

# **IDENTIFYING BEAR MARKET BOTTOMS AND NEW BULL MARKETS**

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Ask one hundred investors whether this is a bull market or a bear market, and you are likely to find their opinions split evenly down the middle. No one is really certain that the September 2001 low marked the end of the bear market and the start of a new bull market. But, this uncertainty is nothing new. As long as stock exchanges have existed, analysts and investors have always placed heavy emphasis on the difficult task of identifying the primary trend of the stock market. Everyone's ideal market strategy is, at least in theory, to avoid the ravages of each bear market, and then to move aggressively into stocks after each important market bottom. To further maximize the benefits of a new bull market, time is of the essence. An investor should buy as close to the final low as possible. This is the 'sweet spot' for investors -- the first few months of a new bull market in which so many stocks rise so dramatically. But, theory and reality, especially in the stock market, are often entirely different matters. To bring this theoretical investment strategy to reality, an investor would need a time-tested method of identifying major market bottoms -- as opposed to minor market bottoms -- and would have to apply this method quickly, to capture as much of the bull market as possible. Traditional methods of spotting major turning points in the market often leave a great deal to be desired. The financial news typically remains negative for months after a new bull market has begun. The economic indicators offer little help since, historically, the economy does not begin to improve until about six to nine months after the stock market has already turned up from its low. Even some widely accepted technical indicators, such as 200-day moving averages or long-term trendlines, can sometimes take several months to identify a major turning point in the market. To spot an important market bottom, almost as it is happening, requires a close examination of the forces of supply and demand -- the buying and selling that takes place during the decline to the market low, as well as during the subsequent reversal point.

Important market bottoms are preceded by, and result from, important market declines. And, important market declines are, for the most part, a study in the extremes of human emotion. The intensity of their emotions can be statistically measured through their purchases and sales. To clarify, as prices initially begin to weaken, investor psychology slowly shifts from complacency to concern, resulting in increased selling and an acceleration of the decline. As prices drop more quickly, and the news becomes more negative, the psychology shifts from concern to fear. Sooner or later, fear turns to panic, driving prices sharply lower, as investors strive to get out of the market at any price. It is this panic stage that drives prices down to extreme discounts – often well below book values – that is needed to set the stage for the next bull market. Thus, if an investor had a method for identifying and measuring panic selling, at least half the job of spotting major market bottoms would be at hand.

Over the years, a number of market analysts have attempted to define panic selling (often referred to as a selling climax, or capitulation) in terms of extreme activity, such as unusually active volume, a massive number of declining stocks, or a large number of new lows. But, those definitions do not stand up under critical examination, because panic selling must be measured in terms of intensity, rather than just activity. To formulate our definition of panic selling, we reviewed the daily history of both the price changes and the volume of trading for every stock traded on the New York Stock Exchange over a period of 69 years, from 1933 to present. We broke the volume of trading down into two parts – Upside (buyers) Volume and Downside (sellers) Volume. We also compiled the full and fractional dollars of price change for all NYSE-listed stocks that advanced each day (Points Gained), as well as the full and fractional dollars of price change for all NYSE-listed stocks that declined each day (Points Lost). These four daily totals – Upside Volume and Points Gained, Downside Volume and Points Lost – represent the basic components of Demand and Supply, and have been an integral part of the Lowry Analysis since

1938. (Note: an industrious statistician can compile these totals from the NYSE stock tables in each day's Wall Street Journal.)

In reviewing these numbers, we found that almost all periods of significant market decline in the past 69 years have contained at least one, and usually more than one, day of panic selling in which Downside Volume equaled 90.0% or more of the total of Upside Volume plus Downside Volume, and Points Lost equaled 90.0% or more of the total of Points Gained plus Points Lost. For example, April 3, 2001 qualified as a valid 90% Downside Day. To clarify, the following table was shown in Lowry's Daily Market Trend Analysis Report of April 4, 2001:

DAILY TOTALS	UPSIDE VOLUME	DOWNSIDE VOLUME	POINTS GAINED	POINTS LOST	+VOL%	+POINTS%
March 30	964,227,570	508,158,900	1,116	296	65.5	79.0
April 02	383,754,900	1,004,545,180	298	933	27.6	24.2
April 03	146,576,520	1,439,436,850	148	1,447	9.2	9.3

On April 3<sup>rd</sup>, Downside Volume equaled 90.8% of the sum of Upside plus Downside Volume:

$$1,439,436,850 / (146,576,520 + 1,439,436,850) \times 100 = 90.8\%$$

AND, Points Lost equaled 90.7% of the sum of Points Gained plus Points Lost:

$$1447 / (148 + 1447) \times 100 = 90.7\%$$

The historical record shows that 90% Downside Days do not usually occur as a single incident on the bottom day of an important market decline, but typically occur on a number of occasions throughout a major decline, often spread apart by as much as thirty trading days. For example, there were seven such days during the 1962 decline, six during 1970, fourteen during the 1973-74 bear market, two before the bottom in 1987, seven throughout the 1990 decline, and three before the lows of 1998. These 90% Downside Days are a key part of an eventual market bottom, since they show that prices are being deeply discounted, perhaps far beyond rational valuations, and that the desire to sell is being exhausted.

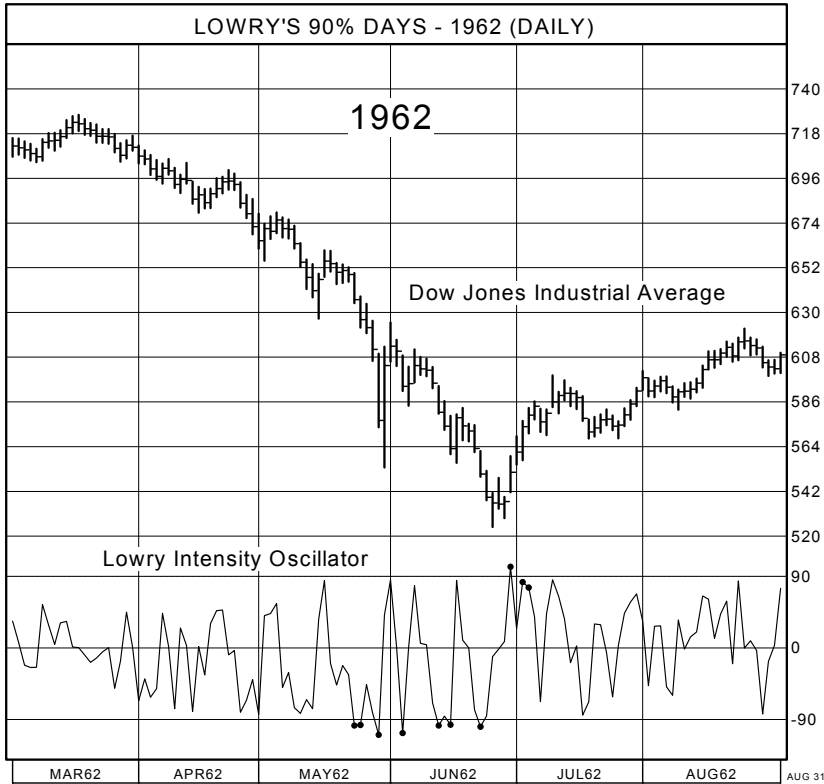
But, there is a second key ingredient to every major market bottom. It is essential to recognize that days of panic selling cannot, by themselves, produce a market reversal, any more than simply lowering the sale price on a house will suddenly produce an enthusiastic buyer. As the Law of Supply and Demand would emphasize, it takes strong Demand, not just a reduction in Supply, to cause prices to rise substantially. It does not matter how much prices are discounted; if investors are not attracted to buy, even at deeply depressed levels, sellers will eventually be forced to discount prices further still, until Demand is eventually rejuvenated. Thus, our 69-year record shows that declines containing two or more 90% Downside Days usually persist, on a trend basis, until investors eventually come rushing back in to snap up what they perceive to be the bargains of the decade and, in the process, produce a 90% Upside Day (in which Points Gained equal 90.0% or more of the sum of Points Gained plus Points Lost, and on which Upside Volume equals 90.0% or more of the sum of Upside plus Downside Volume). These two events – panic selling (one or more 90% Downside Days) and panic buying (a 90% Upside Day, or on rare occasions, two back-to-back 80% Upside Days) – produce very powerful probabilities that a major trend reversal has begun, and that the market's Sweet Spot is ready to be savored.

Not all of these combination patterns – 90% Down and 90% Up – have occurred at major market bottoms. But, by observing the occurrence of 90% Days, investors have (1) been able to avoid buying too soon in a rapidly declining market, and (2) been able to identify many major turning points in their very early stages – usually far faster than with other forms of fundamental or technical trend analysis. Before reviewing the historical record, a number of general observations regarding 90% Days might help to clarify some of the finer appraisal points associated with this very valuable reversal indicator:

1. A single, isolated 90% Downside Day does not, by itself, have any long term trend implications, since they often occur at the end of short term corrections. But, because they show that investors are in a mood to panic, even an isolated 90% Downside Day should be viewed as an important warning that more could follow.
2. It usually takes time, and significantly lower prices, for investor psychology to reach the panic stage. Therefore, a 90% Downside Day that occurs quickly after a market high is most commonly associated with a short term market correction, although there are some notable exceptions in the record. This is also true for a single 90% Downside Day (not part of a series) that is triggered by a surprise news announcement.
3. Market declines containing two or more 90% Downside Days often generate a series of additional 90% Downside Days, often spread apart by as much as 30 trading days. Therefore, it should not be assumed that an investor can successfully ride out such a decline without taking defensive measures.
4. Impressive, big-volume “snap-back” rallies lasting from two to seven days commonly follow quickly after 90% Downside Days, and can be very advantageous for nimble traders. But, as a general rule, longer-term investors should not be in a hurry to buy back into a market containing multiple 90% Downside Days, and should probably view snap-back rallies as opportunities to move to a more defensive position.
5. On occasion, back-to-back 80% Upside Days (such as August 1 and August 2, 1996) have occurred instead of a single 90% Upside Day to signal the completion of the major reversal pattern. Back-to-back 80% Upside Days are relatively rare except for these reversals from a major market low.

6. In approximately half the cases in the past 69 years, the 90% Upside Day, or the back-to-back 80% Upside Days, which signaled a major market reversal, occurred within five trading days or less of the market low. There are, however, a few notable exceptions, such as January 2, 1975 or August 2, 1996. As a general rule, the longer it takes for buyers to enthusiastically rush in after the market low, the more investors should look for other confirmatory evidence of a market reversal.
7. Investors should be wary of upside days on which only one component (Upside Volume or Points Gained) reaches the 90.0% or more level, while the other component falls short of the 90% level. Such rallies are often short-lived.
8. Back-to-back 90% Upside Days (such as May 31 and June 1, 1988) are a relatively rare development, and have usually been registered near the beginning of important intermediate and longer term trend rallies.

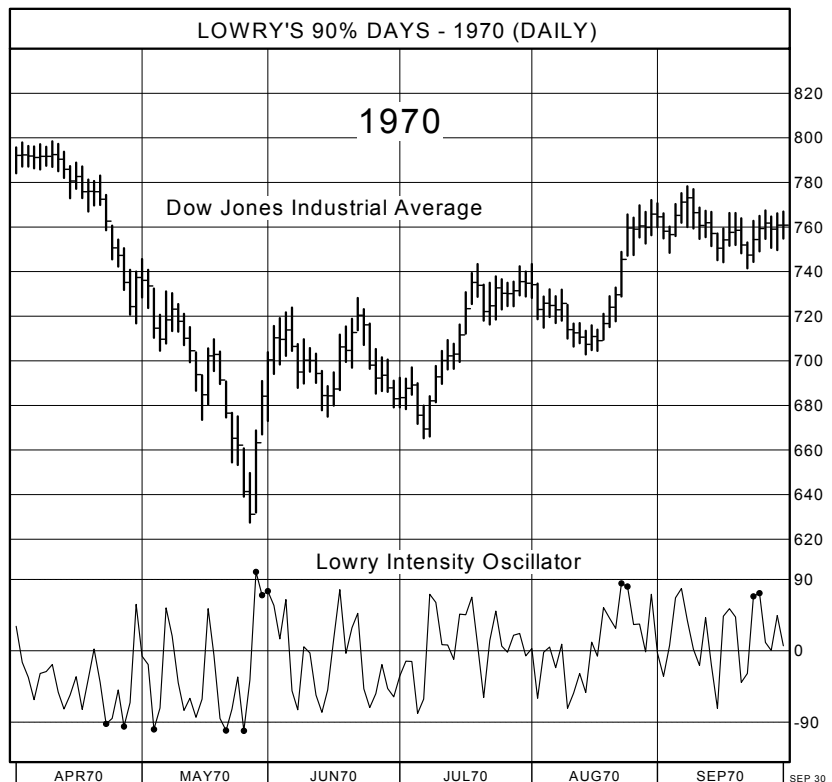
A detailed Appendix is attached, showing each 90% Day (or back-to-back 80% Upside Days) over the past 40 years, since January 1, 1960. But, several examples may make it easier to visualize the concepts presented here. The charts to follow show the Dow Jones Industrial Average in the months before and after a number of major market bottoms. An oscillator of the intensity of each day's trading, in terms of both Price and Volume, is also shown on each chart (for simplicity's sake, the Price and Volume percentages have been combined into a single indicator). The 90% Days, both Downside and Upside, are highlighted with dots outside the 90% lines. The back-to-back 80% Upside Days are highlighted with a dot within the 90% lines



(EXHIBIT ONE) During 1962, seven 90% Downside Days were recorded during May and June, the last one occurring two days before the final low. The 90% Upside Day was recorded on June 28, just three days after the low in the Dow Jones Industrial Average.

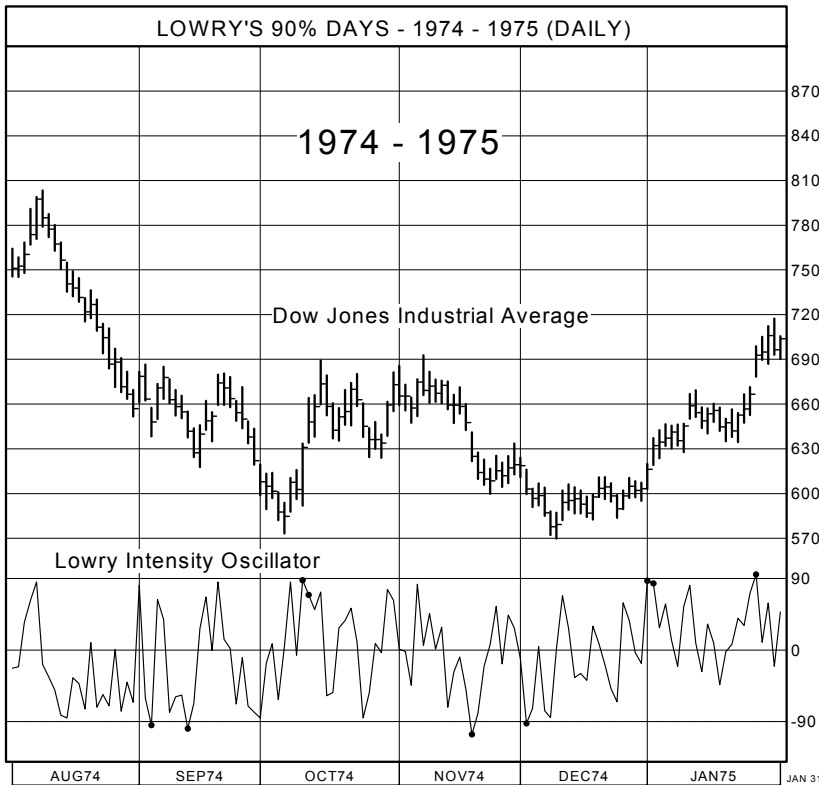
**EXHIBIT ONE**

(EXHIBIT TWO) Five 90% Downside Days were recorded during the final months of the 1969-1970 bear market, the last one occurring one day before the low. The 90% Upside Day occurred on May 27, one day after the market low.



**EXHIBIT TWO**

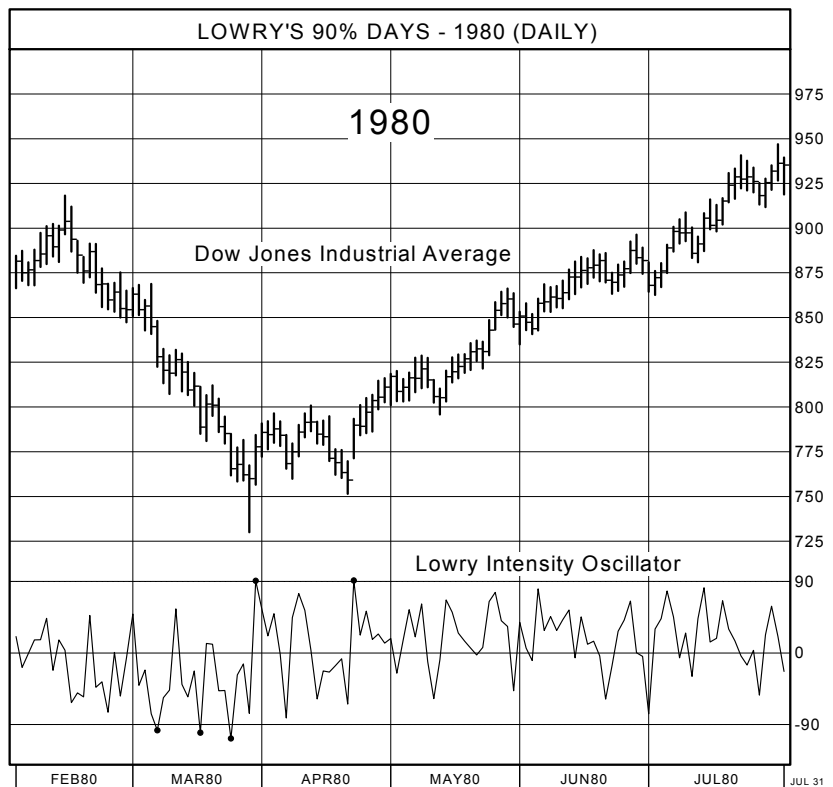




(EXHIBIT THREE) The final months of the 1973-1974 bear market contained four 90% Downside Days (a total of 14 occurred throughout 1973 and 1974), the last occurring on December 2, four days before the final low in the Dow Jones Industrial Average. Back to back 80% Upside

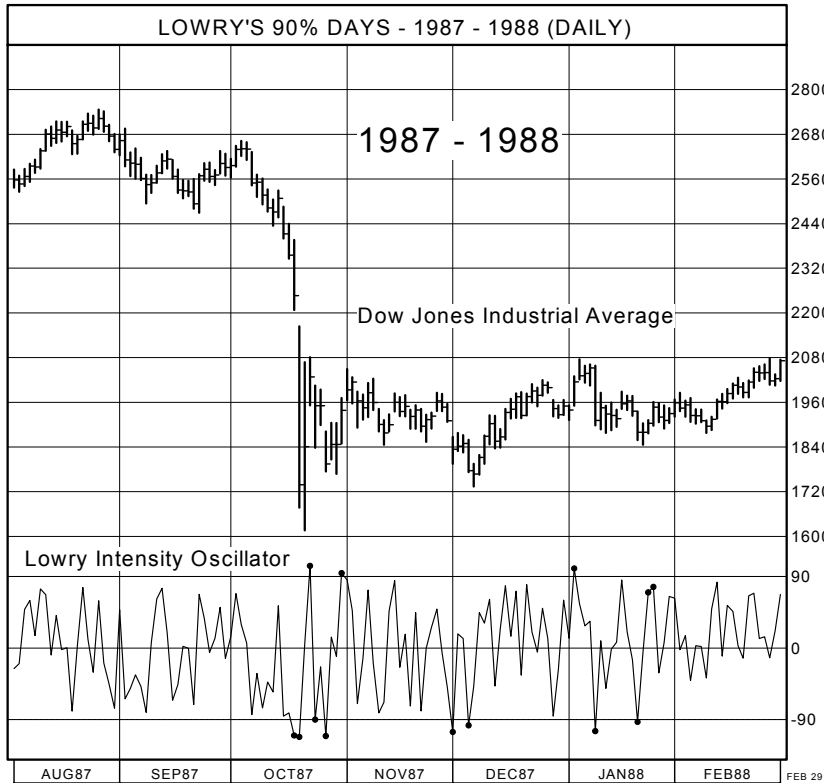
**EXHIBIT THREE**

Days occurred on December 31, 1974 and January 2, 1975 – an unusually long sixteen days after the 1974 market low. Another 90% Upside Day, a superfluous confirmation of the new bull market, occurred on January 27, 1975, thirty-three days after the bottom day.



**EXHIBIT FOUR**

(EXHIBIT FOUR) Three 90% Downside Days were recorded during the final months of the 1980 decline. The 90% Upside Day occurred on March 28, one day after the market low. Another superfluous 90% Upside Day occurred on April 22, after a successful test of the lows.



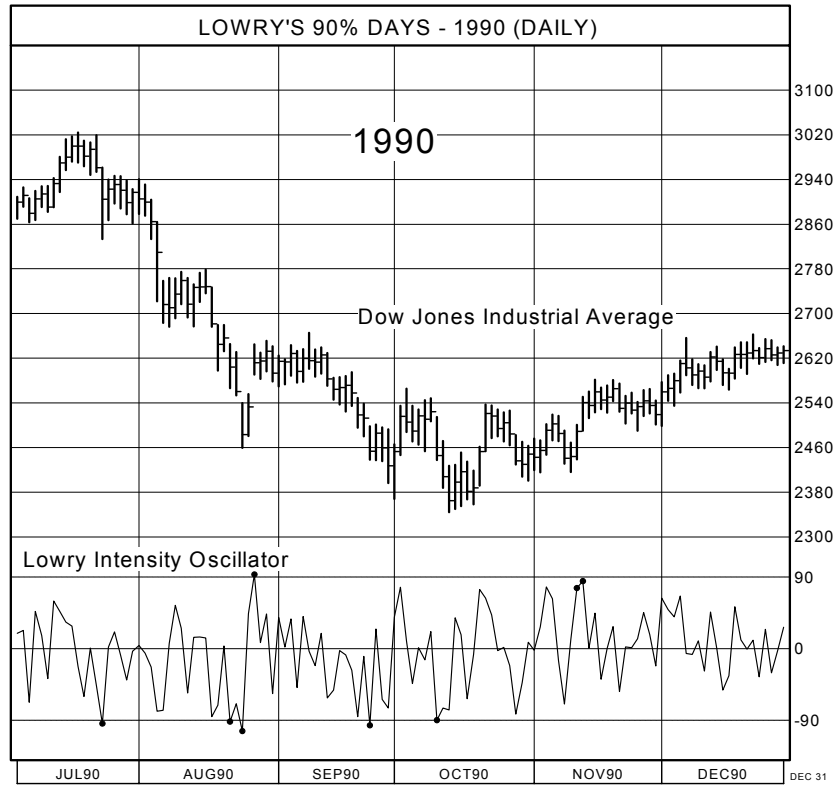
(EXHIBIT FIVE) In 1987, 90% Downside Days occurred on October 16 and on “Black Monday”, October 19. The 90% Upside Day occurred two days later, on October 21. Then, like aftershocks following a major earthquake, two more 90% Downside Days occurred on the first

**EXHIBIT FIVE**

successful test of the lows in late October, followed by a 90% Upside Day on October 29. The aftershocks continued in December and January, each followed by an equivalent 90% Upside reversal.

(EXHIBIT SIX) Three 90% Downside Days were recorded during July and August 1990. As a demonstration that the record is not perfect, a 90% Upside Day was recorded on August 27. The Dow Jones Industrial Average moved sideways for two weeks before dropping to new lows.

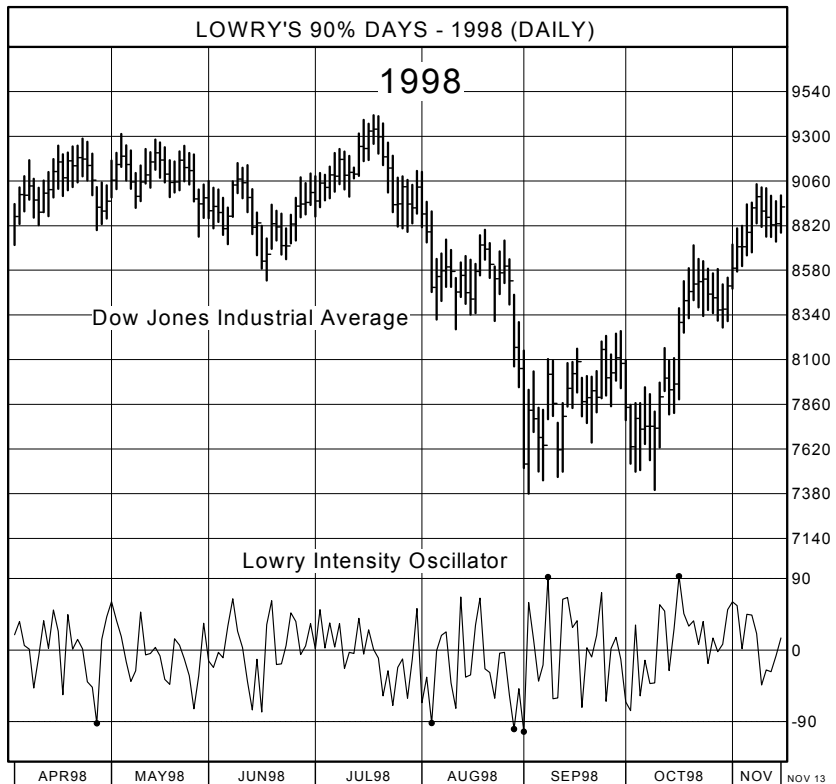
Two more 90% Downside Days were recorded during September and October before back-to-back 80% Upside Days were recorded on Friday, November 9 and Monday, November 12 – twenty days after the market low.



**EXHIBIT SIX**

(EXHIBIT SEVEN)

During 1998, three 90% Downside Days were registered during August. The 90% Upside Day occurred just five trading days after the market low, on September 8. Another, superfluous 90% Upside Day was registered on October 15, five days after a successful test of the September lows.



**EXHIBIT SEVEN**

This review of 90% Days would not be complete without bringing the record up-to-date. And, the recent history may hold a particularly important message for investors: There were no 90% Downside Days recorded during 1999 or 2000. However, the sharp drop in the Dow Jones Industrial Average during the early months of 2001 generated two 90% Downside Days, on March 12 and April 3. But, during the ensuing rally, investor buying enthusiasm was not dynamic enough to generate a 90% Upside Day, leaving the impression that the final lows had not been seen. After just six weeks of rally to the May, 2001 rally peak, the market began to weaken again, eventually plunging to a three-year low in the midst of the September, 2001 tragedy. But, as strange as it may seem, the selling during that decline never reached the panic proportions found near almost all major market bottoms in the past 69 years. Not even a single 90% Downside Day was recorded from May through September. Thus, the probabilities drawn from past experience suggested that stock prices had not been discounted enough to attract a broad sustained buying interest. In short, the final market bottom had not been seen in September 2001. And, the highly selective rally that ensued from the September 2001 low through early January 2002 was, once again, not strong enough to produce a 90% Upside Day, thus adding to the evidence that the final low for the Dow Jones Industrial Average has not yet been reached, and that a period of investor panic, generating a series of 90% Downside Days, may still be ahead.

It is important to recognize that the pattern of 90% Days is not a new, untried, backrecord discovery. The original research was conducted by the Lowry staff twenty-seven years ago, in early 1975. The findings were first reported to the investment community in 1982 at a Market Technicians Association Conference. Since that time, the history of 90% Days has been recorded day by day, and has proven repeatedly to be a very valuable tool in identifying the extremes of human psychology that occur near major market bottoms. Obviously, no prudent investment program should be based solely on a single indicator. Other measurements of price, volume, breadth, and momentum are needed to monitor the strength of buying versus selling on a

continuous daily basis. But, we believe the 90% indicator, as outlined above, will be an enduring, important part of stock market analysis, since it, like the other facets of the Lowry Analysis, is derived directly from the Law of Supply and Demand – the foundation of all macro-economic analysis.

Respectfully submitted,

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## APPENDIX

90 DN	90 UP	DJIA	COMMENTS
03-03-60		612.05	Isolated. 3 days before short term low.
	07-29-60	616.73	Isolated. Start of 3 week rally.
09-19-60		586.76	
10-24-60		571.93	1 day before the 1960 low.
	11-10-60	612.01	11 days after the 1960 low.
04-24-61		672.66	Isolated. Bottom day of short term correction.
05-22-62		636.34	
05-23-62		626.52	
05-28-62		576.93	
06-04-62		593.68	
06-12-62		580.94	
06-14-62		563.00	
06-21-62		550.49	2 days before the 1962 low.
	06-28-62	551.35	3 days after the 1962 low.
09-21-62		591.78	Cuban Missile Crisis.
09-24-62		582.91	
10-19-62		573.29	3 days before the October low.
	10-29-62	579.35	3 days after the October low.
	11-12-62	624.41	Superfluous confirmation.
12-10-62		645.08	Near bottom of short term correction.
	01-03-63	657.42	Important rally followed.
11-22-63		711.49	Kennedy Assassination
	11-26-63	743.52	Johnson Inauguration
	11-29-63	750.52	Successive 90% upside day. Confirmation.
06-14-65		868.71	
06-24-65		857.76	
06-28-65		840.59	1 day before the 1965 low.
	06-30-65	868.03	1 day after the 1965 low.
05-05-66		899.77	
	05-18-66	878.50	
07-25-66		852.83	
08-01-66		835.18	
08-26-66		780.56	
08-29-66		767.03	
	09-12-66	790.59	Premature.
09-21-66		793.59	
10-03-66		757.96	4 days before the 1966 low.
	10-12-66	778.17	2 days after the 1966 low.
05-31-67		852.46	Mid-East War.
06-05-67		847.77	Bottom day of war decline.
	06-06-67	862.71	1 day after the bottom.
02-08-68		850.32	

90 DN	90 UP	DJIA	COMMENTS
03-14-68		830.91	6 days before the 1968 low.
	04-08-68	884.42	11 days after the 1968 low.
07-28-69		806.23	Isolated. 2 month rally followed.
	03-25-70	790.13	Isolated. Blow-off top.
04-22-70		762.61	
04-27-70		735.15	
05-04-70		714.56	
05-20-70		676.55	
05-25-70		641.36	1 day before the 1970 low.
	05-27-70	663.20	1 day after the 1970 low.
	11-30-70	794.09	Isolated. Important rally followed.
05-17-71		921.30	
06-18-71		889.16	
08-03-71		850.03	
	08-16-71	888.95	Nixon Price Controls.
	11-26-71	816.59	No prior 90% Down Day.
	11-29-71	829.73	Back-to-back 90% Upside Days.
05-09-72		925.12	Isolated. Short term low.
05-14-73		909.69	Isolated.
11-19-73		862.66	
11-26-73		824.95	
12-12-73		810.73	
	01-03-74	880.69	Bad signal. (See next series)
01-09-74		834.79	
03-28-74		854.35	
04-23-74		846.06	
05-17-74		818.84	
07-08-74		770.57	
09-04-74		647.92	
09-12-74		641.74	
11-18-74		624.92	
12-02-74		603.02	
	01-02-75	632.04	Back-to-back 80% Upside Days on 12/31/74 & 1/2/75
	01-27-75	692.66	33 days after 1974 low. Start of bull market.
02-25-75		719.18	Isolated. Short term low.
03-24-75		743.43	Isolated. Short term low.
08-20-75		793.26	
	08-28-75	829.47	Within 2% of October 1975 low.
	09-19-75	829.79	
	10-03-75	813.21	1 day after the 1975 low.
12-02-75		843.20	
12-03-75		825.49	
	01-05-76	877.83	Important rally followed.
05-24-76		971.53	Isolated. 3 days before short term low.
07-27-77		888.43	
10-12-77		823.98	
	11-10-77	832.55	Premature. Blow-off top.
12-06-77		806.91	
	04-14-78	795.13	Back to back 80% Upside days on 4/13 & 4/14. Start of 1978 rally.
	08-02-78	883.49	Isolated. Near blow-off top.
10-16-78		875.17	
10-17-78		866.34	
10-20-78		838.10	
10-26-78		821.12	
10-27-78		806.05	1 day before the bottom.

90 DN	90 UP	DJIA	COMMENTS
	11-01-78	827.79	1 day after the bottom.
12-18-78		787.51	Test of November 1978 low.
	01-03-79	817.39	Confirmed 11/1/78 signal.
02-27-79		807.00	Isolated. Short term low.
	03-08-79	844.85	Back to back 80% Upside days on 3/7 & 3/8.
05-07-79		833.42	Isolated.
10-09-79		857.59	
10-19-79		814.68	
	11-26-79	828.75	2 month rally followed.
03-06-80		828.07	
03-17-80		788.65	
03-24-80		765.44	3 days before the 1980 low.
	03-28-80	777.65	1 day after the 1980 low.
	04-22-80	789.85	Superfluous confirmation.
09-26-80		940.10	
09-29-80		921.93	
	11-12-80	964.93	Back to back 80% Upside Days on 11/11 & 11/12. Blow-off top.
12-08-80		933.70	
01-07-81		980.89	
02-02-81		932.25	
05-04-81		979.11	
08-24-81		900.11	
09-25-81		824.01	
01-11-82		850.46	
	01-28-82	864.25	Premature.
02-08-82		833.43	
	03-22-82	819.54	2 month rally followed.
	08-17-82	831.24	No prior 90% Down Days.
	08-20-82	869.29	9 days after the 1982 low.
	10-06-82	944.26	Superfluous confirmation.
10-25-82		995.13	Isolated. One day from short term low.
	11-03-82	1065.49	Prelude to 1983 rally.
01-24-83		1030.17	Isolated. Bottom day of short term correction.
	07-20-83	1227.86	Isolated. Blow-off top.
	08-02-84	1166.08	No prior 90% Down Days. 5 days after 1984 low.
	08-03-84	1202.08	Back-to-back 90% Upside Days.
	12-18-84	1211.57	Isolated. Start of major uptrend.
06-09-86		1840.15	
07-07-86		1839.00	
09-11-86		1792.89	
11-18-86		1817.21	
	01-02-87	1927.31	Late. Start of 1987 rally.
	01-05-87	1971.32	Back-to-back 90% Upside Days.
10-16-87		2246.74	
10-19-87		1738.41	"Black Monday"
	10-21-87	2027.85	2 days after 1987 low.
10-22-87		1950.43	
10-26-87		1793.93	First test of 1987 low.
	10-29-87	1938.33	
11-30-87		1833.55	
12-03-87		1776.53	Second test of 1987 low.
	01-04-88	2015.25	
01-08-88		1911.31	
01-20-88		1879.14	
	01-25-88	1946.45	Back to back 80% Upside days on 1/22 & 1/23. One day after 1988 low.



90 DN	90 UP	DJIA	COMMENTS
04-14-88		2005.64	
05-11-88		1965.85	
	05-31-88	2031.12	
	06-01-88	2064.01	Back-to-back 90% Upside Days.
	06-08-88	2102.95	Superfluous confirmation.
08-10-88		2034.14	Isolated. Near short term low.
	09-02-88	2054.59	Important rally followed.
10-13-89		2569.26	
01-12-90		2689.21	
01-22-90		2600.45	
	05-11-90	2801.58	Unusually late. Start of 2 month rally.
07-23-90		2904.70	
08-21-90		2603.96	
08-23-90		2483.42	
	08-27-90	2611.63	Premature.
09-24-90		2452.97	
10-09-90		2445.54	
	11-12-90	2540.35	Back to back 80% Upside days on 11/11 & 11/12
	02-11-91	2902.23	Superfluous confirmation.
08-19-91		2898.03	Russian coup attempt.
	08-21-91	3001.79	
11-15-91		2943.20	
11-19-91		2931.57	Near short term low.
02-16-93		3309.49	Isolated. Short term low.
02-04-94		3871.42	
03-29-94		3699.02	
	04-05-94	3675.41	One day after 1994 low.
03-08-96		5470.45	Isolated. Short term low.
07-05-96		5588.14	
07-15-96		5349.51	
	08-02-96	5679.83	Back to back 80% Upside days on 8/1 & 8/2. Important rally followed
04-11-97		6391.69	Isolated. Short term low.
10-27-97		7161.15	Bottom day of 3 month decline.
01-09-98		7580.42	Isolated. Short term low.
04-27-98		8917.64	
08-04-98		8487.31	
08-27-98		8165.99	
08-31-98		7539.07	
	09-08-98	8020.78	5 days after the 1998 low in DJIA
	10-15-98	8299.36	5 days after the Oct. test of the lows.
	03-16-00	10630.60	Isolated.
04-14-00		10305.77	
03-12-01		10208.25	
04-03-01		9485.71	

No further 90% days as of February 26, 2002