

Market Observations February 2017

The
Rule of
72

DOUBLE UP

The Dow Jones Industrial Average (“DJIA”) achieved another milestone recently when the index reached 20,000 for the first time in its 120-year history. While investment growth comes over time, how much growth and in what time are important factors for setting expectations and charting investment courses. A review of DJIA’s double up occurrences with the help of “The Rule of 72” can provide perspective.

Perspective

Table I provides periods when the DJIA has doubled from an array of starting levels. The last period captures the double up from 10,000 to the recent 20,000 milestone. The number of years for a double up to occur has ranged widely from 2.4 to 17.8, the latter being the most recent. The average number of years for the periods in Table I is 10.6 years.

The focus of Table II is rates of return over double up periods. The DJIA is a price level index, so price returns are the appropriate annualized measure for each double up occurrence. “The Rule of 72” (Return = 72 ÷ Time) applies to double up analysis. With a given time period, the return needed to double up an investment can be determined and vice versa. The DJIA double up from 6,000 illustrates “The Rule of 72”: 7.2% (Table II) = 72 ÷ 10 (Table I). The relationship holds for all the double up occurrences. An additional perspective from Table II is the importance of total return (income + price change). The average 14.1% total return indicates an average double up period of only 5.1 years.

While growth has prevailed over time, it comes with risk as shown in Table III. For each double up period, interim downside is the lowest DJIA level reached from start to end. A notable exception is the 1990s double up when the DJIA crossed 5,000 and never turned back. The downsides from DJIA 8,000, 9,000 and 10,000 are the same market low of 2009. The double up to 20,000 took the longest of the occurrences shown here and came with the second largest interim downside.

Investment Implications

Important investment implications can be drawn from this double up perspective. To achieve a double up requires staying the course amidst potentially sizable interim loss. Risk tolerance must be assessed in advance to avoid the costly error of abandoning an otherwise appropriate investment course at such lows. While not every goal is to achieve a double up of investment value, time horizon and rate of return determine its feasibility. To retire in ten years with a double up in assets is a challenge for a moderately conservative portfolio in the current environment of low interest rates. A higher allocation to equity investments improves the odds but at levels of interim downside that must be tolerable.

Table I

DOW JONES INDUSTRIAL AVERAGE DOUBLES				
Double Start		Double End		# of Years
250	Feb-51	500	Mar-56	5.1
500	Mar-56	1,000	Nov-72	16.7
1,000	Nov-72	2,000	Jan-87	14.2
2,000	Jan-87	4,000	Feb-95	8.1
3,000	Apr-91	6,000	Oct-96	5.5
4,000	Feb-95	8,000	Jul-97	2.4
5,000	Nov-95	10,000	Mar-99	3.4
6,000	Oct-96	12,000	Oct-06	10.0
7,000	Feb-97	14,000	Oct-07	10.6
8,000	Jul-97	16,000	Nov-13	16.4
9,000	Apr-98	18,000	Dec-14	16.7
10,000	Mar-99	20,000	Jan-17	17.8
AVERAGE				10.6

Table II

DOW JONES INDUSTRIAL AVERAGE DOUBLES					
Double Start		Double End	Price Return	Total Return	
250	Feb-51	500	Mar-56	14.5%	21.2%
500	Mar-56	1,000	Nov-72	4.2%	8.1%
1,000	Nov-72	2,000	Jan-87	5.0%	10.8%
2,000	Jan-87	4,000	Feb-95	8.9%	11.5%
3,000	Apr-91	6,000	Oct-96	13.4%	17.5%
4,000	Feb-95	8,000	Jul-97	33.6%	37.9%
5,000	Nov-95	10,000	Mar-99	23.0%	23.9%
6,000	Oct-96	12,000	Oct-06	7.2%	9.3%
7,000	Feb-97	14,000	Oct-07	6.7%	9.0%
8,000	Jul-97	16,000	Nov-13	4.3%	6.6%
9,000	Apr-98	18,000	Dec-14	4.2%	6.5%
10,000	Mar-99	20,000	Jan-17	4.0%	6.5%
AVERAGE			10.8%	14.1%	

Table III

DOW JONES INDUSTRIAL AVERAGE DOUBLES				
Double Start		Double End		Interim Downside
250	Feb-51	500	Mar-56	-2.9%
500	Mar-56	1,000	Nov-72	-16.0%
1,000	Nov-72	2,000	Jan-87	-42.2%
2,000	Jan-87	4,000	Feb-95	-13.1%
3,000	Apr-91	6,000	Oct-96	-4.5%
4,000	Feb-95	8,000	Jul-97	-0.9%
5,000	Nov-95	10,000	Mar-99	0.5%
6,000	Oct-96	12,000	Oct-06	-0.5%
7,000	Feb-97	14,000	Oct-07	-8.7%
8,000	Jul-97	16,000	Nov-13	-18.2%
9,000	Apr-98	18,000	Dec-14	-27.3%
10,000	Mar-99	20,000	Jan-17	-34.5%
AVERAGE				-14.0%