



Seeing What We Want To

Financial behaviourists would call it *confirmation bias*. You know, our all too natural ability to convince ourselves of whatever it is we want to believe by attaching undue emphasis to events that corroborate the outcomes we desire and downplay whatever contrary evidence that arises¹.

And nowhere is this more prevalent than in the investment newsletter and trading system business. If encountering poor performance, simply change the decision rules along the way so that they work with the benefit of hindsight. And as ridiculous as this sounds, it goes on all of the time.

It just so happened that I had just completed reading a recent book on the Dow Theory where the author gave his interpretation of the Dow Theory with specific guidelines for “classic” buy and sell signals accompanied by over a century of impressive performance data purportedly using those rules. But if the author was following the rules given in his book, he should have been bearish, but he wasn’t. The reason being that I found out later was because he had later added on another decision rule not found in his book. Could this be just another example of changing the rules as one goes along to fit the data?

If it was, I couldn’t think of a better real life example to explain confirmation bias than redoing the performance table published in the book using the author’s own decision rule criteria (including this new one) and comparing the results.

Remember, I don’t have the same sort of bias because I’m not selling subscriptions to a Dow Theory based newsletter, but I am interested in any investment technique that reduces portfolio volatility. Therefore, from my perspective, if the system doesn’t work, I won’t use it. Admittedly, if I have any sort of confirmation bias myself, it would be on the side of finding fault with this trading system so that it won’t cost me in investment losses.

¹ Michael Pompian, *Behavioral Finance and Wealth Management*, (New Jersey: John Wiley and Sons, Ltd., 2006), p.187.

Let's begin by briefly reviewing the salient points of the Dow Theory as it pertains to this report. I have provided numerous links and footnotes so that interested readers can pursue as much as they want to.

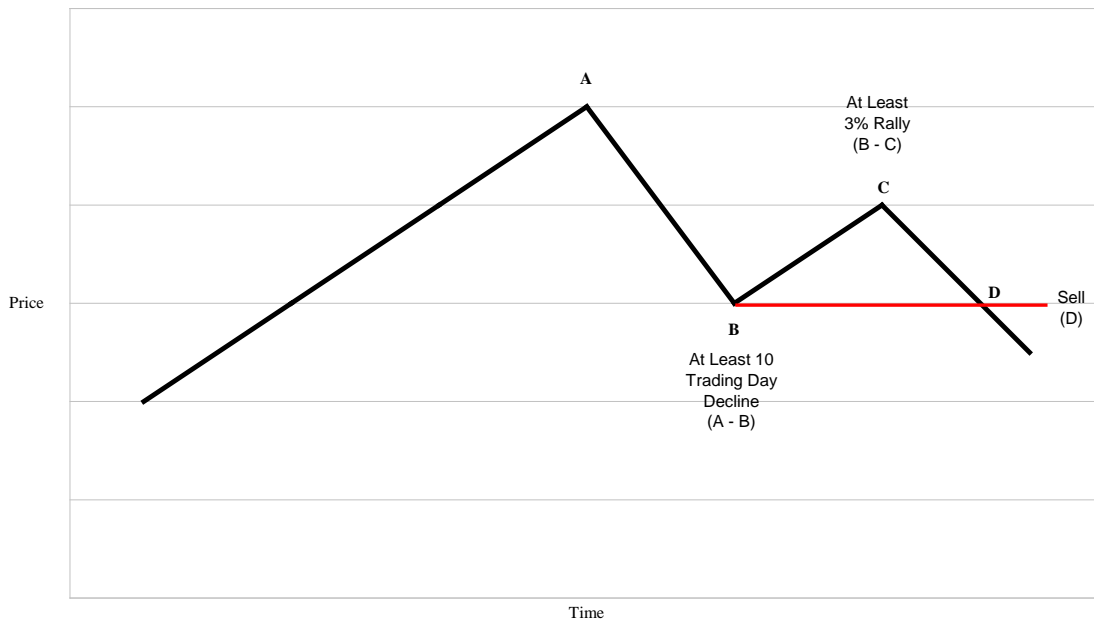
Dow Theory Background

As many of you know I have a particular interest in the Dow Theory because over the years I have developed my own interpretation and have used it in combination with a few other technical methods to give an idea of when it is most advantageous to be in or out of the market. So I'm quite familiar with its many interpretations and the three major US based Dow Theorist newsletter writers.

I am not going to go into detail about the theory itself in this write-up, but if you care to find out more, an excellent overview is provided on Jack Schanep's website. It shows the interplay between the price chart patterns of the Dow Jones Industrial and Transportation averages and how buy and sell signals are generated using Dow Theory criteria. It can be found [here](#).

What I want to focus on are the quantitative rules presented in the book I read and subsequently improved upon to make key Dow Theory decision points less reliant on subjective interpretation. For example take the sell signal described in Figure 1. It incorporates the rules from the book, plus the newer additional requirement of counter trend movements (points A – B) lasting at least 10 trading days.

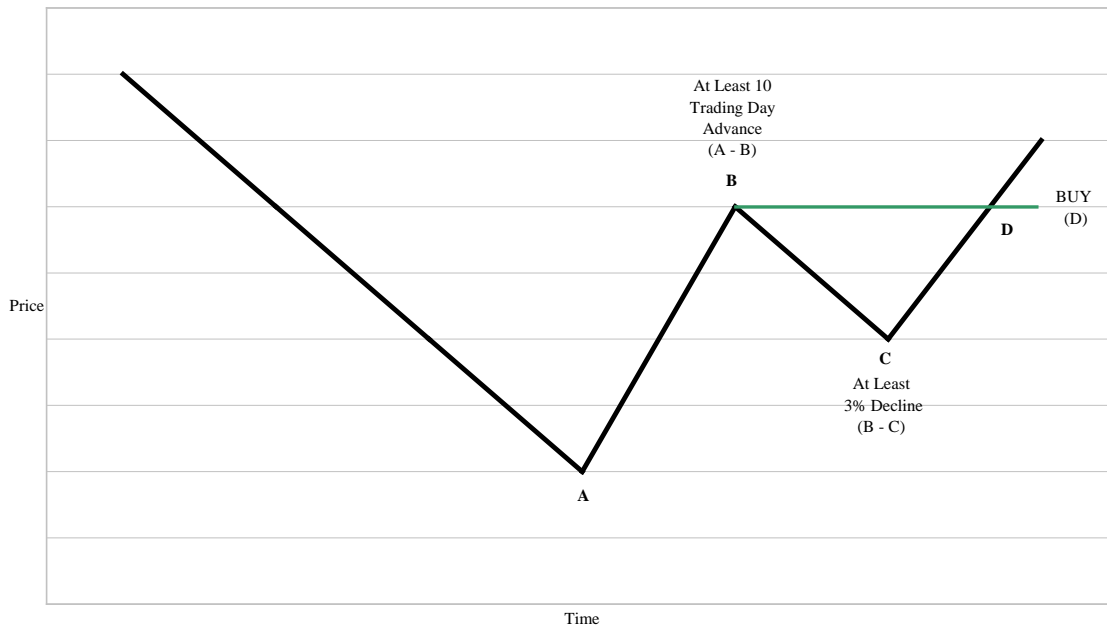
Figure 1
Dow Theory - "Classic" Interpretation
Sell Signal Rules



According to this interpretation, when a new high is reached (point A) followed by a correction lasting at least 10 trading days (A - B) and the ensuing counter rally (B - C) recovers at least 3% of the price from point B, then the low at point B becomes a key Dow Theory Sell pivot point. In Figure 1 it is breached at point D giving a sell signal.

Similarly these rules would work in reverse for a buy signal as shown in Figure 2 on the next page.

Figure 2
Dow Theory - "Classic" Interpretation
Buy Signal Rules



Any effort at the quantification of the Dow Theory is a very useful exercise because it not only makes it more objective and less open to interpretation, but it also allows back-testing the results to see how this trading system would have performed over past periods.

Sounds simple enough? But here's the catch. In the appendix of the book I read over a hundred years of signals were listed with corresponding price levels of the Dow Jones Industrials Average, so all that one had to do was copy them and perform the calculations to get an idea of the performance of this trading system. However, when I tried to replicate the buy and sell signals from the price data, the results didn't always match.

Here is What I Did

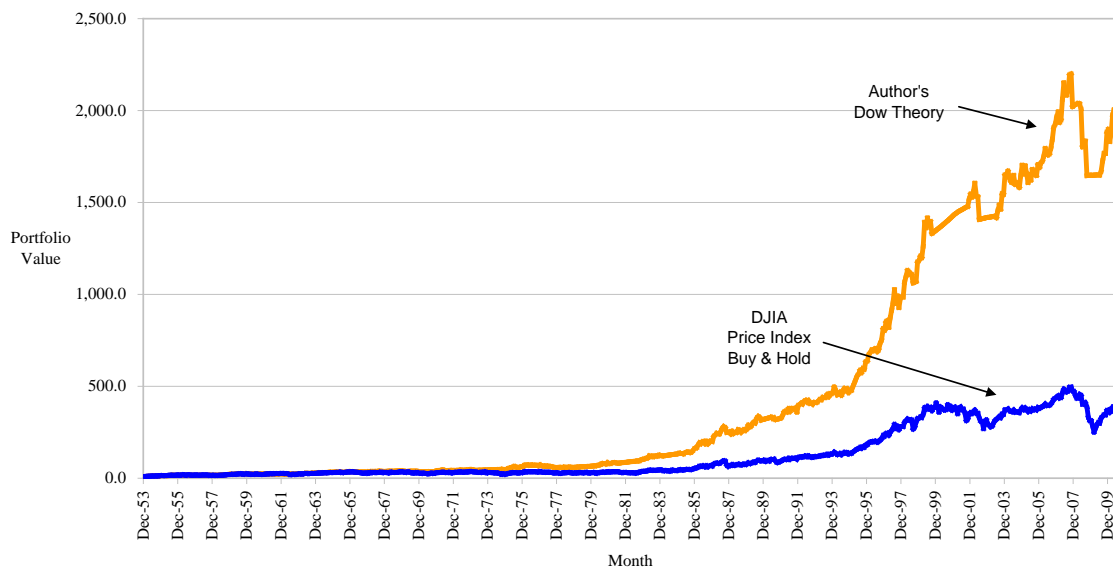
In order to analyze the performance of these published Dow Theory buy and sell signals against what I came up with using the very same rules and data, I began with the book's first buy signal after 1953 that occurred in January 1954. Fortunately, that was a good place to start because the dates and signals matched my independent findings.

I assumed the account began with \$10,000 in January 1954 and was invested in the Dow Jones Industrial Average Price Index (dividends not re-invested²) for all buy signals. Whenever a sell signal was given, all proceeds were switched to US Treasury Bills and earned the appropriate interest rate. The performance was tracked for 56 and a half years to June 2010.

Dueling Performance

Let's start with what the performance in Figure 3 using the "classic" signals provided in the book supplemented by the more recent "classic" signals that are in the public domain. The graph below shows the growth of \$10,000 from December 1953 to June 2010 (gold solid line) using those signals. The Dow Jones Industrial Average price index (solid blue line) is also included to compare against the author of the book's performance.

Figure 3
Dow Theory Comparison
Growth of \$10,000
December 1953 - June 2010
 (dollar amounts in thousands)



Unlike other trading systems that we have recently examined (I seem to be following a trading system theme as of late), this one is profitable and looks like it has potential, especially when compared to buying and holding the Dow Jones Industrial Average.

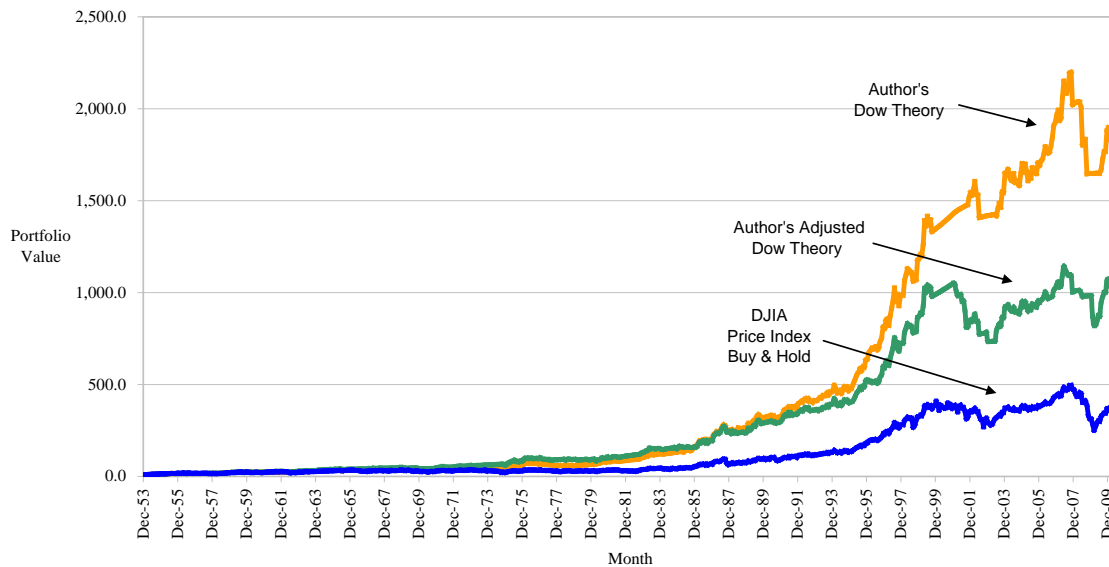
Between the end of December 1953 to June 2010, \$10 thousand invested in the DJIA had grown to \$1.8 million giving an annualized rate of return of 9.6 % (remember all results exclude dividends) compared to \$348 thousand or 6.5% for buying and holding the index. But could this be too good to be true? Well, yes.

When I attempted to replicate the published performance using the same rules using the identical data I came up with results that were, well, somewhat less impressive.

² A dividend re-invested Dow Jones Industrial Average index would have been preferable, but it was not readily available.

That adjusted performance is shown as the solid green line in Figure 4 that overlays my findings to those in Figure 3.

Figure 4
Dow Theory Comparison
Growth of \$10,000
December 1953 - June 2010
(dollar amounts in thousands)



Now remember this is not my own independent interpretation of the Dow Theory, but my attempt to replicate the book's signals using the same rules with that newly added 10 trading day requirement. Using the signals I found that \$10 thousand had grown to just over \$1 million or almost 45 per cent less than the book's \$1.8 million. That gave an adjusted return of 8.5 % compared to 9.6 %.

While my results were substantially less than those of the book, they still are acceptable and well above what a buy and hold strategy would have realized over the period.

But by now you must be asking yourself how could two people looking at the same data, using the same decision rules, come up with such different results? The answer lies in the title of this report.

Seeing What We Want To

At the best of times, our eyes can play tricks on us, especially when attempting the tedious job of chart pattern recognition. Each of us has the ability to uniquely process, visualize and indeed render different interpretations of the same picture, graph or data. But when one also has a vested interest in the results, even if it is unintentional, it often becomes even easier to overlook things we don't want to see, especially when they lead to undesired results.

With a few exceptions, the dates and price of the author's signals matched what I found using his rules. It was just that I was able to find 80% more of them. Between

January 1954 and June 2010 I uncovered 78 buy and sell signals compared to his 44. And many of those additional signals resulted in whipsaws and double barreled losses. That ended up amounting to \$800 thousand in additional losses or about 40% less in profits from what had been presented as the Dow Theory record since 1954.

Conclusion

As James Montier wrote in his recent book *Value Investing: Tools and Techniques for Intelligent Investment*:

*Everyone is after the holy grail of investing: a strategy that works all of the time. It doesn't exist, so you might as well stop looking, or even worse, pretending that you have one. The nature of markets is highly probabilistic; uncertainty is central to the act of investing. So nothing is likely to work continuously.*³

Can't argue with that, but what an investor can hope to find is a strategy that when consistently applied over long periods of time can be wrong as often as right, but still provide satisfactory results if losses are limited when wrong and profits are allowed to run when right. This is especially true when using sell signals for hedging to reduce portfolio volatility. Then the primary concern shifts from being right or wrong to preserving capital and being able to sleep at night regardless of what pain the market decides to inflict on others.

After reading this, you now know why over the decades I have used my own variation of the Dow Theory as part of my system to come up with hedging signals for my own account. Even the downward adjusted performance of the quantifiable interpretation of the Dow Theory produced notable results. Good enough to merit further investigation into its risk and reward characteristics. Something we'll look at next time.

And if you happen to be wondering where the three prominent Dow Theorists stand as of this writing, the first Dow Theorist to turn bearish did so (and coincidentally so did my version of the Dow Theory) on May 20th, 2010 with the Dow Industrials at 10068. Two others followed on June 30th with the Dow Industrials at 9774, and the "classic" version of the Dow Theory used in this report turned bearish on June 4th with the Dow closing at 9932.

With all of that confusion and inconsistency, it shouldn't surprise you that I prefer to do my own research and follow my own work.

³ James Montier, *Value Investing: Tools and Techniques for Intelligent Investment*, (West Sussex, United Kingdom: John Wiley and Sons, Ltd., 2009), p. 131.

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