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Editor’s note: This article was originally published at Optuma’s research site and can be downloaded there.

Since I was introduced to Relative Rotation Graphs, I have been constantly playing with them and trying to see how they can give me insights into what is happening in the market. I love looking at different Asset Classes, Currencies and Portfolios. My favorite group however will always be the SP500 GICS Level 1 sectors with the SP500 as the benchmark, because I know that the total of the ten sectors must be fully encompassed by the benchmark. The ten sectors embody all the elements that can contribute to the SP500 itself. When I look at the RRG, which measures trends in relative performance of each Sector against the Index, there has to be balance in each of the axis.
Consider Figure 1; we can see the ten sectors based on their relative strength against the SP500. An immediate stand out is the Utilities (S5UTIL) way out on its own on the right (the tail shows us where it has been) while there is a group of sectors clustering on the left. Based on what I was saying before, if these ten embody all that contributes to the Index, and we consider the Index to be the very center of the chart, we can theorize that all the sectors have to be balanced around that point. If that is true, it has to follow mathematical rules as we are dealing with what can only be described as a closed universe (no other stocks are contributing to the index).

We can see that there is a group of six sectors on the left side of the vertical 100 line, that’s like a group of children on one side of a seesaw while less are sitting on the right side. Figure 2 shows that to have balance it is only possible if the bigger group of children is closer to the apex than the lone child (L₂ is smaller than Lₚₐₓ). If we are to have balance in the RRG, then we should see something similar.

As an exercise to check that we have balance, we can sum up all the negative distances from the apex (100) and the positive distances and we would expect them to be equal if it is a balanced universe. I’ve done this in a Watchlist in Figure 3. We list the RRG Ratio and then the distance that ratio is from 100. By adding groups to the Watchlist based on the Sign of the “From 100” column, the totals we get for the left side (negative numbers) is 4.1 and on the right side (positive numbers) 4.4! Hang on, that’s not balanced, we have a 7.3% discrepancy between the left and the right sides!
There is another aspect to the seesaw example that I have not been considering and I believe that it is a fundamental oversight in some Intermarket Analysis theories based on sectors (I’ll come back to that later on). The missing element may be obvious to you, but it took me a little bit of thinking to work out why the two sides were not matching. The issue was that I had always considered the ten sectors to be equal weighted, but obviously that is not the case.

Again in our seesaw example, have a look at Figure 2, you can see that the one child on his own is bigger than the 2, so not only do we need to factor in the distance from the apex but also the weight of each child (sector).

How do we do that? Fortunately, if you are using a data source like Bloomberg, we can fuse in the fundamental Market Cap of each Sector as an External Data Field and then put that into a formula to get the weight of each. Here is the formula I used to work out the sector weight as a percentage of the Sector Market Cap verses the total SP500 Market Cap.

```
MC1=DATAFIELD(FIELD=CUR_MKT_CAP);
MCBM1 = DATAFIELD(GETDATA(CODE=SPX:BLMB), FIELD=CUR_MKT_CAP);
 MC1 / MCBM1) * 100
```
Let’s have a look at this on the RRG Chart by setting our script to define the size of the Bubbles on the RRG. See Figure 4, bigger bubbles means bigger weight.

![Figure 4](image)

We can see that Utilities is a featherweight, making up just 2.9% of the total index. It can get a long way from the origin since it is so light. This chart also shows that Financials (S5FINL in the cluster on the left) and Information Technology (S5INFT) are the 300 pound gorillas of the SP500.

Now we need to include the weights in all of our calculations. All we need to do is simply add up the product of the weight with the distance to get a variable that we will call “Force”. Let’s do that in the Watchlist.
In Figure 5, you can see the weights of each sector. The last column in Figure 5 is Force which is the product of the Weight of the Sector with the distance of the RRG Ratio from the 100 apex. The sums for this become 32.05 on the left side and 32.11 on the right. Now that’s more like it! That’s a variance of 0.18% compared to 7.3% in the unweighted case.

The script for the Force column is:

```
MC1=DATAFIELD(FIELD=CUR_MKT_CAP);
MCBM1 = DATAFIELD(GETDATA(CODE=SPX:BLMB), FIELD=CUR_MKT_CAP);
RRG1 = JDKRS(INDEX=SPX:BLMB) – 100;

((MC1 / MCBM1) * 100) * RRG1
```

The result of this is that we have been able to show that the GICS Level 1 sectors are balanced in a RRG but only when we consider their relative weights. Yahoo, high 5’s all around! That’s great from a theoretical point of view, but how can we use that information? For the most part there are a couple of key lessons that we can take away from this:

First, when we do Intermarket Analysis based on sectors, we cannot consider all the sectors to be equal because clearly they are not. The heavier sectors will exert more torque the further away from the apex they are (now that will make an interesting study). In fact, examining historical sector rotations and extrapolating to today can actually be dangerous because the environment is so different. It’s like believing that you can throw your twenty-two-year-old son in the air because you did it when he was two! Let’s look at the situation twenty years ago as an example.
In Figure 6 we can see that Industrials and Consumer Discretionary are the biggest at 15% and 16% respectively. In fact, the spread between all the sectors is more evenly spread, with the smallest sector being Utilities at 6%. So at that time, with a smaller difference between Sectors, we could almost ignore the weights and treat them as equals and apply all the theories and see them hold. Today I don’t think we have that luxury. Am I saying that Intermarket Analysis should be thrown out? Not at all! It is still extremely important, in particular in determining when a sector will cease to be the outperformer. I am simply suggesting that there is another dimension that needs to be considered as part of the analysis.

There is more research that will need to be undertaken in this area.

The other big take away that impacts Portfolio Selection is that if my goal is to gain alpha over the Index, then I simply must consider the weights as part of my selections. Back to the seesaw, by virtue of his weight, to have balance the largest child cannot move too far away from the apex of the seesaw. In the same way, the largest sector (or equity in a portfolio) cannot move far from an Index (average of the portfolio) that it is contributing to. The further it moves away, the more it effects the value of the Index, dragging the Index with it. The only exception to this is when one large sector is moving in one direction and there is another large sector moving the opposite direction, maintaining the balance across the chart. That in itself presents a fantastic pairs trading opportunity, but I digress. If I want to achieve alpha, I need a base of the heaviest sectors at weight, and then layer in the lighter sectors that are improving by going overweight on them.
Since securities in the RRG tend to rotate in a clockwise fashion, when we are looking for Long-only opportunities, we are looking for securities in the chart that are moving from the negative quadrants with enough velocity to break through (watch for another Optuma Whitepaper on the Physics parallels of RRG).

Now that we are considering weight too, we can make some decisions on position sizing by going overweight on the lighter sectors since we know that they have the greatest capacity to move a long way from the index without dragging the index along. Obviously that can happen in both positive and negative directions, so they do present the greatest risk too.

On the 16th Jan 2014, Utilities (The only item showing the arrow in the RRG chart) was in one of the “perfect” RRG positions. At this point the trend of its relative performance is improving and the trajectory is showing a lot of promise. The space between the observations (the dots) being wide shows good velocity which gives confidence that it will continue on that path. The chart on the right of Figure 7 has a vertical black line corresponding to the selected date of the RRG chart (January 16th).

We have identified the sector that we are interested in, the next step is to drill into the Utilities to see what selections we can make from the sector. When we do this we need to make a choice if we are going to keep SP500 as the benchmark, or now look at each of the stocks compared to the Utilities sector Index. I prefer the latter as I am still interested in the weights of each stock as a percentage of that sector’s index and to take that same selection philosophy into the Sector. By doing this I can look for low weighted stocks that have the greatest ability to give me significant gains over the index.
Figure 9 shows the results with weights of each stock compared to the weight of the Sector.
When I look at Figure 9, the best opportunity that I see is PEG, it is in the top left quadrant, and even though there was a bit of a wobble, it is heading in the right direction and has low weight (3.3%). It is at this point that I would be opening up the chart of PEG and confirming with my other analysis techniques if I am satisfied. Figure 10 shows the performance of the stock since the 16th (Black Line).

![Figure 10](image)

PEG showing performance since 16th Jan 2014

If we fast forward to today (21st Feb 2014) and then remove all the other securities from the RRG, let’s have a look at PEG in Figure 11. I have also increased the tail length of PEG so I can see the path that it took through the RRG.

PEG out-performed as expected and even though the trend is starting to weaken, it is still very positive compared to SSUTIL Index. The little hook tells me that there may be more in store. The RRG successfully assisted me in finding a great trade. It is always interesting to bring this back to the SP500 and see how the performance has been against the Index (particularly if the SP500 is my Benchmark). Remember in Figure 1 that Utilities was out on its own? Let’s contrast that to PEG by adding PEG to that same RRG in Figure 12.

We can see that PEG outperformed the SP500 by more than the Utilities Sector but it has the same general shape as the Utilities. This makes sense since PEG was the best relative trending stock in the best relative trending Sector. The ability to drill in and make these selections is a powerful advantage for anyone who needs to make selections like these. We need
to see how this performed on an absolute basis, so let’s open the three (SPX, SSUTIL & PEG) in a Relative Comparison Chart (see Figure 13).
We can see in absolute terms that PEG out performed SSUTIL which in turn out performed the SPX. All of this was anticipated by finding the sector with the highest probability of outperforming and then within that sector finding the stock that has the highest probability of outperforming.

As with all strategies in the market, you need to test these for yourself to have confidence in them. No technique is a guarantee of success and standard trade management rules must be employed. This paper is merely presenting that RRG coupled with weights can give a different perspective in understanding both Intermarket Analysis and Portfolio Selection. If you do not have access to these charts and would like to try them for yourself, contact one of our Optuma offices and we’d be happy to help you set up a trial account so you can experiment with these charts.

About Optuma: We are passionate about financial analysis using all techniques and models. Optuma has been designed to be the ultimate analysis solution for anyone who wants to gain insights into financial markets. RRGs in Optuma have capabilities not found anywhere else including real time RRG, FX RRG and the ability to link price charts to RRGs. More Information at [http://www.optuma.com](http://www.optuma.com)
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Presenters

Mathew Verdouw, CMT, CFTe

For over 20 years, Mathew has been building the Technical Analysis software that is Optuma. Programming the models has given Mathew intimate knowledge on the theories of Technical Analysis. Working with CMTs all over the world has provided the practical implementation of how they’re used. Mathew completed his CMT designation in 2013.

Carson Dahlberg, CMT

Starting as an advisor for Morgan Stanley, then a trader at Wachovia, Carson discovered the effectiveness of Technical Analysis in managing opportunities, risk and emotions. Carson has previously taught CMT Prep courses. He serves on the MTA board, and is Chief Market Strategist for Optuma. Carson completed his CMT designation in 2008.

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WHERE THE BLACK SWANS HIDE & THE 10 BEST DAYS MYTH

BY MEBAE FABER

Editor’s note: This paper was originally published at SSRN and is available for download at that site.

Below we examine market outliers in financial markets. How much effect do these outliers have on long term performance? Can the investor prepare for these anomalies, or are they truly ‘black swans’ that cannot be managed? In this issue we examine numerous global financial markets on daily and monthly time frames. We find that these rare outliers have a massive impact on returns. However, these outliers tend to cluster and the majority of both good and bad outliers occur once markets have already been declining. We critique the "missing the 10-best-days" argument proffered by advocates of buy and hold investing, as we demonstrate that a significant majority of the 10 best days and the 10 worst days occur in declining markets. We continue to advocate that investors attempt to avoid declining markets where most of the volatility lies and conclude that market timing and risk management is indeed possible, and beneficial to the investor. (Thanks goes out to Prabhat Dalmia for his assistance with this project.)

Nassim Taleb, author of Fooled by Randomness and The Black Swan, popularized the concept of the black swan – namely, the occurrence of utterly unforeseeable events that are thought of as not being possible based on previous experiences.

Taleb defines a black swan as:

1) Outlier outside the realm of regular expectations because nothing in the past can convincingly point to its occurrence.
2) The event carries an extreme impact.
3) Explanations for the occurrence can be found after the fact, giving the impression that it can be explainable and predictable.

Many market commentators have latched on to this term to describe all financial market events. However, the existence of large outlier events known as fat-tailed distributions in financial market returns has been well documented for over 40 years (Mandelbrot 1963, Fama 1965). While the financial media have only recently re-visited the fat-tail concept (due largely to the occurrence of the internet bust in 2000-2003 as well as the global financial meltdown in 2008 and 2009), it has been a thoroughly studied field in finance over the past several decades.
Investors should realize that normal market returns are extreme. Individuals that continue to believe in the Gaussian (bell-shaped) distribution, or ignore empirical results will continue to be surprised by future events. Roughly 40% of all yearly returns in US stocks are greater than 10% or less than -10%. Bear markets are common, and markets can and do decline from 50-100%.

Financial market return distributions are similar to fractal systems that follow a power law distribution (which is useful in describing events like earthquakes and volcanic eruptions). Below is a chart from the book *The Failure of Risk Management* by Hubbard that illustrates the inability of the Gaussian models to account for large outlier moves in financial markets. In a normal distribution world a 5% decline in the Dow in a single trading day should not have happened in the past 100 years. In reality, it has happened nearly 100 times.

Unfortunately, many investors have come to the conclusion that rare events are impossible to predict, and therefore, there is nothing to do other than buy and hold their investments and wait out any negative outliers. However, this explanation simply rids the investor (advisor) of any responsibility – the fatalistic attitude becomes "it was a black swan, it's not my fault!"

In this article we examine market outliers, their effect, but more importantly when they occur and if the investor can do anything to protect against them.

While we are not going to spend much time on a literature review, the appendix has a list of books and papers on market bubbles, financial market return distributions, and investment history. The next few issues of Cambria Quantitative Research are going to expand on some of the topics mentioned here (bubbles, forecasting, etc). *Editor's note: for more information on Cambria Quantitative Research, please visit [http://www.cambriainvestments.com/research/](http://www.cambriainvestments.com/research/)*
MARKET OUTLIERS: THE 10 BEST DAYS MYTH

We first begin our examination by taking a look at market outliers in the US stock market back to 1928.

One of the most common rhetorical bulwarks in the defense of buy and hold is investing is to demonstrate the effects of missing the best 10 days in the market, and how that would affect the compounded return to investors. This is perhaps one of the most misleading statistics in our profession (another being the Brinson asset allocation study misquote). A number of academic papers have examined the effects of missing both the 10 best as well as the 10 worst days (Gire (2005) and Ahrens (2008) are two good ones).

Below we examine the S&P 500 (and the broad market predecessor) from 1928-2010. We use price history only as dividends will not have a meaningful impact on the daily return data.

![Figure 1](image)

**Figure 1**

**US Stocks Daily Returns**

<table>
<thead>
<tr>
<th>S&amp;P 500</th>
<th>ALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1928 – 2010</td>
<td></td>
</tr>
<tr>
<td>Number of Days</td>
<td>21729</td>
</tr>
<tr>
<td>Number of Years</td>
<td>86</td>
</tr>
<tr>
<td>Average Return</td>
<td>0.03%</td>
</tr>
<tr>
<td>Median Return</td>
<td>0.04%</td>
</tr>
<tr>
<td>Total Return</td>
<td>5869%</td>
</tr>
<tr>
<td>Annualized Return</td>
<td>4.86%</td>
</tr>
<tr>
<td>Annualized Volatility</td>
<td>18.34%</td>
</tr>
</tbody>
</table>

*Source: Global Financial Data*

What about the outlier returns? Below is a table for the best and worst 1% of all days, which equates to only about 2 or 3 days per year.
Since 1928 one can expect these days to occur a handful of times every year. Much to the displeasure of the fear mongering media, -4% and +4% days are fairly regular.

To really examine the blackest of swans, below is the best and worst 0.1% of all days. They occur on average only once every few years.

Days of -8% and +8% are fairly rare as are the -20% and +16% days. Exactly how big of an impact do these outliers have on performance? Massive. Below is a table that shows the annualized returns if the investor missed some of the best and worst days. If you missed the best 1% of all days your return gets crushed from 4.86% down to -7.08% per annum. However, the converse is true, if you miss the worst 1% of returns your returns explode to 19.09% a year. And take special note that if you miss both the best and worst 1% of days your return is higher than buy and hold.
Most analysts, unfortunately, stop here and throw up their hands. They proclaim buy and hold to be the only way to ensure being in the market for these best days. Because these events are so rare, and they have such a massive impact, there is infinitesimally small chance of predicting when they will occur and therefore the effort is useless. They take the ball all the way down to the five-yard line but stop there.

What are they missing?

THE HUMAN ELEMENT

Markets are a collection of humans, and being human, a collection of human emotions. Greed, fear, jealousy, pride, and envy all manifest themselves to the fullest in capital markets.

When you are making money you are thinking about the new car you are going to buy, how smart you are (and how much smarter you are than your neighbor), the vacation you are going to take, and the (2nd, 3rd, 4th) house you are going to buy. The part of the brain that is firing nonstop here is the same region that gets stimulated by cocaine or morphine.

However, when you are losing money you are probably not opening your account statements, you are thinking about how dumb you are (and how stupid you were to listen to your neighbor), how you are going to pay for that second house, and you likely feel significant revulsion to even thinking about investing. The brain processes portfolio losses in the same region that is stimulated by the flight response.

For a longer discussion on your behavioral biases check out the appendix as well as this great Andrew Lo video “Technical Analysis: An Academic Perspective”. To demonstrate this effect Table 4 examines the returns, but more importantly the

### Table 4: Returns

<table>
<thead>
<tr>
<th>Event</th>
<th>1% Return</th>
<th>0.1% Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss Worst 1%</td>
<td>19.09%</td>
<td>7.42%</td>
</tr>
<tr>
<td>Miss Best 1%</td>
<td>-7.08%</td>
<td>2.48%</td>
</tr>
<tr>
<td>Miss Both 1%</td>
<td>5.48%</td>
<td>4.98%</td>
</tr>
<tr>
<td>Miss Worst 0.1%</td>
<td>4.98%</td>
<td>2.48%</td>
</tr>
<tr>
<td>Miss Best 0.1%</td>
<td>7.42%</td>
<td>4.98%</td>
</tr>
<tr>
<td>Miss Both 0.1%</td>
<td>19.09%</td>
<td>7.42%</td>
</tr>
<tr>
<td>All Days</td>
<td>4.86%</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Global Financial Data*
volatility when the market is appreciating versus declining (as defined as above or below the 200 days simple moving average).

What about the outliers -- where do they occur? The vast majority, roughly 60-80%, of the best and worst days occur after the market has already started declining. The simple reason is that markets are more volatile when they are declining, and when the really volatile events and days occur they tend to cluster together.

Our central argument is that returns improve and volatility is reduced when an investor is invested in uptrending markets thus avoiding the volatility and clustering of best and worst days inherent in declining markets. As you can see in Figure 5, in declining markets returns are much lower and volatility is much higher.
Mandelbrot provides an insightful passage on volatility clustering and timing in his book *The Misbehavior of Markets*:

“What matters is the particular, not the average. Some of the most successful investors are those who did, in fact, get the timing right.”

This effect also plays out on the monthly timeframe as well. For a look at other markets including real estate, bonds, and foreign stocks on the monthly timeframe back to 1972 you can view a blog post here titled “Your Irrational Brain”.

**EVIDENCE IN FOREIGN MARKETS**

Any investment property or anomaly should be demonstrable in most if not all markets otherwise the results are likely from data mining and spurious. Estrada (2007) examined the evidence from 15 international markets and finds that “on average across all 15 markets, missing the 10 best days resulted in a portfolio 50.8% less valuable than a passive investment; and avoiding the 10 worst days resulted in a portfolio 150.4% more valuable than a passive investment.” He then goes on to the conclusion that “given that 10 days represent less than 0.1% of the days considered in the average market, the odds against successful market timing are staggering.”

Below we recreate the prior tables with the Estrada dataset updated through 2010. We find similar statistics to the US data, namely, a small amount of outliers has a massive impact on performance and the best and worst outliers tend to cluster when the market is already declining. However, if you miss the best and worst days in every case your compound return is higher than buy and hold.

### Missing the Best and Worst Days, Various Dates

<table>
<thead>
<tr>
<th>Country</th>
<th># of Days</th>
<th># of Years</th>
<th>Annualized Return</th>
<th>Miss 1% Best Days</th>
<th>Miss 1% Worst Days</th>
<th>Miss Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>13278</td>
<td>52</td>
<td>6.79%</td>
<td>-1.40%</td>
<td>17.56%</td>
<td>8.56%</td>
</tr>
<tr>
<td>Canada</td>
<td>8761</td>
<td>34</td>
<td>7.73%</td>
<td>-1.55%</td>
<td>20.46%</td>
<td>10.11%</td>
</tr>
<tr>
<td>France</td>
<td>10477</td>
<td>41</td>
<td>6.51%</td>
<td>-4.20%</td>
<td>19.79%</td>
<td>7.75%</td>
</tr>
<tr>
<td>Germany</td>
<td>12932</td>
<td>51</td>
<td>4.06%</td>
<td>-7.47%</td>
<td>17.90%</td>
<td>4.86%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>10110</td>
<td>40</td>
<td>12.61%</td>
<td>-6.80%</td>
<td>38.06%</td>
<td>14.28%</td>
</tr>
<tr>
<td>Italy</td>
<td>9766</td>
<td>38</td>
<td>5.20%</td>
<td>-6.41%</td>
<td>20.90%</td>
<td>7.50%</td>
</tr>
<tr>
<td>Japan</td>
<td>15296</td>
<td>60</td>
<td>5.52%</td>
<td>-5.27%</td>
<td>18.97%</td>
<td>6.32%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>10158</td>
<td>40</td>
<td>4.90%</td>
<td>-2.86%</td>
<td>14.63%</td>
<td>6.16%</td>
</tr>
<tr>
<td>Singapore</td>
<td>10607</td>
<td>42</td>
<td>7.83%</td>
<td>-3.37%</td>
<td>21.33%</td>
<td>8.74%</td>
</tr>
<tr>
<td>Spain</td>
<td>9056</td>
<td>35</td>
<td>6.33%</td>
<td>-4.99%</td>
<td>19.97%</td>
<td>7.20%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>10451</td>
<td>41</td>
<td>4.41%</td>
<td>-4.70%</td>
<td>16.32%</td>
<td>6.19%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>12207</td>
<td>48</td>
<td>9.70%</td>
<td>-3.90%</td>
<td>26.87%</td>
<td>11.17%</td>
</tr>
<tr>
<td>Thailand</td>
<td>8800</td>
<td>34</td>
<td>7.78%</td>
<td>-7.63%</td>
<td>25.93%</td>
<td>7.93%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>10583</td>
<td>41</td>
<td>7.70%</td>
<td>-2.79%</td>
<td>19.94%</td>
<td>8.26%</td>
</tr>
<tr>
<td>United States</td>
<td>21530</td>
<td>85</td>
<td>4.63%</td>
<td>-7.36%</td>
<td>18.92%</td>
<td>5.30%</td>
</tr>
</tbody>
</table>

*Source: Global Financial Data*
The volatility clustering below the long term moving averages confirms the United States results, and on average 76% of the worst days and 67% of the best days occur after the market is already declining. Lengthy summaries on all of the foreign markets are in the appendix.

**CONCLUSIONS**

For those investors pondering how they can attempt to avoid these highly volatile periods in markets, we invite you to download a few of our other white papers here: “*A Quantitative Approach To Tactical Asset Allocation*” and “*Relative Strength Strategies for Investing*”.

Astute market analysts must also realize the drawbacks and downsides of any indicator or investment approach. In the case of a trend-following approach there are two main drawbacks. First, in trendless markets whipsaws can occur that have negative effects on the portfolio. Second, and perhaps more important, a trend-following approach does not guarantee the investor from missing a black swan event in an uptrend. A very sharp move against the trend will not allow the investor or model time to react and protect against such a move. Investors looking for protection against this sort of event can use derivatives such as options to protect the portfolio when fully invested (so-called tail risk insurance), or consequently, to gain long exposure when mostly in cash and bonds (risk of missing out). This process could be a net cost (insurance) to the portfolio.

That is the point of risk management – understanding and trying to account for as many risks as you can.

**SUMMARY:**

1. The stock market historically has gone up about two-thirds of the time.
2. All of the stock market return occurs when the market is already uptrending.
3. The volatility is much higher when the market is declining.
4. Most of the best and worst days occur when the market is already declining. Reason: see #3. Markets are much riskier than models assuming normal distributions predict.
5. The reason markets are more volatile when declining is because investors use a different part of their brain making money than when losing money.


Meb Faber, CMT, is co-founder and the Chief Investment Officer of Cambria Investment Management, and author of *five books*. 
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CURRENT STATUS (Second Quarter 2016)

The second quarter was another period of vulnerability and resilience. The net effect of the stock market’s gyration added 1.9% to the year’s total. As a result, normalized P/E increased slightly to 26.7—well above the level justified by low inflation and interest rates. The current status remains “significantly overvalued.”

The level of volatility stalled over the past quarter, yet the trend appears to remain upward. The trend in actual and forecast earnings continues to slide. Earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting a vulnerable market.

NOTE: Crestmont Research does not analyze the stock market or interest rates with a perspective about near-term direction or trends; Crestmont Research focuses on a longer-term, bigger picture view of market history and its fundamental drivers. Occasionally, the analysis indicates that a position has extended beyond the typical range of variation. In those times, the view can have relatively shorter-term implications. Also in those times, however, markets
can take a path that is longer and farther than most investors expect before ultimately being restored toward the midrange position of balance of condition.

THE BIG PICTURE

The P/E ratio can be a good measure of the level of stock market valuation when properly calculated and used. In effect, P/E represents the number of years’ worth of earnings that investors are willing to pay for stocks. Although we will discuss later the business cycle and its periodic distortion of “reported” P/Es, most references to P/Es in this report will relate to the normalized P/E that has been adjusted for those periodic distortions.

Stocks are financial assets which provide a return through dividends and price appreciation. Both dividends and price appreciation are generally driven by increases in earnings. Despite the hope of some pundits, earnings tend to increase at a similar rate to economic growth over time.

Historically (and based upon well-accepted financial and economic principles), the valuation level of the stock market has cycled from levels below 10 times earnings to levels above 20 times earnings. Except for bubble periods, the P/E tends to peak near 25 (the fundamental limitations to P/E are discussed in chapter 8 of Unexpected Returns). Figure 1 presents the historical values for all three versions of the P/E discussed in this report.
The P/E cycle is driven by the inflation rate, the loss of purchasing power of money and capital. During periods of higher inflation, investors want a higher rate of return to compensate for inflation. To get a higher rate of return from stocks, investors pay a lower price for the future earnings (i.e. lower P/Es). Therefore, higher inflation leads to lower P/Es and declining inflation leads to higher P/Es.

The peak for P/E generally occurs at very low and stable rates of inflation. When inflation falls into deflation, earnings (the denominator for P/E) begins to decline on a reported basis (deflation is the nominal decline in prices). At that point, with future earnings expected to decline from deflation, the value of stocks declines in response to reduced future earnings—thus, P/Es also decline under deflation.

Therefore, for this discussion, assume that there are three basic scenarios for inflation: rising, low, and deflation. As discussed above, rising inflation or deflation causes the P/E ratio to decline over an extended period which in turn creates a secular bear market. From periods of higher inflation or deflation, the return of inflation to a lower level causes the P/E ratio to increase over an extended period thereby creating a secular bull market.

Secular bull markets can only occur when P/E ratios get low enough to then double or triple as inflation returns to a low level. As a result, secular market cycles are not driven by time, but rather they are dependent upon distance—as measured by the decline in P/E to a low enough level to then enable a significant increase.

**Cyclical vs. Secular**

The current normalized P/E is 26.7—well above the levels justified by low inflation and interest rates (assuming historically-average economic growth). BUT, secular markets are driven by longer-term annual trends rather than momentary market circumstances.

The secular analysis for each year relates to the average index across the year; so for each year, the price (P) in P/E (price/earnings ratio) is the average index for all days of the year. The stock market has recovered well beyond its declines from late 2008 and early 2009; therefore, it’s now fairly clear that the period in late 2008 and early 2009 was just a cyclical (short-term) bear market blip within a longer secular bear market. Of course, that makes the period since early 2009 a cyclical bull market inside a secular bear market (it has happened many times before).

If the stock market does not recover further or cannot sustain the recovery gains from the past five years due to significant inflation or deflation, the normalized P/E over the next few years will likely decline below the historical average and the foundation for a secular bull market would begin to be laid. Secular market cycles are not driven by time, but rather they are dependent upon distance.
We’re in a period with many daily (often hourly) points that represent pixels in the market’s picture. The short-run trends (the cyclical cycles) of the market are hard to predict. Without extraordinary powers of clairvoyance, the best plan is a diversified, non-correlated portfolio with a few engines to counterbalance the weaker components of the portfolio.

BACKGROUND & DETAILS

As described further in “The Truth About P/Es” in the Stock Market section at www.CrestmontResearch.com, P/E ratios can be based upon (a) trailing earnings or forecast earnings, (b) net earnings or operating earnings, and (c) reported earnings or business cycle-adjusted earnings.

(a) The historical average for the normalized P/E is 16.3 based upon reported tenyear trailing real earnings (i.e., the method popularized by Robert Shiller at Yale). The ultra-high P/Es of the late 1990s and early 2000s were high enough and lasted long enough to significantly distort what we now know to be the average P/E. If those years are excluded, the normalized P/E is just over one multiple point lower (i.e., approx. 15.1). Further, if forecast earnings is used, the average normalized P/E would be reduced by approximately one multiple point to near 14.

[Note that the average reported P/E from 1900 to 2013, unadjusted for the business cycle and adjusted for the late 1990s bubble, is near 16. As reported P/E has spiked due to temporary earnings declines to distorted levels over 100. Such significant distortions in P/E distort the average. Excluding P/Es over 50 reduce the average to near 15. Further removing an equal number of more extreme high and low values, the average settles near 14.5. There is no single “right” average for P/E, yet a value near 15 would be representative for the average historical As Reported P/E.]

(b) Substituting trailing operating earnings for trailing net earnings would further reduce the normalized average P/E by almost three points to 12.

(c) Although the effect of the business cycle is muted in longer-term averages, the currently-reported P/E varies significantly due to the business cycle (more later).

It is important to ensure relevant comparisons—that is, P/Es that are based upon trailing reported net earnings should only be compared to the historical average near 15. When ten years of real net earnings is used in P/E (i.e., Shiller P/E10), the relevant average is close to 15.5 (i.e., somewhere between 16+ using all years and ~15 excluding extreme high years).

Too often, writers and analysts compare a P/E that is based upon forecast operating earnings to the average for trailing reported net earnings. Although long-term forward operating earnings data is not available, the appropriate P/E for that comparison would be closer to 11-12, depending upon the period that is used in the average (2-3 pts. lower for operating vs. reported and 1-2 pts. for forward vs. trailing; the combination is 3-4 pts.).
Yet the most significant distortion from quarter-to-quarter or year-to-year is due to the earnings cycle, or as some refer to it, the business cycle.

**The Business Cycle**

As described further in “Beyond The Horizon: Redux 2011”, “Back To The Horizon”, and “Beyond The Horizon” in the Stock Market section at www.CrestmontResearch.com (and in more detail in chapters 5 and 7 of *Probable Outcomes: Secular Stock Market Insights*), corporate earnings progresses through periods of expansion that generally last two to five years followed by contractions of one to two years. The result of these business cycles is that earnings revolves around a baseline relationship to the overall economy. Keep in mind that the business cycle is distinct from the economic cycle of expansions and recessions.

![Figure 2. EPS: S&P 500 Companies (1950 to Present)](image)

For example, looking back over the past six decades, Figure 2 presents the annual change in earnings historically reported by the S&P 500 companies and forecasted by Standard & Poors. This graph highlights the surge and decline cycle of earnings growth that is driven by the business cycle.

When the reported amount of earnings is viewed on a graph, the result is a generally upward sloping cycle of earnings growth. Since earnings (“E”) grows in a relatively close relationship to economic growth (GDP) over time, there is a longer-term earnings baseline (as discussed in chapter 7 of *Unexpected Returns*) that reflects the business cycle-adjusted
relationship of earnings to economic growth (GDP). Figure 3 presents actually reported E for the S&P 500 over the past four decades compared to the longer-term baseline.

Why does this matter? Because if you only look at the P/E ratio reported for any quarter or year, the ratio (with such a volatile “E” as the denominator) will be quite distorted during peaks and troughs when compared to the more stable long-term average. About every five years or so, the reported P/E will reflect the opposite signal rather than a more rational view of P/E valuations. For example, the reported value for P/E in early 2003 reflected a fairly high value of 32 just as the S&P 500 Index had plunged to 800 (E had cycled to a trough of $25 per share). A P/E of 32 generally screams “sell” to most investment professionals; yet, in early 2003, that was a false signal! A more rational view using one of the business cycle-adjusted methods reflected a more modest 18. In a relatively low inflation and low interest rate environment, the scream should have been “Buy”...

Several years later, in 2006 (after an unusually-strong run in earnings growth), E peaked at $82 per share as the S&P 500 Index was hesitating at 1500. Most market pundits were recommending a strong “buy” due to a calculated P/E of only 17. Yet, using the rational business cycle-adjusted methodologies, the true message was “STOP”—P/Es were saying sell, with P/E more than 25.

Well the pundits were actually (sort of) right—P/Es did expand... Yet it was due to (what should have been expected) the normal down-cycle in E rather than the pundit-promoted increase in the stock market. So when investors’ stock market
accounts were down almost 50%, they were handed explanations that the earnings decline was unexpected and the fault of the financial sector...

Many of the same pundits are now excited by current market conditions and again confident about the current level and future of E. Maybe this time will actually be different...or maybe not...

As for the market and P/E, it’s understandable that conservative investors and market spectators have watched the past five years with awe. Even so, the current momentum remains upward. Nonetheless, it is important to remain aware that typical market volatility makes it also likely that the market will experience significant short-term swings.

METHODS

To adjust for the variability of earnings across business cycles, a rational methodology is needed to reduce distortions and provide a normalized reading about the long-term level and trend in earnings. The most recognized methodology is the one popularized by Robert Shiller (Yale) in Irrational Exuberance and on his website. To smooth the ups and downs in earnings, his methodology creates an average of the reported earnings for the past ten years. To eliminate the effect of inflation, all earnings values are adjusted-forward and increased by the impact of inflation. The result is a ten-year average for E. Using the current stock market index value, we have a more rational view of the current P/E valuation of the stock market.

For historical values, whether it relates to a month or a year in the past, Shiller also adjusts the stock index value by averaging the closing price for each day during the period. The stock index adjustment reduces historical distortions caused by significant intra-period swings by the market.

Crestmont has developed a complementary methodology—one that is fundamentally-based—that produces similar results, yet also provides forward-looking insights. The approach is explained further in Chapter 7 of Unexpected Returns, yet in summary, it uses the close and fundamental (not coincidental) relationship between earnings per share ("E") and gross domestic product (GDP) to adjust for the business cycles. The baseline E for each period essentially is based upon mid-point values for E across the business cycle—peak and trough periods of actual earnings reports are adjusted back to the underlying trend line to reduce the intra-cycle distortions.

The historical relationship between Crestmont and Shiller is similar, as reflected in Figure 4, yet the Crestmont approach provides an estimate of the expected level of E based upon future economic growth (which has been fairly consistent over time). Also, by comparing reported E to baseline E, analysts and investors have a better understanding of the current position in the business cycle and magnitude of divergence above or below the long-term trend.
DISTANCE, NOT TIME

Secular bull markets can only occur when P/E ratios get low enough (due to high inflation or significant deflation) to then double or triple as inflation returns to a low level. As a result, secular market cycles are not driven by time, but rather they are dependent upon distance— as measured by the decline in P/E to a low enough level to then enable it to have a significant increase.

The table that follows in Figure 5 provides a representation of the ‘distance’ that would be required to reposition for a secular bull market. The scenario presents the typical historical starting point for secular bulls (i.e. P/Es below 10).

Note that this analysis does not include the dynamic of ‘time’. As we continue forward in time, the normalized level of earnings (“E”) will increase and naturally close the gap without the declines presented below.

This is not a prediction—maybe we can avoid a move to lower P/Es and keep this secular bear in hibernation. The result, after recovering from the recent cyclical bear market, would be approximately 6% total returns from the stock market including inflation; yet, it would avoid the devastatingly-low returns marked by full secular bear markets (see “Waiting For Average” at www.CrestmontResearch.com for a tally of the future expected return).
Nonetheless, since one of the most common questions is “when will this secular bear market end,” the table in Figure 5 seeks to answer that question and to highlight that secular market cycles are determined by ‘distance’ and not by ‘time’.

**Figure 5. Distance To The Next Secular Bull?**

<table>
<thead>
<tr>
<th>AS OF: JUN 30, 2016</th>
<th>ADJUSTED¹</th>
<th>CRESTMONT²</th>
</tr>
</thead>
<tbody>
<tr>
<td>“P” Closing Price (S&amp;P 500 Index)³</td>
<td>2099</td>
<td>2099</td>
</tr>
<tr>
<td>“E” Current Estimate (S&amp;P 500 EPS)⁴</td>
<td>$81</td>
<td>$79</td>
</tr>
<tr>
<td>P/E Price/Earnings Ratio⁵</td>
<td>26.1</td>
<td>26.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Historical Secular Bull Start</th>
<th>10.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implied S&amp;P 500 Index</td>
<td>806</td>
</tr>
<tr>
<td>Distance Away</td>
<td>-62%</td>
</tr>
</tbody>
</table>

Notes 1-5: see footnotes in Figure 1

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**POTENTIAL DISTANCE**

As reflected in Figure 6, the current level of stock market valuation, as reflected in the P/E, provides the potential for relatively-attractive gains if financial markets stabilize, economic growth continues on average at historical growth rates, and inflation remains relatively low. A P/E of 22.5 is used as a mid-range for P/Es in low inflation and low interest rate environments with historically average economic and earnings growth.

**Figure 6. Stock Market Gain/Loss To Low Inflation P/E Levels**

<table>
<thead>
<tr>
<th>AS OF: JUN 30, 2016</th>
<th>CRESTMONT²</th>
</tr>
</thead>
<tbody>
<tr>
<td>“P” Closing Price (S&amp;P 500 Index)³</td>
<td>2099</td>
</tr>
<tr>
<td>“E” Current Estimate (S&amp;P 500 EPS)⁴</td>
<td>$79</td>
</tr>
<tr>
<td>P/E Price/Earnings Ratio⁵</td>
<td>26.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3-Year Restoration (1Q2019)</th>
<th>P/E</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected Normalized EPS¹</td>
<td>22.5</td>
<td>$89</td>
</tr>
<tr>
<td>Implied S&amp;P 500 Index</td>
<td></td>
<td>2004</td>
</tr>
<tr>
<td>Annual Compounded Gain</td>
<td></td>
<td>-1.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5-Year Restoration (1Q2021)</th>
<th>P/E</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected Normalized EPS¹</td>
<td>22.5</td>
<td>$97</td>
</tr>
<tr>
<td>Implied S&amp;P 500 Index</td>
<td></td>
<td>2178</td>
</tr>
<tr>
<td>Annual Compounded Gain</td>
<td></td>
<td>0.7%</td>
</tr>
</tbody>
</table>

Notes 1-5: see footnotes in Figure 1

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OUTLOOK

The outlook may be uncertain, but that does not make it unpredictable. The current secular bear could remain in hibernation. The inflation rate could remain low and stable, thereby sustaining P/E in the range of 20 to 25. The current secular bear could succumb to a period of higher inflation or deflation, thereby P/E declines to levels associated with the end of typical secular bears (at or below 10). Alternatively, P/E might begin to migrate along its secular bear course, only to arrive near its historical average around 15. The outlook may be uncertain, yet we can assess the range of potential outcomes using these three scenarios.

Consistent with a foggy crystal ball, the horizon is likewise variable. Some people may want to see the impact of a fast path (say, 5 years), while others may take a somewhat longer view of a decade or more.

The result is a forecast providing a matrix of outlooks based upon your assumptions. Pick your time, pick your ending P/E, and add in dividend yield for the expected total return from the stock market. Figure 7 shows that secular bear markets are periods of below-average returns. The magnitude of the annualized return (or loss) depends upon the investor’s time period. Most notably, however, is that none of the scenarios provide average or above-average returns. As history has shown, average or above-average returns cannot occur from levels of relatively high valuation without the multiple expansion of a rising P/E. From today’s lofty levels, bubble conditions would be required...and that’s not a reasonable assumption for any investor’s portfolio.

CONCLUSION

Today’s P/E is 26.7; the stock market remains in secular bear market territory—clearly above the mid-range of fair value assuming a relatively low inflation and low interest rate environment. It is historically consistent for secular bear markets
to present shorter-term periods of strong returns (cyclical bull markets) followed by periods of market declines (cyclical bear markets).

The only way to reposition into a secular bull market is to experience a decline in the stock market due to significant inflation or deflation. This can occur either by a significant decline over a short period of time (e.g. the early 1930s secular bear market) or by minimal decline over a longer period of time (e.g. the 1960s-1970s secular bear market).

This report assesses the current valuation level in the context of the longer-term market environment. The goal is to help investors and market spectators to assess more quickly the current conditions.

In this environment, as described in chapter 10 of *Unexpected Returns*, investors should take a more active “rowing” approach (i.e. diversified, actively managed investment portfolio) rather than the secular bull market “sailing” approach (i.e. passive, buy-and-hold investment portfolio over-weighted in stocks).

Author’s Note: For readers that are interested in the topics included in the report and elsewhere at CrestmontResearch.com, please note that the book *Probable Outcomes: Secular Stock Market Insights* provides greater detail about normalizing EPS and P/E than was presented in *Unexpected Returns*. *Probable Outcomes* was written to answer two recently popular questions. First, is this secular bear market almost over? Second, what are the likely returns from the stock market over the decade of the 2010s? For more details, please visit www.ProbableOutcomes.com.

Ed Easterling is the author of Probable Outcomes: Secular Stock Market Insights and the award-winning Unexpected Returns: Understanding Secular Stock Market Cycles. He is currently president of an investment management and research firm. In addition, he previously served as an adjunct professor and taught the course on alternative investments and hedge funds for MBA students at SMU in Dallas, Texas. Mr. Easterling publishes provocative research and graphical analyses on the financial markets at www.CrestmontResearch.com.
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In today’s issue, you’ll read how desperately Japan has been trying to shed the “deflationary curse” it’s been haunted by for decades. Well, the US doesn’t have that problem. In fact, I think our period of deflation has just ended.

Japan: It’s Getting Interesting.

Shinzo Abe scored a decisive victory in the upper house elections a few nights ago.

Let me explain why that is not boring.

Abenomics was conceived in 2012 as a way to combat Japan’s never-ending deflation and pseudo-depression. It included a truly massive program of quantitative easing, which involved the printing of yen to buy all sorts of assets—including stocks!

Abenomics has continued for four years, with mixed results.

Stocks are up about 150%, interest rates are negative, and the yen is appreciably weaker. But there is still no economic growth.
Hence the title of this piece.

So has Abenomics helped?

It might have, if Japanese retail investors owned stocks. But they really don’t—foreign ownership of Japan’s equity market is quite high.

Low interest rates might have sparked off a residential construction boom, but they didn’t—because there is nobody to build houses for. Japan suffers from chronic depopulation, as the birth rate is well below the replacement rate.

**The Economics of Depopulation**

I say this a lot, but I will say it quite explicitly here: The Earth has experienced explosive population growth for decades, but the rate of growth is slowing, and before long, we will have reached peak population, and the number of people on this planet will actually be declining.

I imagine it will happen faster than people think.

The Malthusians were discredited years ago, but they are really discredited now. What are they going to say when the planet is depopulating?
That may be great for the environment, but the economics of the situation are not so clear. You see, the whole profession of economics was conceived and practiced during periods of rising population. It’s easy to get economic growth when your population is increasing. More people working produce more output.

Let’s review, again, how you get economic growth:

- More people working
- Same number of people working more hours
- Productivity increases

If you have fewer people working, the remaining people have to either work longer, harder, or more efficiently to get the same level of output. Ain’t happening in Japan.

So economics as an academic discipline gets quite weird when the population drops, because declines in output, otherwise known as GDP, become the norm, rather than the recessionary exception.

Japan is basically in recession all the time, except for brief intervals. On a per capita basis, they aren’t necessarily getting poorer—and perhaps that is what people should focus on—but strictly speaking, yes, as long as Japan’s population keeps going down, there is really no way to reverse the deflation.

Enter Abenomics, which has caused the BOJ to print massive amounts of yen and to take all sorts of assets onto its balance sheet. With the trillions of extra yen floating around the banking system, you might think you would get inflation. But not yet—money velocity continues to plummet. So Japan is caught in this vicious cycle of deflation and QE.

Meanwhile, the government debt continues to be effectively monetized (taking the primary dealers out of the equation would accomplish just that).

Someone said on Twitter recently (and I am paraphrasing), “Japan is the biggest hyperinflation risk in the world, and USDJPY is only at 100?”

Makes no sense.

**The One Currency That Could Go to Zero**

Remember [The Dillian Loop](editor’s note: reprinted below this article) as it applies to Japan:

Japan does quantitative easing.

If it works, it is declared a success and they do more.
If it doesn’t work, it means they need to do more.

Right now it’s not really working, so they’re going to do more.

It is possible that the BOJ will print an infinite amount of yen. The helicopter drop is being seriously discussed.

I don’t care what you think of the dollar or the euro or the pound or the Swiss franc—you print an infinite amount of a currency; it is going to decline in value.

I was about to say that it was an easy trade, but it hasn’t been an easy trade over the last 12 months. The yen has rallied massively as the market had serious concerns over the political will in Japan to truly reflate.

But after the election, there should be no doubt about the political will. They are going to reflate.

Full disclosure: I am short the yen and I own DXJ, and I have been in those positions since 2012.

If you are a yen bull, you should be very, very nervous about these election results.

The Dillian Loop

I’ve always wanted a cognitive bias named after me. There is probably already a name for this, but it’s hard to search for these things on Google.

So let’s take Japan, for example. Japan does quantitative easing.
• If it works, it is declared a success and they do more.
• If it doesn’t work, it means they need to do more.

Japan has done a lot of quantitative easing.

I’ll give you another one. Dodd-Frank was really meant to prevent bond traders from earning a million dollars. It has been successful, but as an unintended consequence, it has reduced liquidity. Now the SEC is regulating mutual funds even more to address the liquidity problems.

If the regulations work, they are declared a success and they write more regulations.

If they don’t work, it means they need to have more regulations.

You find many examples of these negative feedback loops in today’s markets.

Policymakers will keep doing the same dumb stuff even though it makes the problem worse. It is like they are stuck in some recursive do-loop in Applesoft Basic. I will call this The Dillian Loop.

Why This Happens

There are a couple of reasons why this happens. The biggest is that policymakers hate losing face more than anything. They are unwilling to admit that a course of action is bad, so they will keep slamming on the square peg to get it in the round hole over and over again until the hammer breaks.

There are countless more examples. Raising taxes raises progressively less revenue, so consequently, you raise taxes even more. You keep doing what doesn’t work, even if it doesn’t work.

This is allegedly an Einstein quote: “The definition of insanity is doing the same thing over and over again and expecting a different result.”

The problem is, there are no controlled experiments in finance. Japan will never know how things would have worked out without Abenomics. Publicly, they will say it would have been worse. But there is no way to know!

After all, see how Depression-era history is taught in the United States. The New Deal saved the world. What if we didn’t have the New Deal? Maybe things would have been better? After all, the crash happened in 1929 and the economy didn’t recover until 1946. Warren Harding’s response to the (very severe) recession of 1921 was to do nothing, and the economy recovered in less than two years.

Interventionism is always praised after the fact. Nobody ever says doing nothing did something.
So the second aspect of this is that policymakers need to be seen *doing something*. They can’t be seen doing nothing, because that would mean they are not doing their job, even if their job might be staying out of the way. The concept of *laissez-faire* seems pretty quaint nowadays.

Japan is dealing with some pretty serious consequences of its interventionism. JGB yields dropped 25 basis points in a day, flattening the yield curve and rendering the banks possibly insolvent (and then went back up 24 hours later).

The Dillian Loop is really just an elaborate argument for laissez-faire, the idea that constant interventionism in a complex system yields results that are highly unpredictable and often deleterious. In this writer’s opinion, the best possible response to the housing crash, the financial crisis, the Great Recession, would have been to do—nothing.

**Liquidity Gone, Never to Return**

Back when I was trading 10 years ago, liquidity was abundant. You could sell infinite amounts of stuff without having any impact at all. Bond desks nowadays are reduced to trading odd lots and sitting around the rest of the time, while compliance reads their email.

You can regulate the markets a million different ways, but the last thing you want to do is screw with liquidity (a financial transactions tax would reduce what’s left of the capital markets to rubble). The government doesn’t realize that it alone is responsible for the liquidity problems and that additional regulation will only serve to reduce liquidity even more.
wouldn’t be surprised if 40 Act high yield mutual funds disappeared in a few years, which by the way, would mean a higher cost of capital for everyone.

That can’t possibly have any negative economic consequences.

But since we are caught in the Dillian Loop, what is the chance that we will get out of it? I’d say very slim. I’d say we could easily spend another 10-20 years in the Dillian Loop. The only thing that gets you out of the Dillian Loop is when you reach rock bottom, the point of maximum pain, and people are so disgusted with years of ineptitude that they are willing to try something different.

They might even get so desperate they will try capitalism.

Jared Dillian is a financial writer with Mauldin Economics. After receiving his MBA from the University of San Francisco, he was hired by Wall Street giant Lehman Brothers where he worked from 2001 to 2008—first as an index arbitrage trader and then as head of the ETF trading desk. During this time, he was routinely trading over $1 billion a day in volume. He has written The Daily Dirt nap since 2008. The Daily Dirt nap contains a wealth of trade ideas for the self-directed, sophisticated investor and is published 225 times per year. Click here to learn more. He also writes The 10th Man, a free weekly e-letter. Click here to learn more about The 10th Man.
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