TABELL'S MARKET LETTER

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The season has arrived for discussion of the summer rally; and said season was duly celebrated in the Wall Street Journal on Monday, quoting a number of our colleagues on the subject. Not surprisingly, the reporter was able to turn up a number of analysts who felt that such a rally was "predictable as the annual migration of whales" and a number of others who derided it as a myth. The article also took the opportunity for some well-deserved criticism of sloppy statistics, noting that the rally has occasionally been measured from the May-June low to the July-September high. Given the market's innate volatility, such a measurement has produced a "summer rally" in every one of the past 20 years, but, as pointed out, if one chose to measure from the May-June high to the July-September low, a "summer crash" could be also produced for each year of the last two decades.

We do not like to think we are guilty of this sort of sophistry in the following table, which has appeared, updated, in this space around early summer for the past decade or so. It is based on percentage changes for fixed one-month and two-month periods since 1926 and shows for each period the number of advances, the number of declines and the mean percentage change.

	One Month Periods (1926-1983)			Two Month Periods (1926-1983)		
End Month	Advances	Declines	Average % Chg.	Advances	Declines	Average % Chg.
January	37	21	1.03	38	20	2.30
February	30	28	-0.13	33	25	0.91
March	32	26	-0.03	28	30	-0.25
April	33	25	1.25	36	22	1.29
May	28	30	-0.86	33	25	0.60
June	29	29	0.87	26	32	-0.02
July	36	22	1.77	35	23	2.60
August	37	21	1.44	39	19	3.36
September	23	35	-1.31	34	24	0.09
October	30	28	-0.37	27	31	-1.65
November	36	22	0.76	35	23	0.43
December	42	16	1.17	41	17	1.95
TOTAL	393	303	0.47	405	291	0.97

The Journal article was able to find analysts who came down strongly pro or con on the subject of the existence of a summer-rally tendency. Our own view, perhaps less newsworthy, is that the question is an iffy one. It cannot be gainsaid that July shows the best percentage advance for any month of the year with August a close second, or that the two-month period ended August shows an average change over three times that of the average for all such periods. It is when standard statistical tests are applied to the numbers above that one begins to get into trouble.

We start out with the fact that the market rose in 393 and declined in 303 of the 696 months from 1926 to 1983. In the 58 Julys, however, it rose 36 times. For these numbers we can apply a chi-square test, a process best explained by analogy. Put 393 white marbles and 303 black marbles in a jar and draw out a sample of 58. What would be the probability of that sample's containing 36 or more white marbles? Unfortunately, what the test tells us is that probability would be considerably greater than 20%, thus raising the real possibility that the July-August results occurred purely by chance. As we have noted before, the only significant one-month seasonal periods based on this test are the September decline and the December rally. The probability of the statistics for those months having occurred by pure chance is somewhere in the vicinity of 1%.

What about the high average advance for July and August? Over 58 years the market has advanced, on average, 3.36% in the July-August period. The mean advance for all two-month periods is under 1%. However, the dispersion of the individual numbers is fairly wide. (The standard deviation, for those familiar with the meaning of that term, is 8.57%.) This data being known, we can apply another piece of statistical arcana known as the z-test, by which the summer rally comes out looking a little bit more real. A 58-month sample with a mean change of 3.36% has only a 3.44% probability of being drawn by chance from the 696 months in question. However, even by this method, the tendency toward a decline in September is a much greater likelihood, with a chance probability-of-occurrence of only 2%. We have also drawn attention to the fact that much of the result for July-August can be attributed to the fact that the bottom of the greatest bear market in history occurred at the end of June, 1932, following which the Dow was up 27% in July, 35% in August, and 70% for the two months. This sort of thing has a tendency to skew results.

In short, we continue to regard the question of the summer rally as an unanswered one.

AWT:rs

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Dow-Jones Industrials (12:00 p.m.)	1135.60
S & P Composite (12:00 p.m.)	153.76
Cumulative Index (6/28/84)	1874.95