FOREX FOCUS

Access to foreign exchange trading has opened up exciting trading options for the retail trader. You can now trade alongside corporations and institutions in a highly liquid market that is global, traded around the clock, and highly leveraged. Before jumping into this market, however, we must understand the factors that affect the forex market. With that in mind, STOCKS & COMMODITIES *has introduced* ***Forex Focus*** *to better prepare the retail trader to participate in the currency market.*

Going Beyond 70 And 30 In Forex

Here's a look at the performance of a foreign exchange strategy that was applied to the EUR/USD.

The relative strength index (RSI), developed by J. Welles Wilder, is one of the most widely used indicators in technical analysis. But by the same token, it is also one of the most misunderstood and incorrectly applied indicators in technical analysis. Too often, a trader attempts to pick a top or a bottom and then watches in frustration as the market fails to top out or bottom out and continues to move in the same direction. Most traders realize that RSI is an oscillator and that its value can range anywhere from zero to 100. Extreme readings are said to be over the 70 level and below the 30 mark, with the former considered overbought† and the latter oversold†.

CATCHING A MOVE

This is where most mistakes are made. Novice and experienced traders alike jump at the opportunity to sell a cross below 70 or buy a cross above 30, trying to pick a top or a bottom. Some of the trades will surely work out, but it is the one or two losses that occur when the trader finds him- or herself on the wrong side of a strong trending market that will wreak havoc. It is not necessary to sell tops and buy bottoms. Instead, it's more effective to try to catch portions of large moves with higher-probability entry points.

Further, markets do not move straight up and straight down. Markets zigzag up, down, or sideways. This means that an RSI cross below 70 could be a correction within a broader trend, and that the correct move would be to buy strength, not sell it. Strong market moves will cause RSI to fluctuate near its extreme levels of 70 and 30, resulting in many crosses below 70 and above 30 and consequently many false signals.

It is during these strong moves that a participating, savvy trader profits. To be sure, money is made in ranging markets, but it can be made, and lost, much faster during trending markets. Most traders and analysts dismiss RSI during trending markets, claiming that the indicator is most useful during range-bound markets. However, RSI can be used in all market conditions if used wisely.

THE STRATEGY

We have established that an RSI reading above 70 occurs after a strong move upward and that an RSI reading below 30 occurs after a strong move downward. Before getting to 70 or 30, RSI had to cross 50 and 60 on its way up as well as 50, and then 40, on its way down. This is the logic on which we will base our strategy.

We will call upon the average true range (ATR) to aid in objectivity when entering and placing stops. ATR measures the average range per bar (or candlestick) over a specified number of periods. We are making our entry order and stop order dynamic by using percentages of ATR to place orders. As market volatility changes, so too do our orders. This ensures that we are implementing a wider stop in more volatile markets, which is necessary in order to give your trade more room to work.

The most common setting for RSI and ATR is 14. The strategy uses 21. This helps avoid taking as many trades during choppy market conditions.

Strategy Rules

Long:

1. RSI crosses above 50
2. Buy at 15% of daily ATR above previous high (hourly, 15-minute, and so forth)
3. Place a stop at 30% of daily ATR below entry price (hourly, 15-minute, and so forth)
4. Once RSI crosses above 60, then add to the position on the close (indicator stop – exit if RSI <50)
5. Close half of the trade after RSI rises above 70 and then crosses back below 70
6. The rest of the position is held until the short signal is triggered or RSI drops below 40.

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Short:

1. The RSI crosses below 50
2. Sell short at 15% of ATR below previous low (hourly, 15-minute, and so forth)
3. Place a stop at 30% of ATR above entry price (hourly, 15-minute, and so forth)
4. Once RSI crosses below 40, add to the position on the close (indicator stop – exit if RSI > 50)
5. Close half of the trade after RSI crosses below and then back above 30
6. The rest of the position is held until the long signal is triggered or RSI rises above 60.

The strategy tested profitably on intraday charts — hourly, and four-hour. The values would likely need to be altered for trading on a daily chart.

It should be noted that an order in the opposite direction takes precedent and should be entered as a stop and reverse. If you are long one lot and the strategy generates a short order, then you need to have an order to short two lots.

Options:

You can, of course, optimize this with different RSI values. Use a shorter RSI length for more signals and a longer RSI length for fewer signals (but usually more reliable). Further, alter your position size if you wish. More aggressive traders may want to add more than just one lot to winning positions. As mentioned, you can trade different time frames. If you trade on a daily chart, then you will need to widen your stop, perhaps to 100% of ATR.

SOME EXAMPLES

The following examples use a 21-period RSI and a 21-period average true range (ATR):

EUR/USD Daily Chart (Figure 1)

At the September 7, 2004, close, the RSI is at 46.84. The next day, RSI closes at 50.24, and thus we have a buy signal. Since this trade is on a daily chart, the percentages of ATR used in order to place an entry order and a stop-loss order are widened to 20% of ATR above the high for the entry and 100% of ATR below the entry for the stop-loss. The high on September 8, 2004, is at 1.2190 and ATR is 102. An entry order is placed at 1.2190 + (0.20 * 102) = 1.2210. A stop is placed with that order at 1.2108 (1.2197 – 0.0102). The order is executed the next day.

On September 30, RSI crosses 60 to 61.22 and we add to our position at the close (1.2434). On October 26, RSI rises, then falls back below 70, and we exit our original position at 1.2764 for a 554-pip profit. We are still in our lot that we added on September 30 until January 6, 2005, when RSI falls below 50 at 1.3170. That position closed for a 736-pip profit.

FIGURE 1: EUR/USD. Applying the strategy on the daily chart of the EUR/USD generated a 554-pip profit for the first lot and a 736-pip profit for the second lot.

FIGURE 2: SHORTING THE USD/JPY. On this four-hour chart, you make a 201-pip profit on the first lot.

FIGURE 3: TRADING RANGES. The market needs to move a specific amount before you place the trade to prevent whipsaws and reduce the number of trades.

USD/JPY Four-Hour Chart (Figure 2) On April 17, 2006 (00:00 bar), RSI closes below 50 on the four-hour chart and an entry order is placed at 15% of ATR below the candle's low at 117.83. The order is triggered two bars later. On the April 17th 12:00 bar, RSI closes below 40 and we add to the position at 117.66. On the April 23rd 20:00 bar, RSI crosses above 30 and we therefore close out our original lot at 115.82 for a profit of 201 pips. As of this writing, May 4, 2006, RSI has yet to cross above 50, so we are still in the second lot with a floating profit of 374 pips.

Why wait until the RSI approaches the traditional oversold and overbought levels?

IMPORTANCE OF THE ENTRY ORDER

It can be tempting to just enter long when RSI crosses above 50 or enter short when RSI crosses below 50. However, RSI will fluctuate near 50 during tight ranging periods and thus cross 50 many times in a short period of time. Placing an entry order above the market for long positions or below the market for shorts requires that the market move a specific amount before you commit to a trade. This helps filter out bad trades. Note on Figure 3 that between April 14 and April 24, 2006, simply buying and selling on RSI crosses of 50 on a EUR/GBP hourly chart would have generated 22 trades and the pair traded in predominantly a 30-pip range. Requiring entry orders to be a specific amount above or below the market would have eliminated most of these trades so that capital is preserved in order to take advantage of signals such as the last two.

THE RESULTS

This strategy has been backtested both on hourly and four-hour charts for the EUR/USD over three and a half years. It results in a lot of small losing trades and a few big winning trades that more than

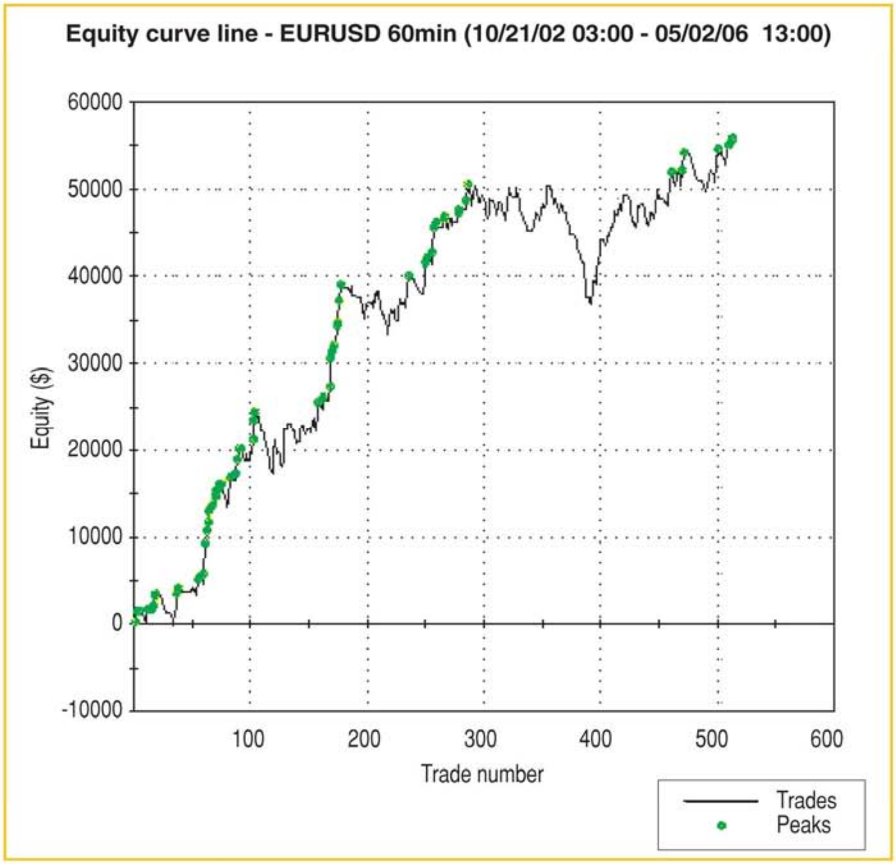

FIGURE 4: EQUITY CURVE FOR HOURLY CHART. This strategy has been backtested both on hourly and four-four charts over three and half years. The equity curve for the hourly results in one that looks like this one.

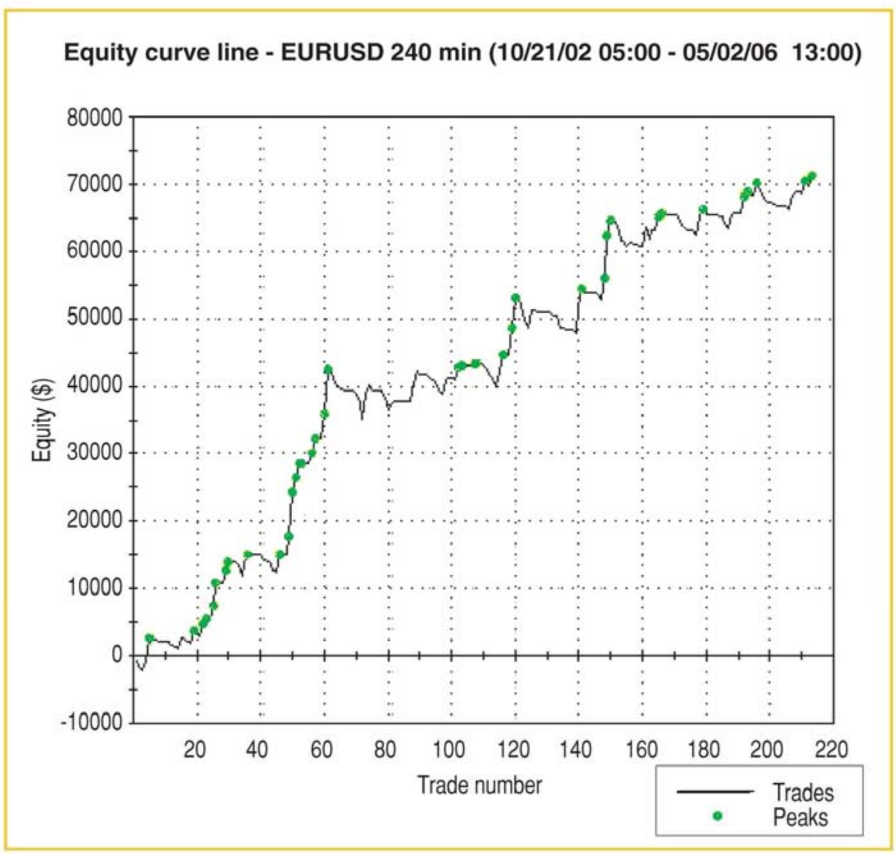

FIGURE 5: EQUITY CURVE FOR FOUR-HOUR CHART. The equity curve for the four-hour chart looks like this one.

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offset your losses. The strategy using hourly charts generated 514 trades, while the strategy on four-hour charts generated 213 trades.

The equity curve for the hourly chart looks like the one in Figure 4, whereas the one for the four-hour looks like the one in Figure 5. The backtest results for this strategy on four-hour charts using an initial investment of $1,000 for the time period of October 21, 2002, to May 4, 2006, is displayed in Figure 6.

Looking at the equity curves and backtest results, this is not a bad strategy to apply. With results like these, why would you wait till the RSI approaches the traditional oversold and overbought levels?

Jamie Saettele is the technical currency analyst at FXCM, has extensive experience in technical analysis, and is heavily involved in developing and backtesting trading systems. He is currently an active trader.

SUGGESTED READING

Wilder, J. Welles [1978]. *New Concepts In Technical Trading Systems,* Trend Research.

†See Traders' Glossary for definition

S&C

TradeStation Performance Summary Expand

	All Trades	Long Trades	Short Trades
Total Net Profit	$71,300.00	$47,560.00	$23,740.00
Gross Profit	$127,810.00	$92,350.00	$35,460.00
Gross Loss	($56,510.00)	($44,790.00)	($11,720.00)
Profit Factor	2.26	2.06	3.03
Total Number of Trades	213	113	100
Percent Profitable	28.64%	40.71%	15.00%
Winning Trades	61	46	15
Losing Trades	79	58	21
Even Trades	73	9	64
Avg. Trade Net Profit	$334.74	$420.88	$237.40
Avg. Winning Trade	$2,095.25	$2,007.61	$2,364.00
Avg. Losing Trade	($715.32)	($772.24)	($558.10)
Ratio Avg. Win:Avg. Loss	2.93	2.60	4.24
Largest Winning Trade	$6,600.00	$6,600.00	$6,280.00
Largest Losing Trade	($2,460.00)	($2,460.00)	($1,270.00)
Max. Consecutive Winning Trades	5	9	4
Max. Consecutive Losing Trades	5	6	3
Avg. Bars in Winning Trades	58.33	54.87	68.93
Avg. Bars in Losing Trades	15.84	16.91	12.86
Avg. Bars in Even Trades	1.00	1.00	1.00
Max. Shares/Contracts Held	2	2	2
Total Shares/Contracts Held	214	114	100
Account Size Required	$7,330.00	$9,960.00	$3,740.00
Return on Initial Capital	71.30%		
Annual Rate of Return	15.37%		
Return Retracement Ratio	0.44		
RINA Index	253.64		
Trading Period	3 Yrs, 6 Mths		
Percent of Time in the Market	58.42%		
Max. Equity Run-up	$78,250.00		
Max. Drawdown (Intra-day Peak to Valley)			
Value	($11,440.00)	($14,600.00)	($7,900.00)
Net Profit as % of Drawdown	623.25%	325.75%	300.51%
Max. Drawdown (Trade Close to Trade Close)			
Value	($7,330.00)	($9,960.00)	($3,740.00)
Net Profit as % of Drawdown	972.71%	477.51%	634.76%
Max. Trade Drawdown	($3,590.00)	($3,590.00)	($1,440.00)

TRADESTATION

FIGURE 6: PERFORMANCE RESULTS. Applying the strategy to four-hour charts with an initial investment of $1,000 from October 21, 2002, to May 4, 2006, resulted in these values. It's not too shabby of a performance.