

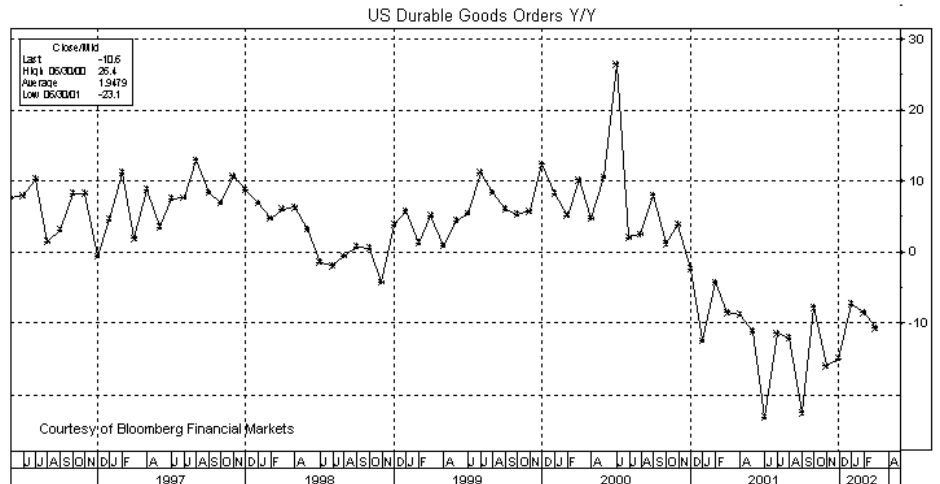
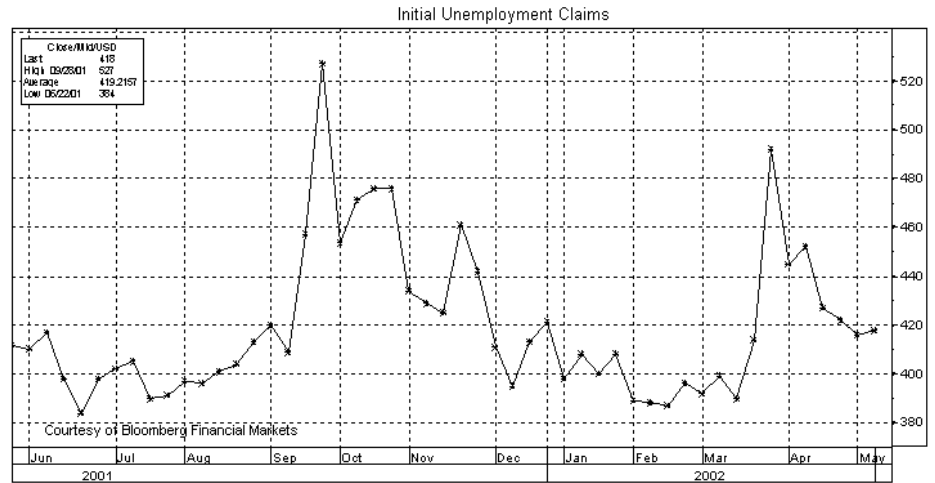
Thursday 5/23/02 -- Americas

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%. Late-May University of Michigan consumer confidence expected 96.0, early-May +3.0 to 96.0.
		1000 ET	1400	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.

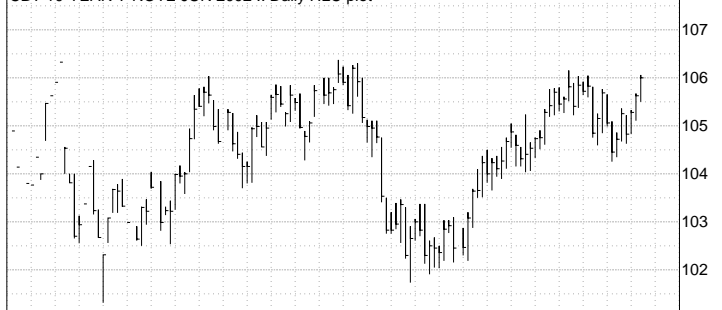
JPN Discount rate at .10%, unsecured overnight call loan rate near zero. BOJ boosted monthly JGB purchases by 25% to 1 trillion yen at Feb 28 meeting.

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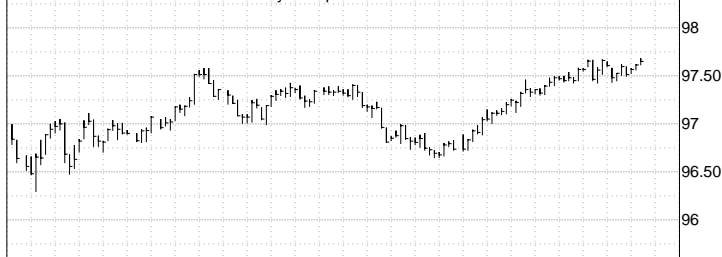
DAILY U.S. MARKET OVERVIEW

Optima Investment Research

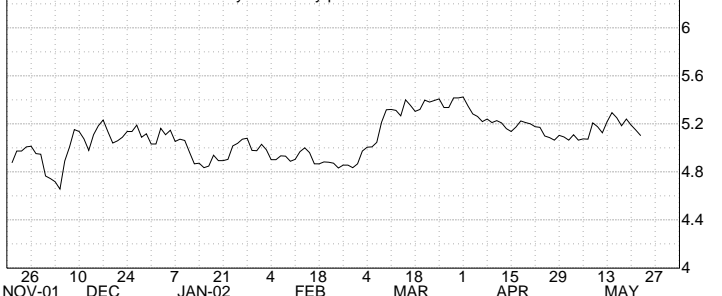
CBT 10-YEAR T-NOTE JUN 2002 .. Daily HLC plot



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

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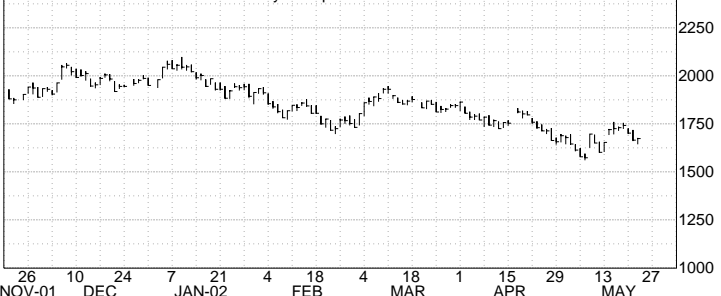
S&P 500 STOCK INDEX .. Daily HLC plot



DOW JONES INDUSTRIALS .. Daily HLC plot



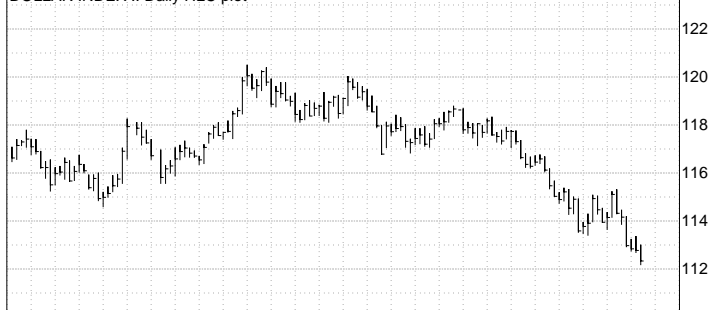
NASDAQ COMPOSITE INDEX .. Daily HLC plot



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

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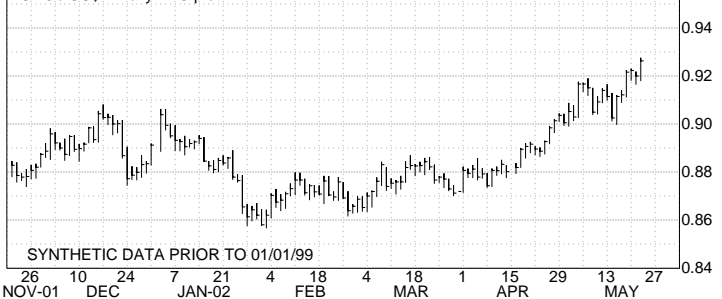
DOLLAR INDEX .. Daily HLC plot



DOLLAR/YEN .. Daily HLC plot



EURO / US\$.. Daily HLC plot

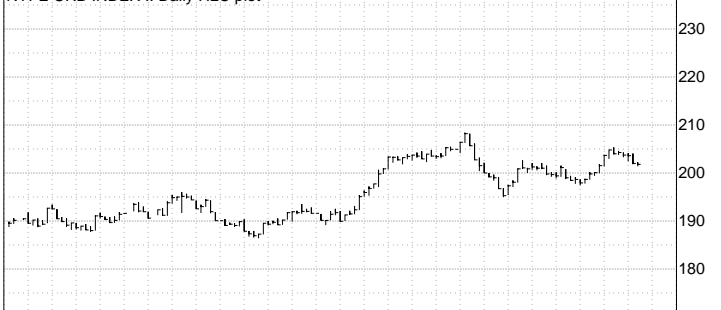


SYNTHETIC DATA PRIOR TO 01/01/99

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

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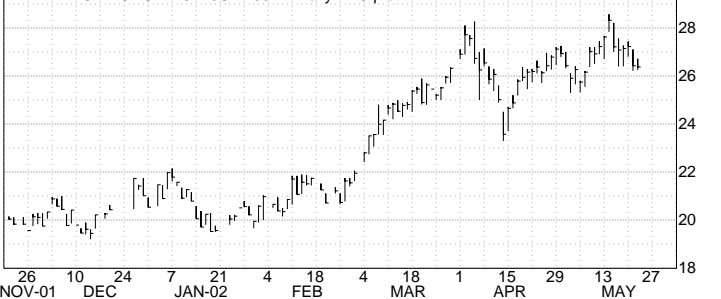
NYFE CRB INDEX .. Daily HLC plot



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 -- EUROS ^ Thu 5/23/02

EURO OVERVIEW -- The December Eurodollar opened higher yesterday morning and traded sideways to higher the entire day to finally settle +.0550 at 97.0400. The other settlements were EDM +.0150 at 97.0425 and EDU +.0350 at 97.6500. EDM & EDU posted their contract highs and EDZ posted a 2-week high. EDM posted a contract high settlement and EDU & EDZ posted their 1-1/2 week high settlements. With yesterday's contract highs (EDM & EDU), the short-term trend is now bullish as all of the contracts are trading at or above the upper boundaries of their 1-month sideways trading ranges. The intermediate-term trend (1-month to 1-year) is bullish as all of the contracts have traded higher over the past year. The long-term trend is also bullish with the Eurodollar trending higher over the past 7-years since posting a 6-year low of 92.7300 (H95) back in Jan of 1995. EDZ02's 9-day RSI rose to 60.3 where it remains neutral.

MOVING AVERAGES -- EDZ02: Settle>3>4>5>9=10>18>20>30>100>50>200

With yesterday's 1-1/2 week high settlement, EDZ remained above all of the averages. EDZ's oscillators strengthened as both the 3-9 day & 5-20 crossed up into positive territory.

VOLUME/OPEN INTEREST -- Tuesday's : 802,305. Tuesday's O.I. +27,734 at 4,387,985. Yesterday's est. volume: 730,489.

SUPPORT/RESISTANCE COMMENT -- EDZ posted a 2-week high at 97.0900. EDZ posted a pit-session low at 97.0150 and posted an overall low at 96.9850 during the Globex session. Resistance should be met at 97.0900, 97.1000, 97.1350 and at 98.2600. Support should be found at 96.9850, 96.7450, 96.6450 and at 96.5000.

SUPPORT/RESISTANCE LEVELS -- EURO FRONT-MONTH FUTURE (EDZ02)

98.2600 All-time high EDH02 (Jan 14)	96.5000 1-1/2 month low (Apr 16)
97.1350 Contract high (11/7/01)	96.3050 200-day average
97.1000 6-1/2 month high (May 6)	96.2350 1-1/2 month low (Apr 5)
97.0900 2-week high (Yesterday)	96.0600 1-3/4 month low (Mar 28)
97.0850 6-1/2 month high settle (May 5)	95.9300 5-1/2 month low (Mar 21)
*97.0400 1-1/2 week high settle (Wednesday) & Pivot Point	95.8000 5-3/4 month low (12/06/01)
97.0150 Yesterday's pit-session low	95.6750 7-1/2 month low (11/27/01)
96.9850 Yesterday's overall low (Globex)	95.1900 9-1/4 month low (9/04/01)
96.7450 1-month low (Last Wednesday)	94.3600 11-3/4 month low (6/29/01)
96.6450 1-1/4 month low (Apr 19)	94.2650 1-year low (5/21/01)
96.6050 100-day average	94.1400 1-1/4 year low (2/16/01)
96.5850 50-day average	93.2000 1-1/3 year low (10/06/00)
	92.7600 1-3/4 year low (7/19/00)

RETRACEMENTS--EURO FRONT-MONTH FUTURE (EDZ02)

1-year 2.8700 point upmove from 94.2650 (5/21/01) to 97.1350 (11/7/01)

51% retrace (11/27/01 low) 95.6750

HIGH	1/4	1/3	.382	1/2	.618	2/3	3/4	LOW
97.1350	96.4200	96.1800	96.0400	95.7000	95.3600	95.2200	94.9850	94.2650

SUPPORT/RESISTANCE LEVELS -- EURO BACK-MONTH FUTURE (EDU02)

97.6850 Contract high (Yesterday)	96.4700 6-month low (12/6/01)
97.6600 Contract high settle (May 10)	96.2900 9-month low (11/27/01)
*97.6500 1-1/2 week high settle (Wednesday) & Pivot Point	96.2100/96.1400 GAP 9/13/01 low/ 9/11/01 high
97.6200 Yesterday's pit-session low	95.5900 9-1/4 month low (9/4/01)
97.6100 Yesterday's overall low (Globex)	95.4750 9-1/2 month low (8/18/01)
97.4200 3-week low (May 9 & May 2)	95.3200 10-month low (8/3/01)
97.2800 1-month low (Apr 19)	94.7000 11-3/4 month low (6/29/01)
97.2150 50 & 100-day averages	94.6250 1-year low settle (5/21/01)
97.1150 1-1/4 month low (Apr 16)	94.5500 15-1/2 month low (5/22/01)
96.8800 1-1/2 month low (Apr 5)	94.3100 1-1/4 year low (2/15/01)
96.8750 200-day average	92.2800 5-1/4 year low (5/1/00)
96.7100 2-month low (Apr 1)	90.9100 Contract low (11/7/94)
96.6450 5-1/2 month low (Mar 22 & 25)	

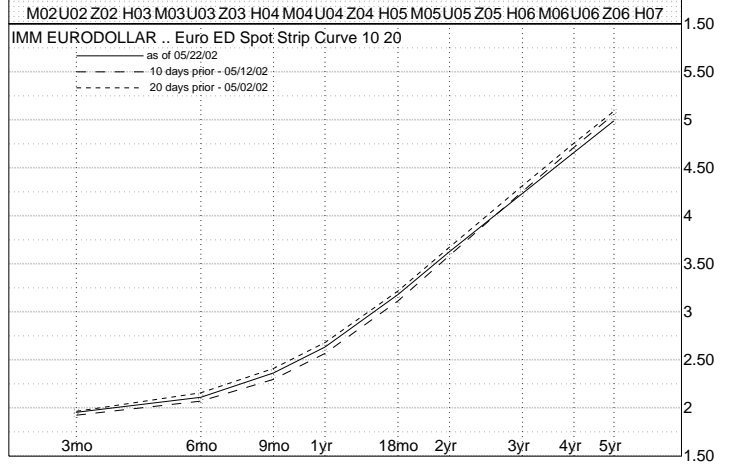
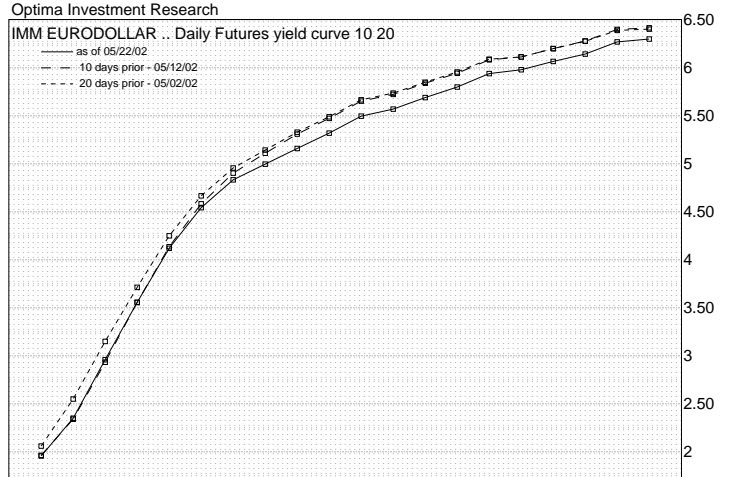
RETRACEMENTS--EURO BACK-MONTH FUTURE (EDU02)

1-year 3.1350 point upmove from 94.5500 (5/22/01) to 97.6850 (5/10/02)

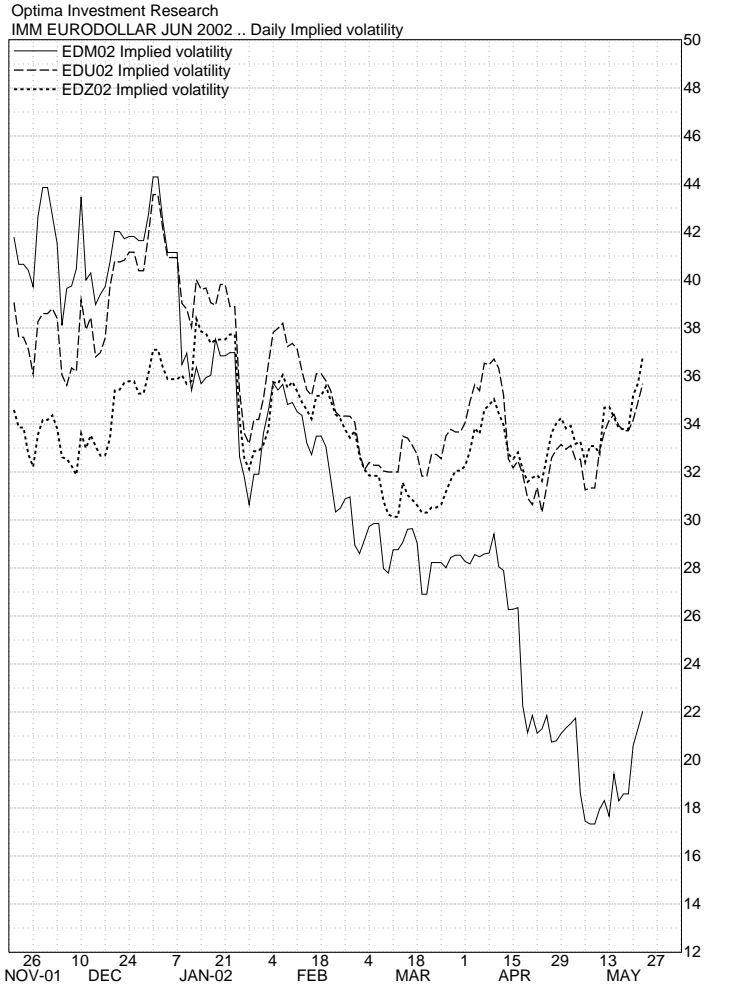
HIGH	1/4	1/3	.382	1/2	.618	2/3	3/4	LOW
97.6850	96.8850	96.6250	96.4750	96.1150	95.7400	95.5900	95.3300	94.5500

IMM EURODOLLARS

Optima Investment Research
IMM EURODOLLAR DEC 2002 .. Daily HLC plot



Optima Investment Research
IMM EURODOLLAR SEP 2002 .. Daily HLC plot



OPTIMA TECHNICAL INDICATORS - IMM EURODOLLARS ^

As of: 052202	EDM02	EDU02	EDZ02	EDH03	EDM03	EDU03
High:98.0520	97.6850	97.0900	96.4950	95.9250	95.5100	
Low:98.0250	97.6100	96.9850	96.3850	95.8300	95.4150	
Settle:98.0430s	97.6500s	97.0400s	96.4450s	95.8800s	95.4550s	
Change: +.0160	+.0350	+.0550	+.0600	+.0550	+.0500	
Pivot R2:98.0670	97.7230	97.1430	96.5520	95.9730	95.5550	
Analysis R1:98.0550	97.6870	97.0920	96.4980	95.9270	95.5050	
Pivot:98.0400	97.6480	97.0380	96.4420	95.8780	95.4600	
S1:98.0280	97.6120	96.9870	96.3880	95.8320	95.4100	
S2:98.0130	97.5730	96.9330	96.3320	95.7830	95.3650	
Momentum 1-10 Day: +.0580	+.1850	+.2050	+.2150	+.2150	+.2200	
[Settle 1-20 Day: +.1480	+.2550	+.2350	+.2350	+.2300	+.2350	
- prev. 1-30 Day: +.3430	+.5400	+.5450	+.5600	+.5400	+.5000	
x-day 1-100 Day: +.5130	+.7250	+.8050	+.8200	+.8650	+.9000	
settle]1-200 Day:+2.1730	+2.1200	+1.9350	+1.7800	+1.4550	+1.2000	
Moving Averages 3 Day:98.0270	97.6100	96.9820	96.3780	95.8180	95.3980	
4 Day:98.0180	97.5860	96.9440	96.3340	95.7750	95.3540	
5 Day:98.0190	97.5880	96.9430	96.3320	95.7690	95.3480	
9 Day:98.0140	97.5790	96.9370	96.3200	95.7520	95.3230	
10 Day:98.0150	97.5770	96.9370	96.3190	95.7510	95.3210	
18 Day:97.9950	97.5480	96.9310	96.3300	95.7680	95.3370	
20 Day:97.9890	97.5390	96.9240	96.3250	95.7640	95.3330	
30 Day:97.9330	97.4550	96.8400	96.2330	95.6690	95.2400	
50 Day:97.7690	97.2160	96.5850	95.9740	95.4370	95.0420	
100 Day:97.7390	97.2150	96.6040	95.9780	95.4340	95.0330	
200 Day:97.3650	96.8760	96.3060	95.7900	95.3450	95.0090	
Contract crosses MA 5-D:98.0180	97.5860	96.9440	96.3340	95.7750	95.3540	
today at 10-D:98.0140	97.5790	96.9370	96.3200	95.7520	95.3230	
price of: 20-D:97.9930	97.5450	96.9290	96.3290	95.7680	95.3360	
30-D:97.9410	97.4660	96.8520	96.2450	95.6800	95.2500	
Moving Avg 3-9: +.0120	+.0310	+.0450	+.0580	+.0660	+.0750	
Oscillators 5-20: +.0290	+.0490	+.0190	+.0070	+.0050	+.0150	
MA Osc zero 3-9:97.9430	97.3770	96.6450	95.9720	95.3950	94.9580	
cross today 5-20:97.8590	97.3230	96.8480	96.3020	95.7280	95.2430	
RSI 9-Day RSI: 66.7	61.7	60.3	60.7	61.5	62.0	
Prev 9-Day RSI: 63.9	59.2	57.1	57.5	58.3	59.1	
Close today for80:98.1620	98.1170	97.7040	97.1330	96.4800	96.0200	
new 9-RSI of: 20:97.6260	96.5850	95.6850	95.0000	94.5350	94.1390	
Simulated +3 Unit: 87.6	75.9	72.5	72.3	73.7	74.3	
9-Day RSI +2 Unit: 84.3	72.5	69.4	69.3	70.6	71.2	
for settle+1 Unit: 78.6	68.0	65.4	65.5	66.6	67.2	
today of: -1 Unit: 42.7	51.6	52.5	53.2	53.3	53.5	
-2 Unit: 31.5	44.3	46.5	47.3	47.0	47.0	
-3 Unit: 24.9	38.9	41.7	42.7	42.0	41.9	
1 Unit = : .1000	.1000	.1000	.1000	.1000	.1000	
Stochastics 9-Day Range Raw K: 91.5	86.5	85.5	86.7	66.0	85.9	
3-Day EMA K: %K: 78.3	70.0	63.8	65.0	49.9	65.9	
3-Day EMA %K: %D: 72.5	62.3	54.1	53.5	43.7	55.3	
Price today for %K & %D xover :98.0070	97.5470	96.8640	96.2340	95.7070	95.2540	
%K,%D at xover : 72.5	62.3	54.1	53.5	43.7	55.3	

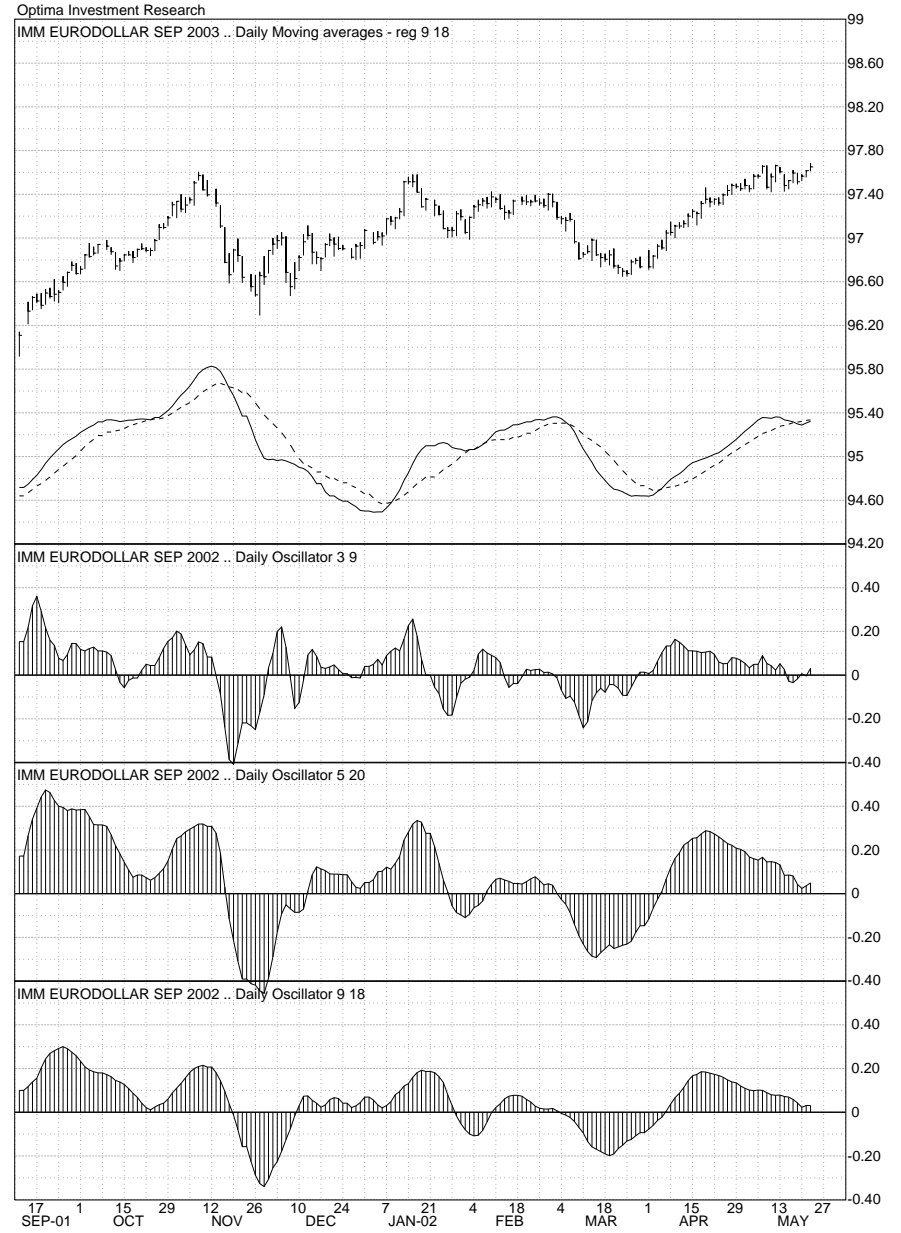
	M2	U2	Z2	H3	M3	U3	Z3	H4	M4	U4	Z4	H5	M5	U5	Z5	H6	M6	U6	Z6	H7	M7	U7	Z7	H8	M8	U8	Z8	H9	M9	U9	Z9	H0	M0	U0	Z0	H1	M1	U1	Z1	H2
High	9805	9768	9709	9650	9593	9551	9521	9504	9488	9472	9454	9447	9436	9423	9410	9405	9396	9388	9375	9373	9364	9357	9346	9344	9338	9332	9322	9321	9314	9309	9300	9300	9296	9293	9285	9287	9285	9282	9274	9277
Low	9803	9761	9699	9639	9583	9542	9515	9500	9483	9467	9450	9442	9429	9418	9404	9400	9392	9384	9371	9369	9361	9354	9343	9341	9336	9330	9319	9319	9311	9307	9297	9298	9294	9292	9283	9285	9282	9280	9272	9275
Sett	9804	9765	9704	9644	9588	9546	9517	9500	9484	9468	9450	9443	9431	9420	9406	9402	9393	9386	9373	9370	9363	9356	9343	9342	9336	9330	9319	9319	9314	9309	9300	9300	9296	9293	9285	9286	9283	9281	9272	9275
Chg	+2	+4	+6	+6	+6	+5	+5	+4	+4	+4	+4	+4	+3	+3	+3	+3	+3	+4	+4	+3	+3	+3	+3	+3	+3	+3	+3	+3	+3	+2	+2	+2	+2	+1	+1	+1	+1	unch	unch	unch
Fut	1.96	2.35	2.96	3.56	4.12	4.54	4.83	5.00	5.16	5.32	5.50	5.57	5.69	5.80	5.94	5.98	6.07	6.14	6.27	6.30	6.38	6.44	6.57	6.58	6.64	6.70	6.81	6.81	6.86	6.91	7.00	7.00	7.04	7.07	7.15	7.14	7.17	7.19	7.28	7.25
F.V.	1.93	2.36	2.92																																					
R/C	.03c	.01r	.04c		Rich/cheap analysis of future price versus cash forward rate												IMM-dated strip yields shown in matrix are forward rates implied by IMM futures strip that begins with contract on left and ends with contract at the top. See E19 & E20 for charts.																							
	WHITE - YR1				RED - YR2				GREEN - YR3				BLUE - YR4				GOLD - YR5				PURPLE - YR6				ORANGE - YR7				PINK - YR8				SILVER - YR9				COPPER - YR10			

	M2	U2	Z2	H3	M3	U3	Z3	H4	M4	U4	Z4	H5	M5	U5	Z5	H6	M6	U6	Z6	H7	M7	U7	Z7	H8	M8	U8	Z8	H9	M9	U9	Z9	H0	M0	U0	Z0	H1	M1	U1	Z1	H2				
M2	1.96	2.16	2.44	2.73	3.01	3.28	3.51	3.71	3.88	4.03	4.17	4.31	4.42	4.53	4.62	4.72	4.80	4.88	4.97	5.05	5.11	5.18	5.25	5.31	5.37	5.42	5.48	5.54	5.59	5.64	5.69	5.74	5.78	5.82	5.87	5.91	5.95	5.98	6.02	6.06	6.06	6.09	6.13	6.16
U2	2.35	2.66	2.98		3.29	3.54	3.77	3.96	4.13	4.26	4.39	4.51	4.63	4.73	4.81	4.90	4.99	5.06	5.14	5.21	5.28	5.34	5.40	5.46	5.52	5.57	5.62	5.67	5.72	5.77	5.81	5.86	5.90	5.94	5.98	6.02	6.06	6.09	6.13	6.16				
Z2	2.96	3.27			3.58	3.85	4.05	4.22	4.37	4.51	4.62	4.73	4.83	4.93	5.01	5.08	5.16	5.23	5.30	5.36	5.43	5.49	5.54	5.60	5.65	5.71	5.75	5.80	5.84	5.89	5.93	5.97	6.02	6.06	6.09	6.13	6.17	6.20	6.23	6.26				
H3	3.55	3.86	4.12	4.33	4.47	4.60	4.72	4.84	4.92	5.01	5.10	5.18	5.25	5.31	5.38	5.45	5.51	5.56	5.62	5.68	5.72	5.77	5.82	5.87	5.91	5.95	6.00	6.04	6.08	6.12	6.15	6.19	6.23	6.26	6.29	6.33	6.35							
M3	4.12	4.36	4.55	4.71	4.80	4.90	5.00	5.10	5.17	5.24	5.32	5.39	5.45	5.50	5.57	5.63	5.68	5.73	5.78	5.84	5.88	5.92	5.97	6.01	6.05	6.09	6.13	6.17	6.20	6.24	6.27	6.31	6.34	6.37	6.40	6.44								
U3	4.55	4.72	4.85		4.97	5.05	5.13	5.22	5.31	5.36	5.43	5.49	5.56	5.61	5.67	5.72	5.78	5.82	5.87	5.92	5.97	6.00	6.04	6.09	6.13	6.17	6.20	6.24	6.28	6.31	6.34	6.38	6.41	6.44	6.47	6.50								
Z3	4.84	4.95			5.06	5.18	5.24	5.31	5.39	5.47	5.52	5.58	5.64	5.70	5.75	5.80	5.85	5.90	5.94	5.98	6.03	6.08	6.11	6.15	6.19	6.24	6.27	6.30	6.34	6.38	6.40	6.43	6.47	6.50	6.52	6.55								
H4	4.99	5.11	5.23	5.35	5.39	5.46	5.53	5.61	5.65	5.70	5.76	5.83	5.87	5.91	5.96	6.01	6.05	6.09	6.13	6.18	6.21	6.25	6.29	6.33	6.36	6.39	6.42	6.46	6.49	6.52	6.55	6.58	6.60											
M4	5.16	5.27	5.40	5.50	5.54	5.60	5.67	5.74	5.78	5.82	5.88	5.94	5.98	6.02	6.07	6.12	6.15	6.19	6.23	6.28	6.31	6.34	6.38	6.42	6.44	6.47	6.51	6.54	6.57	6.59	6.62	6.65	6.67	6.69	6.72	6.75								
U4	5.32	5.44	5.54		5.64	5.67	5.73	5.79	5.86	5.89	5.94	5.99	6.05	6.08	6.12	6.17	6.21	6.24	6.28	6.32	6.36	6.39	6.43	6.46	6.50	6.52	6.55	6.58	6.62	6.64	6.67	6.69												
Z4	5.49	5.57			5.67	5.76	5.79	5.84	5.90	5.96	6.00	6.04	6.09	6.14	6.18	6.21	6.26	6.30	6.34	6.37	6.41	6.45	6.48	6.51	6.54	6.58	6.60	6.63	6.66	6.69	6.71	6.73												
H5	5.57	5.67	5.77	5.87	5.89	5.94	5.99	6.07	6.09	6.13	6.18	6.24	6.26	6.30	6.34	6.39	6.42	6.45	6.48	6.53	6.55	6.58	6.61	6.65	6.67	6.70	6.72	6.75	6.77															
M5	5.69	5.79	5.89	5.98	6.00	6.04	6.10	6.16	6.19	6.22	6.27	6.32	6.35	6.38	6.43	6.47	6.49	6.52	6.56	6.60	6.62	6.65	6.68	6.72	6.74	6.76	6.79	6.82	6.84	6.86	6.89	6.92												
U5	5.80	5.91	5.99		6.08	6.10	6.15	6.20	6.26	6.28	6.32	6.36	6.41	6.43	6.47	6.51	6.55	6.57	6.61	6.64	6.68	6.70	6.72	6.75	6.79	6.80	6.83	6.85	6.89	6.90	6.93	6.96												
Z5	5.94	6.00			6.09	6.17	6.20	6.23	6.28	6.34	6.37	6.40	6.44	6.49	6.52	6.55	6.58	6.62	6.65	6.68	6.71	6.74	6.76	6.79	6.82	6.85	6.86	6.89	6.92	6.95	6.96	6.98												
H6	5.98	6.07	6.16	6.26	6.27	6.30	6.35	6.42	6.44	6.47	6.51	6.56	6.58	6.61	6.65	6.69	6.71	6.74	6.77	6.80	6.82	6.84	6.87	6.90	6.92	6.95	6.98	7.00	7.03	7.04	7.07	7.10	7.13											
M6	6.07	6.15	6.26	6.34	6.35	6.38	6.44	6.50	6.51	6.54	6.59	6.63	6.65	6.68	6.73	6.78	6.79	6.82	6.86	6.90	6.91	6.93	6.96	7.00	7.01	7.03	7.05	7.08	7.10	7.13	7.16	7.19												
U6	6.15	6.26	6.34		6.42	6.43	6.47	6.52	6.57	6.59	6.62	6.66	6.73	6.77	6.79	6.81	6.85	6.88	6.90	6.92	6.95	6.98	6.99	7.02	7.05	7.07	7.10	7.13	7.16	7.18	7.21	7.24												
Z6	6.27	6.34			6.42	6.50	6.51	6.54	6.59	6.64	6.66	6.69	6.73	6.77	6.79	6.81	6.85	6.88	6.90	6.92	6.95	6.98	6.99	7.02	7.05	7.07	7.10	7.13	7.16	7.18	7.21	7.24												
H7	6.30	6.39	6.48	6.58	6.58	6.61	6.65	6.72	6.73	6.75	6.79	6.84	6.85	6.87	6.90	6.94	6.95	6.98	6.99	7.02	7.06	7.08	7.12	7.17	7.16	7.18	7.21	7.24	7.27															
M7	6.38	6.46	6.57	6.65	6.65	6.68	6.73	6.78	6.79	6.82	6.86	6.90	6.91	6.93	6.96	7.00	7.01	7.03	7.05	7.08	7.10	7.13	7.16	7.19	7.21	7.22	7.25	7.28																
U7	6.45	6.56	6.64		6.72	6.72	6.75	6.79	6.85	6.85	6.88	6.92	6.96	6.97	6.99	7.02	7.05	7.06	7.08	7.10	7.12	7.15	7.18	7.21	7.24	7.27	7.29	7.30																
Z7	6.57	6.63			6.71	6.79	6.79	6.82	6.86	6.91	6.92	6.94	6.97	7.01	7.02	7.04	7.07	7.10	7.12	7.14	7.17	7.20	7.21	7.22	7.25	7.28	7.30	7.33																
H8	6.58	6.67	6.75	6.85	6.84	6.87	6.91	6.97	6.97	6.99	7.02	7.06	7.07	7.09	7.11	7.15	7.15	7.18	7.21	7.24	7.24	7.27	7.28	7.32	7.36	7.37	7.40	7.43	7.46															
M8	6.64	6.73	6.83	6.91	6.90	6.92	6.97	7.02	7.02	7.04	7.07	7.11	7.12	7.13	7.16	7.19	7.21	7.22	7.25	7.28	7.29	7.32	7.35	7.38	7.41	7.44	7.47	7.50																
U8	6.70	6.81	6.89		6.97	6.96	6.99	7.03	7.07	7.07	7.09	7.12	7.16	7.16	7.18	7.20	7.24	7.27	7.30	7.33	7.36	7.39	7.42	7.45	7.48	7.51	7.54	7.57																
Z8	6.80	6.87			6.94	7.03	7.02	7.04	7.08	7.12	7.13	7.14	7.17	7.20	7.21	7.22	7.25	7.28	7.31	7.34	7.37	7.40	7.43	7.46	7.49	7.52	7.55	7.58																
H9	6.81	6.89	7.08	7.06	7.08	7.12	7.17	7.16	7.18	7.21	7.24	7.24	7.27	7.30	7.33	7.36	7.39	7.42	7.45	7.48	7.51	7.54	7.57	7.60	7.63	7.66	7.69	7.72																
M9	6.86	6.94	7.05	7.13	7.11	7.12	7.17	7.21	7.21	7.22	7.25	7.28	7.29	7.32	7.35	7.38	7.41	7.44	7.47	7.50	7.53	7.56	7.59	7.62	7.65	7.68	7.71	7.74																
U9	6.91	7.02	7.10		7.17	7.15	7.18	7.21	7.25	7.24	7.26	7.29	7.32	7.35	7.38	7.41	7.44	7.47	7.50	7.53	7.56	7.59	7.62	7.65	7.68	7.71	7.74	7.77																
Z9	7.01	7.07			7																																							

Optima Investment Research
IMM EURODOLLAR DEC 2002 .. Daily HLC plot



TECHNICAL INDICATORS - IMM EURODOLLARS



Optima Investment Research
IMM EURODOLLAR SEP 2002 .. Daily HLC plot



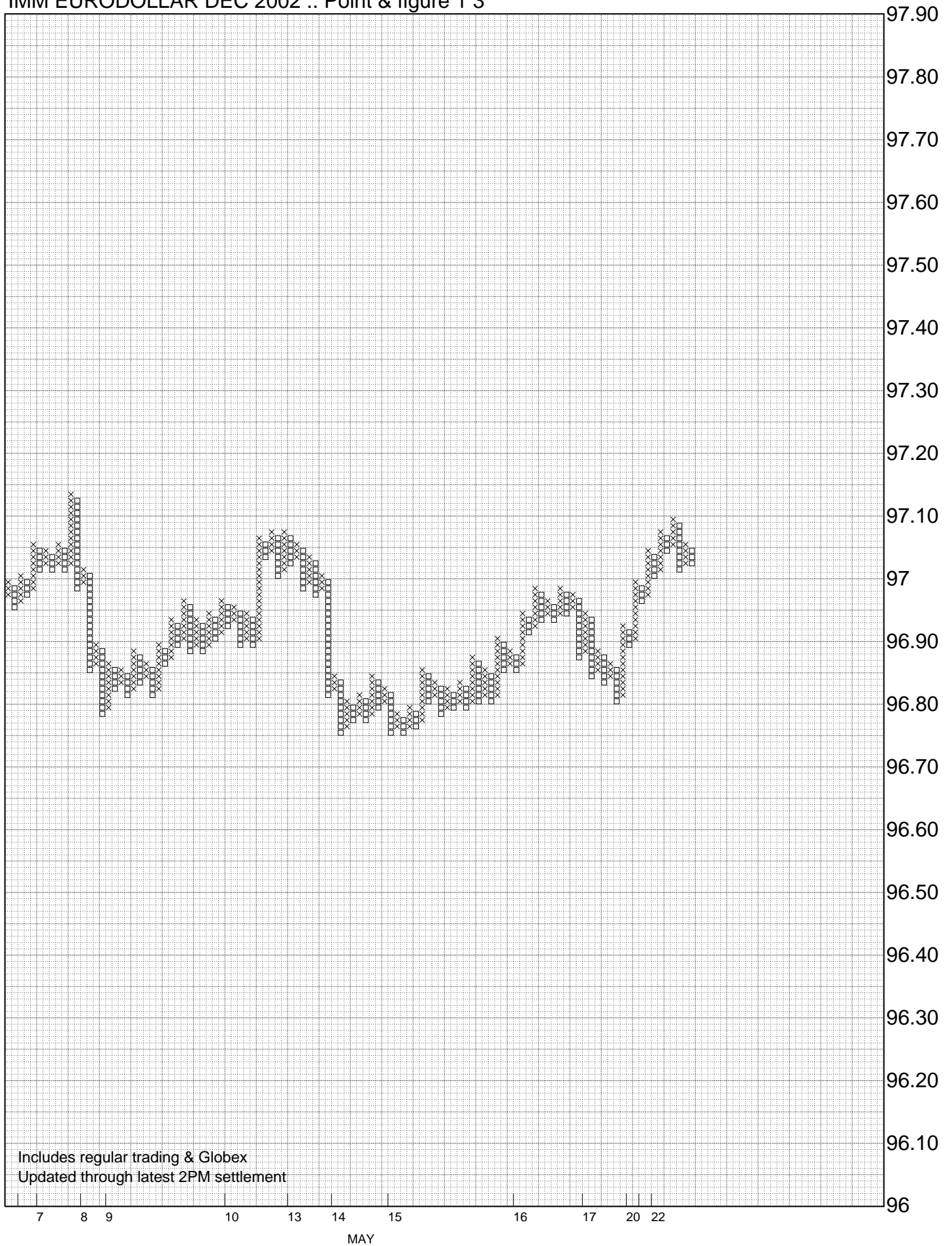
Includes regular trading & Globex
Updated through latest 2PM settlement

Optima Investment Research
IMM EURODOLLAR DEC 2002 .. 30 minute HLC plot

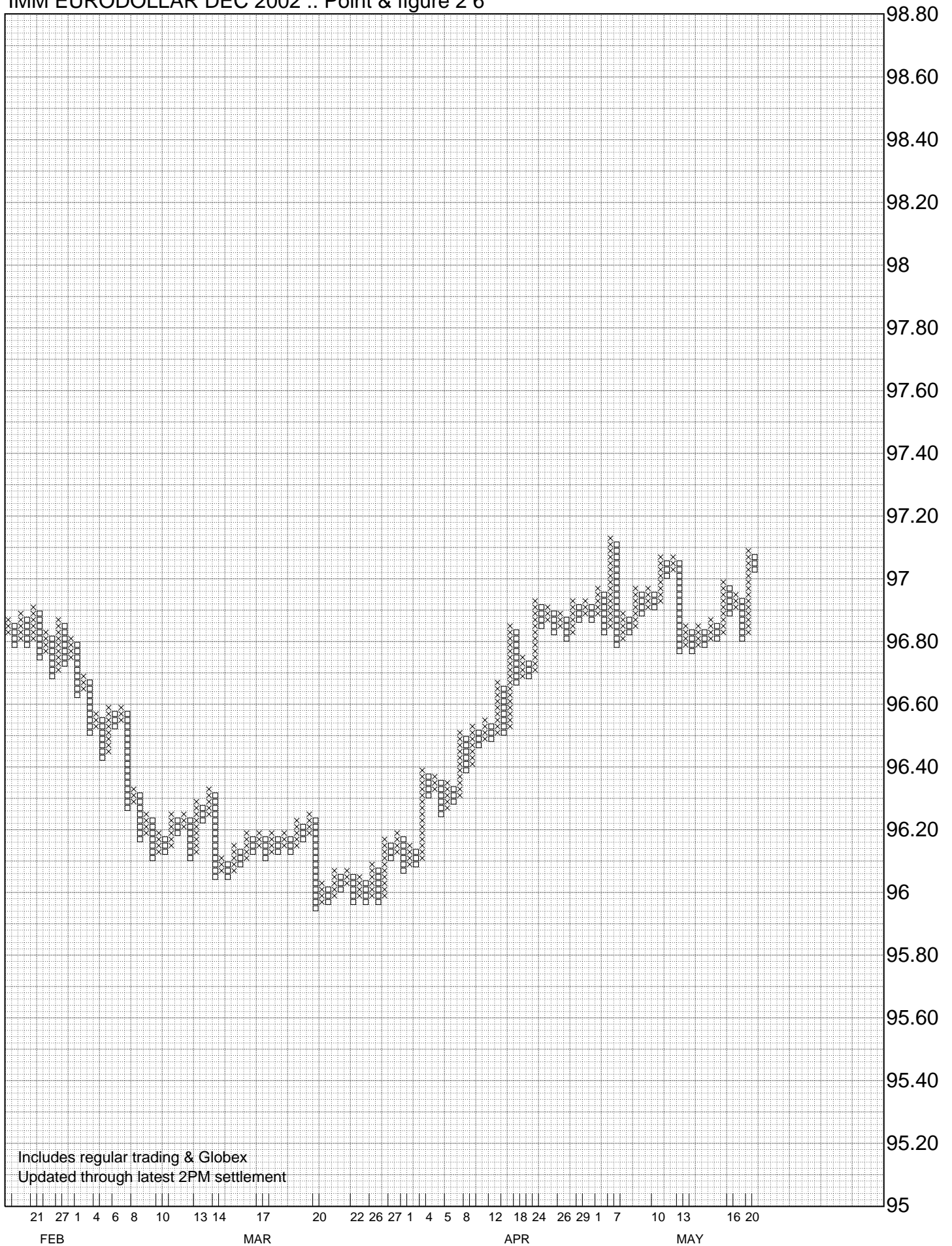


Includes regular trading & Globex
Updated through latest 2PM settlement

Optima Investment Research
IMM EURODOLLAR DEC 2002 .. Point & figure 1 3



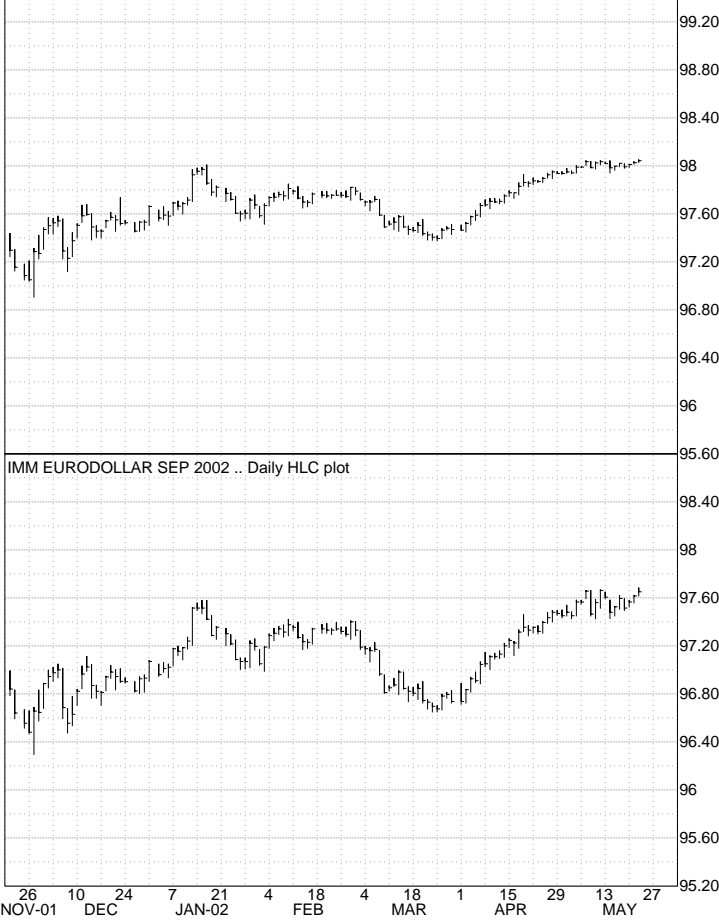
Optima Investment Research
IMM EURODOLLAR DEC 2002 .. Point & figure 2 6



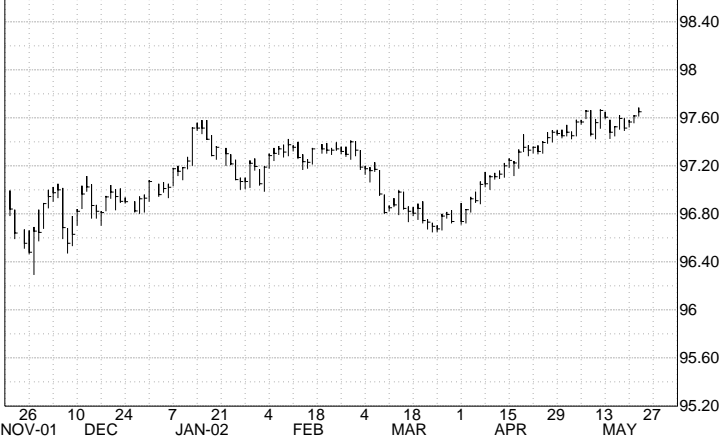
WHITE EURO MONTHS

Optima Investment Research

IMM EURODOLLAR JUN 2002 .. Daily HLC plot



IMM EURODOLLAR SEP 2002 .. Daily HLC plot



Optima Investment Research

IMM EURODOLLAR DEC 2002 .. Daily HLC plot



IMM EURODOLLAR MAR 2003 .. Daily HLC plot



RED EURO MONTHS

Optima Investment Research

IMM EURODOLLAR JUN 2003 .. Daily HLC plot



IMM EURODOLLAR SEP 2003 .. Daily HLC plot



Optima Investment Research

IMM EURODOLLAR DEC 2003 .. Daily HLC plot



IMM EURODOLLAR MAR 2004 .. Daily HLC plot



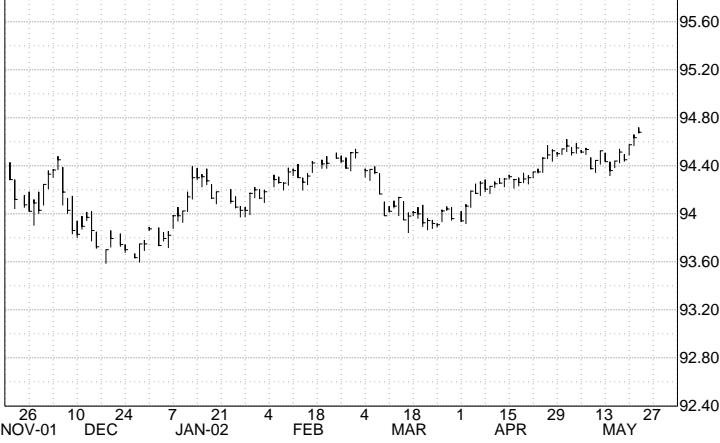
GREEN EURO MONTHS

Optima Investment Research

IMM EURODOLLAR JUN 2004 .. Daily HLC plot



IMM EURODOLLAR SEP 2004 .. Daily HLC plot

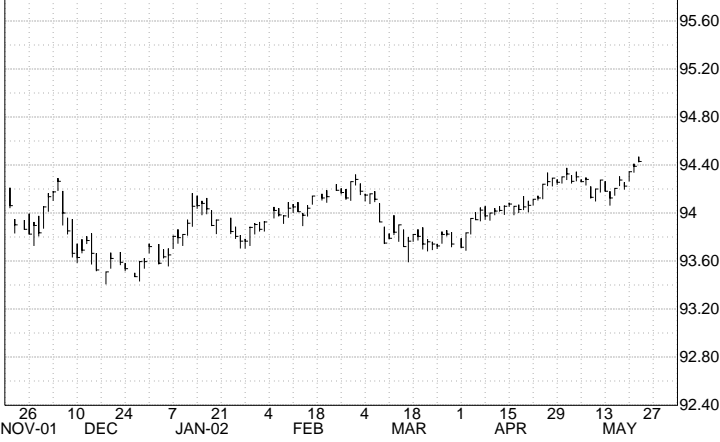


Optima Investment Research

IMM EURODOLLAR DEC 2004 .. Daily HLC plot



IMM EURODOLLAR MAR 2005 .. Daily HLC plot



BLUE EURO MONTHS

Optima Investment Research

IMM EURODOLLAR JUN 2005 .. Daily HLC plot



IMM EURODOLLAR SEP 2005 .. Daily HLC plot

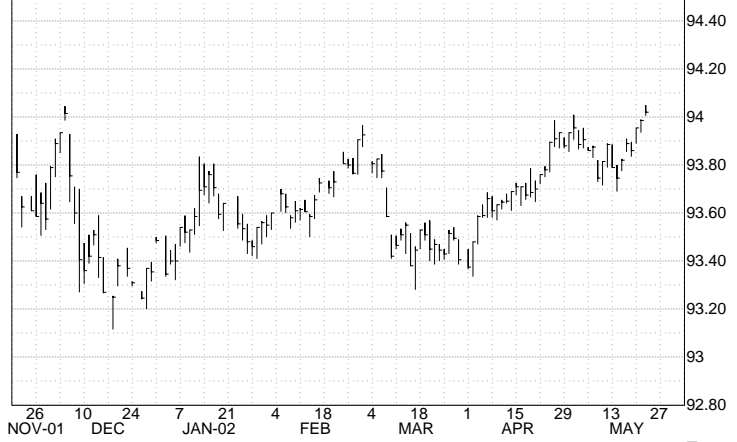


Optima Investment Research

IMM EURODOLLAR DEC 2005 .. Daily HLC plot



IMM EURODOLLAR MAR 2006 .. Daily HLC plot

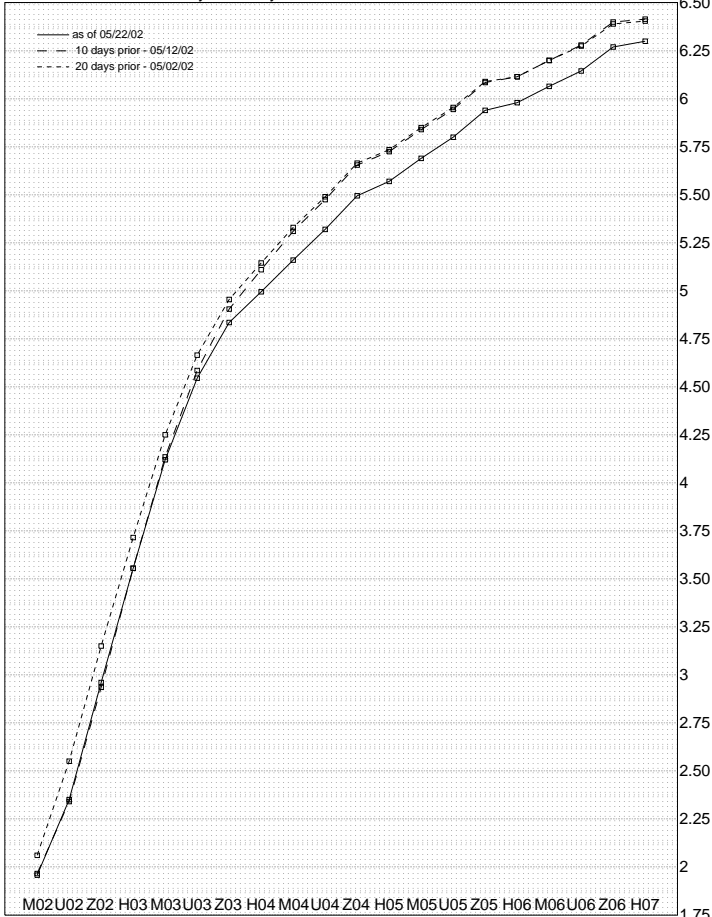


EURODOLLARS - 3, 6, 9 & 12-MONTH SPREADS

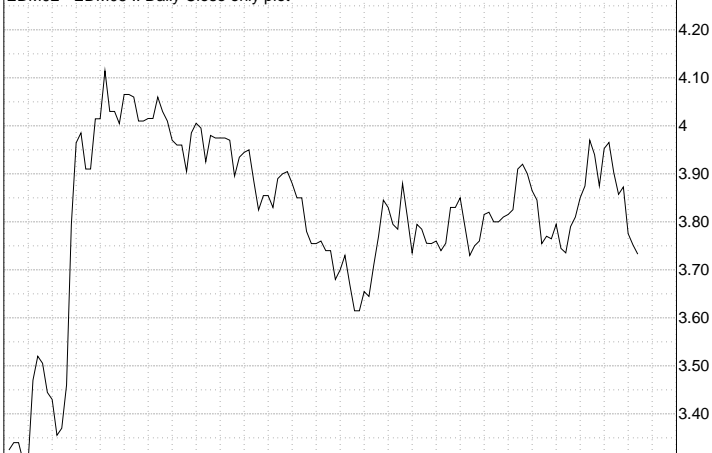


ED DAILY FUTURES YIELD CURVE & 2, 3, 4 YR SPREADS

Optima Investment Research
 IMM EURODOLLAR .. Daily Futures yield curve 10 20



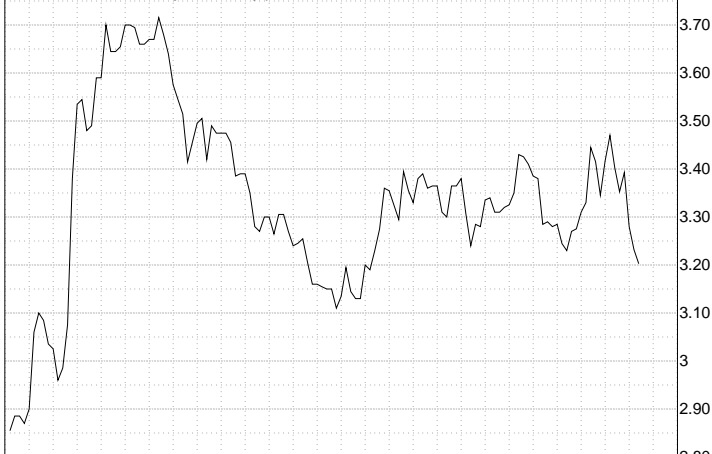
Optima Investment Research
 EDM02 - EDM05 .. Daily Close only plot



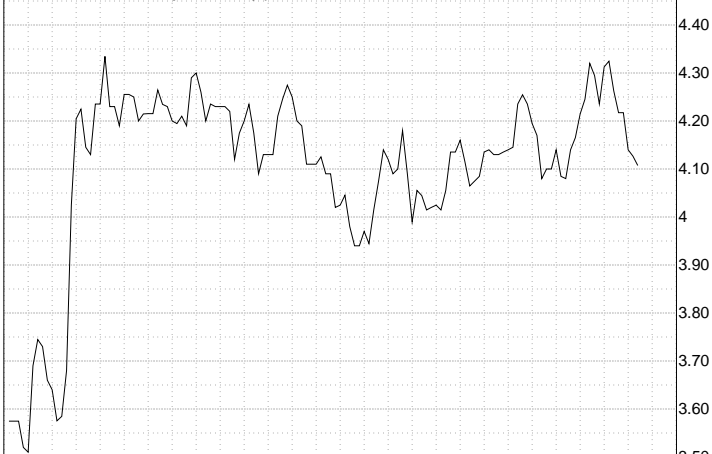
EDU02 - EDU05 .. Daily Close only plot



Optima Investment Research
 EDM02 - EDM04 .. Daily Close only plot



Optima Investment Research
 EDM02 - EDM06 .. Daily Close only plot



EDU02 - EDU04 .. Daily Close only plot

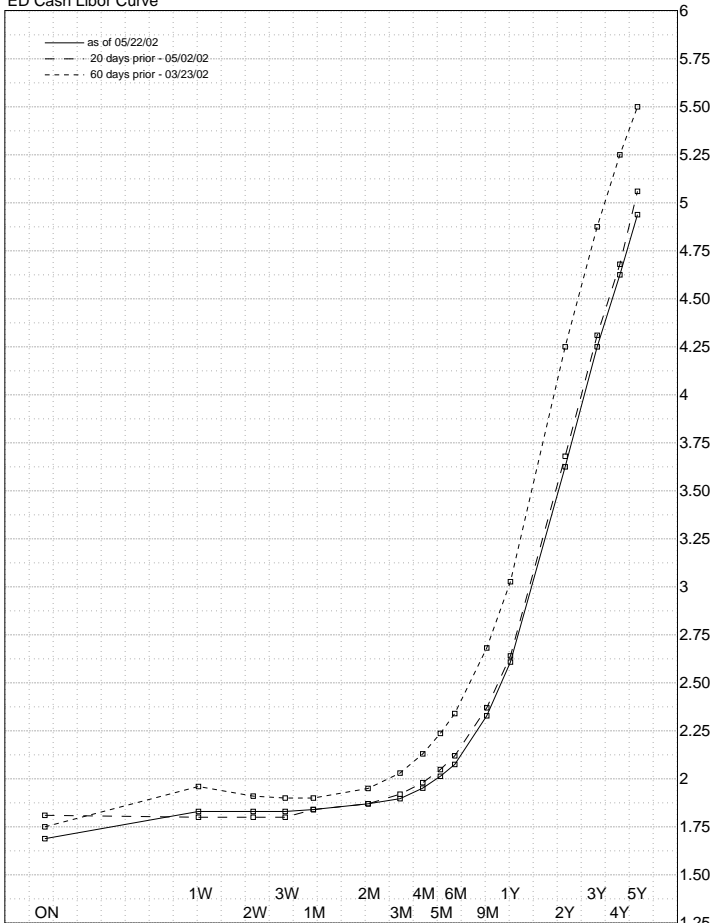


EDU02 - EDU06 .. Daily Close only plot



LIBOR YIELD CURVE & SPREADS

Optima Investment Research
ED Cash Libor Curve



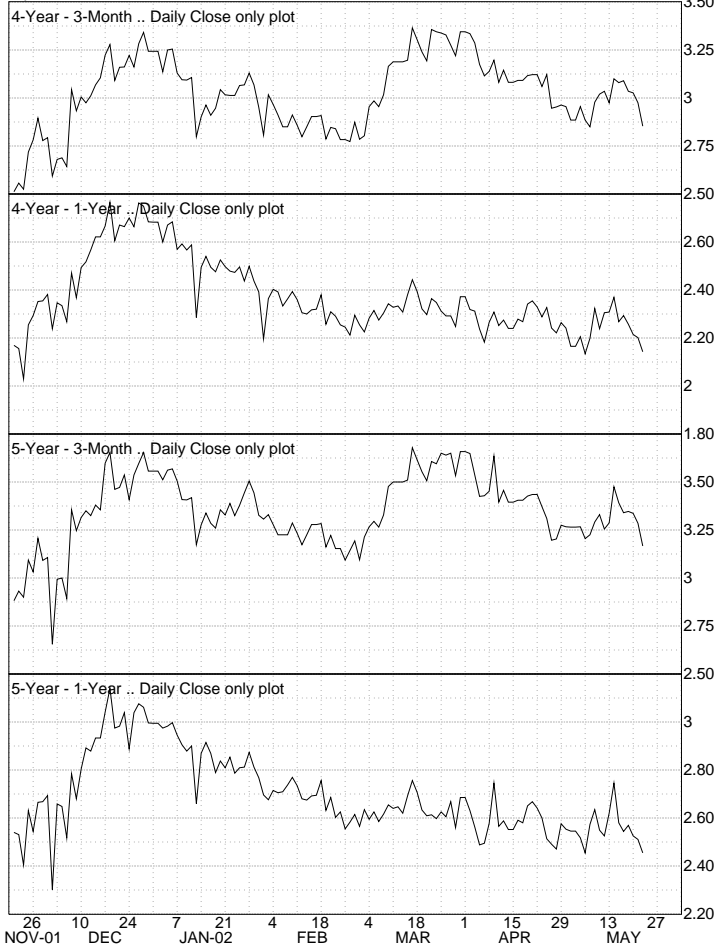
Rising spread = steeper yield curve



Optima Investment Research

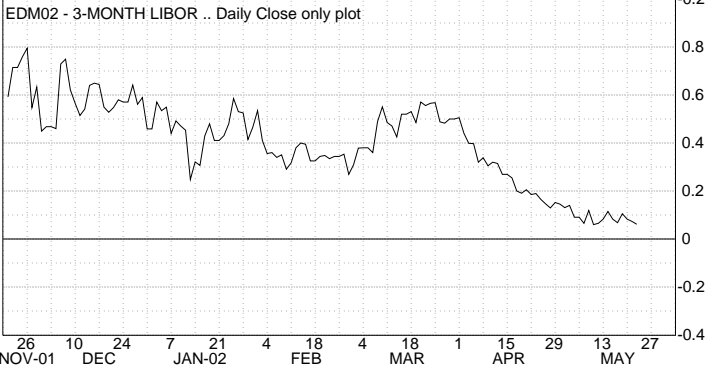
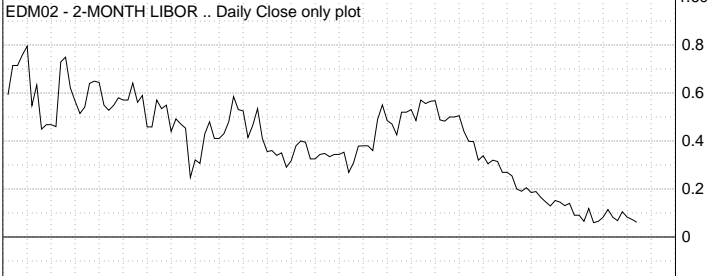
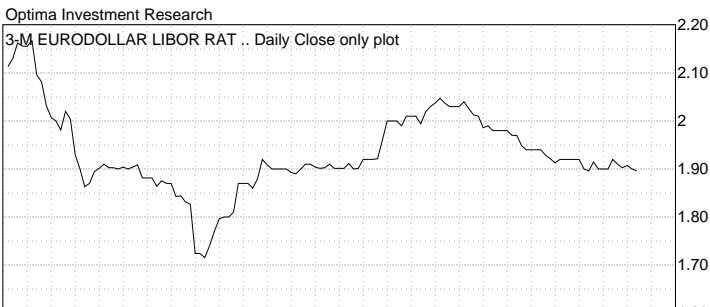
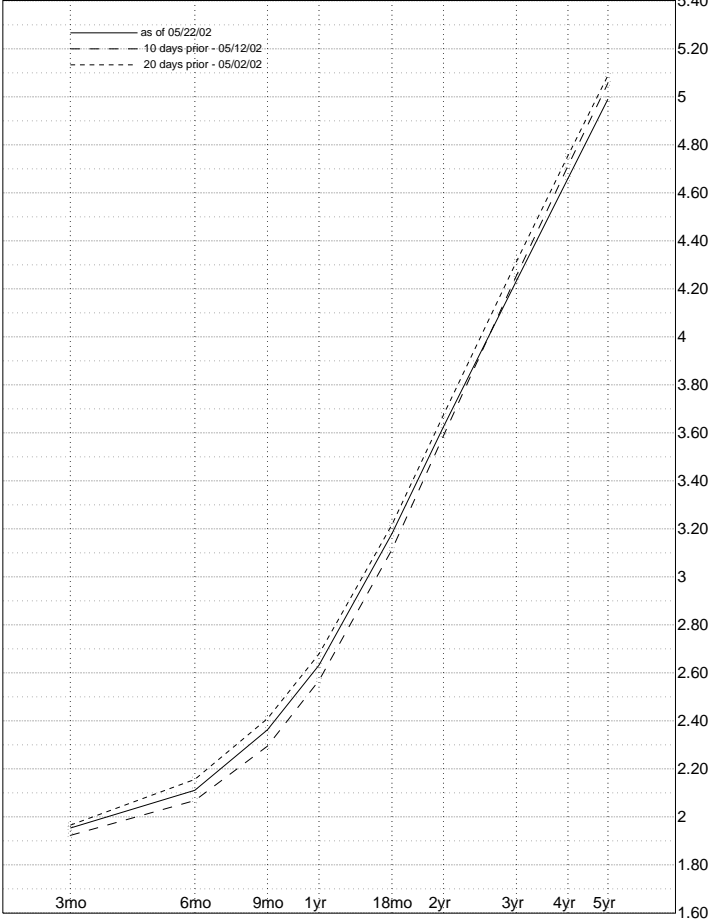


Optima Investment Research

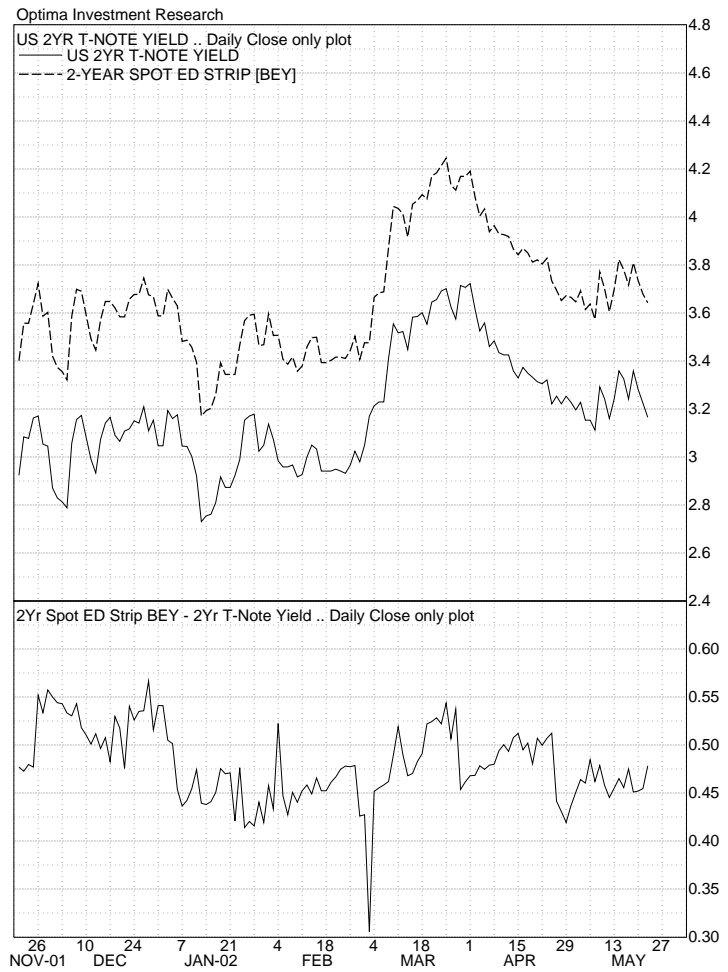
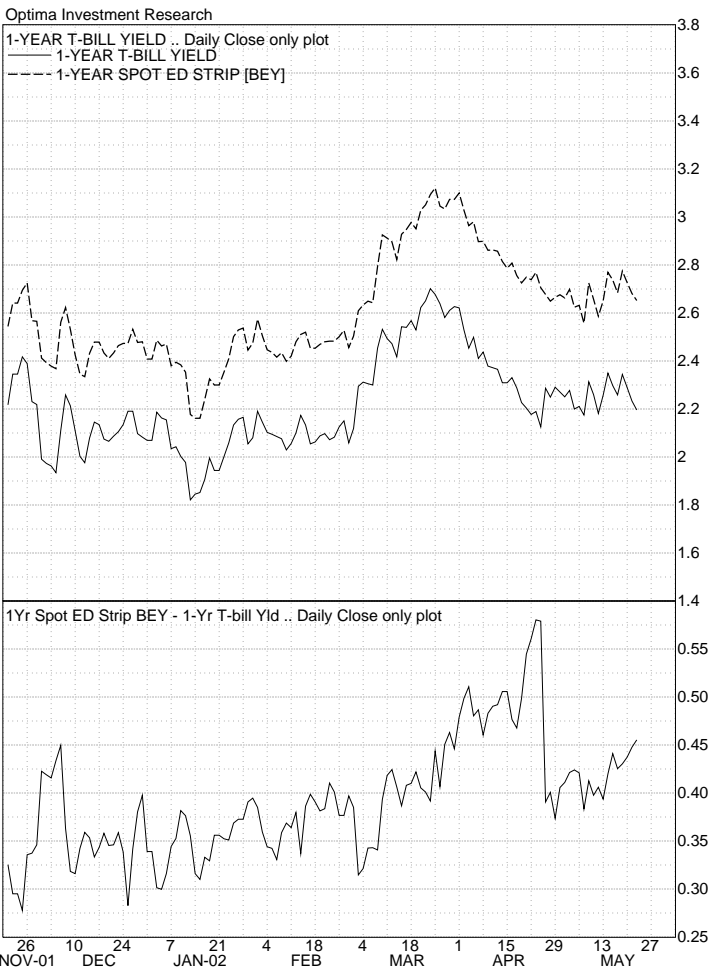


SPOT ED STRIPS VS. LIBOR [3,6,9 MO]

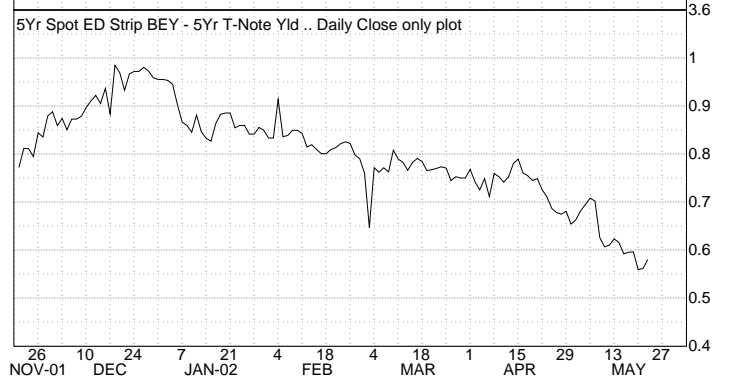
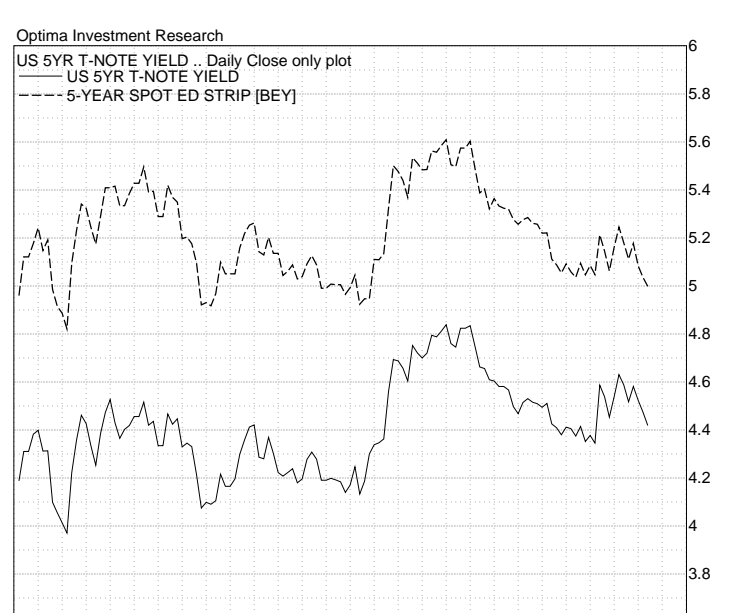
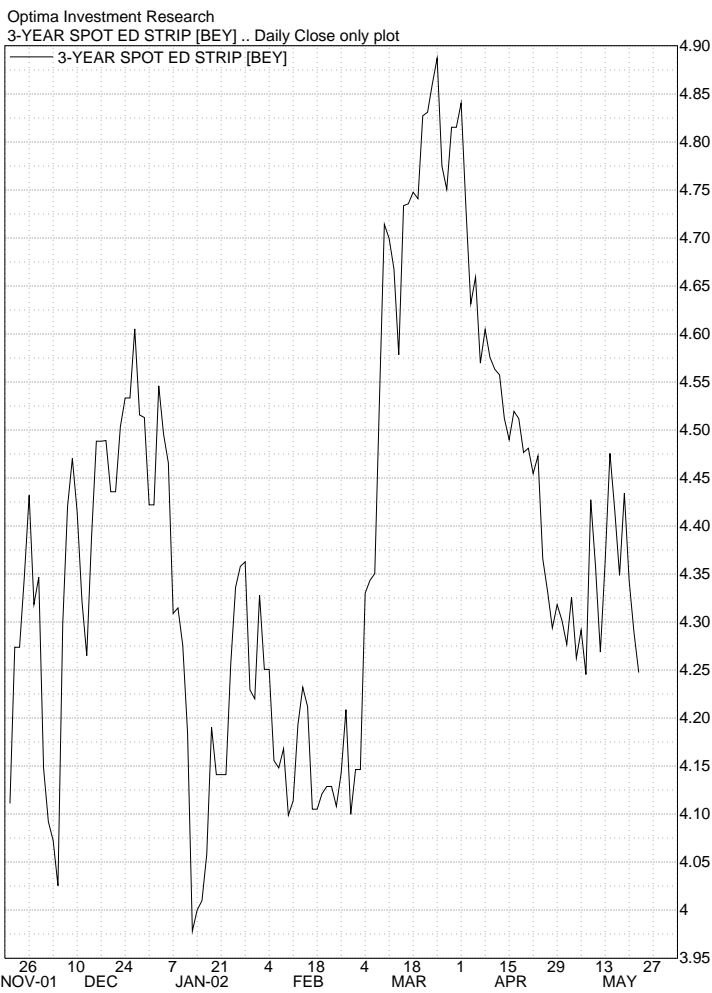
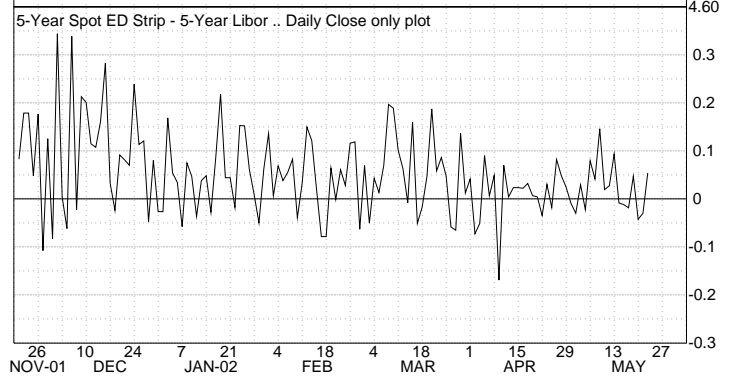
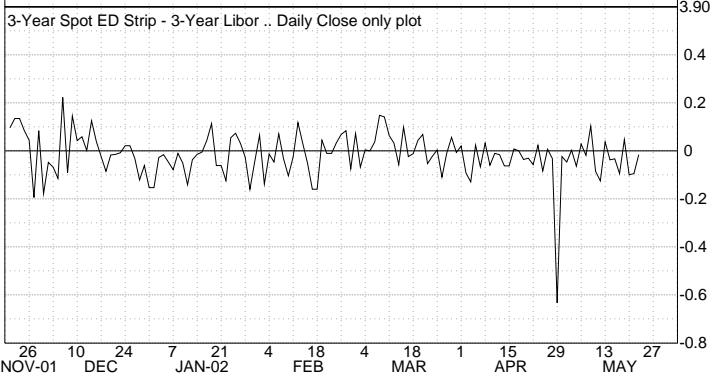
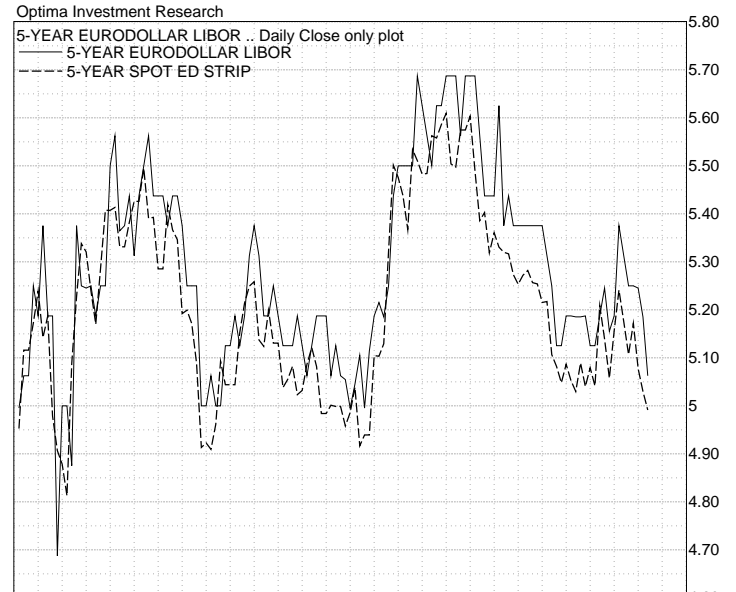
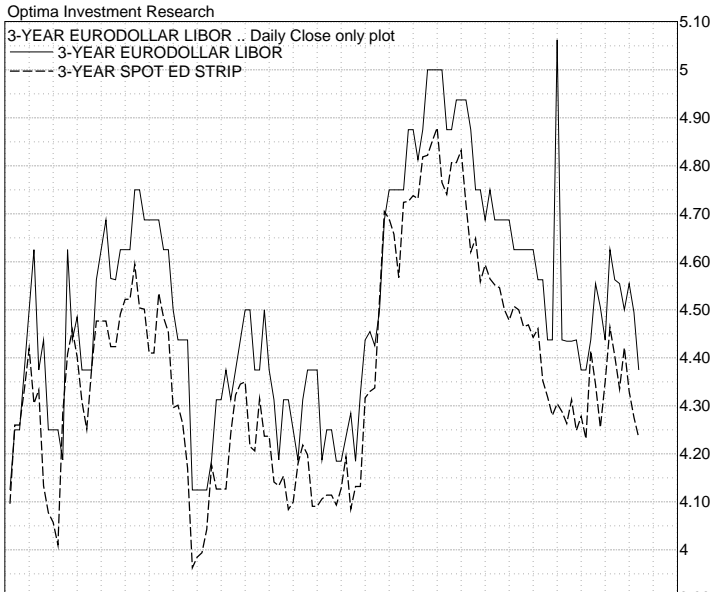
Optima Investment Research
IMM EURODOLLAR .. Euro ED Spot Strip Curve 10 20



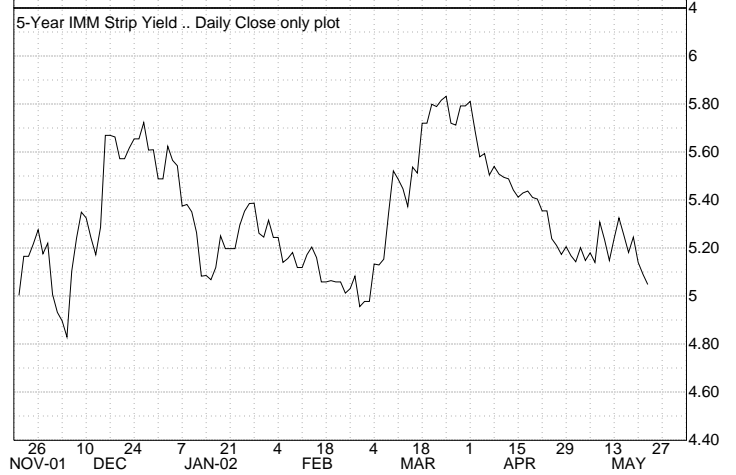
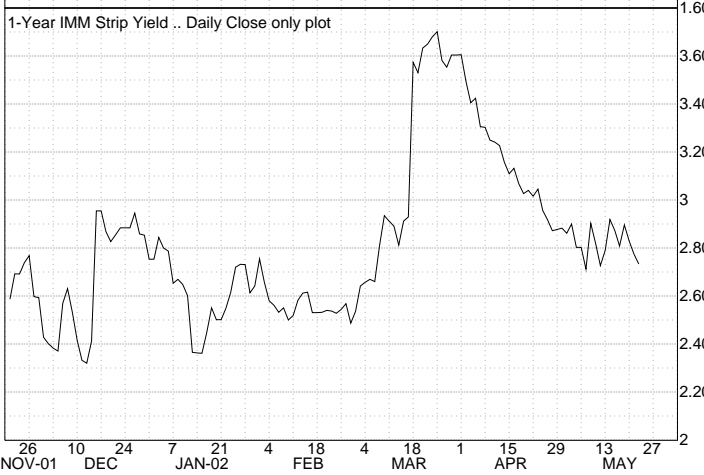
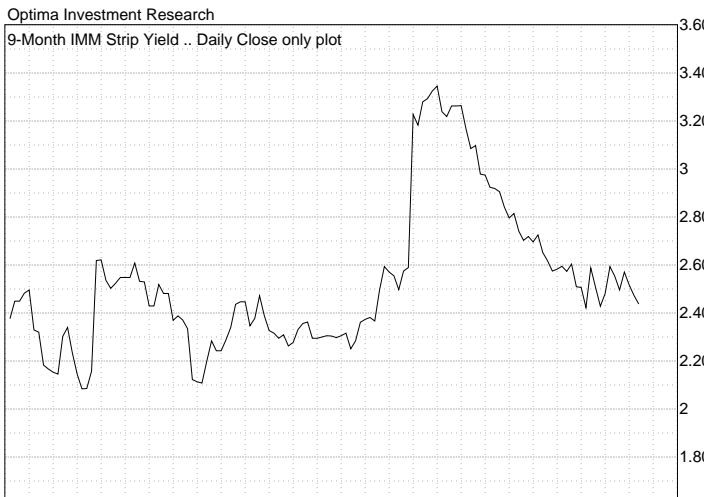
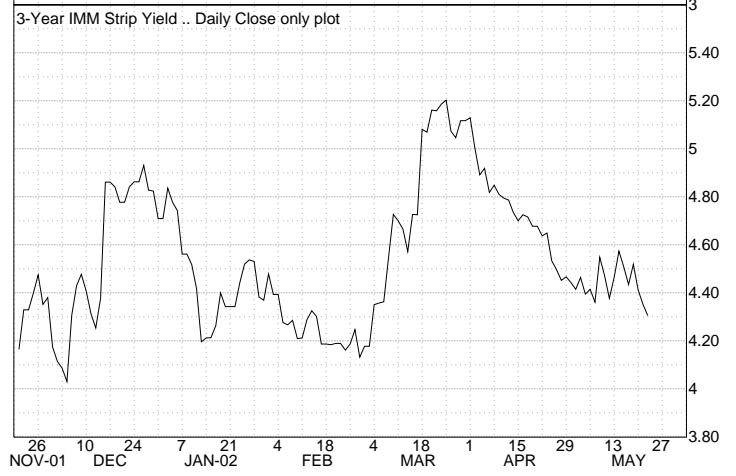
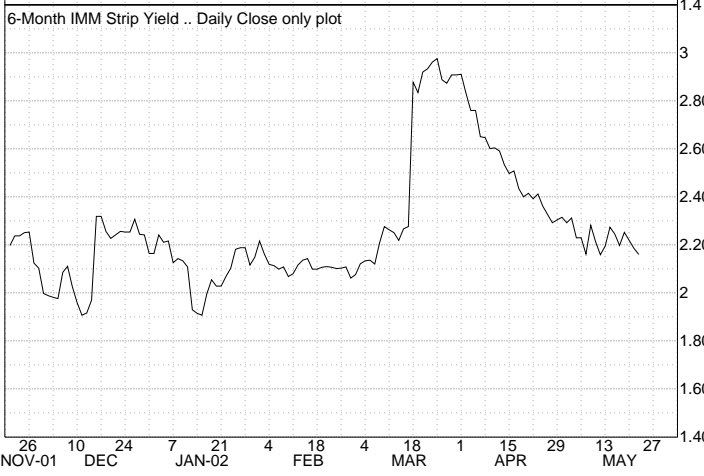
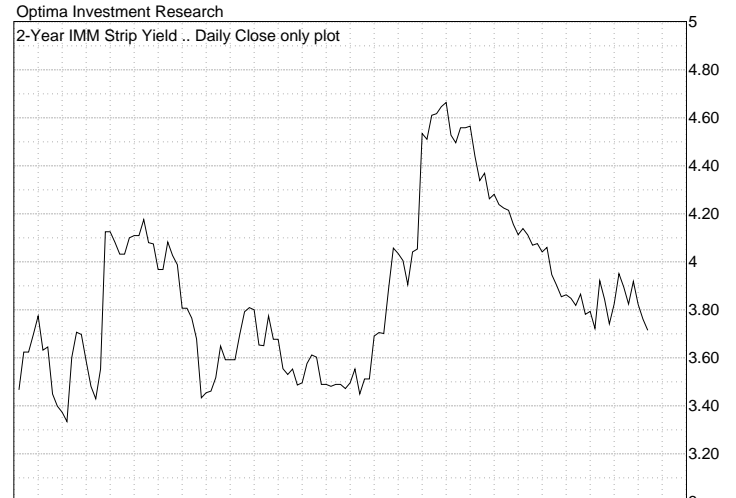
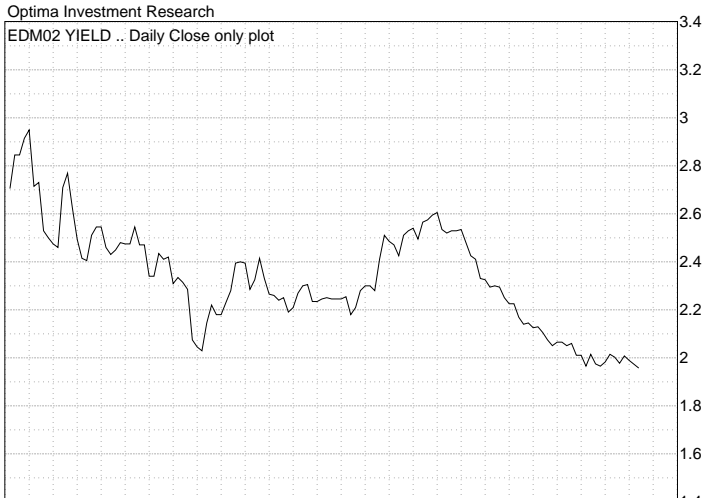
SPOT ED STRIPS VS. LIBOR & T-NOTE YLD [1 & 2 YEAR]



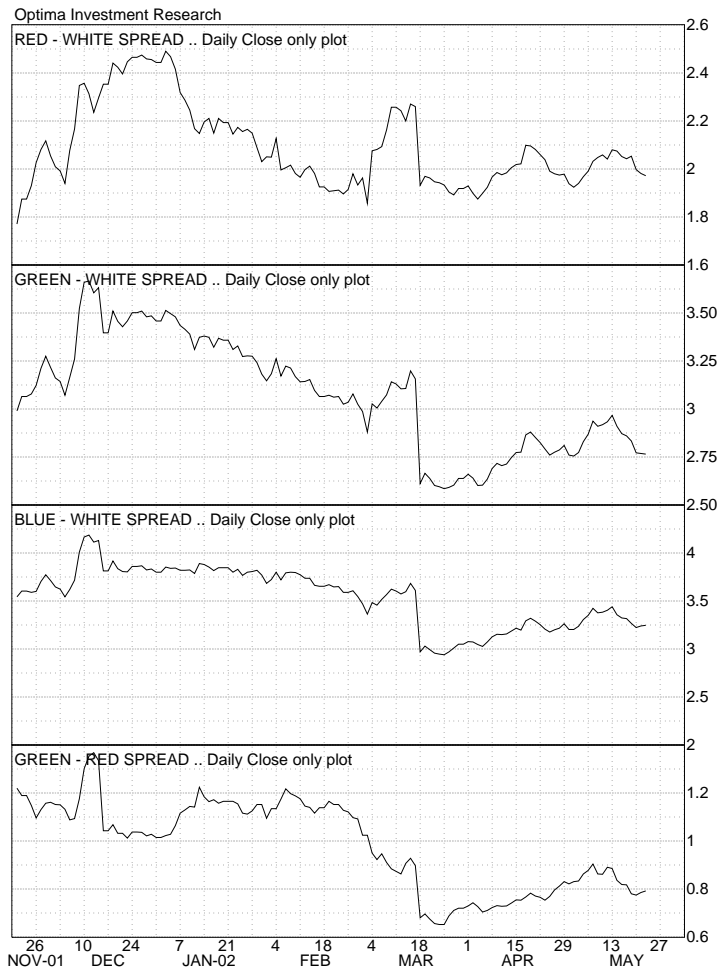
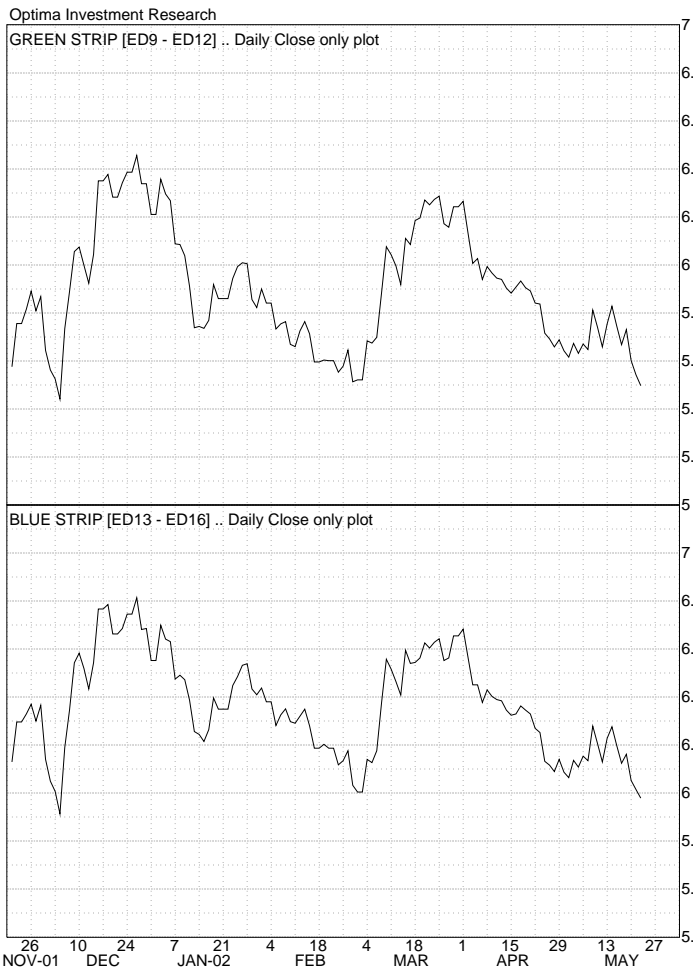
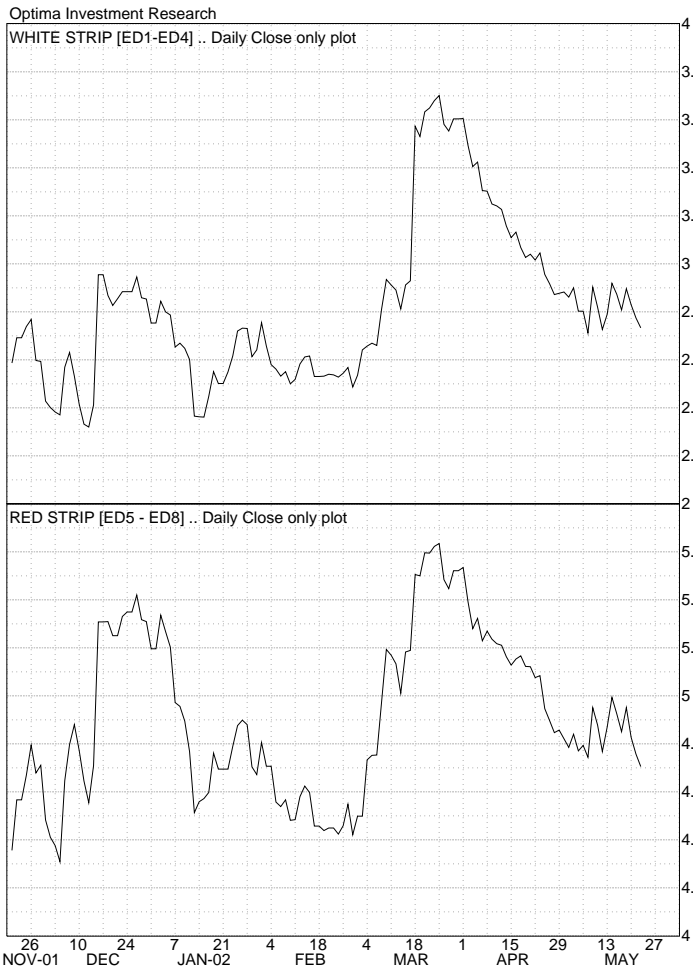
SPOT ED STRIPS VS. LIBOR & T-NOTE YLD [3 & 5-YR]



IMM-DATED ED STRIP YIELDS



IMM-DATED ED STRIP YIELDS

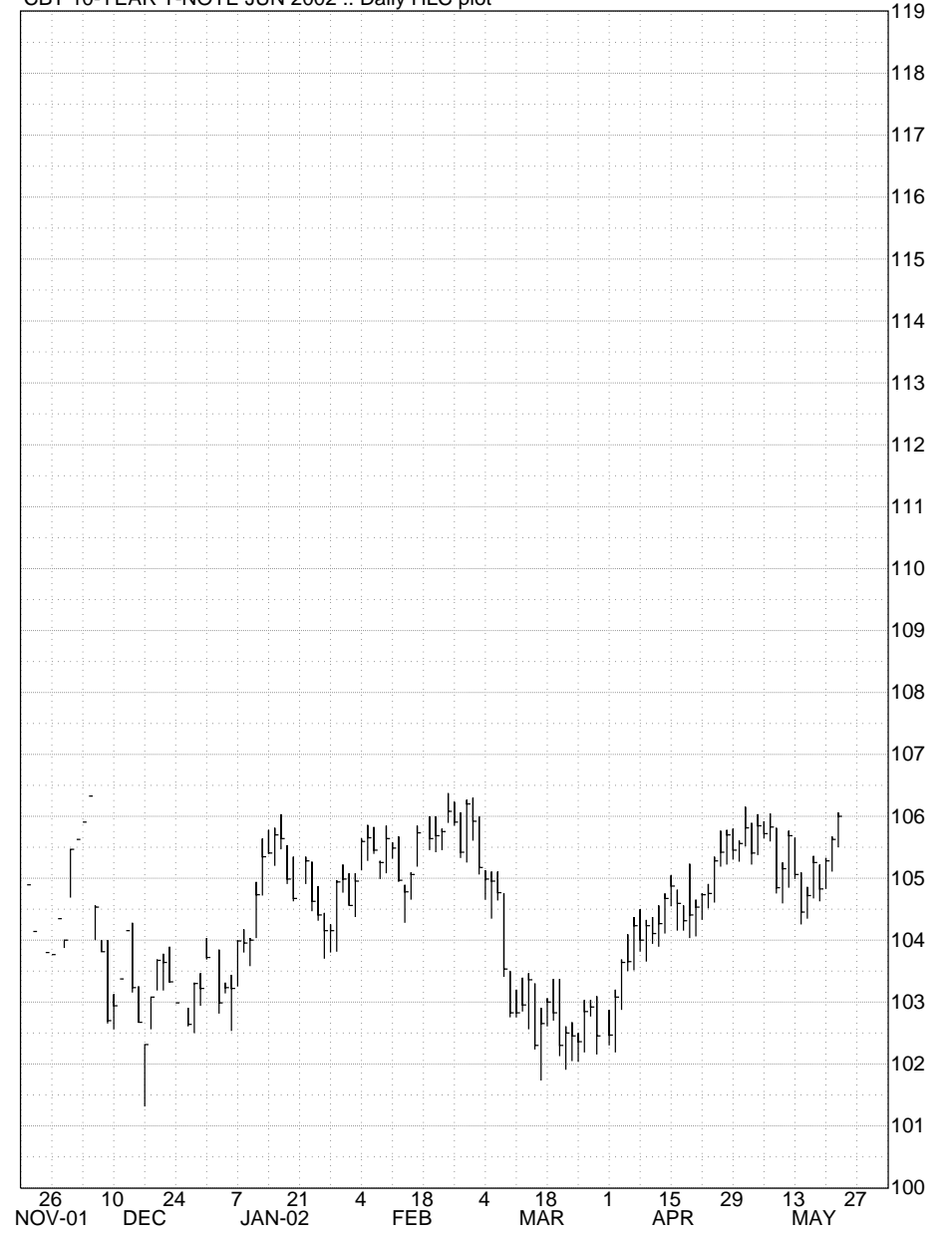


30-YEAR T-BONDS & 10-YEAR NOTES

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



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

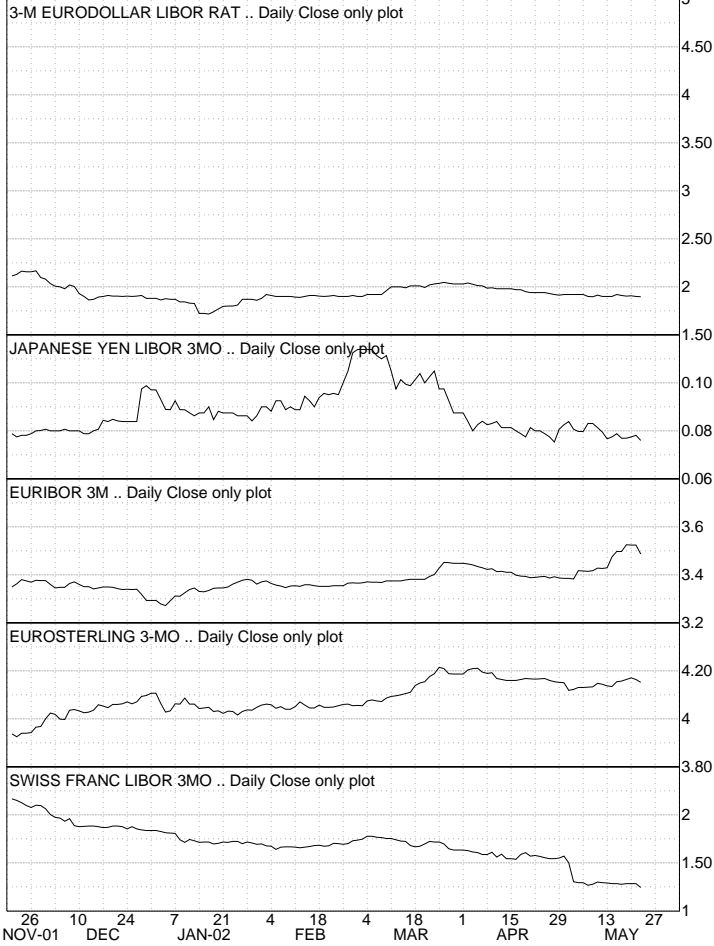


Optima Investment Research
IMM EURODOLLAR NEAREST FUTURES .. Weekly HLC plot



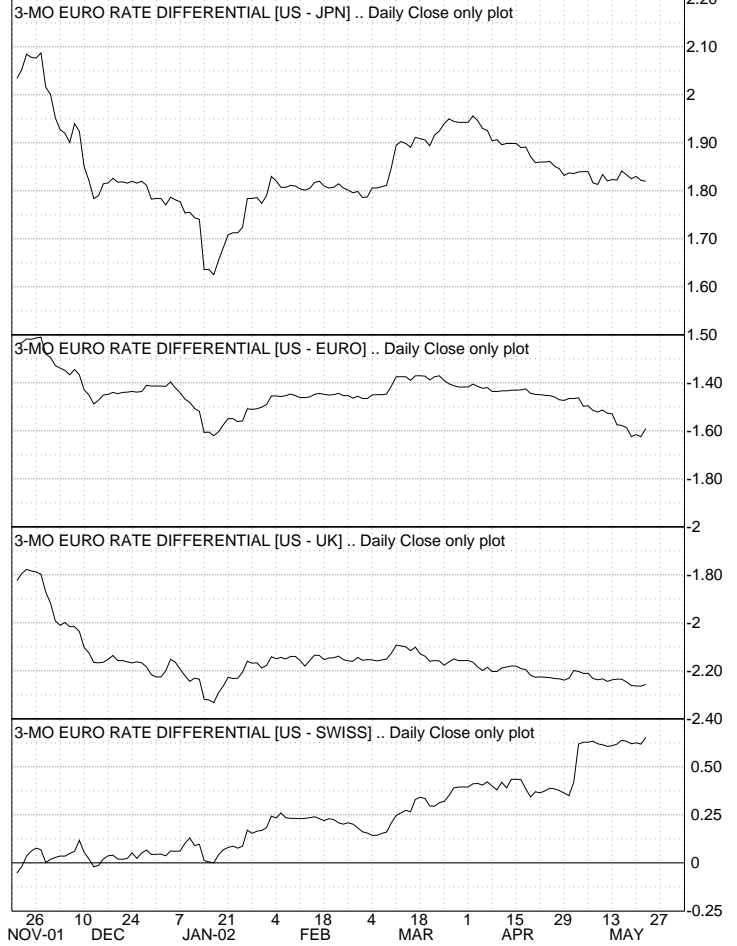
INTERNATIONAL 3-MO EURO RATES

Optima Investment Research



3-MONTH EURO RATE DIFFERENTIALS

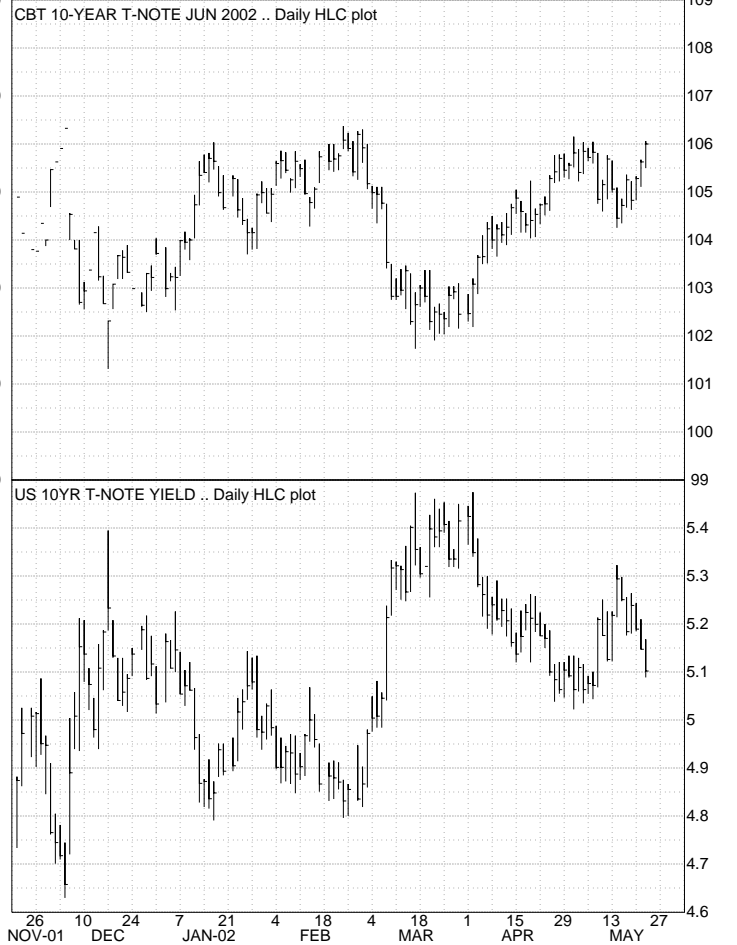
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DAILY U.S. MARKET OVERVIEW



OPTIMA VOLATILITY PICTURE -- EURODOLLAR ^ Thu 5/23/02

IMPLIED VOLATILITY OVERVIEW -- EDU volatility finished +1.52 at a 1-1/4 month high settlement at 35.68. The EDU futures contract settled at +.0350 at 97.6500. The short-term trend for EDU volatility is bullish as volatility posted a 1-1/4 month high settle yesterday.

MATURITY STRUCTURE OF IMPLIED VOLATILITY -- The maturity structure is upward sloping in shape. Imp vol: EDU was +1.52 at 35.68 and EDZ +1.60 was at 36.79.

RICH/CHEAP ANALYSIS -- The Volatility Cheapness Indexes were unchanged with EDU and EDZ rich at 100.0

SIGMA BOUNDARY -- The 1-standard deviation moves for today are: EDU +/-0.0550, EDZ +/-0.0700.

SUPPORT/RESISTANCE LEVELS -- EURODOLLAR IMPLIED VOLATILITY (EDU02)

44.49	Contract high (11/7/01)	32.90	20-day implied volatility average
43.51	5-3/4 month high (12/31/01)	30.32	9-month low (May 1)
38.21	3-3/4 month high (2/6/02)	22.87	9-1/4 month low (9/04/01)
36.70	2-3/4 month high (April 9)	22.32	9-1/2 month low (8/27/01)
*35.68	1-1/4 month high (Wednesday)	20.60	10-1/4 month low (7/26/01)
33.42	60-day implied volatility average	19.52	Contract low (7/5/01)

Note: Call for a User Manual that has explanations of the volatility terms used above.

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OPTIMA VOLATILITY SUMMARY - IMM EURODOLLARS

As of: 052202	:	EDM02	EDU02	EDZ02	EDH03	EDM03	EDU03
Underlying Settle:	:	98.0430s	97.6500s	97.0400s	96.4450s	95.8800s	95.4550s
Change:	:	+.0160	+.0350	+.0550	+.0600	+.0550	+.0500
Implied Volatility	:	22.02s	35.68s	36.79s	33.94s	30.02s	27.19s
Change from Prev:	:	+.72	+.77	+1.10	+1.17	+.34	+.46
last 20Days High:	:	22.02	35.68	36.79	33.94	30.02	27.19
Avg:	:	19.89	33.08	33.87	31.14	28.35	25.75
Low:	:	17.32	30.32	31.63	28.86	26.25	24.06
last 60Days High:	:	33.05	36.70	36.79	33.94	30.02	27.84
Avg:	:	25.38	33.40	32.97	30.03	27.32	25.14
Low:	:	17.32	30.32	30.13	26.98	24.97	23.38
Historical 20 Day:	:	21.15%	51.01%	52.52%	44.75%	35.12%	29.65%
Volatility 30 Day:	:	19.44%	43.88%	44.92%	38.26%	30.24%	25.50%
50 Day:	:	22.74%	40.61%	40.92%	34.99%	28.24%	24.84%
100 Day:	:	36.19%	46.44%	44.03%	39.51%	33.17%	28.87%
200 Day:	:	44.41%	48.64%	44.60%	39.81%	34.21%	30.43%

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

OPTIMA VOLATILITY CHEAPNESS INDEX

Historical Volatility							
Max	:	41.5	31.2	26.7	24.7	24.1	22.5
Median	:	12.3	12.4	12.5	13.0	13.9	14.0
Min	:	2.5	5.4	6.0	7.1	7.9	8.9
Vol Cheapness Ind:	:	88.2	100.0	100.0	100.0	100.0	100.0
change	:	+.9	unch	unch	unch	unch	unch
Last 20 sess							
High	:	88.2	100.0	100.0	100.0	100.0	100.0
Avg	:	79.1	100.0	100.0	100.0	100.0	100.0
Low	:	73.6	100.0	100.0	100.0	100.0	100.0
Last 60 sess							
High	:	96.5	100.0	100.0	100.0	100.0	100.0
Avg	:	88.0	100.0	100.0	100.0	100.0	100.0
Low	:	73.6	100.0	100.0	100.0	100.0	100.0
Days to Expiration	:	26	117	208	299	390	481

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

OPTIMA SIGMA BOUNDARY

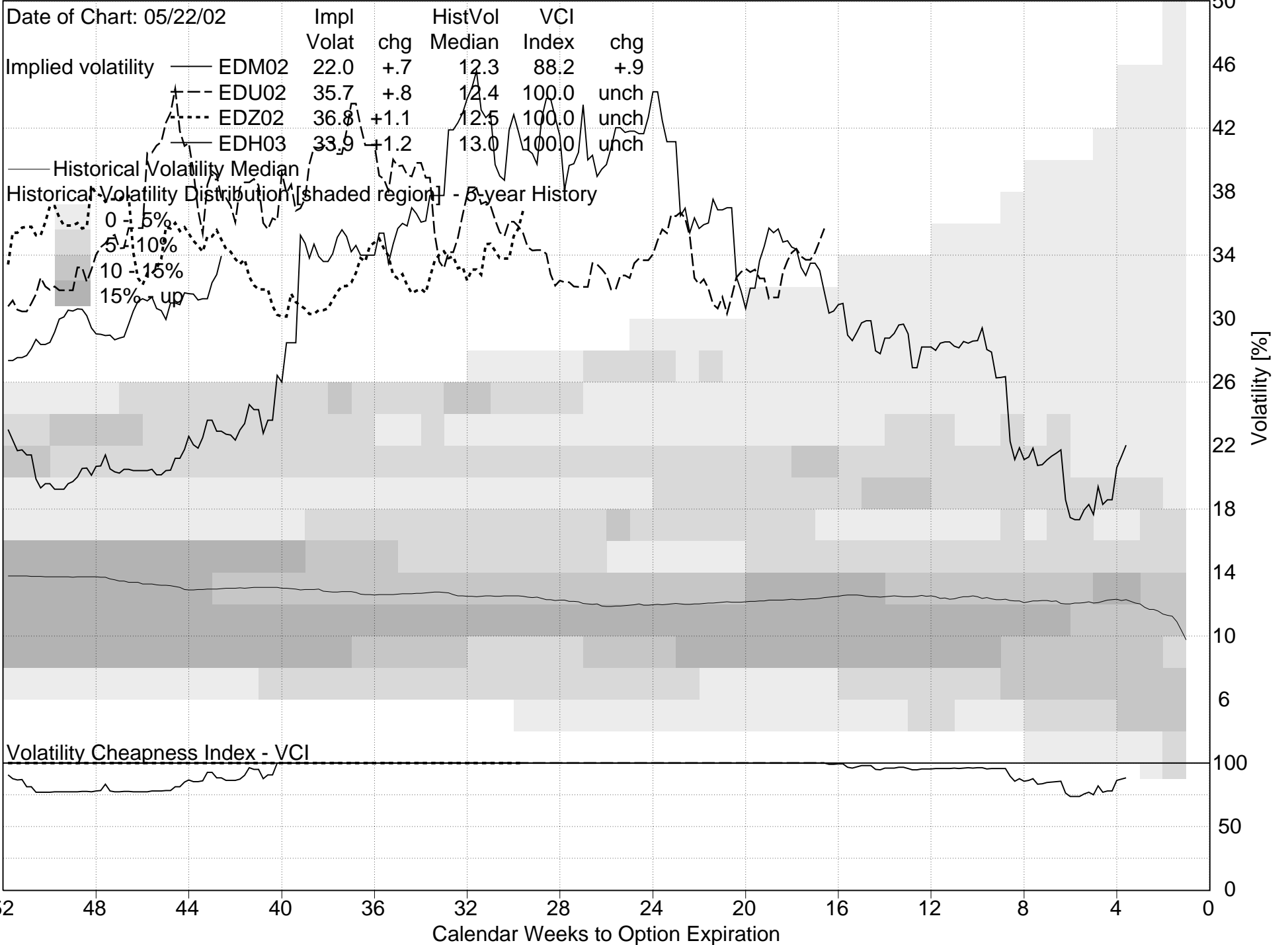
Today: +1 Std Dev:	:	.0270	.0520	.0680	.0750	.0770	.0770
-1 Std Dev:	:	.0270	.0530	.0690	.0770	.0790	.0790
68% H:	:	98.0690	97.7020	97.1080	96.5200	95.9570	95.5320
L:	:	98.0150	97.5970	96.9710	96.3680	95.8010	95.3760
95% H:	:	98.0960	97.7540	97.1760	96.5950	96.0340	95.6090
L:	:	97.9880	97.5430	96.9010	96.2910	95.7230	95.2980
99% H:	:	98.1230	97.8070	97.2430	96.6710	96.1120	95.6870
L:	:	97.9600	97.4900	96.8320	96.2140	95.6440	95.2190
20Days +1 Std Dev:	:	.1180	.2250	.2910	.3240	.3340	.3350
Out: -1 Std Dev:	:	.1250	.2480	.3230	.3570	.3640	.3620
To +1 Std Dev:	:	.1120	.4300	.7180	.9400	1.0990	1.2180
Expir- -1 Std Dev:	:	.1190	.5260	.9480	1.2790	1.4990	1.6650
ation 68% H:	:	98.1540	98.0800	97.7580	97.3850	96.9790	96.6730
L:	:	97.9240	97.1240	96.0920	95.1660	94.3810	93.7900
95% H:	:	98.2660	98.5100	98.4760	98.3260	98.0780	97.8920
L:	:	97.8050	96.5980	95.1450	93.8880	92.8820	92.1250
99% H:	:	98.3780	98.9390	99.1930	99.2660	99.1770	99.1100
L:	:	97.6870	96.0720	94.1970	92.6090	91.3830	90.4600

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

IMM EURODOLLAR JUN 2002 .. Daily Implied volatility



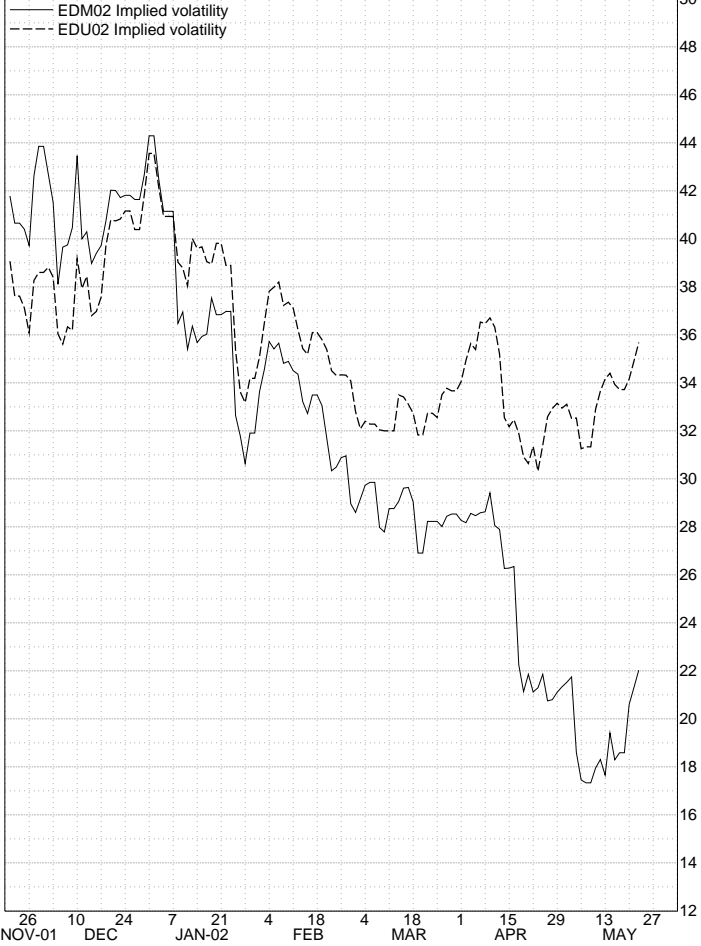
Optima Investment Research
 IMM EURODOLLAR .. Volatility Cone



EURODOLLAR IMPLIED VOLATILITIES

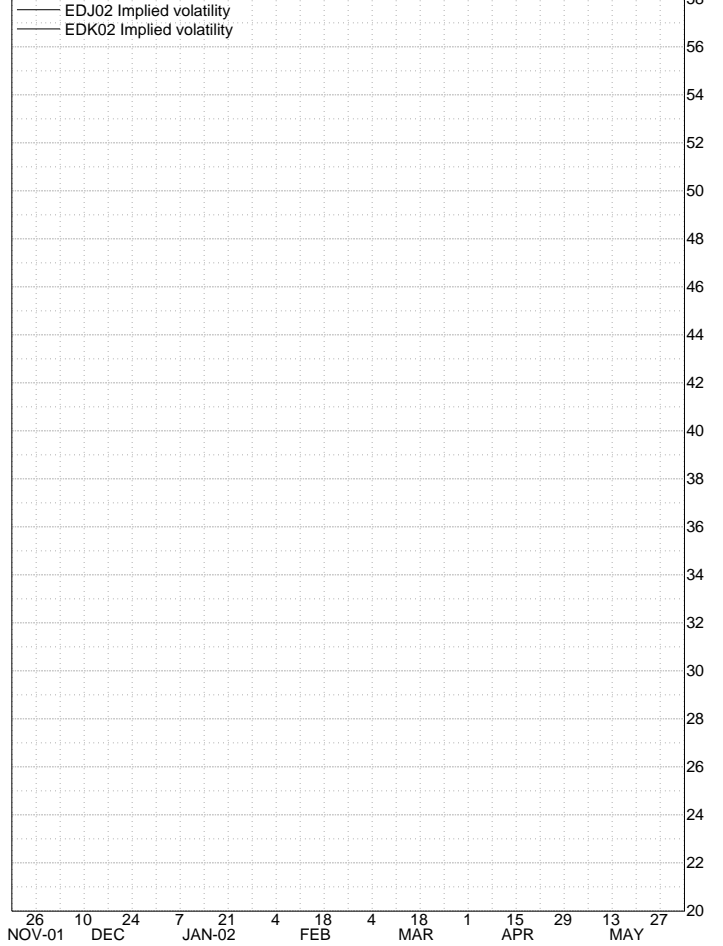
Optima Investment Research
 IMM EURODOLLAR JUN 2002 .. Daily Implied volatility

FIRST 2 MONTHS



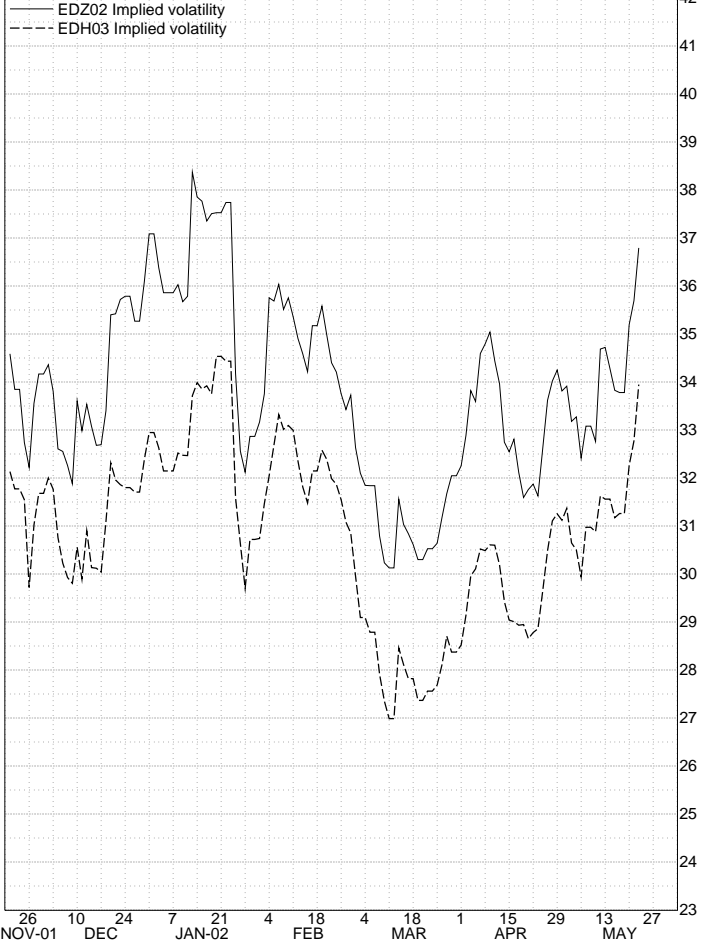
Optima Investment Research
 IMM EURODOLLAR APR 2002 .. Daily Implied volatility

SERIAL MONTHS



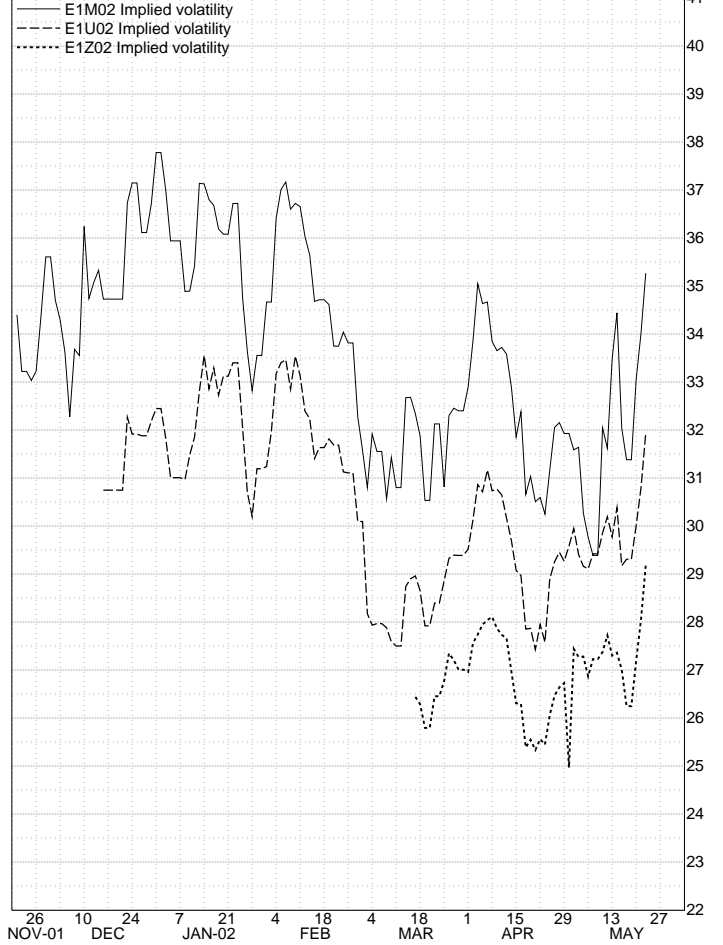
Optima Investment Research
 IMM EURODOLLAR DEC 2002 .. Daily Implied volatility

SECOND 2 MONTHS

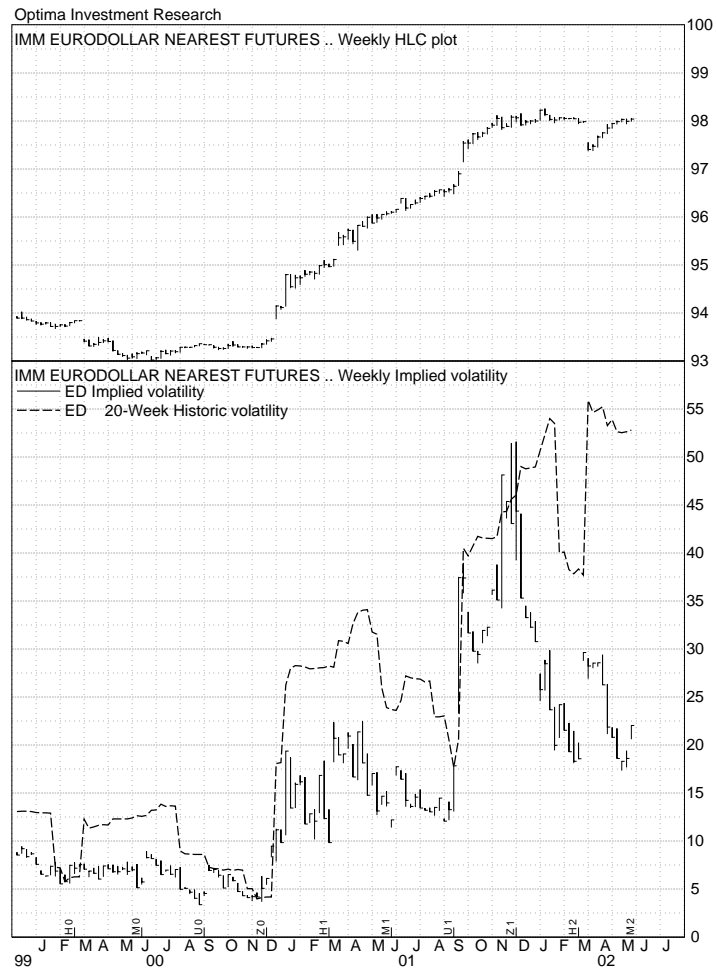


Optima Investment Research
 IMM 1YR EURO MIDCURVE JUN 2002 .. Daily Implied volatility

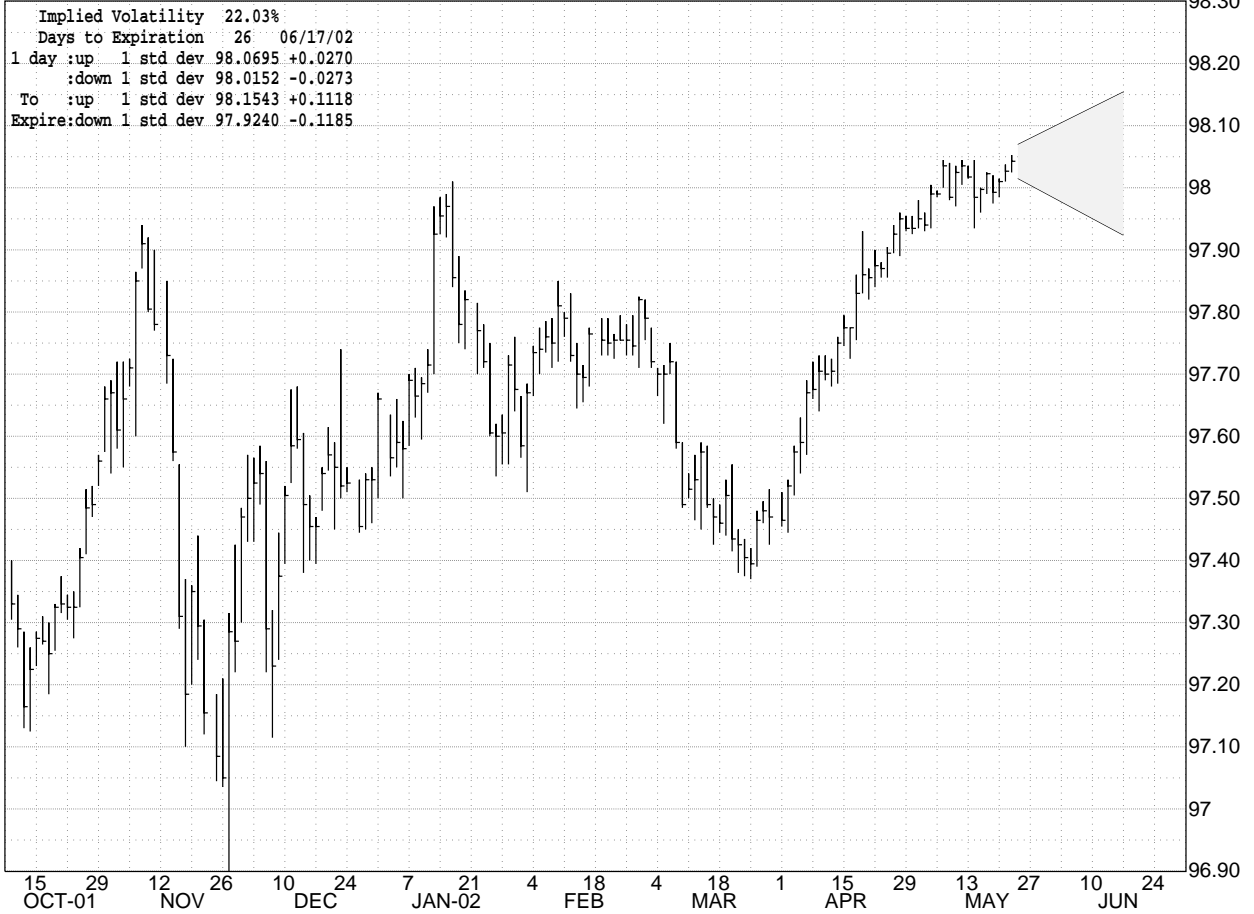
MIDCURVES



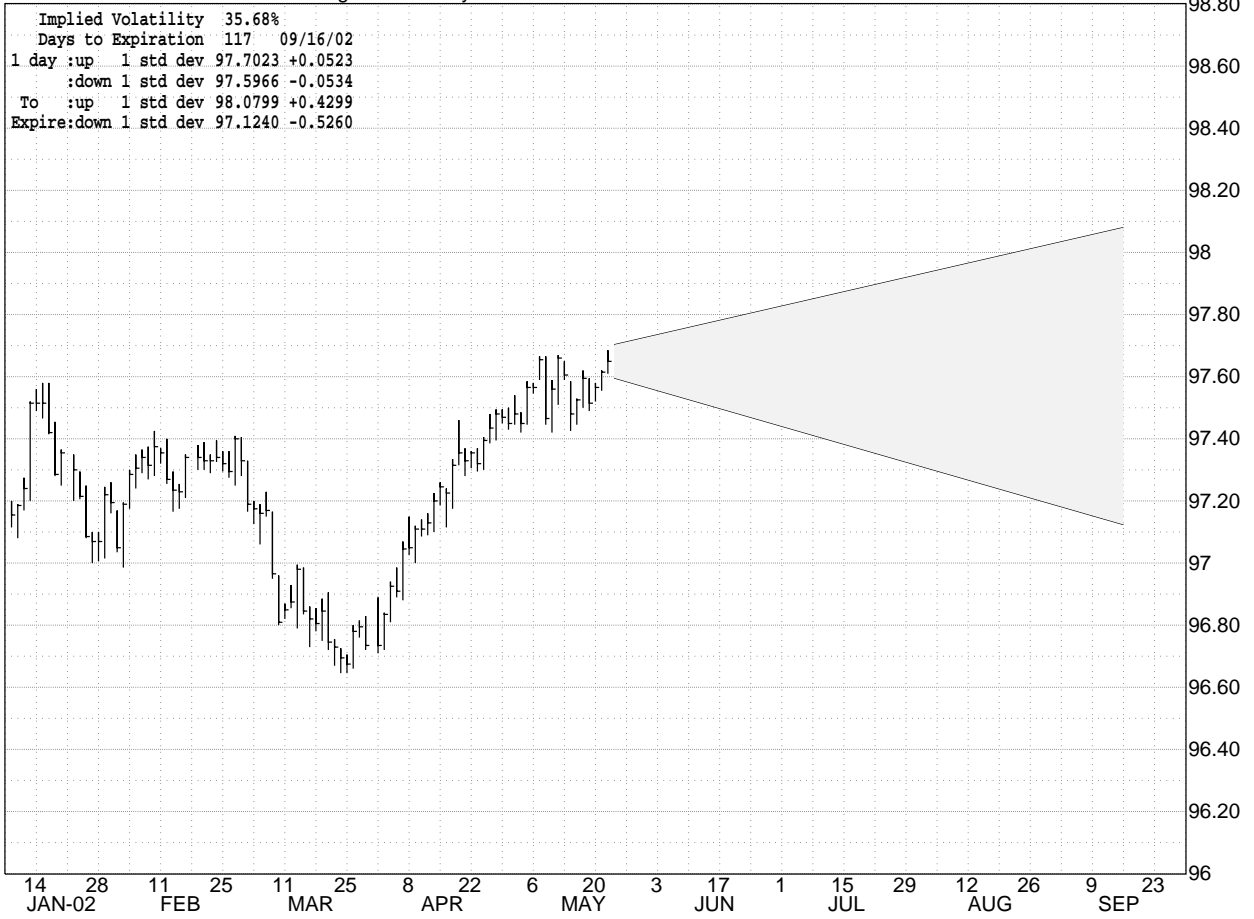
ED IMPLIED VS HISTORICAL - DAILY & WEEKLY



Optima Investment Research
 IMM EURODOLLAR JUN 2002 .. Sigma Boundary



Optima Investment Research
 IMM EURODOLLAR SEP 2002 .. Sigma Boundary



ED QUOTES & SKEWS - FRONT MONTHS

JUNE 02 IMM EURODOLLAR OPTIONS
05/22/02 days to exp: 26 int. rate: 1.72% calc. imp vol of *: 22.03%

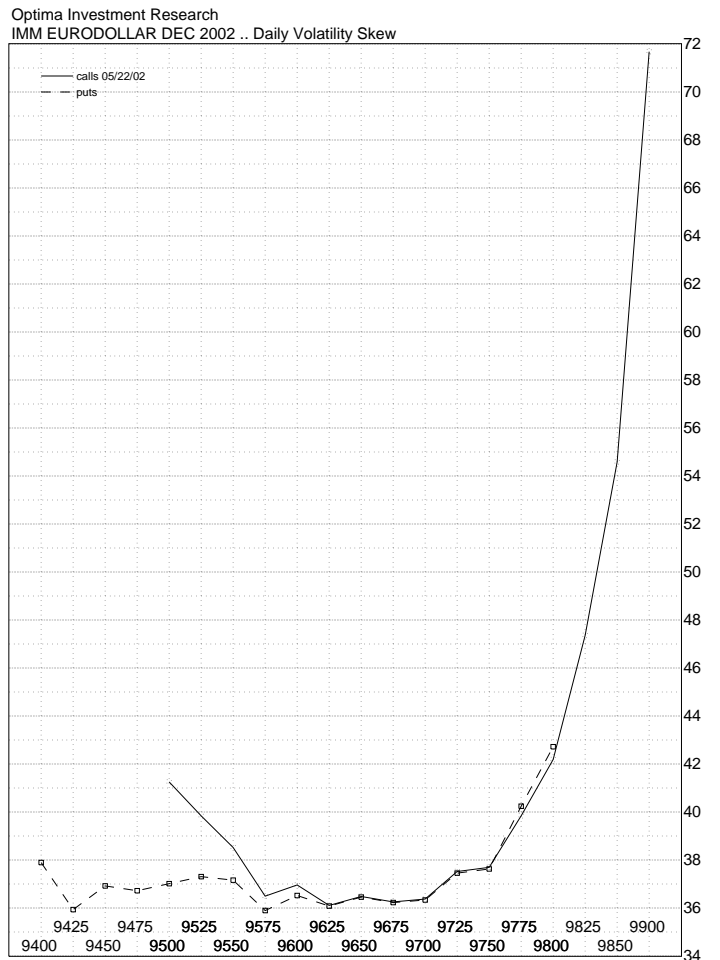
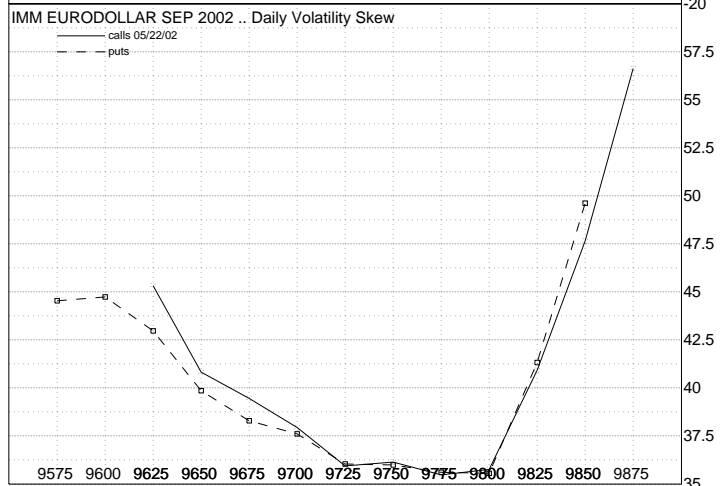
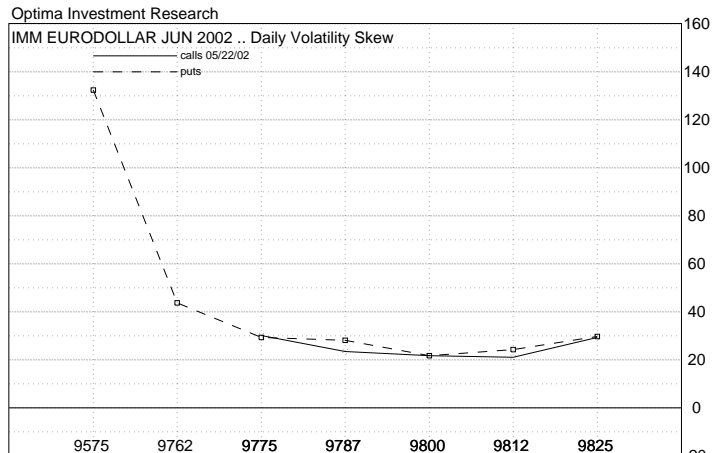
strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew
EDM02 98.0425							
98.2500C	.5s 29.30	.07	0.88	0.00253	0.00073	0.00500	+7.27
98.1200C	1.5s 21.09*	.23	2.74	0.00452	0.00159	0.01500	- .93
98.0000C	7.0s 21.68*	.63	3.32	0.00609	0.00197	0.02750	- .35
97.8700C	18.0s 23.44	.91	1.36	0.00250	0.00091	0.00500	+1.41
97.7500C	29.5s 30.08	.95	0.60	0.00160	0.00052	0.00250	+8.05
97.6200C	42.0s .00	1.00	0.00	0.00000	0.00000	-0.00500	
97.5000C	54.5s .00	1.00	0.00	0.00000	0.00000	-0.00000	
97.3700C	67.0s .00	1.00	0.00	0.00000	0.00000	-0.00500	
97.2500C	79.5s .00	1.00	0.00	0.00000	0.00000	-0.00000	
97.0000C	104.5s .00	1.00	0.00	0.00000	0.00000	-0.00000	
96.7500C	129.5s .00	1.00	0.00	0.00000	0.00000	-0.00000	
96.5000C	154.5s .00	1.00	0.00	0.00000	0.00000	-0.00000	
96.2500C	179.5s .00	1.00	0.00	0.00000	0.00000	-0.00000	
96.0000C	204.5s .00	1.00	0.00	0.00000	0.00000	-0.00000	
95.7500C	229.5s .00	1.00	0.00	0.00000	0.00000	-0.00000	
95.6200C	242.0s .00	1.00	0.00	0.00000	0.00000	-0.00500	
99.0000P	96.0s 100.00	.99	0.02	0.00000	0.00000	0.00000	+77.97
98.7500P	71.0s 50.00	1.00	0.00	0.00000	0.00000	0.00000	+27.97
98.5000P	46.0s 25.00	1.00	0.00	0.00000	0.00000	0.00000	+2.97
98.2500P	21.5s 29.69	.93	0.89	0.00258	0.00075	0.00500	+7.66
98.1200P	10.0s 24.22*	.74	2.54	0.00568	0.00169	0.02000	+2.19
98.0000P	3.0s 21.68*	.37	3.32	0.00610	0.00197	0.02750	- .35
97.8700P	1.0s 28.13	.14	1.50	0.00423	0.00118	0.01000	+6.10
97.7500P	.5s 29.30	.04	0.57	0.00150	0.00048	0.00250	+7.27
97.6200P	.5c 43.75	.05	0.47	0.00286	0.00058	0.00500	+21.72
95.7500P	.5 132.42	.02	0.08	0.00360	0.00028	0.00500	+110.40

SEPTEMBER 02 IMM EURODOLLAR OPTIONS
05/22/02 days to exp: 117 int. rate: 1.72% calc. imp vol of *: 35.74%

strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew
EDU02 97.6500s							
98.7500C	.5s 56.64	.02	0.05	0.00089	0.00057	0.00500	+20.90
98.5000C	1.0s 47.66	.04	0.12	0.00145	0.00108	0.01000	+11.91
98.2500C	2.5s 40.92	.08	0.28	0.00243	0.00205	0.02250	+5.17
98.0000C	5.5s 35.74	.18	0.56	0.00378	0.00356	0.05250	+ .00
97.7500C	14.0s 35.47*	.37	0.80	0.00536	0.00502	0.13750	- .27
97.5000C	28.0s 36.13*	.58	0.81	0.00558	0.00518	0.13000	+ .39
97.2500C	46.5s 35.94	.74	0.66	0.00441	0.00425	0.06250	+ .19
97.0000C	68.5s 37.94	.84	0.46	0.00329	0.00316	0.03250	+2.19
96.7500C	91.5s 39.45	.90	0.31	0.00219	0.00221	0.01500	+3.71
96.5000C	115.5s 40.82	.94	0.20	0.00134	0.00150	0.00500	+5.08
96.2500C	140.5s 45.31	.95	0.16	0.00118	0.00130	0.00250	+9.57
96.0000C	165.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
95.7500C	190.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
95.5000C	215.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
95.2500C	240.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
95.0000C	265.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
94.7500C	290.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
94.5000C	315.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
94.2500C	340.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
94.0000C	365.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
99.0000P	135.0s 50.00	.99	0.00	0.00000	0.00000	0.00000	+14.26
98.5000P	86.0s 49.61	.95	0.13	0.00140	0.00119	0.00750	+13.86
98.2500P	62.0s 41.31	.91	0.28	0.00230	0.00208	0.02000	+5.56
98.0000P	40.0s 35.55	.81	0.56	0.00363	0.00355	0.05000	- .20
97.7500P	24.0s 35.60*	.62	0.80	0.00535	0.00502	0.13750	- .15
97.5000P	13.0s 35.99*	.42	0.81	0.00561	0.00518	0.13000	+ .24
97.2500P	6.5s 36.04	.25	0.66	0.00456	0.00426	0.06500	+ .29
97.0000P	3.5s 37.60	.15	0.46	0.00343	0.00312	0.03500	+1.85
96.7500P	2.0s 38.28	.08	0.30	0.00226	0.00207	0.01750	+2.54
96.5000P	1.0s 39.84	.05	0.19	0.00155	0.00140	0.01000	+4.10
96.2500P	1.0s 42.97	.04	0.14	0.00129	0.00109	0.00750	+7.22
96.0000P	.5s 44.73	.02	0.10	0.00095	0.00079	0.00500	+8.98
95.7500P	.5s 44.53	.01	0.06	0.00055	0.00047	0.00250	+8.79

DECEMBER 02 IMM EURODOLLAR OPTIONS
05/22/02 days to exp: 208 int. rate: 1.72% calc. imp vol of *: 36.53%

strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew
EDZ02 97.0400							
99.0000C	1.0s 71.68	.01	0.02	0.00078	0.00068	0.00750	+35.15
98.5000C	2.0s 54.59	.03	0.06	0.00142	0.00162	0.01750	+18.06
98.2500C	2.5s 47.36	.05	0.10	0.00178	0.00232	0.02500	+10.83
98.0000C	4.0s 42.19	.08	0.16	0.00236	0.00342	0.04000	+5.65
97.7500C	7.5s 39.84	.14	0.25	0.00335	0.00507	0.07500	+3.31
97.5000C	13.0s 37.70	.23	0.36	0.00425	0.00676	0.13000	+1.16
97.2500C	22.5s 37.52*	.34	0.43	0.00511	0.00815	0.22500	+ .99
97.0000C	34.5s 36.38*	.46	0.48	0.00532	0.00879	0.30250	- .16
96.7500C	50.0s 36.25	.58	0.48	0.00515	0.00866	0.20750	- .28
96.5000C	68.0s 36.47	.67	0.43	0.00465	0.00794	0.14000	- .06
96.2500C	88.0s 36.11	.76	0.37	0.00382	0.00682	0.08750	- .43
96.0000C	110.0s 36.96	.82	0.31	0.00317	0.00576	0.05750	+ .43
95.7500C	132.0s 36.50	.87	0.24	0.00227	0.00453	0.03000	- .04
95.5000C	156.0s 38.53	.89	0.20	0.00194	0.00392	0.02000	+1.99
95.2500C	180.0s 39.84	.91	0.16	0.00153	0.00331	0.01000	+3.31
95.0000C	204.5s 41.26	.93	0.13	0.00121	0.00284	0.00250	+4.73
94.7500C	229.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
94.5000C	254.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
94.2500C	279.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
94.0000C	304.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
93.0000C	404.0s .00	1.00	0.00	0.00000	0.00000	-0.00000	
99.0000P	99.5s 42.72	.91	0.16	0.00212	0.00348	0.03250	+6.19
97.7500P	78.0s 40.23	.85	0.25	0.00318	0.00511	0.07000	+3.70
97.5000P	58.5s 37.62	.76	0.36	0.00409	0.00676	0.12500	+1.09
97.2500P	43.5s 37.45*	.65	0.44	0.00503	0.00815	0.22250	+ .92
97.0000P	30.5s 36.33*	.53	0.48	0.00532	0.00879	0.30250	- .21
96.7500P	21.0s 36.23	.41	0.48	0.00524	0.00865	0.21000	- .30
96.5000P	14.5s 36.45	.32	0.43	0.00483	0.00794	0.14500	- .08
96.2500P	9.5s 36.08	.23	0.37	0.00408	0.00682	0.09500	- .45
96.0000P	6.5s 36.52	.17	0.31	0.00342	0.00569	0.06500	- .01
95.7500P	4.0s 35.89	.11	0.24	0.00257	0.00440	0.04000	- .65
95.5000P	3.0s 37.16	.09	0.19	0.00218	0.00364	0.03000	+ .62
95.2500P	2.0s 37.30	.06	0.15	0.00166	0.00280	0.02000	+ .77
95.0000P	1.5s 37.01	.04	0.11	0.00119	0.00205	0.01250	+ .48
94.7500P	1.0s 36.72	.03	0.07	0.00082	0.00145	0.00750	+ .18
94.5000P	.5s 36.91	.02	0.05	0.00060	0.00107	0.00500	+ .38
94.2500P	.5s 35.94	.01	0.03	0.00035	0.00066	0.00250	- .60
94.0000P	.5c 37.89	.01	0.03	0.00036	0.00064	0.00250	+1.36



ED QUOTES & SKEWS - BACK MONTHS

MARCH 03 IMM EURODOLLAR OPTIONS
05/22/02 days to exp: 299 int. rate: 1.72% calc. imp vol of *: 33.92%

strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew	
EDM03 96.4450								
98.2500C	2.0s	45.61	.03	0.04	0.00105	0.00205	0.01750	+11.68
98.0000C	3.0s	42.68	.05	0.07	0.00152	0.00315	0.03000	+8.76
97.7500C	5.0s	39.65	.07	0.11	0.00202	0.00448	0.04750	+5.73
97.5000C	7.5s	37.23	.11	0.16	0.00262	0.00615	0.07500	+3.31
97.2500C	12.5s	36.33	.17	0.22	0.00341	0.00816	0.12500	+2.41
97.0000C	20.0s	36.06	.24	0.27	0.00418	0.01005	0.20000	+2.14
96.7500C	29.0s	35.35	.33	0.31	0.00469	0.01150	0.29250	+1.43
96.5000C	40.0s	34.11*	.41	0.35	0.00485	0.01239	0.40000	+1.19
96.2500C	53.5s	33.17*	.50	0.37	0.00477	0.01265	0.33750	-.75
96.0000C	70.0s	33.39	.59	0.36	0.00460	0.01232	0.25500	-.53
95.7500C	88.5s	33.40	.66	0.33	0.00422	0.01155	0.18750	-.52
95.5000C	108.0s	33.47	.72	0.30	0.00373	0.01049	0.13500	-.45
95.2500C	129.0s	33.37	.78	0.26	0.00314	0.00925	0.09250	-.55
95.0000C	151.0s	33.94	.82	0.23	0.00268	0.00815	0.06500	+0.01
94.7500C	174.0s	34.40	.85	0.19	0.00221	0.00709	0.04250	+1.48
94.5000C	197.5s	35.33	.87	0.17	0.00187	0.00628	0.02750	+1.41
98.0000P	157.5s	45.46	.93	0.07	0.00133	0.00357	0.01750	+11.54
97.2500P	92.0s	36.47	.82	0.21	0.00317	0.00818	0.11500	+2.55
97.0000P	75.0s	36.08	.74	0.27	0.00401	0.01006	0.19250	+2.16
96.7500P	59.0s	35.28	.66	0.31	0.00458	0.01149	0.28750	+1.36
96.5000P	45.5s	34.17*	.57	0.35	0.00484	0.01239	0.40000	+2.25
96.2500P	34.0s	33.14*	.48	0.37	0.00483	0.01265	0.34000	-.78
96.0000P	26.0s	33.28	.40	0.36	0.00473	0.01232	0.26000	-.64
95.7500P	19.5s	33.20	.32	0.33	0.00441	0.01152	0.19500	-.72
95.5000P	14.5s	33.15	.26	0.30	0.00398	0.01043	0.14500	-.77
95.2500P	10.5s	32.90	.20	0.26	0.00344	0.00913	0.10500	-1.02
95.0000P	8.0s	33.28	.16	0.23	0.00301	0.00796	0.08000	-.64
94.7500P	6.0s	33.50	.13	0.19	0.00258	0.00681	0.06000	-.42
94.5000P	4.5s	33.67	.10	0.16	0.00217	0.00575	0.04500	-.25
94.2500P	3.5s	34.11	.08	0.13	0.00186	0.00489	0.03500	-.19
94.0000P	3.0s	35.16	.07	0.12	0.00170	0.00436	0.03000	+1.94
93.7500P	2.5s	35.89	.06	0.10	0.00151	0.00382	0.02500	+1.97

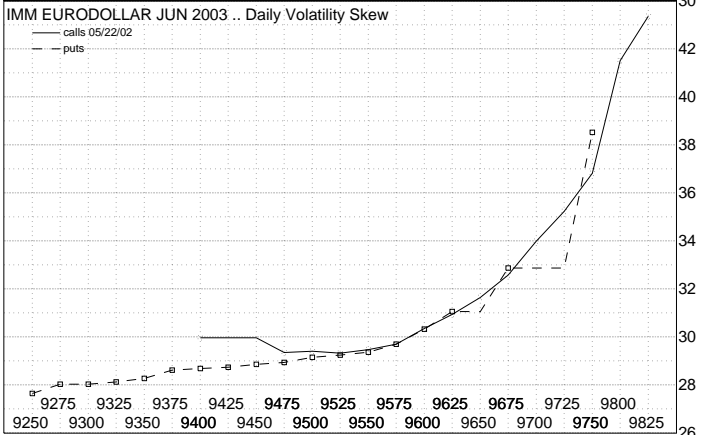
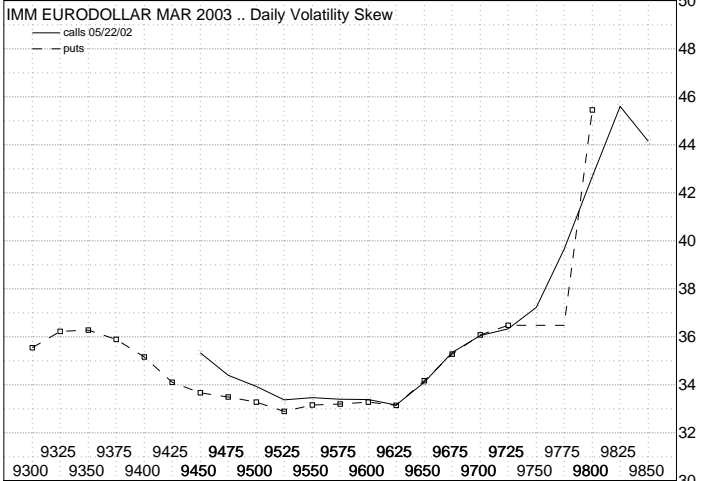
JUNE 03 IMM EURODOLLAR OPTIONS
05/22/02 days to exp: 390 int. rate: 1.72% calc. imp vol of *: 30.03%

strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew	
EDM03 95.8800s								
98.2500C	1.5s	43.36	.02	0.02	0.00065	0.00178	0.01250	+13.33
98.0000C	2.5s	41.50	.03	0.04	0.00101	0.00284	0.02250	+11.48
97.7500C	5.5s	36.82	.07	0.08	0.00176	0.00551	0.05250	+6.79
97.5000C	8.0s	35.23	.10	0.11	0.00226	0.00736	0.08000	+5.20
97.0000C	12.0s	33.98	.14	0.15	0.00281	0.00943	0.12000	+3.96
96.7500C	17.0s	32.57	.19	0.19	0.00328	0.01148	0.17000	+2.54
96.5000C	24.0s	31.64	.25	0.23	0.00374	0.01344	0.24000	+1.61
96.2500C	33.0s	30.93	.32	0.27	0.00409	0.01506	0.33000	+0.91
96.0000C	44.0s	30.35*	.39	0.29	0.00428	0.01616	0.44000	+0.32
95.7500C	57.0s	29.69*	.47	0.31	0.00427	0.01665	0.43750	-.34
95.5000C	72.0s	29.47	.54	0.31	0.00415	0.01654	0.34000	-.56
95.2500C	89.0s	29.32	.61	0.30	0.00390	0.01591	0.26000	-.71
95.0000C	108.0s	29.39	.67	0.28	0.00357	0.01492	0.19750	-.63
94.7500C	127.5s	29.35	.73	0.25	0.00315	0.01367	0.14500	-.68
94.0000C	193.0s	29.96	.84	0.18	0.00192	0.00975	0.04750	-.07
97.5000P	165.5s	38.53	.91	0.08	0.00146	0.00591	0.03250	+8.50
96.7500P	103.0s	32.86	.79	0.19	0.00305	0.01152	0.15750	+2.83
96.2500P	69.5s	31.05	.66	0.27	0.00398	0.01506	0.32500	+1.03
96.0000P	56.0s	30.32*	.59	0.29	0.00424	0.01616	0.43750	+0.30
95.7500P	44.0s	29.70*	.51	0.31	0.00432	0.01665	0.44000	-.33
95.5000P	34.5s	29.36	.44	0.31	0.00426	0.01654	0.34500	-.67
95.2500P	27.0s	29.24	.37	0.30	0.00409	0.01590	0.27000	-.79
95.0000P	21.0s	29.15	.31	0.28	0.00381	0.01488	0.21000	-.88
94.7500P	16.0s	28.93	.25	0.26	0.00344	0.01355	0.16000	-1.10
94.5000P	12.5s	28.86	.20	0.23	0.00305	0.01211	0.12250	-1.17
94.2500P	9.5s	28.74	.16	0.20	0.00264	0.01060	0.09250	-1.29
94.0000P	7.0s	28.69	.13	0.17	0.00227	0.00916	0.07000	-1.34
93.7500P	5.5s	28.61	.10	0.15	0.00191	0.00779	0.05250	-1.41
93.5000P	4.0s	28.27	.08	0.12	0.00154	0.00640	0.03750	-1.76
93.2500P	3.0s	28.13	.06	0.10	0.00124	0.00525	0.02750	-1.90
93.0000P	2.0s	28.03	.05	0.08	0.00100	0.00428	0.02000	-2.00
92.7500P	1.5s	28.03	.03	0.06	0.00081	0.00349	0.01500	-2.00
92.5000P	1.0s	27.64	.02	0.05	0.00060	0.00267	0.01000	-2.39

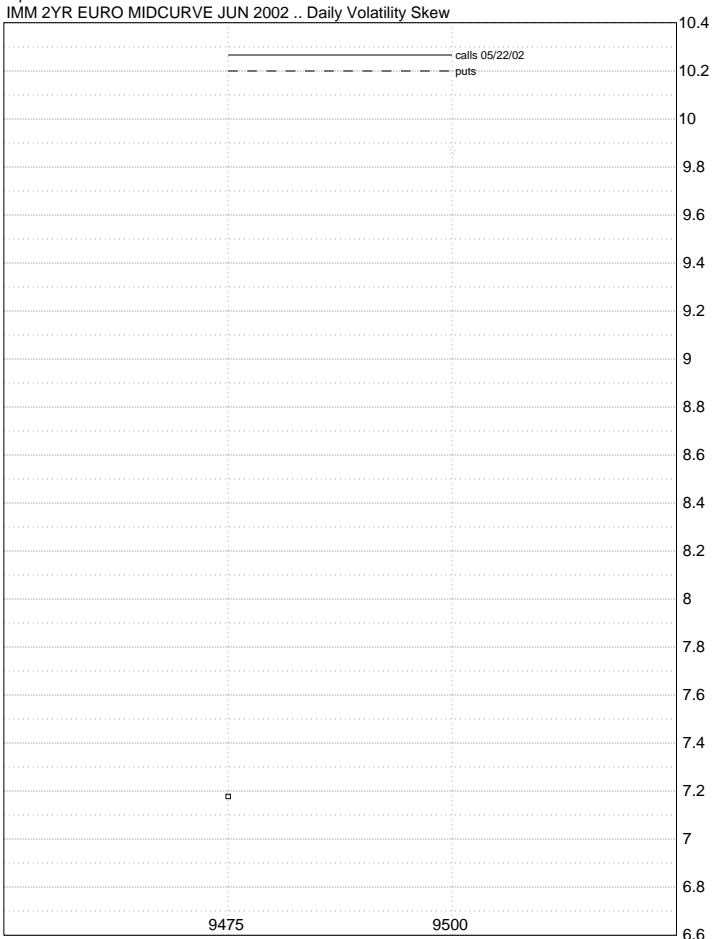
JUNE 02 IMM 2YR EURO MIDCURVE OPTIONS
05/22/02 days to exp: 26 int. rate: 1.72% calc. imp vol of *: 8.14%

strike	last imp vol	delta	gamma	theta-7	vega	prem	iv-skew	
EDM04 94.8400s								
95.0000C	0.0075s	9.86*	.11	1.41	0.00336	0.00282	0.00750	+1.72
94.7500C	0.0190s	.00	1.00	0.00	0.00000	0.00000	0.07100	
94.7500P	0.0100s	7.18*	.19	2.71	0.00358	0.00387	0.01000	-.97

Optima Investment Research



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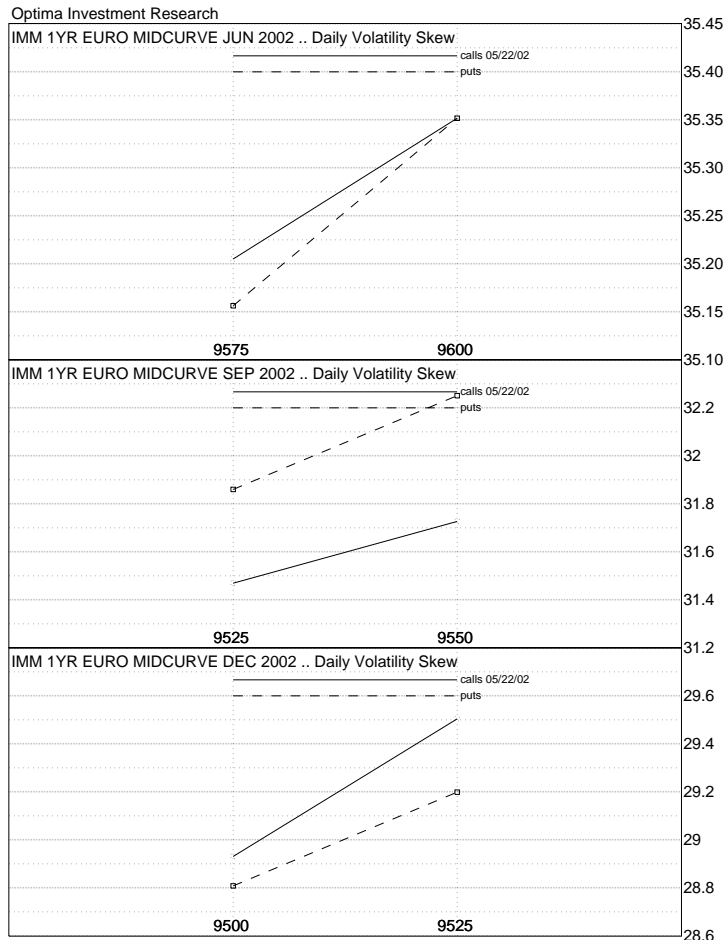


1-YR EURO MIDCURVE OPTIONS

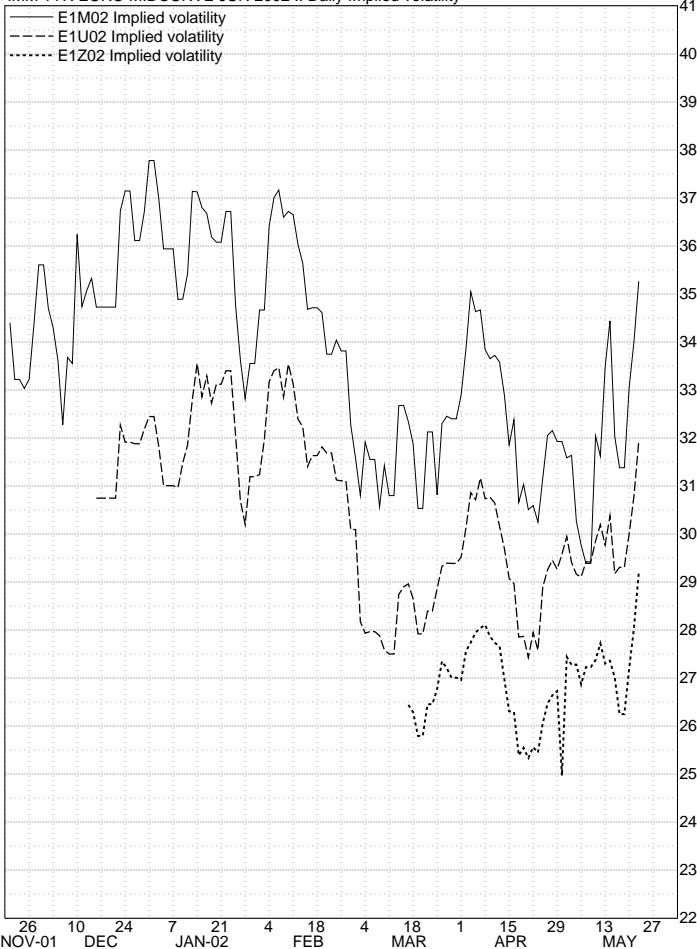
JUNE 02 IMM 1YR EURO MIDCURVE OPTIONS
 05/22/02 days to exp: 26 int. rate: 1.72% calc. imp vol of *: 35.27%
 strike last imp vol delta gamma theta-7 vega prem iv-skew
 EDM03 95.8800s
 96.0000C 0.100s 35.35* .36 0.96 0.0209 0.0041 0.1000 +.08
 95.7500C 0.230s 35.21* .61 0.99 0.0212 0.0042 0.1000 -.06
 96.0000P 0.220s 35.35* .64 0.96 0.0208 0.0041 0.1000 +.08
 95.7500P 0.100s 35.16* .39 0.99 0.0213 0.0042 0.1000 -.11

SEPTEMBER 02 IMM 1YR EURO MIDCURVE OPTIONS
 05/22/02 days to exp: 117 int. rate: 1.72% calc. imp vol of *: 31.93%
 strike last imp vol delta gamma theta-7 vega prem iv-skew
 EDU03 95.4550s
 95.5000C 0.300s 31.73* .44 0.48 0.0096 0.0101 0.3000 -.20
 95.2500C 0.440s 31.47* .56 0.48 0.0095 0.0101 0.2350 -.46
 95.5000P 0.350s 32.25* .55 0.47 0.0098 0.0101 0.3050 +.32
 95.2500P 0.240s 31.86* .44 0.48 0.0097 0.0101 0.2400 -.07

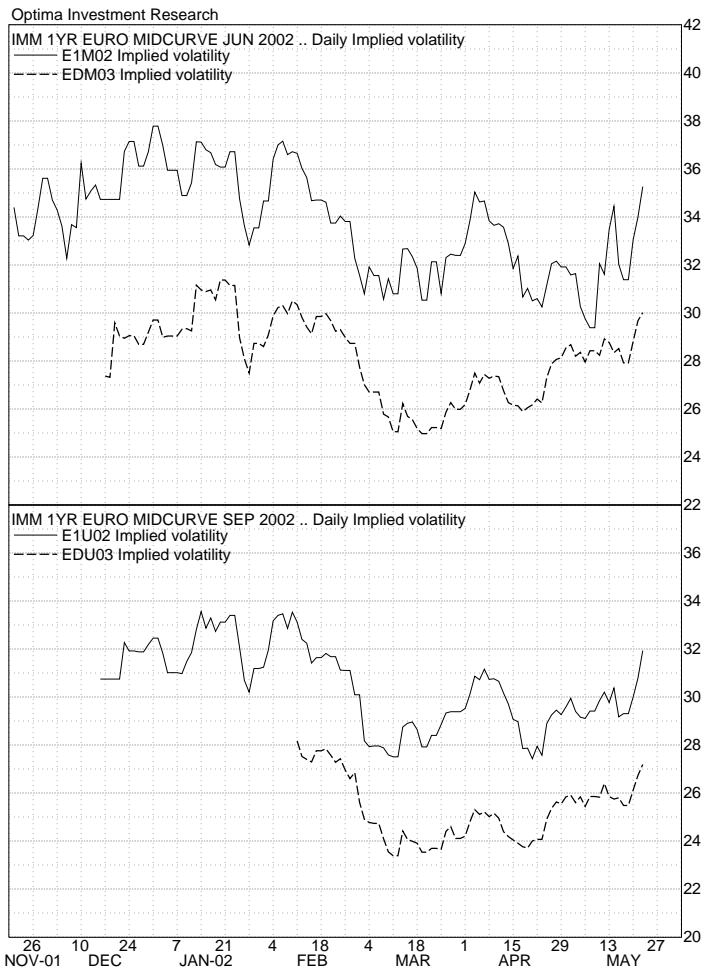
DECEMBER 02 IMM 1YR EURO MIDCURVE OPTIONS
 05/22/02 days to exp: 208 int. rate: 1.72% calc. imp vol of *: 29.19%
 strike last imp vol delta gamma theta-7 vega prem iv-skew
 EDZ03 95.1650s
 95.2500C 0.380s 29.50* .42 0.36 0.0070 0.0142 0.3800 +.32
 95.0000C 0.510s 28.93* .51 0.37 0.0069 0.0144 0.3450 -.26
 95.2500P 0.460s 29.20* .57 0.36 0.0069 0.0142 0.3750 +.01
 95.0000P 0.345s 28.81* .48 0.38 0.0069 0.0144 0.3450 -.38



Optima Investment Research
 IMM 1YR EURO MIDCURVE JUN 2002 .. Daily Implied volatility



1YR MIDCURVE VS QUARTERLY OPTIONS



JUN 02 IMM EURODOLLAR OPTIONS
 Evaluation date: 05/23/02 Expiration date: 06/17/02 # days: 25
 Futures last:98.0425 Implied volatility: 22.03% Interest rate: 1.72%

		98.7500		98.5000		98.2500		98.0000		97.7500		97.5000	
		Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put
98.2000	@24.00%	0	0	0	0	2.5	32	7.5	-68	20.0	95	0	-5
	@23.00%	0	0	0	0	2.0	31	7.0	-69	20.0	96	0	-4
	@22.00%	0	0	0	0	2.0	30	7.0	-70	20.0	96	0	-4
	@21.00%	0	0	0	0	2.0	29	7.0	-70	20.0	97	0	-3
	@20.00%	0	0	0	0	1.5	29	6.5	-71	20.0	98	0	-2
98.1800	@24.00%	0	0	0	0	2.0	26	9.0	-74	18.5	93	.5	-7
	@23.00%	0	0	0	0	1.5	25	8.5	-75	18.5	94	.5	-6
	@22.00%	0	0	0	0	1.5	24	8.5	-76	18.0	95	0	-5
	@21.00%	0	0	0	0	1.5	23	8.5	-77	18.0	95	0	-5
	@20.00%	0	0	0	0	1.0	22	8.0	-78	18.0	96	0	-4
98.1600	@24.00%	0	0	0	0	1.5	20	10.5	-80	16.5	90	.5	-10
	@23.00%	0	0	0	0	1.0	19	10.0	-81	16.5	91	.5	-9
	@22.00%	0	0	0	0	1.0	18	10.0	-81	16.5	92	.5	-8
	@21.00%	0	0	0	0	1.0	17	10.0	-83	16.5	93	.5	-7
	@20.00%	0	0	0	0	1.0	16	10.0	-84	16.0	94	0	-6
98.1400	@24.00%	0	0	0	0	1.0	16	12.0	-84	14.5	87	.5	-13
	@23.00%	0	0	0	0	1.0	15	12.0	-85	14.5	88	.5	-12
	@22.00%	0	0	0	0	1.0	14	12.0	-86	14.5	89	.5	-11
	@21.00%	0	0	0	0	.5	13	11.5	-87	14.5	90	.5	-10
	@20.00%	0	0	0	0	.5	12	11.5	-88	14.5	91	.5	-9
98.1200	@24.00%	0	0	0	0	.5	12	13.5	-88	13.0	83	1.0	-17
	@23.00%	0	0	0	0	.5	11	13.5	-89	13.0	84	1.0	-16
	@22.00%	0	0	0	0	.5	10	13.5	-90	13.0	85	1.0	-15
	@21.00%	0	0	0	0	.5	9	13.5	-91	12.5	86	.5	-14
	@20.00%	0	0	0	0	.5	8	13.5	-92	12.5	88	.5	-12
98.1000	@24.00%	0	0	0	0	.5	9	15.5	-91	11.5	78	1.5	-22
	@23.00%	0	0	0	0	.5	8	15.5	-92	11.5	79	1.5	-21
	@22.00%	0	0	0	0	.5	7	15.5	-93	11.0	80	1.0	-19
	@21.00%	0	0	0	0	.5	6	15.5	-94	11.0	82	1.0	-18
	@20.00%	0	0	0	0	0	6	15.5	-94	11.0	83	1.0	-17
98.0800	@24.00%	0	0	0	0	.5	7	17.5	-93	10.0	73	2.0	-27
	@23.00%	0	0	0	0	.5	6	17.5	-94	9.5	74	1.5	-26
	@22.00%	0	0	0	0	0	5	17.0	-95	9.5	75	1.5	-25
	@21.00%	0	0	0	0	0	4	17.0	-96	9.5	76	1.5	-24
	@20.00%	0	0	0	0	0	4	17.0	-96	9.5	77	1.5	-23
98.0600	@24.00%	0	0	0	0	0	5	19.0	-95	8.5	67	2.5	-32
	@23.00%	0	0	0	0	0	4	19.0	-96	8.5	68	2.5	-32
	@22.00%	0	0	0	0	0	3	19.0	-96	8.0	69	2.0	-31
	@21.00%	0	0	0	0	0	3	19.0	-97	8.0	70	2.0	-30
	@20.00%	0	0	0	0	0	2	19.0	-98	8.0	71	2.0	-29
98.0400	@24.00%	0	0	0	0	0	3	21.0	-97	7.0	61	3.0	-39
	@23.00%	0	0	0	0	0	3	21.0	-97	7.0	62	3.0	-38
	@22.00%	0	0	0	0	0	2	21.0	-98	7.0	63	3.0	-37
	@21.00%	0	0	0	0	0	2	21.0	-98	6.5	63	2.5	-37
	@20.00%	0	0	0	0	0	1	21.0	-98	6.5	64	2.5	-36
98.0200	@24.00%	0	0	0	0	0	2	23.0	-98	6.0	55	4.0	-45
	@23.00%	0	0	0	0	0	2	23.0	-98	6.0	55	4.0	-44
	@22.00%	0	0	0	0	0	1	23.0	-98	5.5	56	3.5	-44
	@21.00%	0	0	0	0	0	1	23.0	-99	5.5	56	3.5	-44
	@20.00%	0	0	0	0	0	1	23.0	-99	5.0	57	3.0	-43
98.0000	@24.00%	0	0	0	0	0	2	25.0	-98	5.0	49	5.0	-51
	@23.00%	0	0	0	0	0	1	25.0	-99	5.0	49	5.0	-51
	@22.00%	0	0	0	0	0	1	25.0	-99	4.5	49	4.5	-51
	@21.00%	0	0	0	0	0	1	25.0	-99	4.5	49	4.5	-51
	@20.00%	0	0	0	0	0	0	25.0	-99	4.0	49	4.0	-51
97.9800	@24.00%	0	0	0	0	0	1	27.0	-99	4.0	42	6.0	-57
	@23.00%	0	0	0	0	0	1	27.0	-99	4.0	42	6.0	-58
	@22.00%	0	0	0	0	0	1	27.0	-99	3.5	42	5.5	-58
	@21.00%	0	0	0	0	0	0	27.0	-99	3.5	42	5.5	-58
	@20.00%	0	0	0	0	0	0	27.0	-100	3.5	41	5.5	-58
97.9600	@24.00%	0	0	0	0	0	1	29.0	-99	3.5	36	7.5	-63
	@23.00%	0	0	0	0	0	0	29.0	-99	3.0	36	7.0	-64
	@22.00%	0	0	0	0	0	0	29.0	-100	3.0	35	7.0	-64
	@21.00%	0	0	0	0	0	0	29.0	-100	2.5	35	6.5	-65
	@20.00%	0	0	0	0	0	0	29.0	-100	2.5	34	6.5	-66
97.9400	@24.00%	0	0	0	0	0	0	31.0	-99	2.5	31	8.5	-69
	@23.00%	0	0	0	0	0	0	31.0	-100	2.5	30	8.5	-70
	@22.00%	0	0	0	0	0	0	31.0	-100	2.5	29	8.5	-71
	@21.00%	0	0	0	0	0	0	31.0	-100	2.0	29	8.0	-71
	@20.00%	0	0	0	0	0	0	31.0	-100	2.0	28	8.0	-72
97.9201	@24.00%	0	0	0	0	0	0	33.0	-100	2.0	26	10.0	-74
	@23.00%	0	0	0	0	0	0	33.0	-100	2.0	25	10.0	-75
	@22.00%	0	0	0	0	0	0	33.0	-100	1.5	24	9.5	-76
	@21.00%	0	0	0	0	0	0	33.0	-100	1.5	23	9.5	-77
	@20.00%	0	0	0	0	0	0	33.0	-100	1.5	22	9.5	-78
97.9001	@24.00%	0	0	0	0	0	0	35.0	-100	1.5	21	11.5	-79
	@23.00%	0	0	0	0	0	0	35.0	-100	1.5	20	11.5	-80
	@22.00%	0	0	0	0	0	0	35.0	-100	1.5	19	11.5	-81
	@21.00%	0	0	0	0	0	0	35.0	-100	1.0	18	11.0	-82
	@20.00%	0	0	0	0	0	0	35.0	-100	1.0	17	11.0	-83
97.8801	@24.00%	0	0	0	0	0	0	37.0	-100	1.0	17	13.0	-83
	@23.00%	0	0	0	0	0	0	37.0	-100	1.0	16	13.0	-84
	@22.00%	0	0	0	0	0	0	37.0	-100	1.0	15	13.0	-85
	@21.00%	0	0	0	0	0	0	37.0	-100	1.0	14	13.0	-86
	@20.00%	0	0	0	0	0	0	37.0	-100	.5	13	12.5	-87

SEP 02 IMM EURODOLLAR OPTIONS
 Evaluation date: 05/23/02 Expiration date: 09/16/02 # days: 116
 Futures last:97.6500 Implied volatility: 35.68% Interest rate: 1.72%

	98.5000		98.2500		98.0000		97.7500		97.5000		97.2500	
	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put
97.8200 @37.50%	.5	3 68.0 -96	3.0	13 46.0 -87	10.0	30 28.0 -69	22.0	51 15.5 -48	39.5	70 7.5 -29	60.0	84 3.5 -16
@36.50%	.5	3 68.0 -97	3.0	12 45.5 -87	9.5	30 27.5 -70	21.5	52 15.0 -48	39.0	71 7.0 -29	60.0	84 3.0 -15
@35.50%	.5	2 68.0 -97	2.5	11 45.5 -88	9.0	30 27.0 -70	21.5	52 14.5 -47	38.5	72 7.0 -28	59.5	85 3.0 -14
@34.50%	.5	2 68.0 -97	2.5	11 45.0 -89	8.5	29 26.5 -70	21.0	52 14.0 -47	38.0	72 6.5 -27	59.5	86 2.5 -14
@33.50%	.5	2 68.0 -98	2.0	10 45.0 -89	8.5	29 26.0 -71	20.5	53 13.5 -47	38.0	73 6.0 -26	59.0	87 2.5 -13
97.8000 @37.50%	.5	3 70.0 -97	3.0	12 47.5 -88	9.5	29 29.5 -71	21.0	50 16.0 -50	38.0	69 8.0 -31	58.5	82 4.0 -17
@36.50%	.5	2 70.0 -97	2.5	11 47.5 -88	9.0	28 29.0 -71	20.5	50 16.0 -49	37.5	69 8.0 -30	58.0	83 3.5 -16
@35.50%	.5	2 70.0 -97	2.5	11 47.0 -89	8.5	28 28.5 -71	20.0	50 15.5 -49	37.0	70 7.5 -29	58.0	84 3.5 -15
@34.50%	.5	2 70.0 -98	2.0	10 47.0 -89	8.0	28 28.0 -72	19.5	50 15.0 -49	37.0	71 7.0 -29	57.5	85 3.0 -15
@33.50%	.5	2 70.0 -98	2.0	10 47.0 -90	7.5	27 27.5 -72	19.5	51 14.5 -49	36.5	72 6.5 -28	57.5	86 2.5 -14
97.7800 @37.50%	.5	2 72.0 -97	2.5	11 49.5 -89	9.0	27 30.5 -72	20.0	48 17.5 -51	36.5	67 9.0 -32	57.0	81 4.0 -18
@36.50%	.5	2 72.0 -97	2.5	10 49.0 -89	8.5	27 30.5 -73	19.5	48 17.0 -51	36.5	68 8.5 -32	56.5	82 4.0 -17
@35.50%	.5	2 72.0 -97	2.0	10 49.0 -90	8.0	27 30.0 -73	19.0	48 16.5 -51	36.0	69 8.0 -31	56.5	83 3.5 -17
@34.50%	.5	2 72.0 -98	2.0	9 49.0 -90	7.5	26 29.5 -73	19.0	49 16.0 -51	35.5	69 7.5 -30	56.0	84 3.5 -16
@33.50%	0	1 72.0 -98	2.0	9 48.5 -91	7.0	26 29.0 -74	18.5	49 15.5 -51	35.0	70 7.0 -29	55.5	85 3.0 -15
97.7600 @37.50%	.5	2 74.0 -97	2.5	10 51.0 -89	8.5	26 32.0 -74	19.5	46 18.5 -53	35.5	66 9.5 -34	55.5	80 4.5 -19
@36.50%	.5	2 74.0 -97	2.5	10 51.0 -90	8.0	26 32.0 -74	19.0	47 18.0 -53	35.0	66 9.0 -33	55.0	81 4.0 -18
@35.50%	.5	2 74.0 -98	2.0	9 51.0 -90	7.5	25 31.5 -74	18.5	47 17.5 -53	34.5	67 8.5 -33	54.5	82 4.0 -18
@34.50%	.5	2 74.0 -98	2.0	9 50.5 -91	7.0	25 31.0 -75	18.0	47 17.0 -53	34.0	68 8.0 -32	54.5	83 3.5 -17
@33.50%	0	1 74.0 -98	1.5	8 50.5 -91	6.5	24 30.5 -75	17.5	47 16.5 -53	33.5	68 7.5 -31	54.0	83 3.5 -16
97.7400 @37.50%	.5	2 76.0 -97	2.5	9 53.0 -90	8.0	25 33.5 -75	18.5	45 19.5 -55	34.0	64 10.0 -35	53.5	79 5.0 -20
@36.50%	.5	2 76.0 -98	2.0	9 53.0 -91	7.5	24 33.0 -75	18.0	45 19.0 -55	33.5	65 9.5 -35	53.5	80 4.5 -20
@35.50%	.5	2 76.0 -98	2.0	8 52.5 -91	7.0	24 33.0 -76	17.5	45 18.5 -55	33.0	65 9.5 -34	53.0	81 4.5 -19
@34.50%	0	1 76.0 -98	1.5	8 52.5 -92	6.5	23 32.5 -76	17.0	45 18.0 -54	32.5	66 9.0 -33	52.5	81 4.0 -18
@33.50%	0	1 76.0 -98	1.5	7 52.0 -92	6.0	23 32.0 -77	16.5	45 17.5 -54	32.0	67 8.5 -33	52.5	82 3.5 -17
97.7200 @37.50%	.5	2 78.0 -98	2.0	9 55.0 -91	7.5	23 35.0 -76	17.5	43 20.5 -56	33.0	63 11.0 -37	52.0	78 5.5 -22
@36.50%	.5	2 78.0 -98	2.0	8 54.5 -91	7.0	23 35.0 -77	17.0	43 20.0 -56	32.5	63 10.5 -36	52.0	79 5.0 -21
@35.50%	0	1 78.0 -98	1.5	8 54.5 -92	6.5	22 34.5 -77	16.5	43 19.5 -56	32.0	64 10.0 -36	51.5	79 4.5 -20
@34.50%	0	1 78.0 -98	1.5	7 54.0 -92	6.0	22 34.0 -78	16.0	43 19.0 -56	31.5	64 9.5 -35	51.0	80 4.5 -19
@33.50%	0	1 78.0 -98	1.5	7 54.0 -93	6.0	21 33.5 -78	15.5	43 18.5 -56	31.0	65 9.0 -35	50.5	81 4.0 -18
97.7000 @37.50%	.5	2 80.0 -98	2.0	8 56.5 -91	7.0	22 36.5 -77	16.5	41 21.5 -58	31.5	61 11.5 -38	50.5	77 6.0 -23
@36.50%	.5	1 80.0 -98	2.0	8 56.5 -92	6.5	22 36.5 -78	16.0	41 21.0 -58	31.0	62 11.0 -38	50.0	77 5.5 -22
@35.50%	0	1 80.0 -98	1.5	7 56.5 -92	6.0	21 36.0 -78	15.5	41 20.5 -58	30.5	62 10.5 -37	50.0	78 5.0 -21
@34.50%	0	1 80.0 -98	1.5	7 56.0 -93	5.5	21 35.5 -79	15.0	41 20.0 -58	30.0	63 10.0 -37	49.5	79 4.5 -20
@33.50%	0	1 80.0 -99	1.0	6 56.0 -93	5.5	20 35.0 -79	14.5	41 19.5 -58	29.5	63 9.5 -36	49.0	80 4.5 -20
97.6800 @37.50%	.5	1 82.0 -98	2.0	7 58.5 -92	6.5	21 38.5 -79	16.0	40 23.0 -60	30.5	59 12.5 -40	49.0	75 6.5 -24
@36.50%	0	1 82.0 -98	1.5	7 58.5 -92	6.0	20 38.0 -79	15.5	40 22.5 -60	30.0	60 12.0 -40	48.5	76 6.0 -23
@35.50%	0	1 82.0 -98	1.5	7 58.0 -93	5.5	20 37.5 -80	15.0	40 22.0 -60	29.5	60 11.5 -39	48.5	77 5.5 -23
@34.50%	0	1 82.0 -98	1.5	6 58.0 -93	5.5	19 37.0 -80	14.5	40 21.5 -60	29.0	61 11.0 -38	48.0	78 5.0 -22
@33.50%	0	1 82.0 -99	1.0	6 58.0 -94	5.0	19 37.0 -81	14.0	40 21.0 -60	28.5	62 10.5 -38	47.5	79 4.5 -21
97.6600 @37.50%	.5	1 84.0 -98	1.5	7 60.5 -93	6.0	20 40.0 -80	15.0	38 24.0 -61	29.0	58 13.5 -42	47.5	74 7.0 -25
@36.50%	0	1 84.0 -98	1.5	6 60.0 -93	5.5	19 39.5 -80	14.5	38 23.5 -61	28.5	58 13.0 -41	47.0	75 6.5 -25
@35.50%	0	1 84.0 -98	1.5	6 60.0 -93	5.5	19 39.0 -81	14.0	38 23.0 -61	28.0	59 12.5 -41	47.0	76 6.0 -24
@34.50%	0	1 84.0 -99	1.0	6 60.0 -94	5.0	18 39.0 -81	13.5	38 22.5 -61	27.5	59 12.0 -40	46.5	76 5.5 -23
@33.50%	0	1 84.0 -99	1.0	5 59.5 -94	4.5	18 38.5 -82	13.0	38 22.0 -62	27.0	60 11.0 -40	46.0	77 5.0 -22
97.6400 @37.50%	0	1 86.0 -98	1.5	6 62.0 -93	5.5	19 41.5 -81	14.5	37 25.5 -63	28.0	56 14.0 -43	46.0	73 7.5 -27
@36.50%	0	1 86.0 -98	1.5	6 62.0 -94	5.5	18 41.0 -81	14.0	37 25.0 -63	27.5	57 13.5 -43	45.5	74 7.0 -26
@35.50%	0	1 86.0 -99	1.0	6 62.0 -94	5.0	18 40.5 -82	13.5	37 24.5 -63	27.0	57 13.0 -42	45.5	74 6.5 -25
@34.50%	0	1 86.0 -99	1.0	5 61.5 -94	4.5	17 40.5 -82	13.0	36 24.0 -63	26.5	58 12.5 -42	45.0	75 6.0 -24
@33.50%	0	1 86.0 -99	1.0	5 61.5 -95	4.5	16 40.0 -83	12.5	36 23.5 -63	26.0	58 12.0 -41	44.5	76 5.5 -24
97.6200 @37.50%	0	1 88.0 -98	1.5	6 64.0 -94	5.5	18 43.0 -82	13.5	35 26.5 -64	27.0	55 15.0 -45	44.5	71 8.0 -28
@36.50%	0	1 88.0 -99	1.0	5 64.0 -94	5.0	17 42.5 -82	13.0	35 26.0 -64	26.5	55 14.5 -44	44.0	72 7.5 -27
@35.50%	0	1 88.0 -99	1.0	5 63.5 -94	4.5	17 42.5 -83	12.5	35 25.5 -64	26.0	55 14.0 -44	44.0	73 7.0 -27
@34.50%	0	1 88.0 -99	1.0	5 63.5 -95	4.5	16 42.0 -83	12.0	35 25.0 -65	25.5	56 13.5 -44	43.5	74 6.5 -26
@33.50%	0	1 88.0 -99	1.0	4 63.5 -95	4.0	15 41.5 -84	11.5	35 24.5 -65	25.0	56 13.0 -43	43.0	74 6.0 -25
97.6000 @37.50%	0	1 90.0 -98	1.5	5 66.0 -94	5.0	17 44.5 -83	13.0	34 28.0 -66	26.0	53 16.0 -46	43.5	70 8.5 -29
@36.50%	0	1 90.0 -99	1.0	5 66.0 -94	4.5	16 44.5 -83	12.5	34 27.5 -66	25.5	54 15.5 -46	43.0	71 8.0 -29
@35.50%	0	1 90.0 -99	1.0	5 65.5 -95	4.5	16 44.0 -84	12.0	33 27.0 -66	25.0	54 15.0 -46	42.5	72 7.5 -28
@34.50%	0	1 90.0 -99	1.0	4 65.5 -95	4.0	15 43.5 -84	11.5	33 26.5 -66	24.5	54 14.5 -45	42.0	72 7.0 -27
@33.50%	0	0 90.0 -99	1.0	4 65.5 -96	3.5	14 43.5 -85	11.0	33 26.0 -66	23.5	55 14.0 -45	41.5	73 6.5 -26
97.5800 @37.50%	0	1 92.0 -99	1.0	5 68.0 -94	4.5	16 46.5 -84	12.0	32 29.0 -67	25.0	52 17.0 -48	42.0	69 9.0 -31
@36.50%	0	1 92.0 -99	1.0	5 67.5 -95	4.5	15 46.0 -84	12.0	32 28.5 -67	24.5	52 16.5 -48	41.5	69 8.5 -30
@35.50%	0	1 92.0 -99	1.0	4 67.5 -95	4.0	15 45.5 -85	11.5	32 28.0 -67	23.5	52 16.0 -47	41.0	70 8.0 -29
@34.50%	0	1 92.0 -99	1.0	4 67.5 -96	3.5	14 45.5 -85	11.0	32 27.5 -68	23.0	53 15.0 -47	40.5	71 7.5 -29
@33.50%	0	0 92.0 -99	.5	3 67.5 -96	3.5	13 45.0 -86	10.5	31 27.0 -68	22.5	53 14.5 -47	40.0	72 7.0 -28
97.5600 @37.50%	0	1 94.0 -99	1.0	5 69.5 -95	4.5	15 48.0 -85	11.5	31 30.5 -68	24.0	50 18.0 -49	40.5	67 9.5 -32
@36.50%	0	1 94.0 -99	1.0	4 69.5 -95	4.0	14 48.0 -85	11.0	31 30.0 -69	23.5	50 17.5 -49	40.0	68 9.0 -31
@35.50%	0	1 94.0 -99	1.0	4 69.5 -96	3.5	14 47.5 -86	10.5	31 29.5 -69	22.5	51 16.5 -49	39.5	69 8.5 -31
@34.50%	0	0 94.0 -99	.5	4 69.5 -96	3.5	13 47.0 -86	10.0	30 29.0 -69	22.0	51 16.0 -49	39.0	69 8.0 -30
@33.50%	0	0 94.0 -99	.5	3 69.0 -96	3.0	12 47.0 -87	9.5	30 28.5 -70	21.5	51 15.5 -48	38.5	70 8.0 -29
97.5400 @37.50%	0	1 96.0 -99	1.0	4 71.5 -95	4.0	14 50.0 -86	11.0	30 32.0 -70	23.0	49 19.0 -51	39.0	66 10.5 -33
@36.50%	0	1 96.0 -99	1.0	4 71.5 -96	3.5	13 49.5 -86	10.5	29 31.5 -70	22.5	49 18.5 -51		

DEC 02 IMM EURODOLLAR OPTIONS
 Evaluation date: 05/23/02 Expiration date: 12/16/02 # days: 207
 Futures last:97.0400 Implied volatility: 36.79% Interest rate: 1.72%

		97.7500		97.5000		97.2500		97.0000		96.7500		96.5000													
		Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put												
97.2000	@39.00%	9.5	18	64.0	-81	18.0	29	47.5	-70	29.5	41	34.5	-58	44.5	53	24.5	-46	61.5	63	17.0	-36	81.0	72	11.5	-27
	@38.00%	9.0	18	63.5	-81	17.5	29	47.0	-70	29.0	41	34.0	-58	43.5	53	23.5	-46	61.0	64	16.5	-35	80.5	73	11.0	-26
	@37.00%	8.5	18	63.0	-81	16.5	29	46.5	-70	28.0	42	33.0	-58	42.5	54	23.0	-45	60.0	65	15.5	-34	79.5	74	10.5	-25
	@36.00%	8.0	17	62.5	-82	16.0	29	45.5	-70	27.0	42	32.0	-57	42.0	54	22.0	-45	59.5	65	14.5	-34	79.0	75	9.5	-24
	@35.00%	7.5	17	62.0	-82	15.0	28	45.0	-71	26.5	42	31.5	-57	41.0	55	21.0	-44	58.5	66	14.0	-33	78.5	76	9.0	-24
97.1800	@39.00%	9.0	18	65.5	-81	17.5	29	49.0	-70	29.0	40	36.0	-59	43.5	52	25.5	-47	60.5	63	18.0	-36	79.5	71	12.0	-28
	@38.00%	8.5	17	65.0	-82	16.5	28	48.5	-71	28.0	40	35.0	-59	42.5	52	24.5	-47	59.5	63	17.0	-36	79.0	72	11.5	-27
	@37.00%	8.0	17	64.5	-82	16.0	28	47.5	-71	27.0	41	34.0	-59	41.5	53	24.0	-46	59.0	64	16.0	-35	78.0	73	11.0	-26
	@36.00%	7.5	16	64.0	-83	15.5	28	47.0	-71	26.5	41	33.5	-58	41.0	53	23.0	-46	58.0	64	15.5	-35	77.5	74	10.5	-25
	@35.00%	7.0	16	63.5	-83	14.5	28	46.5	-71	25.5	41	32.5	-58	40.0	54	22.0	-45	57.0	65	14.5	-34	77.0	75	9.5	-24
97.1600	@39.00%	9.0	17	67.5	-82	17.0	28	50.5	-71	28.0	39	37.0	-60	42.5	51	26.5	-48	59.0	62	18.5	-37	78.0	71	13.0	-28
	@38.00%	8.5	17	67.0	-82	16.0	28	50.0	-71	27.0	40	36.0	-60	41.5	51	25.5	-48	58.5	62	17.5	-37	77.5	71	12.0	-28
	@37.00%	8.0	16	66.0	-83	15.5	27	49.0	-72	26.5	40	35.5	-59	40.5	52	24.5	-47	57.5	63	17.0	-36	76.5	72	11.5	-27
	@36.00%	7.5	16	65.5	-83	14.5	27	48.5	-72	25.5	40	34.5	-59	39.5	52	24.0	-47	56.5	64	16.0	-36	76.0	73	10.5	-26
	@35.00%	7.0	15	65.0	-84	14.0	27	47.5	-72	25.0	40	33.5	-59	39.0	53	23.0	-47	56.0	64	15.5	-35	75.5	74	10.0	-25
97.1400	@39.00%	8.5	17	69.0	-82	16.5	27	52.0	-72	27.5	39	38.0	-60	41.5	50	27.5	-49	58.0	61	19.5	-38	76.5	70	13.5	-29
	@38.00%	8.0	16	68.5	-83	15.5	27	51.5	-72	26.5	39	37.5	-60	40.5	50	26.5	-49	57.0	61	18.5	-38	76.0	71	12.5	-28
	@37.00%	7.5	16	68.0	-83	15.0	26	50.5	-73	25.5	39	36.5	-60	39.5	51	25.5	-48	56.5	62	17.5	-37	75.5	71	12.0	-28
	@36.00%	7.0	15	67.5	-84	14.0	26	50.0	-73	25.0	39	35.5	-60	38.5	51	25.0	-48	55.5	63	17.0	-36	74.5	72	11.0	-27
	@35.00%	6.5	15	67.0	-84	13.5	26	49.0	-73	24.0	39	35.0	-60	38.0	51	24.0	-48	54.5	63	16.0	-36	74.0	73	10.5	-26
97.1200	@39.00%	8.0	16	70.5	-83	16.0	26	53.5	-73	26.5	38	39.5	-61	40.5	49	28.5	-50	56.5	60	20.0	-39	75.5	69	14.0	-30
	@38.00%	7.5	16	70.0	-83	15.0	26	52.5	-73	25.5	38	38.5	-61	39.5	49	27.5	-50	56.0	60	19.0	-39	74.5	70	13.0	-29
	@37.00%	7.0	15	69.5	-84	14.5	26	52.0	-73	25.0	38	37.5	-61	38.5	50	26.5	-49	55.0	61	18.5	-38	74.0	71	12.5	-28
	@36.00%	6.5	15	69.0	-84	13.5	25	51.5	-74	24.0	38	37.0	-61	37.5	50	26.0	-49	54.0	62	17.5	-37	73.0	71	11.5	-28
	@35.00%	6.0	14	68.5	-85	13.0	25	50.5	-74	23.0	38	36.0	-61	37.0	50	25.0	-49	53.5	62	17.0	-37	72.5	72	11.0	-27
97.1000	@39.00%	8.0	15	72.5	-84	15.5	25	55.0	-74	26.0	37	40.5	-62	39.5	48	29.5	-51	55.5	59	21.0	-40	74.0	68	14.5	-31
	@38.00%	7.5	15	72.0	-84	14.5	25	54.0	-74	25.0	37	40.0	-62	38.5	49	28.5	-50	54.5	59	20.0	-40	73.0	69	14.0	-30
	@37.00%	7.0	15	71.5	-84	14.0	25	53.5	-74	24.0	37	39.0	-62	37.5	49	27.5	-50	54.0	60	19.0	-39	72.5	70	13.0	-29
	@36.00%	6.5	14	71.0	-85	13.0	24	53.0	-75	23.5	37	38.0	-62	36.5	49	27.0	-50	53.0	61	18.5	-38	71.5	70	12.5	-29
	@35.00%	6.0	14	70.5	-85	12.5	24	52.0	-75	22.5	37	37.5	-62	36.0	49	26.0	-50	52.0	61	17.5	-38	71.0	71	11.5	-28
97.0800	@39.00%	7.5	15	74.0	-84	15.0	25	56.5	-74	25.0	36	42.0	-63	38.5	47	30.5	-52	54.5	58	21.5	-41	72.5	67	15.0	-32
	@38.00%	7.0	14	73.5	-85	14.0	24	55.5	-75	24.0	36	41.0	-63	37.5	48	29.5	-51	53.5	59	21.0	-40	72.0	68	14.5	-31
	@37.00%	6.5	14	73.0	-85	13.5	24	55.0	-75	23.5	36	40.0	-63	36.5	48	28.5	-51	52.5	59	20.0	-40	71.0	69	13.5	-30
	@36.00%	6.0	14	72.5	-86	12.5	24	54.5	-75	22.5	36	39.5	-63	35.5	48	28.0	-51	52.0	60	19.0	-39	70.5	70	13.0	-29
	@35.00%	5.5	13	72.0	-86	12.0	23	53.5	-76	22.0	36	38.5	-63	35.0	48	27.0	-51	51.0	60	18.5	-39	69.5	70	12.0	-29
97.0600	@39.00%	7.5	14	75.5	-85	14.5	24	58.0	-75	24.5	35	43.0	-64	37.5	46	31.5	-53	53.0	57	22.5	-42	71.5	67	16.0	-32
	@38.00%	7.0	14	75.0	-85	13.5	24	57.0	-75	23.5	35	42.5	-64	36.5	47	30.5	-52	52.5	58	21.5	-41	70.5	67	15.0	-32
	@37.00%	6.5	13	74.5	-86	13.0	23	56.5	-76	22.5	35	41.5	-64	35.5	47	29.5	-52	51.5	58	21.0	-41	69.5	68	14.0	-31
	@36.00%	6.0	13	74.0	-86	12.5	23	56.0	-76	22.0	35	40.5	-64	35.0	47	29.0	-52	50.5	59	20.0	-40	69.0	69	13.5	-30
	@35.00%	5.5	12	73.5	-87	11.5	23	55.0	-76	21.0	35	40.0	-64	34.0	47	28.0	-52	50.0	59	19.0	-40	68.0	70	12.5	-30
97.0400	@39.00%	7.0	14	77.5	-85	14.0	23	59.5	-76	23.5	34	44.5	-65	36.5	46	32.5	-54	52.0	56	23.5	-43	70.0	66	16.5	-33
	@38.00%	6.5	13	77.0	-86	13.0	23	58.5	-76	23.0	34	43.5	-65	35.5	46	31.5	-53	51.0	57	22.5	-42	69.0	66	15.5	-33
	@37.00%	6.0	13	76.5	-86	12.5	23	58.0	-76	22.0	34	43.0	-65	34.5	46	31.0	-53	50.5	57	21.5	-42	68.5	67	15.0	-32
	@36.00%	5.5	12	76.0	-87	12.0	22	57.5	-77	21.0	34	42.0	-65	34.0	46	30.0	-53	49.5	58	20.5	-41	67.5	68	14.0	-31
	@35.00%	5.0	12	75.5	-87	11.0	22	56.5	-77	20.5	34	41.0	-65	33.0	46	29.0	-53	48.5	58	20.0	-41	67.0	69	13.5	-30
97.0200	@39.00%	7.0	13	79.0	-86	13.5	23	61.0	-76	23.0	33	45.5	-66	35.5	45	33.5	-54	51.0	55	24.0	-44	68.5	65	17.0	-34
	@38.00%	6.5	13	78.5	-86	12.5	22	60.0	-77	22.0	33	45.0	-66	34.5	45	32.5	-54	50.0	56	23.5	-43	68.0	66	16.5	-33
	@37.00%	6.0	12	78.0	-87	12.0	22	59.5	-77	21.5	33	44.0	-66	34.0	45	32.0	-54	49.0	56	22.5	-43	67.0	66	15.5	-33
	@36.00%	5.5	12	77.5	-87	11.5	21	59.0	-78	20.5	33	43.5	-66	33.0	45	31.0	-54	48.5	57	21.5	-42	66.0	67	14.5	-32
	@35.00%	5.0	11	77.0	-88	10.5	21	58.5	-78	19.5	33	42.5	-66	32.0	45	30.0	-54	47.5	57	20.5	-42	65.5	68	14.0	-31
97.0000	@39.00%	6.5	13	81.0	-86	13.0	22	62.5	-77	22.5	33	47.0	-66	34.5	44	34.5	-55	50.0	54	25.0	-45				

MAR 03 IMM EURODOLLAR OPTIONS
 Evaluation date: 05/23/02 Expiration date: 03/17/03 # days: 298
 Futures last:96.4450 Implied volatility: 33.95% Interest rate: 1.72%

		97.2500				97.0000				96.7500				96.5000				96.2500				96.0000			
		Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put	Call	Put
96.6000	@36.00%	15.0	20	79.0	-78	24.0	29	63.5	-70	35.5	38	50.0	-61	49.0	46	39.0	-52	65.0	55	30.5	-44	82.5	62	23.5	-36
	@35.00%	14.0	20	78.5	-79	23.0	29	62.5	-70	34.0	38	49.0	-61	48.0	47	38.0	-52	63.5	55	29.0	-44	81.5	63	22.0	-36
	@34.00%	13.5	20	77.5	-79	22.0	28	61.5	-70	33.0	38	48.0	-61	46.5	47	37.0	-52	62.5	56	28.0	-43	80.0	64	21.0	-35
	@33.00%	12.5	19	76.5	-79	21.0	28	60.5	-71	32.0	38	46.5	-61	45.5	47	35.5	-51	61.5	56	26.5	-42	79.0	64	20.0	-34
	@32.00%	11.5	19	76.0	-80	20.0	28	59.5	-71	30.5	38	45.5	-61	44.0	48	34.5	-51	60.0	57	25.5	-42	78.0	65	19.0	-33
96.5800	@36.00%	14.5	20	80.5	-79	23.5	28	65.0	-70	34.5	37	51.5	-62	48.0	46	40.0	-53	63.5	54	31.0	-45	81.0	62	24.0	-37
	@35.00%	14.0	20	80.0	-79	22.5	28	64.0	-71	33.5	37	50.0	-62	47.0	46	39.0	-53	62.5	55	30.0	-44	80.0	62	23.0	-36
	@34.00%	13.0	19	79.0	-79	21.5	28	63.0	-71	32.5	37	49.0	-62	45.5	46	38.0	-52	61.5	55	29.0	-44	79.0	63	21.5	-36
	@33.00%	12.0	19	78.0	-80	20.5	27	62.0	-71	31.0	37	48.0	-62	44.5	46	36.5	-52	60.0	56	27.5	-43	77.5	64	20.5	-35
	@32.00%	11.5	18	77.5	-80	19.5	27	60.5	-71	30.0	37	47.0	-62	43.5	47	35.5	-52	59.0	56	26.5	-42	76.5	65	19.5	-34
96.5600	@36.00%	14.5	19	82.5	-79	23.0	28	66.5	-71	34.0	36	52.5	-62	47.0	45	41.5	-54	62.5	53	32.0	-45	80.0	61	24.5	-38
	@35.00%	13.5	19	81.5	-80	22.0	27	65.0	-71	32.5	36	51.5	-62	46.0	45	40.0	-53	61.5	54	31.0	-45	79.0	62	23.5	-37
	@34.00%	12.5	19	80.5	-80	21.0	27	64.0	-72	31.5	36	50.5	-62	45.0	45	39.0	-53	60.0	54	29.5	-44	77.5	62	22.5	-36
	@33.00%	12.0	18	80.0	-80	20.0	27	63.0	-72	30.5	36	49.0	-62	43.5	46	37.5	-53	59.0	55	28.5	-44	76.5	63	21.5	-36
	@32.00%	11.0	18	79.0	-81	19.0	26	62.0	-72	29.5	36	48.0	-62	42.5	46	36.5	-53	58.0	55	27.5	-43	75.5	64	20.0	-35
96.5400	@36.00%	14.0	19	84.0	-80	22.5	27	67.5	-72	33.0	36	54.0	-63	46.5	44	42.5	-54	61.5	53	33.0	-46	78.5	60	25.5	-38
	@35.00%	13.0	19	83.0	-80	21.5	27	66.5	-72	32.0	36	52.5	-63	45.0	45	41.0	-54	60.5	53	32.0	-46	77.5	61	24.5	-38
	@34.00%	12.0	18	82.0	-80	20.5	26	65.5	-72	31.0	36	51.5	-63	44.0	45	40.0	-54	59.0	54	30.5	-45	76.5	62	23.0	-37
	@33.00%	11.5	18	81.5	-81	19.5	26	64.5	-72	29.5	35	50.5	-63	42.5	45	38.5	-54	58.0	54	29.5	-45	75.0	62	22.0	-36
	@32.00%	10.5	17	80.5	-81	18.5	26	63.5	-73	28.5	35	49.5	-63	41.5	45	37.5	-53	56.5	55	28.0	-44	74.0	63	21.0	-36
96.5200	@36.00%	13.5	19	85.5	-80	22.0	26	69.0	-72	32.5	35	55.0	-64	45.5	44	43.5	-55	60.5	52	34.0	-47	77.5	60	26.5	-39
	@35.00%	12.5	18	84.5	-81	21.0	26	68.0	-72	31.5	35	54.0	-64	44.0	44	42.5	-55	59.5	52	32.5	-46	76.5	60	25.0	-38
	@34.00%	12.0	18	84.0	-81	20.0	26	67.0	-73	30.0	35	53.0	-64	43.0	44	41.0	-55	58.0	53	31.5	-46	75.0	61	24.0	-38
	@33.00%	11.0	17	83.0	-81	19.0	26	66.0	-73	29.0	35	51.5	-64	42.0	44	40.0	-54	57.0	53	30.0	-45	74.0	62	22.5	-37
	@32.00%	10.5	17	82.5	-82	18.0	25	65.0	-73	28.0	35	50.5	-64	40.5	44	38.5	-54	55.5	54	29.0	-45	73.0	62	21.5	-36
96.5000	@36.00%	13.0	18	87.0	-81	21.5	26	70.5	-73	32.0	34	56.5	-64	44.5	43	44.5	-56	59.5	51	35.0	-47	76.5	59	27.0	-40
	@35.00%	12.5	18	86.5	-81	20.5	26	69.5	-73	30.5	34	55.5	-64	43.5	43	43.5	-55	58.5	52	33.5	-47	75.0	60	26.0	-39
	@34.00%	11.5	17	85.5	-81	19.0	25	68.5	-73	29.5	34	54.0	-64	42.0	43	42.0	-55	57.0	52	32.5	-47	74.0	60	24.5	-38
	@33.00%	10.5	17	84.5	-82	18.0	25	67.5	-74	28.5	34	53.0	-65	41.0	43	41.0	-55	56.0	53	31.0	-46	73.0	61	23.5	-38
	@32.00%	10.0	16	84.0	-82	17.5	25	66.5	-74	27.0	34	52.0	-65	39.5	44	39.5	-55	54.5	53	30.0	-46	71.5	62	22.5	-37
96.4800	@36.00%	13.0	18	88.5	-81	21.0	25	72.0	-73	31.0	34	57.5	-65	43.5	42	45.5	-56	58.5	51	36.0	-48	75.0	58	28.0	-40
	@35.00%	12.0	17	88.0	-81	19.5	25	71.0	-74	30.0	34	56.5	-65	42.5	42	44.5	-56	57.5	51	34.5	-48	74.0	59	26.5	-40
	@34.00%	11.0	17	87.0	-82	18.5	25	70.0	-74	29.0	33	55.5	-65	41.5	43	43.0	-56	56.0	51	33.5	-47	73.0	60	25.5	-39
	@33.00%	10.5	16	86.5	-82	18.0	24	69.0	-74	27.5	33	54.5	-65	40.0	43	42.0	-56	55.0	52	32.0	-47	71.5	60	24.0	-38
	@32.00%	9.5	16	85.5	-83	17.0	24	68.0	-75	26.5	33	53.0	-65	39.0	43	41.0	-56	53.5	52	31.0	-46	70.5	61	23.0	-38
96.4600	@36.00%	12.5	17	90.5	-81	20.5	25	73.5	-74	30.5	33	59.0	-66	43.0	42	47.0	-57	57.5	50	37.0	-49	74.0	58	28.5	-41
	@35.00%	11.5	17	89.5	-82	19.5	24	72.5	-74	29.5	33	58.0	-66	41.5	42	45.5	-57	56.5	50	35.5	-48	73.0	58	27.5	-40
	@34.00%	11.0	16	88.5	-82	18.5	24	71.5	-75	28.0	33	56.5	-66	40.5	42	44.5	-57	55.0	51	34.5	-48	71.5	59	26.0	-40
	@33.00%	10.0	16	88.0	-83	17.5	24	70.5	-75	27.0	33	55.5	-66	39.0	42	43.0	-57	53.5	51	33.0	-48	70.5	59	25.0	-39
	@32.00%	9.5	15	87.0	-83	16.5	23	69.5	-75	26.0	33	54.5	-66	38.0	42	42.0	-56	52.5	51	32.0	-47	69.0	60	24.0	-39
96.4400	@36.00%	12.0	17	92.0	-82	20.0	24	75.0	-74	30.0	32	60.5	-66	42.0	41	48.0	-58	56.5	49	38.0	-49	73.0	57	29.5	-42
	@35.00%	11.5	16	91.0	-82	19.0	24	74.0	-75	28.5	32	59.0	-66	41.0	41	47.0	-58	55.5	50	36.5	-49	71.5	58	28.0	-41
	@34.00%	10.5	16	90.5	-83	18.0	24	73.0	-75	27.5	32	58.0	-66	39.5	41	45.5	-57	54.0	50	35.5	-49	70.5	58	27.0	-40
	@33.00%	10.0	15	89.5	-83	17.0	23	72.0	-75	26.5	32	57.0	-67	38.5	41	44.5	-57	52.5	50	34.0	-48	69.0	59	26.0	-40
	@32.00%	9.0	15	89.0	-84	16.0	23	71.0	-76	25.0	32	56.0	-67	37.0	41	43.0	-57	51.5	51	32.5	-48	68.0	59	24.5	-39
96.4200	@36.00%	12.0	16	93.5	-82	19.5	24	76.5	-75	29.0	32	61.5	-67	41.5	40	49.0	-58	55.5	49	39.0	-50	71.5	56	30.5	-42
	@35.00%	11.0	16	93.0	-83	18.5	23	75.5	-75	28.0	32	60.5	-67	40.0	40	48.0	-58	54.5	49	37.5	-50	70.5	57	29.0	-42
	@34.00%	10.0	15	92.0	-83	17.5	23	74.5	-76	27.0	32	59.5	-67	39.0	40	46.5	-58	53.0	49	36.0	-49	69.0	57	28.0	-41
	@33.00%	9.5	15	91.5	-84	16.5	23	73.5	-76	25.5	31	58.0	-67	37.5	41	45.5	-58	51.5	50	35.0	-49	68.0	58	26.5	-41
	@32.00%	8.5	14	90.5	-84	15.5	22	72.5	-76	24.5	31	57.0	-67	36.5	41	44.0	-58	50.5	50	33.5	-49	67.0	59	25.5	-40
96.4000	@36.00%	11.5	16	95.5	-83	19.0	23	78.0	-75	28.5	31	63.0	-67	40.5	40	50.5	-59	54.5	48	40.0	-51	70.5	56	31.0	-43
	@35.00%	10.5	15	94.5	-83	18.0	23	77.0	-76	27.5	31	62.0	-68	39.0	40	49.0	-59	53.5	48	38.5	-50	69.5	56	30.0	-42
	@34.00%	10.0	15	93.5	-84	17.0	22	76.0	-76	26.0	31	60.5	-68	38.0	40	48.0	-59	52.0	48	37.0	-50	68.0	57	28.5	-42
	@33.00%	9.0	14	93.0	-84	16.0	22	75.0	-77	25.0	31	59.5	-68	36.5	40	46.5	-59	50.5	49	36.0	-50	67.0	57	27.5	-41
	@32.00%	8.5	14	92.5	-85	15.0	22	74.0	-77	24.0	30	58.5	-68	35.5	40	45.5	-59	49.5	49	34.5	-49	65.5	58	26.0	-41
96.3800	@36.00%	11.0	15	97.0	-83	18.5	23	79.5	-76	28.0															