

Discount (or present value) Factor under Compound Interest

$$a^{-1}(t) = v^t = \left(\frac{1}{1+i} \right)^t = (1+i)^{-t}$$

Broverman page 18

Accumulation Function under Force of Interest

$$a(n) = e^{\int_0^n \delta_t dt}$$

Broverman page 41

Relationship of $\bar{a}_{\overline{n}|}$ and $\ddot{a}_{\overline{n}|}$

$$\bar{a}_{\overline{n}|} = \frac{d}{\delta} \cdot \ddot{a}_{\overline{n}|}$$

Broverman page 102

**Total Amount of Principal Added
Between Time t_1 and Time t_2 ,
When Contributed at Continuous Rate $\bar{c}(t)$ at Time t**

$$N_{t_1, t_2} = \sum_t c_t + \int_{t_1}^{t_2} \bar{c}(t) dt$$

Broverman page 285

Uses of Derivatives

- Hedging
- Speculation
- Reduced transaction costs
- Regulatory arbitrage

McDonald pp 2-3
Broverman page 448

Exercise Styles

- European – Exercise occurs only at expiration
- American – Exercise occurs any time up to and including expiration
- Bermudan – Exercise occurs only during certain periods
- Asian – The option is based on price average over time

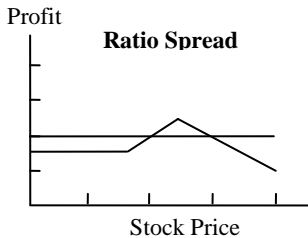
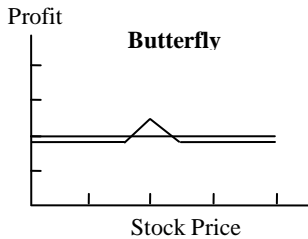
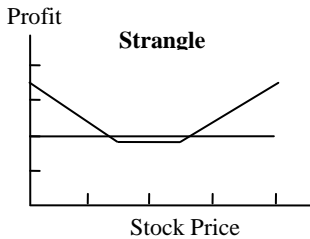
McDonald pp 32, 48
Broverman page 454

**Actions to Take Based on Expectation Regarding
Price and Volatility**

	Volatility will Increase	No Volatility View	Volatility will Fall
Price will Fall	Buy Puts	Sell underlying	Sell calls
No Price View	Buy straddle	Do nothing	Sell straddle
Price will Increase	Buy calls	Buy underlying	Sell puts

McDonald page 87
 Broverman pp 455-466, 479

Profit Diagrams for Strangle, Butterfly, and 2:1 Ratio Spread



McDonald page 87
 Broverman 480, 481