



## TIMING THE MARKETS

# DOW THEORY FOR THE 21ST CENTURY (An Examination)

NOVEMBER 2020

# The Original Absolute Return Strategy

Stock markets (equities) in democratic and pro-business economies have produced the best returns for investors over the long-term, in the main because industry generates better returns on the capital invested than one can obtain from bank deposits, government bonds or, indeed, gold.

So long as one avoids overpaying for assets in the stock markets, an investor that saves and invests through them can reasonably expect to benefit from these superior returns less any costs.

That said, stock markets can get overvalued and are regularly negatively impacted by adverse political and economic developments, which can lead to setbacks, and at times significant and prolonged setbacks.

An investor who is investing regularly – for example, with his/her pension monies – gets to invest in rising markets and declining markets. The regular investor carries much less risk as he/she naturally smooths out the inevitable ups and downs in markets and most likely, over the medium- to long-term, gets the average returns that markets generate.

It's trickier for the lump-sum investor; the investor that (i) needs to protect his/her capital in the short-term or (ii) is unlikely to be in a position to add meaningfully to his/her existing capital and can't, therefore, benefit from the better values that appear in weaker market conditions. The lump-sum investor has higher risk of investing when markets offer poor value, which normally leads to lower subsequent returns or outright negative returns over shorter timelines.

The lump-sum investor who wishes to participate in the superior returns that the stock markets offer but who also wishes to avoid deep setbacks can choose to try and time his/her entry into and exit from the stock markets (market timing). It's easier said than done and must be recognised more as speculation than pure investment, but it offers choice and each to his own.

Dow Theory is a 120-year old method of timing the US equity markets first introduced by Charles Dow in 1900, the then editor of the Wall Street Journal. In his 2008 book *Dow Theory for the 21<sup>st</sup> Century*, author Jack Schanep brought this theory up to date for developments in markets since.

In this note, we explain Dow's theory, and Jack Schanep's version of it, and outline the returns of having followed this approach from 1954 to 2020 inclusive and compare them to:

- The returns that accrued to a 'Buy & Hold' investor in the S&P 500 Index over that period.
- The returns from hedge and absolute return funds since industry returns were formally recorded from 1998 to 2020 inclusive.
- The returns from a traditional multi-asset portfolio also from 1998 to 2020 inclusive.

Those wishing to follow Dow Theory in practice should consider buying Jack Schanep's book and subscribing directly to his monthly newsletter at [www.thedowtheory.com](http://www.thedowtheory.com).

## Understanding the Stock Market Cycles

*“There are three principal phases of a bull market: the first is represented by reviving confidence in the future of business; the second is the response of stock prices to the known improvement in corporate earnings, and the third is the period when speculation is rampant – a period when stocks are advanced on hopes and expectations. There are three principal phases of a bear market: the first represents the abandonment of the hopes upon which stocks were purchased at inflated prices; the second reflects selling due to decreased business and earnings, and the third is caused by distress selling of sound securities, regardless of their value, by those who must find a cash market for at least a portion of their assets.”*

Robert Rhea, The Dow Theory, 1932

## Dow Theory - A US Stock Market Barometer and Leading Technical Indicator

*The Stock Market Barometer* was written in 1922 by William P. Hamilton, who was the second editor of the Wall Street Journal, coming after Charles Dow. It was Dow that formulated the theory that was later to be referred to as Dow Theory, and Hamilton continued the use of Dow Theory in the Wall Street Journal where Charles Dow left off. At its core there are three fundamental principles underlying the original theory:

1. **First Principle:** Everyone's view is in the market and their combined views are more powerful than any individual view. That being the case, the stock market itself tends to act as the leading indicator of what lies ahead for the economy and business.
2. **Second Principle:** There are, simultaneously, three movements in progress in the stock market. The main trend is referred to as the primary trend - i.e. the market in generally either in a medium-term uptrend or downtrend? In the midst of any primary trend there are the inevitable reactions against that primary trend, and these are referred to as secondary movements or secondary reactions. These are deceptive and represented by sharp declines in a bull market and sharp rallies in a bear market. Eventually, a secondary reaction becomes more than that and results in a change in trend from a primary bull market to a primary bear market (or *vice versa*). Daily movements can be ignored as there are no worthwhile inferences that can be drawn from them as regards the future direction of markets.
3. **Third Principle:** That the trend in the Dow Industrials Index must be confirmed by a similar trend in the Dow Transports Index. Any possible change in the trend from a primary bull market to a primary bear market (or *vice versa*) must be confirmed by both indexes.

Dow Theory has always had a set of rules for judging when the tide has turned from bull market to bear market (and *vice versa*), and later we will refer to Jack Schannep's rules as applied in his Dow Theory for the 21<sup>st</sup> Century.

It's a relatively simple, elegant theory. It's not a silver bullet for timing markets, but it offers an intelligent reading of what the markets are saying and, more times than not, it successfully highlights a change in the primary trend, as well as limiting the downside risks for investors.

In January 1901, Charles Dow wrote the following to explain his theory:

*“A person watching the tide coming in and who wishes to know the exact spot which marks the high tide, sets a stick in the sand at the points reached by the incoming waves until the stick reaches a position where the waves no longer come up to it, and finally recede enough to show that the tide has turned. This method holds good in watching and determining the flood tide of the stock market.”*

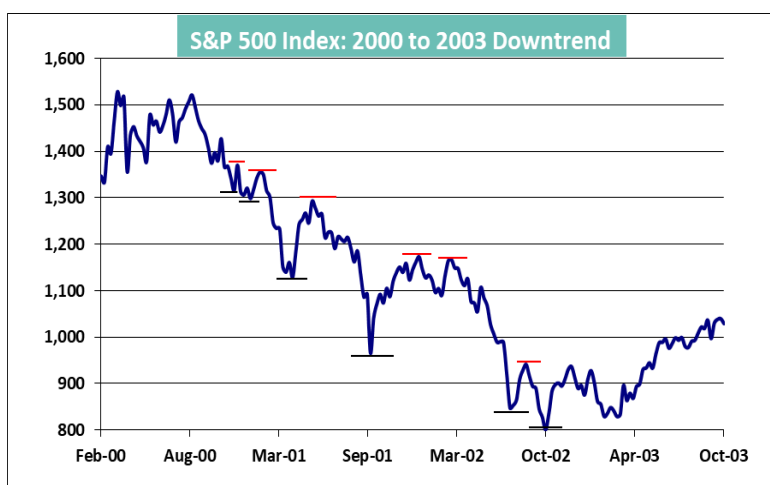
Where the US stock markets go, global stock markets tend to follow, in the short-term at least, so that the technical indicator Dow Theory has huge relevance beyond the US stock markets. In essence, Dow Theory uses price action in an attempt to determine whether the US stock market’s primary trend has changed from a bull to bear market or from a bear to bull market.

### *Lower Lows and Lower Highs Define a Bear Market*

In technical price action terms, and in its very simplest form, the hallmark of a bear market is a series of lower lows and lower highs. Each low made in an ongoing bear market is succeeded by a new low later on (a lower low) and any secondary reaction in an ongoing bear market (i.e. a rally against the primary downtrend) peaks out at a lower high than was previously made.

As can be observed from **Chart 1**, each low in the 2000 to 2003 downtrending market (bear market) was followed by a lower low (black lines in **Chart 1**). And each time the S&P 500 Index rallied against that prevailing downtrend the high was lower than the previous high (a lower high – red lines in **Chart 1**).

**Chart 1**

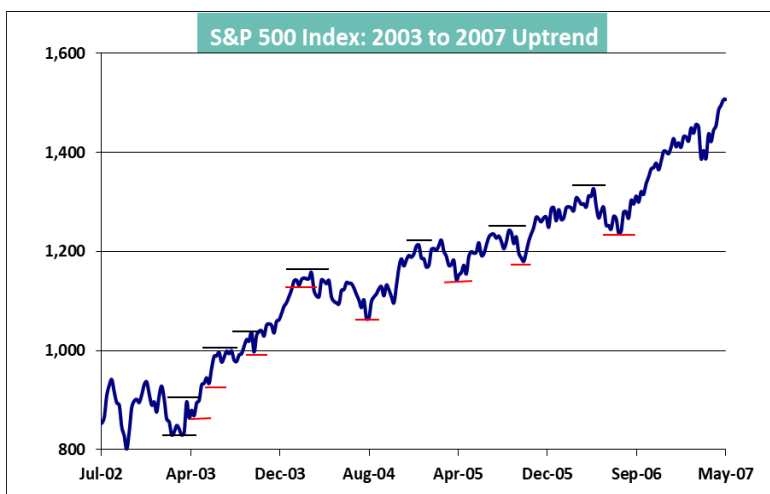


### *Higher Highs and Higher Lows Define a Bull Market*

Similarly, the hallmark of a bull market is a series of higher highs and higher lows. Each high made in an ongoing bull market is succeeded by a new high later on (a higher high) and any secondary reaction in an ongoing bull market (i.e. a decline against the primary uptrend) bottoms out at a higher low than was previously made.

As can be observed from **Chart 2**, each high in the 2003 to 2007 upward-trending market (bull

**Chart 2**



market) was followed by a higher high (black lines in *Chart 2*). And each time the S&P 500 Index declined against the prevailing uptrend the low was higher than the previous low (a higher low – red lines in *Chart 2*).

### **Dow Theory for the 21st Century**

Charles Dow used two indices, the Dow Jones Industrial Average Index (DJIA) and the Dow Jones Transports Index (DJTI), insisting that a potential transition from bull to bear market (or *vice versa*) had to be confirmed by both indices before a signal that the market had turned was valid.

Jack Schanep's research, as outlined in *Dow Theory for the 21st Century*, highlights that a signal from the S&P 500 Index and at least one of the other two indices works best (i.e. the S&P 500 Index along with confirmation from either the Dow Industrials or the Dow Transports Index).

The higher highs, higher lows principle (for bull markets) and the lower lows, lower highs principle (for bear markets) represent trending markets. What Dow Theory attempts to do is determine when the primary trend has reversed.

The exact rules for calling the turn in markets under Dow Theory for the 21<sup>st</sup> Century are numerous, and we don't intend to cover all the variations here, and we might summarise the major signals as follows:

#### *Bull to Bear Market Sell Signals:*

- A secondary reaction in an ongoing bull market occurs when the S&P 500 Index plus one other index decline by more than 3% over a minimum of 10 calendar days on 2 of the 3 indices (S&P 500, Dow Industrials & Dow Transports) with at least 8 trading days as the average for all three indices.
- The S&P 500 Index plus one other index must then rally at least 3% but close below their previous highs.
- If the S&P 500 Index and at least one other index then declines again, and closes below the previous lows, a 'Sell' signal is given.
- If during a decline, the markets don't rally the required 3% and the S&P 500 Index plus the Dow Industrials decline by 16% (Jack Schanep's definition of a bear market), a 'Sell' signal is also given.

#### *Bear to Bull Market Buy Signals:*

- A secondary reaction in an ongoing bear market occurs when the S&P 500 Index plus one other index rise by more than 3% over a minimum of 10 calendar days on 2 of the 3 indices (S&P 500, Dow Industrials & Dow Transports) with at least 8 trading days as the average for all three indices.
- The S&P 500 Index plus one other must then retreat by at least 3% and at least one index must close above their previous lows.
- If the S&P 500 Index plus one of the other two indices then rises again, and close above the previous highs, a 'Buy' signal is given.

- If during a rise, the markets don't decline the required 3% and the S&P 500 Index along with the Dow Industrials rise by 19% (Jack Schanep's definition of a bull market), a 'Buy' signal is given.
- In addition, when US stock markets capitulate – which often occurs late in bear markets – this is a partial 'Buy' signal under the rules of Dow Theory for the 21<sup>st</sup> Century. Schanep's research has shown that a Dow Theory 'Buy' signal always follows capitulation, so he recommends that an investor commits 25% of his/her savings into markets on capitulation<sup>1</sup> and before the likely follow-up and full 'Buy' signal under the rules of Dow Theory for the 21<sup>st</sup> Century.

Robert Rhea, in his quote at the top of page 2, indirectly referred to 'Capitulation' all the way back in the early 1930s when he described the third phase of a bear market as '*distress selling of sound securities, regardless of their value, by those who must find a cash market for at least a portion of their assets*'.

There are other events that can influence 'Buy' and 'Sell' signals under the rules of Dow Theory for the 21<sup>st</sup> Century, and they are regularly discussed by Jack Schanep in his newsletter at [www.thedowtheory.com](http://www.thedowtheory.com).

### The Track Record of Dow Theory for the 21st Century

On a Dow Theory for the 21<sup>st</sup> Century 'Sell' signal, an investor's monies are assumed to be in cash earning the relevant interest rate pertaining at the time. We used US 3-month interest rates and assumed at least two weeks settlement before interest could be earned.

In **Appendix 2** we have outlined the returns from every 'Buy to Sell' round trip under the rules of Dow Theory for the 21<sup>st</sup> Century from the start of 1954 to end October 2020, representing 67 years of data and compared the returns in each case to a 'Buy & Hold' strategy. Space does not allow us to display the table here. However, in **Table 1** we have summarised the returns data per decade.

**Table 1**

Returns per Decade (compound <i>p.a.</i> )			
	Buy & Hold Strategy	Dow Theory Strategy	Out/Under Performance
1954-1959	15.8%	16.5%	0.7%
1960s	4.4%	6.3%	1.9%
1970s	1.6%	9.5%	7.9%
1980s	12.6%	16.8%	4.2%
1990s	15.3%	16.7%	1.4%
2000s	-2.7%	5.4%	8.2%
2010s	11.2%	9.6%	-1.7%
2020s	0.7%	17.5%	16.7%
<b>1954-2020</b>	<b>7.5%</b>	<b>11.2%</b>	<b>3.7%</b>

The following observations can be made:

- Adopting the Dow Theory for the 21<sup>st</sup> Century strategy lead to 37 'Buy/Sell' trips over this 67-year period. A positive return was generated in 29 out of the 38 trips with a negative

<sup>1</sup> Capitulation is more fully explained in **Appendix 2** and the returns to investors following a capitulation event are also outlined there.

outcome recorded on 8 of these occasions (see **Appendix 2**).

- This market timing strategy returned 11.2% compound *per annum* versus 7.5% compound *per annum* for the S&P 500 Index. Both are before costs and dividends (see **Table 1**).
- We estimate that the S&P 500 Index’s annual dividend was in the order of 3.0% on average over this 67-year period.
- Had you adopted the Dow Theory for the 21<sup>st</sup> Century market timing approach you would have been invested for 12,633 days out of the 16,826 days between the start of January 1954 and the end of October 2020. That’s 75% of the time, so that on balance you would have received 75% of the dividends (see **Appendix 2**).
- That brings the comparable estimated total compound *per annum* returns to 13.45% for the Dow Theory for the 21<sup>st</sup> Century strategy and 10.5% compound *per annum* return for the S&P 500 Index ‘Buy & Hold’ strategy. Both these returns are before any costs.
- Adopting the Dow Theory for the 21<sup>st</sup> Century strategy outperformed a ‘Buy & Hold’ strategy in most decades with the exception of the 2010s (see **Table 1**).
- As **Table 2** below highlights, the Dow Theory for the 21<sup>st</sup> Century strategy gained most of its outperformance in the three big bear markets of the past 67 years plus during the October 1987 stock market crash.

**Table 2**

Bear Market Returns (compound <i>p.a.</i> )				
Downturns	Peak-to-Trough Dates	Buy & Hold	Dow Theory	Out/Under Performance
1973-74 Bear Market	11-Jan-73 to 3-Oct-74	-48.2%	-2.4%	45.8%
1987 Stock Market Crash	21-Aug-87 to 4-Dec-87	-33.3%	-10.8%	22.6%
2000-03 Bear Market	7-Apr-00 to 9-Oct-02	-48.8%	-1.0%	47.8%
2007-09 Global Financial Crisis	5-Oct-07 to 9-Mar-09	-56.6%	-15.1%	41.5%

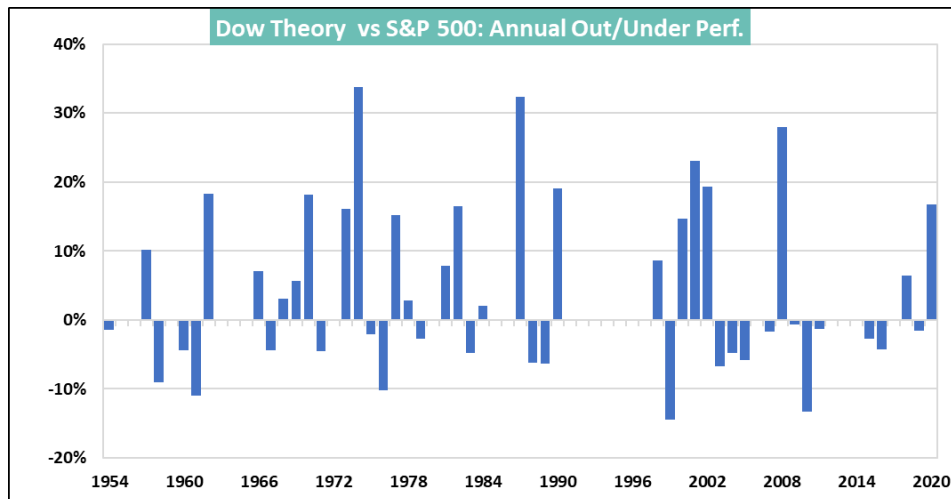
The peak-to-trough declines in the S&P 500 Index in the 1973/74 bear market was -48.2%, during the October 1987 stock market crash (-33.3%), during the 2000/02 bear market (-48.8%) and during the Global Financial Crisis (-56.6%). The Dow Theory for the 21<sup>st</sup> Century strategy substantially outperformed during all four bear markets.

- Looking at the downside risks, the Dow Theory for the 21<sup>st</sup> Century strategy suffered a maximum decline in value of 15.4% in any single ‘Buy & Sell’ round trip and a maximum sequential loss of 24.7%. This compares to a maximum loss of 56.6% from peak to trough during the Global Financial Crisis-led bear market covering the period July 2007 to March 2009 (see **Appendix 2**).

### Annual Out/Under Performance

**Chart 3** highlights the annual out/under performance of Dow Theory for the 21<sup>st</sup> Century compared to a 'Buy & Hold' strategy on the S&P 500 Index.

**Chart 3**

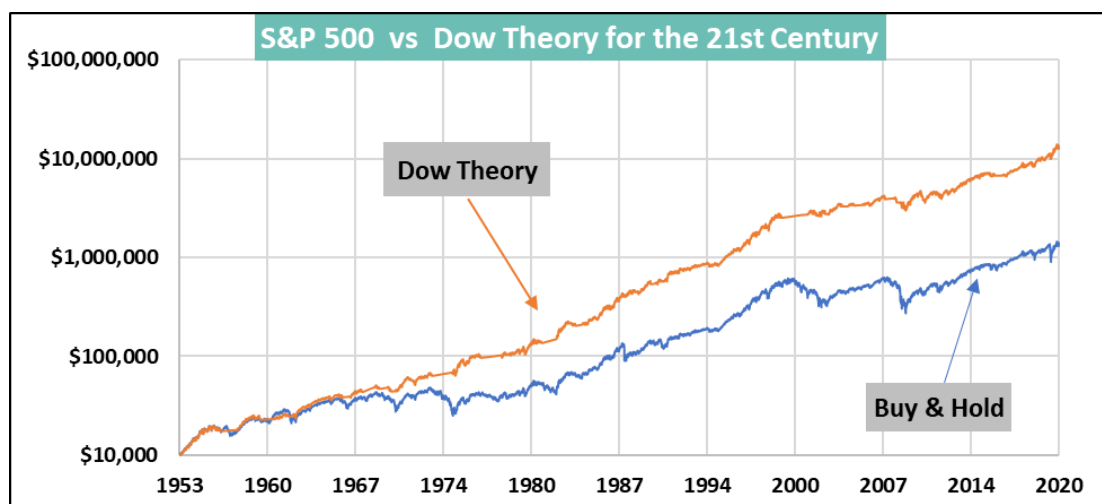


The strategy underperformed a 'Buy & Hold' strategy in 23 out of the 67 years (1/3<sup>rd</sup> of the time), performed in line with the S&P 500 Index in 22 out of the 67 years and outperformed in 22 out of the 67 years.

### The Value of \$10,000 Invested on 1<sup>st</sup> January 1954

**Chart 4** highlights the progress of \$10,000 invested on 1<sup>st</sup> January 1954 in both the Dow Theory for the 21<sup>st</sup> Century Strategy and for the 'Buy & Hold' strategy.

**Chart 4 (semi-log chart)**



A \$10,000 investment in the Dow Theory for the 21<sup>st</sup> Century strategy on 1<sup>st</sup> January 1954 would have grown to \$12.63 million by end October 2020 (excluding dividend income received and costs



incurred). A similar \$10,000 in the S&P 500 Index 'Buy & Hold' strategy would be worth \$1.31 million today (also excluding dividend income and costs). Dividends would have lifted these values further while costs would have detracted from the Dow Theory for the 21<sup>st</sup> Century returns, which makes them a little theoretical looking back before the time when low-cost exchange-traded funds existed.

### Compared to Hedge & Absolute Return Funds

Despite the glamour around hedge and absolute return funds, the reality is that, in aggregate, they have failed to live up to the hype.

As highlighted in **Chart 5**, using HFRX indices returns data from 1998 to 2020 inclusive, the average hedge fund marginally beat bank deposit returns and delivered a 4.1% compound *per annum* return over this 23-year timeline.

In contrast, over the same timeline the Dow Theory strategy delivered an 8.9% compound *per annum* return.

Absolute Return funds fared even less well with the average absolute return fund as tracked by the HFRX Indices delivering a 2.8% compound *per annum* return from 1998 to 2020 inclusive.

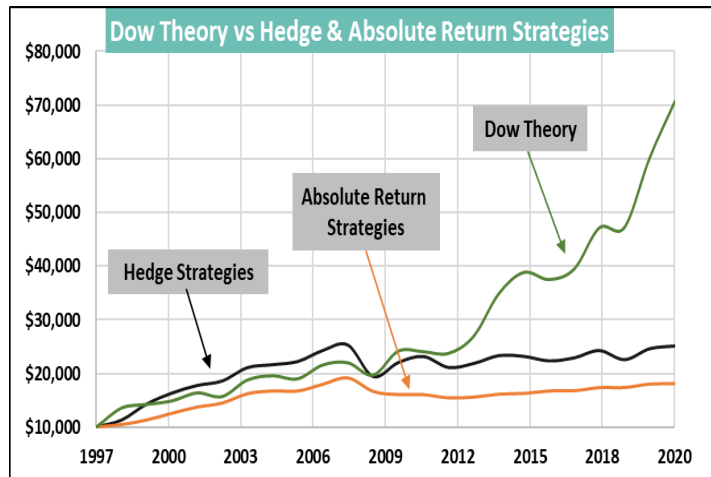
The performance of absolute return funds in aggregate is particularly relevant. After all, at its core, Dow Theory for the 21<sup>st</sup> Century is about limiting the downside risk in markets while participating in the upside as much as possible. In that regard, the evidence over a long period of time is that Dow Theory achieves its aims, whereas the universe of absolute return funds has singularly failed to.

If we were to pass judgment on why the hedge and absolute return funds industry fails to deliver on its goals, we might conclude that they are failed attempts to actively manage monies across the various asset classes.

### Compared to Multi-Asset Funds

In contrast, even the simple passively managed, multi-asset fund – equally weighted across the five major asset classes<sup>2</sup> of global equities, fixed income government bonds, inflation linked government bonds, bank deposits and gold – generated better returns than the hedge and absolute returns fund universe.

**Chart 5**

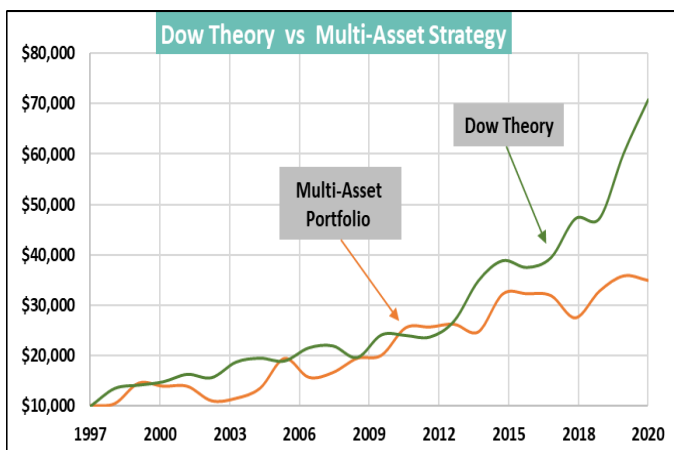


<sup>2</sup> Global equities, fixed income government bonds, inflation-linked government bonds, bank deposits and gold

As **Chart 6** highlights, an equally weighted multi-asset fund delivered a 5.6% compound *per annum* return over the same 1998 to 2020 timeline compared to 4.1% for hedge funds universe and 2.8% for absolute return funds universe.

And it's worth emphasising that a traditional multi-asset fund automatically covers the major economic risks for an investor – the risks of deflation (by owning fixed income government bonds), the risks of inflation (by owning inflation-linked government bonds), the risks of recessions (by owning bank deposits – interest rates are normally rising ahead of a recession) and the risks of wealth confiscation (by owning gold).

**Chart 6**



However, even the multi-asset approach was

no match for the Dow Theory for the 21<sup>st</sup> Century market timing indicator, which delivered an 8.9% compound *per annum* return over this same 23-year timeline.

### Summary Comments

With a maximum single loss of 15.4% and a maximum sequential loss of 24.7% on any full 'Buy to Sell' round trip (which occurred during the Global Financial Crisis), the technical indicator Dow Theory for the 21<sup>st</sup> Century has proven itself over the long-term to limit the downside volatility in US equity markets more times than not. In particular, it has done an excellent job of avoiding the bulk of the large declines suffered in the three worst bear markets of the last 67 years – the 1973 to 1974, 2000 to 2003 and 2007 to 2009 bear markets. The indicator even assisted investors to avoid the 1987 stock market crash.

Indeed, the major outperformance by the Dow Theory for the 21<sup>st</sup> Century strategy over a 'Buy & Hold' strategy largely comes down to its ability to avoid the sharp declines in these deep bear markets. Lastly, returns have benefitted from an understanding of 'Capitulation' in markets and the adoption of capitulation as an initial 'Buy' signal under the rules of Dow Theory for the 21<sup>st</sup> Century. From a tax perspective, the strategy is clearly better utilised in tax-efficient accounts.

We should also point out that when a monetary indicator is combined with the Dow Theory for the 21<sup>st</sup> Century technical indicator – which Jack Schannep refers to as his **Composite Indicator** - returns have been improved further, and in the order of an added 1-2% compound *per annum*, which is meaningful over the long-term.

**Rory Gillen**

**Founder, GillenMarkets**

**6<sup>th</sup> November 2020**

# Appendix 1

## Why Capitulation is a 'Buy' Signal

As the table below highlights, Capitulation<sup>3</sup> in the US equity markets is a relatively rare event as it has occurred only 17 times on the S&P 500 Index since 1<sup>st</sup> January 1954. The most recent 'Capitulation' event in US equity markets occurred on Monday, 9<sup>th</sup> March 2020.

Capitulation is that event in markets where sellers are overwhelming buyers as investors give up in reaction to consistent or sometimes sudden bad news and share prices decline in rapid succession.

The reason Capitulation is considered to be a 'Buy' signal is that history teaches us that when markets capitulate it is either the bottom of that particular

correction, close to it or it is the beginning of a bottoming process. And returns six and twelve months later are generally strongly positive.

This, then, is the reason why capitulation is used under Dow Theory for the 21<sup>st</sup> Century to buy an initial 25% position, and before any full 'Buy' signal is given under this technical indicator.

Jack Schannep's capitulation indicator is somewhat complex, but extremely useful for two principal reasons:

- It uses a time-weighted moving average so that it gives greater weight to more recent data compared to earlier data (similar to how the Coppock Indicator works); and,
- It has a history of good calls dating back since the start of 1954.

Capitulation Signals & Returns						
Date	S&P 500 Level	Days from Actual Bottom	% from Actual Bottom	Returns: 6 Mths Later	Returns: 12 Mths Later	
1	22-Jun-62	52.68	2	1%	19%	33%
2	25-May-70	70.25	1	1%	21%	42%
3	23-Aug-74	71.55	28	13%	14%	18%
4	30-Sep-74	63.54	3	2%	31%	32%
5	19-Oct-87	224.84	0	0%	15%	23%
6	03-Dec-87	225.21	1	1%	18%	21%
7	23-Aug-90	307.06	34	4%	19%	28%
8	31-Aug-98	957.28	0	0%	29%	38%
9	20-Sep-01	984.54	1	2%	17%	-7%
10	19-Jul-02	847.76	57	8%	6%	17%
11	09-Oct-02	776.76	0	0%	11%	34%
12	07-Oct-08	996.23	32	24%	-18%	6%
13	12-Nov-08	852.30	6	12%	7%	30%
14	23-Feb-09	743.33	10	9%	38%	47%
15	08-Aug-11	1,119.46	39	2%	21%	25%
16	24-Dec-18	2,351.10	0	0%	25%	37%
17	09-Mar-20	2,746.56	10	19%	24%	
<b>Averages</b>			<b>13</b>	<b>6%</b>	<b>17%</b>	<b>27%</b>

<sup>3</sup> A fuller definition of 'Capitulation' is provided on page 10

As the table highlights, following a Schannep Capitulation signal, the average return over the following six months from the S&P 500 Index has been 17% with only one period where a loss was recorded over the subsequent six-month period (-18% following the signal on 8<sup>th</sup> October 2008).

The average 1-year return following a capitulation signal has been 27%, again with only one period where a loss was subsequently recorded (-7% following the signal on 20<sup>th</sup> September 2001). In our view, these are excellent odds and are the reason why capitulation is a 'Buy' signal, on average.

In deep bear markets, markets can capitulate more than once. So, it's safer to describe capitulation as signalling either the bottom (which it did on four occasions since 1953), close to the bottom or the start of a bottoming process.

In late 2008, for example, during the Global Financial Crisis, US equity markets capitulated three times in succession – in October 2008, again in November 2008 and then for the last time in February 2009. So, on the first capitulation signal in October 2008, it was to prove subsequently that it was the start of a bottoming process on that occasion.

As the previous table also highlights Jack Schannep's Capitulation Indicator gave its 'Buy' signals on average 13 days from the actual market bottom and on average within 6% of the actual bottom.

Without adopting the technical indicator Dow Theory for the 21<sup>st</sup> Century, the capitulation indicator alone should assist investors to avoid selling when a capitulation signal has been given or to make additional purchases if you have the capacity to do so at such times.

### **Schannep Capitulation Indicator Definition**

From his book *Dow Theory for the 21<sup>st</sup> Century* the actual definition of the Schannep Capitulation Indicator is:

*'A short-term oscillator is utilised which measures the percent of divergence between the three (US) major stock market indices (Dow Jones Industrial Average, S&P 500 and the New York Stock Exchange Composite) and their 10-week, time-weighted moving averages. Market bottoms are identified when the divergence between the three major (US) stock market indices is 10% below their respective ten-week, exponentially time-weighted moving averages'.*

## Appendix 2

Buy & Sell Signals (1954 - 2020) & Returns					
	Buy	S&P 500 Level	Sell	S&P 500 Level	Gain/Loss
1	06/01/1954	25.14	05/02/1957	43.89	75.1%
2	21/04/1958	42.93	16/02/1960	54.73	27.5%
3	06/03/1961	64.05	12/04/1962	67.71	5.9%
4	22/06/1962	52.68	06/05/1966	87.84	56.6%
5	13/12/1966	82.73	02/11/1967	92.34	11.6%
6	24/09/1968	102.59	20/02/1969	99.97	-2.6%
7	16/10/1969	96.37	26/01/1970	88.17	-8.5%
8	25/05/1970	70.25	28/07/1971	97.07	28.7%
9	07/09/1971	101.15	26/02/1973	112.19	10.9%
10	23/08/1974	71.55	09/11/1976	99.32	41.3%
11	05/06/1978	99.95	17/10/1978	101.26	1.3%
12	04/01/1979	98.58	02/07/1981	128.64	30.5%
13	20/08/1982	113.02	29/07/1983	162.56	43.8%
14	07/10/1983	170.80	03/02/1984	160.91	-5.8%
15	03/08/1984	162.35	12/10/1987	309.39	86.9%
16	19/10/1987	224.84	10/08/1988	261.90	5.8%
17	07/10/1988	278.07	13/10/1989	333.62	20.0%
18	02/03/1990	335.54	02/08/1990	351.48	4.8%
19	23/08/1990	307.06	04/08/1998	1,072.12	248.0%
20	31/08/1998	957.28	23/09/1999	1,280.41	26.7%
21	20/09/2001	984.54	03/06/2002	1,040.68	-2.4%
22	09/10/2002	776.76	24/01/2003	861.40	5.0%
23	22/04/2003	911.37	10/05/2004	1,087.12	19.3%
24	03/11/2004	1,143.20	14/04/2005	1,162.05	1.6%
25	18/11/2005	1,248.27	14/08/2007	1,426.54	14.3%
26	18/04/2008	1,390.33	02/07/2008	1,261.52	-9.3%
27	07/10/2008	996.23	17/02/2009	789.17	-15.4%
28	23/02/2009	743.33	04/06/2010	1,064.88	35.2%
29	15/06/2010	1,115.23	30/06/2010	1,030.71	-7.6%
30	26/07/2010	1,115.01	02/08/2011	1,254.05	12.5%
31	08/08/2011	1,204.49	03/10/2011	1,099.23	-5.9%
32	10/10/2011	1,194.89	21/08/2015	1,970.89	64.9%
33	07/10/2015	1,995.83	11/12/2015	2,012.37	0.8%
34	08/07/2016	2,129.90	23/11/2018	2,632.56	23.6%
35	24/12/2018	2,351.10	14/08/2019	2,840.60	17.3%
36	30/08/2019	2,926.46	25/02/2020	3,128.21	6.9%
37	09/03/2020	2,746.56	30/10/2020	3,254.27	21.3%
<b>Strategy Return c.p.a.</b>					<b>11.2%</b>
<b>S&amp;P 500 Returns c.p.a.</b>					<b>7.5%</b>
<b>Time Invested</b>					
<b>Number of Years</b>					<b>67</b>
<b>Number of Buy/Sell Trips</b>					<b>37</b>
<b>Number of Positive Outcomes</b>					<b>29</b>
<b>Number of Negative Outcomes</b>					<b>8</b>
<b>Maximum Loss</b>					<b>-15.4%</b>
<b>Maximum Sequential Loss</b>					<b>-24.7%</b>

The Gains/losses noted in the column to the far right do not necessarily correspond to the gains/losses on the S&P 500 Index for all 'Buy & Sell' cycles. This is because a 'Buy' signal might start with an initial 25% commitment instead of a full 100% commitment.

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Registered Office: 29 Mount Street, Dublin 2, Ireland.

Email: [info@gillenmarkets.com](mailto:info@gillenmarkets.com)

Tel: 01-287 1400