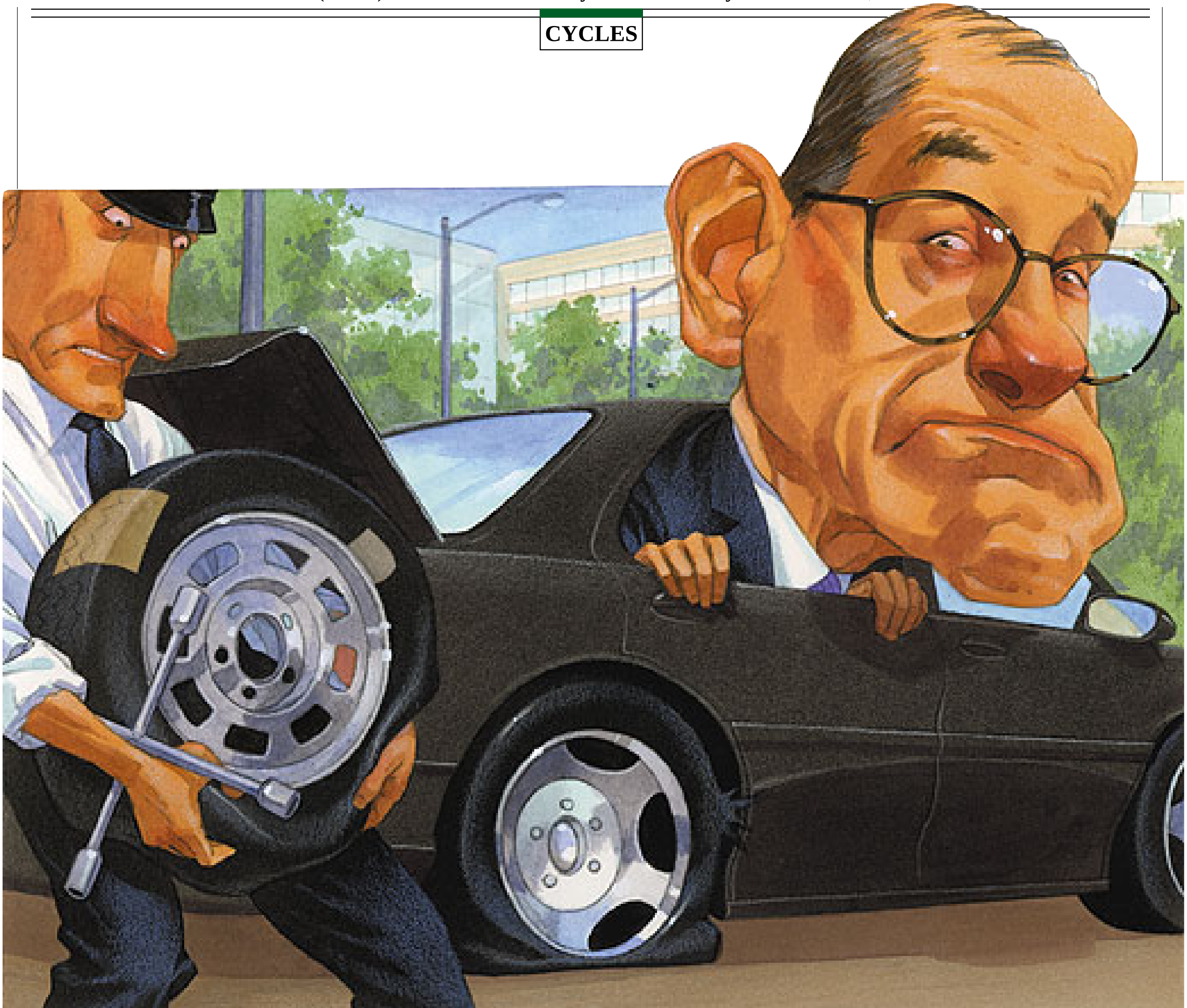
CYCLES



ANDREW VANDERKARR

The Secrets Of Cycles And What They Can Reveal

What Can Market Cycles Tell Us?

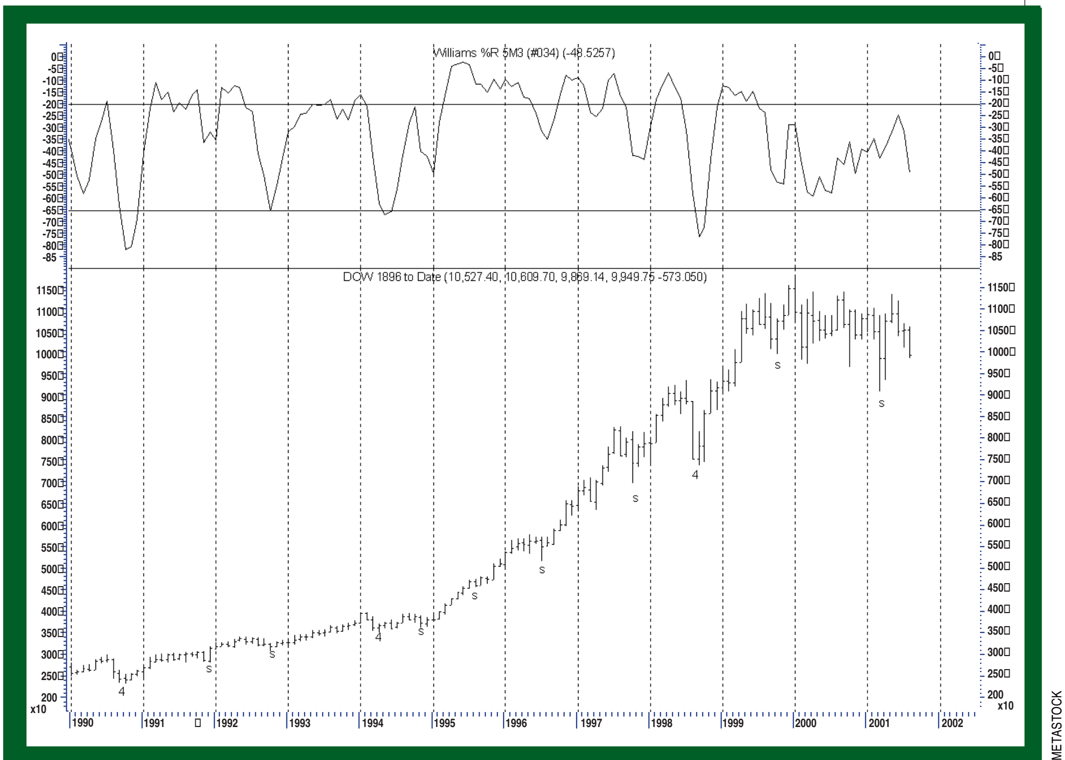
Everything in nature moves in cycles — the solar system, the migration of geese, sleep patterns. Of more immediate interest to traders are cycles in the agricultural and financial markets. Cycle analysis is the one approach that can provide relatively accurate time and price projections.

by Tim W. Wood, CPA

Usually, the effect of cycles is of only passing interest to market analysts and traders, unless the cycles in question are related to market prices and can be used to identify tops and bottoms of price movement and give indications of future price activity. That is the challenge the cycle analyst faces.

Cycle analysis of the futures markets assumes that at any given time, current fundamental information is relative only to the current price structure, and that fundamental events will occur to move prices in the direction of the cycle. Such an event might be a government report that greatly changes the supply or demand picture; money supply figures; utterances of Federal Reserve officials; foreign purchases; crop failures or freezes in any part of the world; war or the threat of war; or unexpected political action such as embargoes, tariffs, or price controls. These and many other unforeseen factors can alter prospects for the future.

FIGURE 1: DOW JONES INDUSTRIAL AVERAGE (1990- AUGUST 2001). The four-year cycle lows are denoted by "4," and "S" denotes seasonal cycle lows. The oscillator moves below the 65 level on all four-year lows.



But cycles can contract, expand, and even skip a beat now and then. Oscillator/cycle combinations such as those introduced by Walter Bressert are powerful tools that often allow for early identification of cycle highs and lows. In the chart of the Dow Jones Industrial Average (DJIA) displayed in Figure 1, the difference between the five-period and three-period Williams' %R oscillator is used to detect cycle tops and bottoms. Once a high/low has been identified, the component parts of the cycle are used to set up time expectations for the next high or low.

HAS THE FOUR-YEAR CYCLE TOPPED?

The last four-year cycle closing low occurred in October 1998 at 969 for the Standard & Poor's 500, and in September 1998 at 7615 on the DJIA. The analysis of the DJIA can be seen in Figure 1. As of August 2001, the top of the current four-year cycle could have occurred in March 2000 at 1535 on the S&P 500 and in January 2000 at 11723 on the DJIA. If the four-year cycle has indeed topped, this means that the count from the 1998 lows to the potential top would be 17 months for the S&P and 16 months for the DJIA. Going back to 1896 and looking at the four-year cycle in the DJIA, the four-year cycle has topped five times in 20 months or less. As is evident from Figure 2, every four-year cycle that has topped in 20 months or less has always taken out the previous four-year cycle low.

In analyzing the five times that this has happened, I noticed that the percent decline from the four-year cycle highs to the lows were as follows: 46% from the 1901 high of 78 to the 1903 low of 42; 44% from the 1912 high of 94 to the 1914 low of 53; 86% from the 1930 high of 294 to the 1932 low of 41; 40% from the 1939 high of 156 to the 1942 low of 93; and 16% from the 1948 high of 193 to the 1949 low of 162. The average decline of these five cycles is 46%. If the current cycle retraced 86%, this would put the DJIA at 1641 and the S&P 500 at 214. A 40% decline would put the DJIA at 7034 and the S&P at 921. A 16% decline would put the DJIA at 9847 and the S&P at 1289. A 46% decline would put the DJIA at 6330 and the S&P at 829.

There are three other occurrences in which the four-year cycle low took out the previous four-year low. The differences are that in these three cases, the four-year cycle did not top in 20 months or less. Those three occurrences were 1921, 1970, and 1974.

On December 19, 1917, the four-year cycle bottomed at 66. This cycle topped 23 months later at 120 on November 3, 1919. The cycle bottomed on August 24, 1921, at 64. This was a 46% decline from the 1919 top. On October 7, 1966, the four-year cycle bottomed at 744. This cycle topped 26 months later on December 3, 1968, at 985. The bottom occurred on May 26, 1970, at 631. This was a 36% decline from the 1968 top. From the low on May 26, 1970, a new four-year cycle began. This cycle moved up for 32 months to top on January

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FIGURE 2: Here, you can see all the cycle highs and lows and their percent increases and declines.

4-YEAR CYCLE IN DJIA 1896 TO 1998

Date of Low	Low Close	% Decline from High	Date of High Close	High Close	% Advance to High	Month Low to Low	Month Low to High	Month High to Low
08/08/1896	28		04/25/1899	77	175.00%	49	32	17
09/24/1900	53	31.17%	06/17/1901	78	47.17%	38	9	29
11/09/1903	42	46.15%	01/19/1906	103	145.24%	47	26	21
11/15/1907	53	48.54%	11/19/1909	101	90.57%	46	24	22
09/25/1911	73	27.72%	09/30/1912	94	28.77%	36	12	23
12/24/1914	53	43.62%	11/21/1916	110	107.55%	36	23	13
12/19/1917	66	40.00%	11/03/1919	120	81.82%	44	23	21
08/24/1921	64	46.67%	02/11/1926	162	153.13%	55	54	1
03/30/1926	135	16.67%	09/03/1929	381	182.22%	44	42	2
11/13/1929	199	47.77%	04/17/1930	294	47.74%	32	5	27
07/08/1932	41	86.05%	03/10/1937	194	373.17%	68	56	12
03/31/1938	99	48.97%	09/12/1939	156	57.58%	49	18	31
04/28/1942	93	40.38%	05/26/1946	213	129.03%	54	49	5
10/09/1946	163	23.47%	06/15/1948	193	18.40%	32	20	12
06/13/1949	162	16.06%	01/05/1953	294	81.48%	51	43	8
09/14/1953	256	12.93%	04/06/1956	522	103.91%	49	31	18
10/22/1957	420	19.54%	12/13/1961	735	75.00%	56	50	6
06/26/1962	536	27.07%	02/09/1966	995	85.63%	52	44	8
10/07/1966	744	25.23%	12/03/1968	985	32.39%	43	26	17
05/26/1970	631	35.94%	01/11/1973	1052	66.72%	55	32	23
12/06/1974	578	45.06%	09/12/1976	1015	75.61%	38	21	17
02/28/1978	742	26.90%	04/27/1981	1024	38.01%	54	38	16
08/12/1982	777	24.12%	08/25/1987	2722	250.32%	62	60	2
10/19/1987	1739	36.11%	07/17/1990	3000	72.51%	36	33	3
10/11/1990	2365	21.17%	01/31/1994	3978	68.20%	42	39	3
04/04/1994	3593	9.68%	07/17/1998	9338	159.89%	56	55	2
09/10/1998	7615	18.45%	01/14/2000	11723	53.95%			
AVERAGE		31.41%			105.08%	47.08	33.27	13.81

11, 1973, at 1052. It bottomed on December 12, 1974, at 578. This was a 45% decline from the 1973 top.

You might think a 16% decline is not bad compared to the 20% decline in the DJIA and the 27% decline in the S&P 500 we have already experienced as of August 2001. The problem is that the 20% and 27% decline did not take out the previous four-year cycle low, and in 1946 a 16% decline was enough to take out the previous low.

Regardless of the decline, all eight of the cycles mentioned *did* take out the previous four-year cycle lows. This indicates that 969 on the S&P and 7615 on the DJIA can be considered to be minimum downside objectives for the current four-year cycle low, which is due to bottom sometime in late 2002. In addition, all five cycles that topped in 20 months or less did take out the previous lows. Again, we appear to have topped in 17 months for the S&P and 16 months for the DJIA. Based on the past behavior of the four-year cycle, we must move above the March 2000 high at 1535 on the S&P 500 and January 2000 high at 11723 on the DJIA. Otherwise, there is a high likelihood of a big breakdown in the equity markets.

Another bearish statistic I found in this study is the percent advancement from the four-year cycle low to the four-year cycle top. There are eight occurrences where the percent advancement of the four-year cycle was less than 67%. These tops occurred on June 17, 1901; September 30, 1912; April 17, 1930; September 12, 1939; June 15, 1948; December 3, 1968; January 11, 1973; and April 27, 1981. After these tops, *all* but one cycle moved down, taking out the previous four-year cycle low. All five of the four-year cycles that topped in 20 months or less also had advancements of less than 67%. Two of the three cycles that also took out the previous four-year cycle lows but topped in more than 20 months also had advances of less than 67%. These were the 1966 to 1968 advance and the 1970 to 1973 advance. The one exception was the four-year cycle move from 1978 to the top in 1981. This advancement was only 38%, and the previous four-year low held.

So seven out of eight tops with a percentage move of less than 67% took out the previous four-year low. All seven of the cycles that had advances of 67% or less were cycles that also took out the previous four-year lows. This suggests an 88% probability that any four-year cycle that advances 67% or less will also take out the previous four-year low.

If the current four-year cycle has indeed topped, the percentage advancement for the move from the 1998 four-year low would be a mere 54% for the DJIA and 58% for the S&P 500. Based on this, it appears that there is an 88% probability of a move below the previous four-year cycle low.

SEASONAL CYCLES

The seasonal cycle is a smaller annual cycle, and 85% of the time it lasts between eight and 16 months. The last seasonal cycle low was in March 2001 at 1088.50 on the S&P and 9106 on the DJIA. In bullish markets, the expectation is for the seasonal cycle to top seven to 14 months from the previous low. In bear markets, the expectation is for the seasonal cycle to top one to five months from the previous low. Going back to 1955 in the S&P and studying the seasonal cycles, we can see there have been nine tops in five months or less. All but one time (1994) when this happened, the previous seasonal cycle was taken out. That's an 89% probability.

One bullish argument for this market is that if the current seasonal cycle low holds, we may have a chance of not moving lower in the equities. Again, those lows were made in March 2001 at 1088.50 on the S&P and 9106 on the DJIA. Statistically, these lows will fail to hold if the high in the current seasonal cycle occurs in five months or less. This means if we make the seasonal high for the current cycle in or by August 2001, then the lows would not be expected to hold.

To make these new highs for the current seasonal cycle, we must move above the May high of 11350 on the DJIA and 1319 on the S&P 500. If the top does come in August or before, we would have an 89% probability that the March lows would be taken out. If that happens, I certainly do not see the S&P nor the DJIA coming back to make a higher high for the current four-year cycle top. If the May high is not taken out in seven months or more without taking out the March lows first, then the March lows will also fail to hold. So we *must* see prices hold above the March lows and move above the May highs in October 2001 or later in order to have a bullish expectation.

Not only that, the last four-year cycle low was in October 1998. The next four-year low is due in late 2002. With the current seasonal cycle not due to bottom until late 2001 or early 2002, this cycle must move higher *now*. Otherwise, I do not see how the market could make the current seasonal low in later 2001 or early 2002, then run up above the highs made in January and March 2000 and then sell off into the 2002 low. The timing for this scenario just does not fit.

SUMMARY

Based on this research, if you look only at the statistics for the four-year cycle, we could indeed be headed much lower. All eight of the four-year cycles that declined below the previous cycle low had an average decline of 45%. All of the cycles that topped in 20 months or less took out the previous cycle low. The 1921, 1970, and 1974 lows also took out the previous four-year cycle lows, regardless of the duration from the low to the high, and the declines were very large — 46% in 1921, 36% in 1970, and 45% in 1974. In addition, 88% of the four-year tops with a percentage move, from low to high, of less than 67% took out the previous four-year lows. And finally, all of the four-year tops with percentage moves, from low to high, of less than 67% that topped in 20 months or less, took out the previous four-year low.

Where do we stand now? If the equities don't move above the January 2000 high of 11723 on the DJIA and March 2000 high of 1535 on the S&P, then we will have tops that occurred in less than 20 months. We currently have a 54% advance from the previous four-year cycle low for the DJIA and 58% for the S&P 500. Based on the study of the four-year cycle, this suggests a 100% chance of a decline below the 1998 four-year cycle low. When looking at the statistics for the four-year cycle, it does indeed look bearish.

In order to have any bullish hope, not only do the March lows have to hold, but prices must move above the May highs. This move must come seven months or more from the March lows, which would mean that if the third quarter does not see higher prices, I would tend to be extremely bearish on equities. So watch the 1088 level on the S&P and the 9106 level in the DJIA.

Tim Wood has been working with cycles and trading the markets for about a decade. He is a licensed certified public accountant and an affiliate member of the Market Technicians Association.

SUGGESTED READING

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†See Traders' Glossary for definition