Working Paper: Will the Decennial Pattern Repeat in 2017?

Working Paper
In this paper I want to review and (hopefully) validate a popular seasonal pattern to determine its expectancy (edge). I want to show you how I review and validate ideas with the hope to encourage you to do the same when considering a trading idea to pursue.

Market Idea
Many books, people and pundits believe certain patterns can identify market trends. I will be reviewing the following seasonal pattern;

- Decennial Pattern: The sharemarket's 10-year cycle

Market Portfolio
Every trader's twin evils when investigating, researching and developing trading strategies are curve fitting and data mining. The former is always present while the latter can be eliminated. Curve fitting will always be present. All traders do it to some degree. Most traders over do it. The good traders always look to minimise it. Data mining can be avoided by objectively selecting a universal portfolio of markets that are selected due to their diversity, minimal correlation, liquidity and independence of the trading idea being considered.

To avoid data mining, for my research and trading, I use a universal portfolio of 24 markets spread across 8 market segments including the currencies, interest rates, indices, energy, metals, grains, softs and meats. Within each market segment I select the 3 most liquid futures markets based on their average daily volume. Using diversification and volume as the selection process provides me with an objectively and independently selected portfolio of diversified markets. A portfolio of markets that is absent of data mining and 100% independent to any trading idea I'm considering.

However for this working paper, since I'm investigating a sharemarket pattern, I will be restricting my markets to global indices.

Market Data

Data:	I use futures data.
Period:	1992 – 2017, 25 years.
Source:	I use Premium Data from Norgate Investor Services; www.premiumdata.net
Format:	I use the back-adjusted continuous future contract data.
Sessions:	I use the combined all-sessions data.
Data rollover:	I used Premium Data's default rollover days that attempt to roll over when the daily volume shifts.

Software
I do all my own programming using VBA (Visual Basic Application) for Excel. To view the VBA editor in Excel simply open a workbook and hit "Alt F11".

Trade Plan
Once the Decennial Pattern is explained I will apply Richard Donchian's 4 week trading rule to determine the pattern's effectiveness in identifying underlying trend direction.

4 Week Trading Rule	Buys:	Buy a breakout of the highest weekly high of the last 4 weeks.
	Sells:	Sell a breakout of the lowest weekly low of the last 4 weeks.
	SAR:	This rule is a Stop And Reversal strategy that is always in the market.

Market Ideas: Fact or Fiction?

Always remember to;
#1. Welcome all ideas in trading, and
#2 Reserve your opinion until you have independently validated the idea!

Market Idea: Decennial Pattern
At time of writing its September 2017. Accordingly, I thought it appropriate to review the Decennial Pattern that indicates years ending in "7" end badly. So let's take a look.

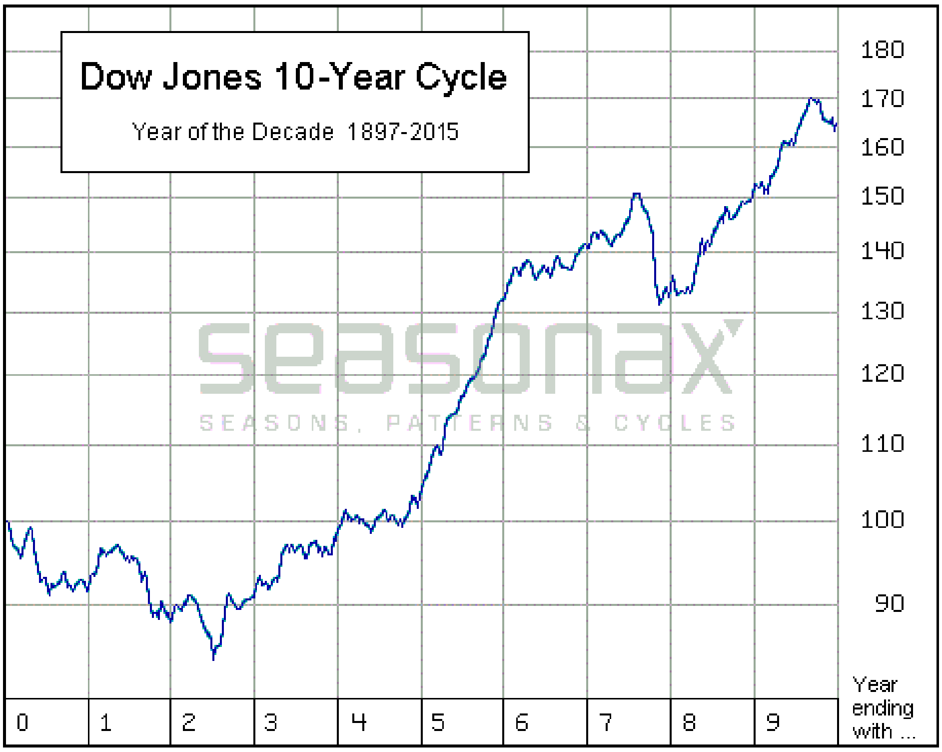
I first learnt about the 10 year Decennial Pattern in Larry William's book *The Right Stock at the Right Time: Prospering in the Coming Good Years* (Wiley 2003). Larry learnt it from Edson Gould who published a newsletter called *"Findings & Forecast"*. Edson Gould may have learnt if from Edgar Lawrence Smith's book *Tides and the Affairs of Men* (Macmillan 1939).

Let's go with the earliest publication, Smith's book in 1939.

In a nut shell Smith's Decennial Pattern believes the US sharemarket follows a 10-year pattern with weakness in years ending in 3, 7 and 10 while years ending in 5, 8 and 9 show strength.

Smith came to this conclusion after researching US sharemarket data going back to 1880. He used the final digit of each year's date to identify the year in his calculations. He identified the years 1881, 1891, 1901, 1911 and 1921 as the first year. He labelled years 1882, 1892, 1902, 1912 and 1922 as the second year etc.

Smith only used the available data at the time, 58 years from 1880 to 1938. So this Decennial Pattern has been out-of-sample for almost 80 years! I do like reviewing old approaches as the more out-of-sample data there is the more robust the approach becomes. Below is the Decennial pattern based on data from 1897 to 2015.



Source: http://www.seasonalcharts.com

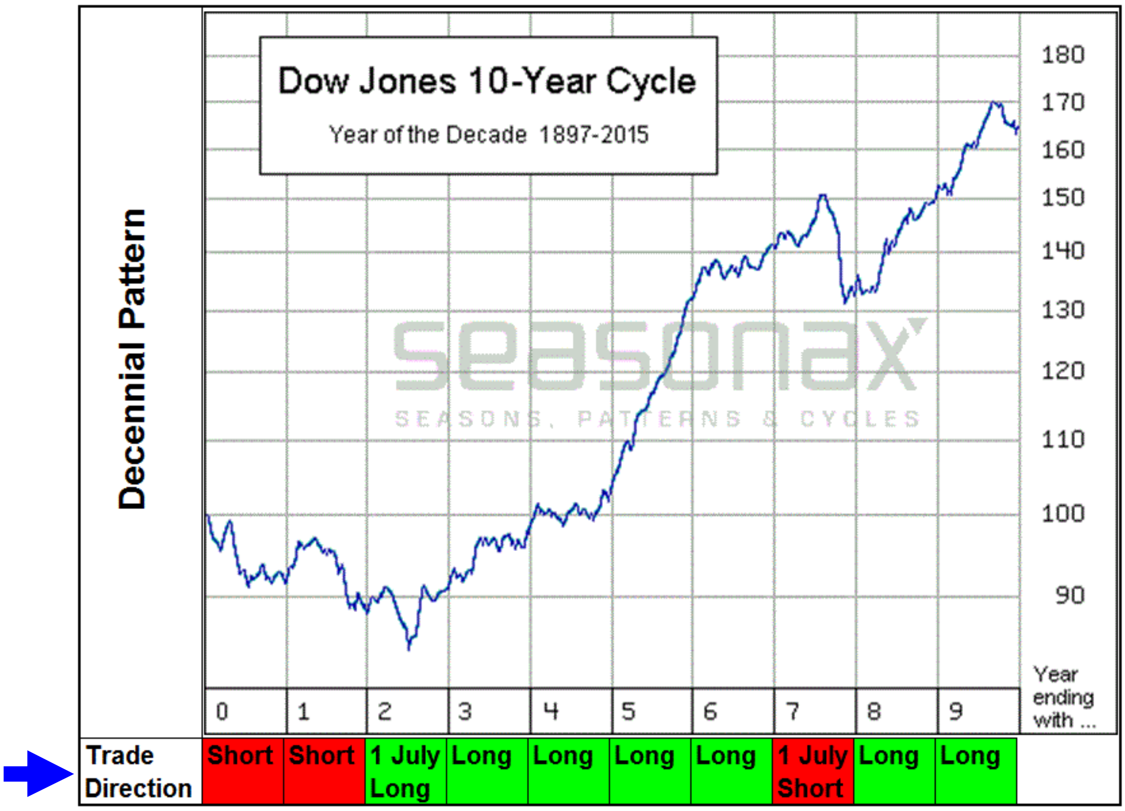
You can see the chart above has held its Decennial shape pretty well since 1939.

However there appears to be some slight differences.

Smith observed weakness appearing in years ending in 3, 7 and 10.
Today it appears weakness appears in years ending in 1, 7 and 10.

Smith observed strength in years ending in 5, 8 and 9.
Today it appears strength appears in years ending in 3, 5, 8 and 9.

Let's now attach some directional timing flags to the Decennial Pattern.



According to the Decennial trade directional flags traders should only take short signals at the start of each decade and only look to take long signals from 1st July in the "2nd" year. Long signals should then only be taken until 30th of June in the "7th" year at which time only short signals should be followed. From the 1st January of the "8th" year only long signals should be taken until the end of years ending in "9".

At time of writing its September 2017. So according to the Decennial Pattern only short signals should be taken until the 1st January 2018.

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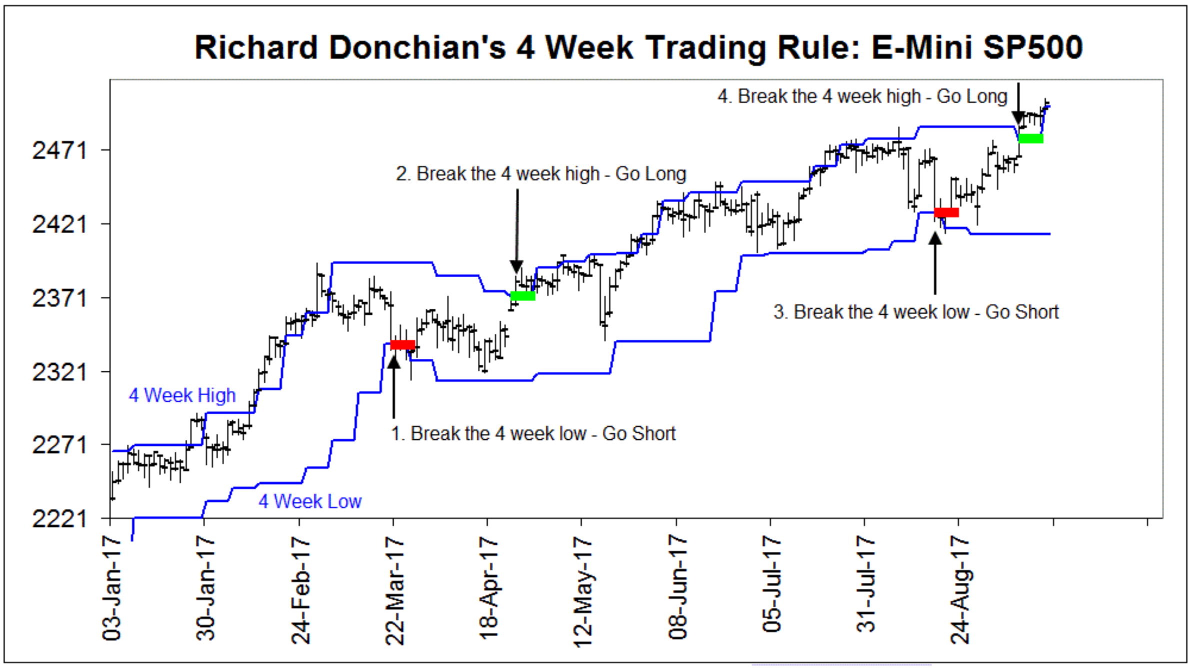
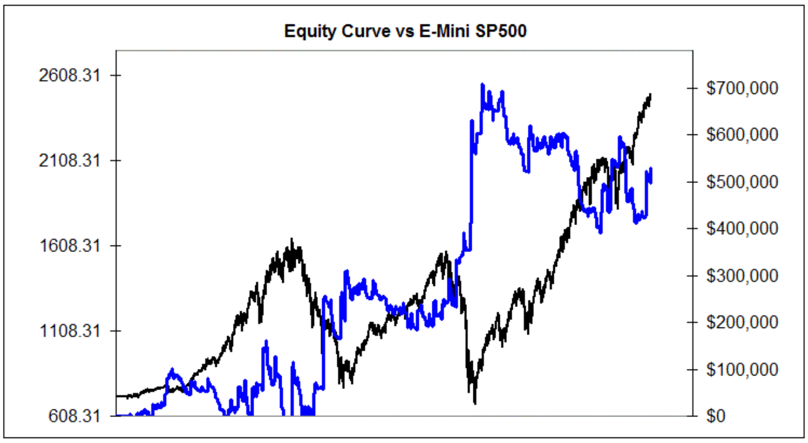
Donchian 4 Week Trading Rule

Richard Donchian shared his 4 week trading rule in the mid 1960s. It's called a Stop And Reverse (SAR) strategy because it's always in the market.



Traders simply go long once the highest weekly high of the last 4 weeks is broken and do the opposite for shorts. Let's look at Richard Donchian's simple 4 week rule when it's applied to a portfolio of indices.

Markets	Spi, Nikkei, Taiwan, Hang Seng, Dax, Stoxx50, Ftse, E-Mini Nasdaq and E-Mini SP500
Strategy	**Donchian 4 Week Rule**
Results Start Date	31/01/1992
Results End Date	19/09/2017
Results Period	25.7 Yrs
Risk/Reward	
(1 Contract)	
Net Profit $$/AUD	$528,876
CAGR	10%
Max DD	-$318,685
Rsk/Rwd: $$/DD	2
Total trades	1,606
Net avg profit	$329
Avg brok.& slip. per trade	-$83
Profit to loss ratio	1.1
Percentage profitable	36%
Average win to loss ratio	2.0
Expectancy E[R]	9.3%
Real Potential	
(wMMGT)	
Net Profits $$/AUD (M)	$0m
CAGR	7%

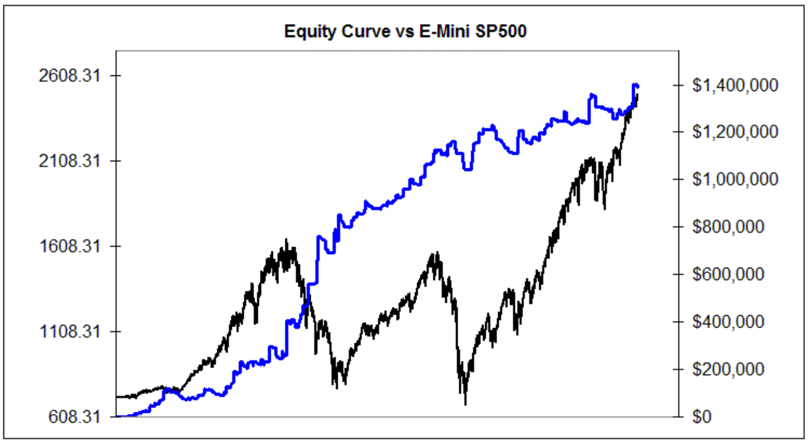


Remember the 4 week trading rule is always in the market, either long or short. As you can see this simple rule is profitable across a diverse portfolio of global indices.

Donchian 4 Week Trading Rule with Decennial Timing

I'll now overlay the results with the Decennial timing filter, only selecting trades which are aligned with the 10-year cycle directional flags.

Markets	Spi, Nikkei, Taiwan, Hang Seng, Dax, Stoxx50, Ftse, E-Mini Nasdaq and E-Mini SP500
Strategy	**Donchian 4 Week Rule with Decennial Timing**
Results Start Date	11/03/1992
Results End Date	19/09/2017
Results Period	25.5 Yrs
Risk/Reward	
(1 Contract)	
Net Profit $$/AUD	$1,394,873
CAGR	14%
Max DD	-$119,575
Rsk/Rwd: $$/DD	12
Total trades	818
Net avg profit	$1,705
Avg brok.& slip. per trade	-$83
Profit to loss ratio	2.0
Percentage profitable	47%
Average win to loss ratio	2.2
Expectancy E[R]	50.9%
Real Potential	
(wMMGT)	
Net Profits $$/AUD (M)	$4m
CAGR	18%



Well how about that. As they say a picture paints a thousand words. This short exercise demonstrates the effectiveness of applying a Decennial timing filter, first identified and shared publically in 1939, over a simple trading rule that has been publically known since the 1960's. Combining two old ideas on out-of-sample data provides a powerful case for applying a good timing technique with a good price technique.

Summary

These are my results applying my interpretation of the Decennial Pattern and 4 Week Rule over my portfolio of indices. You may achieve different results with a different interpretation and different portfolio of indices. It doesn't matter. What matters is that you independently validate all ideas to see whether they have value in *your hands*, across your portfolio, within your timeframe, with your strategy, with your filters and with your trade plan. If they do (with minor curve fitting) then you're moving forward.

I hope this Working Paper has been of some assistance as you continue your journey towards long-term and sustainable trading.

And remember to be a cynic in this business of trading. Certainly welcome all ideas but reserve your opinion until you have independently validated the idea first!

Good validating, good money management and good risk management.

Brent Penfold
Helping traders since 2001
Sydney, Australia
September 2017

Brent Penfold

Trader, Advisor, Author and Educator

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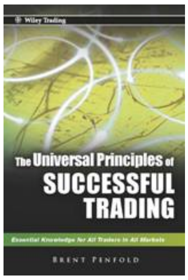

Brent Penfold is a 30-year veteran trader having begun his career in 1983 as an institutional trader with Bank America. In addition to being a professional trader Brent is an advisor, author and educator. Today Brent trades a diversified portfolio of global markets covering indices, currencies, interest rates, energies, metals, grains, softs and meats.

He is the author of two books;

- ***Trading the SPI*** (Wiley 2005) and
- ***The Universal Principles of Successful Trading*** (Wiley 2010).

The *Universal Principles of Successful Trading* has become an international best seller that has now been translated into Polish, German, Korean, Japanese and simplified and orthodox Chinese.

Brent has a third book coming out in 2018;

- ***The Universal Tactics of Successful Trading*** (Wiley 2018).

Brent publishes daily newsletters for active index, currency and commodity traders and is a popular and sought after international speaker who has presented to traders throughout the Asia Pacific region including Australia, New Zealand, Malaysia, Singapore, Hong Kong, Vietnam, Thailand, India and China.

Brent holds a Master of Commerce (Finance) degree. To learn more about Brent Penfold and his services you can visit his web site:

www.IndexTrader.com.au

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Hypothetical or actual results DO NOT indicate future success.

This Working Paper does not contain any trading advice, personal advice or general advice.

This Working Paper is educational only and is designed to encourage traders to independently verify trading ideas before they consider using them in the market.

When researching certain trading ideas this Working Paper does not take into account individual trader needs, their individual financial situation or their individual investment objectives.

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You need to understand there is risk of loss in trading and that this Working Paper does not indicate future trading success.

By receiving this Working Paper you acknowledge that you understand and accept these warnings.