

OPTIMA VOLATILITY PICTURE -- S&P 500 ^ Thu 5/23/02

IMPLIED VOLATILITY OVERVIEW -- June S&P 500 volatility finished -.61 at 17.74. The SPM futures contract finished +2.00 at 1085.10. The short-term trend for volatility remains neutral as the contract posted a contract low last Friday.

MATURITY STRUCTURE OF IMPLIED VOLATILITY -- The maturity structure is upward sloping in shape, with SPM -.61 at 17.74.

SIGMA BOUNDARY -- The 1-standard deviation moves for today are: SPM +12.20 points to 1097.30, -12.10 points to 1073.00.

SUPPORT/RESISTANCE LEVELS -- S&P 500 IMPLIED VOLATILITY (SPM02)

47.57	All-time high (weekly-nearest 3/18/88)	18.63	20-day average of implied volatility
29.11	Contract high (9/21/01)	18.22	60-day average of implied volatility
26.34	6-1/2 month high (10/26/01)	*17.74	Previous (Wednesday)
21.91	4-1/2 month high (12/13/01)	16.44	Contract low (Last Friday)
20.86	3-1/2 month high (Apr 29)	9.31	All-time low (1/29/94 weekly-nearest)

Note: Call for a User Manual that has explanations of the volatility terms used above.
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OPTIMA VOLATILITY SUMMARY - STOCK INDEXES

As of: 052202	: SPM02	SPU02	SPZ02	DJM02	DJU02	DJZ02
Underlying Settle:	1085.10s	1086.50s	1089.10s	10152.s	10155.s	10170.s
Change:	+2.00	+1.90	+1.70	+29.	+29.	+29.
Implied Volatility	17.74s	18.40s	18.93s	18.27s	18.82s	18.89s
Change from Prev:	-.61	-.18	+.23	+.36	+.60	+.35
last 20Days High:	20.85	19.72	19.70	20.34	19.86	19.86
Avg:	18.63	18.67	18.81	18.55	18.89	19.07
Low:	17.00	17.74	17.92	17.12	17.86	18.30
last 60Days High:	20.85	20.10	N/A	20.38	20.46	N/A
Avg:	18.22	18.35	N/A	18.54	18.62	N/A
Low:	16.63	16.92	N/A	17.12	6.95	N/A
Historical 20 Day:	23.41%	23.56%	23.73%	20.74%	20.87%	20.99%
Volatility 30 Day:	22.37%	22.51%	22.61%	19.89%	19.99%	20.07%
50 Day:	18.66%	18.75%	18.83%	17.34%	17.41%	17.46%
100 Day:	18.44%	18.60%	18.76%	18.20%	18.78%	18.90%
200 Day:	20.11%	20.45%	20.52%	21.29%	N/A	21.83%

Notes: Implied Volatility is interpolated for the at-the-money straddle.

OPTIMA VOLATILITY CHEAPNESS INDEX

Historical Volatility						
Max	: 21.2	14.4	14.2	N/A	N/A	N/A
Median	: 9.6	9.8	9.8	N/A	N/A	N/A
Min	: 4.6	6.8	7.0	N/A	N/A	N/A
Vol Cheapness Ind:	97.5	100.0	100.0	N/A	N/A	N/A
change	: -1.5	unch	unch	N/A	N/A	N/A
Last 20 sess	:					
High	: 100.0	100.0	100.0	N/A	N/A	N/A
Avg	: 99.0	100.0	100.0	N/A	N/A	N/A
Low	: 97.5	100.0	100.0	N/A	N/A	N/A
Last 60 sess	:					
High	: 100.0	100.0	100.0	N/A	N/A	N/A
Avg	: 99.7	100.0	100.0	N/A	N/A	N/A
Low	: 97.5	100.0	100.0	N/A	N/A	N/A
Days to Expiration	29	120	211	29	120	211

Notes: VCI ranks implied vol on a percentile basis (100 max, 0 min) against historical vol for given days to expiration.

OPTIMA SIGMA BOUNDARY

Today: +1 Std Dev:	12.20	12.70	13.10	117.	121.	121.
-1 Std Dev:	12.10	12.50	12.90	116.	119.	120.
68% H:	1097.30	1099.20	1102.20	10269.	10276.	10291.
L:	1073.00	1074.00	1076.20	10036.	10035.	10049.
95% H:	1109.50	1111.80	1115.20	10387.	10397.	10413.
L:	1061.00	1061.40	1063.30	9919.	9915.	9929.
99% H:	1121.70	1124.50	1128.30	10504.	10518.	10535.
L:	1048.90	1048.90	1050.40	9803.	9796.	9809.
20Days +1 Std Dev:	55.60	57.80	59.70	536.	553.	556.
Out: -1 Std Dev:	52.90	54.90	56.60	509.	524.	527.
To +1 Std Dev:	55.60	120.90	168.60	536.	1157.	1570.
Expir- -1 Std Dev:	52.90	108.80	146.00	509.	1039.	1360.
ation 68% H:	1140.70	1207.40	1257.70	10688.	11312.	11740.
L:	1032.20	977.70	943.10	9642.	9116.	8809.
95% H:	1196.40	1328.40	1426.30	11225.	12469.	13311.
L:	979.20	868.80	797.10	9132.	8077.	7449.
99% H:	1252.00	1449.30	1595.00	11762.	13626.	14882.
L:	926.30	760.00	651.10	8623.	7038.	6088.

Notes: Shows probability of closing within price range based on implied volatility on sub-annual basis. Call for charts & info.

OPTIMA - S&P OPTIONS PACKAGE

Optima Investment Research
S&P 500 STOCK INDEX JUN 2002 .. Daily HLC plot



Optima Investment Research
S&P 500 STOCK INDEX JUN 2002 .. Daily Implied volatility



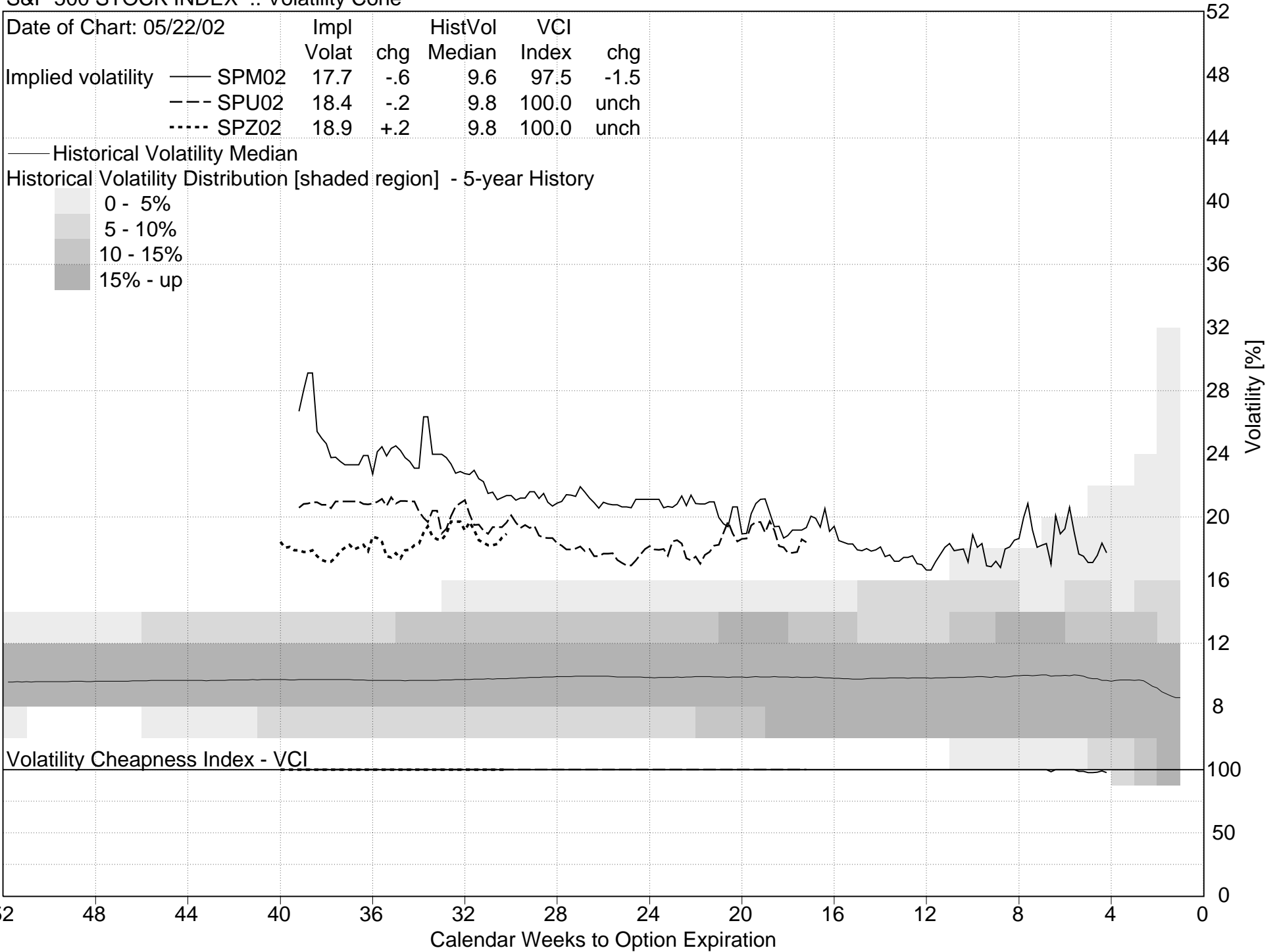
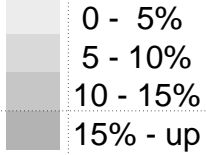
Optima Investment Research
 S&P 500 STOCK INDEX .. Volatility Cone

Date of Chart: 05/22/02

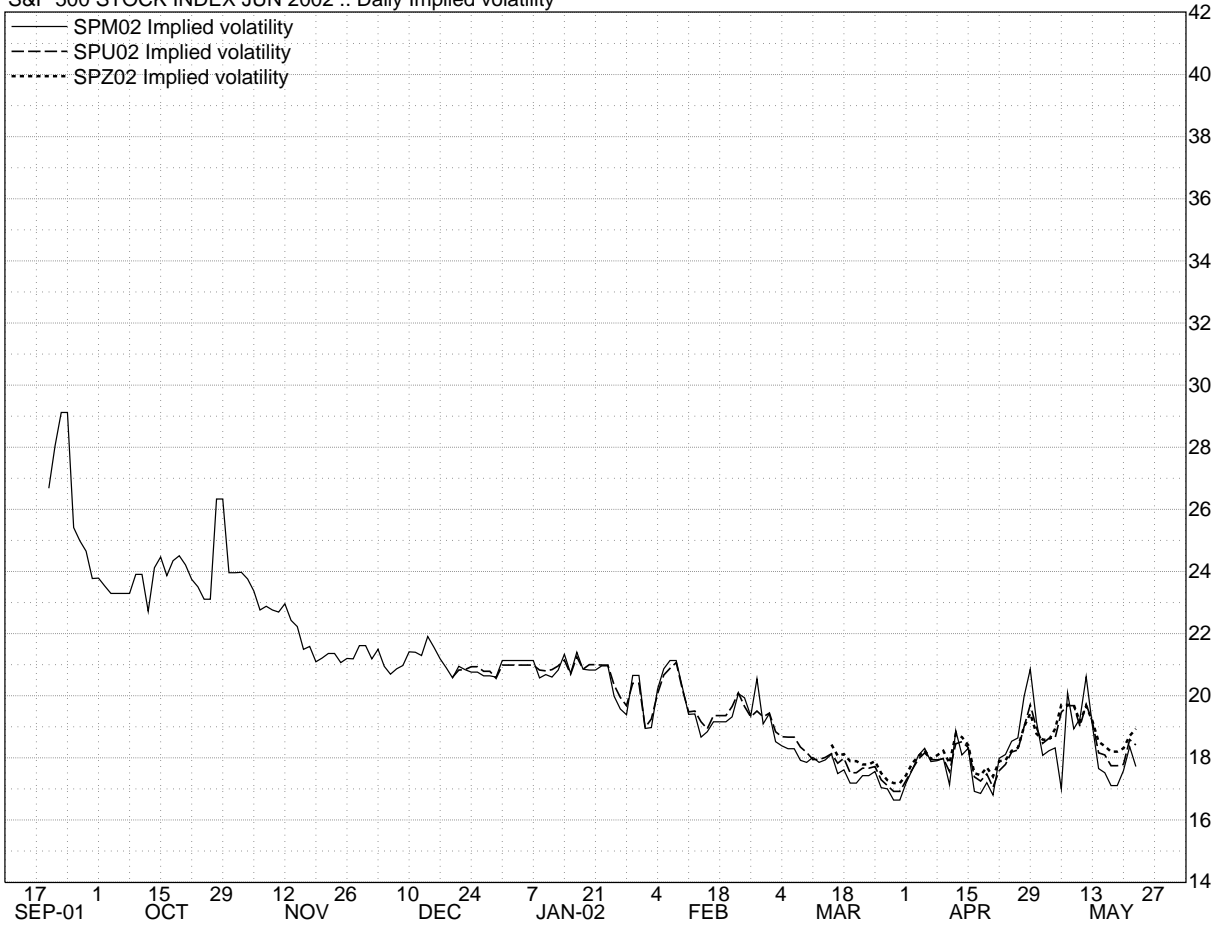
	Impl		HistVol	VCI		
	Volat	chg	Median	Index	chg	
Implied volatility	SPM02	17.7	-0.6	9.6	97.5	-1.5
	SPU02	18.4	-0.2	9.8	100.0	unch
	SPZ02	18.9	+0.2	9.8	100.0	unch

— Historical Volatility Median

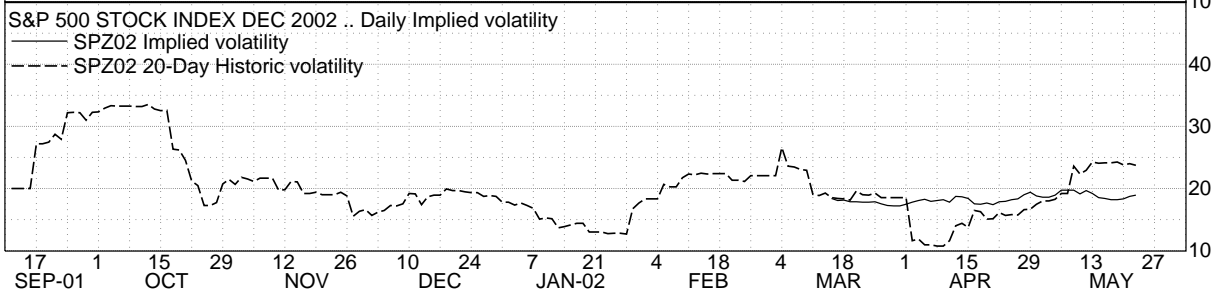
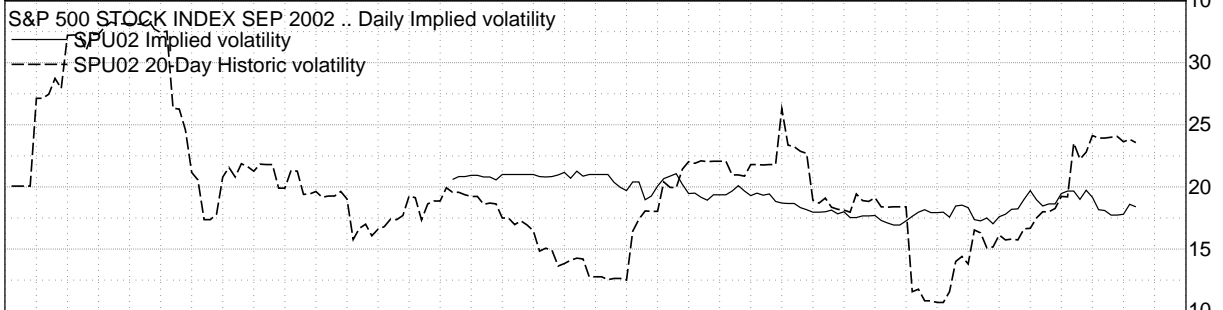
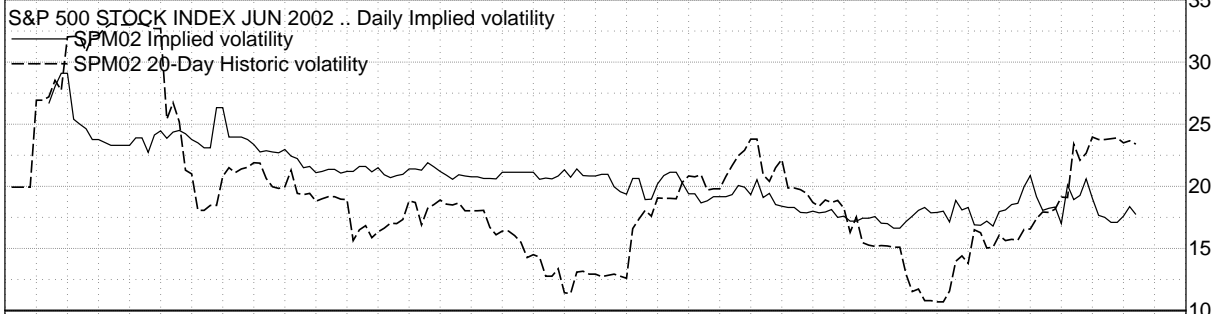
Historical Volatility Distribution [shaded region] - 5-year History



Optima Investment Research
 S&P 500 STOCK INDEX JUN 2002 .. Daily Implied volatility

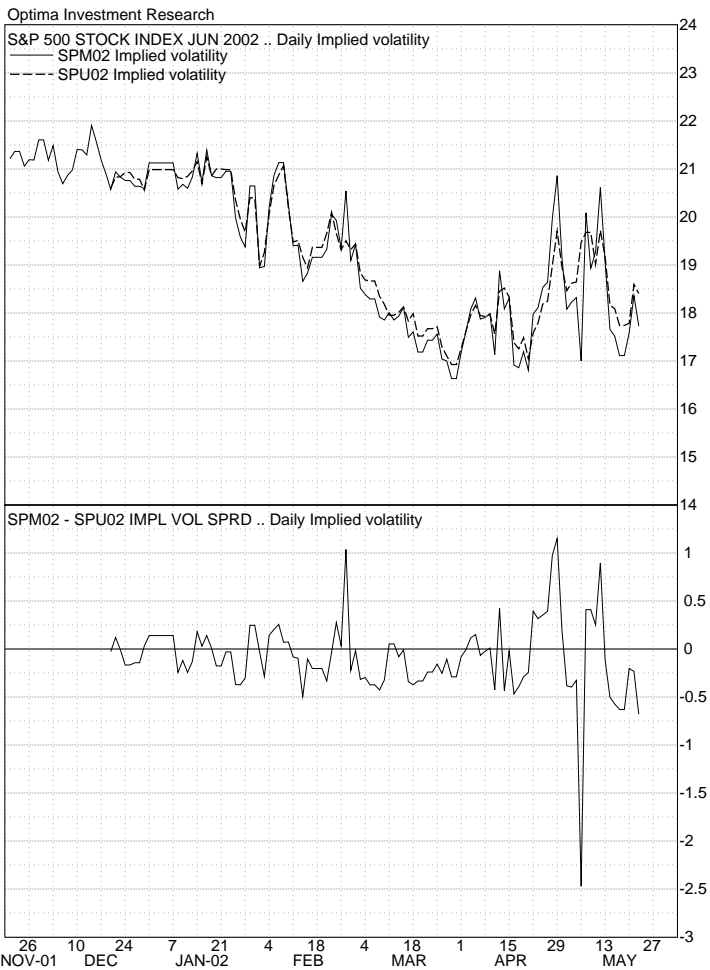
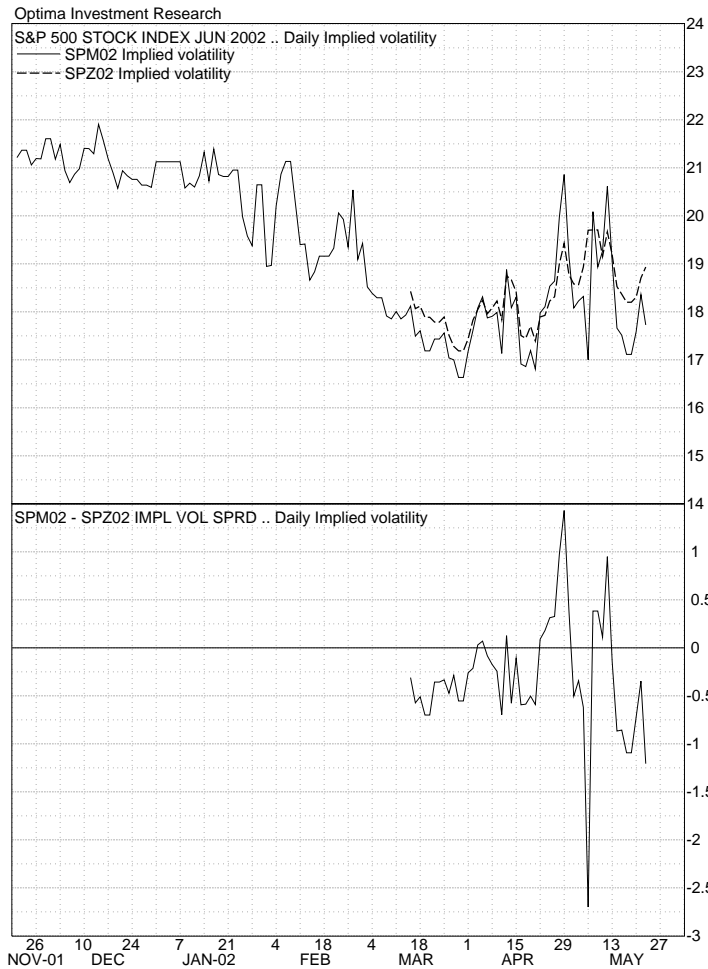
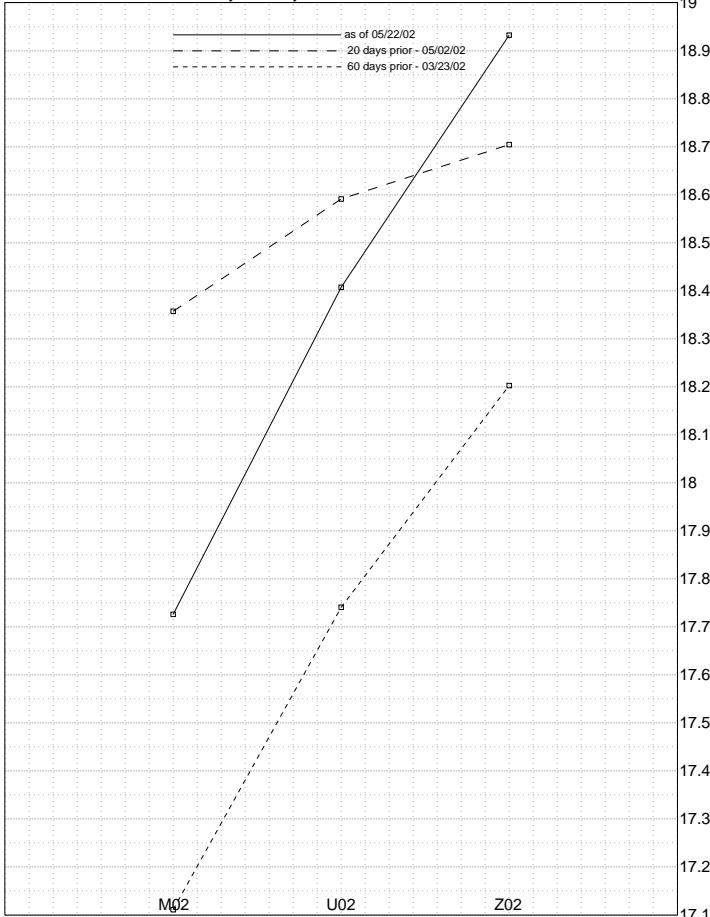


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VOLATILITY CALENDAR SPREADS & WEEKLY VOLATILITY

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S&P 500 STOCK INDEX .. Daily Volatility Term Structure 20 60



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 S&P 500 STOCK INDEX JUN 2002 .. Sigma Boundary



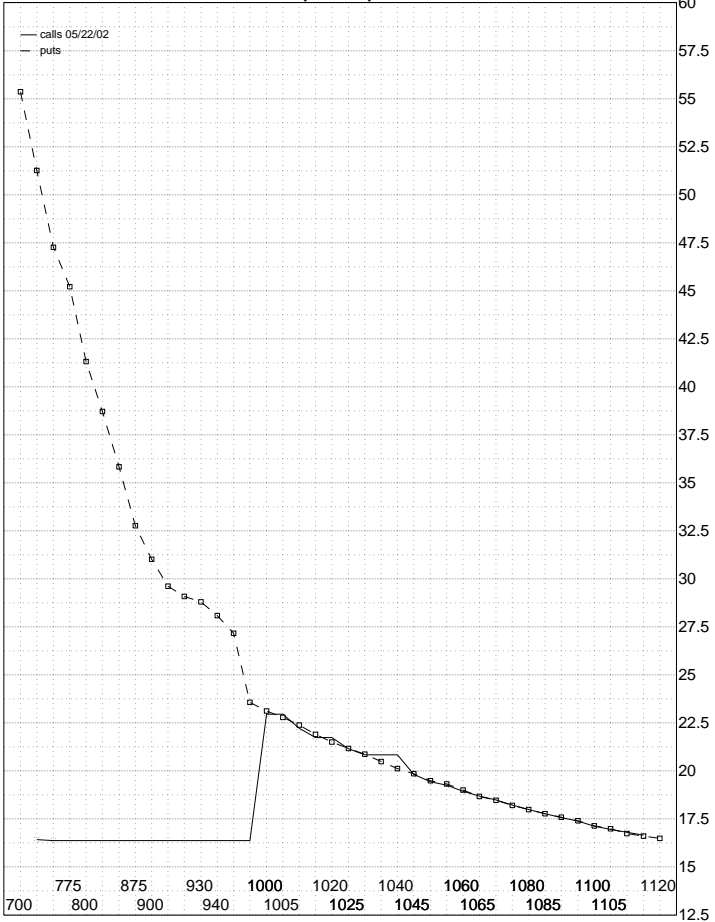
Optima Investment Research
 S&P 500 STOCK INDEX SEP 2002 .. Sigma Boundary



JUNE 02 S&P 500 STOCK INDEX OPTIONS
05/22/02 days to exp: 29 int. rate: 1.72% calc. imp vol of *: 17.77%

strike	last imp vol	delta	gamma	theta-7	vega	premi	iv-skew	
SP500 1085.10								
1179.00C	1.10s	16.32	.05	0.0022	0.576	0.358	1.100	-1.45
1165.00C	1.40s	16.41	.07	0.0025	0.693	0.415	1.400	-1.36
1160.00C	1.70s	16.35	.08	0.0029	0.800	0.469	1.700	-1.42
1155.00C	2.10s	16.38	.09	0.0033	0.933	0.531	2.100	-1.39
1150.00C	2.50s	16.27	.11	0.0037	1.051	0.589	2.500	-1.49
1145.00C	3.10s	16.38	.13	0.0041	1.216	0.666	3.100	-1.39
1140.00C	3.70s	16.32	.15	0.0046	1.360	0.726	3.700	-1.44
1135.00C	4.50s	16.41	.17	0.0051	1.533	0.798	4.500	-1.36
1130.00C	5.40s	16.46	.20	0.0055	1.702	0.867	5.400	-1.31
1125.00C	6.40s	16.47	.22	0.0059	1.862	0.933	6.400	-1.30
1120.00C	7.60s	16.54	.26	0.0064	2.026	0.996	7.600	-1.22
1115.00C	8.90s	16.65	.29	0.0067	2.187	1.057	8.900	-1.16
1110.00C	10.60s	16.80	.32	0.0070	2.328	1.106	10.600	-0.97
1105.00C	12.40s	16.96	.36	0.0072	2.472	1.148	12.400	-0.81
1100.00C	14.40s	17.12	.40	0.0074	2.584	1.181	14.400	-0.64
1095.00C	16.70s	17.39	.44	0.0074	2.687	1.204	16.700	-0.38
1090.00C	19.10s	17.57*	.47	0.0074	2.749	1.216	19.100	-0.19
1085.00C	21.70s	17.77*	.51	0.0073	2.786	1.219	21.700	+0.00
1080.00C	24.50s	17.98	.55	0.0072	2.798	1.211	24.500	+0.22
1075.00C	27.50s	18.22	.58	0.0070	2.787	1.193	27.500	+0.45
1070.00C	30.70s	18.48	.62	0.0067	2.757	1.169	30.700	+0.71
1065.00C	34.00s	18.69	.65	0.0065	2.696	1.137	34.000	+0.92
1060.00C	37.50s	18.94	.69	0.0062	2.623	1.099	37.500	+1.17
1055.00C	41.20s	19.25	.71	0.0058	2.544	1.057	41.200	+1.49
1050.00C	44.90s	19.44	.73	0.0055	2.430	1.010	44.900	+1.67
1045.00C	48.90s	19.81	.76	0.0051	2.338	0.963	48.900	+2.04
1030.00C	61.40s	20.84	.82	0.0041	2.013	0.815	61.400	+3.07
1025.00C	65.70s	21.15	.84	0.0038	1.892	0.765	65.700	+3.38
1020.00C	70.50s	21.74	.87	0.0032	1.649	0.668	70.500	+4.02
1010.00C	79.10s	22.22	.88	0.0029	1.563	0.627	79.100	+4.45
1000.00C	88.30s	22.95	.90	0.0025	1.362	0.545	88.300	+5.19
750.00C	335.10s	50.00	1.00	0.0001	0.000	0.000	0.000	+32.23
725.00C	360.10s	50.00	1.00	0.0000	0.000	0.000	0.000	+32.23
1170.00P	15.00s	16.06	.95	0.0021	0.511	0.344	0.900	-1.71
1165.00P	18.10s	16.17	.94	0.0025	0.630	0.402	1.200	-1.60
1160.00P	21.40s	16.13	.92	0.0028	0.739	0.457	1.500	-1.64
1155.00P	24.90s	16.17	.91	0.0033	0.873	0.520	1.900	-1.60
1150.00P	28.70s	16.25	.89	0.0037	1.026	0.588	2.400	-1.51
1145.00P	32.90s	16.35	.87	0.0041	1.191	0.659	3.000	-1.42
1140.00P	37.50s	16.49	.85	0.0046	1.334	0.725	3.600	-1.48
1135.00P	42.40s	16.37	.83	0.0051	1.509	0.796	4.400	-1.40
1130.00P	47.60s	16.41	.80	0.0055	1.678	0.866	5.300	-1.36
1125.00P	53.10s	16.42	.77	0.0060	1.839	0.931	6.300	-1.35
1120.00P	58.90s	16.49	.74	0.0064	2.005	0.995	7.500	-1.28
1115.00P	64.90s	16.60	.71	0.0067	2.167	1.055	8.900	-1.16
1110.00P	71.10s	16.74	.68	0.0070	2.319	1.105	10.500	-1.03
1105.00P	77.50s	16.98	.64	0.0072	2.469	1.148	12.400	-0.79
1100.00P	84.10s	17.14	.60	0.0074	2.582	1.181	14.400	-0.63
1095.00P	90.90s	17.40	.56	0.0074	2.685	1.204	16.700	-0.37
1090.00P	97.90s	17.58*	.53	0.0074	2.748	1.216	19.100	-0.19
1085.00P	105.10s	17.77*	.49	0.0073	2.786	1.219	21.700	+0.00
1080.00P	112.50s	17.98	.45	0.0072	2.799	1.210	24.500	+0.21
1075.00P	120.10s	18.21	.42	0.0070	2.789	1.193	27.500	+0.44
1070.00P	127.90s	18.46	.38	0.0068	2.759	1.169	30.700	+0.69
1065.00P	135.90s	18.66	.35	0.0065	2.699	1.137	34.000	+0.90
1060.00P	144.00s	18.90	.32	0.0062	2.642	1.100	37.500	+1.23
1055.00P	152.20s	19.11	.29	0.0058	2.564	1.058	41.200	+1.24
1050.00P	160.50s	19.49	.27	0.0055	2.451	1.011	44.900	+1.73
1045.00P	169.00s	19.85	.24	0.0051	2.360	0.964	48.900	+2.09
1040.00P	177.60s	20.11	.22	0.0048	2.241	0.913	53.100	+2.34
1035.00P	186.40s	20.48	.20	0.0044	2.148	0.864	57.500	+2.71
1030.00P	195.40s	20.87	.18	0.0041	2.036	0.815	61.400	+3.10
1025.00P	204.60s	21.17	.16	0.0038	1.916	0.766	65.700	+3.40
1020.00P	214.00s	21.51	.15	0.0035	1.803	0.718	70.500	+3.74
1015.00P	223.60s	21.90	.13	0.0032	1.701	0.673	75.000	+4.13
1010.00P	233.40s	22.38	.12	0.0029	1.617	0.633	80.000	+4.61
1005.00P	243.40s	22.78	.11	0.0027	1.522	0.592	85.000	+5.01
1000.00P	253.60s	23.11	.10	0.0025	1.417	0.551	90.000	+5.34

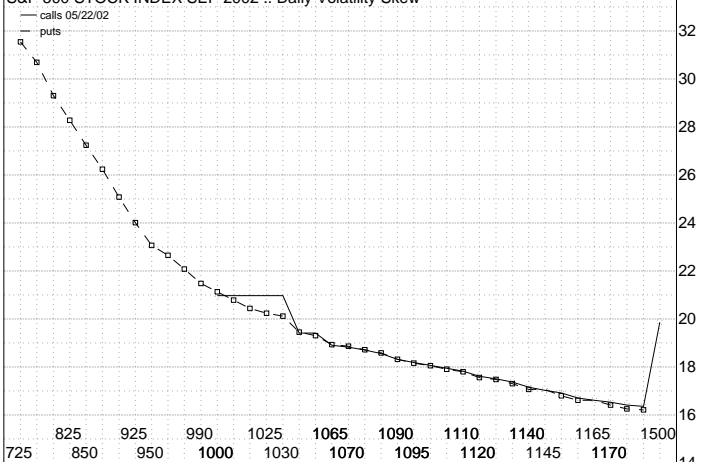
Optima Investment Research
S&P 500 STOCK INDEX JUN 2002 .. Daily Volatility Skew



SEPTEMBER 02 S&P 500 STOCK INDEX OPTIONS
05/22/02 days to exp: 120 int. rate: 1.72% calc. imp vol of *: 18.41%

strike	last imp vol	delta	gamma	theta-7	vega	premi	iv-skew	
SP500 1085.10								
1130.00C	25.50s	17.37	.36	0.0035	1.187	2.339	25.500	-1.03
1125.00C	27.50s	17.51	.38	0.0035	1.215	2.372	27.500	-0.90
1120.00C	29.50s	17.61	.40	0.0035	1.238	2.401	29.500	-0.80
1115.00C	31.50s	17.73	.43	0.0035	1.274	2.443	31.500	-0.68
1110.00C	33.50s	17.94	.45	0.0035	1.293	2.457	33.500	-0.47
1105.00C	35.50s	18.06	.47	0.0035	1.306	2.466	35.500	-0.35
1095.00C	41.00s	18.19	.51	0.0035	1.317	2.471	41.000	-0.22
1090.00C	43.60s	18.32*	.51	0.0035	1.326	2.471	43.600	-0.09
1080.00C	49.00s	18.55	.54	0.0034	1.334	2.456	49.000	+0.15
1075.00C	51.90s	18.70	.56	0.0034	1.338	2.443	51.900	+0.30
1070.00C	54.80s	18.82	.57	0.0033	1.338	2.426	54.800	+0.41
1065.00C	57.70s	18.90	.59	0.0033	1.325	2.404	57.700	+0.49
1060.00C	60.50s	19.02	.63	0.0031	1.306	2.319	60.500	+1.01
1050.00C	64.00s	19.17	.67	0.0029	1.116	1.886	64.000	+2.56
1040.00C	68.60s	19.31	.64	0.0035	1.168	2.338	68.600	+1.10
1030.00C	73.40s	19.48	.61	0.0035	1.200	2.372	73.400	+0.83
1020.00C	78.30s	19.57	.60	0.0035	1.223	2.400	78.300	-0.84
1110.00P	57.10s	17.80	.56	0.0035	1.267	2.443	57.100	-0.61
1105.00P	60.00s	17.90	.54	0.0035	1.284	2.457	60.000	-0.60
1100.00P	62.90s	18.05	.52	0.0035	1.301	2.466	62.900	-0.36
1095.00P	65.80s	18.17	.51	0.0035	1.311	2.471	65.800	-0.24
1090.00P	68.70s	18.33*	.49	0.0035	1.325	2.471	68.700	-0.08
1080.00P	73.60s	18.58*	.46	0.0034	1.338	2.456	73.600	+0.17
1075.00P	78.50s	18.82	.44	0.0034	1.341	2.443	78.500	+0.31
1070.00P	83.40s	18.86	.42	0.0033	1.341	2.426	83.400	+0.46
1065.00P	88.30s	18.93	.40	0.0033	1.334	2.404	88.300	+0.53
1055.00P	93.00s	19.31	.37	0.0031	1.330	2.351	93.000	+0.91
1050.00P	97.70s	19.46	.36	0.0031	1.322	2.320	97.700	+1.05
1040.00P	102.40s	20.12	.30	0.0028	1.273	2.169	102.400	+1.71
1035.00P	107.10s	20.25	.29	0.0027	1.254	2.125	107.100	+1.84

Optima Investment Research
S&P 500 STOCK INDEX SEP 2002 .. Daily Volatility Skew



DECEMBER 02 S&P 500 STOCK INDEX OPTIONS
05/22/02 days to exp: 211 int. rate: 1.72% calc. imp vol of *: 18.93%

strike	last imp vol	delta	gamma	theta-7	vega	premi	iv-skew	
SP500 1085.10								
1500.00C	0.15s	15.50	.00	0.0001	0.023	0.121	0.150	-3.43
1450.00C	0.40s	15.67	.01	0.0002	0.052	0.252	0.400	-3.26
1425.00C	0.55s	15.45	.01	0.0003	0.067	0.321	0.550	-3.48
1400.00C	0.80s	15.49	.02	0.0004	0.095	0.439	0.850	-3.44
1350.00C	2.00s	15.63	.04	0.0007	0.180	0.785	2.000	-3.10
1325.00C	3.00s	15.72	.06	0.0009	0.240	1.018	3.000	-3.21
1300.00C	4.50s	15.88	.08	0.0011	0.316	1.299	4.500	-3.05
1280.00C	6.00s	16.07	.10	0.0013	0.389	1.556	6.000	-2.86
1260.00C	8.40s	16.27	.13	0.0016	0.469	1.826	8.400	-2.66
1250.00C	9.70s	16.36	.15	0.0017	0.510	1.962	9.700	-2.57
1240.00C	11.20s	16.48	.16	0.0018	0.553	2.101	11.200	-2.46
1225.00C	13.80s	16.66	.18	0.0020	0.618	2.306	13.800	-2.27
1210.00C	16.80s	16.84	.22	0.0021	0.682	2.501	16.800	-2.09
1200.00C	19.10s	16.98	.24	0.0022	0.724	2.624	19.100	-1.96
1180.00C	24.40s	17.27	.29	0.0024	0.804	2.868	24.400	-1.67
1175.00C	25.90s	17.35	.30	0.0024	0.823	2.898	25.900	-1.58
1160.00C	30.70s	17.58	.34	0.0025	0.875	3.021	30.700	-1.35
1150.00C	34.20s	17.73	.36	0.0025	0.934	3.104	34.200	-1.20
1140.00C								

OPTIMA - DOW OPTIONS PACKAGE

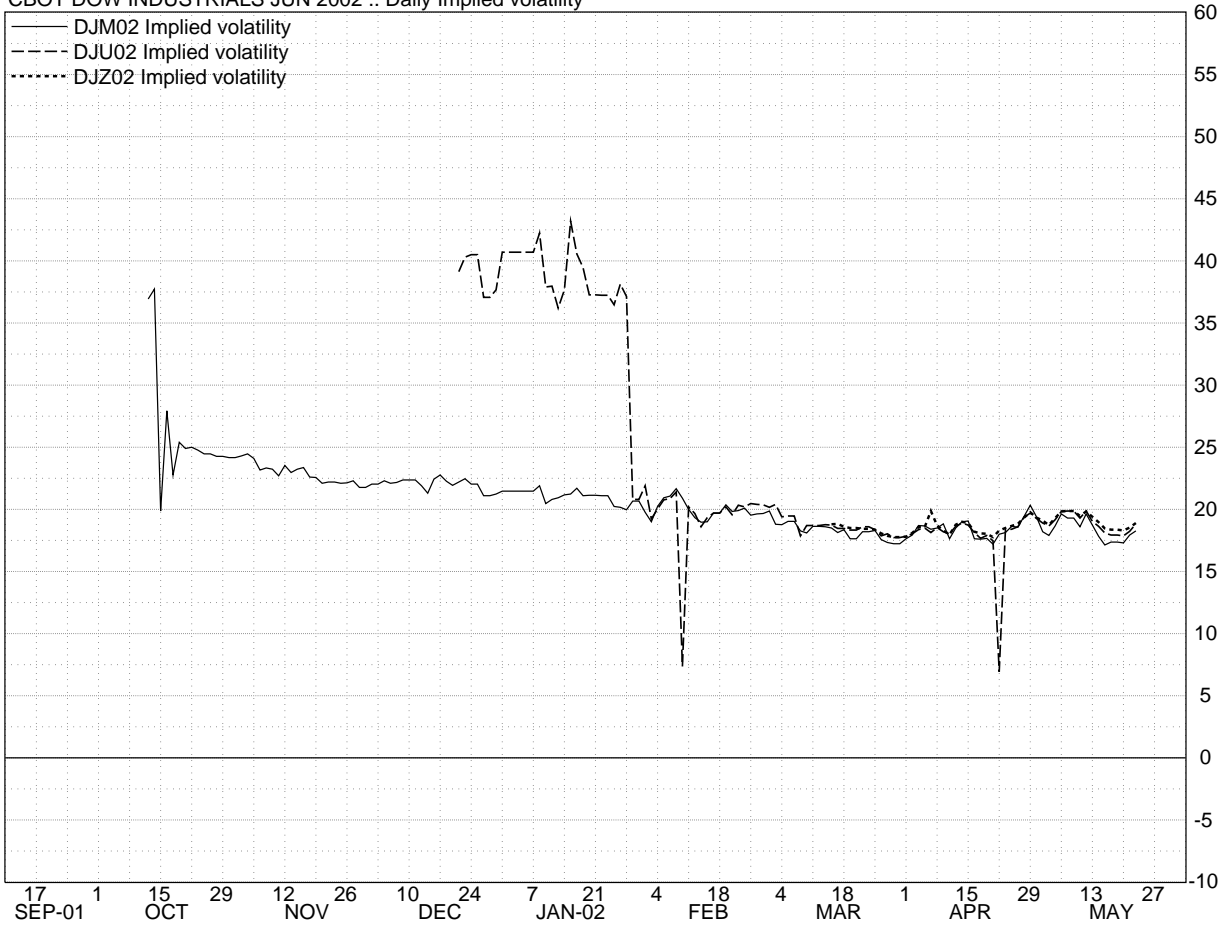
Optima Investment Research
CBOT DOW INDUSTRIALS JUN 2002 .. Daily HLC plot



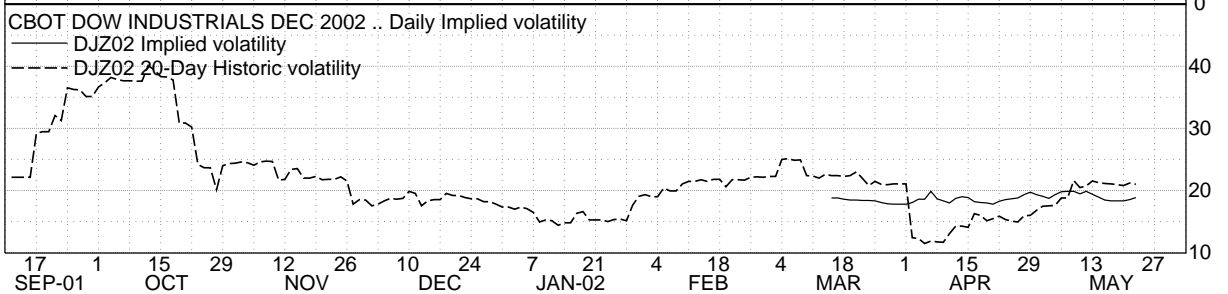
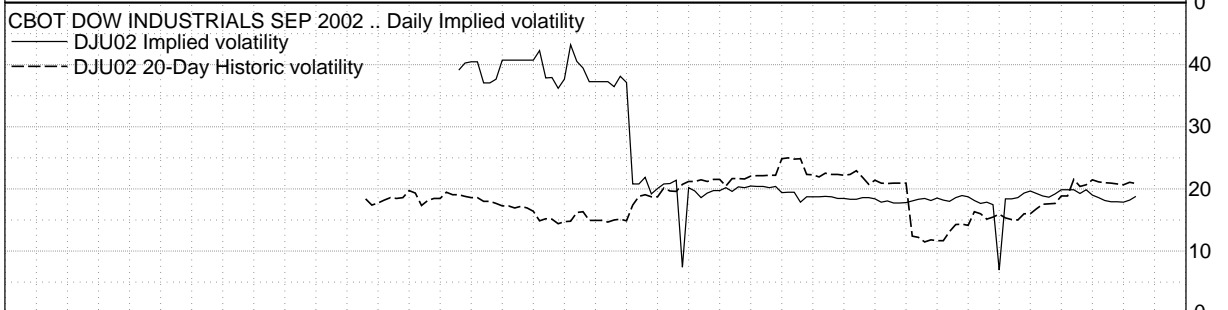
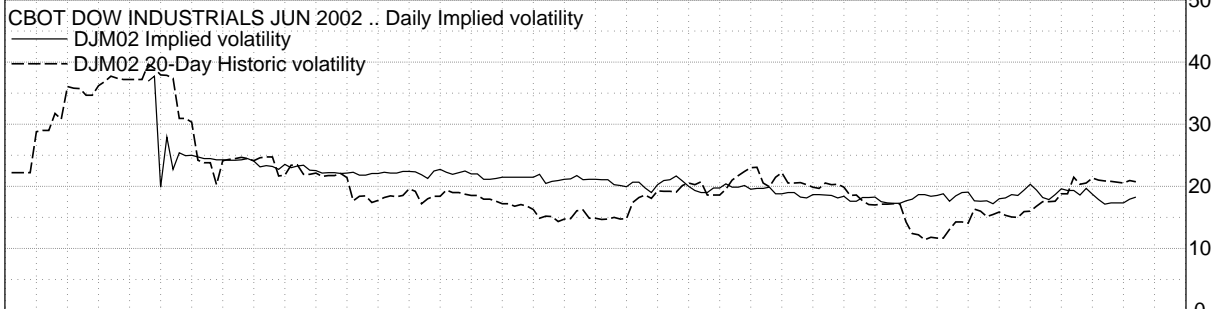
Optima Investment Research
CBOT DOW INDUSTRIALS JUN 2002 .. Daily Implied volatility



Optima Investment Research
 CBOT DOW INDUSTRIALS JUN 2002 .. Daily Implied volatility

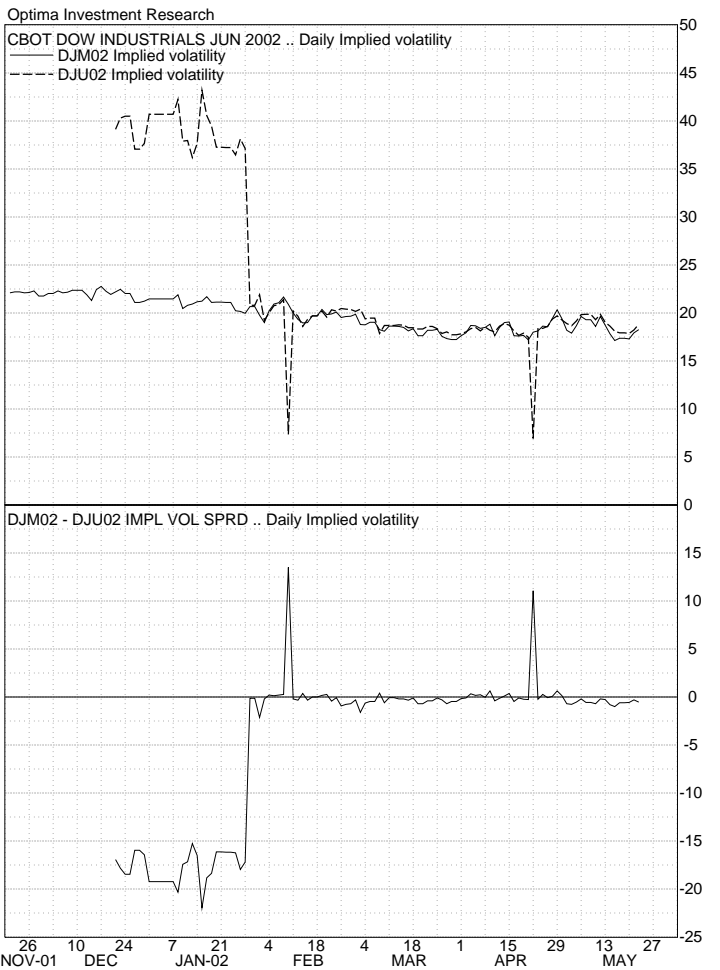
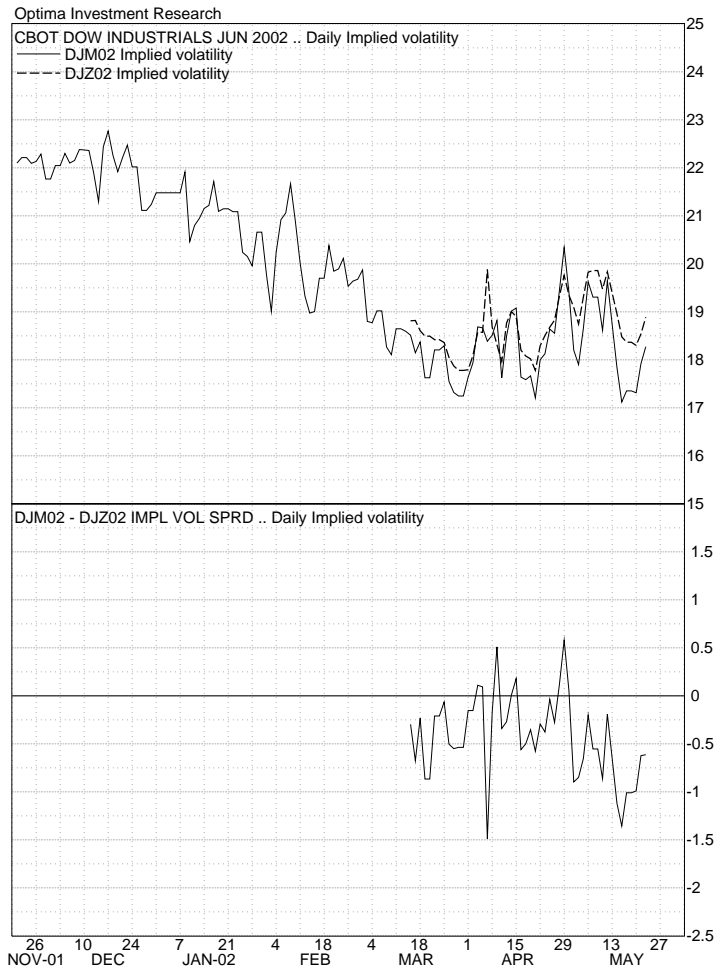
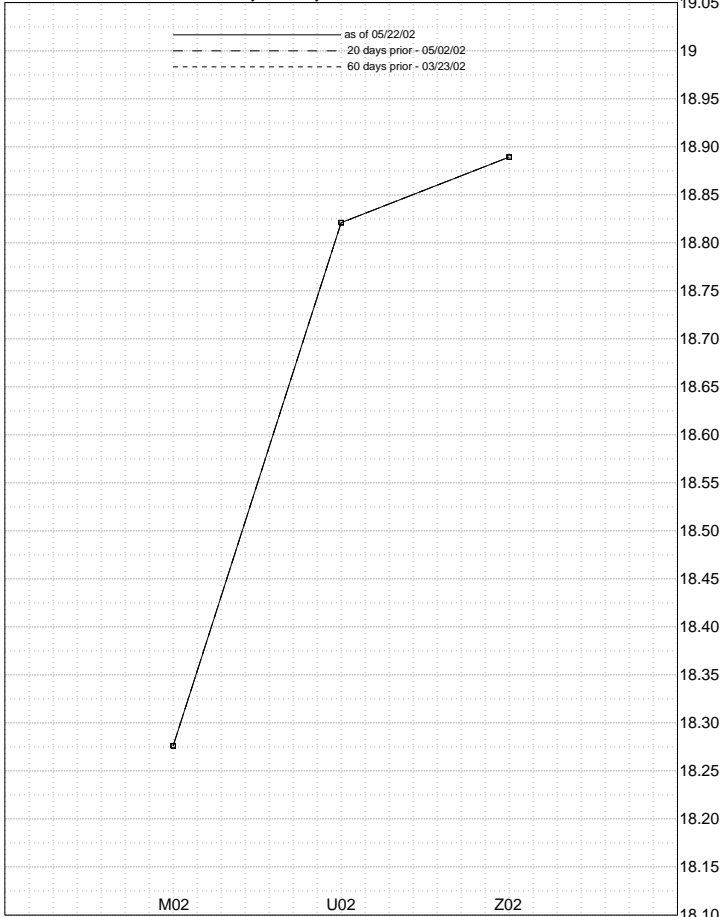


Optima Investment Research

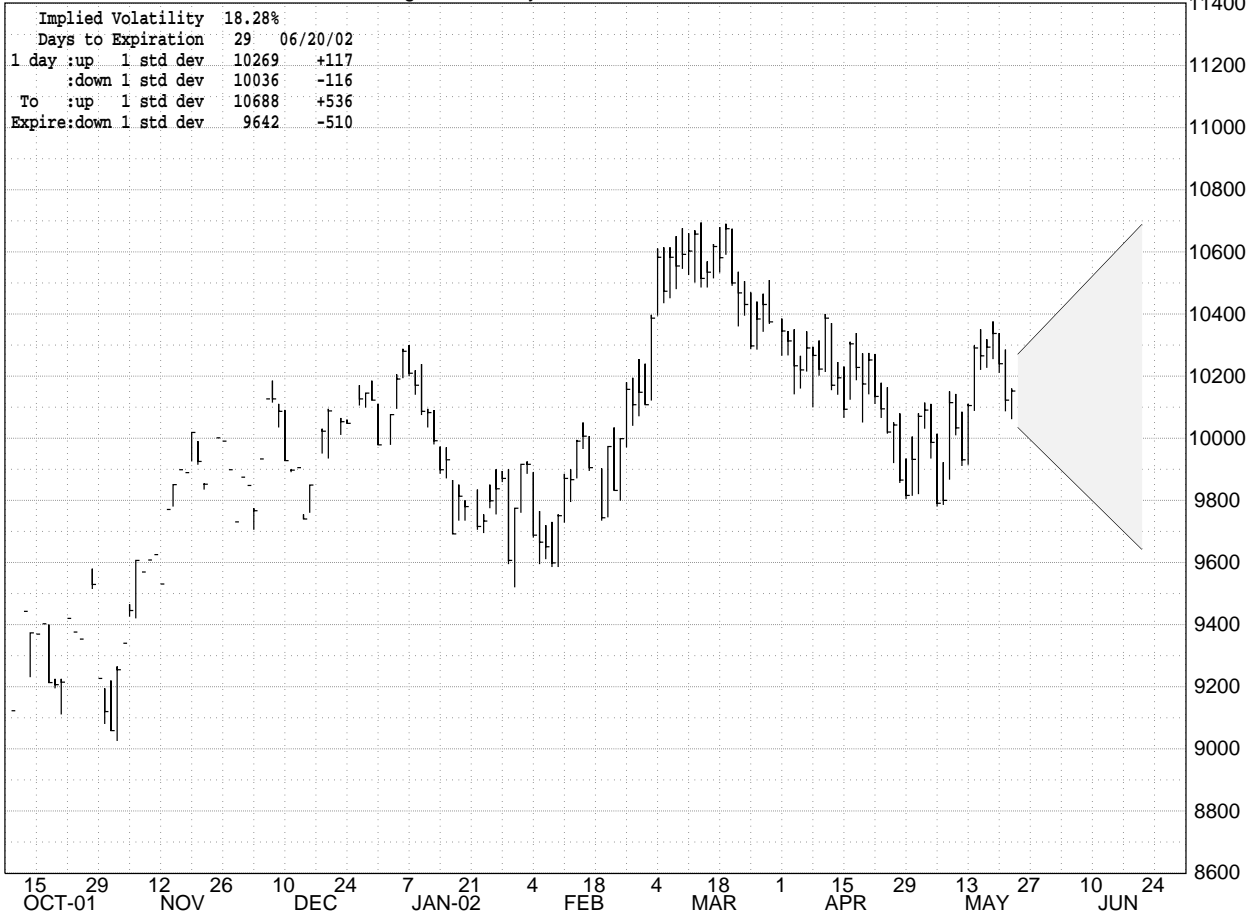


VOLATILITY CALENDAR SPREADS & WEEKLY VOLATILITY

Optima Investment Research
CBOT DOW INDUSTRIALS .. Daily Volatility Term Structure 20 60



Optima Investment Research
 CBOT DOW INDUSTRIALS JUN 2002 .. Sigma Boundary



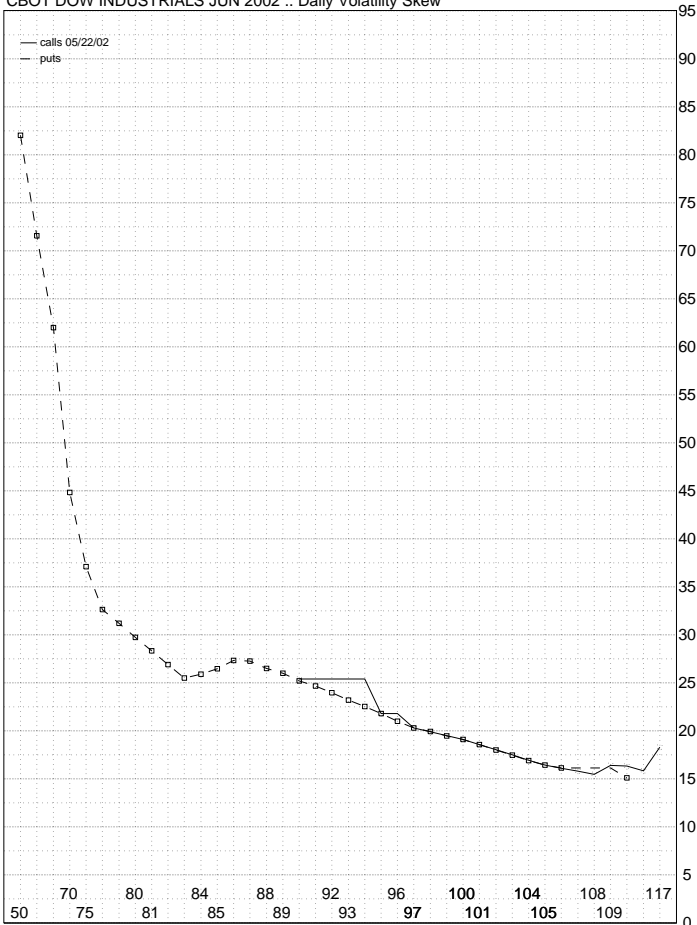
Optima Investment Research
 CBOT DOW INDUSTRIALS SEP 2002 .. Sigma Boundary



JUNE 02 CBOT DOW INDUSTRIALS OPTIONS
05/22/02 days to exp: 29 int. rate: 1.72% calc. imp vol of *: 18.28%

strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew
DJM02	10152						
11700C	0.5s 18.29	.00	0.0000	0.40	0.34	0.50	+0.02
11500C	0.5s 16.29	.00	0.0000	0.39	0.38	0.50	-1.99
11400C	1.0s 16.46	.01	0.0000	0.74	0.64	1.00	-1.82
11300C	2.0s 16.73	.01	0.0001	1.38	1.06	2.00	-1.55
11200C	3.0s 16.42	.02	0.0001	1.95	1.44	3.00	-1.85
11100C	4.0s 15.82	.02	0.0001	2.48	1.82	4.00	-2.45
11000C	8.0s 16.33	.04	0.0002	4.41	2.84	8.00	-1.94
10900C	13.0s 16.39	.06	0.0003	6.45	3.87	13.00	-1.89
10800C	16.0s 15.46	.08	0.0003	7.40	4.57	16.00	-2.81
10700C	27.0s 15.79	.12	0.0005	10.72	6.07	27.00	-2.49
10600C	43.0s 16.11	.18	0.0006	14.41	7.61	43.00	-2.16
10500C	65.0s 16.42	.24	0.0007	18.11	9.03	65.00	-1.85
10400C	96.0s 16.93	.31	0.0007	21.74	10.22	96.00	-1.34
10300C	135.5s 17.49	.39	0.0008	24.61	11.02	135.50	-0.79
10200C	183.0s 18.04*	.47	0.0008	26.40	11.38	183.00	-0.24
10100C	238.0s 18.56*	.55	0.0007	27.00	11.32	186.00	+0.28
10000C	300.5s 19.11	.62	0.0007	26.57	10.90	148.50	+0.83
9900C	368.0s 19.51	.69	0.0006	25.01	10.19	116.00	+1.23
9800C	441.5s 19.92	.74	0.0006	22.79	9.28	89.50	+1.64
9700C	520.0s 20.30	.79	0.0005	20.12	8.24	68.00	+2.02
9500C	694.0s 21.79	.87	0.0003	15.64	6.31	42.00	+3.51
9000C	1163.5s 25.41	.96	0.0001	6.62	2.75	11.50	+7.14
11000P	852.0s 15.10	.97	0.0002	2.76	2.25	4.00	-3.18
10600P	490.5s 16.13	.82	0.0006	14.29	7.62	42.50	-2.15
10500P	412.5s 16.42	.76	0.0007	17.99	9.03	64.50	-1.86
10400P	343.5s 16.92	.68	0.0007	21.63	10.22	95.50	-1.36
10300P	283.0s 17.46	.61	0.0008	24.52	11.02	135.00	-0.81
10200P	230.5s 18.00*	.53	0.0008	26.33	11.38	182.50	-0.28
10100P	186.0s 18.55*	.45	0.0007	27.01	11.32	186.00	+0.28
10000P	148.5s 19.09	.38	0.0007	26.59	10.89	148.50	+0.81
9900P	116.0s 19.48	.31	0.0006	25.04	10.19	116.00	+1.20
9800P	90.0s 19.92	.26	0.0006	22.91	9.28	90.00	+1.64
9700P	68.5s 20.28	.20	0.0005	20.24	8.23	68.50	+2.01
9600P	54.0s 21.00	.16	0.0004	18.00	7.24	54.00	+2.73
9500P	43.0s 21.80	.13	0.0003	15.89	6.31	43.00	+3.53
9400P	34.0s 22.55	.11	0.0003	13.77	5.43	34.00	+4.27
9300P	26.5s 23.20	.08	0.0002	11.68	4.61	26.50	+4.93
9200P	21.0s 23.96	.07	0.0002	9.94	3.91	21.00	+5.68
9100P	15.5s 24.67	.05	0.0002	8.34	3.28	15.50	+6.39
9000P	12.5s 25.19	.04	0.0001	6.74	2.69	12.50	+6.91
8900P	10.0s 25.99	.03	0.0001	5.66	2.25	10.00	+7.71
8800P	7.5s 26.49	.03	0.0001	4.48	1.82	7.50	+8.21
8700P	6.0s 27.28	.02	0.0001	3.73	1.51	6.00	+9.00
8600P	4.0s 27.33	.01	0.0000	2.64	1.12	4.00	+9.05
8500P	2.0s 26.48	.01	0.0000	1.43	0.68	2.00	+8.20
8400P	1.0s 25.90	.00	0.0000	0.76	0.41	1.00	+7.62
8300P	0.5s 25.51	.00	0.0000	0.40	0.24	0.50	+7.24
8200P	0.5s 26.92	.00	0.0000	0.40	0.23	0.50	+8.64
8100P	0.5s 28.33	.00	0.0000	0.40	0.21	0.50	+10.05
8000P	0.5s 29.75	.00	0.0000	0.40	0.20	0.50	+11.47
7900P	0.5s 31.19	.00	0.0000	0.40	0.20	0.50	+12.91
7800P	0.5s 32.64	.00	0.0000	0.41	0.19	0.50	+14.37
7500P	0.5s 37.10	.00	0.0000	0.41	0.17	0.50	+18.82
7000P	0.5s 44.85	.00	0.0000	0.41	0.14	0.50	+26.57
6000P	0.5s 61.99	.00	0.0000	0.42	0.10	0.50	+43.71
5500P	0.5s 71.58	.00	0.0000	0.42	0.09	0.50	+53.31
5000P	0.5s 82.04	.00	0.0000	0.42	0.08	0.50	+63.77

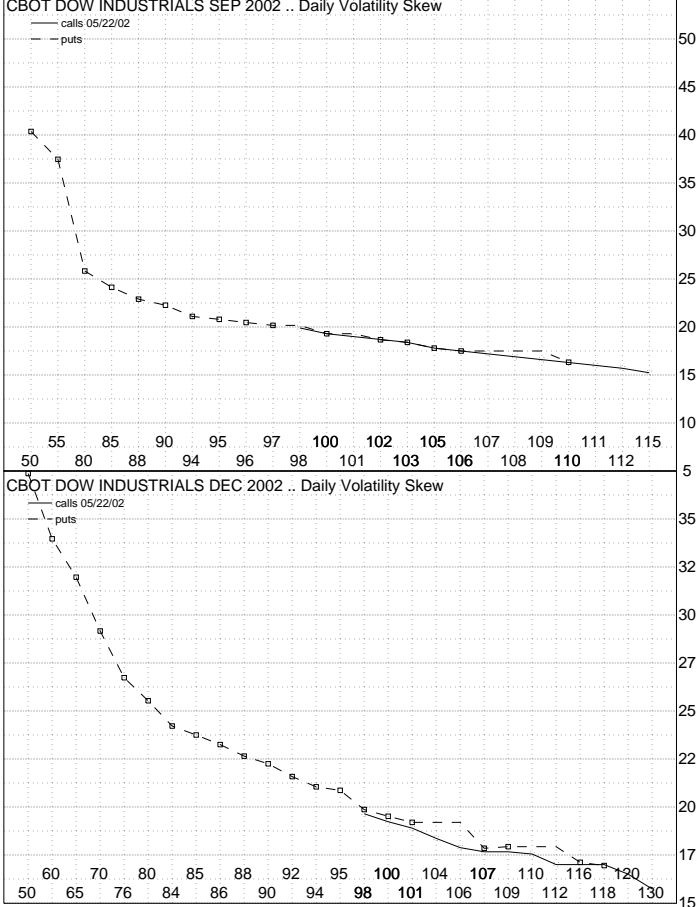
Optima Investment Research
CBOT DOW INDUSTRIALS JUN 2002 .. Daily Volatility Skew



SEPTEMBER 02 CBOT DOW INDUSTRIALS OPTIONS
05/22/02 days to exp: 120 int. rate: 1.72% calc. imp vol of *: 18.82%

strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew	
DJU02	10155							
11500C	32.5s 15.22	.08	0.0002	3.88	9.47	32.50	-3.60	
11200C	67.0s 15.70	.15	0.0003	6.10	13.89	67.00	-3.12	
85	11000C	107.0s 16.30	.21	0.0003	7.92	17.02	107.00	-2.52
10900C	132.0s 16.60	.24	0.0003	8.80	18.42	132.00	-2.22	
10800C	160.5s 16.90	.28	0.0003	9.62	19.66	160.50	-1.92	
10700C	192.5s 17.19	.31	0.0004	10.36	20.73	192.50	-1.63	
10600C	228.5s 17.49	.35	0.0004	11.03	21.61	228.50	-1.33	
10500C	268.5s 18.00	.39	0.0004	11.61	22.29	268.50	-1.03	
10300C	359.5s 18.40	.46	0.0004	12.42	23.03	359.50	-0.43	
10200C	410.5s 18.69*	.50	0.0004	12.65	23.10	410.50	-0.13	
10100C	465.0s 18.98*	.54	0.0004	12.76	22.97	410.00	+0.16	
10000C	523.5s 19.30	.57	0.0003	12.78	22.67	368.50	+0.48	
9800C	649.5s 19.89	.64	0.0003	12.48	21.63	294.50	+1.07	
11000P	947.5s 16.32	.79	0.0001	7.66	17.03	102.50	-2.50	
10600P	971.0s 17.49	.84	0.0004	10.89	21.61	226.00	-1.33	
10500P	611.5s 17.79	.61	0.0004	11.49	22.29	266.50	-1.03	
10300P	503.5s 18.39	.53	0.0004	12.37	23.03	358.50	-0.43	
10200P	455.0s 18.68*	.49	0.0004	12.63	23.09	410.00	-0.14	
10000P	369.0s 19.28	.42	0.0003	12.82	22.67	369.00	+0.46	
9700P	264.5s 20.18	.32	0.0003	12.34	20.91	264.50	+1.36	
9600P	235.5s 20.48	.29	0.0003	12.01	20.10	235.50	+1.66	
9500P	209.5s 20.79	.27	0.0003	11.62	19.21	209.50	+1.97	
9400P	186.0s 21.10	.24	0.0003	11.18	18.26	186.00	+2.28	
9000P	112.0s 22.28	.16	0.0002	9.00	14.15	112.00	+3.45	
8800P	86.0s 22.89	.12	0.0002	7.85	12.13	86.00	+4.07	
8500P	60.0s 24.14	.09	0.0001	6.42	9.54	60.00	+5.32	
8000P	30.0s 25.82	.04	0.0001	4.10	5.86	30.00	+7.00	
5500P	1.0s 37.45	.00	0.0000	0.28	0.32	1.00	+18.63	
5000P	0.5s 40.36	.00	0.0000	0.15	0.17	0.50	+21.54	

Optima Investment Research
CBOT DOW INDUSTRIALS SEP 2002 .. Daily Volatility Skew



DECEMBER 02 CBOT DOW INDUSTRIALS OPTIONS
05/22/02 days to exp: 211 int. rate: 1.72% calc. imp vol of *: 18.89%

strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew
DJZ02	10170						
13000C	10.0s 15.73	.02	0.0000	1.06	4.76	10.00	-3.16
12000C	60.0s 16.51	.10	0.0001	3.76	14.59	60.00	-2.38
11200C	180.0s 17.00	.25	0.0002	6.79	24.58	180.00	-1.89
11000C	240.0s 17.55	.30	0.0003	7.73	26.91	240.00	-1.34
10700C	330.0s 17.67	.37	0.0003	8.49	29.21	330.00	-1.02
10600C	370.0s 17.88	.40	0.0003	8.76	29.77	370.00	-1.01
10400C	460.0s 18.36*	.46	0.0003	9.19	30.43	460.00	-0.53
10100C	610.0s 18.90*	.54	0.0003	9.39	30.32	540.00	+0.01
10000C	670.0s 19.23	.57	0.0003	9.43	30.01	500.00	+0.34
9800C	790.0s 19.66	.62	0.0002	9.27	29.03	420.00	+0.77
11800P	1700.0s 16.95	.85	0.0002	4.17	17.52	70.00	-1.94
11600P	1530.0s 17.12	.82	0.0002	5.04	20.09	112.00	-2.77
10900P	1000.0s 17.94	.66	0.0003	7.97	27.91	270.00	-0.95
10700P	860.0s 17.85	.61	0.0003	8.41	29.25	330.00	-1.04
10100P	550.0s 19.20*	.45	0.0003	9.56	30.32	550.00	+0.31
10000P	510.0s 19.51	.42	0.0003	9.63	30.02	510.00	+0.62
9800P	430.0s 19.87	.37	0.0002	9.50	29.05	430.00	+0.98
9500P	340.0s 20.87	.30	0.0002	9.25	26.94	340.00	+1.98
9400P	310.0s 21.06	.28	0.0002	9.02	26.07	310.00	+2.17
9200P	260.0s 21.58	.24	0.0002	8.56	24.22	260.00	+2.70
9000P	220.0s 22.25	.21	0.0002	8.10	22.30	220.00	+3.36
8800P	180.0s 22.64	.18	0.0001	7.43	20.18	180.00	+3.75
8600P	150.0s 23.26	.15	0.0001	6.84	18.18	150.00	+4.37
8500P	140.0s 23.76	.14	0.0001	6.65	17.32	140.00	+4.87
8400P	130.0s 24.21	.13	0.0001	6.43	16.47	130.00	+5.33
8000P	90.0s 25.54	.09	0.0001	5.27	12.92	90.00	+6.65
7600P	60.0s 26.73	.06	0.0001	4.11	9.76	60.00	+7.84
7000P	35.0s 29.16	.04	0.0000	2.89	6.39	35.00	+10.27
6500P	25.0s 31.97	.02	0.0000	2.30	4.68	25.00	+13.08
6000P	15.0s 33.97	.01	0.0000	1.58	3.06	15.00	+15.08
5000P	4.0s 37.37	.00	0.0000	0.55	1.01	4.00	+18.48

JUN 02 S&P 500 STOCK INDEX OPTIONS
 Evaluation date: 05/23/02 Expiration date: 06/20/02 # days: 28
 Futures last:1085.10 Implied volatility: 17.74% Interest rate: 1.72%

	1100.00			1095.00			1090.00			1085.00			1080.00			1075.00			1070.00		
	Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put	
1099.00 @18.50%	21.95	50 22.95	-50	24.45	54 20.45	-46	27.10	57 18.15	-43	30.00	61 16.00	-39	33.00	64 14.05	-36	36.10	68 12.25	-32	39.55	71 10.60	-29
@17.50%	20.75	50 21.75	-50	23.25	54 19.25	-46	25.95	58 16.95	-42	28.80	61 14.85	-39	31.85	65 12.90	-35	35.10	68 11.15	-32	38.55	72 9.55	-28
@16.50%	19.50	50 20.50	-50	22.05	54 18.05	-46	24.75	58 15.75	-42	27.65	62 13.65	-38	30.75	66 11.75	-34	34.05	69 10.05	-31	37.50	73 8.55	-27
1098.00 @18.50%	21.45	50 23.45	-50	23.90	53 20.90	-47	26.55	57 18.55	-43	29.35	60 16.40	-40	32.35	64 14.40	-36	35.55	67 12.55	-33	38.85	70 10.90	-30
@17.50%	20.25	49 22.25	-50	22.70	53 19.70	-47	25.35	57 17.35	-43	28.20	61 15.20	-39	31.25	64 13.25	-36	34.45	68 11.45	-33	37.80	71 9.85	-29
@16.50%	19.05	49 21.00	-51	21.50	53 18.50	-47	24.15	57 16.20	-43	27.05	61 14.05	-39	30.10	65 12.10	-35	33.35	69 10.40	-31	36.80	72 8.80	-28
1097.00 @18.50%	20.95	49 23.95	-51	23.40	52 21.40	-47	26.00	56 19.00	-44	28.75	59 16.80	-40	31.75	63 14.75	-37	34.85	66 12.90	-34	38.15	69 11.20	-30
@17.50%	19.75	49 22.75	-51	22.20	52 20.20	-47	24.80	56 17.80	-44	27.60	60 15.60	-40	30.60	63 13.60	-36	33.75	67 11.80	-33	37.10	70 10.15	-29
@16.50%	18.55	48 21.55	-51	20.90	52 18.95	-47	23.60	56 16.60	-43	26.45	60 14.45	-40	29.45	64 12.45	-36	32.65	68 10.70	-32	36.05	71 9.10	-28
1096.00 @18.50%	20.45	48 24.45	-52	22.85	52 21.85	-48	25.45	55 19.45	-45	28.20	59 17.20	-41	31.10	62 15.15	-38	34.20	66 13.25	-34	37.45	69 11.50	-31
@17.50%	19.25	48 23.25	-52	21.65	52 20.65	-48	24.25	55 18.25	-44	27.00	59 16.00	-41	29.95	63 14.00	-37	33.10	66 12.10	-34	36.40	70 10.45	-30
@16.50%	18.05	48 22.05	-52	20.45	52 19.45	-48	23.05	56 17.05	-44	25.85	60 14.85	-40	28.80	63 12.85	-36	32.00	67 11.00	-33	35.35	71 9.40	-29
1095.00 @18.50%	20.00	47 25.00	-52	22.35	51 22.35	-49	24.90	55 19.90	-45	27.60	58 17.60	-42	30.50	62 15.50	-38	33.55	65 13.60	-35	36.80	68 11.80	-32
@17.50%	18.80	47 23.80	-53	21.15	51 21.15	-49	23.70	55 18.70	-45	26.40	58 16.45	-41	29.35	62 14.35	-38	32.45	66 12.45	-34	35.70	69 10.75	-31
@16.50%	17.60	47 22.60	-53	19.95	51 19.95	-49	22.50	55 17.50	-45	25.25	59 15.25	-41	28.20	63 13.20	-37	31.35	66 11.35	-33	34.65	70 9.70	-30
1094.00 @18.50%	19.50	47 25.50	-53	21.85	50 22.85	-50	24.35	54 20.35	-46	27.00	57 18.05	-43	29.90	61 15.90	-39	32.90	64 13.95	-36	36.10	68 12.15	-32
@17.50%	18.30	46 24.30	-53	20.65	50 21.65	-50	23.15	54 19.15	-46	25.85	58 16.85	-42	28.70	61 14.75	-39	31.80	65 12.80	-35	35.05	68 11.05	-31
@16.50%	17.10	46 23.10	-54	19.45	50 20.45	-50	21.95	54 17.95	-46	24.65	58 15.65	-42	27.55	62 13.60	-38	30.65	66 11.70	-34	33.95	69 10.00	-31
1093.00 @18.50%	19.05	46 26.05	-54	21.35	50 23.35	-50	23.80	53 20.80	-47	26.45	57 18.45	-43	29.25	60 16.30	-40	32.25	64 14.30	-36	35.45	67 12.45	-33
@17.50%	17.85	46 24.85	-54	20.15	49 22.15	-50	22.60	53 19.60	-47	25.25	57 17.25	-43	28.10	61 15.10	-39	31.15	64 13.15	-36	34.35	68 11.40	-32
@16.50%	16.65	45 23.65	-55	18.95	49 20.95	-51	21.40	53 18.40	-47	24.10	57 16.10	-43	26.95	61 13.95	-39	30.00	65 12.05	-35	33.25	69 10.30	-31
1092.00 @18.50%	18.60	45 26.60	-55	20.85	49 23.85	-51	23.30	52 21.30	-47	25.90	56 18.90	-44	28.65	59 16.70	-40	31.65	63 14.65	-37	34.75	66 12.80	-34
@17.50%	17.40	45 25.40	-55	19.65	49 22.65	-51	22.10	52 20.10	-47	24.70	56 17.70	-44	27.50	60 15.50	-40	30.50	64 13.50	-36	33.65	67 11.70	-33
@16.50%	16.20	44 24.20	-55	18.45	48 21.45	-51	20.90	52 18.90	-47	23.50	56 16.50	-43	26.35	60 14.35	-40	29.35	64 12.40	-36	32.60	68 10.60	-32
1091.00 @18.50%	18.15	45 27.15	-55	20.35	48 24.35	-52	22.75	52 21.75	-48	25.35	55 19.35	-45	28.10	59 17.10	-41	31.00	62 15.05	-38	34.10	66 13.15	-34
@17.50%	16.95	44 26.15	-56	19.15	48 23.15	-52	21.55	52 20.55	-48	24.15	55 18.15	-44	26.90	59 15.90	-41	29.85	63 13.90	-37	33.00	66 12.05	-33
@16.50%	15.75	44 24.75	-56	17.95	48 21.95	-52	20.35	52 19.35	-48	22.95	56 16.95	-44	25.75	60 14.75	-40	28.75	63 12.75	-36	31.90	67 10.95	-33
1090.00 @18.50%	17.70	44 27.70	-56	19.90	47 24.90	-52	22.25	51 22.25	-49	24.80	55 19.80	-45	27.50	58 17.50	-42	30.40	62 15.40	-38	33.45	65 13.50	-35
@17.50%	16.50	43 26.50	-56	18.70	47 23.70	-53	21.05	51 21.05	-49	23.60	55 18.60	-45	26.30	58 16.35	-41	29.25	62 14.25	-38	32.35	66 12.35	-34
@16.50%	15.35	43 25.35	-57	17.50	47 22.50	-53	19.85	51 19.85	-49	22.40	55 17.40	-45	25.15	59 15.15	-41	28.10	63 13.10	-37	31.25	66 11.25	-33
1089.00 @18.50%	17.30	43 28.25	-57	19.40	47 25.40	-53	21.75	50 22.75	-50	24.25	54 20.25	-46	26.90	57 17.95	-43	29.80	61 15.80	-39	32.80	64 13.85	-36
@17.50%	16.10	43 27.10	-57	18.20	46 24.20	-53	20.55	50 21.55	-50	23.05	54 19.05	-46	25.75	58 16.75	-42	28.60	61 14.65	-38	31.70	65 12.70	-35
@16.50%	14.90	42 25.90	-58	17.05	46 23.00	-54	19.35	50 20.35	-50	21.85	54 17.85	-46	24.55	58 15.55	-42	27.45	62 13.50	-38	30.60	66 11.60	-34
1088.00 @18.50%	16.85	42 28.85	-57	18.95	46 25.95	-54	21.25	50 23.25	-50	23.70	53 20.70	-47	26.35	57 18.35	-43	29.15	60 16.20	-40	32.15	64 14.20	-36
@17.50%	15.65	42 27.65	-58	17.75	46 24.75	-54	20.05	49 22.05	-50	22.50	53 19.50	-47	25.15	57 17.20	-43	28.00	61 15.05	-39	31.05	64 13.05	-36
@16.50%	14.50	41 26.50	-59	16.55	45 23.55	-55	18.85	49 20.85	-51	21.30	53 18.30	-47	24.00	57 16.00	-43	26.85	61 13.90	-39	29.95	65 11.95	-35
1087.00 @18.50%	16.45	42 29.40	-58	18.50	45 26.50	-55	20.75	49 23.75	-51	23.20	52 21.20	-47	25.80	56 18.80	-44	28.55	59 16.60	-40	31.55	63 14.55	-37
@17.50%	15.25	41 28.25	-59	17.30	45 25.30	-55	19.55	49 22.55	-51	22.00	52 20.00	-47	24.60	56 17.60	-44	27.40	60 15.45	-40	30.40	64 13.45	-36
@16.50%	14.10	41 27.05	-59	16.10	44 24.10	-55	18.35	48 21.35	-51	20.80	52 18.80	-47	23.40	56 16.45	-43	26.25	60 14.25	-39	29.30	64 12.30	-36
1086.00 @18.50%	16.00	41 30.00	-59	18.05	45 27.05	-55	20.25	48 24.25	-52	22.65	52 21.65	-48	25.25	55 19.25	-45	28.00	59 17.00	-41	30.90	62 14.95	-38
@17.50%	14.85	40 28.85	-59	16.85	44 25.85	-56	19.05	48 23.05	-52	21.45	52 20.45	-48	24.05	55 18.05	-44	26.80	59 15.85	-41	29.75	63 13.80	-37
@16.50%	13.70	40 27.65	-60	15.70	44 24.65	-56	17.85	48 21.85	-52	20.25	52 19.25	-48	22.85	56 16.85	-44	25.65	60 14.65	-40	28.65	64 12.65	-36
1085.00 @18.50%	15.60	40 30.60	-59	17.60	44 27.60	-56	19.80	47 24.80	-52	22.15	51 22.15	-49	24.70	55 17.70	-45	27.40	58 17.40	-42	30.30	62 15.30	-38
@17.50%	14.45	40 29.45	-60	16.45	43 26.40	-56	18.60	47 23.60	-53	20.95	51 20.95	-49	23.50	55 18.50	-45	26.25	58 16.25	-41	29.15	63 14.15	-38
@16.50%	13.30	39 28.25	-61	15.25	43 25.25	-57	17.40	47 22.40	-53	19.75	51 19.75	-49	22.30	55 17.30	-45	25.05	59 15.05	-41	28.00	62 13.05	-37
1084.00 @18.50%	15.20	40 31.20	-60	17.20	43 28.15	-57	19.30	47 25.30	-53	21.65	50 22.65	-50	24.15	54 20.15	-46	26.80	57 17.85	-42	29.70	61 15.70	-39
@17.50%	14.05	39 30.05	-61	16.00	43 27.00	-57	18.15	46 24.10	-54	20.45	50 21.45	-50	22.95	54 18.95	-46	25.65	58 16.65	-42	28.55	61 14.55	-38
@16.50%	12.90	38 28.90	-62	14.80	42 25.80	-58	16.95	46 22.95	-54	19.25	50 20										

SEP 02 S&P 500 STOCK INDEX OPTIONS
 Evaluation date: 05/23/02 Expiration date: 09/19/02 # days: 119
 Futures last:1086.50 Implied volatility: 18.41% Interest rate: 1.72%

	1100.00			1095.00			1090.00			1085.00			1080.00			1075.00			1070.00		
	Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put	
1101.00 @19.50%	49.10	52 48.10	-47	51.50	54 45.55	-46	54.05	55 43.10	-44	56.60	57 40.70	-42	59.30	59 38.40	-41	62.05	60 36.20	-39	64.90	62 34.10	-38
@18.50%	46.60	52 45.60	-47	49.05	54 43.05	-46	51.55	56 40.60	-44	54.20	57 38.25	-42	56.85	59 36.00	-40	59.65	61 33.80	-39	62.55	62 31.70	-37
@17.50%	44.10	52 43.10	-47	46.55	54 40.60	-46	49.10	56 38.15	-44	51.75	57 35.80	-42	54.45	59 33.55	-40	57.25	61 31.40	-38	60.15	63 29.35	-37
1100.00 @19.50%	48.55	52 48.55	-48	51.00	54 46.00	-46	53.50	55 43.55	-44	56.05	57 41.15	-43	58.70	58 38.85	-41	61.45	60 36.60	-39	64.30	62 34.45	-38
@18.50%	46.05	52 46.05	-48	48.50	54 43.55	-46	51.00	55 41.05	-44	53.60	57 38.70	-43	56.30	59 36.40	-41	59.05	60 34.20	-39	61.90	62 32.10	-37
@17.50%	43.60	52 43.60	-48	46.00	54 41.05	-46	48.55	55 38.60	-44	51.15	57 36.25	-42	53.85	59 33.95	-41	56.65	61 31.80	-39	59.55	62 29.70	-37
1099.00 @19.50%	48.05	52 49.05	-48	50.45	53 46.45	-46	52.95	55 44.00	-45	55.50	56 41.55	-43	58.15	58 39.25	-41	60.85	60 37.00	-40	63.65	61 34.85	-38
@18.50%	45.55	51 46.55	-48	47.95	53 44.00	-46	50.45	55 41.50	-45	53.05	57 39.10	-43	55.70	58 36.80	-41	58.45	60 34.60	-39	61.30	62 32.45	-38
@17.50%	43.05	51 44.05	-48	45.50	53 41.50	-46	48.00	55 39.05	-44	50.60	57 36.65	-43	53.25	59 34.40	-41	56.05	60 32.20	-39	58.90	62 30.10	-37
1098.00 @19.50%	47.55	51 49.50	-48	49.90	53 46.95	-47	52.40	55 44.40	-45	54.95	56 42.00	-43	57.55	58 39.65	-42	60.25	59 37.40	-40	63.05	61 35.20	-38
@18.50%	45.05	51 47.05	-48	47.45	53 44.45	-47	49.90	55 41.95	-45	52.45	56 39.55	-43	55.10	58 37.20	-41	57.85	60 35.00	-40	60.70	61 32.85	-38
@17.50%	42.55	51 44.55	-48	44.95	53 41.95	-47	47.45	55 39.50	-45	50.00	56 37.10	-43	52.70	58 34.80	-41	55.45	60 32.60	-39	58.30	62 30.45	-38
1097.00 @19.50%	47.00	51 50.00	-48	49.40	53 47.40	-47	51.85	54 44.90	-45	54.35	56 42.45	-44	57.00	57 40.05	-42	59.65	59 37.80	-40	62.45	61 35.60	-39
@18.50%	44.55	51 47.50	-49	46.90	52 44.90	-47	49.35	54 42.40	-45	51.90	56 40.00	-44	54.55	58 37.65	-42	57.25	59 35.40	-40	60.05	61 33.20	-38
@17.50%	42.05	51 45.05	-49	44.45	52 42.45	-47	46.90	54 39.95	-45	49.45	56 37.50	-44	52.10	58 35.20	-42	54.85	60 32.95	-40	57.70	61 30.85	-38
1096.00 @19.50%	46.50	51 50.50	-49	48.85	52 47.85	-47	51.30	54 45.35	-46	53.80	56 42.85	-44	56.40	57 40.50	-42	59.10	59 38.20	-41	61.85	60 36.00	-39
@18.50%	44.05	50 48.00	-49	46.40	52 45.40	-47	48.85	54 42.85	-46	51.35	56 40.40	-44	53.95	57 38.05	-42	56.65	59 35.80	-40	59.45	61 33.60	-39
@17.50%	41.55	50 45.50	-49	43.90	52 42.90	-47	46.35	54 40.40	-46	48.90	56 37.95	-44	51.55	57 35.60	-42	54.25	59 33.35	-40	57.05	61 31.20	-38
1095.00 @19.50%	46.00	50 51.00	-49	48.35	52 48.35	-48	50.75	54 45.80	-46	53.25	55 43.30	-44	55.85	57 40.90	-43	58.50	58 38.60	-41	61.25	60 36.40	-39
@18.50%	43.55	50 48.50	-49	45.80	52 45.85	-48	48.30	54 43.30	-46	50.80	55 40.85	-44	53.40	57 38.50	-42	56.10	59 36.20	-41	58.85	60 34.00	-39
@17.50%	41.05	50 46.00	-50	43.45	52 43.40	-48	45.80	54 40.85	-46	48.35	55 38.40	-44	50.95	57 36.05	-42	53.65	59 33.80	-41	56.45	61 31.60	-39
1094.00 @19.50%	45.50	50 51.45	-49	47.80	52 48.80	-48	50.20	53 46.25	-46	52.70	55 43.75	-45	55.25	56 41.35	-43	57.90	58 39.00	-41	60.65	60 36.80	-40
@18.50%	43.05	50 49.00	-50	45.35	51 46.35	-48	47.75	53 43.80	-46	50.25	55 41.30	-45	52.85	57 38.90	-43	55.50	58 36.60	-41	58.25	60 34.40	-39
@17.50%	40.55	50 46.50	-50	42.85	51 43.85	-48	45.30	53 41.30	-46	47.80	55 38.85	-44	50.40	57 36.45	-43	53.10	59 34.20	-41	55.85	60 32.00	-39
1093.00 @19.50%	45.00	50 51.95	-50	47.30	51 49.30	-48	49.70	53 46.70	-47	52.15	55 44.20	-45	54.70	56 41.80	-43	57.35	58 39.45	-42	60.05	59 37.20	-40
@18.50%	42.55	49 50.50	-50	44.80	51 46.80	-48	47.25	53 44.25	-47	49.70	55 41.75	-45	52.25	56 39.35	-43	54.90	58 37.00	-41	57.65	60 34.80	-40
@17.50%	40.05	49 47.00	-50	42.35	51 44.35	-48	44.75	53 41.75	-47	47.25	55 39.30	-45	49.80	56 36.90	-43	52.50	58 34.60	-41	55.25	60 32.40	-39
1092.00 @19.50%	44.50	49 52.45	-50	46.80	51 49.80	-48	49.15	53 47.20	-47	51.60	54 44.65	-45	54.15	56 42.20	-44	56.75	57 39.85	-42	59.45	59 37.60	-40
@18.50%	42.05	49 50.00	-50	44.35	51 47.30	-49	46.70	53 44.70	-47	49.15	54 42.20	-45	51.70	56 39.75	-44	54.35	58 37.45	-42	57.05	59 35.20	-40
@17.50%	39.55	49 47.50	-51	41.85	51 44.85	-49	44.25	52 42.25	-47	46.70	54 39.75	-45	49.25	56 37.35	-43	51.90	58 35.00	-42	54.65	60 32.80	-40
1091.00 @19.50%	44.00	49 52.95	-50	46.30	51 50.25	-49	48.65	52 47.65	-47	51.10	54 45.10	-46	53.60	56 42.65	-44	56.20	57 40.30	-42	58.85	59 38.00	-41
@18.50%	41.55	49 50.50	-51	43.80	50 47.80	-49	46.20	52 45.20	-47	48.60	54 42.65	-46	51.15	56 40.20	-44	53.75	57 37.85	-42	56.45	59 35.60	-40
@17.50%	39.10	48 48.05	-51	41.35	50 45.35	-49	43.70	52 42.70	-47	46.15	54 40.20	-46	48.70	56 37.75	-44	51.35	58 35.45	-42	54.05	59 33.20	-40
1090.00 @19.50%	43.55	49 53.50	-51	45.80	50 50.75	-49	48.10	52 48.10	-48	50.55	54 45.55	-46	53.05	55 43.10	-44	55.60	57 40.70	-43	58.30	58 38.40	-41
@18.50%	41.05	48 51.00	-51	43.30	50 48.30	-49	45.65	52 45.65	-48	48.10	54 43.10	-46	50.60	55 40.65	-44	53.20	57 38.25	-42	55.85	59 36.00	-41
@17.50%	38.60	48 48.55	-51	40.85	50 45.80	-50	43.20	52 43.20	-48	45.60	54 40.65	-46	48.15	55 38.20	-44	50.75	57 35.85	-42	53.45	59 33.60	-40
1089.00 @19.50%	43.05	48 54.00	-51	45.30	50 51.25	-49	47.60	52 48.60	-48	50.00	53 46.05	-46	52.50	55 43.55	-45	55.05	57 41.15	-43	57.70	58 38.80	-41
@18.50%	40.60	48 51.50	-51	42.80	50 48.80	-50	45.15	51 46.15	-48	47.55	53 43.55	-46	50.05	55 41.10	-45	52.60	57 38.70	-43	55.30	58 36.40	-41
@17.50%	38.10	48 49.05	-52	40.35	50 46.30	-50	42.70	51 43.65	-48	45.10	53 41.10	-46	47.60	55 38.65	-44	50.20	57 36.25	-43	52.90	59 34.00	-41
1088.00 @19.50%	42.55	48 54.50	-51	44.80	50 51.75	-50	47.10	51 49.10	-48	49.45	53 46.50	-47	51.95	55 44.00	-45	54.50	56 41.55	-43	57.10	58 39.20	-42
@18.50%	40.10	48 52.05	-52	42.30	49 49.30	-50	44.65	51 46.60	-48	47.00	53 44.05	-47	49.50	55 41.55	-45	52.05	56 39.15	-43	54.70	58 36.80	-41
@17.50%	37.65	47 49.60	-52	39.85	49 46.80	-50	42.15	51 44.15	-48	44.55	53 41.60	-47	47.05	55 39.10	-45	49.65	56 36.70	-43	52.30	58 34.40	-41
1087.00 @19.50%	42.10	48 55.00	-52	44.30	49 52.25	-50	46.60	51 49.55	-48	48.95	53 46.95	-47	51.40	54 44.45	-45	53.95	56 42.00	-44	56.55	57 39.65	-42
@18.50%	39.65	47 52.55	-52	41.85	49 49.80	-50	44.10	51 47.10	-49	46.50	53 44.50	-47	48.95	54 42.00	-45	51.50	56 39.55	-43	54.15	58 37.20	-42
@17.50%	37.15	47 50.10	-52	39.35	49 47.30	-51	41.65	51 44.65	-49	44.05	52 42.05	-47	46.50	54 39.55	-45	49.05	56 37.15	-43	51.70	58 34.80	-42
1086.00 @19.50%	41.60	47 55.55	-52	43.80	49 52.75	-50	46.05	51 50.05	-49	48.40	52 47.45	-47	50.85	54 44.90	-46	53.35	56 42.45	-44	55.95	57 40.05	-42
@18.50%	39.15	47 53.10	-52	41.35	49 50.30	-51	43.60	50 47.60	-49	45.95	52 44.95	-47	48.40	54 42.45	-46	50.95	56 40.00	-44	53.55	57 37.65	-42
@17.50%	36.70	47 50.60	-53	38.90	48 47.85	-51	41.15	50 45.15	-49	43.50											

DEC 02 S&P 500 STOCK INDEX OPTIONS
 Evaluation date: 05/23/02 Expiration date: 12/19/02 # days: 210
 Futures last:1089.10 Implied volatility: 18.93% Interest rate: 1.72%

	1105.00			1100.00			1095.00			1090.00			1085.00			1080.00			1075.00			
	Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		
1103.00	@20.00%	65.10	52 67.10	-47	67.45	53 64.45	-46	69.85	54 61.90	-45	72.30	56 59.40	-43	74.80	57 56.95	-42	77.35	58 54.60	-41	80.00	59 52.25	-40
	@19.00%	61.80	52 63.80	-47	64.15	53 61.20	-46	66.55	54 58.65	-45	69.00	56 56.15	-43	71.55	57 53.70	-42	74.15	58 51.35	-41	76.80	59 49.05	-40
	@18.00%	58.50	52 60.50	-47	60.85	53 57.90	-46	63.25	54 55.35	-45	65.75	56 52.90	-43	68.30	57 50.45	-42	70.90	58 48.15	-41	73.60	60 45.85	-39
1102.00	@20.00%	64.60	52 67.55	-47	66.90	53 64.95	-46	69.30	54 62.35	-45	71.75	55 59.85	-44	74.20	57 57.40	-43	76.80	58 55.00	-41	79.40	59 52.65	-40
	@19.00%	61.30	52 64.25	-47	63.60	53 61.65	-46	66.00	54 59.10	-45	68.45	55 56.60	-44	70.95	57 54.15	-43	73.55	58 51.75	-41	76.20	59 49.45	-40
	@18.00%	58.00	51 60.95	-48	60.35	53 58.35	-46	62.75	54 55.80	-45	65.20	55 53.30	-44	67.75	57 50.90	-42	70.30	58 48.55	-41	73.00	59 46.25	-40
1101.00	@20.00%	64.05	52 68.05	-47	66.40	53 65.40	-46	68.75	54 62.80	-45	71.15	55 60.30	-44	73.65	56 57.80	-43	76.20	57 55.40	-42	78.80	59 53.05	-40
	@19.00%	60.80	51 64.75	-48	63.10	53 62.10	-46	65.45	54 59.55	-45	67.90	55 57.00	-44	70.40	56 54.55	-43	72.95	58 52.20	-41	75.60	59 49.85	-40
	@18.00%	57.50	51 61.45	-48	59.80	52 58.80	-47	62.20	54 56.25	-45	64.65	55 53.75	-44	67.15	56 51.30	-43	69.75	58 48.95	-41	72.40	59 46.65	-40
1100.00	@20.00%	63.55	51 68.50	-48	65.85	53 65.85	-47	68.20	54 63.25	-45	70.60	55 60.70	-44	73.10	56 58.25	-43	75.65	57 55.85	-42	78.25	58 53.45	-41
	@19.00%	60.25	51 65.20	-48	62.55	52 62.55	-47	64.95	54 60.00	-45	67.35	55 57.45	-44	69.85	56 55.00	-43	72.40	57 52.60	-42	75.00	59 50.25	-40
	@18.00%	56.95	51 61.90	-48	59.30	52 59.30	-47	61.65	54 56.70	-45	64.10	55 52.20	-44	66.60	56 51.75	-43	69.15	57 49.35	-42	71.80	59 47.05	-40
1099.00	@20.00%	63.05	51 69.00	-48	65.35	52 66.30	-47	67.65	53 63.70	-46	70.10	55 61.15	-44	72.55	56 58.70	-43	75.05	57 56.25	-42	77.65	58 53.90	-41
	@19.00%	59.75	51 65.70	-48	62.05	52 63.05	-47	64.40	53 60.45	-46	66.80	55 57.90	-44	69.30	56 55.45	-43	71.85	57 53.00	-42	74.45	58 50.65	-41
	@18.00%	56.45	51 62.40	-48	58.75	52 59.75	-47	61.10	53 57.15	-46	63.55	55 54.65	-44	66.05	56 52.20	-43	68.60	57 49.80	-42	71.20	59 47.45	-41
1098.00	@20.00%	62.55	51 69.45	-48	64.80	52 66.80	-47	67.15	53 64.15	-46	69.55	54 61.60	-45	72.00	56 59.10	-43	74.50	57 56.65	-42	77.05	58 54.30	-41
	@19.00%	59.25	51 66.20	-48	61.50	52 63.50	-47	63.85	53 60.90	-46	66.25	54 58.35	-45	68.75	56 55.85	-43	71.25	57 53.45	-42	73.85	58 51.10	-41
	@18.00%	55.95	50 62.90	-49	58.25	52 60.20	-47	60.60	53 57.60	-46	63.00	54 55.10	-45	65.50	56 52.60	-43	68.05	57 50.20	-42	70.65	58 47.85	-41
1097.00	@20.00%	62.05	51 69.95	-48	64.30	52 67.25	-47	66.60	53 64.65	-46	69.00	54 62.05	-45	71.45	55 59.55	-44	73.95	57 57.10	-42	76.50	58 54.70	-41
	@19.00%	58.75	50 66.65	-49	61.00	52 64.00	-47	63.35	53 61.35	-46	65.70	54 58.80	-45	68.20	55 56.30	-44	70.70	57 53.85	-42	73.25	58 51.50	-41
	@18.00%	55.45	50 63.40	-49	57.70	51 60.70	-48	60.05	53 58.10	-46	62.45	54 55.55	-45	64.95	55 53.05	-44	67.45	57 50.65	-42	70.05	58 48.25	-41
1096.00	@20.00%	61.50	50 70.45	-49	63.75	52 67.75	-47	66.10	53 65.10	-46	68.45	54 62.50	-45	70.85	55 60.00	-44	73.35	56 57.50	-43	75.90	57 55.10	-42
	@19.00%	58.25	50 67.15	-49	60.50	51 64.45	-48	62.80	53 61.80	-46	65.20	54 59.25	-45	67.60	55 56.75	-44	70.15	56 54.30	-43	72.70	58 51.90	-41
	@18.00%	54.95	50 63.85	-49	57.20	51 61.15	-48	59.55	52 58.55	-47	61.90	54 56.00	-45	64.35	55 53.50	-44	66.90	56 51.05	-43	69.50	58 48.70	-41
1095.00	@20.00%	61.00	50 70.90	-49	63.25	51 68.20	-48	65.55	53 65.55	-47	67.90	54 62.95	-45	70.30	55 60.40	-44	72.80	56 57.95	-43	75.35	57 55.55	-42
	@19.00%	57.75	50 67.65	-49	60.00	51 64.95	-48	62.30	52 62.30	-47	64.65	54 59.70	-45	67.05	55 57.15	-44	69.55	56 54.70	-43	72.10	57 52.30	-42
	@18.00%	54.45	50 64.35	-49	56.70	51 61.65	-48	59.00	52 59.00	-47	61.40	54 56.45	-45	63.80	55 53.90	-44	66.35	56 51.50	-43	68.90	57 49.10	-42
1094.00	@20.00%	60.50	50 71.40	-49	62.75	51 68.70	-48	65.05	52 66.00	-47	67.35	53 63.40	-46	69.80	55 60.85	-44	72.25	56 58.40	-43	74.75	57 55.95	-42
	@19.00%	57.25	50 68.15	-49	59.45	51 65.40	-48	61.75	52 62.75	-47	64.10	53 60.15	-46	66.55	55 57.60	-44	69.00	56 55.15	-43	71.55	57 52.75	-42
	@18.00%	53.95	49 64.85	-50	56.20	51 62.15	-48	58.50	52 59.50	-47	60.85	53 56.90	-46	63.30	55 54.35	-44	65.75	56 51.90	-43	68.35	57 49.50	-42
1093.00	@20.00%	60.00	50 71.90	-49	62.25	51 69.15	-48	64.50	52 66.50	-47	66.85	53 63.85	-46	69.25	54 61.30	-45	71.70	56 58.80	-43	74.20	57 56.35	-42
	@19.00%	56.75	49 68.65	-50	58.95	51 65.90	-48	61.25	52 63.20	-47	63.60	53 60.60	-46	66.00	54 58.05	-45	68.45	56 56.60	-43	71.00	57 53.15	-42
	@18.00%	53.45	49 65.35	-50	55.70	50 62.60	-49	57.95	52 59.95	-47	60.30	53 57.35	-46	62.75	54 54.80	-45	65.20	56 52.35	-43	67.75	57 49.95	-42
1092.00	@20.00%	59.55	49 72.40	-50	61.75	51 69.65	-48	64.00	52 66.95	-47	66.30	53 64.35	-46	68.70	54 61.75	-45	71.15	55 59.25	-44	73.65	57 56.80	-42
	@19.00%	56.25	49 69.15	-50	58.45	50 66.40	-49	60.70	52 63.70	-47	63.05	53 61.05	-46	65.45	54 58.50	-45	67.90	55 56.00	-44	70.40	57 53.60	-42
	@18.00%	53.00	49 65.85	-50	55.20	50 63.10	-49	57.45	51 60.45	-48	59.80	53 57.80	-46	62.20	54 55.25	-45	64.65	55 52.75	-44	67.20	57 50.35	-42
1091.00	@20.00%	59.05	49 72.90	-50	61.20	50 70.15	-49	63.45	52 67.45	-47	65.80	53 64.80	-46	68.15	54 62.20	-45	70.60	55 59.70	-44	73.05	56 57.20	-43
	@19.00%	55.75	49 69.65	-50	57.95	50 66.85	-49	60.20	52 64.15	-48	62.50	53 61.55	-46	64.90	54 58.95	-45	67.35	55 56.45	-44	69.85	56 54.00	-43
	@18.00%	52.50	49 66.35	-50	54.70	50 63.60	-49	56.95	51 60.90	-48	59.25	52 58.25	-47	61.65	54 55.70	-45	64.10	55 53.20	-44	66.60	56 50.80	-43
1090.00	@20.00%	58.55	49 73.40	-50	60.70	50 70.60	-49	62.95	51 67.90	-48	65.25	53 65.25	-47	67.60	54 62.65	-45	70.05	55 60.10	-44	72.50	56 57.65	-43
	@19.00%	55.30	49 70.15	-50	57.45	50 67.35	-49	59.70	51 64.65	-48	62.00	52 62.00	-47	64.35	54 59.40	-45	66.80	55 56.90	-44	69.30	56 54.45	-43
	@18.00%	52.00	48 66.85	-51	54.20	50 64.10	-49	56.45	51 61.40	-48	58.75	52 58.75	-47	61.10	54 56.15	-45	63.55	55 53.65	-44	66.05	56 51.20	-43
1089.00	@20.00%	58.05	49 73.90	-50	60.20	50 71.10	-49	62.45	51 68.40	-48	64.75	52 65.70	-47	67.05	53 63.10	-46	69.50	55 60.55	-44	71.95	56 58.10	-43
	@19.00%	54.80	48 70.65	-51	56.95	50 67.85	-49	59.20	51 65.15	-48	61.50	52 62.45	-47	63.85	53 59.85	-46	66.25	55 57.35	-44	68.70	56 54.85	-43
	@18.00%	51.55	48 67.35	-51	53.70	49 64.60	-50	55.95	51 61.85	-48	58.20	52 59.20	-47	60.60	53 56.60	-46	63.00	55 54.10	-44	65.50	56 51.65	-43
1088.00	@20.00%	57.55	48 74.40	-51	59.70	50 71.60	-49	61.95	51 68.85	-48	64.20	52 66.20	-47	66.55	53 63.55	-46	68.95	54 61.00	-45	71.40	56 58.50	-43
	@19.00%	54.30	48 71.15	-51	56.45	49 68.35	-50	58.70	51 65.60	-48	60.95	52 62.95										

JUN 02 CBOT DOW INDUSTRIALS OPTIONS

Evaluation date: 05/23/02 Expiration date: 06/20/02 # days: 28
 Futures last: 10152 Implied volatility: 18.28% Interest rate: 1.72%

	10500			10400			10300			10200			10100			10000			9900		
	Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put	
10440	196.5	47 256.5	-53	244.5	54 205.0	-46	300.0	61 160.0	-39	362.0	68 122.5	-32	431.0	74 91.5	-26	506.0	79 66.5	-20	586.5	84 47.0	-16
@18.50%	185.0	47 245.0	-53	233.5	54 193.5	-46	289.0	61 149.0	-39	352.0	68 112.0	-32	421.5	75 82.0	-25	498.0	81 58.5	-19	579.5	85 40.5	-14
@17.50%	173.5	46 233.5	-54	222.0	54 182.0	-46	278.0	62 138.0	-38	341.5	69 102.0	-31	412.5	76 73.0	-24	490.0	82 50.5	-18	573.5	87 34.0	-13
10420	187.5	45 267.5	-54	234.0	52 214.0	-47	288.0	59 168.0	-40	349.0	66 129.0	-34	416.5	73 97.0	-27	490.0	78 70.5	-21	569.5	83 50.5	-16
@18.50%	176.0	45 256.0	-55	222.5	52 202.5	-47	277.0	60 157.0	-40	338.5	67 118.5	-33	407.0	74 87.5	-26	482.0	80 62.5	-20	562.5	85 43.5	-15
@17.50%	164.5	45 244.5	-55	211.0	52 191.0	-47	265.5	60 146.0	-40	328.0	68 108.0	-32	397.5	75 78.0	-25	474.0	81 54.5	-19	556.0	86 37.0	-14
10400	178.5	44 278.5	-56	224.0	51 224.0	-49	276.0	58 176.5	-42	335.5	65 136.0	-35	402.0	71 102.5	-28	474.5	77 75.0	-23	553.0	83 53.5	-17
@18.50%	167.0	44 267.0	-56	212.5	51 212.5	-49	265.0	58 165.0	-41	325.0	66 125.5	-34	392.5	72 92.5	-27	466.0	78 66.5	-21	546.0	84 46.5	-16
@17.50%	156.0	43 255.5	-57	201.0	51 201.0	-49	253.5	59 154.0	-41	314.5	66 115.0	-34	382.5	73 83.0	-26	458.0	80 58.5	-20	539.0	85 39.5	-15
10380	170.0	43 289.5	-57	213.5	50 233.5	-50	264.5	57 185.0	-43	323.0	64 143.0	-36	388.0	70 108.0	-30	459.5	76 80.0	-24	536.5	82 57.5	-18
@18.50%	158.5	42 278.5	-58	202.0	49 222.0	-50	253.5	57 173.5	-43	312.0	64 132.5	-36	378.0	71 98.5	-29	450.5	77 71.0	-23	529.0	83 50.0	-17
@17.50%	147.5	42 267.0	-58	191.0	49 211.0	-51	242.0	57 162.0	-43	301.5	65 121.5	-35	368.0	72 88.5	-28	442.0	79 62.5	-21	522.0	84 42.5	-16
10360	161.5	41 301.0	-59	204.0	48 244.0	-52	253.5	55 193.5	-45	310.0	62 150.5	-38	374.0	69 114.0	-31	444.0	75 84.5	-25	520.5	81 61.0	-19
@18.50%	150.5	41 290.0	-59	192.5	48 232.5	-52	242.0	55 182.5	-44	299.5	63 139.5	-37	364.0	70 104.0	-30	435.0	76 75.5	-24	512.5	82 53.5	-18
@17.50%	139.0	40 279.0	-60	181.0	48 221.0	-52	231.0	56 171.0	-44	288.5	63 128.5	-36	354.0	71 94.5	-29	426.5	77 67.0	-23	505.5	83 46.0	-17
10340	153.5	40 313.0	-60	194.5	47 254.5	-53	242.5	54 202.5	-46	298.0	61 158.0	-39	360.0	68 120.5	-32	429.0	74 89.5	-26	504.5	80 65.0	-20
@18.50%	142.5	39 302.0	-61	183.0	46 243.0	-53	231.0	54 191.5	-46	287.0	61 147.0	-38	350.0	68 110.5	-31	420.0	75 80.5	-25	496.5	81 57.0	-19
@17.50%	131.5	38 291.0	-61	171.5	46 231.5	-54	220.0	54 180.0	-46	276.0	62 136.0	-38	340.0	69 100.0	-31	411.0	76 71.5	-24	489.0	82 49.5	-18
10320	145.5	38 325.0	-61	185.0	45 265.0	-55	232.0	52 212.0	-47	286.0	60 166.0	-40	347.0	66 127.0	-33	414.5	73 95.0	-27	488.5	79 69.0	-21
@18.50%	134.5	38 314.5	-62	174.0	45 254.0	-55	220.5	52 200.5	-47	275.0	60 155.0	-40	336.5	67 116.5	-33	405.0	74 85.5	-26	480.5	80 61.0	-20
@17.50%	124.0	37 303.5	-63	162.5	45 242.5	-55	209.0	52 189.5	-47	264.0	60 144.0	-39	326.0	68 106.5	-32	396.0	75 76.5	-25	472.5	81 53.0	-19
10300	138.0	37 337.5	-63	176.5	44 276.0	-56	221.5	51 221.5	-49	274.0	58 174.0	-42	333.5	65 134.0	-35	400.0	72 100.5	-28	473.0	78 73.5	-22
@18.50%	127.0	36 327.0	-64	165.0	43 265.0	-56	210.0	51 210.0	-49	263.0	58 163.0	-41	323.0	66 123.5	-34	390.5	73 91.0	-27	464.5	79 65.0	-21
@17.50%	116.5	35 316.5	-64	154.0	43 253.5	-57	199.0	51 199.0	-49	252.0	59 152.0	-41	312.5	67 113.0	-33	381.0	74 81.5	-26	456.5	80 57.0	-20
10280	130.5	36 350.5	-64	167.5	42 287.5	-57	211.5	50 231.5	-50	262.5	57 182.5	-43	320.5	64 141.0	-36	386.0	70 106.5	-29	457.5	76 78.0	-23
@18.50%	120.0	35 340.0	-65	156.5	42 276.5	-58	200.0	49 220.5	-50	251.5	57 171.5	-43	310.0	64 130.5	-36	376.0	71 96.5	-29	449.0	78 69.5	-22
@17.50%	109.5	34 329.5	-66	145.5	41 265.5	-58	189.0	49 209.0	-51	240.0	57 160.5	-43	299.5	65 120.0	-35	366.5	72 87.0	-28	440.5	79 61.0	-21
10260	123.5	34 363.5	-65	159.5	41 299.0	-59	202.0	48 241.5	-52	251.5	55 191.5	-45	308.0	62 148.5	-37	372.0	69 112.5	-31	442.5	75 83.0	-25
@18.50%	113.0	33 353.0	-66	148.5	41 288.0	-59	190.5	48 230.5	-52	240.5	55 180.5	-44	297.5	63 137.5	-37	362.0	70 102.5	-30	433.5	76 74.0	-23
@17.50%	103.0	32 342.5	-67	137.5	40 277.0	-60	179.0	48 219.0	-52	229.0	56 169.0	-44	286.5	64 127.0	-36	352.0	71 92.5	-29	425.0	78 65.5	-22
10240	117.0	33 376.5	-67	151.0	40 311.0	-60	192.5	47 252.0	-53	240.5	54 200.5	-46	296.0	61 156.0	-39	358.0	68 118.5	-32	427.5	74 88.0	-26
@18.50%	106.5	32 366.5	-68	141.5	39 300.0	-61	181.0	46 241.0	-53	229.0	54 189.0	-46	285.0	61 145.0	-38	348.0	69 108.5	-31	418.5	75 79.0	-25
@17.50%	96.5	31 356.5	-69	129.5	38 289.5	-62	170.0	46 229.5	-54	218.0	54 178.0	-46	274.0	62 134.5	-38	338.0	70 98.5	-30	409.5	76 70.0	-24
10220	110.5	32 390.0	-68	143.5	38 323.0	-62	183.0	45 263.0	-55	230.0	52 210.0	-47	283.0	60 164.0	-40	345.0	67 125.0	-33	412.5	73 93.0	-27
@18.50%	100.5	31 380.0	-69	132.5	38 312.5	-62	172.0	45 252.0	-55	218.5	52 198.0	-47	273.5	60 153.0	-40	334.5	67 115.0	-33	403.5	74 84.0	-26
@17.50%	90.5	30 370.0	-70	122.0	37 301.5	-63	160.5	45 240.5	-55	207.5	53 187.5	-47	262.0	60 142.0	-39	324.5	68 104.5	-32	394.5	75 75.0	-25
10200	104.0	30 404.0	-69	136.0	37 335.5	-63	174.0	44 274.0	-56	219.5	51 219.5	-49	272.0	58 172.0	-42	331.5	65 132.0	-35	398.0	72 98.5	-28
@18.50%	94.5	29 394.0	-70	125.5	36 325.0	-64	163.0	43 264.0	-56	208.0	51 208.0	-49	261.0	59 161.0	-41	321.0	66 121.5	-34	389.0	73 89.0	-27
@17.50%	85.0	28 384.5	-72	115.0	35 314.5	-65	152.0	43 252.0	-57	197.0	51 197.0	-49	250.0	59 150.0	-41	311.0	67 111.0	-33	379.5	74 80.0	-26
10180	98.0	29 418.0	-71	128.5	36 348.5	-64	165.5	42 285.5	-57	209.5	50 229.5	-50	260.5	57 180.5	-43	318.5	64 139.0	-36	384.0	71 104.5	-29
@18.50%	88.5	28 408.0	-72	118.0	35 338.0	-65	154.5	42 274.5	-58	198.0	49 218.0	-50	249.5	57 169.5	-43	308.0	64 128.5	-35	374.5	71 94.5	-28
@17.50%	79.0	27 399.0	-73	108.0	34 327.5	-66	143.5	41 263.5	-59	187.0	49 207.0	-51	238.5	57 158.5	-43	298.0	65 118.0	-35	365.0	72 85.5	-27
10160	92.5	28 432.0	-72	121.5	34 361.5	-66	157.0	41 297.0	-59	199.5	48 239.5	-52	249.0	55 189.5	-45	306.0	63 146.5	-37	370.0	69 110.5	-31
@18.50%	83.0	27 422.5	-73	111.5	33 351.0	-67	146.5	40 286.0	-59	188.5	48 228.5	-52	238.0	56 178.0	-44	295.5	63 135.5	-37	360.0	70 100.5	-30
@17.50%	74.0	26 413.5	-74	101.0	32 341.0	-68	135.5	40 275.5	-60	177.0	48 217.0	-52	227.0	56 167.0	-44	285.0	64 125.0	-36	350.5	71 91.0	-29
10140	87.0	27 446.5	-73	115.0	33 374.5	-67	149.0	40 309.0	-60	190.0	47 250.0	-53	238.5	54 198.5	-46	293.5	61 154.0	-39	356.5	68 116.5	-32
@18.50%	78.0	26 437.5	-74	105.0	32 364.5	-68	138.5	39 298.0	-61	179.0	46 239.0	-53	227.0	54 187.0	-46	283.0	62 143.0	-38	346.5	69 106.5	-31
@17.50%	69.0	24 428.5	-76	95.0	31 354.5	-69	127.5	38 287.5	-62	168.0	46 228.0	-54	216.0	54 176.0	-46	272.5	62 132.5	-38	336.5	70 97.0	-30
10120	82.0	26 461.5	-74	108.5	32 388.0	-68	141.5														

SEP 02 CBOT DOW INDUSTRIALS OPTIONS

Evaluation date: 05/23/02 Expiration date: 09/19/02 # days: 119
 Futures last: 10155 Implied volatility: 18.82% Interest rate: 1.72%

	10500			10400			10300			10200			10100			10000			9900		
	Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put	
10440 @20.00%	445.0	50 504.5	-49	492.0	53 452.0	-46	542.5	57 403.0	-43	596.0	60 357.5	-39	653.5	63 315.5	-36	714.0	66 276.5	-33	778.0	70 241.0	-30
@19.00%	421.0	50 481.0	-50	468.5	53 428.5	-46	519.0	57 380.0	-43	573.5	60 335.0	-39	631.0	64 293.0	-36	692.5	67 255.0	-32	757.5	70 220.5	-29
@18.00%	397.5	50 457.0	-50	445.0	53 405.0	-46	496.0	57 356.5	-43	550.5	61 312.0	-39	609.0	64 271.0	-35	671.5	68 233.5	-32	737.0	71 200.0	-28
10420 @20.00%	435.0	49 514.5	-50	481.5	53 461.5	-47	531.0	56 412.0	-43	584.5	59 365.5	-40	641.0	63 322.5	-37	701.0	66 283.0	-34	764.0	69 247.0	-30
@19.00%	411.5	49 491.0	-50	458.0	53 438.0	-47	508.0	56 388.5	-43	561.5	60 320.0	-40	618.5	63 300.5	-36	679.0	66 261.5	-33	743.5	70 226.0	-29
@18.00%	387.5	49 467.5	-51	434.5	52 414.5	-47	484.5	56 365.0	-43	538.5	60 320.0	-40	596.5	64 278.0	-36	658.0	67 240.0	-32	723.0	70 206.0	-29
10400 @20.00%	425.0	49 524.5	-51	471.0	52 471.0	-47	520.0	55 420.5	-44	572.5	59 373.5	-41	628.5	62 330.0	-37	687.5	65 290.0	-34	750.0	68 253.0	-31
@19.00%	401.5	48 501.0	-51	447.5	52 447.5	-48	496.5	55 397.5	-44	549.5	59 350.5	-41	606.0	62 307.5	-37	666.0	66 268.0	-34	729.5	69 232.0	-30
@18.00%	378.0	48 477.5	-51	424.0	52 424.0	-48	473.5	55 374.0	-44	526.5	59 328.0	-40	583.5	63 285.5	-37	644.5	66 246.5	-33	709.0	70 211.5	-30
10380 @20.00%	415.5	48 535.0	-51	460.5	51 480.5	-48	509.0	55 429.5	-45	561.0	58 382.0	-41	616.0	61 337.5	-38	674.5	65 297.0	-35	736.5	68 259.5	-32
@19.00%	392.0	48 511.5	-52	437.0	51 457.0	-48	485.5	55 406.0	-45	538.0	58 359.0	-41	593.5	62 315.0	-38	653.0	65 275.0	-34	715.5	68 238.5	-31
@18.00%	368.5	47 488.0	-52	413.5	51 433.5	-48	462.5	55 383.0	-45	515.0	58 336.0	-41	571.0	62 293.0	-37	631.5	66 253.5	-34	695.0	69 217.5	-30
10360 @20.00%	406.0	47 545.0	-52	450.5	51 490.0	-49	498.0	54 438.5	-45	549.5	57 390.0	-42	604.0	61 345.5	-39	662.0	64 304.0	-35	723.0	67 265.5	-32
@19.00%	382.5	47 521.5	-52	427.0	50 466.5	-49	475.0	54 415.0	-45	526.5	58 367.0	-42	581.5	61 323.0	-38	640.0	64 282.0	-35	702.0	68 244.0	-31
@18.00%	359.0	47 498.5	-53	403.5	50 443.0	-49	451.5	54 392.0	-45	503.5	58 344.0	-42	559.0	61 300.5	-38	618.0	65 260.0	-34	681.0	69 224.0	-32
10340 @20.00%	396.5	47 555.5	-53	440.5	50 500.0	-49	487.5	53 447.5	-46	538.0	57 398.5	-43	592.0	60 353.0	-39	649.0	63 311.0	-36	710.0	67 272.0	-33
@19.00%	373.0	46 532.5	-53	417.0	50 476.5	-50	464.0	53 424.5	-46	515.0	57 375.5	-43	569.0	60 330.5	-39	627.0	64 289.0	-36	688.5	67 251.0	-32
@18.00%	350.0	46 509.0	-54	393.5	50 453.0	-50	441.0	53 401.0	-46	492.0	57 352.5	-42	546.5	61 308.0	-39	605.0	64 269.0	-36	667.5	68 230.0	-32
10320 @20.00%	387.0	46 566.0	-53	430.5	49 510.0	-50	477.0	53 457.0	-47	526.5	56 407.5	-43	580.0	59 361.0	-40	636.5	63 318.5	-37	696.5	66 279.0	-34
@19.00%	364.0	46 543.0	-54	407.0	49 486.5	-50	453.5	53 433.5	-47	503.5	56 384.5	-43	557.0	60 338.5	-40	614.5	63 296.0	-36	675.0	67 257.5	-33
@18.00%	340.5	45 519.5	-54	383.5	49 463.0	-51	430.0	53 410.5	-47	480.5	56 361.0	-43	534.5	60 316.0	-39	592.5	64 274.0	-36	654.0	67 236.5	-32
10300 @20.00%	378.0	45 577.0	-54	420.5	49 520.0	-51	466.5	52 466.5	-47	515.5	55 416.0	-44	568.0	59 369.0	-41	624.0	62 325.5	-37	683.5	65 285.5	-34
@19.00%	355.0	45 554.0	-55	397.5	48 496.5	-51	443.0	52 443.0	-48	492.5	55 393.0	-44	545.5	59 346.5	-40	602.0	62 303.5	-37	662.0	66 264.0	-33
@18.00%	332.0	44 530.5	-55	374.0	48 473.5	-51	420.0	52 420.0	-48	469.5	56 370.0	-44	522.5	59 324.0	-40	580.0	63 281.5	-37	640.5	67 243.0	-33
10280 @20.00%	369.0	45 588.0	-55	411.0	48 530.5	-51	456.0	51 476.0	-48	504.5	55 425.0	-45	556.5	58 377.5	-41	611.5	61 333.5	-38	670.5	65 292.5	-35
@19.00%	346.0	44 565.0	-55	387.5	48 507.0	-52	433.0	51 452.5	-48	481.5	55 402.0	-45	533.5	58 354.5	-41	589.5	62 311.0	-38	649.0	65 271.0	-34
@18.00%	323.0	44 542.0	-56	364.5	47 484.0	-52	409.5	51 429.5	-48	458.5	55 379.0	-45	511.0	59 332.0	-41	567.5	62 289.0	-37	627.5	66 249.5	-34
10260 @20.00%	360.5	44 599.0	-55	401.5	47 540.5	-52	446.0	51 485.5	-49	493.5	54 434.0	-45	545.0	57 385.5	-42	599.5	61 341.0	-39	657.5	64 299.5	-35
@19.00%	337.5	43 576.0	-56	378.0	47 517.5	-53	422.5	50 462.5	-49	470.5	54 411.0	-45	522.0	58 363.0	-42	577.0	61 318.5	-38	636.0	65 278.0	-35
@18.00%	314.5	43 553.0	-57	355.0	47 494.5	-53	399.5	50 439.0	-49	447.5	54 388.0	-45	499.5	58 340.0	-42	555.0	61 296.5	-38	614.5	65 256.5	-34
10240 @20.00%	351.5	43 610.0	-56	392.0	47 551.0	-53	436.0	50 495.5	-49	483.0	53 443.0	-46	533.5	57 394.0	-43	587.5	60 348.5	-39	645.0	63 306.5	-36
@19.00%	328.5	43 587.0	-57	369.0	46 528.0	-53	412.5	50 472.5	-50	460.0	53 420.0	-46	510.5	57 371.5	-43	565.0	60 326.5	-39	623.0	64 285.0	-36
@18.00%	306.0	42 564.5	-57	346.0	46 505.0	-54	389.5	50 449.0	-50	436.5	53 397.0	-46	488.0	57 348.5	-42	542.5	61 304.0	-39	601.5	64 263.5	-35
10220 @20.00%	343.0	43 621.5	-57	383.0	46 562.0	-54	426.0	49 505.5	-50	472.5	53 452.5	-47	522.0	56 403.0	-43	575.5	59 356.5	-40	632.0	63 314.0	-37
@19.00%	320.0	42 598.5	-57	359.5	45 538.5	-54	402.5	49 482.5	-50	449.0	53 429.0	-47	499.5	56 380.0	-43	553.0	60 334.0	-40	610.5	63 292.0	-36
@18.00%	297.5	41 576.0	-58	336.5	45 515.5	-54	379.5	49 459.0	-51	426.0	53 406.0	-47	476.5	56 357.0	-43	530.5	60 312.0	-39	588.5	64 270.5	-36
10200 @20.00%	334.5	42 633.0	-57	373.5	45 572.5	-54	416.0	49 515.5	-51	462.0	52 462.0	-47	511.0	55 411.5	-44	563.5	59 364.5	-41	619.5	62 321.5	-37
@19.00%	312.0	41 610.0	-58	350.5	45 549.5	-55	393.0	48 492.5	-51	439.0	52 439.0	-48	488.0	55 388.5	-44	541.0	59 342.0	-40	597.5	63 299.5	-37
@18.00%	289.5	41 587.5	-59	328.0	44 526.5	-55	370.0	48 469.5	-51	415.5	52 415.5	-48	465.5	56 366.0	-44	518.5	59 320.0	-40	576.0	63 277.5	-36
10180 @20.00%	326.0	41 644.5	-58	364.5	45 583.5	-55	406.5	48 526.0	-52	451.5	51 471.5	-48	500.0	55 420.5	-45	552.0	58 373.0	-41	607.5	61 329.0	-38
@19.00%	303.5	41 622.0	-58	342.0	44 560.5	-55	383.5	48 502.5	-52	428.5	51 448.5	-48	477.0	55 397.5	-45	529.5	58 350.5	-41	585.5	62 307.0	-38
@18.00%	281.0	40 599.5	-60	319.0	44 538.0	-56	360.5	47 479.5	-52	405.5	51 425.5	-48	454.0	55 374.5	-45	507.0	59 328.0	-41	563.5	62 285.0	-37
10160 @20.00%	318.0	41 656.0	-59	356.0	44 594.5	-56	397.0	47 536.0	-52	441.5	51 481.0	-49	489.0	54 429.5	-45	540.5	57 381.5	-42	595.0	61 336.5	-39
@19.00%	295.5	40 633.5	-60	333.0	43 571.5	-56	374.0	47 513.0	-53	418.5	50 458.0	-49	466.0	54 406.5	-45	518.0	58 358.5	-42	573.0	61 314.5	-38
@18.00%	273.5	39 611.5	-60	310.5	43 549.0	-57	351.0	46 490.0	-53	395.5	50 435.0	-49	443.5	54 383.5	-45	495.0	58 336.0	-42	551.0	62 292.5	-38
10140 @20.00%	310.0	40 668.0	-59	347.0	43 605.5	-56	387.5	47 546.5	-53	431.5	50 491.0	-50	478.5	53 438.5	-46	529.0	57 389.5	-43	583.0	60 344.5	-39
@19.00%	287.5	39 645.5	-60	324.5	43 583.0	-57	364.5	46 524.0	-53	408.5	50 468.0	-50	455.5	53 415.5	-46	506.5	57 367.0	-43	561.0	60 322.0	-39
@18.00%	265.5	38 623.5	-61	302.0	42 560.5	-57	342.0	46 501.0	-54	382.5	49 445.0	-5									