Researching Your Markets to Determine Profit Potential

In 2008, we saw the collapse of the financial markets, as well as massive unemployment throughout the country. We also saw an influx of new traders. Professionals who had lost their jobs and decided that trading would become their new career. They were drawn to the E-Mini Indices like bees to honey and found success. After all, the markets either go up, down or sideways. If the markets were moving sideways, stay out. Pretty simple or so they thought.

Then in 2009, these same markets constricted in their daily ranges. (The daily range is determined by subtracting the daily low from the daily high.) Traders who had entered the markets in early 2008 and made money were now struggling just to breakeven. Most of the profits these traders realized in 2008 vanished and they were now scrambling to make it in their new profession. Somewhere along the way, they believed they had lost their trading edge. Did they really lose their edge or had the financial collapse changed the market briefly before resuming its original behavior? In order to understand what happened, we need to compare the average daily ranges before 2008, during 2008 and after 2008.

Figure 1 (below) shows the average daily range from January to December for the years 2002 to present. The average daily range was calculated by totaling the daily movement and dividing by the total number of trading days in the year.

Year	*Number of Trading Days*	*Average Daily Range*
2002	252	22.68
2003	252	15.14
2004	253	12.27
2005	252	11.99
2006	251	12.70
2007	254	19.81
2008	254	36.14
2009	252	21.54
2010	55	15.75

Figure 1: Average Daily Range for the E-Mini S&P 500

Comparing the average daily ranges from Figure 1 (above), we can see that the financial crisis that occurred in 2008 dramatically changed the range of the E-mini S&P 500. Prior to 2008 and after 2008, the typical daily range for the E-mini S&P 500 was about fifteen points. During the financial crisis in 2008, the extremely high volatility in the E-mini S&P 500 resulted in an average daily range of more than double the average range for the previous seven years and the following one and a half years.

To understand if this volatility was normal or just short-lived, let's make some simple comparisons. Specifically, we are going to measure the numbers of days, during 2002 to present, when the E-mini S&P 500 moved:

- Greater than twenty-five points
- Greater than thirty points
- Greater than fifty points
- Greater than seventy-five points
- Greater than one hundred points

Points	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*
>25	83	13	2	4	6	65	150	75	5
>30	43	2	0	1	1	37	123	48	1
>50	1	0	0	0	0	6	51	0	0
>75	1	0	0	0	0	0	22	0	0
>100	0	0	0	0	0	0	6	0	0

Figure 2: E-Mini S&P 500 Numbers of Days above Twenty-Five Points

Reviewing Figure 2 (above), it is evident that the E-mini S&P 500 did not generally trade above the twenty-five point threshold. We can see from the chart that volatility started to increase in 2007 and the E-mini S&P 500 began trading above the twenty-five point threshold. Volatility peaked in 2008 and by the end of 2009 volatility had started to decrease again. A more in-depth look into 2007 reveals that out of the sixty-five days that the E-mini S&P 500 did trade above the twenty-five point range, only fourteen days occurred before July 2007. Looking deeper into 2009, we discover that out of the seventy-five days when the E-mini S&P 500 traded above the twenty-five point range, only seventeen occurred after July 2009.

Unfortunately, for new traders entering the market in 2008, they entered in the midst of the volatility peak. Their trading methodology was designed for high volatility periods. Without adequate research, they were unaware of the typical movements of the E-mini S&P 500. By 2009, when volatility began decreasing, they either had to redesign their trading plan to take less profit per trade and adjust their stops accordingly or move to a new market.

For new traders, venturing into the markets can be scary. When traders move to a new market, they must set new profit targets and stops, as well as learn how a particular market moves, consider which time frames to trade, and more. If we use the approach from above, traders can determine the average daily range, set reasonable profit targets, and determine where to place stops with just a few simple comparisons. Let's take a quick look at the Euro currency future.

The Euro currency future is traded under the symbols EC or 6E and has the same tick value as the E-mini S&P 500, twelve dollars and fifty cents per tick. A point in the Euro is equal to a movement of one tick. Since most traders are familiar with the E-mini S&P 500 point system and we are comparing the Euro to the E-mini S&P 500, we have calculated the points in the tables below to equate with the E-mini S&P 500 point scale, four ticks per point.

We start by looking at the average daily range for the years 2002 to present. Figure 3 (below) shows that the Euro's volatility doubled in 2008, just like the E-mini S&P 500. Unlike the E-mini S&P 500, the Euro's volatility has not decreased substantially since 2008. Therefore, if we were to change to the Euro currency future contract, only minor adjustments in our profit targets and stops would be needed.

Year	*Number of Trading Days*	*Average Daily Range*
2002	252	20.68
2003	252	31.12
2004	253	27.70
2005	252	27.70
2006	251	23.85
2007	254	21.27
2008	254	46.97
2009	252	43.15
2010	55	35

Figure 3: Average Daily Range for the Euro currency future

Now, we can go one step further and compare how many days the Euro traded above the thresholds that we set-up for the E-mini S&P 500 beginning with how many days the Euro traded above the twenty-five point range Figure 4 (below).

Points	2002	2003	2004	2005	2006	2007	2008	2009	2010
>25	73	142	161	134	89	69	217	224	43
>30	34	84	117	90	53	35	191	189	37
>50	2	10	23	8	1	3	91	73	4
>75	0	0	0	0	0	0	30	14	0
>100	0	0	0	0	0	0	14	3	0

Figure 4: Euro Number of Days Above Twenty-Five Points

Figures 6 and 7 (below) show the actual percentages that each symbol traded above the given thresholds used in the tables above. As you can see, the E-mini S&P 500 has *not* been able to maintain consistency above the twenty-five point range. However, since 2002, the Euro typically trades above twenty-five points per day. Although the volatility has decreased slightly since 2008, the Euro has regularly traded above thirty points, sixty percent of the time.

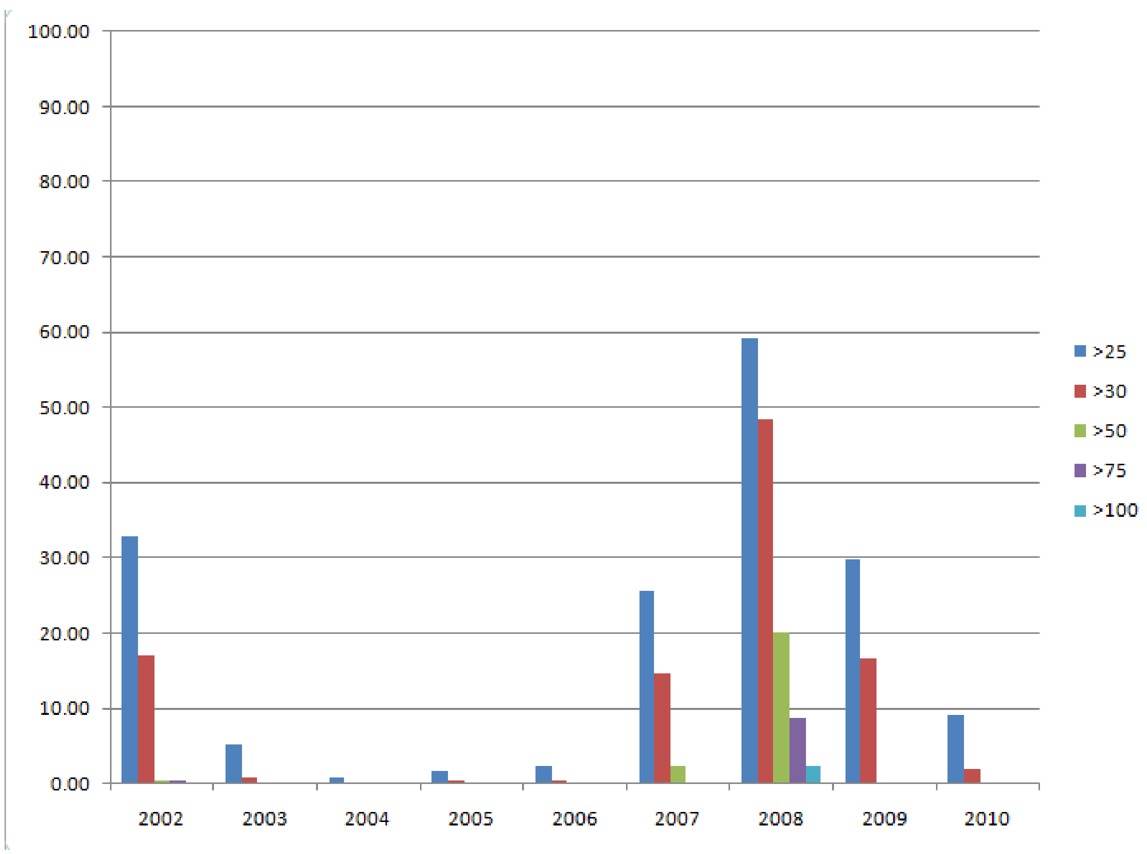

Figure 6: E-Mini S&P 500 Percentages

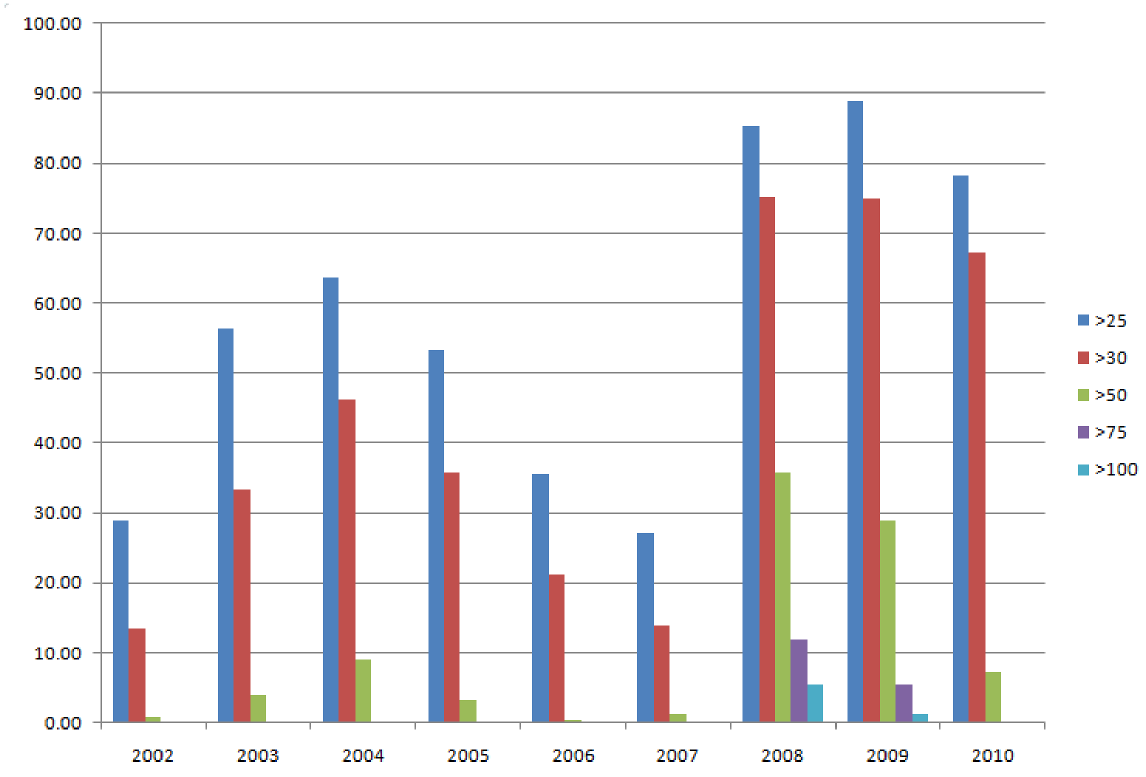

Figure 7: Euro Percentages

To determine profit targets and stops, I use a simple, yet effective method based on the average daily range. First, I find the average daily range for the last two hundred and fifty-four days then multiply this value by ten percent. I use this figure as my profit target. Then I divide the profit target by two and that determines my stop value. During the last two hundred and fifty-four days, the Euro's average daily range was thirty-eight points. Ten percent of the daily average range is three point eight. To have an even profit target number, I round up to four points. I then divide four by two and set my stop to two points. Using this method insures a 2:1 reward to risk ratio.

Traders still has the option of staying with the E-mini S&P 500. However, they would need to decrease their expectations. The average daily range for the E-mini S&P 500 in 2008 was about thirty-eight points. Using the calculation from above, a trader could expect to make about four points minimum per trade using a two point stop. The E-mini S&P range for the previous two hundred and fifty-four days is currently only eighteen points. So, a reasonable expectation for profits would be two points per trade with a stop of one point.

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