

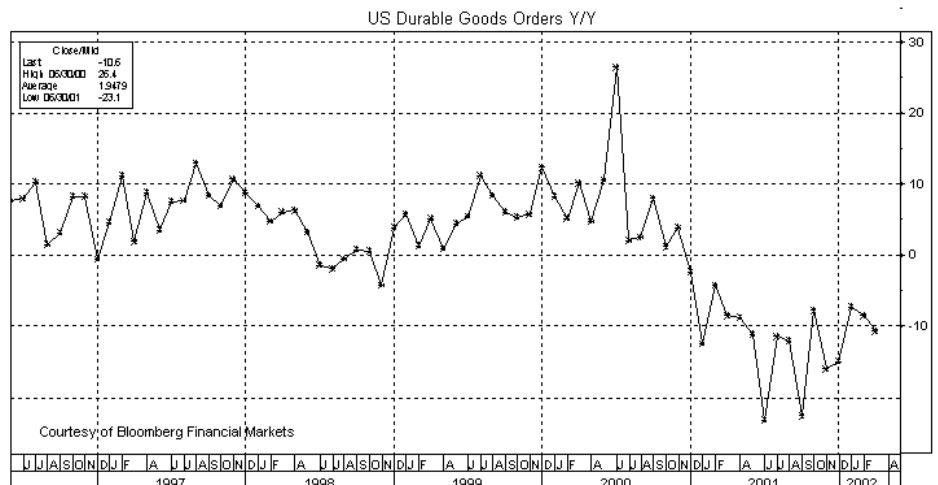
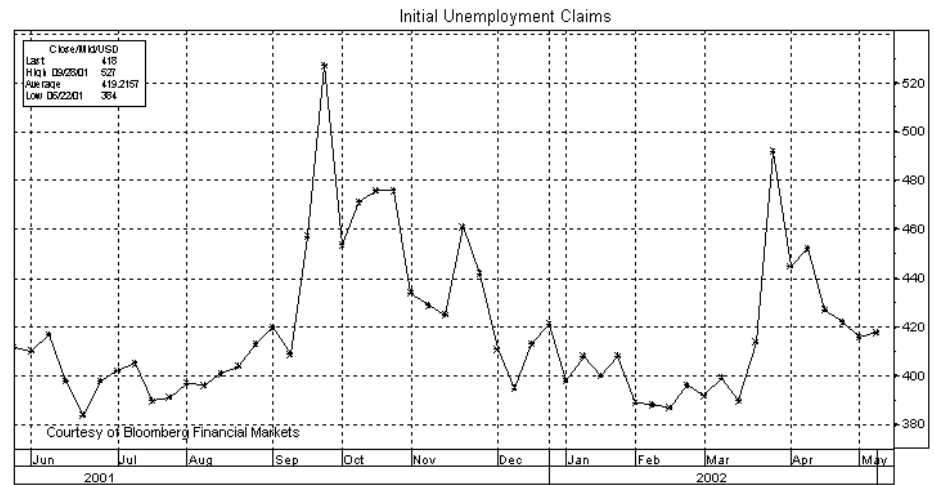
Thursday 5/23/02 -- Americas

**Comment** -- The US markets will focus on (1) this morning's US durable goods and unemployment claims reports, (2) any developments on the US government's terrorist warnings, (3) the tense situation in the Middle East and between India and Pakistan, (4) the dollar which continued to show weakness yesterday despite a round of BOJ intervention, (5) the stock market which recovered mildly yesterday, (6) the US credit market which continued to rally yesterday, and (7) gold prices which posted another new 2-year high yesterday.

**Durable goods orders expected to show modest +0.5% gain** -- Today's April durable goods orders report is expected to show a gain of +0.5% m/m, reversing March's -0.5% decline. March durable goods orders were down -10.6% on a year-on-year basis but should start to improve significantly on a year-on-year basis in coming months due to the weak year-earlier base. On a year-on-year basis, the series hit a cyclical low of -22.6% back in September. Durable goods orders are expected to firm up in coming months as businesses are forced to replenish low inventories and as demand is confirmed. April retail sales soared by +1.2% which depressed inventory levels. Excluding transportation orders, which are expected to be weak, April goods orders are expected to rise +1.0% after March's -0.1% decline.

**Claims are expected to move lower** -- Unemployment claims in the week ended 18 are expected to fall -8,000 to 410,000. Claims in the past 2 weeks have remained around the 420,000 area versus the 390,000 area seen before the mid-March surge to 492,000 tied to the extension of unemployment benefits. The slow decline in claims in the past several weeks is evidence of continued softness in the US labor market.

**Gold edges to another new 2-year high** -- Cash gold yesterday rallied to another new 2-year high of \$319.65. Gold has rallied by about \$12 in the past week and by more than \$50 in the past



year. June gold futures yesterday closed -\$2.80 at \$318.90. Gold rallied yesterday on continued strong technicals, the ongoing tensions related to terrorism and to the Middle East and Indian subcontinent, and yesterday's continued weakness in the dollar.

**Crude oil continues lower from last week's 8-month high** -- July crude oil prices yesterday fell -13 cents to \$26.30 and posted a new 2-week low of \$26.15. The market is now down \$2 from last Tuesday's 8-month high of \$29.45 on the weekly nearest futures chart. That sell-off was mainly due to Russia's rejection of the export restrictions it had agreed to as part of a deal with OPEC. The market slid yesterday on the late-Tuesday API report

which showed a 5.6 million barrel rise (+1.8%) in US oil inventories, the first rise in 3 weeks. Gasoline inventories fell 0.5% and distillate fuel inventories fell 0.1%. Refiners were running at 91.4% of capacity, down 1.1 percentage points from the previous week.

**US Interest Rates -- US credit market continues higher** -- **Futures closes:** USM02 +0-18 at 101-26; TYM02 +0-120 at 106-000; FVM02 +0-090 at 106-225; TUM02 +0-037 at 104-247; EDZ02 +.0550 at 97.0400. Cash closes (3PM NY): cash 30-yr +0-15 at 96-13; cash 30-yr yield -.034 at 5.629; cash 10-yr +0-11 at 98-09; cash 10-yr yield -.045 at 5.102; cash 5-yr +0-08 at 99-26; cash 5-yr yield -.057 at 4.418; cash 2-yr +0-170 at

002-200; cash 2-yr yield -.059 at 3.165; 3-mo T-bill -.020 at 1.690.

June T-bonds yesterday posted a 1-1/2 week high and are now in the upper half of the range established by the early-May sell-off from the 2-1/2 month high of 103-04 (May 1) and last Tuesday's 1-month low of 99-27. Dec Euros yesterday posted a new 2-week high of 97.090 and stopped just 1 bp shy of the early-May 6-1/2 month high of 97.100.

**Bullish factors** included (1) early weakness in US stocks, (2) continued nervousness about the spate of terrorist warnings by US officials and about whether there may be an attack over the Memorial Day weekend, (3) additional flight-to-quality support from another suicide bombing in Israel (which increases the chances for another Israeli incursion into the Palestinian territories) and from the high tensions between India and Pakistan who continue shell each other across the Line of Control in Kashmir, (4) another coupon pass yesterday which soaked up more secondary supply, and (5) lower crude oil prices.

**Bearish factors** included (1) yesterday's upward rebound in stocks, (2) yesterday's new lows in the dollar which discourages foreign investment in US securities and contributes to US import inflation, (2) yesterday's continued rally in gold prices to a new 2-year high, and (3) the \$2 billion boost in the size of the 2-year T-note auction to \$27.0 billion.

The Treasury yesterday announced that next week's 2-year T-note auction will be \$27.0 billion, up from the \$25.0 billion size seen in the past 4 monthly auctions. That was on the higher end of expectations. The larger 2-year was made necessary by the Treasury's cut in this week's 4-week T-bill auction to \$18 billion (from \$25 billion) and by the Treasury's poor revenue situation.

**US Stock Market -- US Stock Index Settles:** Dow Industrials +52.17 at 10157.9; S&P 500 +6.14 at 1086.02; SPM2 +2.00 at 1085.10; NASDAQ Composite +9.26 at 1673.45; Russell 2000 -1.55 at 493.91. NYSE volume yesterday remained light at 1.14 billion, below the 3-month average of 1.31 bln shares. Market breadth was slightly bullish with 1,614 advancing shares versus 1,549 declining shares.

June S&Ps and the cash S&P index yesterday extended the 3-session downmove from last Friday's 1-month highs of 1109.10 and 1106.59,

respectively, to new 1-1/2 week lows but then recovered modestly. The indexes are still well above the recent 7-month lows of 1045.80 and 1048.96, respectively, posted in early May. The cash Nasdaq 100 yesterday remained well below last Wednesday's 1-month high of 1350.54. The Dow Industrials remained well below last Friday's 1-1/2 month high of 10,353.43.

**Bullish factors** included (1) some short-covering after the sharp sell-off seen early this week, (2) a rally in Johnson & Johnson (+\$1.36 to \$62.00) on a positive study on its drug-coated artery stent, (3) the continued rally in the US credit market with Dec Euros nearly posting a new 6-1/2 month high.

**Bearish factors** included (1) continued concern about the terrorist warnings and whether they will damage consumer and business confidence, (2) underlying concerns about weaker than expected US economic growth and lackluster earnings, and (3) yesterday's continued weakness in the dollar which deters foreign investors from investing in the US stock market.

**Forex -- Dollar closes (3PM NY):** Dollar closes (3PM NY): cash dollar index -.44 at 112.33; dlr/yen +.11 at 124.21; dlr/Swiss -.0082 at 1.5686; stlg/dlr -.0017 at 1.4582; USD/CAD -.0053 at 1.5332. Euro closes: euro/dlr +.0063 at .9263; euro/yen +.85 at 115.01; euro/Swiss +.0023 at 1.4532. Futures closes: DXM02 -.48 at 112.46; JYM02 -.0020 at .8062; ECM02 +.00620 at .92520; SFM02 +.0032 at .6377; BPM02 -.0008 at 1.4566; CDM02 +.0022 at .6518.

The **dlr/yen** yesterday posted another new 5-month low of 123.53 before recovering somewhat on the BOJ's intervention. The **euro/dlr** yesterday posted a new 7-month high of .9276, which was only about 1/2 cent below the 14-month high of .9331 posted last September.

Bearish factors for the dollar included (1) continued technical weakness with the new low in the dollar/yen and the new high in the euro/dollar, (2) continued capital flows into the yen as investors seek investment bargains if the Japanese economy is in fact bottoming, and (3) underlying concerns about weaker than expected US economic growth and the massive US current account deficit.

The dollar/yen yesterday closed just slightly higher despite BOJ intervention that was confirmed by Japanese Minister Shiokawa. The inability of the dollar/yen to

hold the initial gain on the intervention exposed the extent of the dollar/yen's underlying weakness and will only encourage more selling in coming days.

The BOJ's intervention yesterday was the first since last September. Yesterday's intervention was not surprising given the warnings by top Japanese officials early this week. The Japanese government is desperate to keep the yen's value down since it is relying on exports to be the engine to drive the Japanese economy out of recession. Mr. Shiokawa yesterday said that Japan sold yen because the yen's rise was "too rapid" and "abnormal." He said that, "Such a rapid rise is troublesome to everyone." He also said that Japan doesn't plan to ask other nations to join in the yen intervention effort. The US would be unlikely to join the intervention in any event given the US Treasury's hands-off policy toward the currency markets. However, the Fed could sell yen for the BOJ's account if the BOJ wants to extend the intervention into the US trading session.

**European Comment -- Euro zone** -- German March construction orders rose sharply by +5.8% m/m for the third consecutive monthly rise. On a year-on-year basis, construction orders turned positive at +5.7% y/y for the first time in the current business cycle.

**UK** -- The Bank of England at its meeting earlier this month on May 8-9 voted unanimously 9-0 to leave interest rates unchanged, according to the minutes of the meeting released yesterday. The minutes said, "The prospects for the world economy now appeared to be a little less strong than had seemed likely a month ago.... The rapid recovery in the United States, associated in large part with the stock cycle, had faltered in the past month and it seemed probable that the pace of the recovery there would not moderate." The minutes suggest that the MPC is not close to raising interest rates and that a rate hike is not likely until July or August.

**European closes** -- Closes: June Bunds +.11 at 105.80, Dec Liffe Euribor +4 bp at 95.840, June gilts +.08 at 111.59, Dec short-sterling +7 bp at 94.880, Eurotop 100 -42 at 2666 (-1.53%).

**Asian Comment -- Japan** -- Optimism that Japan's economy may have bottomed grew yesterday after Japan's all-industry index, which is designed to track GDP, rose by +1.2% in March and by +0.6% for Q1 as a whole. The services index rose sharply by +1.2% m/m in March. The report supported expectations for a positive Japanese Q1 GDP report.

However, the agency that compiles the industry index, the Ministry of Economic, Trade and Industry (METI), said that, "It's too early for us to judge whether the tertiary industry activity has hit bottom."

The BOJ in its monthly report released yesterday joined the government in upgrading its assessment of the economy for the third straight month. The BOJ said that, "The pace of deterioration in Japan's economy has moderated.... Production is starting to pick up, reflecting the increase in exports and progress" in reducing inventories. However, the BOJ said that a recovery will be "modest" because of weak consumer spending and because business investment will continue "follow a down-trend for a while." The BOJ

did not go as far as the government in declaring that the recession is over.

Japan's Q1 GDP was up sharply by +2.2% q/q and 8.9% y/y, according to a survey of six research companies polled by the *Nihon Keizai* newspaper. The poll showed average expectations for a 7% y/y rise in exports and a 2% q/q rise in consumer spending. The government will release the Q1 GDP report on June 7.

**Japanese Markets** -- June SGX 10-year JGBs yesterday closed -.01 at 138.62, posting a new 3-week low and falling farther from last Thursday's 6-month high of 139.12. Bearish factors centered on the strong industry index report. However, JGBs were supported by the

BOJ's less optimistic view of the economy than the government and by today's very strong auction of \$10.4 billion in 10-year JGBs yesterday where the bid cover ratio was more than 10 to 1 versus the last auction's cover of 2.3 times. Dec SGX Euroyen yesterday closed +0.5 bp at 99.870, slightly below the contract high of 99.885.

The Nikkei index yesterday closed +161 at 11,962, edging to a new 2-month high of 11,963. That was only mildly below the 9-month high of 12,034 posted on March 11. Japanese stocks were boosted by the favorable industry index report which boosted banking, telecom and retail stocks. Stocks were also supported by the BOJ's intervention to curb the yen's strength which is hurting Japanese profits.

**OPTIMA FINANCIAL NEWS SCHEDULE**^ Thu 5/23/02

**A. Today's News** (ET & GMT release time shown)

Thu	US	0830 ET	1230	Initial unemployment claims for week ending May 18 expected 410,000 previous 418,000.
		0830 ET	1230	Apr durable goods orders expected +0.5%, Mar -0.5%, less transportation expected +1.0%, Mar -0.1%.
		0930 ET	1330	Dallas Fed president McTeer speaks on US economy in Plano, Texas.
		1000 ET	1400	Chicago Fed President Moscov speaks at Iron and Steel Institute meeting.
		n/a		Earnings expected today: Barnes & Noble, Ciena, Novell, Sun Microsystems, Williams-Sonoma, among others.
	GER	0200 ET	0600	German Q1 GDP expected +0.1% q/q and -0.3% y/y.
		n/a		German May CPI North Rhine-Westphalia, Apr +0.1% m/m, +1.4% y/y.
				German May CPI Hesse, Brandenburg (May 23-24)
	UK	0430 ET	0830	UK Apr retail sales expected +0.4% m/m, Mar +0.1%, +5.2% y/y, Mar +5.6%.
				UK Apr car production, Mar 3-months/3-months +5.3%, 3-months/yr ago +12.3%.
				UK Q1 total business investment, Q4 -0.3% q/q, previous -7.4% y/y.
				UK CBI industrial trends survey.
				UK initial unemployment claims, for week ending May 18.
		1030 ET	1430	UK Apr coincident indicator index, Mar +0.1% m/m.
				UK Apr leading Indicator index, Mar +0.3% m/m.
	JPN	1950 ET	2350	Japan Mar average lending rate, Feb 1.561%.
	FRA	0245 ET	0645	French Apr consumer spending expected -0.2% m/m Mar +1.2%, expected +2.9% y/y, Mar +2.7%.

**B. Future News:**

Sometime this week:

	GER	n/a		German Mar industrial output, Feb +0.5% m/m, -5.1% y/y.
		n/a		German Apr PPI, Mar +0.3 m/m, -0.2 y/y.
Fri	US	0830 ET	1230	Q1 GDP expected to be revised to +6.0% from last +5.8% q/q, GDP price deflator expected unrevised at +0.8%.
				Q1 corporate profits.
		1000 ET	1400	Apr new home sales expected +0.8% at 885,000, from Mar at 878,000.
	UK	0430 ET	0830	UK Q1 GDP expected +0.1% q/q, previous unch, expected +1.0% y/y, previous +1.6%.
	FRA	0245 ET	0645	French Q1 GDP expected +0.4% q/q and +0.6% y/y.
		0250 ET	0650	French Apr CPI, Mar +0.5% m/m, +2.1% y/y. Apr CPI EU harmonized, Mar 0+0.5% m/m, Mar +2.2% y/y.
	JPN	0100 ET	0500	Japan BOJ releases minutes of Apr 10-11 meeting.
Week of May 27-31				
Sometime this week:				
	GER	n/a		German Mar construction orders, Feb +6.1% y/y, -1.5% y/y.
				German Apr import price index, Feb +0.8% m/m, -2.5% y/y.
				German Apr wholesale sales, SA -0.7% m/m, NSA -7.4% y/y.
Sun	JPN	1950 ET	2350	Japan Apr large retailer sales, Mar -1.5%.
Mon	US			Memorial Day US Markets closed.
	GER	0400 ET	0800	German May IFO ind. survey (business climate), Apr 90.5.
				German May IFO current assessment, Apr 76.9., IFO expectations, Apr 104.6.

Tue	US	0830 ET	1230	Apr personal income expected +0.3%, Mar +0.4%. Apr spending expected +0.7%, Mar +0.4%.
		0900 ET	1300	Redbook weekly retailer sales.
		1000 ET	1400	May consumer confidence expected 110.0, Apr 108.8. Apr existing home sales expected -0.9% at 5,350,000, from Mar 5,400,000.
	UK	0430 ET	0830	UK BBA mortgage lending figures.
	JPN	1950 ET	2350	Japan Apr industrial production, Mar +0.8% m/m.
Wed	US	1300 ET	1700	Treasury sells \$27 billion in 2-year T-notes for \$4.9 bln new cash.
	FRA	0245 ET	0645	France May business confidence indicator, Apr 97.0. France Mar production outlook indicator, Apr -16.0.
Thu	US	0000 ET	0400	Chicago Fed releases national activity index for Apr.
		0830 ET	1230	Initial unemployment claims for week ending May 25th.
		n/n		Earnings expected today: Costco Wholesale, Dollar General, Neiman Marcus.
	UK	0430 ET	0830	UK Mar index of distribution. UK Apr M4 money supply, m/m and y/y. UK Apr Sterling lending. UK Apr net consumer credit.
	JPN	1930 ET	2330	Japan Apr unemployment rate expected 5.3%, Mar 5.2%. Japan Apr job to applicant ratio expected .51, Mar .51. Japan Apr household spending, Mar -1.2% y/y. Japan May Tokyo consumer prices SA, Apr -0.2%, less food -0.4%. Japan May Tokyo consumer prices , Apr -1.3% y/y, less food -1.1% y/y. Japan Apr national consumer prices SA, Mar unch, less food unch. Japan Apr national consumer prices, Mar -1.2% y/y, less food, -0.7% y/y.
Fri	US	0830 ET	1230	Q1 final unit labor costs expected -5.5%, previous -5.4%. Q1 final nonfarm productivity expected 8.7%, previous +8.6%.
		1000 ET	1400	Late-May University of Michigan consumer confidence expected 96.0, early-May +3.0 to 96.0. May Chicago purchasing managers expected 55.0, Apr 54.7. Apr factory orders expected +0.3%, Mar +0.4%.
	JPN	0030 Et	0430	Japan Apr crude oil imports, Mar -6.4% y/y.
		0100 ET	0500	Japan Apr construction orders, Mar -12.9% y/y. Japan Apr housing starts, Mar -6.2% y/y.
	FRA	0245 ET	0645	France Apr unemployment rate Mar 9.1%, unemployment rate change, Mar 13,000.
		0250 ET	0650	France Apr PPI, Mar +0.7% m/m, -0.7% y/y.
Week of June 3-7				
Sometime this week:				
Sun	JPN	1950 ET	2350	Japan Apr average lending rate.
	US	Jun 3-4		May domestic vehicle sales, Apr 14,000,000.
Mon	US	1000 ET	1400	Apr construction spending, Mar -0.9% May ISM manufacturing index, Apr 53.9. Mar ISM prices paid, Apr 60.3.
	UK	0430 ET	0830	UK CIPS purchasing managers index.
Tue	UK	0430 ET	0830	UK CIPS construction index.
	JPN	0100 ET	0500	Japan Apr leading economic index. Japan Apr coincident index.
	FRA	0245 ET	0645	French May consumer confidence indicator, Apr -18.0.
Wed	US	1000 ET	1400	May ISM non-manufacturing, Apr 55.3.
	UK	0430 ET	0830	UK May M0 money supply, Apr +0.9 m/m, +8.0% y/y. UK May official reserve (changes). UK CIPS services index.
		0600 ET	1000	UK CBI quarterly distributive trades report.
		n/a		UK Bank of England monetary policy committee meets. UK BRC shop price index.
Thu	US	0830 ET	1230	Initial unemployment claims for week ending Jun 1.
		1525 ET	1925	San Francisco Fed pres. Parry speaks at financial analysts meeting in Oregon.
	EUR	0745 ET	1145	ECB announces interest rates, current 3.25%.
	GER	0600 ET	1000	German Apr factory orders, Mar unch m/m, -3.4% y/y.
	UK	0700 ET	1100	UK Bank of England announces rates, current 4.0%
	JPN	0030 ET	0430	Japan May consumer confidence.
		1950 ET	2350	Japan Q1 GDP preliminary, previous -1.2%.

Fri	US	0830 ET	1230	May unemployment rate, Apr 6.0%. May average hourly earnings, Apr +0.1%. May change in non-farm payrolls, Apr 43,000. May change in manufacturing payrolls, Apr -19,000. May average weekly hours, Apr 34.1.
		1000 ET	1400	Apr wholesale inventories, Mar unchanged.
		1500 ET	1900	Apr consumer credit, Mar \$4.6 bln.
	GER	0355 ET	0755	German May unemployment change SA, Apr 6,000. German May unemployment EU-Def, Apr 8.1%, unemployment rate SA 9.6%.
	JPN	0100 ET	0500	Japan Apr household spending, Mar -1.0% y/y.
	FRA	0245 ET	0645	French Apr central government balance (Euros)
Week of June 10-14				
Sometime this week:				
	GER	n/a		German Apr retail sales SA, Mar +1.2% m/m, -4.5% y/y. German Mar CPI final, previous +0.1% m/m, +1.6% y/y.
	JPN	n/a		Japan Apr current account total, Mar 2202.5 bln Yen, adjusted 1547.5 bln Yen.
Sun	JPN	1950 ET	2350	Japan May bank lending, May -4.8% y/y Japan May domestic wholesales price index, Apr unch. Japan May Money Supply M2+Cd, +3.6% y/y.
Mon	UK	0430 ET	0830	UK May PPI input SA, Apr +0.9% m/m, -3.7% y/y UK May PPI output NSA, Apr +0.5% m/m, +0.2% y/y.
		1430 ET	1830	UK BRC retail sales monitor.
	JPN	0100 ET	0500	Japan Apr machine orders, Mar -6.2% m/m.
Tue	GER	0200 ET	0600	German Apr currant account, Mar 7.5 bln (Euro). German Apr trade balance, Mar 12.4 bln.
		0600 ET	1000	German Apr industrial output, m/m and y/y.
		0900 ET	1300	German Jun ZEW survey (economic sentiment).
	UK	0430 ET	0830	UK Apr visible trade balance, Mar -3004. UK Apr trade balance non EU, Mar -2169. UK Apr industrial production, +0.4% m/m, -5.9% y/y. UK Apr Manufacturing production, Mar -0.8% m/m, -6.8%
Wed	US	0830 ET	1230	May Imports all commodity price, Apr +1.2%.
		1400 ET	1800	Federal Reserve's beige book.
	UK	1901 ET	2301	UK Apr total housing starts NSA, Mar 18,900.
	FRA	0245 ET	0645	French May CPI, m/m and y/y. French May CPI EU harmonized, m/m and y/y.
Thu	US	0830 ET	1230	Initial unemployment claims for week ending Jun 8. May PPI, Apr -0.2%, less food and energy +0.1%. May retail sales, Apr +1.2%, less autos +1.0%.
	UK	0430 ET	0830	UK New construction orders.
	JPN	0030 ET	0430	Japan Apr industrial production final m/m. Japan Apr capacity utilization final.
	FRA	0250 ET	0650	French Apr industrial production, m/m and y/y. French Apr manufacturing production, m/m and y/y.

#### Future News:

June 9 & 16: French Parliamentary elections.

Upcoming Central Bank meetings:

FOMC: June 25-26, Aug 13, Sep 24, Nov 6, Dec 10.

#### Last G7 monetary policy changes:

US Funds rate last cut by 25 bp to 1.75% on 12/11/01, discount rate -25 bp to 1.25%. Funds rate cut by 175 bp after Sep 11th, and by an overall 475 bp in 2001 easing cycle.

CAN Overnight rate target +25 bp to 2.25% on 4/16/02, up from 40-year low of 2.00%. Prior to 4/02 rate hike, BOC had cut by total of 3.75 bp since Jan 2000.

UK Base rate cut by a total of 200 bp in 2001 cycle to current 4.0%. Last change -50 bp to 4.00% on 11/02/01.

ECB Refinancing rate currently at 3.25%, last cut by 50 bp on 11/8/01. Overall ECB rate cut was 150 bp in 2001.

JPN Discount rate at .10%, unsecured overnight call loan rate near zero. BOJ boosted monthly JGB purchases by 25% to 1 trillion yen at Feb 28 meeting.

**COPYRIGHT, 1982-2002, OPTIMA INVESTMENT RESEARCH, INC (312-427-3616)~**

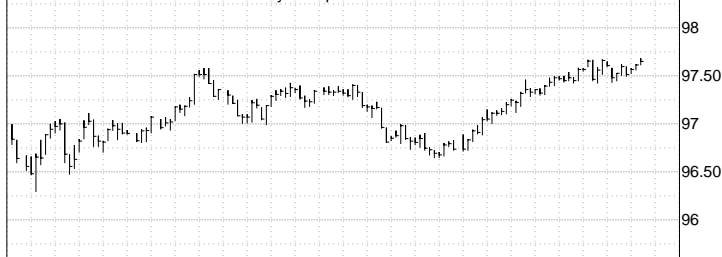
DAILY U.S. MARKET OVERVIEW

Optima Investment Research

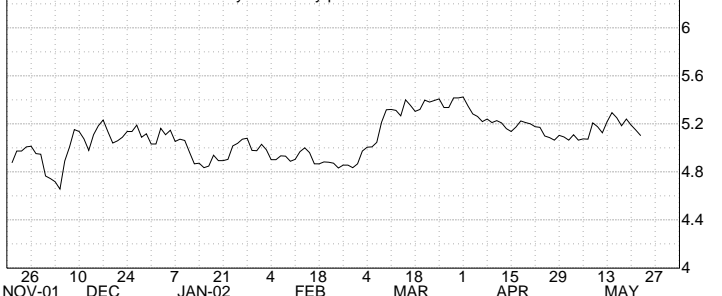
CBT 10-YEAR T-NOTE JUN 2002 .. Daily HLC plot



IMM EURODOLLAR SEP 2002 .. Daily HLC plot



US 10YR T-NOTE YIELD .. Daily Close only plot



NOV-01 DEC JAN-02 FEB MAR APR MAY 27

Optima Investment Research

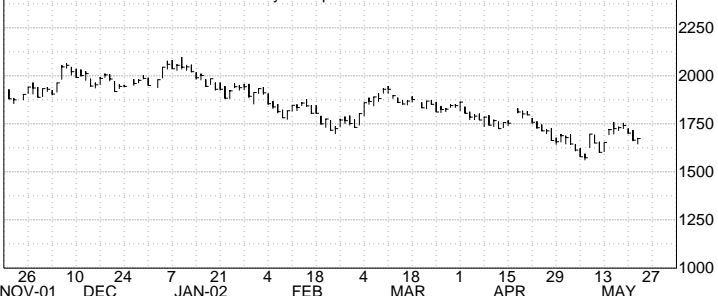
S&P 500 STOCK INDEX .. Daily HLC plot



DOW JONES INDUSTRIALS .. Daily HLC plot



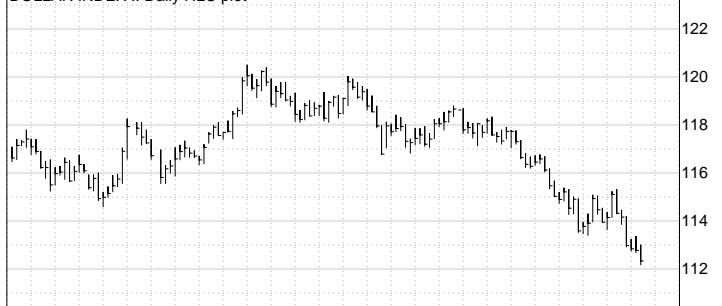
NASDAQ COMPOSITE INDEX .. Daily HLC plot



NOV-01 DEC JAN-02 FEB MAR APR MAY 27

Optima Investment Research

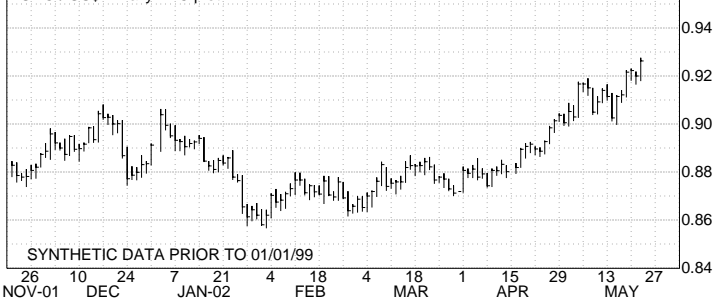
DOLLAR INDEX .. Daily HLC plot



DOLLAR/YEN .. Daily HLC plot



EURO / US\$ .. Daily HLC plot

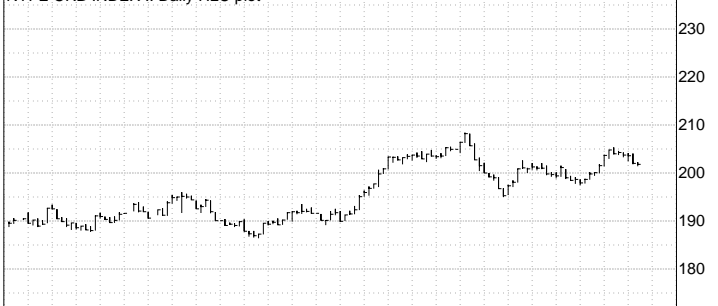


SYNTHETIC DATA PRIOR TO 01/01/99

NOV-01 DEC JAN-02 FEB MAR APR MAY 27

Optima Investment Research

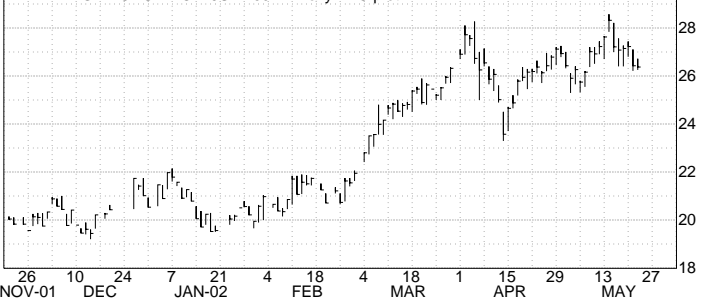
NYFE CRB INDEX .. Daily HLC plot



COMEX GOLD JUN 2002 .. Daily HLC plot



NYMEX LIGHT CRUDE OIL JUL 2002 .. Daily HLC plot



NOV-01 DEC JAN-02 FEB MAR APR MAY 27

**OPTIMA TECHNICAL PICTURE -- T-BONDS ^ Thu 5/23/02**

**T-BOND OVERVIEW** -- USM posted an overall low of 101-04 during Tuesday night's session. The June 30-year T-Bond opened higher yesterday and traded sideways to higher the entire session before settling +18 ticks at a 1-1/2 week high settlement of 101-26. USM posted a 1-1/2 week high of 101-29 and posted a pit session low of 101-14. The cash bond settled +15 ticks at a 1-week high settlement of 96-13 (5.629%). The 9-day RSI rose to 56.8 from 51.2 where it is neutral. The short term trend is neutral with last Tuesday's 1-month low and low settlement and the May 1st 2-1/2 month high. The intermediate term trend is neutral with USM near the top of a 5-month range. The long term trend is bearish with the contract posting a contract low on Dec 17th.

**MOVING AVERAGES** -- 200>Settle>20>18>30>3>4>100=5=10>9>50

The oscillator situation was bullish yesterday with the 3-9 day crossing up into positive territory and the 5-20 day oscillator moving higher in negative territory.

**VOLUME/OPEN INTEREST** -- Yesterday's estimated volume was 210,000. Tuesday's volume was 213,430. Open interest fell -279 contracts to 452,888.

**SUPPORT/RESISTANCE** -- The primary resistance levels for USM are: 101-29, 102-02, 102-06, 103-00, 103-04, and 103-30. The primary support levels are: 101-04, 100-04, 99-27, 99-19, and 97-22.

**BASIS DATA:** Cash 5-3/8% bond - (USM02)(.9152) Basis: 103, -2.

**SUPPORT/RESISTANCE LEVELS -- US FUTURES (USM02)**

112-19 All-time high (USZ01, Nov 1)	101-20 Pivot Point
110-10 Contract high (Nov 1)	101-14 Yesterday's pit session low
109-10 Contract high settle (Nov 7)	101-09 3-day average
105-24 5-3/8% cash equivalent (BASIS@103)	101-04 Yesterday's overall low (a/c/e)
104-07 5-3/4 month high (Nov 15 & 19)	101-00 100, 10, and 5-day averages
104-01 5-3/4 month high (Dec 4)	100-16 Tuesday's low
103-30 5-1/4 month high (Feb 22))	100-14 50-day average
103-25 5-1/2% cash equivalent (BASIS@103)	100-04 Monday's low & 1-month low settle (Last Tue)
103-16 5-1/4 month high settle (Feb 22)	100-00 5-3/4% cash equivalent (BASIS@103)
103-04 2-1/2 month high (May 1)	99-27 1-month low (Last Tuesday)
103-00 3-week high (May 3)	99-19 1-1/2 month low (Apr 18)
102-23 2-1/2 month high settle (May 3)	98-06 5-7/8% cash equivalent (BASIS@103)
102-06 2-week high (May 10)	97-26 11-1/2 month low settle (Mar 14)
102-02 Last Monday's high & 200-day average	97-22 2-month low (Mar 28) & Contract low settle (5/31/01)
101-29 1-1/2 week high (Yesterday)	97-16 2-1/4 month low (Mar 21)
101-28 5-5/8% cash equivalent (BASIS@103)	97-06 5-1/4 month low (Mar 15)
<b>*101-26 1-1/2 week high settle (Wednesday)</b>	96-31 Contract low (Dec 17)

**RETRACEMENTS -- US FUTURES (USM02)**

6-1/2 month 13-11/32 point downmove from 110-10 (11/1/01) to 96-31 (12/17/01)

52% retrace (2/22/02 high) 103-30

HIGH	3/4	2/3	.618	1/2	.382	1/3	1/4	LOW
110-10	106-31	105-28	105-07	103-20	102-02	101-13	100-10	96-31

**SUPPORT/RESISTANCE LEVELS -- CASH 30-YEAR T-BOND (5-3/8% 02/31)** Synthetic data used prior to first day of trading on 2/09/01.

111-11 All-time high (Nov 1) (4.661%)	96-24 1-1/2 week high (Last Monday & May 10) (5.604%)
109-25 4-3/4% cash yield	96-17 1-week high (Yesterday) (5.620%)
109-03 All-time high settle (Nov 7) (4.794%)	96-15 5-5/8% cash yield
107-23 4-7/8% cash yield	<b>*96-13 1-week high settle (Wednesday) (5.629%)</b>
105-23 5-00% cash yield	95-26 Yesterday's low (5.672%)
103-24 5-1/8% cash yield	94-24 5-3/4% cash yield
102-21 5-3/4 month high (Dec 4) (5.197%)	94-23 1-1/2 month low settle (Last Tuesday) (5.753%)
101-27 5-1/4% cash yield	94-14 1-1/2 month low (Last Wednesday & Tuesday) (5.774%)
100-30 5-1/2 month high (Jan 16) (5.311%)	93-23 11-3/4 month low settlement (Mar 20) (5.827%)
100-27 4-1/4 month high (Feb 22) (5.317%)	93-08 2-month low (Apr 2) (5.863%)
100-00 5-3/8% cash yield	93-04 12-month low (Mar 15) (5.872%)
98-17 2-3/4 month high (Mar 6) (5.477%)	93-03 5-7/8% cash yield
98-06 5-1/2% cash yield	92-19 1-1/3 year low (5/15/01) (5.912%)
97-28 2-1/2 month high (May 3) (5.523%)	91-15 6-00% cash yield

**RETRACEMENTS -- CASH 30-YEAR T-BOND** Note: Retracements calculated from cash bond yield, not price.

6-1/2 month 18-07/32 point downmove from 111-11 (4.661%) (11/1/01) to 93-04 (5.872%) (3/15/02)

29% retrace (5/3/02) 97-28 (5.523%)

HIGH	3/4	2/3	.618	1/2	.382	1/3	1/4	LOW
111-11	106-08	104-21	103-24	101-19	99-16	98-21	97-08	93-04
4.661%	4.964%	5.065%	5.124%	5.267%	5.409%	5.468%	5.569%	5.872%

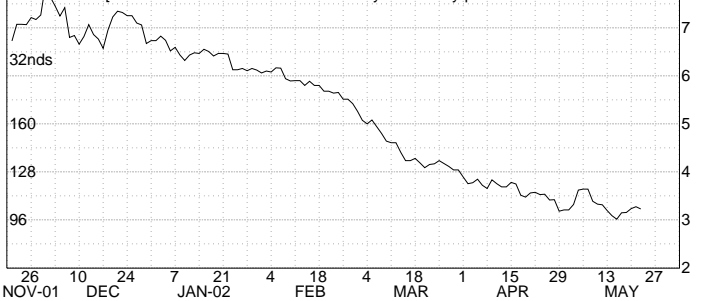
U.S. TREASURY BONDS

Optima Investment Research

CBOT 30YR T-BONDS JUN 2002 .. Daily HLC plot



30YR BASIS [5-3/8% 02/31 - USM02 \* .9152 .. Daily Close only plot

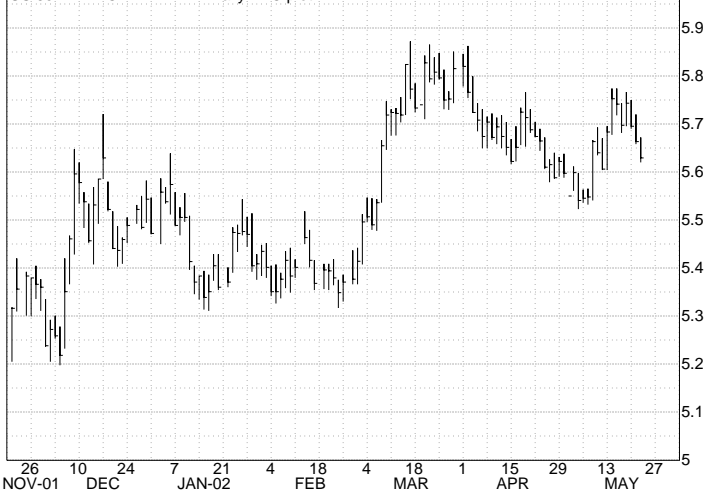


Optima Investment Research

5-3/8% 30-YR BOND 02/31 .. Daily HLC plot

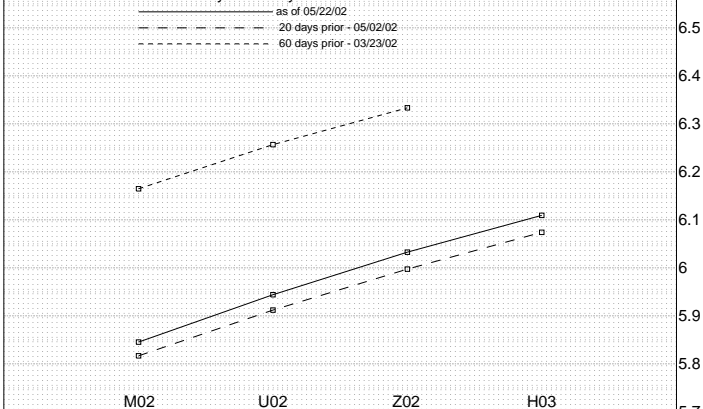


US 30YR T-BOND YIELD .. Daily HLC plot

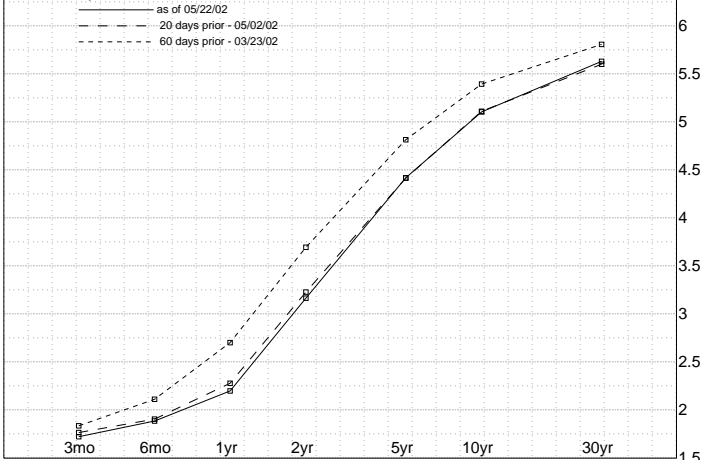


Optima Investment Research

CBOT 30YR T-BONDS .. Daily Futures yield curve 20 60

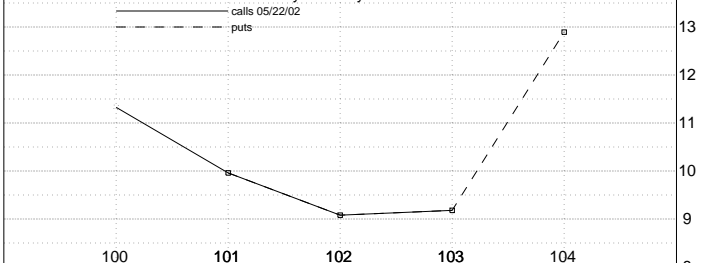


US Treasury Yield Curve 20 60



Optima Investment Research

CBOT 30YR T-BONDS JUN 2002 .. Daily Volatility Skew



CBOT 30YR T-BONDS JUN 2002 .. Daily Implied volatility



## OPTIMA TECHNICAL INDICATORS - CBOT T-BONDS, NOTES &amp; MUNIS

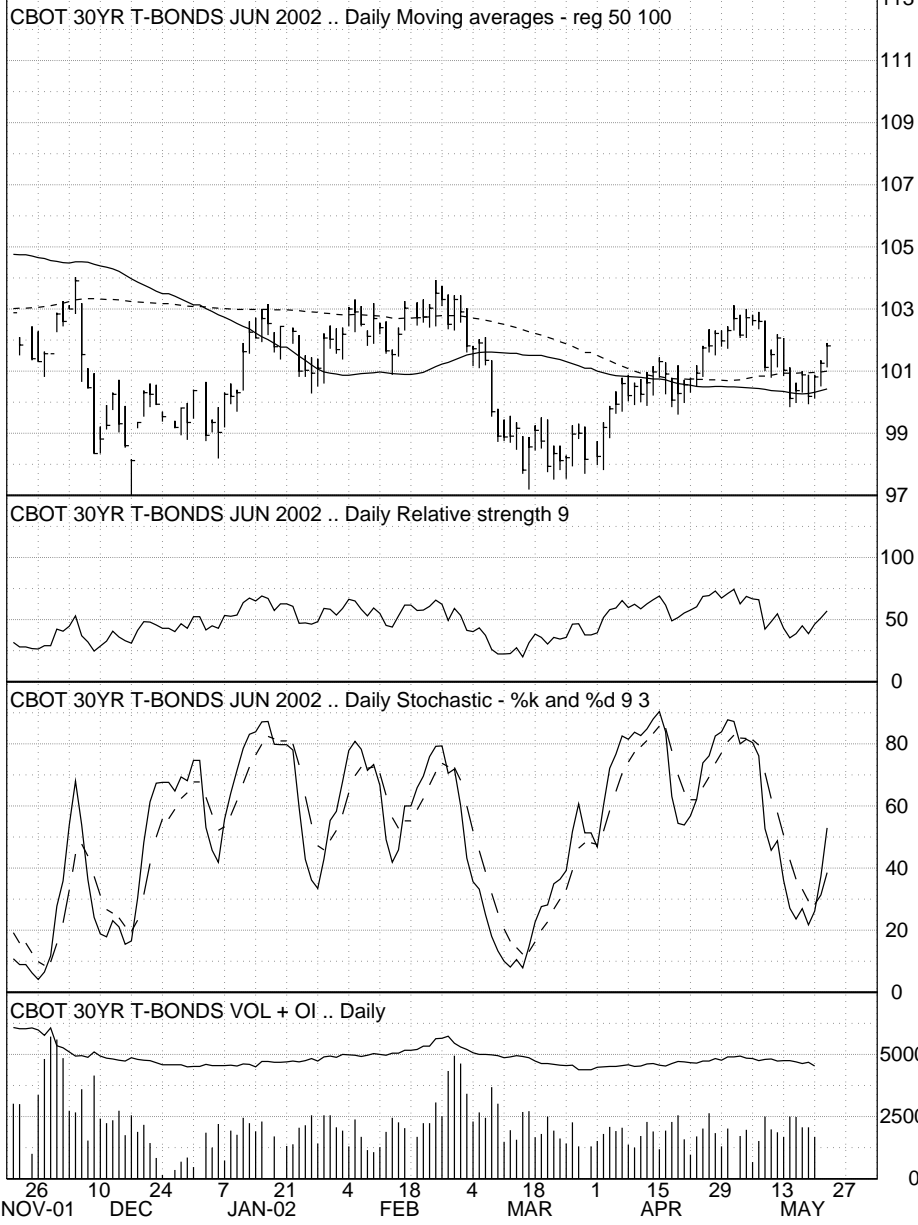
As of: 052202	: USM02	BLY	TYM02	FVM02	TUM02	MBM02
	:	Cash 30Y				
High:	101-29	96-17	106-020	106-260	104-262	104-12
Low:	101-04	95-26	105-160	106-110	104-222	103-30
Settle:	101-26s	96-13s	106-000s	106-225s	104-247s	104-05s
Change:	+0-18	+0-15	+0-120	+0-090	+0-037	+0-13
	:					
Pivot	R2: 102-13	96-31	106-135	107-030	104-282	104-19
Analysis	R1: 102-03	96-22	106-065	106-285	104-265	104-12
	Pivot: 101-20	96-08	105-275	106-200	104-242	104-05
	S1: 101-10	95-31	105-205	106-135	104-225	103-30
	S2: 100-27	95-17	105-095	106-050	104-202	103-23
	:					
Momentum 1-10 Day:	+0-22	+0-15	+1-050	+0-290	+0-100	+0-18
[Settle 1-20 Day:	+0-02	+0-16	+0-230	+0-270	+0-120	+0-14
- prev. 1-30 Day:	+1-18	+0-19	+1-285	+1-225	+0-285	+1-20
x-day 1-100 Day:	+2-00	-2-12	+2-225	+2-095	N/A	+3-08
settle]1-200 Day:	+0-00	-0-20	N/A	N/A	N/A	N/A
	:					
Moving	3 Day: 101-09	95-30	105-205	106-140	104-210	103-24
Averages	4 Day: 101-01	95-22	105-140	106-100	104-190	103-16
	5 Day: 101-00	95-20	105-125	106-090	104-190	103-14
	9 Day: 100-30	95-18	105-070	106-050	104-182	103-10
	10 Day: 101-00	95-20	105-065	106-045	104-182	103-12
	18 Day: 101-18	96-07	105-115	106-045	104-190	103-24
	20 Day: 101-20	96-09	105-125	106-045	104-185	103-24
	30 Day: 101-11	96-03	105-045	105-290	104-140	103-16
	50 Day: 100-14	95-17	104-100	105-070	104-012	102-20
	100 Day: 101-00	97-07	104-175	105-115	N/A	102-22
	200 Day: 102-02	98-19	N/A	N/A	N/A	N/A
	:					
Contract	5-D: 101-01	95-22	105-140	106-100	104-190	103-16
crosses MA	10-D: 100-30	95-18	105-070	106-050	104-182	103-10
today at	20-D: 101-19	96-08	105-120	106-045	104-187	103-24
price of:	30-D: 101-12	96-04	105-055	105-300	104-147	103-17
	:					
Moving Avg	3-9: +0-11	+0-12	+0-135	+0-090	+0-027	+0-14
Oscillators	5-20: -0-20	-0-20	+0-005	+0-045	+0-005	-0-10
MA Osc	3-9: 98-21	93-06	103-055	104-250	104-017	100-29
cross today	5-20: 104-24	99-11	105-030	105-100	104-175	105-03
	:					
RSI	9-Day RSI: 56.8	55.9	61.8	63.9	61.4	60.1
Prev	9-Day RSI: 51.2	51.0	57.4	59.3	57.2	55.2
Close today for	80: 106-27	101-17	108-290	108-150	105-237	107-14
new 9-RSI of:	20: 93-26	88-26	99-100	101-275	102-197	97-18
Simulated +3 Unit:	74.5	74.1	80.3	78.6	77.6	79.1
9-Day RSI +2 Unit:	70.4	70.0	76.5	75.2	73.9	75.2
for settle+1 Unit:	64.9	64.3	70.9	70.6	68.9	69.4
today of: -1 Unit:	46.2	45.2	47.1	52.1	49.5	46.1
-2 Unit:	38.9	38.0	38.0	44.0	41.5	37.4
-3 Unit:	33.6	32.7	31.9	38.0	35.7	31.5
1 Unit = :	1-00	1-00	1-000	0-160	0-080	1-00
	:					
Total Call/Put Vol						
Ratio (Prev Sess):	.90		.95			
10-day avg :	1.30		.93			
1-year avg :	1.42		1.57			
#StdDevs of 10day:						
avg from 1yr avg:	-.24					
Probability Range:	19%					
	:					
Stochastics						
9-Day Range Raw K:	84.0	85.1	96.6	92.0	96.6	89.4
3-Day EMA K: %K:	52.9	53.8	73.1	75.4	83.2	60.5
3-Day EMA %K: %D:	38.5	38.5	56.8	62.7	72.0	44.7
Price today for :						
%K & %D xover :	100-02	94-20	104-220	105-305	104-037	102-19
%K,%D at xover :	38.5	38.5	56.8	62.7	72.0	44.7

Optima Investment Research  
CBOT 30YR T-BONDS JUN 2002 .. Daily HLC plot

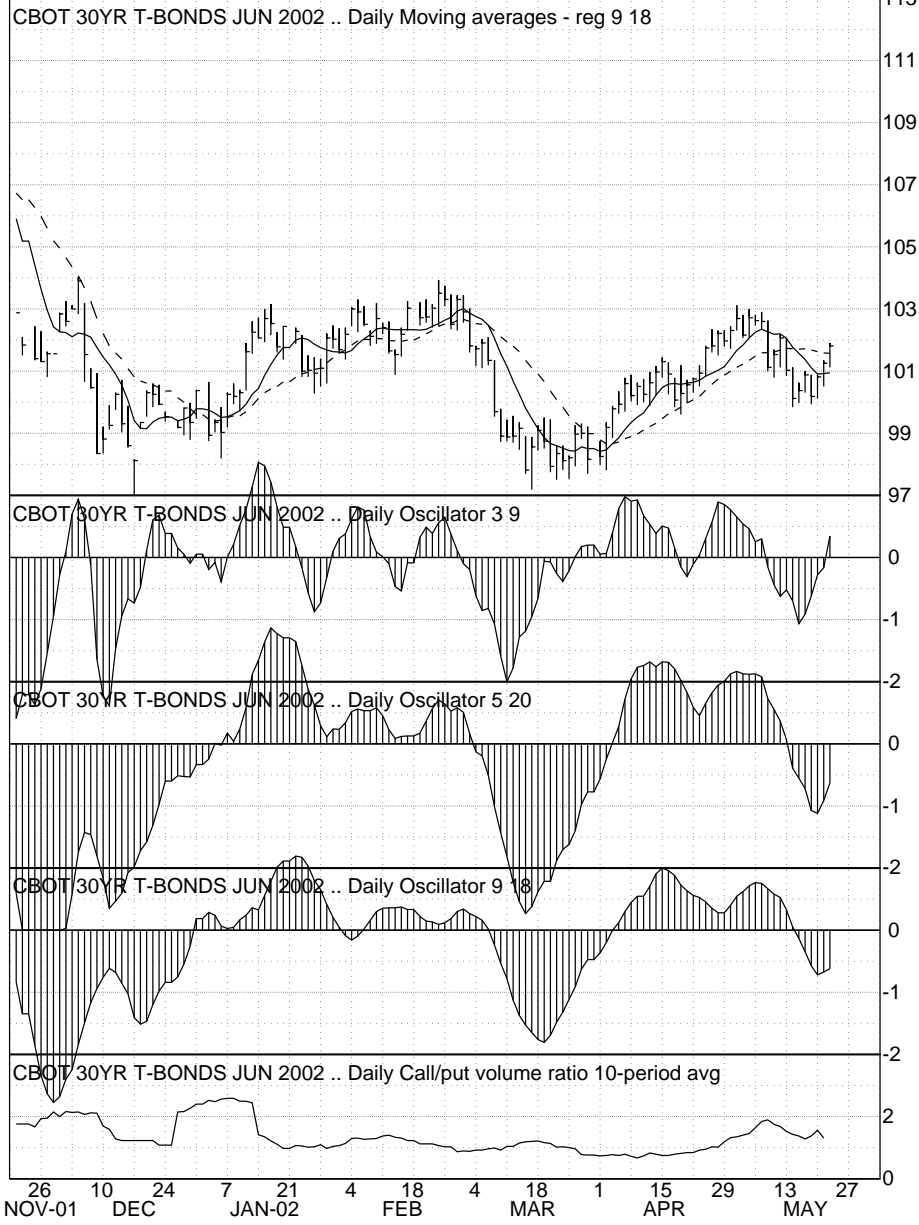


Updated through latest 2PM close

Optima Investment Research



Optima Investment Research



Optima Investment Research  
CBOT 30YR T-BONDS JUN 2002 .. 30 minute HLC plot

05/22/02 17:45 ET





Optima Investment Research  
CBOT 30YR T-BONDS JUN 2002 .. Point & figure 2 6

05/22/02 17:46 ET



B-5

Optima Investment Research  
CBOT 30YR T-BONDS JUN 2002 .. Point & figure 4 12

05/22/02 17:47 ET



# 30-YEAR BOND - WEEKLY FUTURES & CASH

Optima Investment Research

CBOT 30-YR T-BONDS - PITNEAREST FUTURES .. Weekly HLC plot



Optima Investment Research

US 30YR T-BOND YIELD .. Weekly HLC plot



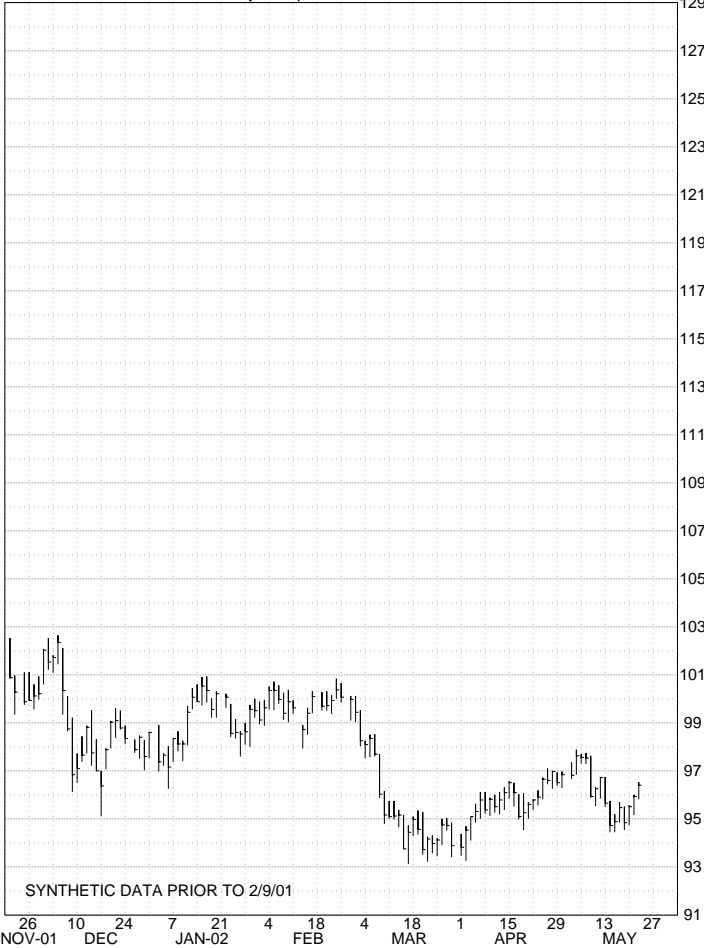
Optima Investment Research  
5-3/8% 30-YR BOND 02/31 .. Daily HLC plot



SYNTHETIC DATA PRIOR TO 8/12/1994

30-YEAR BOND - CASH & BASIS

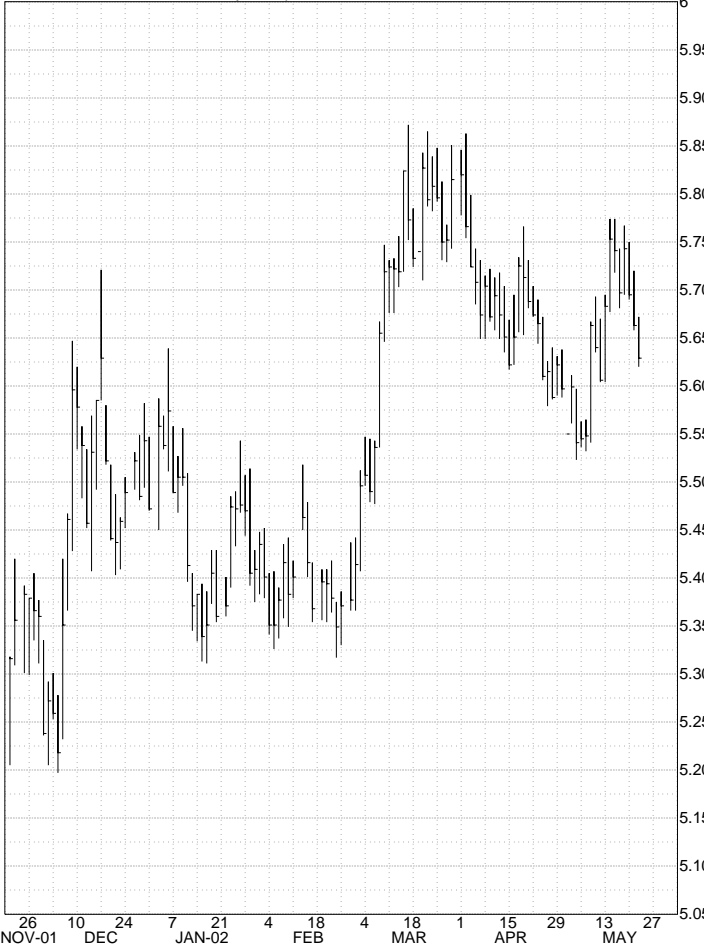
Optima Investment Research  
5-3/8% 30-YR BOND 02/31 .. Daily HLC plot



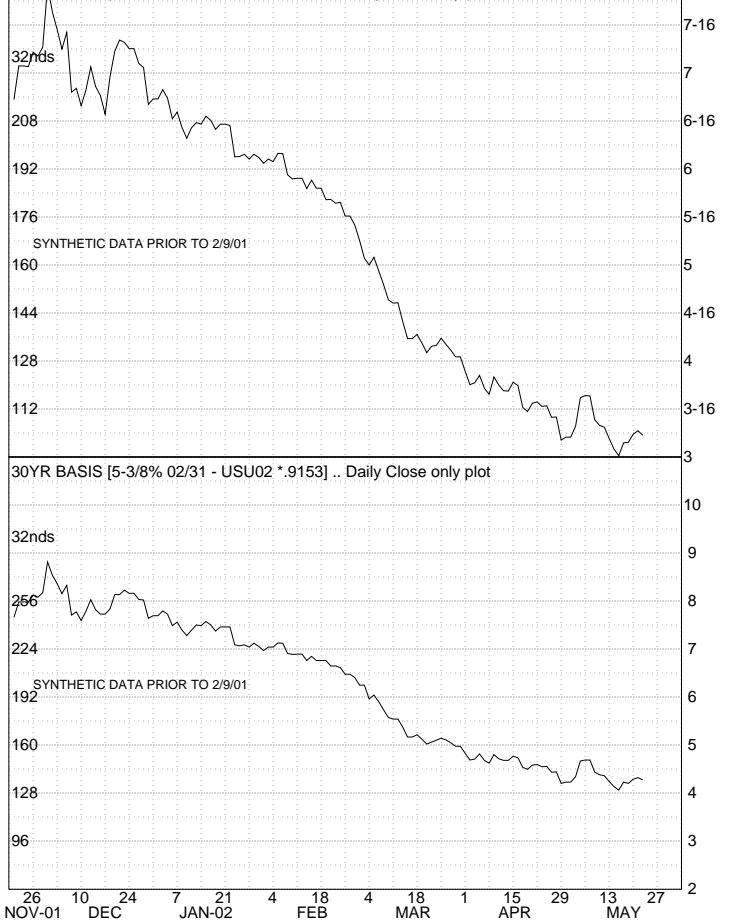
Optima Investment Research  
CBOT 30YR T-BONDS JUN 2002 .. Daily HLC plot



Optima Investment Research  
US 30YR T-BOND YIELD .. Daily HLC plot



Optima Investment Research  
30YR BASIS [5-3/8% 02/31 - USM02 \* .9152] .. Daily Close only plot



30YR BASIS [5-3/8% 02/31 - USU02 \* .9153] .. Daily Close only plot

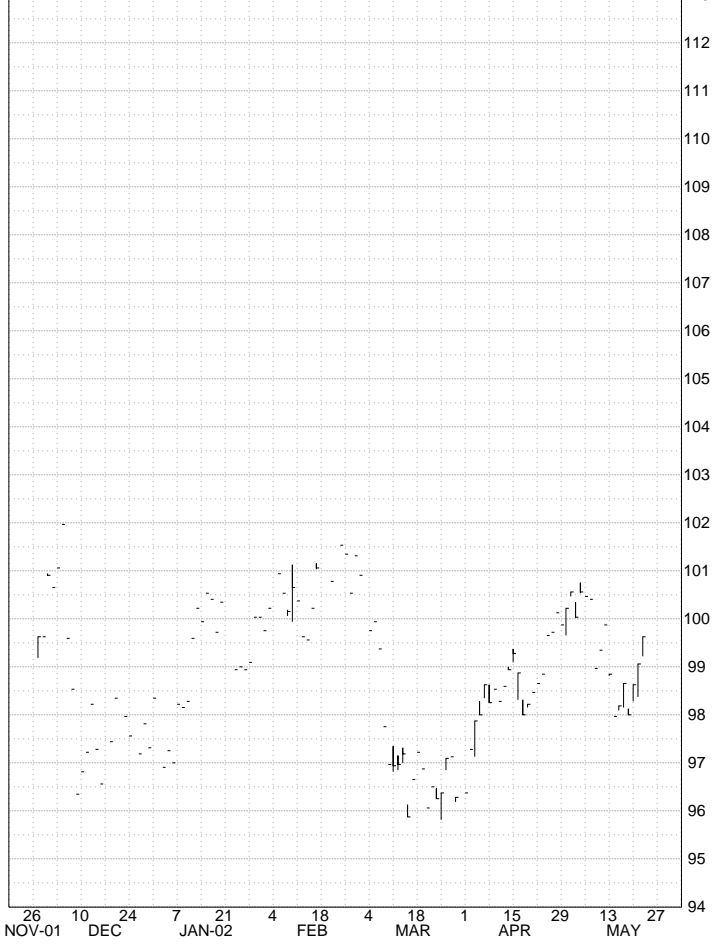


30-YEAR BOND - BACK MONTH FUTURES

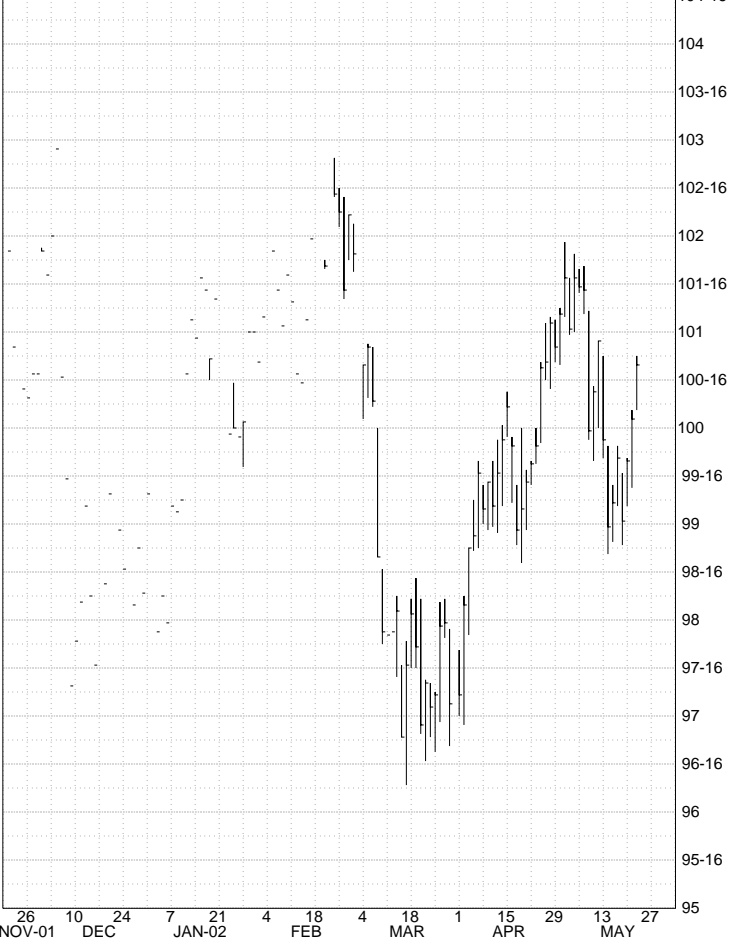
Optima Investment Research  
CBOT 30YR T-BONDS JUN 2002 .. Daily HLC plot



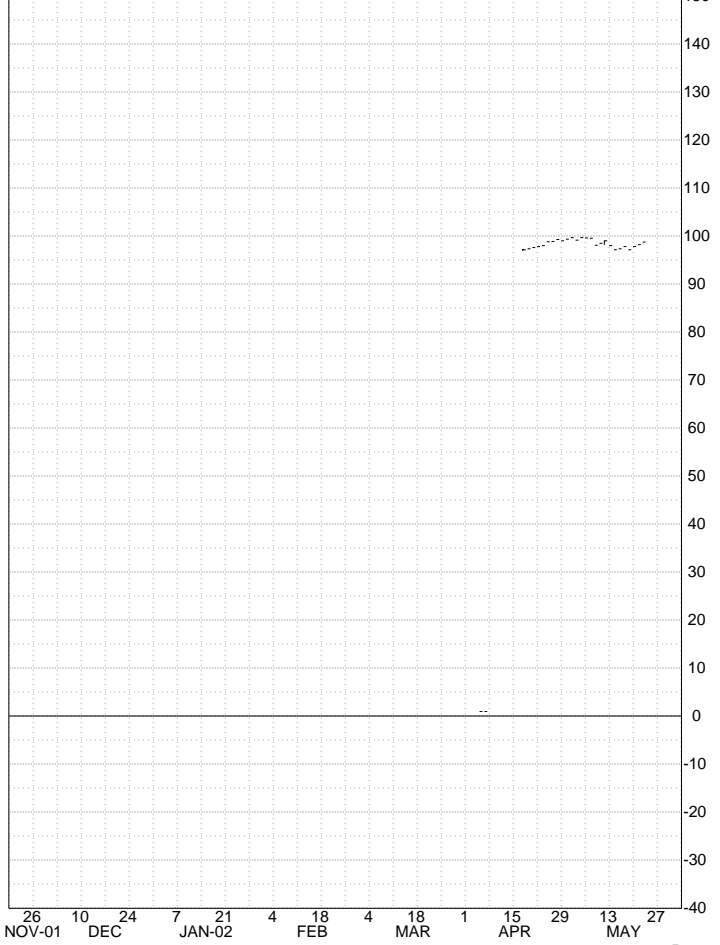
Optima Investment Research  
CBOT 30YR T-BONDS DEC 2002 .. Daily HLC plot



Optima Investment Research  
CBOT 30YR T-BONDS SEP 2002 .. Daily HLC plot

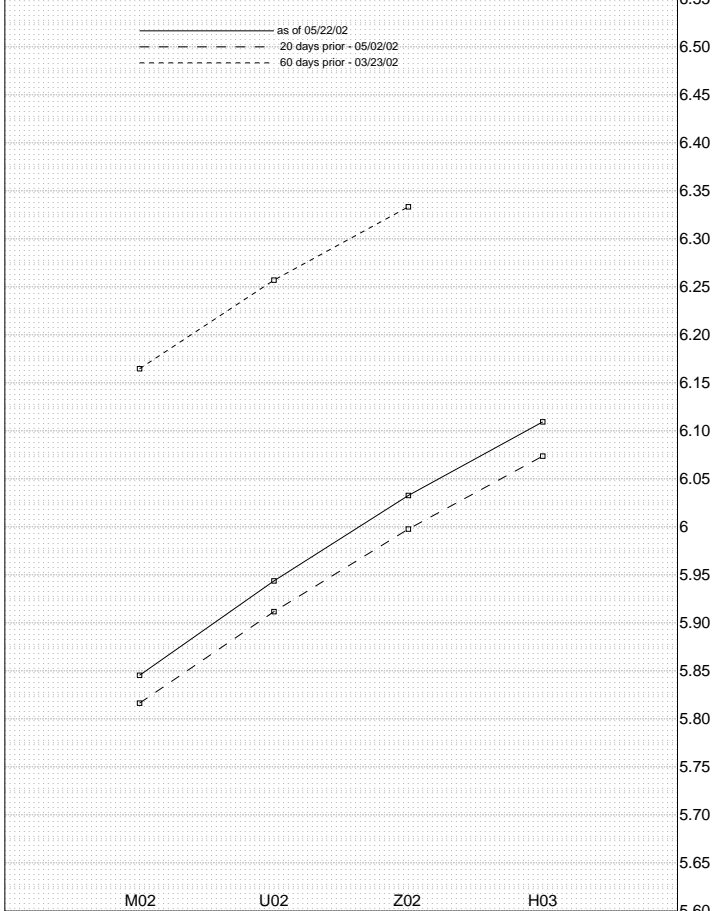


Optima Investment Research  
CBOT 30YR T-BONDS MAR 2003 .. Daily HLC plot



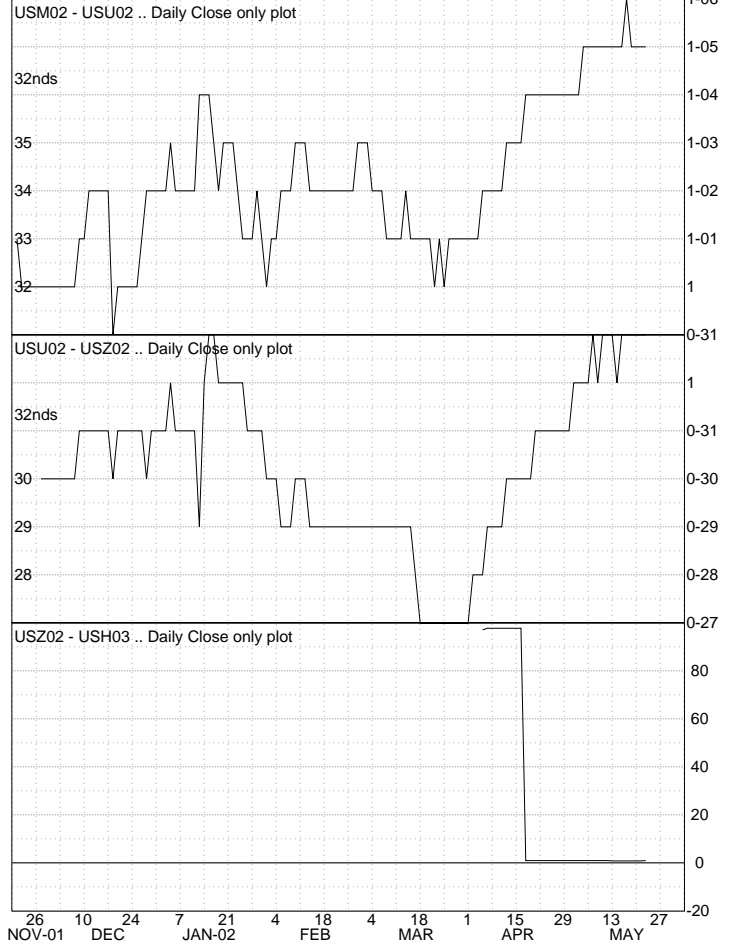
30-YEAR BOND - CALENDAR SPREADS

Optima Investment Research  
CBOT 30YR T-BONDS .. Daily Futures yield curve 20 60



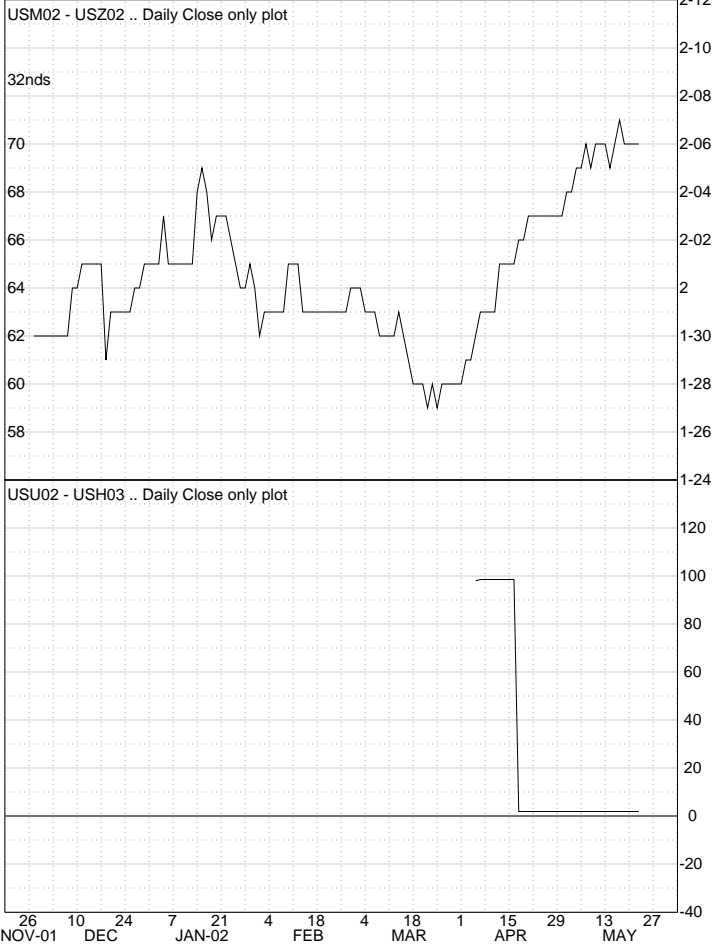
3-MONTH SPREADS

Optima Investment Research



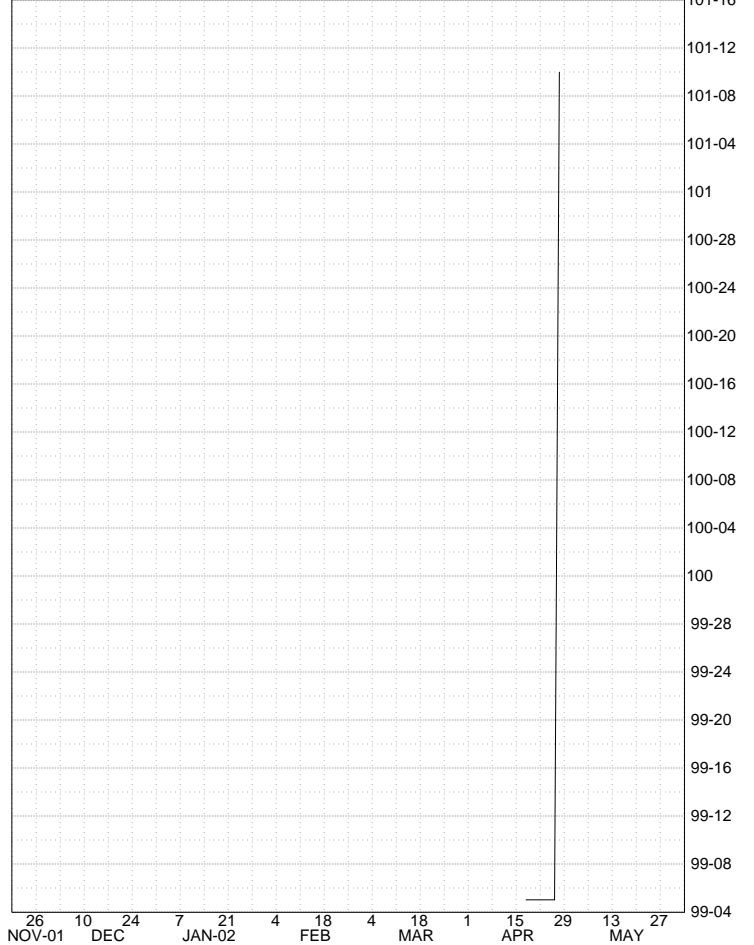
6-MONTH SPREADS

Optima Investment Research

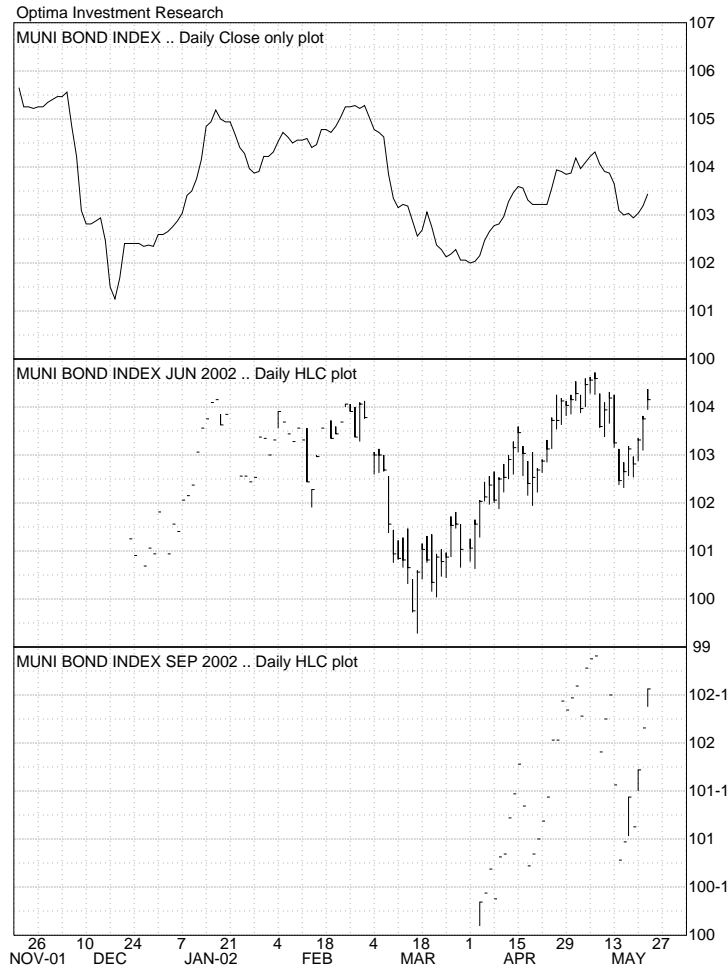


1-YEAR SPREADS

Optima Investment Research

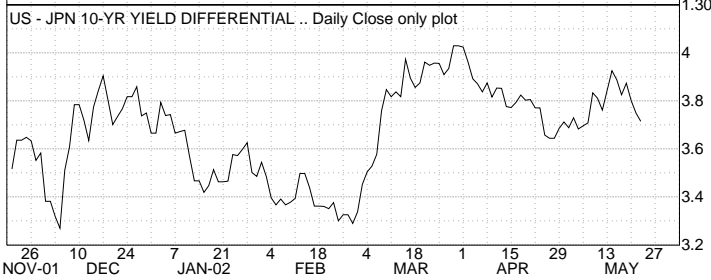
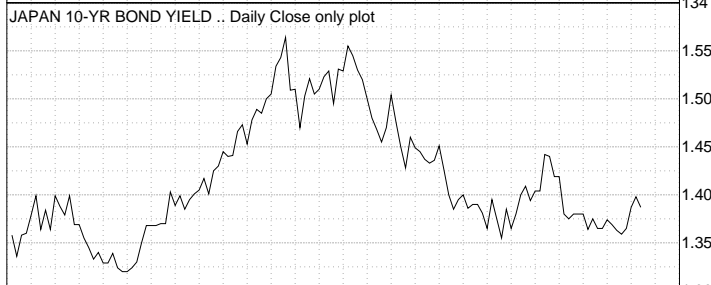


TY, FV, TU & MB - FUTURES & YIELDS

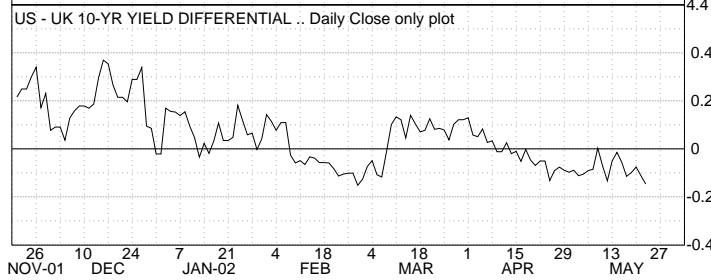
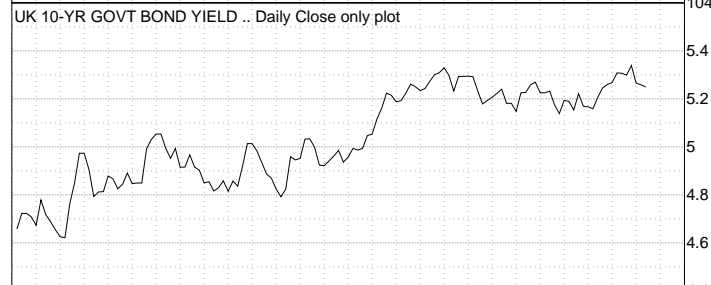


INTERNATIONAL BONDS

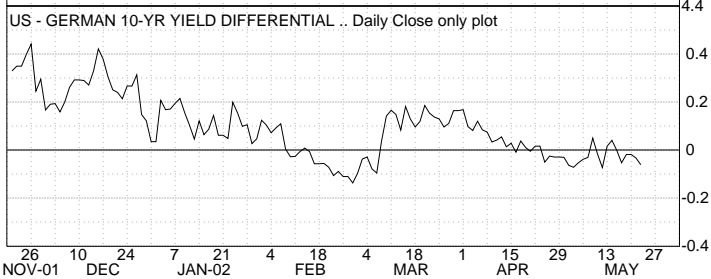
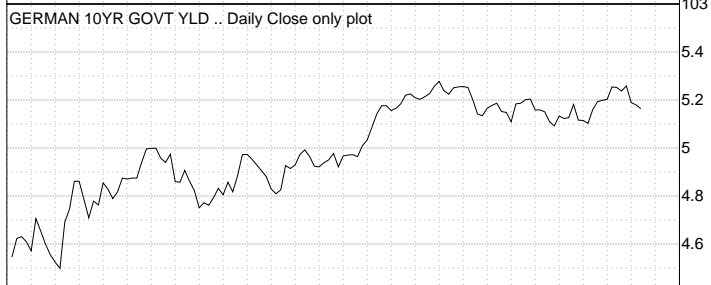
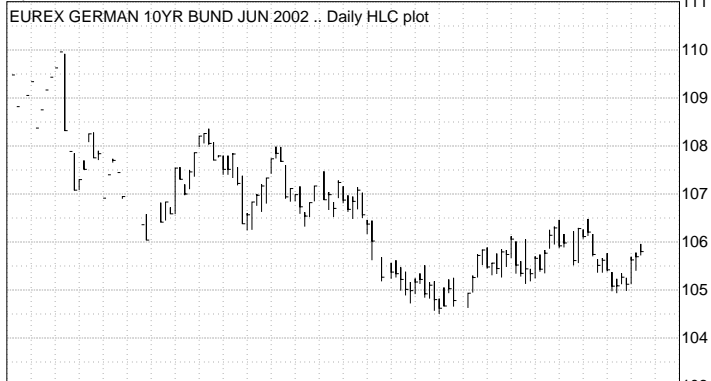
Optima Investment Research



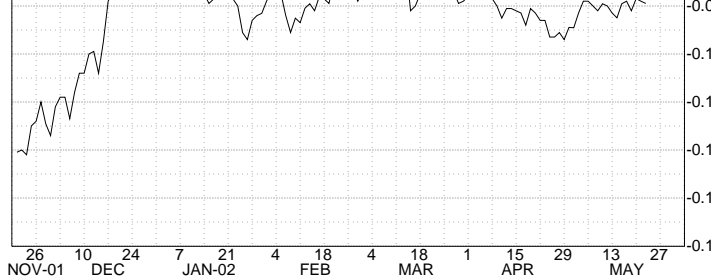
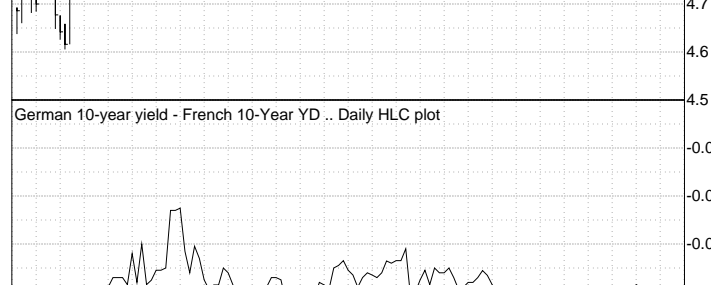
Optima Investment Research



Optima Investment Research



Optima Investment Research



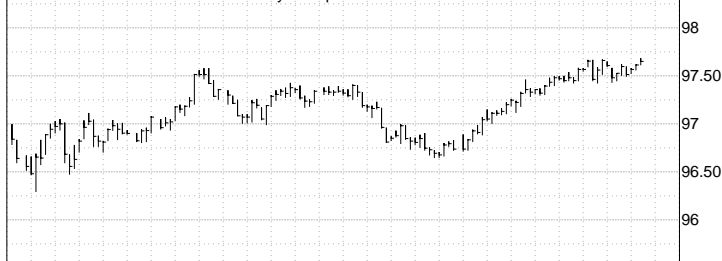
DAILY U.S. MARKET OVERVIEW

Optima Investment Research

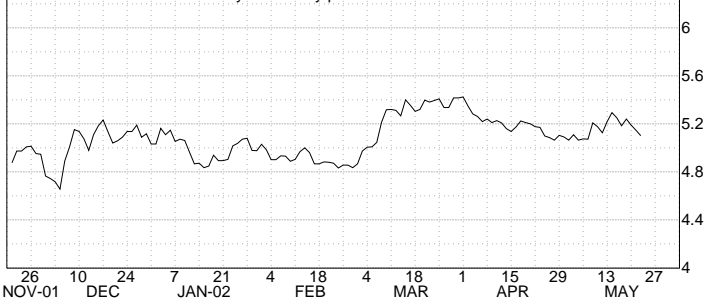
CBT 10-YEAR T-NOTE JUN 2002 .. Daily HLC plot



IMM EURODOLLAR SEP 2002 .. Daily HLC plot



US 10YR T-NOTE YIELD .. Daily Close only plot



NOV-01 DEC JAN-02 FEB MAR APR MAY 27

Optima Investment Research

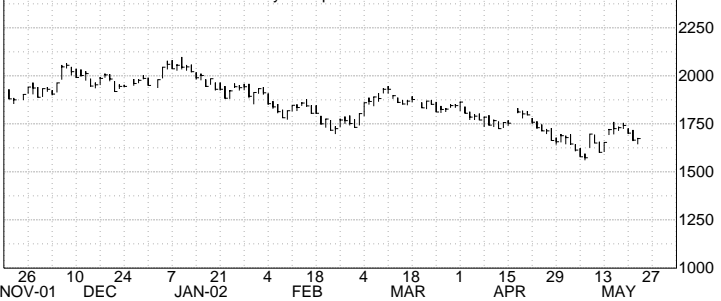
S&P 500 STOCK INDEX .. Daily HLC plot



DOW JONES INDUSTRIALS .. Daily HLC plot



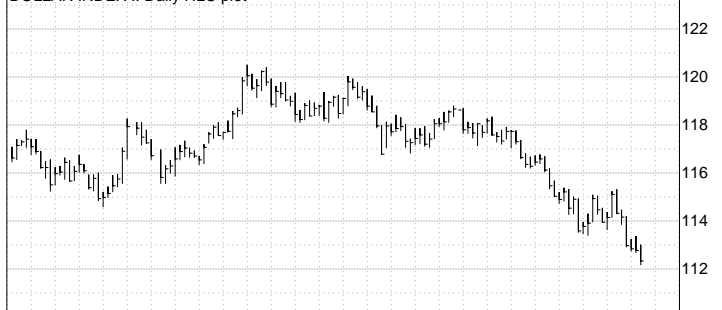
NASDAQ COMPOSITE INDEX .. Daily HLC plot



NOV-01 DEC JAN-02 FEB MAR APR MAY 27

Optima Investment Research

DOLLAR INDEX .. Daily HLC plot



DOLLAR/YEN .. Daily HLC plot



EURO / US\$ .. Daily HLC plot

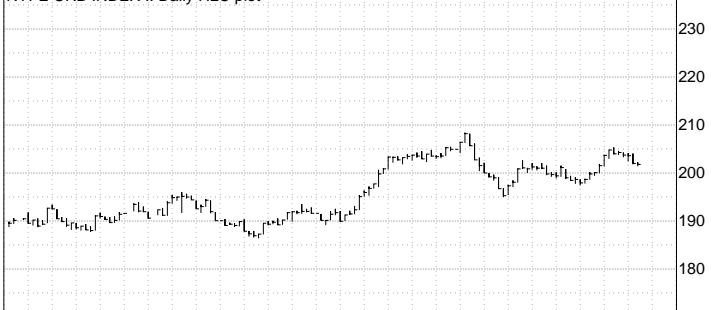


SYNTHETIC DATA PRIOR TO 01/01/99

NOV-01 DEC JAN-02 FEB MAR APR MAY 27

Optima Investment Research

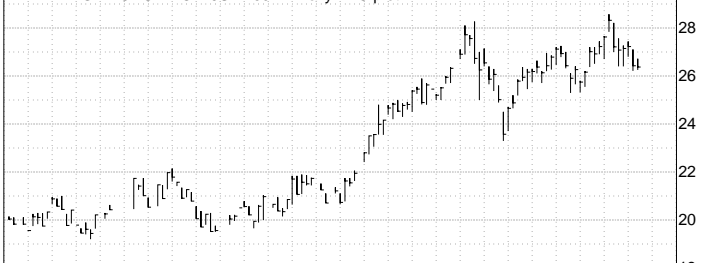
NYFE CRB INDEX .. Daily HLC plot



COMEX GOLD JUN 2002 .. Daily HLC plot



NYMEX LIGHT CRUDE OIL JUL 2002 .. Daily HLC plot



NOV-01 DEC JAN-02 FEB MAR APR MAY 27

**OPTIMA VOLATILITY PICTURE -- T-BONDS ^ Thu 5/23/02**

**IMPLIED VOLATILITY OVERVIEW** -- USU volatility finished +.16 at 10.24. The short-term trend for volatility is bearish with last Thursday's contract low settle. The intermediate-term trend for volatility is bearish as implied volatility posted a contract low last Thursday.

**MATURITY STRUCTURE OF IMPLIED VOLATILITY** -- The maturity structure is flat in shape: USU was +.16 at 10.24 and USZ was +.05 at 10.34.

**RICH/CHEAP ANALYSIS** -- The T-Bond Volatility Cheapness Indexes were higher with USU at a moderately rich 77.9.

**SIGMA BOUNDARY** -- The 1-standard deviation moves today are: USU +21/32nds at 101-10 and -21/32nds at 100-00.

**SUPPORT/RESISTANCE LEVELS -- T-BOND IMPLIED VOLATILITY (USU02)**

19.04 All-time high (8/10/88 mthly-nrst U88)	10.43 60-day implied vol avg
11.70 Contract high (Jan 29)	10.21 20-day implied vol avg
10.96 3-3/4 month high (Feb 11)	<b>*10.24 Previous (Wednesday)</b>
10.83 3-1/2 month high (Mar 25)	9.99 Contract low (Last Thursday)
10.79 2-month high (April 4)	6.39 All-time low (mthly-nrst 7/29/98 U98)
10.58 1-1/4 month high (Tuesday)	

Note: Call for Optima's User Manual (which has explanations of the volatility terms) and for instructions on receiving volatility graphics by fax or Internet at [www.oir.com](http://www.oir.com).

Copyright, 2002, Optima Investment Research Inc., 312-427-3616 or 800-344-4403. From the UK call toll free, 0800-96-2192.

## OPTIMA VOLATILITY SUMMARY - CBOT INTEREST RATES

As of: 052202	USM02	USU02	TYM02	TYU02	FVM02	FVU02
Underlying Settle:	101-26s	100-21s	106-000s	104-210s	106-225s	105-130s
Change:	+0-18	+0-18	+0-120	+0-120	+0-090	+0-090
Implied Volatility	9.24s	10.27s	6.93s	7.44s	4.99s	4.91s
Change from Prev:	-.16	+.16	-.08	+.03	-.06	+.07
last 20Days High:	9.90	10.54	7.28	7.83	5.05	5.00
Avg:	9.29	10.21	6.71	7.53	4.56	4.87
Low:	8.65	9.99	6.05	7.25	3.99	4.70
last 60Days High:	10.75	10.82	8.59	N/A	5.76	N/A
Avg:	9.96	10.43	7.52	N/A	5.10	N/A
Low:	8.65	9.99	6.05	N/A	3.99	N/A
Historical 20 Day:	9.68%	9.72%	6.65%	6.80%	4.48%	4.62%
Volatility 30 Day:	8.87%	8.94%	5.84%	5.98%	3.93%	4.05%
50 Day:	9.10%	9.16%	6.08%	6.15%	3.99%	4.04%
100 Day:	9.75%	10.05%	6.48%	6.54%	4.63%	N/A
200 Day:	11.14%	N/A	N/A	N/A	N/A	N/A

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

## OPTIMA VOLATILITY CHEAPNESS INDEX

Historical Volatility						
Max	: 35.0	12.7	22.8	8.9	16.3	6.0
Median	: 7.4	8.6	4.8	6.1	3.3	4.2
Min	: .0	6.1	.2	3.5	.2	2.3
Vol Cheapness Ind:	59.6	78.1	69.7	89.5	69.3	80.7
change	: unch	+2.6	unch	+.2	unch	+1.1
Last 20 sess	:					
High	: 72.0	81.4	79.3	90.8	78.5	83.2
Avg	: 60.4	76.5	68.2	89.2	66.2	77.6
Low	: 53.1	74.0	58.2	87.9	52.6	74.3
Last 60 sess	:					
High	: 84.0	87.7	95.5	100.0	93.5	N/A
Avg	: 71.4	81.5	80.1	94.3	77.1	N/A
Low	: 53.1	74.0	58.2	87.9	52.6	N/A
Days to Expiration	3	93	3	93	3	94

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

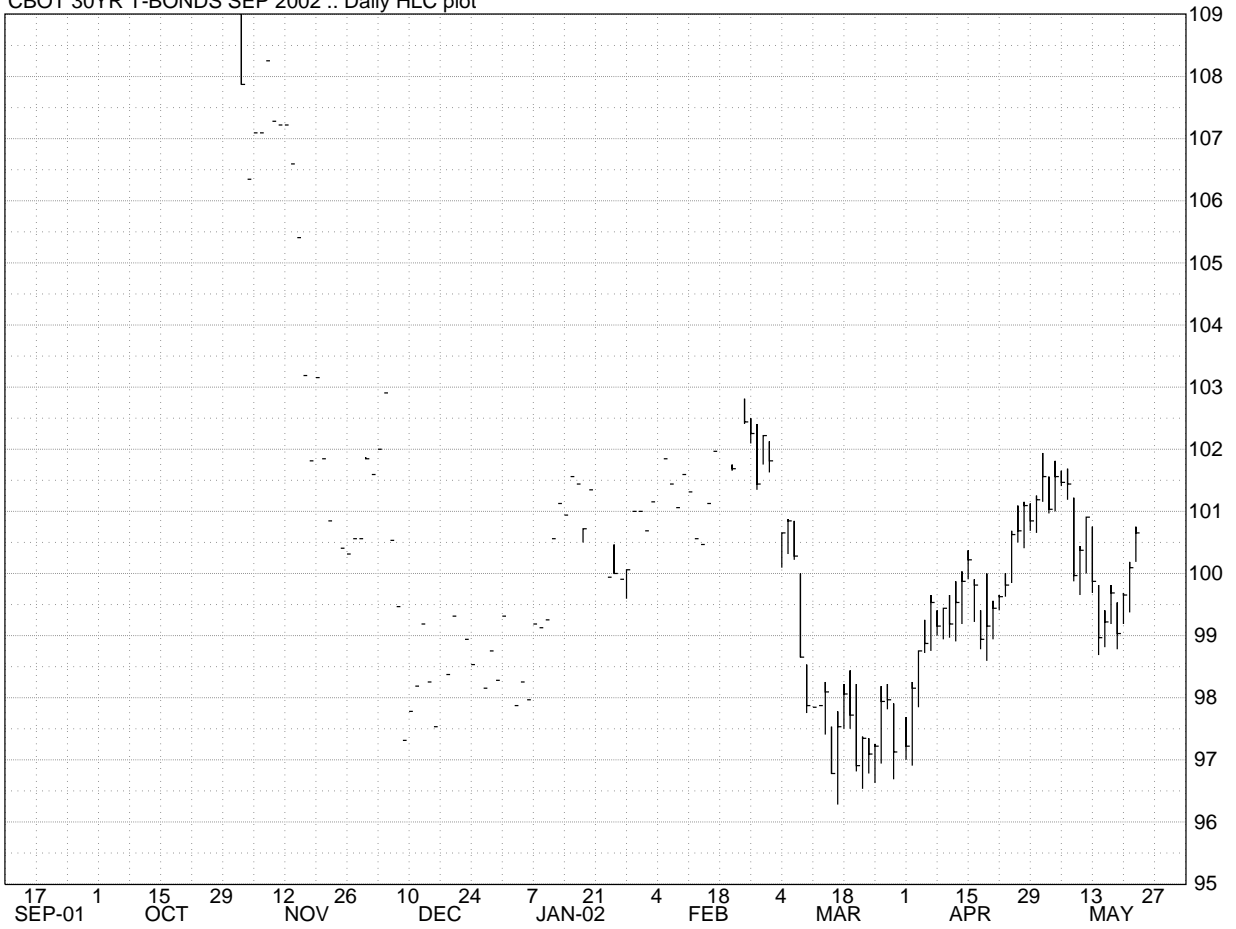
## OPTIMA SIGMA BOUNDARY

Today: +1 Std Dev:	0-19	0-21	0-150	0-155	0-105	0-105
-1 Std Dev:	0-19	0-21	0-150	0-155	0-105	0-105
68% H:	102-13	101-10	106-150	105-045	107-010	105-235
L:	101-07	100-00	105-170	104-055	106-120	105-025
95% H:	103-00	101-31	106-295	105-205	107-120	106-020
L:	100-20	99-11	105-025	103-215	106-010	104-240
99% H:	103-19	102-20	107-125	106-040	107-225	106-125
L:	100-01	98-23	104-195	103-060	105-225	104-135
20Days +1 Std Dev:	N/A	2-31	N/A	2-070	N/A	1-150
Out: -1 Std Dev:	N/A	2-28	N/A	2-055	N/A	1-145
To +1 Std Dev:	0-27	5-11	0-215	4-000	0-155	2-210
Expir- -1 Std Dev:	0-27	5-03	0-215	3-275	0-155	2-190
68% H:	102-21	106-00	106-215	108-210	107-060	108-020
L:	100-31	95-18	105-105	100-255	106-070	102-260
95% H:	103-17	111-12	107-110	112-215	107-215	110-235
L:	100-04	90-16	104-215	96-300	105-235	100-070
99% H:	104-12	116-23	108-000	116-215	108-050	113-125
L:	99-08	85-13	104-000	93-025	105-085	97-200

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

# OPTIMA - T-BOND OPTIONS PACKAGE

Optima Investment Research  
CBOT 30YR T-BONDS SEP 2002 .. Daily HLC plot

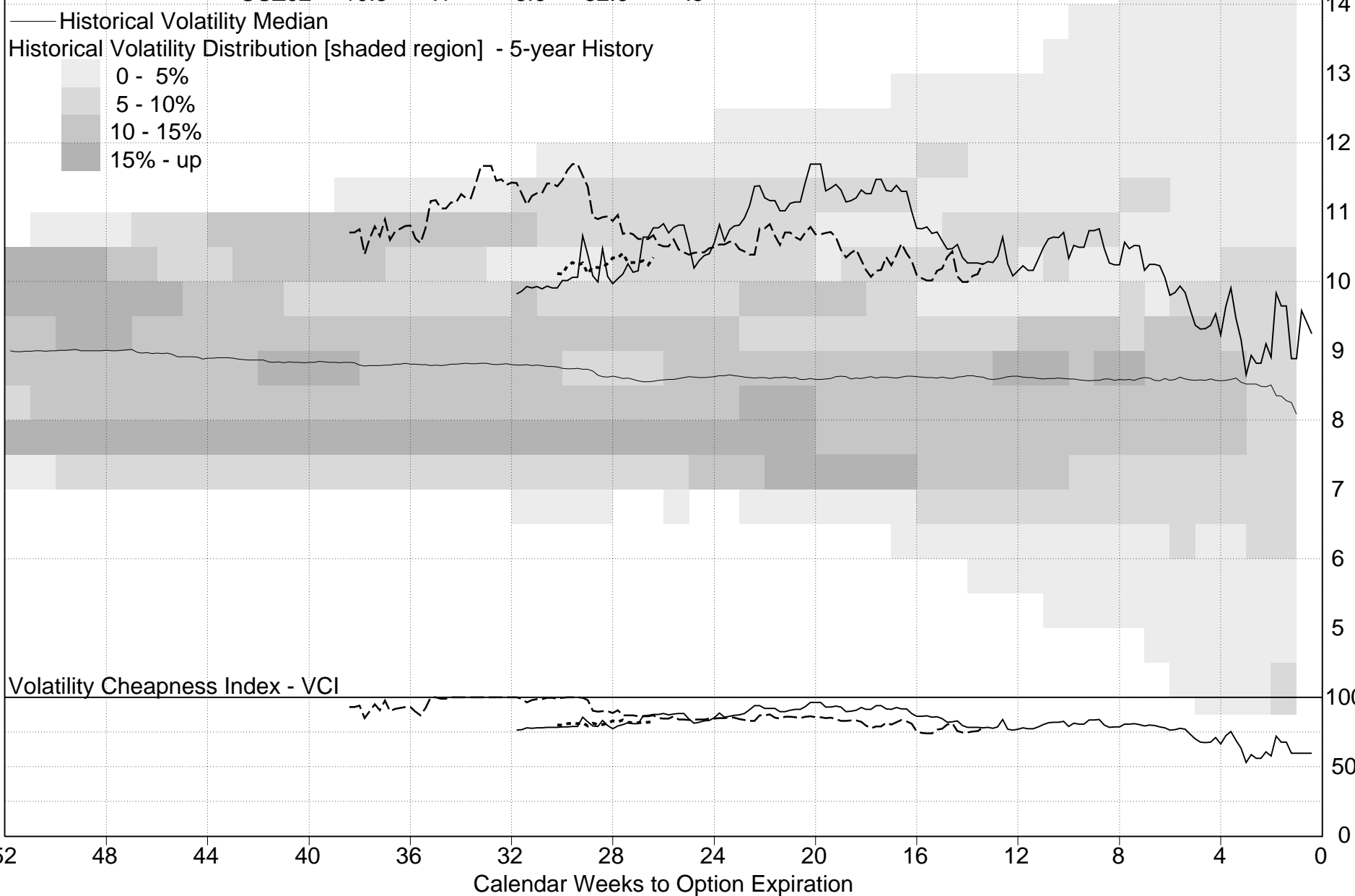


Optima Investment Research  
CBOT 30YR T-BONDS SEP 2002 .. Daily Implied volatility



Optima Investment Research  
 CBOT 30YR T-BONDS .. Volatility Cone

Date of Chart: 05/22/02	Impl	HistVol	VCI			
	Volat	chg	Median	Index	chg	
Implied volatility	— USM02	9.2	-.2	6.0	59.6	unch
	- - - USU02	10.3	+.2	8.6	78.1	+2.6
	· · · · · USZ02	10.3	+.1	8.6	82.6	+5



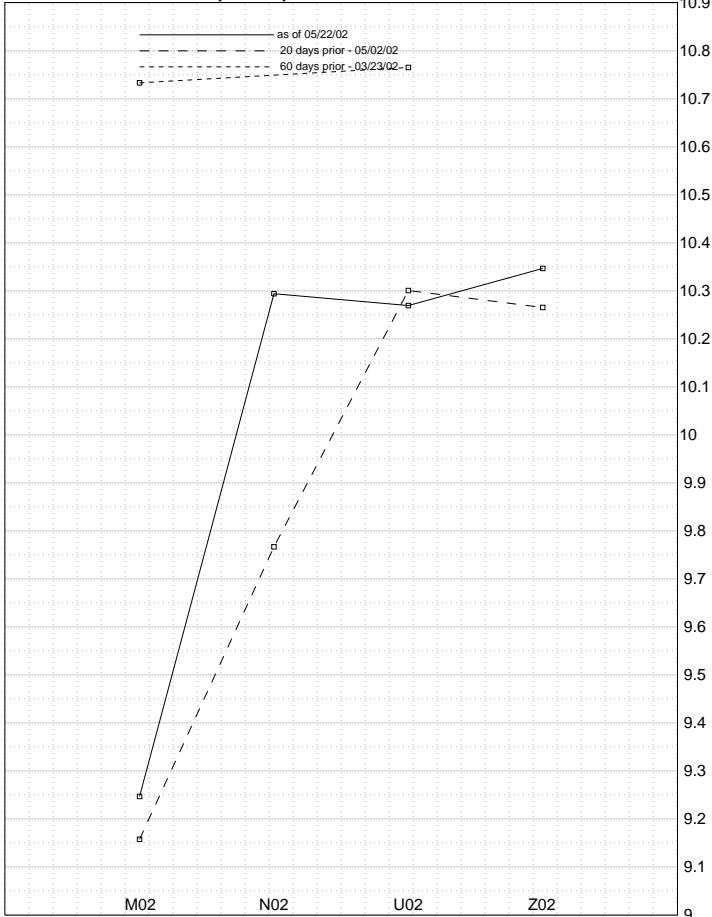
BOP2

Optima Investment Research  
CBOT 30YR T-BONDS JUN 2002 .. Daily Implied volatility

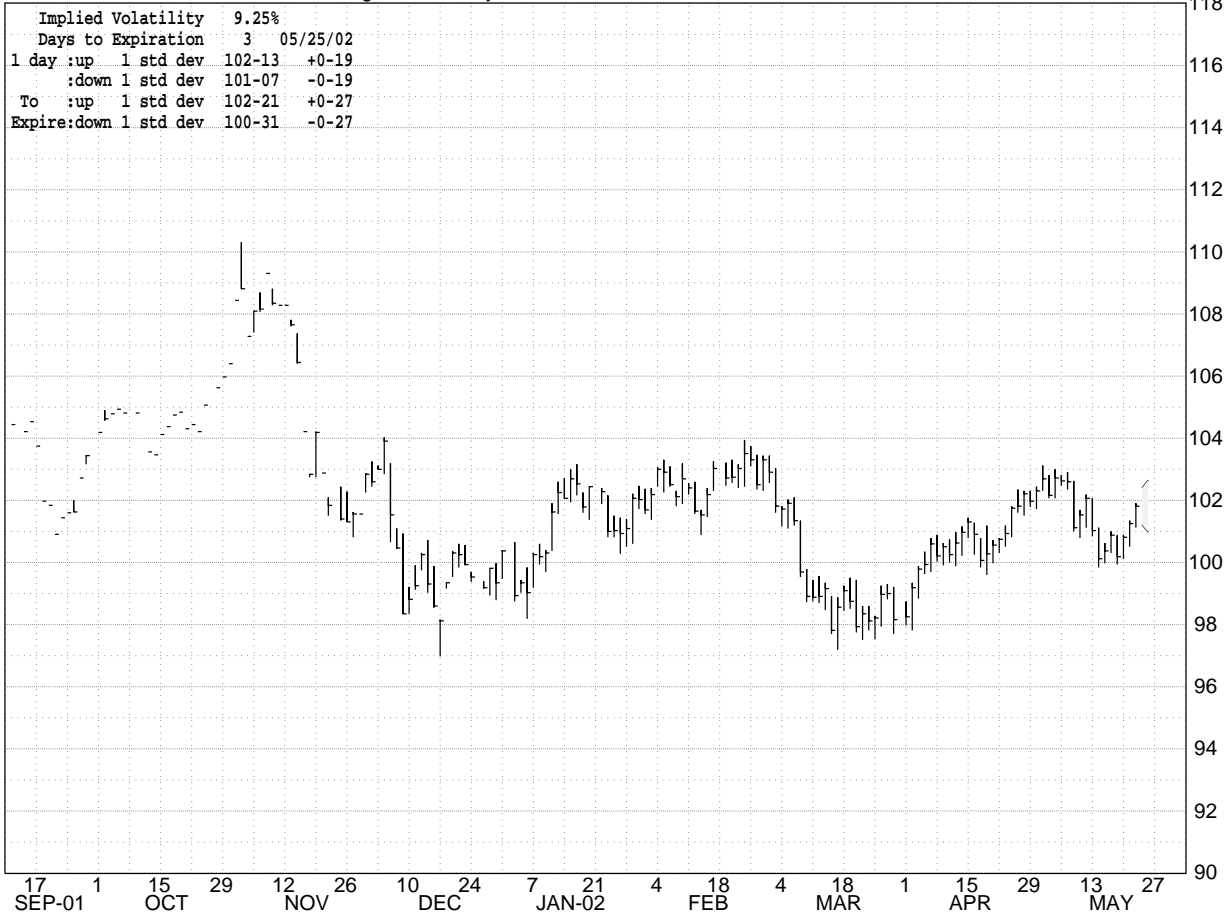


VOLATILITY CALENDAR SPREADS & WEEKLY IMPLIED

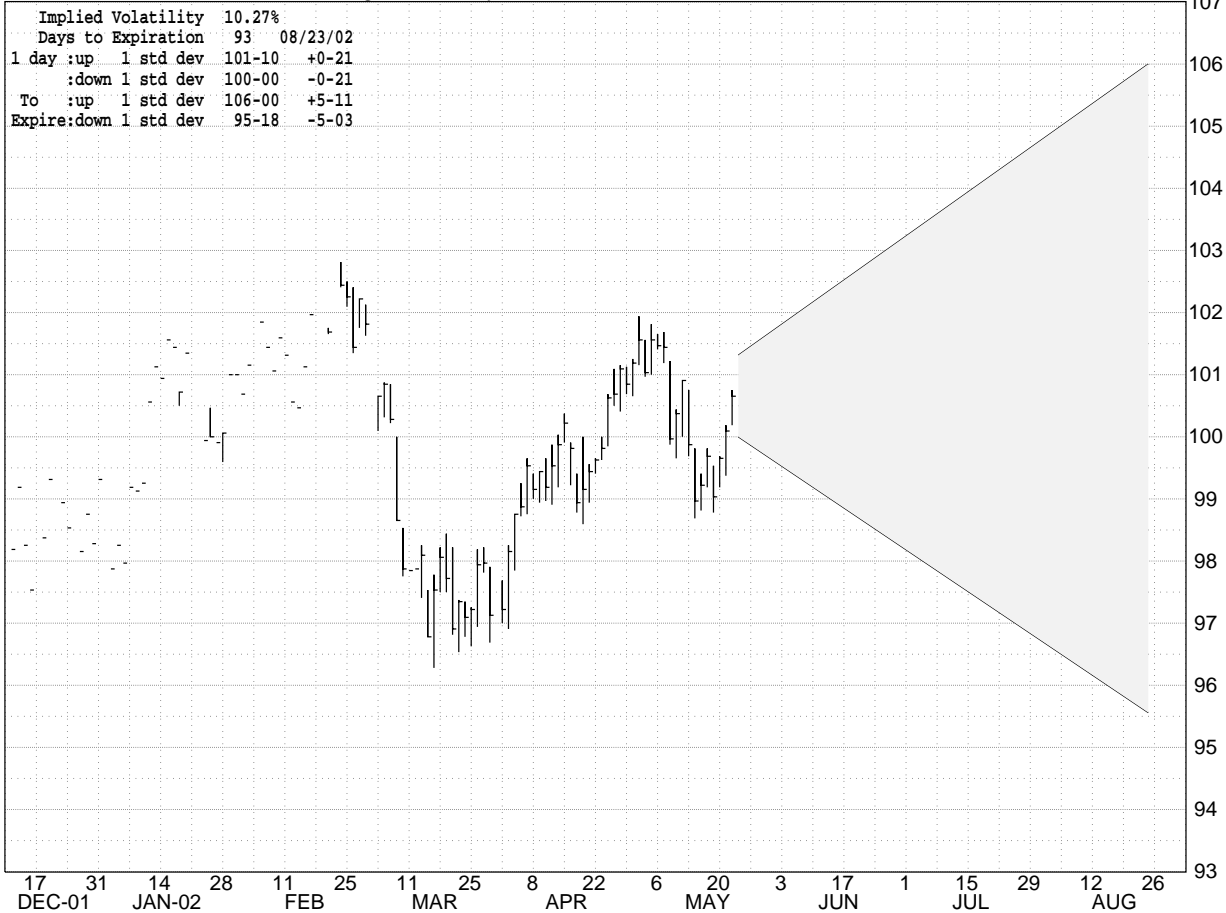
Optima Investment Research  
CBOT 30YR T-BONDS .. Daily Volatility Term Structure 20 60



Optima Investment Research  
 CBOT 30YR T-BONDS JUN 2002 .. Sigma Boundary

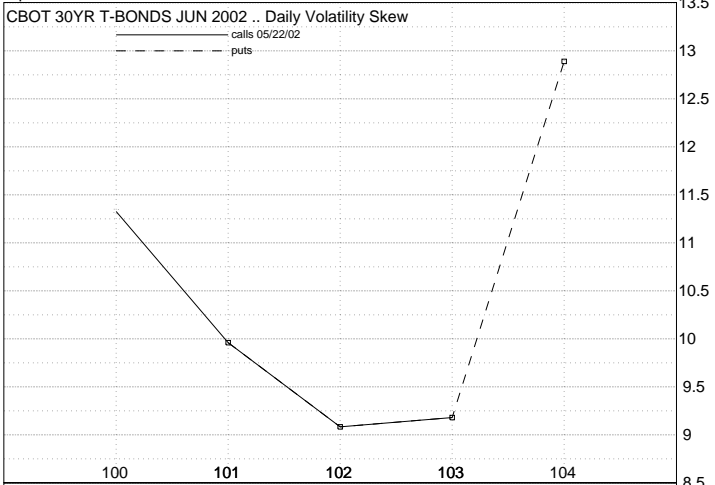


Optima Investment Research  
 CBOT 30YR T-BONDS SEP 2002 .. Sigma Boundary

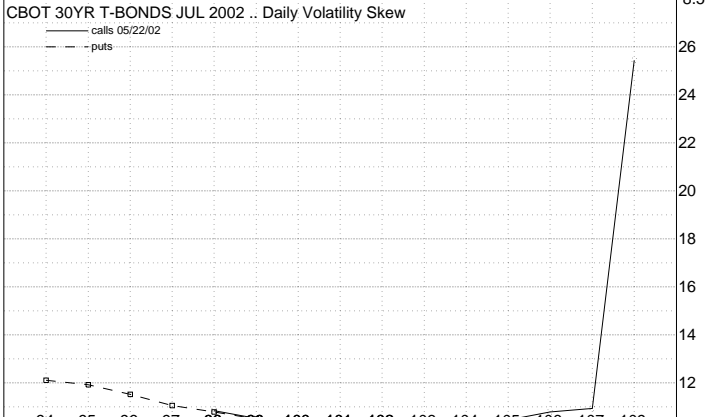


JUNE 02 CBOT 30YR T-BONDS OPTIONS									
05/22/02 days to exp: 3		int. rate: 1.72%			calc. imp		vol of *: 9.25%		
strike	last imp	vol	delta	gamma	theta-7	vega	prem	iv-skew	
USM02	101-26								
109-00C	0-01s	34.38	.01	0.0119	0-01	0-00	0-01	+25.13	
108-00C	0-01s	30.08	.02	0.0142	0-01	0-00	0-01	+20.83	
107-00C	0-01s	25.78	.02	0.0179	0-01	0-00	0-01	+16.53	
106-00C	0-01s	21.88	.02	0.0256	0-01	0-00	0-01	+12.63	
105-00C	0-01s	17.38	.03	0.0373	0-01	0-00	0-01	+8.14	
104-00C	0-01s	12.89	.03	0.0648	0-01	0-01	0-01	+3.64	
103-00C	0-02s	9.18	.08	0.1794	0-02	0-01	0-02	-.07	
102-00C	0-16s	9.08*	.41	0.4645	0-16	0-02	0-16	-.16	
101-00C	0-58s	9.96*	.81	0.2915	0-06	0-02	0-06	+.71	
100-00C	1-53s	11.33	.96	0.0819	0-01	0-01	0-01	+2.08	
99-00C	2-52s	6.25	1.00	0.0000	0-00	0-00	0-00	-3.00	
98-00C	3-52s	12.50	1.00	0.0012	0-00	0-00	0-00	+3.25	
97-00C	4-52s	12.50	1.00	0.0000	0-00	0-00	0-00	+3.25	
96-00C	5-52s	12.50	1.00	0.0000	0-00	0-00	0-00	+3.25	
95-00C	6-52s	25.00	1.00	0.0016	0-00	0-00	0-00	+15.75	
94-00C	7-52s	25.00	1.00	0.0003	0-00	0-00	0-00	+15.75	
109-00P	7-12s	25.00	1.00	0.0019	0-00	0-00	0-00	+15.75	
108-00P	6-12s	12.50	1.00	0.0000	0-00	0-00	0-00	+3.25	
107-00P	5-12s	12.50	1.00	0.0000	0-00	0-00	0-00	+3.25	
106-00P	4-12s	12.50	1.00	0.0006	0-00	0-00	0-00	+3.25	
105-00P	3-12s	12.50	1.00	0.0087	0-00	0-00	0-00	+3.25	
104-00P	2-13s	12.89	.96	0.0648	0-01	0-01	0-01	+3.64	
103-00P	1-14s	9.18	.92	0.1794	0-02	0-01	0-02	-.07	
102-00P	0-28s	9.08*	.59	0.4645	0-16	0-02	0-16	-.16	
101-00P	0-06s	9.96*	.19	0.2915	0-06	0-02	0-06	+.71	
100-00P	0-01s	11.13	.04	0.0789	0-01	0-01	0-01	+1.89	
99-00P	0-01s	16.02	.03	0.0414	0-01	0-00	0-01	+6.77	
98-00P	0-01s	21.09	.02	0.0274	0-01	0-00	0-01	+11.85	
97-00P	0-01s	25.78	.02	0.0191	0-01	0-00	0-01	+16.53	
96-00P	0-01s	30.47	.02	0.0143	0-01	0-00	0-01	+21.22	
95-00P	0-01s	35.16	.01	0.0112	0-01	0-00	0-01	+25.91	
94-00P	0-01s	39.45	.01	0.0087	0-01	0-00	0-01	+30.21	

Optima Investment Research

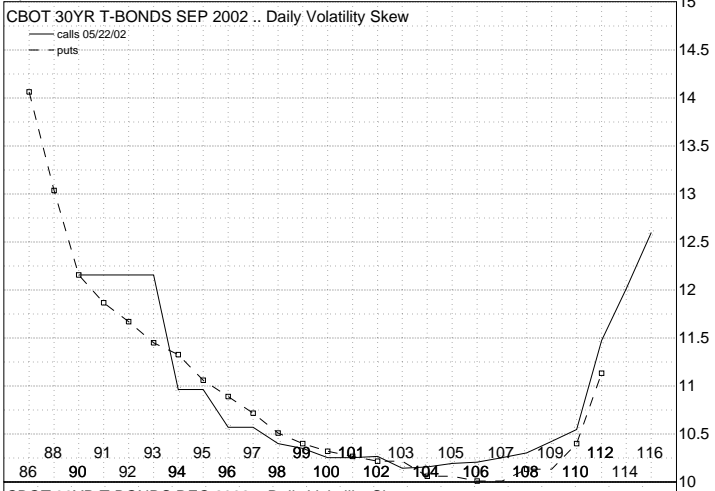


JULY 02 CBOT 30YR T-BONDS OPTIONS									
05/22/02 days to exp: 30		int. rate: 1.72%			calc. imp		vol of *: 10.29%		
strike	last imp	vol	delta	gamma	theta-7	vega	prem	iv-skew	
USU02	100-21s								
109-00C	0-34	25.44	.15	0.0311	0-12	0-04	0-34	+15.15	
108-00C	0-01s	11.13	.01	0.0113	0-01	0-01	0-01	+.84	
107-00C	0-02s	10.94	.03	0.0195	0-01	0-01	0-02	+.64	
106-00C	0-04s	10.79	.05	0.0324	0-02	0-02	0-04	+.50	
105-00C	0-07s	10.45	.08	0.0499	0-03	0-03	0-07	+.16	
104-00C	0-13s	10.28	.14	0.0738	0-05	0-04	0-13	-.02	
103-00C	0-24s	10.30	.22	0.1000	0-07	0-06	0-24	+.01	
102-00C	0-41s	10.31	.33	0.1218	0-08	0-07	0-41	+.02	
101-00C	1-01s	10.24*	.46	0.1341	0-09	0-07	1-01	-.05	
100-00C	1-35s	10.39*	.59	0.1293	0-09	0-07	0-57	+.09	
99-00C	2-13s	10.52	.71	0.1118	0-08	0-06	0-35	+.23	
98-00C	2-63s	10.84	.81	0.0868	0-06	0-05	0-21	+.55	
90-00C	10-42s	12.50	1.00	0.0008	0-00	0-00	0-00	+2.21	
102-00P	1-63s	10.33	.67	0.1217	0-08	0-07	0-41	+.03	
101-00P	1-23s	10.25*	.54	0.1339	0-09	0-07	1-01	-.04	
100-00P	0-57s	10.38*	.41	0.1294	0-09	0-07	0-57	+.08	
99-00P	0-35s	10.50	.29	0.1120	0-08	0-06	0-35	+.20	
98-00P	0-21s	10.79	.19	0.0869	0-06	0-05	0-21	+.50	
97-00P	0-12s	11.06	.12	0.0620	0-05	0-04	0-12	+.77	
96-00P	0-07s	11.52	.07	0.0419	0-03	0-03	0-07	+1.23	
95-00P	0-04s	11.91	.04	0.0268	0-02	0-02	0-04	+1.62	
94-00P	0-02s	12.11	.02	0.0158	0-01	0-01	0-02	+1.82	
93-00P	0-01s	12.50	.01	0.0093	0-01	0-01	0-01	+2.21	

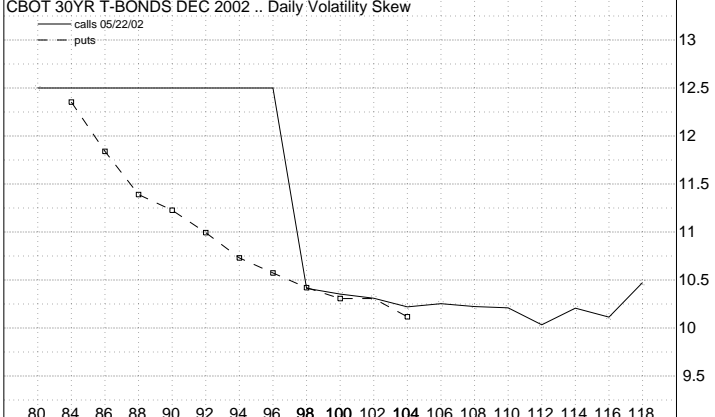


SEPTEMBER 02 CBOT 30YR T-BONDS OPTIONS									
05/22/02 days to exp: 93		int. rate: 1.72%			calc. imp		vol of *: 10.27%		
strike	last imp	vol	delta	gamma	theta-7	vega	prem	iv-skew	
USU02	100-21								
108-00C	0-14s	10.30	.09	0.0314	0-02	0-06	0-14	+.03	
107-00C	0-20s	10.25	.12	0.0391	0-03	0-07	0-20	-.02	
106-00C	0-28s	10.21	.16	0.0475	0-03	0-08	0-28	-.06	
105-00C	0-39s	10.19	.21	0.0559	0-04	0-10	0-39	-.08	
104-00C	0-53s	10.16	.27	0.0638	0-04	0-11	0-53	-.11	
103-00C	1-07s	10.14	.33	0.0704	0-05	0-12	1-07	-.13	
102-00C	1-31s	10.27	.41	0.0742	0-05	0-13	1-31	+.00	
101-00C	1-58s	10.25*	.48	0.0762	0-05	0-13	1-58	-.02	
100-00C	2-26s	10.25*	.56	0.0754	0-05	0-13	1-48	-.02	
99-00C	3-00s	10.35	.63	0.0712	0-05	0-12	1-22	+.08	
98-00C	3-42s	10.40	.70	0.0651	0-04	0-11	1-00	+.13	
96-00C	5-11s	10.57	.82	0.0487	0-03	0-09	0-33	+.30	
94-00C	6-58s	10.96	.89	0.0321	0-02	0-06	0-16	+.69	
90-00C	10-44s	12.16	.96	0.0115	0-01	0-03	0-02	+1.89	
80-00C	20-42s	12.50	1.00	0.0001	0-00	0-00	0-00	+2.23	
112-00P	11-23s	11.13	.97	0.0122	0-01	0-03	0-01	+.86	
110-00P	9-26s	10.40	.95	0.0188	0-01	0-04	0-04	+.13	
108-00P	7-33s	10.13	.91	0.0310	0-02	0-06	0-11	-.14	
106-00P	5-47s	10.01	.84	0.0474	0-03	0-08	0-25	-.26	
104-00P	4-09s	10.06	.73	0.0642	0-04	0-11	0-51	-.21	
102-00P	2-52s	10.22	.59	0.0745	0-05	0-13	1-30	-.05	
101-00P	2-16s	10.27*	.51	0.0761	0-05	0-13	1-58	+.00	
100-00P	1-49s	10.32*	.44	0.0749	0-05	0-13	1-49	+.05	
99-00P	1-23s	10.40	.36	0.0709	0-05	0-12	1-23	+.13	
98-00P	1-02s	10.51	.30	0.0646	0-04	0-11	1-02	+.24	
97-00P	0-50s	10.72	.24	0.0567	0-04	0-10	0-50	+.45	
96-00P	0-37s	10.89	.19	0.0484	0-04	0-09	0-37	+.62	
95-00P	0-27s	11.06	.14	0.0401	0-03	0-08	0-27	+.79	
94-00P	0-20s	11.33	.11	0.0326	0-03	0-06	0-20	+1.06	
93-00P	0-14s	11.45	.08	0.0257	0-02	0-05	0-14	+1.18	
92-00P	0-10s	11.67	.06	0.0200	0-02	0-04	0-10	+1.40	

Optima Investment Research



DECEMBER 02 CBOT 30YR T-BONDS OPTIONS									
05/22/02 days to exp: 184		int. rate: 1.72%			calc. imp		vol of *: 10.35%		
strike	last imp	vol	delta	gamma	theta-7	vega	prem	iv-skew	
USZ02	99-20c								
118-00C	0-02s	10.47	.01	0.0044	0-00	0-02	0-02	+.13	
116-00C	0-03s	10.11	.02	0.0063	0-00	0-03	0-03	-.23	
114-00C	0-06s	10.21	.03	0.0104	0-01	0-04	0-06	-.14	
112-00C	0-10s	10.03	.05	0.0153	0-01	0-06	0-10	-.31	
110-00C	0-19s	10.21	.09	0.0226	0-01	0-08	0-19	-.14	
108-00C	0-32s	10.22	.14	0.0307	0-02	0-11	0-32	-.12	
106-00C	0-52s	10.25	.21	0.0391	0-02	0-13	0-52	-.09	
104-00C	1-16s	10.22	.29	0.0469	0-03	0-16	1-16	-.13	
102-00C	1-57s	10.31	.38	0.0521	0-03	0-17	1-57	-.04	
100-00C	2-46s	10.35*	.49	0.0540	0-04	0-18	2-46	+.01	
98-00C	3-49s	10.41*	.60	0.0519	0-03	0-17	2-09	+.07	
80-00C	19-40s	12.50	.99	0.0019	0-00	0-00	0-00	+2.15	
104-00P	5-36s	10.12	.71	0.0472	0-03	0-16	1-12	-.23	
100-00P	3-05s	10.31*	.50	0.0542	0-03	0-18	2-45	-.04	
98-00P	2-10s	10.42*	.39	0.0519	0-03	0-17	2-10	+.07	
96-00P	1-29s	10.57	.30	0.0459	0-03	0-16	1-29	+.23	
94-00P	0-60s	10.73	.21	0.0378	0-03	0-13	0-60	+.38	
92-00P	0-38s	10.99	.14	0.0290	0-02	0-11	0-38	+.65	
90-00P	0-23s	11.23	.09	0.0210	0-02	0-08	0-23	+.88	
88-00P	0-13s	11.39	.06	0.0142	0-01	0-06	0-13	+1.04	
86-00P	0-08s	11.84	.04	0.0095	0-01	0-04	0-08	+1.49	
84-00P	0-05s	12.35	.02	0.0063	0-01	0-03	0-05	+2.01	



JUN 02 CBOT 30YR T-BONDS OPTIONS  
 Evaluation date: 05/23/02 Expiration date: 05/25/02 # days: 2  
 Futures last: 101-26 Implied volatility: 9.25% Interest rate: 1.72%

		105-00			104-00			103-00			102-00			101-00			100-00			99-00		
		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put	
103-20	@ 9.50%	0-01	3 1-25 -97	0-09	30 0-33 -69	0-45	81 0-05 -19	1-40	99 0-00 -1	2-40	100 0-00 0	3-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	
	@ 9.00%	0-00	2 1-24 -98	0-08	29 0-32 -70	0-44	82 0-04 -18	1-40	99 0-00 -1	2-40	100 0-00 0	3-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	
	@ 8.50%	0-00	2 1-24 -98	0-07	28 0-31 -72	0-44	83 0-04 -17	1-40	99 0-00 -1	2-40	100 0-00 0	3-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	4-40	100 0-00 0	
103-16	@ 9.50%	0-00	2 1-32 -98	0-07	25 0-39 -75	0-39	76 0-07 -24	1-32	98 0-00 -2	2-32	100 0-00 0	3-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	
	@ 9.00%	0-00	2 1-32 -98	0-06	24 0-38 -76	0-38	77 0-06 -23	1-32	99 0-00 -1	2-32	100 0-00 0	3-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	
	@ 8.50%	0-00	1 1-32 -99	0-05	22 0-37 -78	0-37	78 0-05 -22	1-32	99 0-00 -1	2-32	100 0-00 0	3-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	4-32	100 0-00 0	
103-12	@ 9.50%	0-00	1 1-40 -99	0-05	20 0-45 -80	0-33	70 0-09 -30	1-24	97 0-01 -3	2-24	100 0-00 0	3-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	
	@ 9.00%	0-00	1 1-40 -99	0-04	18 0-44 -82	0-32	71 0-08 -29	1-24	98 0-00 -2	2-24	100 0-00 0	3-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	
	@ 8.50%	0-00	1 1-40 -99	0-04	17 0-44 -83	0-31	72 0-07 -28	1-24	98 0-00 -2	2-24	100 0-00 0	3-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	4-24	100 0-00 0	
103-08	@ 9.50%	0-00	1 1-48 -99	0-04	15 0-52 -85	0-28	64 0-12 -36	1-17	96 0-01 -4	2-16	100 0-00 0	3-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	
	@ 9.00%	0-00	1 1-48 -99	0-03	14 0-51 -86	0-27	64 0-11 -36	1-17	97 0-01 -3	2-16	100 0-00 0	3-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	
	@ 8.50%	0-00	1 1-48 -100	0-03	13 0-51 -87	0-26	65 0-10 -35	1-16	97 0-00 -3	2-16	100 0-00 0	3-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	4-16	100 0-00 0	
103-04	@ 9.50%	0-00	1 1-56 -99	0-03	12 0-59 -88	0-23	57 0-15 -43	1-09	94 0-01 -6	2-08	100 0-00 0	3-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	
	@ 9.00%	0-00	0 1-56 -100	0-02	10 0-58 -90	0-22	57 0-14 -43	1-09	95 0-01 -5	2-08	100 0-00 0	3-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	
	@ 8.50%	0-00	0 1-56 -100	0-02	9 0-58 -91	0-21	58 0-13 -42	1-09	96 0-01 -4	2-08	100 0-00 0	3-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	4-08	100 0-00 0	
103-00	@ 9.50%	0-00	0 2-00 -100	0-02	9 1-02 -91	0-18	50 0-18 -50	1-02	92 0-02 -8	2-00	100 0-00 0	3-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	
	@ 9.00%	0-00	0 2-00 -100	0-01	7 1-01 -93	0-18	50 0-18 -50	1-01	93 0-01 -7	2-00	100 0-00 0	3-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	
	@ 8.50%	0-00	0 2-00 -100	0-01	6 1-01 -94	0-17	50 0-17 -50	1-01	94 0-01 -6	2-00	100 0-00 0	3-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	4-00	100 0-00 0	
102-28	@ 9.50%	0-00	0 2-08 -100	0-01	6 1-09 -94	0-15	43 0-23 -57	0-59	89 0-03 -11	1-56	100 0-00 0	2-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	
	@ 9.00%	0-00	0 2-08 -100	0-01	5 1-09 -95	0-14	43 0-22 -57	0-58	90 0-02 -10	1-56	100 0-00 0	2-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	
	@ 8.50%	0-00	0 2-08 -100	0-01	4 1-09 -96	0-13	42 0-21 -58	0-58	91 0-02 -9	1-56	100 0-00 0	2-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	3-56	100 0-00 0	
102-24	@ 9.50%	0-00	0 2-16 -100	0-01	4 1-17 -96	0-12	37 0-28 -63	0-52	85 0-04 -15	1-48	99 0-00 -1	2-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	
	@ 9.00%	0-00	0 2-16 -100	0-01	4 1-17 -96	0-11	36 0-27 -64	0-51	86 0-03 -14	1-48	99 0-00 0	2-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	
	@ 8.50%	0-00	0 2-16 -100	0-00	3 1-16 -97	0-10	35 0-26 -65	0-50	88 0-02 -12	1-48	100 0-00 0	2-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	3-48	100 0-00 0	
102-20	@ 9.50%	0-00	0 2-24 -100	0-01	3 1-25 -97	0-09	30 0-33 -70	0-45	81 0-05 -19	1-40	99 0-00 -1	2-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	
	@ 9.00%	0-00	0 2-24 -100	0-00	2 1-24 -98	0-08	29 0-32 -71	0-44	82 0-04 -18	1-40	99 0-00 -1	2-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	
	@ 8.50%	0-00	0 2-24 -100	0-00	2 1-24 -98	0-07	28 0-31 -72	0-44	83 0-04 -17	1-40	99 0-00 -1	2-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	3-40	100 0-00 0	
102-16	@ 9.50%	0-00	0 2-32 -100	0-00	2 1-32 -98	0-07	25 0-39 -75	0-39	76 0-07 -24	1-32	98 0-00 -2	2-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	
	@ 9.00%	0-00	0 2-32 -100	0-00	1 1-32 -99	0-06	23 0-38 -77	0-38	77 0-06 -23	1-32	99 0-00 -1	2-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	
	@ 8.50%	0-00	0 2-32 -100	0-00	1 1-32 -99	0-05	22 0-37 -78	0-37	78 0-05 -22	1-32	99 0-00 -1	2-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	3-32	100 0-00 0	
102-12	@ 9.50%	0-00	0 2-40 -100	0-00	1 1-40 -99	0-05	19 0-45 -81	0-33	70 0-09 -30	1-24	97 0-00 -3	2-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	
	@ 9.00%	0-00	0 2-40 -100	0-00	1 1-40 -99	0-04	18 0-44 -82	0-32	71 0-08 -29	1-24	98 0-00 -2	2-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	
	@ 8.50%	0-00	0 2-40 -100	0-00	1 1-40 -99	0-04	17 0-44 -83	0-31	72 0-07 -28	1-24	98 0-00 -2	2-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	3-24	100 0-00 0	
102-08	@ 9.50%	0-00	0 2-48 -100	0-00	1 1-48 -99	0-04	15 0-52 -85	0-27	64 0-11 -36	1-17	96 0-01 -4	2-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	
	@ 9.00%	0-00	0 2-48 -100	0-00	1 1-48 -99	0-03	14 0-51 -86	0-27	64 0-11 -36	1-17	97 0-01 -3	2-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	
	@ 8.50%	0-00	0 2-48 -100	0-00	0 1-48 -100	0-03	12 0-51 -88	0-26	65 0-10 -35	1-16	97 0-00 -3	2-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	3-16	100 0-00 0	
102-04	@ 9.50%	0-00	0 2-56 -100	0-00	0 1-56 -100	0-03	11 0-59 -89	0-23	57 0-15 -43	1-09	94 0-01 -6	2-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	
	@ 9.00%	0-00	0 2-56 -100	0-00	0 1-56 -100	0-02	10 0-58 -90	0-22	57 0-14 -43	1-09	95 0-01 -5	2-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	
	@ 8.50%	0-00	0 2-56 -100	0-00	0 1-56 -100	0-02	9 0-58 -91	0-21	58 0-13 -42	1-09	96 0-01 -4	2-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	3-08	100 0-00 0	
102-00	@ 9.50%	0-00	0 3-00 -100	0-00	0 2-00 -100	0-02	8 1-02 -92	0-18	50 0-18 -50	1-02	92 0-02 -8	2-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	
	@ 9.00%	0-00	0 3-00 -100	0-00	0 2-00 -100	0-01	7 1-01 -93	0-17	50 0-17 -50	1-01	93 0-01 -7	2-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	
	@ 8.50%	0-00	0 3-00 -100	0-00	0 2-00 -100	0-01	6 1-01 -94	0-16	50 0-16 -50	1-01	94 0-01 -6	2-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	3-00	100 0-00 0	
101-28	@ 9.50%	0-00	0 3-08 -100</																			

JUL 02 CBOT 30YR T-BONDS OPTIONS  
 Evaluation date: 05/23/02 Expiration date: 06/21/02 # days: 29  
 Futures last: 100-21 Implied volatility: 10.29% Interest rate: 1.72%

	104-00				103-00				102-00				101-00				100-00				99-00				98-00			
	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put		
102-12 @11.00%	0-40	31	2-16	-69	0-63	43	1-39	-57	1-29	55	1-05	-45	2-04	67	0-44	-33	2-50	78	0-26	-22	3-38	86	0-14	-14	4-31	92	0-07	-8
@10.50%	0-37	30	2-13	-70	0-59	42	1-35	-57	1-26	55	1-02	-44	2-01	68	0-41	-32	2-47	79	0-23	-21	3-36	87	0-12	-13	4-29	93	0-06	-7
@10.00%	0-34	29	2-09	-71	0-56	42	1-31	-58	1-22	56	0-62	-44	1-61	69	0-37	-31	2-44	80	0-21	-20	3-34	88	0-10	-11	4-28	94	0-05	-6
102-08 @11.00%	0-38	30	2-21	-70	0-59	41	1-43	-59	1-25	54	1-09	-46	1-63	66	0-47	-33	2-44	77	0-28	-23	3-31	85	0-15	-14	4-23	92	0-08	-8
@10.50%	0-34	29	2-18	-71	0-56	41	1-40	-59	1-21	54	1-05	-46	1-59	67	0-43	-33	2-41	78	0-25	-22	3-29	86	0-13	-13	4-22	93	0-06	-7
@10.00%	0-31	28	2-15	-72	0-52	40	1-36	-60	1-18	54	1-02	-46	1-56	67	0-40	-33	2-38	79	0-22	-21	3-27	88	0-11	-12	4-21	93	0-05	-6
102-04 @11.00%	0-35	28	2-27	-72	0-56	40	1-48	-60	1-21	52	1-13	-48	1-57	64	0-49	-35	2-37	76	0-30	-24	3-24	84	0-17	-15	4-16	91	0-08	-9
@10.50%	0-32	27	2-24	-72	0-53	39	1-45	-61	1-17	52	1-09	-48	1-54	65	0-46	-35	2-35	76	0-27	-23	3-22	86	0-14	-14	4-15	92	0-07	-8
@10.00%	0-29	26	2-21	-74	0-49	39	1-41	-61	1-13	52	1-05	-48	1-51	66	0-43	-34	2-32	78	0-24	-22	3-20	87	0-12	-13	4-13	93	0-06	-7
102-00 @11.00%	0-33	27	2-33	-73	0-53	38	1-53	-62	1-17	51	1-17	-49	1-52	63	0-52	-37	2-32	74	0-32	-26	3-18	83	0-18	-16	4-09	90	0-09	-10
@10.50%	0-30	26	2-30	-74	0-50	38	1-49	-62	1-13	51	1-13	-49	1-49	64	0-49	-36	2-29	75	0-29	-25	3-15	85	0-16	-15	4-07	91	0-08	-9
@10.00%	0-27	25	2-27	-75	0-46	37	1-46	-63	1-09	50	1-09	-49	1-45	64	0-45	-36	2-26	76	0-26	-24	3-13	86	0-13	-15	4-06	92	0-06	-8
101-28 @11.00%	0-31	26	2-39	-74	0-50	37	1-58	-63	1-13	49	1-21	-51	1-47	61	0-55	-38	2-26	73	0-34	-27	3-11	82	0-19	-17	4-02	90	0-10	-10
@10.50%	0-28	25	2-36	-75	0-47	36	1-55	-64	1-09	49	1-17	-51	1-44	62	0-52	-38	2-23	74	0-31	-26	3-09	84	0-17	-16	4-00	91	0-08	-9
@10.00%	0-25	24	2-33	-76	0-43	35	1-51	-65	1-05	49	1-13	-51	1-40	62	0-48	-37	2-20	75	0-28	-25	3-06	85	0-15	-15	3-63	92	0-07	-8
101-24 @11.00%	0-29	24	2-45	-75	0-47	35	1-63	-65	1-09	47	1-25	-52	1-42	60	0-58	-40	2-20	72	0-36	-28	3-04	81	0-21	-18	3-59	89	0-11	-11
@10.50%	0-26	23	2-42	-76	0-44	34	1-60	-65	1-05	47	1-21	-53	1-39	60	0-55	-40	2-17	73	0-33	-27	3-02	83	0-18	-17	3-57	90	0-09	-10
@10.00%	0-23	22	2-39	-78	0-40	34	1-56	-66	1-02	47	1-17	-53	1-35	61	0-51	-39	2-14	73	0-30	-26	3-00	84	0-16	-16	3-55	91	0-08	-9
101-20 @11.00%	0-27	23	2-51	-77	0-44	34	2-04	-66	1-05	46	1-29	-54	1-38	58	0-62	-41	2-14	70	0-38	-30	2-62	80	0-22	-19	3-51	88	0-12	-12
@10.50%	0-24	22	2-48	-78	0-41	33	2-01	-67	1-01	46	1-25	-54	1-34	59	0-58	-41	2-11	71	0-35	-29	2-59	81	0-20	-18	3-50	89	0-10	-11
@10.00%	0-22	21	2-45	-79	0-38	32	1-62	-68	0-62	45	1-22	-55	1-31	59	0-55	-41	2-08	72	0-32	-28	2-57	83	0-17	-17	3-48	90	0-08	-10
101-16 @11.00%	0-25	22	2-57	-78	0-42	32	2-10	-68	1-01	44	1-33	-56	1-33	57	1-01	-43	2-09	69	0-41	-31	2-55	79	0-24	-21	3-44	87	0-13	-13
@10.50%	0-22	21	2-54	-79	0-39	31	2-06	-68	0-62	44	1-30	-56	1-29	57	0-61	-43	2-05	70	0-38	-30	2-53	80	0-21	-20	3-43	88	0-11	-11
@10.00%	0-20	20	2-52	-80	0-35	31	2-03	-69	0-58	44	1-26	-56	1-26	57	0-58	-43	2-02	71	0-34	-29	2-50	81	0-19	-18	3-41	89	0-09	-10
101-12 @11.00%	0-23	21	2-63	-79	0-39	31	2-15	-69	0-62	43	1-38	-57	1-29	55	1-05	-45	2-03	67	0-43	-32	2-49	78	0-25	-22	3-37	86	0-14	-13
@10.50%	0-21	20	2-61	-80	0-36	30	2-12	-70	0-58	42	1-34	-58	1-25	55	1-01	-44	2-00	68	0-40	-32	2-47	79	0-23	-21	3-36	88	0-12	-12
@10.00%	0-18	19	2-58	-81	0-33	29	2-09	-71	0-55	42	1-31	-58	1-21	56	0-61	-44	1-61	69	0-37	-31	2-44	80	0-20	-20	3-34	89	0-10	-11
101-08 @11.00%	0-22	20	3-06	-80	0-37	30	2-21	-70	0-59	41	1-43	-59	1-24	54	1-08	-46	1-62	66	0-46	-34	2-43	77	0-27	-23	3-31	86	0-15	-14
@10.50%	0-19	19	3-03	-81	0-34	29	2-18	-71	0-55	41	1-39	-59	1-21	54	1-05	-46	1-58	67	0-43	-33	2-40	78	0-24	-22	3-29	87	0-13	-13
@10.00%	0-17	17	3-01	-82	0-31	28	2-14	-72	0-52	40	1-35	-60	1-17	54	1-01	-46	1-55	67	0-39	-32	2-38	79	0-22	-21	3-27	88	0-11	-12
101-04 @11.00%	0-20	19	3-12	-81	0-35	28	2-26	-72	0-55	40	1-47	-60	1-20	52	1-12	-48	1-57	65	0-49	-35	2-37	76	0-29	-24	3-24	85	0-16	-15
@10.50%	0-18	18	3-10	-82	0-31	27	2-23	-73	0-52	39	1-44	-61	1-16	52	1-08	-48	1-53	65	0-45	-35	2-34	77	0-26	-23	3-22	86	0-14	-14
@10.00%	0-16	16	3-07	-84	0-28	26	2-20	-74	0-48	38	1-40	-61	1-13	52	1-05	-48	1-50	66	0-42	-34	2-31	78	0-24	-22	3-20	87	0-12	-13
101-00 @11.00%	0-19	18	3-19	-82	0-32	27	2-32	-73	0-52	38	1-52	-62	1-16	51	1-16	-49	1-51	63	0-52	-37	2-31	74	0-31	-25	3-17	84	0-17	-16
@10.50%	0-16	16	3-16	-83	0-29	26	2-29	-74	0-49	37	1-49	-62	1-12	51	1-12	-49	1-48	64	0-48	-36	2-28	75	0-28	-24	3-15	85	0-15	-15
@10.00%	0-14	15	3-14	-85	0-26	25	2-26	-75	0-45	37	1-45	-63	1-09	50	1-09	-49	1-45	64	0-45	-36	2-25	76	0-25	-23	3-13	86	0-13	-14
100-28 @11.00%	0-17	17	3-25	-83	0-30	26	2-38	-74	0-49	37	1-57	-63	1-12	49	1-20	-51	1-46	62	0-55	-38	2-25	73	0-33	-27	3-10	83	0-19	-17
@10.50%	0-15	15	3-23	-84	0-27	24	2-35	-75	0-46	36	1-54	-64	1-08	49	1-16	-51	1-43	62	0-51	-38	2-22	74	0-30	-26	3-08	84	0-16	-16
@10.00%	0-13	14	3-21	-86	0-25	23	2-32	-76	0-43	35	1-50	-65	1-05	49	1-13	-51	1-40	63	0-48	-37	2-19	75	0-27	-25	3-06	85	0-14	-15
100-24 @11.00%	0-16	16	3-32	-84	0-28	24	2-44	-76	0-46	35	1-62	-65	1-08	47	1-24	-52	1-42	60	0-58	-40	2-19	72	0-35	-28	3-04	82	0-20	-18
@10.50%	0-14	14	3-30	-85	0-25	23	2-41	-77	0-43	34	1-59	-66	1-04	47	1-20	-53	1-38	60	0-54	-39	2-16	73	0-32	-27	3-01	83	0-18	-17
@10.00%	0-12	13	3-28	-87	0-23	22	2-39	-78	0-40	34	1-56	-66	1-01	47	1-17	-53	1-35	61	0-51	-39	2-13	74	0-29	-26	2-63	84	0-15	-16
100-20 @11.00%	0-15	15	3-39	-85	0-26	23	2-50	-77	0-44	34	2-04	-66	1-04	46	1-28	-54	1-37	58	0-61	-41	2-13	70	0-38	-29	2-61	81	0-22	-19
@10.50%	0-13	14	3-37	-86	0-24	22	2-47	-78	0-40	33	2-00	-67	1-01	46	1-25	-54	1-33	59	0-57	-41	2-10	71						

SEP 02 CBOT 30YR T-BONDS OPTIONS  
 Evaluation date: 05/23/02 Expiration date: 08/23/02 # days: 92  
 Futures last: 100-21 Implied volatility: 10.27% Interest rate: 1.72%

	104-00			103-00			102-00			101-00			100-00			99-00			98-00		
	Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put		Call	Put	
102-12 @11.00%	1-35	40	3-10	1-61	47	2-37	2-28	54	2-04	2-63	60	1-39	3-38	67	1-15	73	0-59	5-02	79	0-43	-21
@10.50%	1-29	39	3-04	1-55	46	2-30	2-21	54	1-61	2-57	61	1-33	3-32	68	1-09	74	0-54	4-61	80	0-38	-20
@10.00%	1-22	38	2-62	1-48	46	2-24	2-15	54	1-55	2-50	61	1-27	3-27	69	1-03	75	0-49	4-57	81	0-34	-18
102-08 @11.00%	1-32	39	3-15	1-57	46	2-41	2-23	53	2-08	2-58	60	1-42	3-33	66	1-18	73	0-61	4-60	78	0-45	-21
@10.50%	1-26	38	3-09	1-51	45	2-35	2-17	53	2-01	2-52	60	1-36	3-27	67	1-12	74	0-56	4-55	79	0-40	-20
@10.00%	1-19	38	3-03	1-44	45	2-28	2-10	53	1-59	2-45	60	1-30	3-21	68	1-06	74	0-51	4-50	80	0-35	-19
102-04 @11.00%	1-29	38	3-20	1-54	45	2-46	2-19	52	2-11	2-53	59	1-46	3-28	66	1-20	72	0-63	4-53	78	0-46	-22
@10.50%	1-23	37	3-14	1-47	44	2-39	2-13	52	2-05	2-47	59	1-39	3-22	66	1-14	73	0-58	4-49	79	0-42	-21
@10.00%	1-16	37	3-08	1-41	44	2-33	2-06	52	1-62	2-41	59	1-33	3-16	67	1-08	74	0-53	4-44	80	0-37	-20
102-00 @11.00%	1-26	37	3-25	1-50	44	2-50	2-15	51	2-15	2-49	58	1-49	3-23	65	1-23	71	1-02	4-47	77	0-48	-23
@10.50%	1-20	36	3-19	1-44	44	2-44	2-09	51	2-09	2-42	58	1-43	3-16	65	1-17	73	0-60	4-42	78	0-43	-22
@10.00%	1-13	36	3-13	1-37	43	2-37	2-02	51	2-02	2-36	59	1-36	3-11	66	1-11	73	0-55	4-38	79	0-39	-20
101-28 @11.00%	1-23	36	3-30	1-47	43	2-54	2-11	50	2-19	2-44	57	1-52	3-17	64	1-26	70	1-04	4-41	76	0-50	-23
@10.50%	1-17	36	3-24	1-40	43	2-48	2-05	50	2-13	2-38	57	1-46	3-11	64	1-20	71	0-62	4-36	77	0-45	-22
@10.00%	1-11	35	3-18	1-34	42	2-42	1-62	50	2-06	2-31	58	1-39	3-05	65	1-14	72	0-57	4-31	78	0-40	-21
101-24 @11.00%	1-20	35	3-35	1-43	42	2-59	2-07	49	2-23	2-39	56	1-56	3-12	63	1-29	70	1-06	4-35	76	0-52	-24
@10.50%	1-14	35	3-29	1-37	42	2-53	2-01	49	2-17	2-33	56	1-49	3-06	64	1-23	71	1-01	4-30	77	0-47	-23
@10.00%	1-08	34	3-23	1-31	41	2-46	1-58	49	2-10	2-27	57	1-43	3-00	64	1-17	71	0-59	4-25	78	0-42	-22
101-20 @11.00%	1-17	35	3-40	1-40	41	3-00	2-03	48	2-27	2-35	55	1-59	3-07	62	1-32	69	1-09	4-29	75	0-54	-25
@10.50%	1-11	34	3-34	1-34	41	2-57	1-61	48	2-21	2-29	55	1-53	3-01	63	1-26	70	1-03	4-24	76	0-49	-24
@10.00%	1-05	33	3-29	1-27	40	2-51	1-54	48	2-14	2-22	56	1-46	2-59	63	1-19	70	0-61	4-19	77	0-44	-23
101-16 @11.00%	1-14	34	3-46	1-37	40	3-04	1-63	47	2-31	2-31	54	1-63	3-02	61	1-35	68	1-11	4-23	74	0-56	-25
@10.50%	1-08	33	3-40	1-30	40	2-62	1-57	47	2-25	2-24	55	1-56	2-60	62	1-29	69	1-05	4-18	75	0-51	-24
@10.00%	1-03	32	3-34	1-24	39	2-56	1-51	47	2-18	2-18	55	1-50	2-54	62	1-22	70	1-00	4-13	76	0-46	-23
101-12 @11.00%	1-12	33	3-51	1-34	40	3-09	1-60	46	2-36	2-26	54	2-02	2-61	61	1-38	67	1-14	4-17	74	0-58	-26
@10.50%	1-06	32	3-45	1-27	39	3-03	1-53	46	2-29	2-20	54	1-60	2-55	61	1-32	68	1-08	4-12	74	0-53	-25
@10.00%	1-00	31	3-39	1-21	38	2-61	1-47	46	2-23	2-13	54	1-54	2-49	61	1-25	69	1-02	4-07	75	0-48	-24
101-08 @11.00%	1-09	32	3-56	1-30	39	3-14	1-56	46	2-40	2-22	53	2-06	2-57	60	1-41	67	1-16	4-11	73	0-60	-27
@10.50%	1-03	31	3-51	1-24	38	3-08	1-50	45	2-33	2-16	53	2-00	2-50	60	1-35	68	1-10	4-06	74	0-55	-26
@10.00%	0-62	30	3-45	1-18	37	3-02	1-43	45	2-27	2-09	53	1-57	2-44	60	1-28	68	1-05	4-01	75	0-50	-25
101-04 @11.00%	1-07	31	3-62	1-27	38	3-19	1-52	45	2-44	2-18	52	2-10	2-52	59	1-44	66	1-19	4-05	72	0-62	-27
@10.50%	1-01	31	3-56	1-21	37	3-13	1-46	44	2-38	2-11	52	2-03	2-46	59	1-38	67	1-13	4-00	73	0-57	-27
@10.00%	0-59	30	3-50	1-15	37	3-07	1-40	44	2-31	2-05	52	1-61	2-39	60	1-32	67	1-07	3-59	74	0-52	-26
101-00 @11.00%	1-04	31	4-03	1-24	37	3-24	1-49	44	2-49	2-14	51	2-14	2-47	58	1-47	64	1-22	4-00	71	1-00	-28
@10.50%	0-62	30	3-62	1-18	36	3-18	1-43	43	2-42	2-07	51	2-07	2-41	58	1-41	65	1-16	3-58	72	0-59	-27
@10.00%	0-57	29	3-56	1-12	36	3-12	1-36	43	2-36	2-01	51	2-01	2-35	59	1-35	66	1-10	3-53	73	0-54	-26
100-28 @11.00%	1-02	30	4-09	1-21	36	3-29	1-45	43	2-53	2-10	50	2-18	2-43	57	1-51	62	1-25	3-52	71	1-03	-29
@10.50%	0-60	29	4-03	1-15	35	3-23	1-39	43	2-47	2-03	50	2-11	2-36	57	1-45	62	1-19	3-58	71	0-61	-28
@10.00%	0-55	28	3-62	1-09	35	3-17	1-33	42	2-40	2-01	50	2-05	2-30	58	1-38	63	1-13	3-47	72	0-56	-27
100-24 @11.00%	0-63	29	4-14	1-19	35	3-34	1-42	42	2-58	2-06	49	2-22	2-38	56	1-54	61	1-48	3-52	70	1-05	-30
@10.50%	0-58	28	4-09	1-13	35	3-28	1-36	42	2-51	1-63	49	2-15	2-32	56	1-48	61	1-42	3-47	71	0-63	-29
@10.00%	0-52	27	4-03	1-07	34	3-22	1-29	41	2-45	1-57	49	2-09	2-25	57	1-42	62	1-15	3-41	71	0-58	-28
100-20 @11.00%	0-61	28	4-20	1-16	34	3-39	1-39	41	2-62	2-02	48	2-26	2-51	55	1-58	62	1-30	3-47	69	1-07	-31
@10.50%	0-56	27	4-15	1-10	34	3-33	1-32	41	2-56	1-59	48	2-19	2-27	56	1-51	63	1-24	3-41	70	1-02	-30
@10.00%	0-50	26	4-09	1-04	33	3-27	1-26	40	2-50	1-53	48	2-13	2-21	56	1-45	64	1-18	3-36	71	0-60	-29
100-16 @11.00%	0-59	28	4-26	1-13	34	3-44	1-35	40	3-03	1-62	47	2-30	2-29	54	1-61	62	1-33	3-41	68	1-10	-31
@10.50%	0-53	27	4-20	1-07	33	3-39	1-29	40	2-61	1-56	47	2-24	2-23	55	1-55	62	1-27	3-36	69	1-04	-31
@10.00%	0-48	25	4-15	1-01	32	3-33	1-23	39	2-55	1-49	47	2-17	2-12	55	1-49	62	1-21	3-30	70	0-63	-30
100-12 @11.00%	0-57	27	4-32	1-10	33	3-50	1-32	39	3-08	1-58	46	2-34	2-25	54	2-01	61	1-36	3-36	67	1-12	-32
@10.50%	0-51	26	4-26	1-05	32	3-44	1-26	39	3-02	1-52	46	2-28	2-19	54	1-59	62	1-30	3-30	68	1-07	-31
@10.00%	0-46	25	4-21	1-00	31	3-38	1-20	38	2-59	1-46	46	2-21	2-12	54	1-52	62	1-24	3-24	69	1-01	-31
100-08 @11.00%	0-54	26	4-37	1-08	32	3-55	1-29	39	3-13	1-55	46	2-38	2-21	53	2-05	60	1-40	3-30	67	1-15	-33
@10.50%	0-49	25	4-32	1-02	31	3-49	1-23	38	3-06	1-48	45	2-32	2-14	53	1-62	60	1-33	3-25	67	1-09	-32
@10.00%	0-44	24	4-27	1-00	30	3-44	1-17	37	3-00	1-42	45	2-26	2-08	53	1-56	60	1-27	3-19	68	1-04	-32
100-04 @11.00%	0-52	25	4-43	1-05	31	3-60	1-26	38	3-18	1-51	45	2-43	2-16	52	2-09	59	1-43	3-25	66	1-18	-34
@10.50%	0-47	24	4-38	1-00	30	3-55	1-20	37	3-11	1-45	44	2-36	2-10	52	2-02	60	1-37				