Finance Index

Rates and Yields

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| Area | Description |
| Definitions | Day count conventions, compounding frequency, annualized |
| Rates to discount/growth factors |  |
| Converting between compounding frequencies | Effective rates and continuous rates, zero rates |
| Calculate return from asset level |  |
| Calculate year fraction from df and zero rate |  |
| Forward interest rates | Calculate from continuous spot yield curve |
| Yield curve interpolation | Linear and constant forward yield |
| Measuring stock returns |  |
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Financial Contracts

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| Area | Description |
| Priciples of Financial Engineering | Synthetic Replication, No arbitrage, Using replication to value. |
| Forwards Level |  |
| Assumptions | Effects of spot, projection rates, dividends, borrow cost on fair forward level |
| Option Pricing |  |
| Replicating a european call | Deriving the risk neutral pricing formula |
| Variance Swaps |  |
| Scaling | Vega notional and vega numbers |
| Converting Greek numbers to vega units |  |

Risk

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| Area | Description |
| General | Synthetic Replication, No arbitrage, Using replication to value. |
| Realized/Unrealized PnL |  |
| Raw Greeks | Delta/Gamma/Vega/Theta |
| Cash Greeks | Cash Delta/Cash Gamma |
| Position Level Greeks | Gamma/Vega/Theta |
| Attribution PnL | Delta PnL, Gamma PnL, Vega PnL,Theta PnL |
| Average cost |  |

Volatility

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| Area | Description |
| General |  |
| Types of volatility | Realized, Implied, Parameterisations |
| Volatility Extractions |  |
| Dynamics and bumping |  |
| Recentering |  |
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