Doubling

The Dow Jones Industrial Average ("DJIA") reached another milestone last month when it crossed over 40,000 for the first time in its 128-year history. From an inception level of 40 to 40,000, the annualized rate of return was +5.5%. Add in dividends, and that 128-year annualized return rises to +8.8%. A long ago legacy investment of $100 left to grow in the DJIA would be valued at $4.7 million today. That is the power of compounding. An often expressed and less lofty goal is doubling one's investment, i.e., turning $100 into $200. 128 years of DJIA history provides some perspective on doubling an investment. A review of this history can help set investor expectations and paths forward to achieve investment goals.

PERSPECTIVE

Table I shows periods when the DJIA has doubled from a sequence of starting levels. The last period captures the doubling from 20,000 to the recent 40,000 milestone. For the periods shown here, the number of years for a doubling has ranged widely from a low of 2.4 years to a high of 16.7 years. The average for the periods shown is 9.5 years. The most recent doubling period was a bit shorter at 7.3 years. These doubling periods and many others that could be identified are shaped by overall market cycles. For example, the shortest doubling period shown here caught the run-up to the tech bubble. The longer doubling period that followed had to first absorb the bursting of the tech bubble.

Annualizing returns provides for comparability over different doubling periods. A longstanding axiom is "The Rule of 72". It states that an investment will double in 10 years with an annualized return of 7.2%. Annualized rates of return for DJIA doubling periods are shown in Table II. As the DJIA is a price index, price returns can be determined from the index levels themselves given the holding periods of Table I. For example, the most recent doubling period of 7.3 years yielded an annualized DJIA price return of +9.9%. Adding in dividends brings the DJIA total return (price + income) up to +12.0% for the most recent doubling period. Average returns for the holding periods shown here are +11.1% for price alone and +15.1% for total, price plus income. The impact of market cycle is seen in the long DJIA doubling period from 8,000 to 16,000 as the bear market from the Great Recession first had to be recovered.

DJIA doubling periods generally do not follow paths of uninterrupted gain. Table III shows the level of interim risk measured as the lowest level the DJIA reached during a doubling period as a percentage of the starting period value. With only one exception for the periods shown here, the DJIA moved lower before ultimately reaching its doubling level. The impact of market cycle is seen in the significant downside of -42.2% from the DJIA 1,000 level before 2,000 was reached in 14.2 years. The investor challenge is to hold course when such risk occurs.

TABLE I

DOW JONES INDUSTRIAL AVERAGE DOUBLES

Double Start		Double End		# of Years
125	Jan-43	250	Feb-51	8.0
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
4,000	Feb-95	8,000	Jul-97	2.4
8,000	Jul-97	16,000	Nov-13	16.4
16,000	Nov-13	32,000	Mar-21	7.3
20,000	Jan-17	40,000	May-24	7.3
	AVERAGE			9.5

TABLE II

DOW JONES INDUSTRIAL AVERAGE DOUBLES

Double Start		Double End		Price Return	Total Return
125	Jan-43	250	Feb-51	9.0%	14.7%
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%
4,000	Feb-95	8,000	Jul-97	33.6%	37.9%
8,000	Jul-97	16,000	Nov-13	4.3%	6.6%
16,000	Nov-13	32,000	Mar-21	10.0%	13.0%
20,000	Jan-17	40,000	May-24	9.9%	12.0%
	AVERAGE			11.1%	15.1%

TABLE III

DOW JONES INDUSTRIAL AVERAGE DOUBLES

Double Start		Double End		Interim Downside
125	Jan-43	250	Feb-51	0.1%
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%
4,000	Feb-95	8,000	Jul-97	-0.9%
8,000	Jul-97	16,000	Nov-13	-18.2%
16,000	Nov-13	32,000	Mar-21	-3.9%
20,000	Jan-17	40,000	May-24	-7.0%
	AVERAGE			-11.6%

INVESTMENT IMPLICATIONS

While not every goal is to achieve a doubling of investment value, time horizon and rate of return determine its feasibility. For example, to retire in ten years with a doubling in value from today could be a challenge for a conservatively invested portfolio. A higher allocation to risk assets, specifically equities, could improve the odds of doubling value in that time horizon. But such a strategy could bring an intolerably high level of interim downside and, with it, the inability to hold course. One's risk tolerance should be known in advance.