

Optionality (def): the power or right of choosing

Many examples of “Real Options” we face in daily life:

- Call Options: deposit towards an event or purchase, land/assets as options for future projects, etc.
- Put Option: Your homeowner’s insurance policy

Key characteristics: it’s your decision to exercise, there’s a time limit, it’s valuable.

Financial options are a contracts giving you the right to buy or sell an asset at a set price on or before a future date.

- **Call** Option: gives the right to buy a security at a set price in the future

e.g. GOOG call option @ \$650 maturing June 18, 2011

- **Put** Option: gives the right to sell a security at a set price in the future

BAC put option @ \$12 maturing May 21, 2011

Call Options

- Bullish
- Leverage



Put Options

- Bearish
- Downside protection



- Contract Specifics:

Underlying Security: the security one can buy or sell

Strike or Exercise Price: the set price to pay or receive

Expiration or Maturity: the date until which we can decide

Settlement: deliver the stock (“Physical”) or Cash?

- There are 2 option types:

American Option: can be exercised anytime until maturity

European Option: can only be exercised at maturity

- Underlyings: Equity, Index, ETF, VIX, Commodity and interest rates futures
- Options are examples of “derivatives” instruments

- Two Marketplaces for Equity Options
- Options Exchanges
 - E.g. CBOE, ISE, AMEX, PHLX, ARCA
 - 3.9 billion contracts traded in 2010.
 - Trading increased 8% in 2010, resuming growth after a flat 2009 and 5 years of double digit growth previously
 - Centralized clearing by the Options Clearing Corp (OCC)
 - How to track on Bloomberg: PTCL, G, GV
- “Over The Counter”
 - Individually negotiated contracts with banks as counterparty
 - Mostly custom contracts: “Listed lookalikes”, American vs European, Longer dated, Non-standard strikes, “EXOTIC”
 - ISDA: \$6.4T notional at Midyear 2010 after peaking at about \$12T notional in mid 2008.

Type	Buyer (Holder) Long Position	Seller (Writer) Short Position
Call	Right to Buy Bullish on the Underlying	Obligation to Sell Bearish on the Underlying
Put	Right to Sell Bearish on the Underlying	Obligation to Buy Bullish on the Underlying

- I think Apple can reach \$400 by the summer
- I'm afraid the market may go down after the Fed's QE2 ends
- I own MSFT stock and would like to increase my returns as I expect the stock to remain in its current range
- I think Alcoa will beat earnings and I would like to bet on that
- I'd like to protect my holdings in GE against a 10% down move, but I don't think it can go down more than 15%
- I think the market will rise on Tuesday when the minutes of the FOMC meeting may mention further accommodative policy
- I think a biotech name like AMLN can go to either \$5 or \$20 depending on trial results later this year.

Reason to Care about the Options Market

“Options traders initiate a greater proportion of long (short) positions immediately before good (bad) earnings news”

Amin and Lee (1997)
Contemporary Accounting Research

“Put-call ratios by newly initiated trades have significant predictability for equity returns, which indicates informed trading in the options markets”

Pan, Poteshman (2006)
Review of Financial Studies

“Option volume...can predict stock returns.”

Easley, O’Hara and Srinivas (1998)
Journal of Finance

“The shape of the volatility smirk has significant cross-sectional predictive power for future equity returns.”

Xing, Zhang, Zhao (2008)
Journal of Financial and Quantitative Analysis

Underlyings

Breadth: 581 Securities trade > 1000 call option contracts/day
ETF Volume: 9 of to 20 most liquid securities are ETFs

FUNCTIONS

EQS
OVI

99 Output				581 securities				Equity Screening: Results			
Chile volume				97 Backtest				As Of 06/20/2013			
Add Column								92 Fields			
Ticker	Sec Type	Short Name	Average Volume:M-6	Avg D Val Traded 6M:M-6	Avg Vol Call 20D	Volume:D-1	Price:D-1				
1) SPY	US	ETF	SPDR S&P 500 ETF	132.85M	20.63B	1.03M	199.59M	163.45			
2) AAPL	US	Common Stock	APPLE INC	17.04M	7.76B	241.31k	11.09M	423.00			
3) IWM	US	ETF	ISHARES-RUS 2000	39.31M	3.63B	141.05k	43.08M	98.29			
4) EEM	US	ETF	ISHARES-EMG MKT	56.80M	2.42B	131.40k	106.51M	38.61			
5) QQQ	US	ETF	POWERSH-QQQ	34.13M	2.36B	179.78k	43.08M	72.76			
6) GOOG	US	Common Stock	GOOGLE INC-CL A	2.30M	1.85B	49.44k	2.91M	900.68			
7) GLD	US	ETF	SPDR GOLD TRUST	12.36M	1.82B	85.23k	12.96M	130.59			
8) BAC	US	Common Stock	BANK OF AMERICA	148.64M	1.81B	204.43k	103.57M	13.19			
9) MSFT	US	Common Stock	MICROSOFT CORP	49.91M	1.49B	71.45k	30.73M	34.59			
10) C	US	Common Stock	CITIGROUP INC	31.57M	1.43B	72.85k	32.49M	49.53			
11) FB	US	Common Stock	FACEBOOK INC-A	47.42M	1.31B	117.76k	31.72M	24.31			
12) XOM	US	Common Stock	EXXON MOBIL CORP	13.01M	1.16B	26.60k	14.19M	91.00			
13) JPM	US	Common Stock	JPMORGAN CHASE	23.58M	1.15B	56.17k	20.83M	53.55			
14) PFE	US	Common Stock	PFIZER INC	40.16M	1.13B	178.14k	121.01M	29.10			
15) EFA	US	ETF	ISHARES-MSCI EAF	18.51M	1.10B	22.46k	32.59M	59.95			
16) VXX	US	ETF	IPATH-S&P S/T FU	47.20M	1.03B	202.69k	86.28M	20.06			
17) INTC	US	Common Stock	INTEL CORP	43.77M	973.84M	83.71k	28.70M	25.00			
18) GE	US	Common Stock	GENERAL ELECTRIC	41.07M	930.37M	37.12k	46.07M	23.98			
19) XLF	US	ETF	SPDR-FINL SELECT	50.20M	916.45M	67.13k	61.27M	19.60			
20) DIA	US	ETF	SPDR DJIA TRUST	6.35M	914.79M	30.11k	9.14M	151.09			

OCC—central counterparty for all listed trades

Jointly owned by all the exchanges

Diverse range of options on ETFs are traded, from sector focused, to country focused, to leveraged/inverse broad market indices

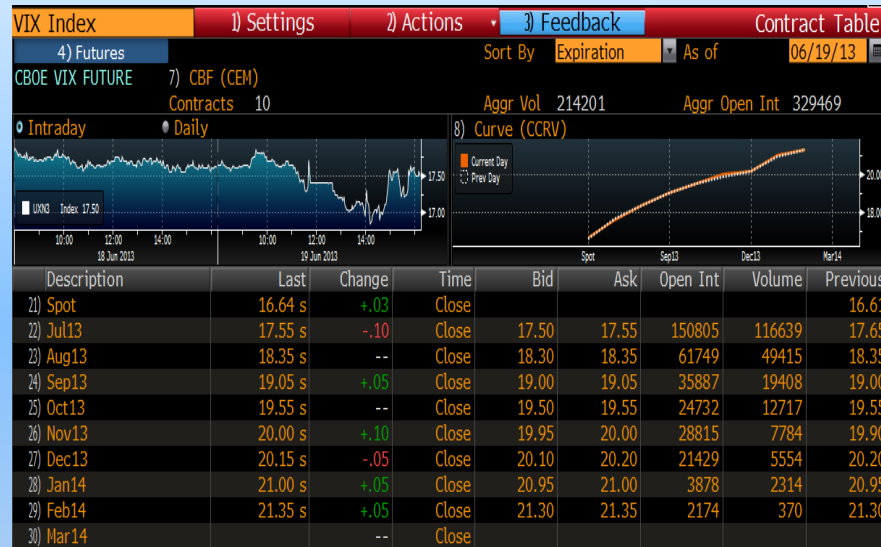
90 Edit Settings				97 Save View				98 Export To Excel				Option Volume Increase			
Source		Equity Screen (EQS)		Liquid etf options		Day		Today		Moving Avg		5 Day			
Sector		All Sectors		All Industry Groups		Min Avg Vol		100		Min Tot Vol		100			
Security Type		Equity		ETF		Index		Exclude		Ex-Date Stocks					
View		Standard		News		Bar		Last Refresh		Thu, Jun 20, 2013 05:48:11					
Summary > Top By Calls - Equity / ETF															
Ticker		TotVol	AvgVol	VolChg	P/C	P x P x Chg	TotOptInt	AvgOptInt	01%Chg	TotOptVol	Ex				
1) SPY	US	1583572	1009886	+56.81	1.29	163.45	-1.38	8737307	8479333	+3.04	3621766				
2) VXX	US	202198	208420	-2.99	1.51	20.06	-0.11	1194990	1174773	+1.72	508183				
3) QQQ	US	222467	181957	+22.26	1.20	72.76	-1.11	1827903	1796413	+1.75	488982				
4) EEM	US	471342	180384	+161.30	1.34	38.61	-3.08	3815049	3560930	+7.14	1104526				
5) IWM	US	166224	147456	+12.73	2.40	98.29	-1.23	1763996	1727980	+2.08	564800				
6) GLD	US	82560	68491	+20.54	1.34	130.59	-1.17	2362106	2333163	+1.24	193150				
7) IYR	US	55230	53911	+2.45	1.15	66.26	-3.00	581166	535059	+8.62	118699				
8) FXI	US	52372	47580	+10.07	1.27	33.61	-2.75	862250	746768	+15.46	118636				
9) SLV	US	51706	44028	+17.44	0.89	20.60	-1.34	2194042	2183832	+0.47	97565				
10) GOX	US	44621	43577	-2.39	0.71	26.51	-3.18	1229075	1192127	+3.10	76415				
11) TLT	US	62351	42453	+46.87	0.67	112.11	-1.03	439237	426259	+2.56	104242				
12) EWZ	US	53656	40664	+21.95	0.86	45.39	-3.61	944687	899106	+5.07	99913				
13) XLF	US	148367	37239	+268.42	0.44	19.60	-1.33	1726013	1739795	-0.79	213460				
14) DIA	US	60063	36629	+63.97	0.78	151.09	-1.31	292901	278666	+5.11	106840				
15) SDS	US	36620	33924	+7.95	0.30	39.84	+2.68	257740	252760	+1.97	47597				
16) DXJ	US	28366	33450	-15.20	0.33	45.13	+0.07	334268	304802	+9.67	37653				
17) FAS	US	40296	28956	+39.16	0.85	64.40	-4.12	104828	106819	-1.86	74736				
18) USO	US	23563	25117	-6.19	1.73	34.78	-0.51	582375	556705	+4.61	64270				
19) TZA	US	31454	24673	+27.48	0.26	30.92	+3.52	203590	199215	+2.20	39724				
Analyze															
Stats:		Min	Max	Avg	Std Dev	More	Grouping None		Zoom		100%				



Volatility as an Asset Class

Multiple Ways to Trade

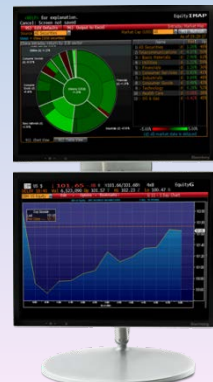
- OTC: Variance Swaps
- OTC: Forward Start VS
- Listed: VIX Futures
- Listed: VIX Options
- Listed: Volatility Related ETF



FUNCTIONS

VIX <index> CT
VSV
OVME VS

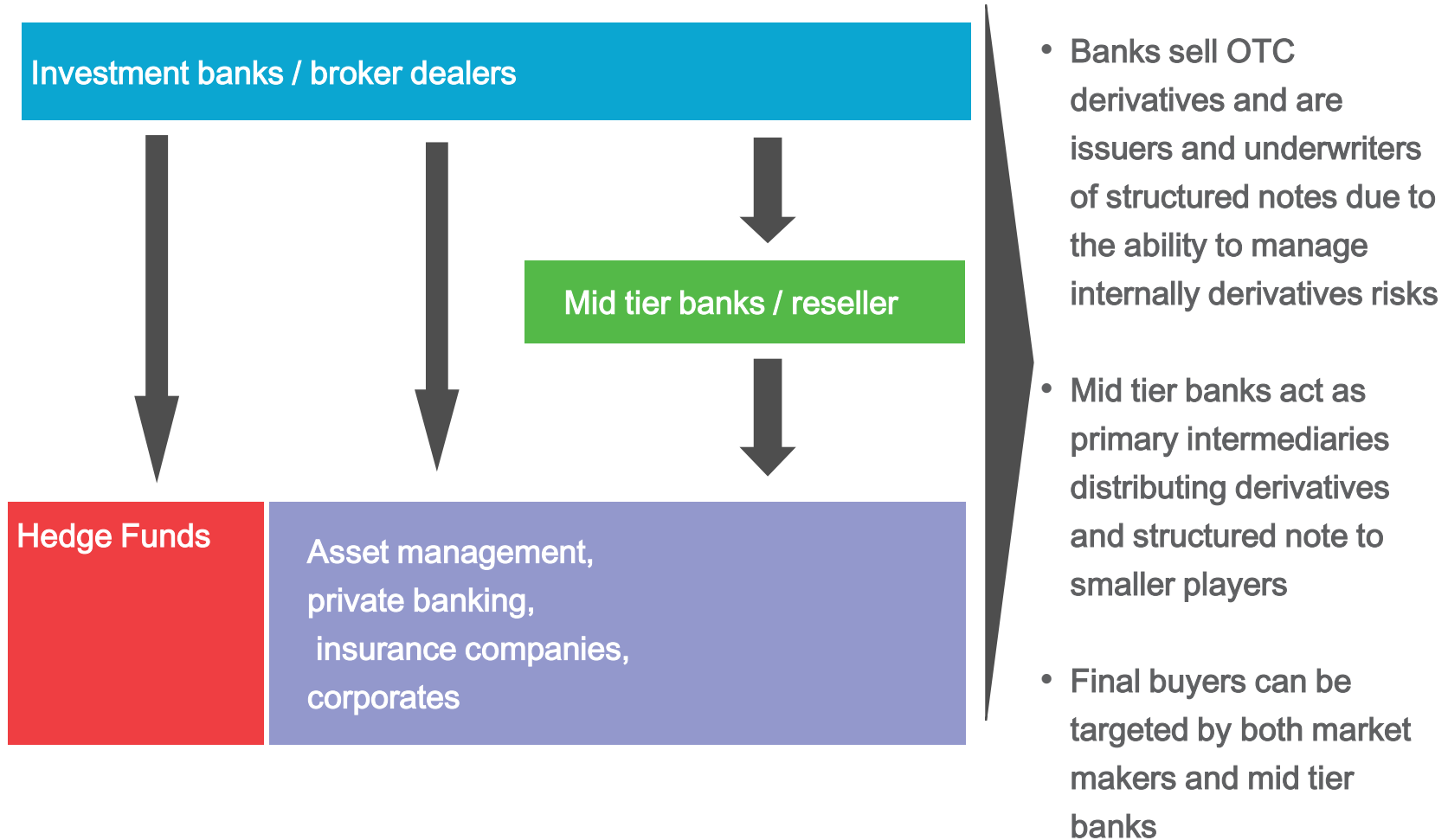
(Shared Monitor)										
Vol indices & ETFs [105]										
Monitor	View	Alerts	News	Link To						
	Ticker	Short Name	Curr Px	Pct Chg on Day	Chg on Day	Ret YTD Pct	Volume	Avg Vol 30D	Avg Vol Call 5D	Avg Vol Put 5D
ETNs										
	VXX	IPATH-S&P S/T FU	20.058	-0.11%	-0.022	-36.9444%	35,701	51,094,752	188444.2	211606.80
	XIV	VELOCITYSH INV V	21.05	+0.10%	+0.02	+26.8645%	1,950	17,823,966	.00	.00
	TVIX	VELOCITYSH 2X VX	3.00	-0.99%	-0.03	-99.061%	2,100	8,688,513	.00	.00
	UVXY	PRO ULTRA VIX ST	68.48	-0.15%	-0.10	-67.2344%	3,200	3,437,430	9204.60	8207.40
	SVXY	PRO SHORT VIX ST	82.53	-0.28%	-0.23	+26.0963%	1,949,855	1,075,370	748.60	722.20
	VIIX	VELOCITY VIX	10.84	-0.09%	-0.01	-37.0134%	4,200	694,936	28.20	7.00
	VIXY US	PRO VIX ST FUT	54.11	--	--	-36.3786%	1,095,177	586,044	408.40	817.20
	VXZ	IPATH-S&P M/T FU	22.07	-0.36%	-0.08	-21.0376%	832,433	577,745	21.20	110.80
	VIXM US	PRO VIX MT FUT	27.11	--	--	-20.7773%	56,071	116,109	14.00	6.00
	ZIV	VELOCITYSH INV V	28.75	+0.10%	+0.03	+20.9508%	174,305	102,168	.00	.00
	XVZ US	IPATH-S&P500 DYN	41.28	-0.29%	-0.12	-10.3388%	51,278	92,973	.00	.00
	HVI CN	d HORIZONS BETAPRO	16.57	+0.12%	+0.02	+25.3404%	46,635	33,863	.00	.00
	VQT	BARCLAYS VEQTORT	140.62	-1.12%	-1.59	+8.7801%	32,661	23,828	.00	.00



Bloomberg

Players

OPTIONS AND STRUCTURED NOTES: PLAYERS AND FLOWS

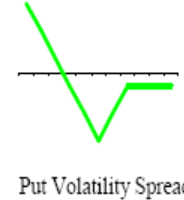
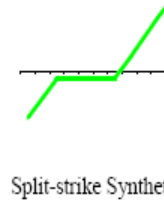
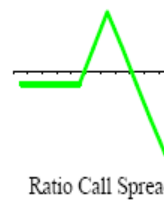
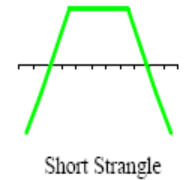
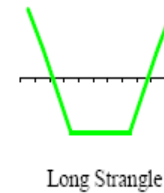
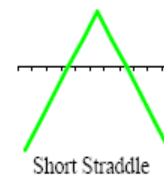
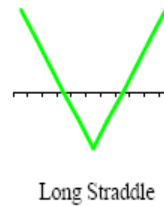
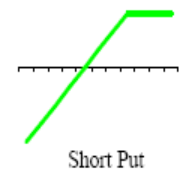
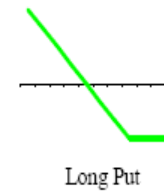
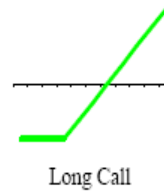


Equity Derivatives Strategy

Guide to Basic Options Strategies

September 1995

	Price Up	Price Neutral	Price Down
Volatility Up	Long Call Call Backspread	Long Straddle Long Strangle Short Butterfly	Long Put Put Backspread
Volatility Neutral	Bullish Call or Put Spread	Arbitrage Spreads	Bearish Call or Put Spread
Volatility Down	Short Put	Short Straddle Short Strangle Long Butterfly	Short Call



Examples of Option Combinations

Position	Diagram #	Construction by Component
Long Call	1	+ Call
Short Call	2	- Call
Long Put	3	+ Put
Short Put	4	- Put
Long Synthetic	5	+ Call - Put + Bond
Long Split Strike Combo	6	+ Call High Strike - Put Low Strike
Short Synthetic	7	+ Put - Call - Bond
Short Split Strike Combo	8	- Call High Strike + Put Low Strike
Protective Put	9	Stock + Put
Collar Hedge	10	Stock + Put Low Strike - Call High Strike
Covered Call	11	Stock - Call
Covered Call Spread	12	Stock - Call Low Strike + Call High Strike
Long Call Spread	13	Call Low Strike - Call High Strike
Short Call Spread	14	- Call Low Strike + Call High Strike
Long Put Spread	15	+ Put High Strike - Put Low Strike
Short Put Spread	16	- Put High Strike + Put Low Strike
Long Bullish Backspread	17	- Call Lower Strike + 2 X Call Higher Strike
Short Bullish Backspread	18	+ Call Lower Strike - 2 X Call Higher Strike
Long Bearish Backspread	19	+ 2 X Put Lower Strike - Put Higher Strike
Short Bearish Backspread	20	- 2 X Put Lower Strike + Put Higher Strike
Long Straddle	21	+ Call + Put
Short Straddle	22	- Call - Put
Long Strangle	23	+ Call Higher Strike + Put Lower Strike
Short Strangle	24	- Call Higher Strike - Put Lower Strike
Long Butterfly (using calls)	25	+ Call Low Strike - 2 X Call Middle Strike + Call High Strike
Long Butterfly (using puts)	26	+ Put High Strike - 2 X Put Middle Strike + Put Low Strike
Long Iron Butterfly		+ Put Low Strike - Put Middle Strike - Call Middle Strike + Call High Strike
Short Butterfly (using calls)	27	- Call Low Strike + 2 X Call Middle Strike - Call High Strike
Short Butterfly (using puts)	28	- Put High Strike + 2 X Put Middle Strike - Put Low Strike
Short Iron Butterfly		- Put Low Strike + Put Middle Strike + Call Middle Strike - Call High Strike
Long Condor (using calls)		+ Call Low Strike - Call Lower Middle Strike - Call Higher Middle Strike + Call High Strike
Long Condor (using puts)		+ Put Low Strike - Put Lower Middle Strike - Put Higher Middle Strike + Put High Strike
Long Iron Condor	29	+ Put Low Strike - Put Lower Middle Strike - Call Higher Middle Strike + Call High Strike
Short Condor (using calls)		- Call Low Strike + Call Lower Middle Strike + Call Higher Middle Strike - Call High Strike
Short Condor (using puts)		- Put Low Strike + Put Lower Middle Strike + Put Higher Middle Strike - Put High Strike
Short Iron Condor	30	- Put Low Strike + Put Lower Middle Strike + Call Higher Middle Strike - Call High Strike



- Buy a call (close to ATM) and sell a higher strike one
- Profit from stock price rise up to the upper strike
- Cheaper than a straight call
- Put spread for bearing bet in a range



- Buy a call and a put usually close the ATM level
- Profit from a stock price move either direction
- Also viewed as long volatility strategy (also delta hedged)
- Variations: strangle (different strikes), butterfly



- Buy a put and sell a call to cap long stock exposure
- A hedging strategy if you own the stock
- Call is funding the put purchase, can be near costless



- Buy an OTM call and sell an OTM put
- Exposure is similar to long stock
- Cheap strategy for directional bets



- Sell a call on a stock you already own (long)
- Generate yield if stock price is flat/down, safe otherwise
- Select strike price for highest standstill return
- Sell calls regularly for higher annual return



- Trade one maturity against another, same strike
- Arbitrage the term structure
- Diagonal spread is different maturity and different strike

Realtime Option Price Data

- Weeklies added: Filter Expirations via “Edit Settings”
- Calc Mode
- Colors!

SPX 1121.10Y as of close 9/14 Index **OMON**

SPX Index 95) Templates 96) Actions 97) Expiry 98) Blotter Eqty/Indx Trading (OMON)

S&P 500 INDEX 1121.10 -0.80 -0.07 1120.82 / 1121.38 Hi 1127.36 Lo 1115.58 Vol 806520064 HV 18.457840 91) News

Calc Mode Center 1121.1 Strikes 9 Exch Composite 92) Earnings Calendar

Ticker	BSize	Bid	Ask	ASize	IVM	DM	Volm	Strike
1) SPX 9/18/10 C1100	2	21.00	24.90	200	19.21	.83	21337	1100
2) SPX 9/18/10 C1105	200	16.50	19.90	200	17.55	.79	276	1105
3) SPX 9/18/10 C1110	200	12.60	15.60	200	16.98	.72	443	1110
4) SPX 9/18/10 C1115	200	9.20	11.70	200	15.85	.63	1467	1115
5) SPX 9/18/10 C1120	2	7.20	7.70	10	15.52	.52	1952	1120
6) SPX 9/18/10 C1125	30	4.70	5.60	200	15.50	.41	7268	1125
7) SPX 9/18/10 C1130	200	2.50	3.10	2	13.98	.28	19460	1130
8) SPX 9/18/10 C1135	200	1.45	2.00	2	14.24	.19	4521	1135
9) SPX 9/18/10 C1140	17	.80	1.20	10	14.39	.12	13580	1140
10) SPX 9/30/10 C1100	90	28.40	31.90	50	19.82	.68	100	1100
11) SPX 9/30/10 C1105	90	25.00	28.20	50	19.44	.64		1105
12) SPX 9/30/10 C1110	90	21.40	24.70	50	18.85	.60		1110
13) SPX 9/30/10 C1115	90	18.50	21.00	50	18.32	.56	25	1115
14) SPX 9/30/10 C1120	90	15.60	18.00	50	17.94	.51	8	1120
15) SPX 9/30/10 C1125	90	13.00	15.20	50	17.57	.46	2113	1125
16) SPX 9/30/10 C1130	90	10.70	12.70	50	17.25	.41	142	1130
17) SPX 9/30/10 C1135	90	8.60	10.50	50	16.93	.36	1012	1135
18) SPX 9/30/10 C1140	90	6.80	8.50	50	16.61	.31		1140
19) SPX 10/16/10 C1100	200	35.50	40.00	200	20.45	.63	10672	1100
20) SPX 10/16/10 C1105	200	32.40	36.60	200	20.22	.60	4	1105
21) SPX 10/16/10 C1110	1	30.50	32.50	201	20.07	.57	50	1110
22) SPX 10/16/10 C1115	200	26.10	30.00	200	19.47	.54	52	1115
23) SPX 10/16/10 C1120	201	23.00	26.10	202	18.72	.51	361	1120
24) SPX 10/16/10 C1125	7	21.50	23.00	201	18.76	.48	8499	1125
25) SPX 10/16/10 C1130	200	18.10	20.10	200	18.03	.44	348	1130
26) SPX 10/16/10 C1135	200	15.70	17.60	200	17.70	.41	1034	1135

295) Center Strike 296) Call/Put 297) Call 298) Put 299) Term Structure

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2010 Bloomberg Finance L.P.
SN 668142 6353-1095-2 14-Sep-2010 22:04:15



Option Price Calculator

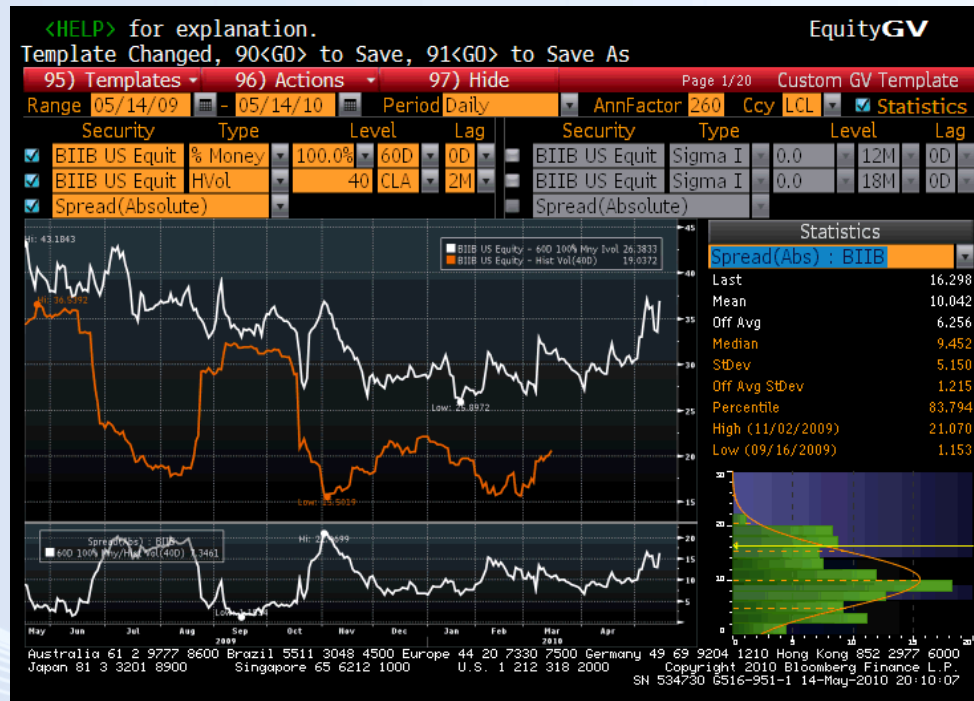
- Black-Scholes Model and Beyond
- Use “OVL” instead of “OVME” for listed option analysis
- Shortcut keys (OVL CP, OVL CS, OVL 3L)

1) Actions		2) Strategies		3) Str. Notes		4) Data & Setting		5) Help		Option Valuation	
Underlying	SHLD US Equity	SEARS HOLDINGS				Trade	09/14/10	22:19			
Price	69.435	USD				Settle	09/15/10				
84) Add FI leg		85) Solve For		86) Refresh		7) Add to Portfolio		8) Matrix Pricing		89) Trade	
Price (Total)	299.00000	Currency	USD	Vega	0.08	Time value	299.00				
Price (Share)	2.9900000	Delta	0.50	Theta	0.05	Gearing	23.22				
Price (%)	4.306186	Gamma	0.0466	Rho	0.03	Break-Even (%)	5.12				
Single Leg		Leg 1									
Ticker	SHLD US 10/16/10 C				Dividend yield	0.000%					
Style	Vanilla				Borrow cost	0.000%					
Exercise	American										
Call/Put	Call										
Direction	Buy										
Strike	70.00										
Strike % Money	0.81% OTM										
Contracts	1.00										
Expiry	10/15/10 16:15										
Time to expiry	30 17:56										
Model	BS - discrete										
Vol Implied	40.388%										
Forward Carry	69.4489										
USD Rate Mkt	0.257%										
7) Deal		8) Scenario Graph		9) Scenario Table		10) Volatility Data					



Charting Volatility Related Data

- Implied Volatility at various strikes and maturities
- Historical Volatility, CDS, Underlying Price Information
- Statistical Summary and Spread Analysis



Multi-Security Option Analysis

RV /VOL EquityRV

STI US Equity 95) Customize 96) Output 97) Actions Relative Valuation

Peers Bloomberg Peers Region Global Closest 50 By Mkt Cap

Show Volatility Statistics Add Column 93) Fields

	Name	Last Px ↑	3M 100% IVOL	1Y 100% IVOL	3M 90% IVOL	3M 110% IVOL	90/110 Skew Sprd	25 Dlt Skew Sprd	3M/12M 100% Trm	1Y Vol Pctl Rank	Vol StdDev	Vol Av StdD
	SUNTRUST BANKS INC	23.72	49.79	52.24	54.06	46.32	7.74	12.02	-2.45	45.63	8.73	-
2)	FIRST CITIZENS BCSHS	185.09	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
3)	GOLDMAN SACHS GROUP	133.66	39.75	40.41	43.68	36.88	6.80	8.56	-0.66	80.56	5.50	
4)	M & T BANK CORP	87.01	42.88	38.57	46.75	39.76	6.99	9.57	4.31	69.44	6.32	
5)	PNC FINANCIAL SERVICES	58.54	40.69	39.76	44.99	37.19	7.79	10.14	0.93	44.05	7.94	-
6)	CITY NATIONAL CORP	51.57	38.40	N.A.	41.70	36.12	5.57	6.89	N.A.	52.78	6.62	-
7)	NORTHERN TRUST CORP	48.09	34.37	34.95	37.84	31.70	6.14	6.83	-0.58	79.37	4.65	
8)	CAPITAL ONE FINANCIAL	41.14	48.02	49.80	53.06	44.08	8.98	13.45	-1.78	50.40	8.83	-
9)	AMERICAN EXPRESS CO	40.03	44.86	45.69	49.96	40.56	9.40	13.27	-0.83	65.87	7.86	
10)	JPMORGAN CHASE & CO	37.12	39.94	42.94	44.76	36.22	8.54	10.82	-3.00	71.03	5.80	



Signals Embedded in Implied Volatility Surface

“The shape of the volatility smirk has significant cross-sectional predictive power for future equity returns.”

FUNCTIONS

VCA

GV

OVDV

91) Actions		92) Feedback		Volatility and Correlation Analysis							
Equity	Sector	Health Care	United States	Term	1 Month	Range	1 Year				
5 Impl Vol	6 Impl/Realized Vol	7 Skew	8 Term								
		90% Implied		110% Implied		1M 90% - 110% Spread					
Underlying		Vol	Chg	Vol	Chg	Spread	Low	Range	High	Avg	PCTL ↑
						● Now ● Avg					
101)	PharMerica Corp	67.74	13.74	40.02	3.30	27.72	-16.14		27.72	8.88	99.39
102)	Exelixis Inc	83.74	28.48	59.34	5.67	24.40	-27.87		24.98	1.56	99.00
103)	Synageva BioPharma Corp	73.71	27.28	58.50	15.97	15.21	-1.94		15.21	6.51	98.90
104)	Idenix Pharmaceuticals Inc	88.32	23.98	77.80	14.57	10.53	-25.39		13.55	-3.45	97.81
105)	InterMune Inc	64.85	9.90	51.03	-2.92	13.82	-17.89		15.61	4.24	97.41
106)	Hospira Inc	37.14	.98	25.31	-1.40	11.83	.62		14.10	7.84	97.01
107)	Nanosphere Inc	168.17	-4.49	127.26	-2.17	40.91	-18.08		43.23	.37	96.53
108)	ABIOMED Inc	65.61	3.64	55.38	2.78	10.23	-6.13		14.42	4.84	95.80
109)	HeartWare International Inc	44.17	10.50	29.58	.56	14.59	.43		19.89	8.31	95.00
110)	Amedisys Inc	62.79	1.24	54.22	-.78	8.57	-2.65		12.49	5.27	94.22
111)	Genomic Health Inc	55.21	4.27	41.20	.64	14.01	-5.16		18.69	7.47	93.43
112)	Perrigo Co	24.19	.09	15.14	-.15	9.05	-1.21		14.72	5.70	93.43
113)	Cynosure Inc	63.01	-3.90	36.92	.73	26.09	-20.10		32.18	7.19	92.97
114)	CryoLife Inc	53.96	5.20	50.45	-.44	3.51	-10.88		3.51	-5.46	92.86
115)	Merrimack Pharmaceuticals Inc	191.87	-6.62	141.36	9.27	50.50	-8.12		66.40	32.76	91.86
116)	CR Bard Inc	24.47	.64	12.69	-.50	11.78	1.53		14.39	8.11	91.83
117)	Techne Corp	34.71	.14	20.64	-.44	14.07	-22.12		21.79	.71	91.71
118)	PhotoMedex Inc	68.21	2.10	51.05	.50	17.16	-2.90		32.42	10.16	91.47
119)	Ampio Pharmaceuticals Inc	137.60	3.16	113.68	1.98	23.92	-12.36		38.94	6.42	91.18
120)	Eli Lilly & Co	22.85	-.51	15.25	.78	7.61	-8.24		9.63	2.82	91.04
121)	Orexigen Therapeutics Inc	82.40	12.87	73.97	12.23	8.43	-20.51		15.25	2.09	91.04



Additional Functions

<HELP> for explanation. **N290 EquityOSCH**

1<GO> for Results

95) Actions **Feedback** **Option Search (jb0822)**

2) Sample Searches

5) Covered Call: Rich Vols
6) Developed Markets Ove
7) Volume 2X Open Intere
8) Low Cost Collars
9) Straddles - Predicted L
10) Largest Increase In Ivo
11) Largest Decrease In Iv

3) Security Type
4) Country of Domicile
5) Sectors
6) Exchanges
7) Index Members
8) Custom Sources

Screening Criteria

<Type screening criteria and select from the suggested fields>

41) Fields

Strategy Criteria

5) Vertical
6) Straddle
7) Calendar
8) Reversal
9) Condor
10) More

Selected Screening Criteria

Underlyings

Options

Underlying Universe 5980
61) Security Type: Equity,ETF 5980
62) Index Members: S&P 500 Index 499
Option Criteria 499 102433
63) Open Interest >= 250 497 38974
Display Fields 497 38974
Underlying Ticker
Expiration Date
Strike Price
Put/Call Indicator
64) Underlying Price
65) Mid Price
66) Delta Mid Price

3) Saved Searches
4) Shared Searches

Results limited to 1000 sorted by Price-Market Ascending

1) Results

<HELP> for explanation. **N290 EquityBTM**

90<GO> to save current view and settings as default

98) Actions **99) Stop Monitoring** **Page 1** **Block Trade Monitor**

<Enter Security Filter> Trade Date 09/14/11 Limit Block Size >= 20

Size	Exch	Strike	UndTkr	ExpDate	Price	Side	OpenInt	IVL	%ChgIV	Delta	Time
150	ARCA	37.00	GILD US	10/22/11	1.15	Mid	1,360	38.71	-1.14%	-.34	09:33:21
100	CBOE	1230.00	SPX	09/17/11	.55	Mid	22,664	26.10	-2.53%	.05	09:33:20
200	CBOE	1230.00	SPX	09/17/11	.55	Mid	22,664	26.10	-2.53%	.05	09:33:20
200	CBOE	1230.00	SPX	09/17/11	.55	Mid	22,664	26.10	-2.53%	.05	09:33:20
500	CBOE	1230.00	SPX	09/17/11	.55	Mid	22,664	26.10	-2.53%	.05	09:33:20
100	BATS	10.00	DAN US	01/21/12	1.00	Mid	158	74.45	n.a.	-.24	09:33:19
125	AMEX	15.00	WFC US	10/22/11	9.40	Ask	144	82.72	2.19%	.98	09:33:18
170	CBOE	69.00	IWM US	09/17/11	.78	Ask	81,158	53.53	7.76%	-.37	09:33:17
141	CBOE	13.00	F US	10/22/11	2.75	Ask	7,929	26.25	-42.07%	-1.00	09:33:17
141	CBOE	11.00	F US	10/22/11	1.04	Ask	8,881	43.82	-6.45%	-.67	09:33:17
100	CBOE	24.00	WFC US	01/21/12	2.67	Ask	19,333	48.74	-.99%	-.43	09:33:17
110	CBOE	70.00	IWM US	09/17/11	1.19	Ask	85,651	51.40	6.47%	-.51	09:33:16
100	CBOE	35.00	ETE US	10/22/11	1.50	Mid	2,340	57.31	.55%	-.31	09:33:16
126	ISE	70.00	IWM US	09/17/11	1.19	Ask	85,651	51.40	6.02%	-.51	09:33:16
136	CBOE	75.00	LNKD US	09/17/11	.15	Ask	1,961	115.52	-.22%	-.04	09:33:15
100	PHLX	55.00	QQQ US	09/17/11	.70	Ask	99,158	35.86	4.03%	-.53	09:33:14
100	BATS	10.00	DAN US	01/21/12	1.00	Mid	158	74.45	n.a.	-.24	09:33:09
100	PHLX	10.00	INFN US	01/21/12	.50	Ask	2,727	57.41	3.88%	.33	09:33:08
100	ISE	121.00	SPY US	09/17/11	.35	Bid	122,733	35.19	10.45%	.21	09:33:07
298	ISE	58.00	QQQ US	09/30/11	.30	Bid	27,091	27.64	-3.70%	.18	09:33:07
298	ISE	54.00	QQQ US	09/17/11	.32	Mid	95,546	38.50	5.31%	-.30	09:33:07
298	ISE	55.00	QQQ US	09/17/11	.58	Ask	108,481	35.93	8.20%	.50	09:33:07

Alert Panel

MSFT US **MSFT UP 01/21/12 C37.5**

24 **blk 13499(Op.Int. 62599) IV=28.56 Δ=0.13** **UP Mid 0.45**

Quote Recap

Last 23.99 Chg +17
Open 23.82 High 24.13 Low 23.61 Vol 37488418
VWAP 23.89

News

09:46 Microsoft Xbox Live Sales Probably Topped \$1 Billion (Update1)

2.5 sigma move in Stock Price!

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12:02:17 MSFT US (24) MSFT UP 01/21/12 C37.5 blk 134990.45 Mid
11:55:46 ORCL UN > 4.5702
11:30:52 STT UN > 6.7909
11:30:11 FDO UN > 5.4395
11:28:51 AES UN > 7.7800

Edit Disable Resume Dismiss