years given some initial investment and subsequent cash flows.

441. B2PerpetualCallOption
Computes the American perpetual call option. Note that it returns an error if dividend is 0% (this is because the American option reverts to European and a perpetual European has no value).

442. B2PerpetualPutOption
Computes the American perpetual put option. Note that it returns an error if dividend is 0% (this is because the American option reverts to European and a perpetual European has no value).

443. B2PortfolioReturns
Computes the portfolio weighted average expected returns given individual asset returns and allocations.

444. B2PortfolioRisk
Computes the portfolio risk given individual asset allocations and variance-covariance matrix.

445. B2PortfolioVariance
Computes the portfolio variance given individual asset allocations and variance-covariance matrix. Take the square root of the result to obtain the portfolio risk.

446. B2ProbabilityDefaultAdjustedBondYield
Computes the required risk-adjusted yield (premium spread plus risk-free) to charge given the cumulative probability of default.

447. B2ProbabilityDefaultAverageDefaults
Credit Risk Plus' average number of credit defaults per period using total portfolio credit exposures, average cum probability of default, and percentile Value at Risk for the portfolio.

448. B2ProbabilityDefaultCorrelation
Computes the correlations of default probabilities given the probabilities of default of each asset and the correlation between their equity prices. The result is typically much smaller than the equity correlation.

449. B2ProbabilityDefaultCumulativeBondYieldApproach
Computes the cumulative probability of default from Year 0 to Maturity using a comparable zero bond yield versus a zero risk-free yield and accounting for a recovery rate.

450. B2ProbabilityDefaultCumulativeSpreadApproach
Computes the cumulative probability of default from Year 0 to Maturity using a comparable risky debt's spread (premium)versus the risk-free rate and accounting for a recovery rate.

451. B2ProbabilityDefaultHazardRate
Computes the hazard rate for a specific year (in survival analysis) using a comparable zero bond yield versus a zero risk-free yield and accounting for a recovery rate.

452. B2ProbabilityDefaultMertonDefaultDistance
Distance to Default (does not require market returns and correlations but requires the internal growth rates).

453. B2ProbabilityDefaultMertonI
Probability of Default (without regard to Equity Value or Equity Volatility, but requires Asset, Debt, and market values).

454. B2ProbabilityDefaultMertonII
Probability of Default (does not require market returns and correlations but requires the internal growth rates).

455. B2ProbabilityDefaultMertonImputedAssetValue
Returns the imputed market value of asset given external equity value, equity volatility, and other option inputs. Used in the Merton probability of default model.

456. B2ProbabilityDefaultMertonImputedAssetVolatility
Returns the imputed volatility of asset given external equity value, equity volatility, and other option inputs. Used in the Merton probability of default model.

457. B2ProbabilityDefaultMertonMVDebt
Computes the market value of debt (for risky debt) in the Merton-based simultaneous options model.

458. B2ProbabilityDefaultMertonRecoveryRate
Computes the rate of recovery in percent, for risky debt in the Merton-based simultaneous options model.

459. B2ProbabilityDefaultPercentileDefaults
Credit Risk Plus method to compute the percentile given some estimated average number of defaults per period.

460. B2PropertyDepreciation
Value of the periodic depreciation allowed on a commercial real estate project given the percent of price going to improvement and the allowed recovery period.

461. B2PropertyEquityRequired
Value of the required equity down payment on a commercial real estate project given the valuation of the project.

462. B2PropertyLoanAmount
Value of the required mortgage amount on a commercial real estate project given the value of the project and the loan required (loan to value ratio or the percentage of the value a loan is required).

463. B2PropertyValuation
Value of a commercial real estate property assuming Gross Rent, Vacancy, Operating Expenses, and the Cap Rate at Purchase Date (Net Operating Income/Sale Price).

464. B2PutCallParityCalltoPut
Computes the European put option value given the value of a corresponding European call option with identical input assumptions.
465. B2PutCallParityCalltoPutCurrencyOptions
Computes the European currency put option value given the value of a corresponding European currency call option on futures and forwards with identical input assumptions.
466. B2PutCallParityCalltoPutFutures
Computes the European put option on futures and forwards value given the value of a corresponding European call option on futures and forwards with identical input assumptions.
467. B2PutCallParityPuttoCall
Computes the European call option value given the value of a corresponding European put option with identical input assumptions.
468. B2PutCallParityPuttoCallCurrencyOptions
Computes the European currency call option value given the value of a corresponding European currency put option on futures and forwards with identical input assumptions.
469. B2PutCallParityPuttoCallFutures
Computes the European call option on futures and forwards value given the value of a corresponding European put option on futures and forwards with identical input assumptions.
470. B2PutDelta
Returns the option valuation sensitivity Delta (a put option value's sensitivity to changes in the asset value).
471. B2PutGamma
Returns the option valuation sensitivity Gamma (a put option value's sensitivity to changes in the delta value).
472. B2PutOptionOnTheMax
The maximum values at expiration of both assets are used in option exercise, where the call option payoff at expiration is the strike price against the maximum price between Asset 1 and Asset 2.
473. B2PutOptionOnTheMin
The minimum values at expiration of both assets are used in option exercise, where the call option payoff at expiration is the strike price against the minimum price between Asset 1 and Asset 2.
474. B2PutRho
Returns the option valuation sensitivity Rho (a put option value's sensitivity to changes in the interest rate).
475. B2PutTheta
Returns the option valuation sensitivity Theta (a put option value's sensitivity to changes in the maturity).
476. B2PutVega
Returns the option valuation sensitivity Vega (a put option value's sensitivity to changes in the volatility).
477. B2QueuingMCAveCustomersinSystem
Average number of customers in the system using a multiple channel queuing model assuming a Poisson arrival rate with Exponential distribution of service times.
478. B2QueuingMCAveCustomersWaiting
Average number of customers in the waiting line using a multiple channel queuing model assuming a Poisson arrival rate with Exponential distribution of service times.
479. B2QueuingMCAveTimeinSystem
Average time a customer spends in the system using a multiple channel queuing model assuming a Poisson arrival rate with Exponential distribution of service times.
480. B2QueuingMCAveTimeWaiting
Average time a customer spends in the waiting line using a multiple channel queuing model assuming a Poisson arrival rate with Exponential distribution of service times.
481. B2QueuingMCProbHaveToWait
Probability an arriving customer has to wait using a multiple channel queuing model assuming a Poisson arrival rate with Exponential distribution of service times.
482. B2QueuingMCProbNoCustomer
Probability that no customers are in the system using a multiple channel queuing model assuming a Poisson arrival rate with Exponential distribution of service times.
483. B2QueuingMGKAveCustomersinSystem
Average number of customers in the system using a multiple channel queuing model assuming a Poisson arrival rate with unknown distribution of service times.
484. B2QueuingMGKCostPerPeriod
Total cost per time period using a multiple channel queuing model assuming a Poisson arrival rate with unknown distribution of service times.
485. B2QueuingMGKProbBusy
Probability a channel will be busy using a multiple channel queuing model assuming a Poisson arrival rate with unknown distribution of service times.
486. B2QueuingSCAAveCustomersinSystem
Average number of customers in the system using an MG1 single channel arbitrary queuing model assuming a Poisson arrival rate with unknown distribution of service times.
487. B2QueuingSCAAveCustomersWaiting
Average number of customers in the waiting line using an MG1 single channel arbitrary queuing model assuming a Poisson arrival rate with unknown distribution of service times.
488. B2QueuingSCAAveTimeinSystem
Average time a customer spends in the system using an MG1 single channel arbitrary queuing model assuming a Poisson arrival rate with unknown distribution of service times.
489. B2QueuingSCAAveTimeWaiting
Average time a customer spends in the waiting line using an MG1 single channel arbitrary queuing model assuming a Poisson arrival rate with unknown distribution of service times.
490. B2QueuingSCAProbHaveToWait
Probability an arriving customer has to wait using an MG1 single channel arbitrary queuing model assuming a Poisson arrival rate with unknown distribution of service times.
491. B2QueuingSCAProbNoCustomer
Probability that no customers are in the system using an MG1 single channel arbitrary queuing model assuming a Poisson arrival rate with unknown distribution of service times.
492. B2QueuingSCAveCustomersinSystem
Average number of customers in the system using a single channel queuing model.
493. B2QueuingSCAveCustomersWaiting
Returns the average number of customers in the waiting line using a single channel queuing model.
494. B2QueuingSCAveTimeinSystem
Average time a customer spends in the system using a single channel queuing model.
495. B2QueuingSCAveTimeWaiting
Average time a customer spends in the waiting line using a single channel queuing model.
496. B2QueuingSCProbHaveToWait
Probability an arriving customer has to wait using a single channel queuing model.
497. B2QueuingSCProbNoCustomer
Returns the probability that no customers are in the system using a single channel queuing model.
498. B2RatiosBasicEarningPower
Computes the basic earning power (BEP) by accounting for earnings before interest and taxes (EBIT) and the amount of total assets employed.
499. B2RatiosBetaLevered

Computes the levered beta from an unlevered beta level after accounting for the tax rate, total debt and equity values.

500. B2RatiosBetaUnlevered
Computes the unlevered beta from a levered beta level after accounting for the tax rate, total debt and equity values.

501. B2RatiosBookValuePerShare
Computes the book value per share (BV) by accounting for the total common equity amount and number of shares outstanding.

502. B2RatiosCapitalCharge
Computes the capital charge value (typically used to compute the economic profit of a project).

503. B2RatiosCAPM
Computes the capital asset pricing model's required rate of return in percent, given some benchmark market return, beta risk coefficient, and risk-free rate.

504. B2RatiosCashFlowtoEquityLeveredFirm
Cash flow to equity for a levered firm (accounting for operating expenses, taxes, depreciation, amortization, capital expenditures, change in working capital, preferred dividends, principal repaid and new debt issues).

505. B2RatiosCashFlowtoEquityUnleveredFirm
Cash flow to equity for an unlevered firm (accounting for operating expenses, taxes, depreciation, amortization, capital expenditures, change in working capital and taxes).

506. B2RatiosCashFlowtoFirm
Cash flow to the firm (accounting for earnings before interest and taxes EBIT, tax rate, depreciation, capital expenditures and change in working capital).

507. B2RatiosCashFlowtoFirm2
Cash flow to the firm (accounting for net operating profit after taxes (NOPAT), depreciation, capital expenditures and change in working capital).

508. B2RatiosContinuingValue1
Computes the continuing value based on a constant growth rate of free cash flows to perpetuity using a Gordon Growth Model.

509. B2RatiosContinuingValue2
Computes the continuing value based on a constant growth rate of free cash flows to perpetuity using net operating profit after taxes (NOPAT), return on invested capital (ROIC), growth rate and current free cash flow.

510. B2RatiosCostEquity
Computes the cost of equity (as used in a CAPM model) using the dividend rate, growth rate of dividends, and current equity price.

511. B2RatiosCurrentRatio
Computes the current ratio by accounting for the individual asset and liabilities.

512. B2RatiosDaysSalesOutstanding
Computes the days sales outstanding by looking at the accounts receivables value, total annual sales, and number of days per year.

513. B2RatiosDebtAssetRatio
Computes the debt to asset ratio by accounting for the total debt and total asset values.

514. B2RatiosDebtEquityRatio
Computes the debt to equity ratio by accounting for the total debt and total common equity levels.

515. B2RatiosDebtRatio1
Computes the debt ratio by accounting for the total debt and total asset values.

516. B2RatiosDebtRatio2
Computes the debt ratio by accounting for the total equity and total asset values.

517. B2RatiosDividendsPerShare
Computes the dividends per share (DPS) by accounting for the dividend payment amount and number of shares outstanding.

518. B2RatiosEarningsPerShare
Computes the earnings per share (EPS) by accounting for the net income amount and number of shares outstanding.

519. B2RatiosEconomicProfit1
Computes the economic profit using invested capital, return on invested capital (ROIC) and weighted average cost of capital (WACC).

520. B2RatiosEconomicProfit2
Computes the economic profit using net operating profit after tax (NOPAT), return on invested capital (ROIC) and weighted average cost of capital (WACC).

521. B2RatiosEconomicProfit3
Computes the economic profit using net operating profit after tax (NOPAT) and capital charge.

522. B2RatiosEconomicValueAdded
Computes the economic value added using earnings before interest and taxes (EBIT), total capital employed, tax rate, and weighted average cost of capital (WACC).

523. B2RatiosEquityMultiplier
Computes the equity multiplier (the ratio of total assets to total equity).

524. B2RatiosFixedAssetTurnover
Computes the fixed asset turnover by accounting for the annual sales levels and net fixed assets.

525. B2RatiosInventoryTurnover
Computes the inventory turnover using sales and inventory levels.

526. B2RatiosMarketBookRatio1
Computes the market to book value per share by accounting for the share price and the book value (BV) per share.

527. B2RatiosMarketBookRatio2
Computes the market to book value per share by accounting for the share price, total common equity value, and the number of shares outstanding.

528. B2RatiosMarketValueAdded
Computes the market value added by accounting for the stock price, total common equity, and number of shares outstanding.

529. B2RatiosNominalCashFlow
Computes the nominal cash flow amount assuming some inflation rate, real cash flow, and the number of years in the future.

530. B2RatiosNominalDiscountRate
Computes the nominal discount rate assuming some inflation rate and real discount rate.

531. B2RatiosPERatio1
Computes the price to earnings ratio (PE) using stock price and earnings per share (EPS).

532. B2RatiosPERatio2
Computes the price to earnings ratio (PE) using stock price, net income, and number of shares outstanding.

533. B2RatiosPERatio3
Computes the price to earnings ratio (PE) using growth rates, rate of return, and discount rate.

534. B2RatiosProfitMargin
Computes the profit margin by taking the ratio of net income to annual sales.

535. B2RatiosQuickRatio
Computes the quick ratio by accounting for the individual asset and liabilities.

536. B2RatiosRealCashFlow
Computes the real cash flow amount assuming some inflation rate, nominal cash flow (Nominal CF), and the number of years in the future.

537. B2RatiosRealDiscountRate
Computes the real discount rate assuming some inflation rate and nominal discount rate.

538. B2RatiosReturnonAsset1
Computes the return in asset using net income amount and total assets employed.
539. B2RatiosReturnonAsset2
Computes the return in asset using net profit margin percentage and total asset turnover ratio.
540. B2RatiosReturnonEquity1
Computes return on equity using net income and total common equity values.
541. B2RatiosReturnonEquity2
Computes return on equity using return on asset (ROA), total asset, and total equity values.
542. B2RatiosReturnonEquity3
Computes return on equity using net income, total sales, total asset, and total common equity values.
543. B2RatiosReturnonEquity4
Computes return on equity using net profit margin, total asset turnover, and equity multiplier values.
544. B2RatiosROIC
Computes the return on invested capital (typically used for computing economic profit) accounting for change in working capital, property, plant equipment (PPE).
545. B2RatiosShareholderEquity
Computes the common shareholder's equity after accounting for total assets, total liabilities and preferred stocks.
546. B2SimulatedEuropeanCall
Returns the Monte Carlo simulated European call option (only European options can be approximated well with simulation). This function is volatile.
547. B2SimulatedEuropeanPut
Returns the Monte Carlo simulated European put option (only European options can be approximated well with simulation). This function is volatile.
548. B2RatiosTimesInterestEarned
Computes the times interest earned ratio by accounting for earnings before interest and taxes (EBIT) and the amount of interest payment.
549. B2RatiosTotalAssetTurnover
Computes the total asset turnover by accounting for the annual sales levels and total assets.
550. B2RatiosWACC1
Computes the weighted average cost of capital (WACC) using market values of debt, preferred equity, and common equity, as well as their respective costs.
551. B2RatiosWACC2
Computes the weighted average cost of capital (WACC) using market values of debt, market values of common equity, as well as their respective costs.
552. B2ROBinomialAmericanAbandonContract
Returns the American option to abandon and contract using a binomial lattice model.
553. B2ROBinomialAmericanAbandonContractExpand
Returns the American option to abandon, contract and expand using a binomial lattice model.
554. B2ROBinomialAmericanAbandonExpand
Returns the American option to abandon and expand using a binomial lattice model.
555. B2ROBinomialAmericanAbandonment
Returns the American option to abandon using a binomial lattice model.
556. B2ROBinomialAmericanCall
Returns the American call option with dividends using a binomial lattice model.
557. B2ROBinomialAmericanChangingRiskFree
Returns the American call option with dividends and assuming the risk-free rate changes over time, using a binomial lattice model.
558. B2ROBinomialAmericanChangingVolatility
Returns the American call option with dividends and assuming the volatility changes over time, using a binomial lattice model. Use small number of steps or it will take a long time to compute!
559. B2ROBinomialAmericanContractExpand
Returns the American option to contract and expand using a binomial lattice model.
560. B2ROBinomialAmericanContraction
Returns the American option to contract using a binomial lattice model.
561. B2ROBinomialAmericanCustomCall
Returns the American option call option with changing inputs, vesting periods, and suboptimal exercise multiple using a binomial lattice model.
562. B2ROBinomialAmericanExpansion
Returns the American option to expand using a binomial lattice model.
563. B2ROBinomialAmericanPut
Returns the American put option with dividends using a binomial lattice model.
564. B2ROBinomialBermudanAbandonContract
Returns the Bermudan option to abandon and contract using a binomial lattice model, where there is a vesting/blackout period where the option cannot be executed.
565. B2ROBinomialBermudanAbandonContractExpand
Returns the Bermudan option to abandon, contract and expand, using a binomial lattice model, where there is a vesting/blackout period the option cannot be executed.
566. B2ROBinomialBermudanAbandonExpand
Returns the Bermudan option to abandon and expand using a binomial lattice model, where there is a vesting/blackout period where the option cannot be executed.
567. B2ROBinomialBermudanAbandonment
Returns the Bermudan option to abandon using a binomial lattice model, where there is a vesting/blackout period where the option cannot be executed.
568. B2ROBinomialBermudanCall
Returns the Bermudan call option with dividends, where there is a vesting/blackout period where the option cannot be executed.
569. B2ROBinomialBermudanContractExpand
Returns the Bermudan option to contract and expand, using a binomial lattice model, where there is a vesting/blackout period where the option cannot be executed.
570. B2ROBinomialBermudanContraction
Returns the Bermudan option to contract using a binomial lattice model, where there is a vesting/blackout period where the option cannot be executed.
571. B2ROBinomialBermudanExpansion
Returns the Bermudan option to expand using a binomial lattice model, where there is a vesting/blackout period where the option cannot be executed.
572. B2ROBinomialBermudanPut
Returns the Bermudan put option with dividends, where there is a vesting/blackout period where the option cannot be executed.
573. B2ROBinomialEuropeanAbandonContract
Returns the European option to abandon and contract, using a binomial lattice model, where the option can only be executed at expiration.
574. B2ROBinomialEuropeanAbandonContractExpand
Returns the European option to abandon, contract and expand, using a binomial lattice model, where the option can only be executed at expiration.
575. B2ROBinomialEuropeanAbandonExpand
Returns the European option to abandon and expand, using a binomial lattice model, where the option can only be executed at expiration.

576. B2ROBinomialEuropeanAbandonment
Returns the European option to abandon using a binomial lattice model, where the option can only be executed at expiration.
577. B2ROBinomialEuropeanCall
Returns the European call option with dividends, where the option can only be executed at expiration.
578. B2ROBinomialEuropeanContractExpand
Returns the European option to contract and expand, using a binomial lattice model, where the option can only be executed at expiration.
579. B2ROBinomialEuropeanContraction
Returns the European option to contract using a binomial lattice model, where the option can only be executed at expiration.
580. B2ROBinomialEuropeanExpansion
Returns the European option to expand using a binomial lattice model, where the option can only be executed at expiration.
581. B2ROBinomialEuropeanPut
Returns the European put option with dividends, where the option can only be executed at expiration.
582. B2ROJumpDiffusionCall
Returns the closed-form model for a European call option whose underlying asset follows a Poisson jump-diffusion process.
583. B2ROJumpDiffusionPut
Returns the closed-form model for a European put option whose underlying asset follows a Poisson jump-diffusion process.
584. B2ROMeanRevertingCall
Returns the closed-form model for a European call option whose underlying asset follows a mean-reversion process.
585. B2ROMeanRevertingPut
Returns the closed-form model for a European put option whose underlying asset follows a mean-reversion process.
586. B2ROPentanomialAmericanCall
Returns the Rainbow American call option with two underlying assets (these are typically price and quantity, and are multiplied together to form a new combinatorial pentanomial lattice).
587. B2ROPentanomialAmericanPut
Returns the Rainbow American put option with two underlying assets (these are typically price and quantity, and are multiplied together to form a new combinatorial pentanomial lattice).
588. B2ROPentanomialEuropeanCall
Returns the Rainbow European call option with two underlying assets (these are typically price and quantity, and are multiplied together to form a new combinatorial pentanomial lattice).
589. B2ROPentanomialEuropeanPut
Returns the Rainbow European put option with two underlying assets (these are typically price and quantity, and are multiplied together to form a new combinatorial pentanomial lattice).
590. B2ROQuadranomialJumpDiffusionAmericanCall
Returns the American call option whose underlying asset follows a Poisson jump-diffusion process, using a combinatorial quadranomial lattice.
591. B2ROQuadranomialJumpDiffusionAmericanPut
Returns the American put option whose underlying asset follows a Poisson jump-diffusion process, using a combinatorial quadranomial lattice.
592. B2ROQuadranomialJumpDiffusionEuropeanCall
Returns the European call option whose underlying asset follows a Poisson jump-diffusion process, using a combinatorial quadranomial lattice.
593. B2ROQuadranomialJumpDiffusionEuropeanPut
Returns the European put option whose underlying asset follows a Poisson jump-diffusion process, using a combinatorial quadranomial lattice.
594. B2ROStateAmericanCall
Returns the American call option using a state jump function, where the up and down states can be asymmetrical, solved in a lattice model.
595. B2ROStateAmericanPut
Returns the American put option using a state jump function, where the up and down states can be asymmetrical, solved in a lattice model.
596. B2ROStateBermudanCall
Returns the Bermudan call option using a state jump function, where the up and down states can be asymmetrical, solved in a lattice model, and where the option cannot be exercised at certain vesting/blackout periods.
597. B2ROStateBermudanPut
Returns the Bermudan put option using a state jump function, where the up and down states can be asymmetrical, solved in a lattice model, and where the option cannot be exercised at certain vesting/blackout periods.
598. B2ROStateEuropeanCall
Returns the Bermudan call option using a state jump function, where the up and down states can be asymmetrical, solved in a lattice model, and where the option can only be exercised at maturity.
599. B2ROStateEuropeanPut
Returns the Bermudan put option using a state jump function, where the up and down states can be asymmetrical, solved in a lattice model, and where the option can only be exercised at maturity.
600. B2ROTrinomialAmericanCall
Returns the American call option with dividend, solved using a trinomial lattice.
601. B2ROTrinomialAmericanMeanRevertingCall
Returns the American call option with dividend, assuming the underlying asset is mean-reverting, and solved using a trinomial lattice.
602. B2ROTrinomialAmericanMeanRevertingPut
Returns the American call option with dividend, assuming the underlying asset is mean-reverting, and solved using a trinomial lattice.
603. B2ROTrinomialAmericanPut
Returns the American put option with dividend, solved using a trinomial lattice.
604. B2ROTrinomialBermudanCall
Returns the Bermudan call option with dividend, solved using a trinomial lattice, where during certain vesting/blackout periods, the option cannot be exercised.
605. B2ROTrinomialBermudanPut
Returns the Bermudan put option with dividend, solved using a trinomial lattice, where during certain vesting/blackout periods, the option cannot be exercised.
606. B2ROTrinomialEuropeanCall
Returns the European call option with dividend, solved using a trinomial lattice, where the option can only be exercised at maturity.
607. B2ROTrinomialEuropeanMeanRevertingCall
Returns the European call option with dividend, solved using a trinomial lattice, assuming the underlying asset is mean-reverting, and where the option can only be exercised at maturity.
608. B2ROTrinomialEuropeanMeanRevertingPut
Returns the European put option with dividend, solved using a trinomial lattice, assuming the underlying asset is mean-

reverting, and where the option can only be exercised at maturity.

609. B2ROTrinomialEuropeanPut
Returns the European put option with dividend, solved using a trinomial lattice, where the option can only be exercised at maturity.

610. B2TrinomialImpliedArrowDebreuLattice
Computes the complete set of implied Arrow-Debreu prices in an implied trinomial lattice using actual observed data. Copy and paste the function and use Ctrl+Shift+Enter to obtain the matrix.

611. B2TrinomialImpliedArrowDebreuValue
Computes the single value of implied Arrow-Debreu price (for a specific step/column and up-down event/row) in an implied trinomial lattice using actual observed data.

612. B2TrinomialImpliedCallOptionValue
Computes the European Call Option using an implied trinomial lattice approach, taking into account actual observed inputs.

613. B2TrinomialImpliedDownProbabilityLattice
Computes the complete set of implied DOWN probabilities in an implied trinomial lattice using actual observed data. Copy and paste the function and use Ctrl+Shift+Enter to obtain the matrix.

614. B2TrinomialImpliedDownProbabilityValue
Computes the single value of implied DOWN probability (for a specific step/column and up-down event/row) in an implied trinomial lattice using actual observed data.

615. B2TrinomialImpliedLocalVolatilityLattice
Computes the complete set of implied local probabilities in an implied trinomial lattice using actual observed data. Copy and paste the function and use Ctrl+Shift+Enter to obtain the matrix.

616. B2TrinomialImpliedLocalVolatilityValue
Computes the single value of localized volatility (for a specific step/column and up-down event/row) in an implied trinomial lattice using actual observed data.

617. B2TrinomialImpliedUpProbabilityLattice
Computes the complete set of implied UP probabilities in an implied trinomial lattice using actual observed data. Copy and paste the function and use Ctrl+Shift+Enter to obtain the matrix.

618. B2TrinomialImpliedUpProbabilityValue
Computes the single value of implied UP probability (for a specific step/column and up-down event/row) in an implied trinomial lattice using actual observed data.

619. B2TrinomialImpliedPutOptionValue
Computes the European Put Option using an implied trinomial lattice approach, taking into account actual observed inputs.

620. B2SharpeRatio
Computes the Sharpe Ratio (returns to risk ratio) based on a series of stock prices of an asset and a market benchmark series of prices.

621. B2SCurveValue
Computes the S-Curve extrapolation's next forecast value based on previous value, growth rate and maximum capacity levels.

622. B2SCurveValueSaturation
Computes the S-Curve extrapolation's saturation level based on previous value, growth rate and maximum capacity levels.

623. B2SemiStandardDeviationPopulation
Computes the semi-standard deviation of the population, that is, only the values below the mean are used to compute an adjusted population standard deviation, a more appropriate measure of downside risk.

624. B2SemiStandardDeviationSample
Computes the semi-standard deviation of the sample, that is, only the values below the mean are used to compute an adjusted sample standard deviation, a more appropriate measure of downside risk.

625. B2SimulateBernoulli
Returns simulated random numbers from the Bernoulli distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

626. B2SimulateBeta
Returns simulated random numbers from the Beta distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

627. B2SimulateBinomial
Returns simulated random numbers from the Binomial distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

628. B2SimulateChiSquare
Returns simulated random numbers from the Chi-Square distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

629. B2SimulateDiscreteUniform
Returns simulated random numbers from the Discrete Uniform distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

630. B2SimulateExponential
Returns simulated random numbers from the Exponential distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

631. B2SimulateFDist
Returns simulated random numbers from the F distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

632. B2SimulateGamma
Returns simulated random numbers from the Gamma distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

633. B2SimulateGeometric
Returns simulated random numbers from the Geometric distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

634. B2SimulateGumbelMax
Returns simulated random numbers from the Gumbel Max distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

635. B2SimulateGumbelMin
Returns simulated random numbers from the Gumbel Min distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

636. B2SimulateLogistic
Returns simulated random numbers from the Logistic distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

637. B2SimulateLognormal
Returns simulated random numbers from the Lognormal distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

638. B2SimulateNormal
Returns simulated random numbers from the Normal distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

639. B2SimulatePareto
Returns simulated random numbers from the Pareto distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

640. B2SimulatePoisson
Returns simulated random numbers from the Poisson distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.

641. B2SimulateRayleigh
Returns simulated random numbers from the Rayleigh distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.
642. B2SimulateStamndardNormal
Returns simulated random numbers from the Standard Normal distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.
643. B2SimulateTDist
Returns simulated random numbers from the Student's T distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.
644. B2SimulateTriangular
Returns simulated random numbers from the Triangular distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.
645. B2SimulateUniform
Returns simulated random numbers from the Uniform distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.
646. B2SimulateWeibull
Returns simulated random numbers from the Weibull distribution. Type in RAND() as the random input parameter to generate volatile random values from this distribution.
647. B2SixSigmaControlCChartCL
Computes the center line in a control c-chart. C-charts are applicable when only the number of defects are important.
648. B2SixSigmaControlCChartDown1Sigma
Computes the lower 1 sigma limit in a control c-chart. C-charts are applicable when only the number of defects are important.
649. B2SixSigmaControlCChartDown2Sigma
Computes the lower 2 sigma limit in a control c-chart. C-charts are applicable when only the number of defects are important.
650. B2SixSigmaControlCChartLCL
Computes the lower control limit in a control c-chart. C-charts are applicable when only the number of defects are important.
651. B2SixSigmaControlCChartUCL
Computes the upper control limit in a control c-chart. C-charts are applicable when only the number of defects are important.
652. B2SixSigmaControlCChartUp1Sigma
Computes the upper 1 sigma limit in a control c-chart. C-charts are applicable when only the number of defects are important.
653. B2SixSigmaControlCChartUp2Sigma
Computes the upper 2 sigma limit in a control c-chart. C-charts are applicable when only the number of defects are important.
654. B2SixSigmaControlNPChartCL
Computes the center line in a control np-chart. NP-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size is constant.
655. B2SixSigmaControlNPChartDown1Sigma
Computes the lower 1 sigma limit in a control np-chart. NP-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size is constant.
656. B2SixSigmaControlNPChartDown2Sigma
Computes the lower 2 sigma limit in a control np-chart. NP-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size is constant.
657. B2SixSigmaControlNPChartLCL
Computes the lower control limit in a control np-chart. NP-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size is constant.
658. B2SixSigmaControlNPChartUCL
Computes the upper control limit in a control np-chart. NP-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size is constant.
659. B2SixSigmaControlNPChartUp1Sigma
Computes the upper 1 sigma limit in a control np-chart. NP-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size is constant.
660. B2SixSigmaControlNPChartUp2Sigma
Computes the upper 2 sigma limit in a control np-chart. NP-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size is constant.
661. B2SixSigmaControlPChartCL
Computes the center line in a control p-chart. P-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size might be different.
662. B2SixSigmaControlPChartDown1Sigma
Computes the lower 1 sigma limit in a control p-chart. P-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size might be different.
663. B2SixSigmaControlPChartDown2Sigma
Computes the lower 2 sigma limit in a control p-chart. P-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size might be different.
664. B2SixSigmaControlPChartLCL
Computes the lower control limit in a control p-chart. P-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size might be different.
665. B2SixSigmaControlPChartUCL
Computes the upper control limit in a control p-chart. P-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size might be different.
666. B2SixSigmaControlPChartUp1Sigma
Computes the upper 1 sigma limit in a control p-chart. P-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size might be different.
667. B2SixSigmaControlPChartUp2Sigma
Computes the upper 2 sigma limit in a control p-chart. P-charts are applicable when proportions of defects are important, and where in each experimental subgroup, the number of sample size might be different.
668. B2SixSigmaControlRChartCL
Computes the center line in a control R-chart. X-charts are used when the number of defects are important, in each subgroup experiment multiple measurements are taken, and the range of the measurements is the variable plotted.
669. B2SixSigmaControlRChartLCL
Computes the lower control limit in a control R-chart. X-charts are used when the number of defects are important, in each subgroup experiment multiple measurements are taken, and the range of the measurements is the variable plotted.
670. B2SixSigmaControlRChartUCL
Computes the upper control limit in a control R-chart. X-charts are used when the number of defects are important,

in each subgroup experiment multiple measurements are taken, and the range of the measurements is the variable plotted.

671. B2SixSigmaControlUChartCL
Computes the center line in a control u-chart. U-charts are applicable when number of defects are important, and where in each experimental subgroup, the number of sample sizes are the same.

672. B2SixSigmaControlUChartDown1Sigma
Computes the lower 1 sigma limit in a control u-chart. U-charts are applicable when number of defects are important, and where in each experimental subgroup, the number of sample sizes are the same.

673. B2SixSigmaControlUChartDown2Sigma
Computes the lower 2 sigma limit in a control u-chart. U-charts are applicable when number of defects are important, and where in each experimental subgroup, the number of sample sizes are the same.

674. B2SixSigmaControlUChartLCL
Computes the lower control limit in a control u-chart. U-charts are applicable when number of defects are important, and where in each experimental subgroup, the number of sample sizes are the same.

675. B2SixSigmaControlUChartUCL
Computes the upper control limit in a control u-chart. U-charts are applicable when number of defects are important, and where in each experimental subgroup, the number of sample sizes are the same.

676. B2SixSigmaControlUChartUp1Sigma
Computes the upper 1 sigma limit in a control u-chart. U-charts are applicable when number of defects are important, and where in each experimental subgroup, the number of sample sizes are the same.

677. B2SixSigmaControlUChartUp2Sigma
Computes the upper 2 sigma limit in a control u-chart. U-charts are applicable when number of defects are important, and where in each experimental subgroup, the number of sample sizes are the same.

678. B2SixSigmaControlXChartCL
Computes the center line in a control X-chart. X-charts are used when the number of defects are important, in each subgroup experiment multiple measurements are taken, and the average of the measurements is the variable plotted.

679. B2SixSigmaControlXChartLCL
Computes the lower control limit in a control X-chart. X-charts are used when the number of defects are important, in each subgroup experiment multiple measurements are taken, and the average of the measurements is the variable plotted.

680. B2SixSigmaControlXChartUCL
Computes the upper control limit in a control X-chart. X-charts are used when the number of defects are important, in each subgroup experiment multiple measurements are taken, and the average of the measurements is the variable plotted.

681. B2SixSigmaControlXMRChartCL
Computes the center line in a control XmR-chart. XmR-are used when the number of defects are important with only a single measurement for each sample and a time-series of moving ranges is the variable plotted.

682. B2SixSigmaControlXMRChartLCL
Computes the lower control limit in a control XmR-chart. XmR-are used when the number of defects are important with only a single measurement for each sample and a time-series of moving ranges is the variable plotted.

683. B2SixSigmaControlXMRChartUCL
Computes the upper control limit in a control XmR-chart. XmR-are used when the number of defects are important with only a single measurement for each sample and a time-series of moving ranges is the variable plotted.

684. B2SixSigmaDeltaPrecision
Computes the error precision given specific levels of Type I and Type II errors, as well as the sample size and variance.

685. B2SixSigmaSampleSize
Computes the required minimum sample size given Type I and Type II errors, as well as the required precision of the mean and the error tolerances.

686. B2SixSigmaSampleSizeDPU
Computes the required minimum sample size given Type I and Type II errors, as well as the required precision of the defects per unit and the error tolerances.

687. B2SixSigmaSampleSizeProportion
Computes the required minimum sample size given Type I and Type II errors, as well as the required precision of the proportion of defects and the error tolerances.

688. B2SixSigmaSampleSizeStdev
Computes the required minimum sample size given Type I and Type II errors, as well as the required precision of the standard deviation and the error tolerances.

689. B2SixSigmaSampleSizeZeroCorrelTest
Computes the required minimum sample size to test if a correlation is statistically significant at an alpha of 0.05 and beta of 0.10.

690. B2SixSigmaStatCP
Computes the potential process capability index Cp given the actual mean and sigma of the process, including the upper and lower specification limits.

691. B2SixSigmaStatCPK
Computes the process capability index Cpk given the actual mean and sigma of the process, including the upper and lower specification limits.

692. B2SixSigmaStatDPMO
Computes the defects per million opportunities (DPMO) given the actual mean and sigma of the process, including the upper and lower specification limits.

693. B2SixSigmaStatDPU
Computes the proportion of defective units (DPU) given the actual mean and sigma of the process, including the upper and lower specification limits.

694. B2SixSigmaStatProcessSigma
Computes the process sigma level given the actual mean and sigma of the process, including the upper and lower specification limits.

695. B2SixSigmaStatYield
Computes the nondefective parts or the yield of the process given the actual mean and sigma of the process, including the upper and lower specification limits.

696. B2SixSigmaUnitCPK
Computes the process capability index Cpk given the actual counts of defective parts and the total opportunities in the population.

697. B2SixSigmaUnitDPMO
Computes the defects per million opportunities (DPMO) given the actual counts of defective parts and the total opportunities in the population.

698. B2SixSigmaUnitDPU
Computes the proportion of defective units (DPU) given the actual counts of defective parts and the total opportunities in the population.

699. B2SixSigmaUnitProcessSigma
Computes the process sigma level given the actual counts of defective parts and the total opportunities in the population.

700. B2SixSigmaUnitYield
Computes the nondefective parts or the yield of the process given the actual counts of defective parts and the total opportunities in the population.

701. B2StandardNormalBivariateCDF
Given the two Z-scores and correlation, returns the value of the bivariate standard normal (means of zero, variances of 1) cumulative distribution function.

702. B2StandardNormalCDF
Given the Z-score, returns the value of the standard normal (mean of zero, variance of 1) cumulative distribution function.

703. B2StandardNormalInverseCDF
Computes the inverse cumulative distribution function of a standard normal distribution (mean of 0 and variance of 1)

704. B2StandardNormalPDF
Given the Z-score, returns the value of the standard normal (mean of zero, variance of 1) probability density function.

705. B2StockIndexCallOption
Similar to a regular call option but the underlying asset is a reference stock index such as the Standard and Poors 500. The analysis can be solved using a Generalized Black-Scholes-Merton Model as well.

706. B2StockIndexPutOption
Similar to a regular put option but the underlying asset is a reference stock index such as the Standard and Poors 500. The analysis can be solved using a Generalized Black-Scholes-Merton Model as well.

707. B2SuperShareOptions
The option has value only if the stock or asset price is between the upper and lower barriers, and at expiration, provides a payoff equivalent to the stock or asset price divided by the lower strike price (S/X Lower).

708. B2SwaptionEuropeanPayer
European Call Interest Swaption.

709. B2SwaptionEuropeanReceiver
European Put Interest Swaption.

710. B2TakeoverFXOption
At a successful takeover (foreign firm value in foreign currency is less than the foreign currency units), option holder can purchase the foreign units at a predetermined strike price (in exchange rates of the domestic to foreign currency).

711. B2TimeSwitchOptionCall
Holder gets AccumAmount x TimeSteps each time asset > strike for a call. TimeSteps is frequency asset price is checked if strike is breached (e.g., for 252 trading days, set DT as 1/252).

712. B2TimeSwitchOptionPut
Holder gets AccumAmount x TimeSteps each time asset < strike for a put. TimeSteps is frequency asset price is checked if strike is breached (e.g., for 252 trading days, set DT as 1/252).

713. B2TradingDayAdjustedCall
Call option corrected for varying volatilities (higher on trading days than on non-trading days). Trading Days Ratio is the number of trading days left until maturity divided by total trading days per year (between 250 and 252).

714. B2TradingDayAdjustedPut
Put option corrected for varying volatilities (higher on trading days than on non-trading days). Trading Days Ratio is the number of trading days left until maturity divided by total trading days per year (between 250 and 252).

715. B2TwoAssetBarrierDownandInCall
Valuable or knocked in-the-money only if the lower barrier is breached (reference Asset 2 goes below the barrier), and the payout is in the option on Asset 1 less the strike price.

716. B2TwoAssetBarrierDownandInPut
Valuable or knocked in-the-money only if the lower barrier is breached (reference Asset 2 goes below the barrier), and the payout is in the option on the strike price less the Asset 1 value.

717. B2TwoAssetBarrierDownandOutCall
Valuable or stays in-the-money only if the lower barrier is not breached (reference Asset 2 does not go below the barrier), and the payout is in the option on Asset 1 less the strike price.

718. B2TwoAssetBarrierDownandOutPut
Valuable or stays in-the-money only if the lower barrier is not breached (reference Asset 2 does not go below the barrier), and the payout is in the option on the strike price less the Asset 1 value.

719. B2TwoAssetBarrierUpandInCall
Valuable or knocked in-the-money only if the upper barrier is breached (reference Asset 2 goes above the barrier), and the payout is in the option on Asset 1 less the strike price.

720. B2TwoAssetBarrierUpandInPut
Valuable or knocked in-the-money only if the upper barrier is breached (reference Asset 2 goes above the barrier), and the payout is in the option on the strike price less the Asset 1 value.

721. B2TwoAssetBarrierUpandOutCall
Valuable or stays in-the-money only if the upper barrier is not breached (reference Asset 2 does not go above the barrier), and the payout is in the option on Asset 1 less the strike price.

722. B2TwoAssetBarrierUpandOutPut
Valuable or stays in-the-money only if the upper barrier is not breached (reference Asset 2 does not go above the barrier), and the payout is in the option on the strike price less the Asset 1 value.

723. B2TwoAssetCashOrNothingCall
Pays cash at expiration as long as both assets are in the money. For call options, both asset values must be above their respective strike prices.

724. B2TwoAssetCashOrNothingDownUp
Cash will only be paid if at expiration, the first asset is below the first strike, and the second asset is above the second strike.

725. B2TwoAssetCashOrNothingPut
Pays cash at expiration as long as both assets are in the money. For put options, both assets must be below their respective strike prices).

726. B2TwoAssetCashOrNothingUpDown
Cash will only be paid if the first asset is above the first strike price, and the second asset is below the second strike price at maturity.

727. B2TwoAssetCorrelationCall
Asset 1 is the benchmark asset, whereby if at expiration Asset 1's values exceed Strike 1's value, then the option is knocked in the money, and the payoff on the option is Asset 2 - Strike 2, otherwise the option becomes worthless.

728. B2TwoAssetCorrelationPut
Asset 1 is the benchmark asset, whereby if at expiration Asset 1's value is below Strike 1's value, then the put option is knocked in the money, and the payoff on the option is Strike 2 - Asset 2, otherwise the option becomes worthless.

729. B2VaRCorrelationMethod
Computes the Value at Risk using the Variance-Covariance and Correlation method, accounting for a specific VaR percentile and holding period.

730. B2VarOptions
Computes the Value at Risk of a portfolio of correlated options.

731. B2Volatility
Returns the Annualized Volatility of time-series cash flows. Enter in the number of periods in a cycle to annualize the volatility (1=annual, 4=quarter, 12=monthly data.

732. B2VolatilityImpliedforDefaultRisk
Only used when computing the implied volatility required for

optimizing an option model to compute the probability of default.

733. B2WarrantsDilutedValue
Returns the value of a warrant (like an option) that is convertible to stock while accounting for dilution effects based on the number of shares and warrants outstanding.
734. B2WriterExtendibleCallOption
The call option is extended beyond the initial maturity to an extended date with a new extended strike if at maturity the option is out of the money, providing a safety net of time for the option holder.
735. B2WriterExtendiblePutOption
The put option is extended beyond the initial maturity to an extended date with a new extended strike if at maturity the option is out of the money, providing a safety net of time for the option holder.
736. B2YieldCurveBIM
Returns the Yield Curve at various points in time using the Bliss model.
737. B2YieldCurveNS
Returns the Yield Curve at various points in time using the Nelson-Siegel approach.
738. B2ZEOB
Returns the Economic Order Batch or the optimal quantity to be manufactured on each production batch.
739. B2ZEOBBatch
Returns the Economic Order Batch analysis' optimal number of batches to be manufactured per year.
740. B2ZEOBHoldingCost
Returns the Economic Order Batch analysis' cost of holding excess units per year if manufactured at the optimal level.
741. B2ZEOBProductionCost
Returns the Economic Order Batch analysis' total cost of setting up production per year if manufactured at the optimal level.
742. B2ZEOBTotalCost
Returns the Economic Order Batch analysis' total cost of production and holding costs per year if manufactured at the optimal level.
743. B2ZEOQ
Economic Order Quantity's order size on each order.
744. B2ZEOQExcess
Economic Order Quantity's excess safety stock level
745. B2ZEOQOrders
Economic Order Quantity's number of orders per year
746. B2ZEOQProbability
Economic Order Quantity's probability of out of stock
747. B2ZEOQReorderPoint
Economic Order Quantity's reorder point

The following lists the statistical and analytical tools in the Modeling Toolkit:

748. Statistical Tool: Chi-Square Goodness of Fit Test
749. Statistical Tool: Chi-Square Independence Test
750. Statistical Tool: Chi-Square Population Variance Test
751. Statistical Tool: Dependent Means (T)
752. Statistical Tool: Friedman's Test
753. Statistical Tool: Independent and Equal Variances (T)
754. Statistical Tool: Independent and Unequal Variances (T)
755. Statistical Tool: Independent Means (Z)
756. Statistical Tool: Independent Proportions (Z)
757. Statistical Tool: Independent Variances (F)
758. Statistical Tool: Kruskal-Wallis Test
759. Statistical Tool: Lilliefors Test
760. Statistical Tool: Principal Component Analysis
761. Statistical Tool: Randomized Block Multiple Treatments
762. Statistical Tool: Runs Test
763. Statistical Tool: Single Factor Multiple Treatments
764. Statistical Tool: Testing Means (T)
765. Statistical Tool: Testing Means (Z)
766. Statistical Tool: Testing Proportions (Z)
767. Statistical Tool: Two-Way ANOVA
768. Statistical Tool: variance-Covariance Matrix
769. Statistical Tool: Wilcoxon Signed-Rank Test (One Variable)
770. Statistical Tool: Wilcoxon Signed-Rank Test (Two Variables)
771. Valuation Tool: Lattice Maker for Debt
772. Valuation Tool: Lattice Maker for Yield

The following lists Risk Simulator tools/applications that are used in the Modeling Toolkit:

773. Monte Carlo Simulation using 25 statistical distributions
774. Monte Carlo Simulation: Simulations with Correlations
775. Monte Carlo Simulation: Simulations with Precision Control
776. Monte Carlo Simulation: Simulations with Truncation
777. Stochastic Forecasting: Box-Jenkins ARIMA
778. Stochastic Forecasting: Maximum Likelihood
779. Stochastic Forecasting: Nonlinear Extrapolation
780. Stochastic Forecasting: Regression Analysis
781. Stochastic Forecasting: Stochastic Processes
782. Stochastic Forecasting: Time-Series Analysis
783. Portfolio Optimization: Discrete Binary Decision Variables
784. Portfolio Optimization: Discrete Decision Variables
785. Portfolio Optimization: Discrete Continuous Decision Variables
786. Portfolio Optimization: Static Optimization
787. Portfolio Optimization: Dynamic Optimization
788. Portfolio Optimization: Stochastic Optimization
789. Simulation Tools: Bootstrap Simulation
790. Simulation Tools: Custom Historical Simulation
791. Simulation Tools: Data Diagnostics
792. Simulation Tools: Distributional Analysis
793. Simulation Tools: Multiple Correlated Data Fitting
794. Simulation Tools: Scenario Analysis
795. Simulation Tools: Sensitivity Analysis
796. Simulation Tools: Single Data Fitting
797. Simulation Tools: Statistical Analysis
798. Simulation Tools: Tornado Analysis

The following lists Real Options SLS tools/applications used in the Modeling Toolkit:

799. Audit Sheet Functions
800. Changing Volatility and Risk-free Rates Model
801. Lattice Maker
802. SLS Single Asset and Single Phase: American Options
803. SLS Single Asset and Single Phase: Bermudan Options
804. SLS Single Asset and Single Phase: Customized Options
805. SLS Single Asset and Single Phase: European Options
806. SLS Multiple Asset and Multiple Phases
807. SLS Multinomial Lattices: Trinomials
808. SLS Multinomial Lattices: Trinomial Mean-Reversion
809. SLS Multinomial Lattices: Quadranomials
810. SLS Multinomial Lattices: Pentanomials