

## **FORWARD**

Over the last couple of weeks I have received many e-mails, and questions/comments on Forexnews.com chat/forum, about the 1 hour tunnel method we use. I want to thank all who have been kind enough to contribute their ideas regarding the tunnel method. Your questions and comments have helped considerably in creating the new 4 hour tunnel method.

I received an e-mail a few days ago from someone who commented, “I don’t understand. If I had a system that made me tons of money I wouldn’t even consider tinkering with it. Are you nuts? Why are you even bothering with a 4 hour timeframe?”

I answered him by asking if he knew what the cockroach said to a group of dinosaurs. He said, “Adapt or die.” Unable to adapt; well you know what happened to the dinosaurs. Many times throughout the years as we have tried to adapt, the changes have been mostly in the timeframe, or the addition of a filter. The longer I live away from the trading floor, the trend has been towards longer timeframes. Each time, new ideas and new methods are implemented to help us achieve greater profitability in our trading. This is no different.

The development of the new 4 Hour Momentum Tunnel is a significant departure for the Vegas team. We are changing our definition of what a “tunnel” is, and then focusing on medium-term market momentum to guide us in trading the “right” [profitable] side of the market. The lower fib numbers of 55 and 89 are eliminated from consideration in taking profits. With longer timeframes above 1 hour, you just give up way to many profitable units, representing hundreds of pips, when the trade moves.

We ultimately decided to make this file short and sweet. Therefore, it does not contain any charts. We could have easily put in about 300 charts covering many years, but we will leave it up to you to go back and get chart data from your data provider. We have provided a rough profit analysis since 1/01/2004, to give you an idea of profitability of each of the six major dollar pairs. We will talk more about this later, but let me just say now that, given the assumptions we used in calculating profits/losses on trades, this is about as bad as you can do.

### **I. INTRODUCTION**

I would like to start by saying that there is nothing wrong with our 1 hour tunnel method. With the proper risk model it produces excellent profits in forex. But, we believe it’s time to move on in a slightly different, more profitable direction. One that uses tunnels

effectively, but without the chop at the tunnel. Having said that, we are attempting to think “outside the box” and look at our technical indicators in a slightly different way.

About a week after I first introduced the 1 hour tunnel method on forexnews.com chat/forum, Vegas Jr. and I went down to MGM casino, on the Las Vegas strip, to play \$3/\$6 Texas Hold'em poker. It was on a Saturday afternoon, a typical weekend here in the desert of Southern Nevada. After about 3 hours of play we decided to quit and head home. I was up about \$25 and Vegas Jr. was up about \$75. As we passed through the casino on our way to the parking lot, Vegas Jr. noticed a crowd building near a roulette wheel. He says let's go check it out.

When we get to the table I immediately see, on the screen of recently played roulette numbers, that the last 11 numbers are ALL red. A crowd is building and, of course, they start to bet black. When 15 in a row red numbers has been achieved, there is about \$2,000 scattered on black across the table – none on red. When 20 in a row red numbers, there is about \$15,000 bet on black – none on red.

Every single person at this table [about 100 people now] is now in shock and disbelief at what they are seeing. Cries of, “It just has to be black on the next spin of the ball ...” can be heard booming nervously from those getting their asses handed to them. They bet more.

At 23 red numbers in a row, it takes the casino pit crew at this roulette table about 10 minutes just to get all the money off the table, and allow new bets to be made. We now estimate almost \$30,000 is being bet on black. Next spin – red.

At the 28<sup>th</sup> spin, the ball finally hits a black number. Any cheers of joy? Not quite. Nobody has any money left to bet. On this spin about \$50 is on black. Everybody else is dead-broke and mumbling to themselves. I look at the casino personnel working the roulette tables to gage their reactions to the above mentioned red run.

All I see are smirks. If I could read their minds, I know what I would hear first. It would start with “What a bunch of dumb asses” and proceed from there.

After the table cleared, I approached the pit boss who was watching this event unfold and asked him his reaction. “No big deal”, he says, “This happens all the time.”  
“Really?”, I say.

“Oh yea, I’ve seen it go up into the lower 30’s [numbers in a row black or red] a bunch of times. My buddy, who’s a pit boss on the night shift, says he’s seen it hit 42 once”, he says. “What’s interesting is that nobody ever, and I mean NEVER, bets with it. They all want to fade it. Oh well, better for us”, he says as he leaves me standing there and goes off to check on something.

Vegas Jr. and I don’t say a word to each other on our way to the car. We’re literally in the car 10 minutes before either of us speaks. We each separately can feel the strong parallels this event has to trading. When we talk later about this, one word comes up: MOMENTUM.

## **II. THEORY**

From the first time we used the 1 hour tunnel method [1999] to trade spot forex on an electronic platform, we have spent almost all our time thinking about its major weakness. I am, of course, referring to chop around the 144ema/169ema tunnel. Get rid of that, and you have found the “holy grail” of trading. Over the years, we have added filters and improved our risk model to enhance profitability. We have done all these things, yet at the end of a large move, we don’t have the profits we would like to have captured. We missed the major momentum of the move by taking units off at the lower fib numbers. This has to be done, though, to make up for chop around the tunnel at other times. At the end of a move we have 1 unit, when in reality we should have more. Over time, this makes a huge difference in profitability.

We think the new 4 hour method addresses these issues and makes for a better method in the long run. Specifically, it does a number of things. 1) It eliminates chop and indecision around the new 4 hour tunnel by not requiring the market to move through the tunnel to initiate a new position. The 4 hour tunnel is now used only to calculate position size and fib numbers 144, 233, and 377. 2) It tells us which side of the market is trending, requiring us to trade from the “right” [most profitable] side [long or short], eliminating low probability trades. 3) It allows for more money to be in play until the end, thereby increasing long-run profitability.

When all of these points are combined, it allows us to initiate new positions by selling rallies in bear markets, and buying dips in bull markets. As the momentum of the medium-term trend re-appears we move to take profits when it starts to decelerate, or hits a fib number [144 and 233 in less volatile pairs, 233 and 377 in more volatile pairs]. This allows for greater profits because you don’t have to wait for the market to cross the tunnel before the last units come off. By definition, the model will get you out within a few 4 hour bars of the high/low of a defined time period.

I mentioned in the forward that we are changing our definition of what constitutes the “tunnel”. The 1 hour tunnel is strictly “market price” oriented. Wherever the market goes, the EMA’s [exponential moving average] will follow respectively. The 4 hour method relies on “momentum”. The 4 hour tunnel is defined as follows:

- 1) A 55 SMA [simple moving average,  $(H + L)/2$ ], and
- 2) an 8 SMA [close only].

In addition, the 4 hour method needs a WEEKLY 21 EMA [exponential moving average,  $(H + L)/2$ ] and a 5 SMA [ $(H + L)/2$ ]. This will allow us to determine a medium-term, tradable trend. Once we have identified this trend, we initiate new positions in a currency pair from that side only.

### **III. THE 4 HOUR MOMENTUM TUNNEL METHOD**

Step 1.

Create a weekly chart [bar or candle] of a currency pair. On this chart overlay a 21 EMA [ $(H + L)/2$ ], and a 5 SMA [ $(H + L)/2$ ]. Note that the 21 period is an exponential moving average and the 5 period is a simple moving average.

Now, look at the difference between the two. As a market rises over time on the weekly chart, the 5 will rise faster relative to the 21. As the market goes down, the 5 will lose faster relative to the 21. The difference, in pips between the two, measures relative momentum of the market in real time. Each week, as long as the number of pips keeps rising [SMA 5 – EMA 21] from the previous week, the market continues in a bull run. Once a bull run loses pips [SMA 5 – EMA 21] from the previous week, it signals a medium-term top in the market. Conversely, once a bear run loses pips [EMA 21 – SMA 5] from the previous week, it signals a medium-term bottom in the market.

This now gives us [with only one week lag] a positive probabilistic model in determining which side [long or short] to initiate trades in a defined time period. We are identifying market momentum.

Step 2.

Create a 4 hour chart [bar or candle] of the same currency pair. On this chart overlay a 55 SMA [ $(H + L)/2$ ], and an 8 SMA [Close only].

Now, look at the difference between the two on your 4 hour chart. Since we are using different types of MA's and a shorter time period with a relatively longer period, the two will cross many times. We call these MOMENTUM tunnels.

So, we now take a look at the weekly chart again and determine that we are in a bull run. We then take a look at the 4 hour chart. We now know that we are looking to long the market, and that short positions will not be taken because they have been predetermined to be low probability events for large profits.

We now are looking for the 8 SMA to move lower through the 55 SMA. When it does, we carefully watch and notice when the SLOPE of the 8 SMA changes from negative to positive. It will do this when the 8 SMA stops losing value in one 4 hour bar and gains in the next. This is the 4 hour bar to initiate new long positions with 3 units [remember: units are whatever trading size you can handle. When you trade bigger, just adjust the size of the unit, not the number of units]. Stops can be placed using technicals [support/res/trendline] of the most recent 4 hour bars.

Assuming the market starts to go up, we stay long until 1) at some point in time the 8 SMA changes slope from positive to negative, at which point we exit the entire 3 unit trade, 2) the market moves up, there is no slope change, and goes to the 144 or 233 fib number from the 55 SMA line, where 1 unit is taken off, 3) the market moves up to the next fib number [233 or 377], again with no slope change, and the 2<sup>nd</sup> unit is booked.

Let's now assume that the weekly chart determines we are in a bear run. We will now be looking to initiate new short positions only.

We are looking for the 8 SMA to move higher through the 55 SMA. When it does, we carefully watch and notice when the SLOPE of the 8 SMA changes from positive to negative. It will do this when the 8 SMA stops gaining value in one 4 hour bar and loses in the next. This is the 4 hour bar to initiate new short positions with 3 units. Again, stop placement depends on technicals of the most recent 4 hour bars.

Assuming the market starts to go down, we stay short until 1) at some point in time the 8 SMA changes slope from negative to positive, at which point we exit the entire 3 unit trade, 2) the market moves down, there is no slope change, and goes to the 144 or 233 fib number from the 55 SMA line, where 1 unit is taken off, 3) the market moves down to the next fib number [233 or 377], again with no slope change, and the 2<sup>nd</sup> unit is booked.

There will be times when the slopes will change and the 8 SMA will not be above/below the 55 SMA line. In these circumstances we use only 1 ½ units to initiate a trade with the same rules above.

We are implementing this new 4 hour method with only 2 filters. The first is on the weekly chart. If the difference between the 21 EMA and the 5 SMA is > 500 pips, then the pip difference from the prior week must change by more than 10 pips, or just go lower over 2 consecutive weeks, to signal a trend change.

The second filter is on the 4 hour chart. If the 8 SMA and the 55 SMA and the market price are all within 50 pips or so of each other, we go to technicals [breakout] to continue the trade. We do this because, at this juncture, you are more likely to get the 8 SMA jumping up and down 2 or 3 pips every few bars, thus generating a false trade signal. It doesn't happen very often, but when it does, using this filter can save us money, and the market isn't really moving anywhere anyway. Therefore, a breakout of the techs makes sense to initiate a trade, if it's in the direction you are supposed to be trading.

If you now go ahead and make the charts and take a cursory look at the weekly, you should be amazed. The weekly criteria hits every single turn in the market within a couple of weeks. The fact of the matter is that the weekly difference of the EMA's **TRENDS**. It doesn't change gaining/losing unless the trend changes.

The 4 hour chart is equally powerful. A more careful look at the 4 hour will show large 4 hour bar spikes that often change the slope of the 8 SMA. The reason we chose the 8 SMA with close only, is so that we can better estimate in the next 4 hour bar period the price needed to change the slope before the period is over. Many times this will give us a huge profit advantage over waiting until the period is over.

#### **IV. ANALYSIS**

The following spreadsheet gives a rough idea of what kind of profitability you are looking at using the 4 Hour Momentum Tunnel Method. It is very important to realize what assumptions we used in calculating these numbers. The criteria was as follows:

- 1) Any trade that looked like less than 100 pips profit we totally ignored,
- 2) When taking profits we ignored fib numbers from the market price and instead used the 8 SMA line if it hit a fib number. We did this because it was much easier to calculate and took far less time than analyzing each bar on every chart with every pair. Note though, that this **REDUCES** profitability tremendously over time. The market is much more likely to hit fib numbers than the 8 SMA.

- 3) Any trade that looked like a scratch or a loss, we treated as a loss, and
- 4) After we summed up all the periods we **DOUBLED** the losses,
- 5) We used 3 units on most trades, except 1 ½ units on trades where the 8 SMA changed slope and did not cross the 55 SMA.  
This trading signal is somewhat less powerful than the original, so we reduced size accordingly.

When looking at the data, please refer to the notes on each column below the table.

	[WEEKLY]	[WEEKLY]	[WEEKLY]			PROFIT/LOSS
	<u>DATE</u>	<u>PIPS SPREAD</u>	<u>TOP / BOTTOM</u>	<u>TRADING DATES</u>	<u>TREND</u>	<u>PIPS</u>
<b>EUR/USD</b>	1/16/2004	549	TOP	1/01/04 - 1/23/04	BUY ONLY	600
	5/14/2004	198	BOTTOM	1/23/04 - 5/21/04	SELL ONLY	2,075
	7/30/2004	85	TOP	5/21/04 - 8/06/04	BUY ONLY	1,675
	10/15/2004	71	BOTTOM	8/06/04 - 10/22/04	SELL ONLY	600
	12/31/2004	539	TOP	10/22/04 - 1/07/05	BUY ONLY	1,500
	3/1/2005	83	BOTTOM	1/07/05 - 3/08/05	SELL ONLY	950
	3/25/2005	184	TOP	3/08/05 - 4/01/05	BUY ONLY	-75
				4/01/05 - 7/01/05	SELL ONLY	1,500
						<u>(DL) -1,275</u>
						7,550
<b>USD/CHF</b>	1/9/2004	530	BOTTOM	1/01/04 - 1/16/04	SELL ONLY	0
	5/14/2004	133	TOP	1/16/04 - 5/21/04	BUY ONLY	1,700
	7/23/2004	206	BOTTOM	5/21/04 - 7/30/04	SELL ONLY	350
	10/22/2004	72	TOP	7/30/04 - 10/29/04	BUY ONLY	1,000

12/10/2004	543	BOTTOM	10/29/04 - 12/17/04	SELL ONLY	900
3/18/2005	123	TOP	12/17/04 - 3/18/05	BUY ONLY	1,975
4/1/2005	105	BOTTOM	3/18/05 - 4/08/05	SELL ONLY	0
4/29/2005	80	TOP	4/08/05 - 5/06/05	BUY ONLY	525
5/13/2005	75	BOTTOM	5/06/05 - 5/20/05	SELL ONLY	0
			5/20/05 - 7/01/05	BUY ONLY	1,100
					<u>(DL) -2,325</u>
					5,225

**GBP/USD**

3/5/2004	755	TOP	1/01/04 - 3/12/04	BUY ONLY	2,300
5/21/2004	137	BOTTOM	3/12/04 - 5/28/04	SELL ONLY	2,050
7/2/2004	207	TOP	5/28/04 - 7/9/04	BUY ONLY	225
7/16/2004	197	BOTTOM	7/09/04 - 7/23/04	SELL ONLY	600
7/23/2004	224	TOP	7/23/04 - 7/30/04	BUY ONLY	-150
9/24/2004	178	BOTTOM	7/30/04 - 10/01/04	SELL ONLY	1,175
12/31/2004	625	TOP	10/01/04 - 1/07/05	BUY ONLY	3,075
2/18/2005	45	BOTTOM	1/07/05 - 2/25/05	SELL ONLY	650
3/25/2005	255	TOP	2/25/05 - 4/01/05	BUY ONLY	300
			4/01/05 - 7/01/05	SELL ONLY	2,775
					<u>(DL) -3000</u>
					10,000

**USD/JPY**

1/9/2004	292	BOTTOM	1/01/04 - 1/16/04	SELL ONLY	25
3/26/2004	44	TOP	1/16/04 - 4/02/04	BUY ONLY	750
4/23/2004	154	BOTTOM	4/02/04 - 4/30/04	SELL ONLY	150
5/21/2004	180	TOP	4/30/04 - 5/28/04	BUY ONLY	1,100
7/23/2004	61	BOTTOM	5/28/04 - 7/30/04	SELL ONLY	150
8/27/2004	77	TOP	7/30/04 - 9/03/04	BUY ONLY	75
12/17/2004	325	BOTTOM	9/03/04 - 12/24/04	SELL ONLY	1,475
1/21/2005	216	TOP	12/24/04 - 1/28/05	BUY ONLY	400
1/28/2005	210	BOTTOM	1/28/05 - 2/04/05	SELL ONLY	-75
5/13/2005	46	TOP	2/04/05 - 5/20/05	BUY ONLY	1,225
6/3/2005	58	BOTTOM	5/20/05 - 6/10/05	SELL ONLY	300
			6/10/05 - 7/01/05	BUY ONLY	1,425
					<u>(DL) -1,725</u>
					5,275

**AUD/USD**

1/30/2004	381	TOP	1/01/04 - 2/07/04	BUY ONLY	925
6/11/2004	270	BOTTOM	2/07/04 - 6/18/04	SELL ONLY	3,525
9/17/2004	71	TOP	6/18/04 - 9/24/04	BUY ONLY	900
10/1/2004	83	BOTTOM	9/24/04 - 10/08/04	SELL ONLY	-150
			10/08/04 -		
12/3/2004	325	TOP	12/10/04	BUY ONLY	725
2/11/2005	112	BOTTOM	12/10/04 - 2/18/05	SELL ONLY	550
3/18/2005	190	TOP	2/18/05 - 3/25/05	BUY ONLY	50
6/10/2005	67	BOTTOM	3/25/05 - 6/17/05	SELL ONLY	725
			6/17/05 - 7/01/05		-75

(DL) -2,250

4,875

**USD/CAD**

1/23/2004	288	BOTTOM	1/01/04 - 1/30/04	SELL ONLY	225
5/21/2004	288	TOP	1/30/04 - 5/28/04	BUY ONLY	1,475
8/6/2004	180	BOTTOM	5/28/04 - 8/13/04	SELL ONLY	1,250
8/27/2004	172	TOP	8/13/04 - 9/03/04	BUY ONLY	300
12/3/2004	603	BOTTOM	9/03/04 - 12/10/04	SELL ONLY	2,325
3/18/2005	69	TOP	12/10/04 - 3/25/05	BUY ONLY	1,225
4/15/2005	128	BOTTOM	3/25/05 - 4/22/05	SELL ONLY	-75
6/3/2005	143	TOP	4/22/05 - 6/10/05	BUY ONLY	875
			6/10/05 - 7/01/05	SELL ONLY	350

(DL) -2,475

5,475

Column 1 = currency pair

Column 2 = The date on the weekly chart where 5 SMA – 21 EMA = largest value for bull run, or date on weekly chart where 21 EMA – 5 SMA = largest value for bear run. This date is a Friday, end of week.

Column 3 = The actual difference in pips [either (5 SMA – 21 EMA) or (21 EMA – 5 SMA)] between the weekly MA's at the high.

Column 4 = Whether the signal was for a top or bottom in market.

Column 5 = From the start of 2004, the time periods the weekly signals give to the 4 Hour Momentum Tunnel Method. As you can see, there is a 1 week lag period from the weekly high/low to a new trading period. This is when the method is most vulnerable to losses.

Column 6 = The side of the market to initiate trades only.

Column 7 = The profit or loss in pips. The DL figure after each pair is the doubling of losses from the entire period. We did this just in case we made any stupid errors in analysis of the profit potential.

My partner, as well as Vegas Jr., think these numbers are way less than what anybody could achieve trading the method. Both estimate that if we had been using this new method since 1/04 we could have approached 20 – 25,000 pips in GBP/USD. I don't know, except to say that regardless it is better than the results achieved in the 1 hour method. There are fewer trades, no chop as with a **PRICE** tunnel, less losses, and more big gains when the market moves. For my money, what's not to like.

## V. RISK MODELS

I could write a book on risk models, and it could easily be 500 pages and sell for \$100. There are as many models, along with their variations, as there are wannabe traders in the world. Instead of going through conservative and aggressive scenarios, I decided just to write about the model we will initially employ. I am not suggesting you use it: I am simply presenting it for your information. You must come up with your own risk model.

Unit value: 1 unit = 500,000 base currency vs. \$US

Trade Size: 3 units per currency pair, except 1 ½ units when 4 hour chart filter kicks in.

Filters: Only the 2 mentioned earlier in the file

Stops: Will be based on technicals off of 4 hour charts.

Pairs traded: Initially only GBP/USD.

Options: Yes, will write [sell put or call] premium opposite trend off of weekly chart with 1unit, with trend change triggering covering of positions. We will sell out-of-the-money option [depending on signal, sell calls for bear signal – sell puts for bull signal] premium with expiration of 6 – 8 weeks, and look to cover 2 – 3 weeks from expiration at approximately a third of selling price.

Other: May not take off entire position at slight change in slope of 8 SMA on the 4 hour chart. Most likely scenario is to take partial profit, with stop based on technicals for remaining position.

## **VI. WHERE DO WE GO FROM HERE?**

I hope most of you reading this file can see how adaptable and flexible this method can be to your trading style. Even if you choose to trade shorter timeframes, this method can keep you on the right side of the market. It should confirm other types of analysis as well. When I sit back and think, I can see a host of scenarios some people will envision and implement. By all means, make the necessary changes to fit your trading style. This is not a one size fits all trading method. All anyone should care about is making money, and we think this will definitely help you in that objective.

For newbies to forex, or more conservative traders, you can scale back and cherry-pick the best trades. Simply use the model as your guide, and take the guesswork and emotion out of trading. You will always be buying dips in a bull run, and selling rallies in a bear run, to initiate new positions. You are letting the market tell you when it has had its little contra-trend rally/break. That, in essence, is what a MOMENTUM tunnel is all about. It creates a visual space for you to see these contra-trend opportunities as they are being created. When they turn, you can pounce on the trade, and now it's time to continue the medium-term trend. You're not going to hit every one perfect, but you will definitely get your share if you stay patient and wait for the optimum time. Even if you screw up the entry, the trend will probably make the trade a profitable one.

I hope you can see why trading MOMENTUM tunnels [4 hour] are better than trading PRICE tunnels [1 hour]. You will have less losing trades, and there is no chop around the MOMENTUM tunnel. If the market continues to go against the trend, within a very short period of time you will only have 2, possibly 3 losing trades before the weekly trend would change. This is a very acceptable tradeoff for the new information being given to you by the market: i.e. a weekly trend change. At least for us, this means closing old option positions [at just the right time], and creating new ones [at just the right time].

Remember the old trading proverb: price = information. That's exactly what's happening when you get a trend change from the weekly charts. Of course, remember that there is a lag of 1 week from knowing when the high or low reading comes, because you won't know until Friday's close if last week's reading was the high/low or not.

Let me just add, that MOMENTUM tunnels should work particularly well with other financial markets. Stock indices, oil, and interest rates should trade very profitably with the new method. Some of the currency crosses [eur/jpy, eur/gbp, eur/chf, eur/cad], in theory, should also work well. Vegas Jr. is going to look at these particular crosses in a few weeks to check them out, so I'll withhold my opinions on them until he is finished.

Finally, let me reiterate what I said in the first file [the 1 hour method]. We seek nothing from anyone in regards this method. You are free to use as much or as little of this as pleases you. If you want to call it your own that's OK with us. The entire Vegas team only wants to see you make money trading forex, and anything we can do towards that goal makes our effort worthwhile. Please feel free to contact us anytime with your questions and/or comments via e-mail. We will answer as quickly as life allows. Our e-mail address for those who may not have it is as follows:

[trafficap@hotmail.com](mailto:trafficap@hotmail.com)

Good trading everyone.

-vegas