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Bears Come Knocking

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Not surprisingly, the financial press continues to dwell on the length of the current positive run in U.S. equities. By any standard, the current bull market[1], which began on March 9, 2009, amid the ashes of the financial crisis, is one of the longest of the modern era. Now moving well into its 11th year, there is growing concern over which kind of bear will finally show up to end the current expansionary market phase. Small bears, while certainly unsettling, do less damage, with recovery periods that are relatively brief. Conversely, the largest bears, such as the one that accompanied the 2008-09 financial crisis have, historically, taken a far bigger bite out of investment portfolios and have seen recovery times that stretch into several years. Well-planned strategies can lessen the blow of a bear market, even under the worst market circumstances. Having a diversified portfolio and professional advice provides the best defence when whichever bear it is finally comes knocking at the door.

The U.S. story

As can be seen in the accompanying table, the U.S. has had 11 bear markets since the Second World War. Given the length of time that has passed since the U.S. last experienced a bear market, which ended in March 2009, it is only natural that investors' strongest recollections are of this most recent bear. That particular market decline proved to be extreme in every sense, prompting comparisons to the market crash of the Depression era. Starting on October 9, 2007, the market declined 56.8% over a 517-day period. The recovery from the March 9, 2009 bottom took more than four years, as the gap was finally closed on March 28, 2013.

S&P 500 Bear Market Recoveries in the Post-WWII Era								
Bear	High	Date	Low	Date	% decline	Recovery	Length of Decline (days)	Days between Low and Recovery
1	19.3	May/29/1946	13.8	May/19/1947	-28.5%	Jun/09/1950	355	1,117
2	17.1	Jun/15/1948	13.6	Jun/13/1949	-20.6%	Jan/09/1950	363	210
3	49.1	Jul/15/1957	39.0	Oct/22/1957	-20.7%	Sep/16/1958	99	329
4	72.6	Dec/12/1961	52.3	Jun/26/1962	-28.0%	Sep/03/1963	196	434
5	94.1	Feb/09/1966	73.2	Oct/07/1966	-22.2%	May/04/1967	240	209
6	108.4	Nov/29/1968	69.3	May/26/1970	-36.1%	Mar/06/1972	543	650
7	120.2	Jan/11/1973	62.3	Oct/03/1974	-48.2%	Jul/17/1980	630	2,114
8	140.5	Nov/28/1980	102.4	Aug/12/1982	-27.1%	Nov/03/1982	622	83
9	336.8	Aug/25/1987	223.9	Dec/04/1987	-33.5%	Jul/26/1989	101	600
10	1,527.5	Mar/24/2000	776.8	Oct/09/2002	-49.1%	May/30/2007	929	1,694
11	1,565.2	Oct/09/2007	676.5	Mar/09/2009	-56.8%	Mar/28/2013	517	1,480
			Averages		-33.7%		418	811

[1] The general industry consensus is that a "bull" market is a rally that exceeds 20%, which is never interrupted by a 20% drop or "bear" market. Conversely, "bear" markets can be interrupted by brief bursts of 20% gains, often referred to colloquially as "dead cat bounces" rather than actual "bull" markets.

Source: Yardeni Research Inc, Bloomberg, Standard & Poor's, Yahoo! Finance, Stooq

Given the extended length of the current bull market, it may be easy to forget that bear markets are also a normal part of the market cycle. For the purposes of these writings, small bear markets range from declines of 20.0% to 29.9%. Medium-sized bear markets range from declines of 30.0% to 39.9% and large bear markets result in declines of 40% or more. By ranking the U.S. bear markets into these three categories, a pattern emerges. As shown in the table below, most (six) of the bear markets have been small, with two medium-sized bears and three large bears. Compared to small bears, medium sized bear markets have occurred less often, but they have taken about the same amount of time to bottom out, an average of between 10 and 11 months. However, the recovery from a medium bear takes a bit longer. The average recovery time for a small bear has been 13 months, while a medium bear has taken seven and a half months longer. The large bears have not only extracted a larger toll when they occurred, but they have taken longer to bottom and have also required significantly more time for the market to bounce back. On average, these three large bears consumed almost two years from peak to trough. The recovery time, again on average, has taken closer to six years.

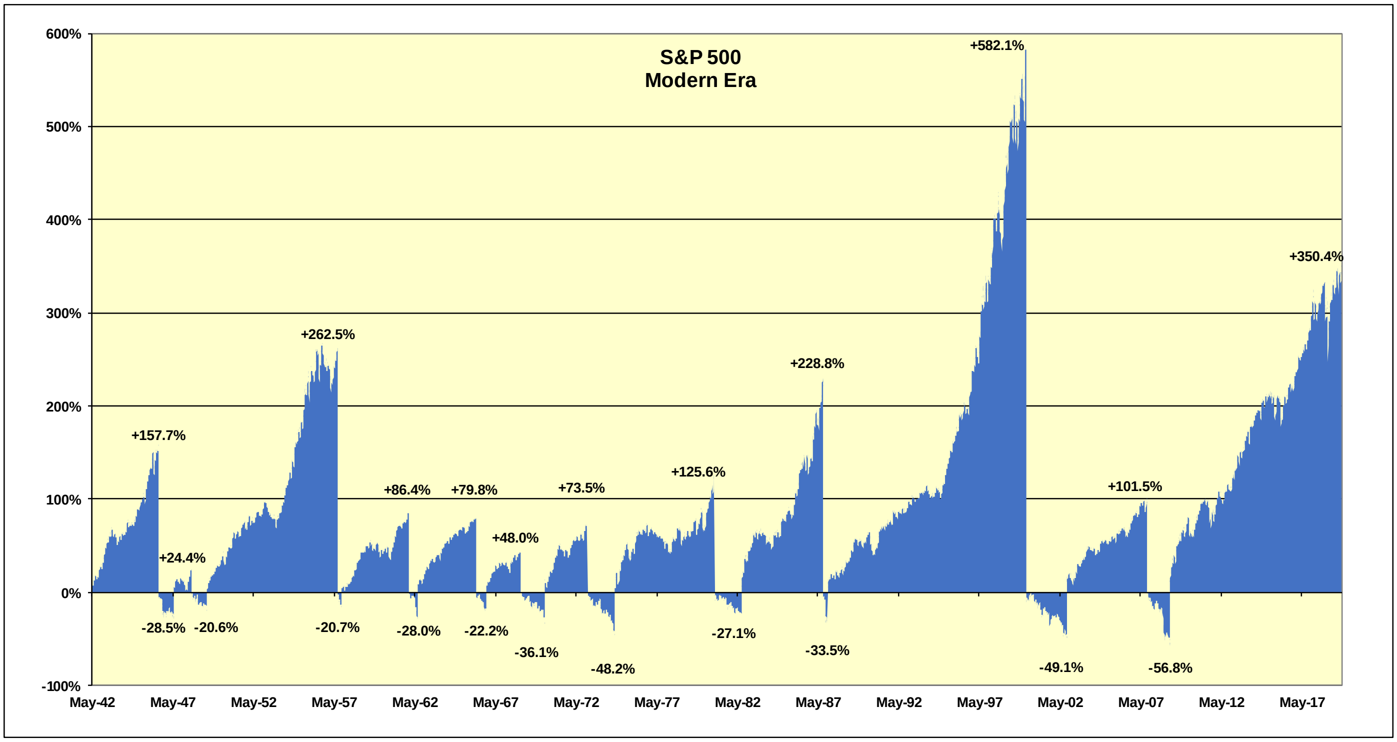
S&P 500 Bear Market Recoveries in the Post-WWII Era				
Decline	Number of Declines	Average Decline	Average Length of Decline (months)	Average Time to Recover (months)
20% - 29.9%	6	-24.5%	10.3	13.0
30% - 39.9%	2	-34.8%	10.6	20.5
40%+	3	-51.4%	22.7	57.9

Source: Yardeni Research Inc, Bloomberg, Standard & Poor's, Yahoo! Finance, Stooq

Understandably, given the time it takes to recover from one of these bears, the timing of these events can be problematic for individuals, particularly if they occur just before retirement or early in the post-retirement period. Fundamental investment thinking (and basic mathematics) suggests that the sequence of returns does not impact the final result. As an example, three hypothetical annual returns of +2.2%, +5.6% and -3.4% applied to an original investment of $100 will end up producing the same final result of $104.25. This is true, regardless of the order of their occurrence. The table below illustrates the six possible orders of these three years of returns, all of which produce the same final result. However, if one is in retirement or nearing retirement, the sequence of returns is significant and the emergence of an inopportune bear market can have a detrimental impact.

Order of Returns												
Year	Example 1		Example 2		Example 3		Example 4		Example 5		Example 6	
Start		$ 100.00		$ 100.00		$ 100.00		$ 100.00		$ 100.00		$ 100.00
1	2.2%	$ 102.20	2.2%	$ 102.20	-3.4%	$ 96.60	-3.4%	$ 96.60	5.6%	$ 105.60	5.6%	$ 105.60
2	5.6%	$ 107.92	-3.4%	$ 98.73	2.2%	$ 98.73	5.6%	$ 102.01	-3.4%	$ 102.01	2.2%	$ 107.92
3	-3.4%	$ 104.25	5.6%	$ 104.25	5.6%	$ 104.25	2.2%	$ 104.25	2.2%	$ 104.25	-3.4%	$ 104.25

The graph below illustrates the actual index declines and gains over the market cycles experienced. Not surprisingly, the market has advanced more than it has declined by a significant margin and recent record highs in the S&P 500 continue to reaffirm this longest of trends.



Source: Yardeni Research Inc, Bloomberg, Standard & Poor's, Yahoo! Finance, Stooq

However, even though the market advances appear to dramatically overshadow the bear retracements, it is important to keep in mind that the percentage gain needed to produce a recovery from a bear decline is actually larger. The table below illustrates this apparent incongruity. At the end of an average small bear decline of 24.5%, the index would have to climb 32.5% to recover. Similarly, medium bear losses of 34.8% and large bear declines of 51.4% would require index gains of 53.3% and 105.7%, respectively, in order to achieve a recovery.

Percentage Gains and Declines are not Equal						
Start	N/A	$ 100.00	N/A	$ 100.00	N/A	$ 100.00
Percent decline	-24.5%	$ 75.50	-34.8%	$ 65.21	-51.4%	$ 48.62
Gain required for recovery	32.5%	$ 100.00	53.3%	$ 100.00	105.7%	$ 100.00

Domestically

Given the closely intertwined economies, it comes as no surprise that many of the historic movements in the U.S. equity market have been broadly mirrored in Canada[2]. Most recently, however, unlike the U.S., the Canadian market has had, since the financial crisis in 2009, two separate, small bear markets (declines of 21.7% and 24.4%). However, even with the interruption of these two bear markets and the subsequent recoveries, Canadian investors remain concerned that the domestic market will be dragged down along with its U.S. counterpart, when that bear eventually materializes.

[2] Reliable data for the S&P/TSX and its predecessor indices is available only back to 1956. Daily data is available only from 1977.

S&P TSX Bear Market Recoveries 1956 - Present								
Bear	High	Date	Low	Date	% decline	Recovery	Length of Decline (days)	Days between Low and Recovery
1	617.7	Jul-56	432.1	Dec-57	-30.0%	Apr-61	518	1,217
2	1,131.0	May-69	810.8	Jun-70	-28.3%	Aug-72	396	792
3	1,319.3	Oct-73	835.4	Dec-74	-36.7%	Oct/10/1978	426	1,409
4	2,192.6	Feb/29/1980	1,702.5	Mar/27/1980	-22.4%	Jul/23/1980	27	118
5	2,402.2	Nov/28/1980	1,346.4	Jul/08/1982	-44.0%	May/06/1983	587	302
6	2,598.3	Sep/26/1983	2,079.7	Jul/24/1984	-20.0%	Jan/30/1985	302	190
7	4,112.9	Aug/13/1987	2,837.8	Oct/28/1987	-31.0%	Aug/25/1993	76	2,128
8	4,038.0	Oct/06/1989	3,010.0	Oct/16/1990	-25.5%	Aug/18/1993	375	1,037
9	7,822.3	Apr/22/1998	5,335.6	Oct/05/1998	-31.8%	Nov/25/1999	166	416
10	11,388.8	Sep/01/2000	6,513.1	Sep/21/2001	-42.8%	Jan/03/2006	385	1,565
11	7,958.1	Mar/07/2002	5,695.3	Oct/09/2002	-28.4%	Dec/03/2003	216	420
12	15,073.1	Jun/18/2008	7,566.9	Mar/09/2009	-49.8%	Jun/18/2014	264	1,927
13	14,270.5	Apr/05/2011	11,177.9	Oct/04/2011	-21.7%	Mar/04/2014	182	882
14	15,657.6	Sep/03/2014	11,843.1	Jan/20/2016	-24.4%	Feb/10/2017	504	387
			Averages		-31.2%		316	914

Source: Yardeni Research Inc, Bloomberg, Standard & Poor's, Yahoo! Finance, Stooq

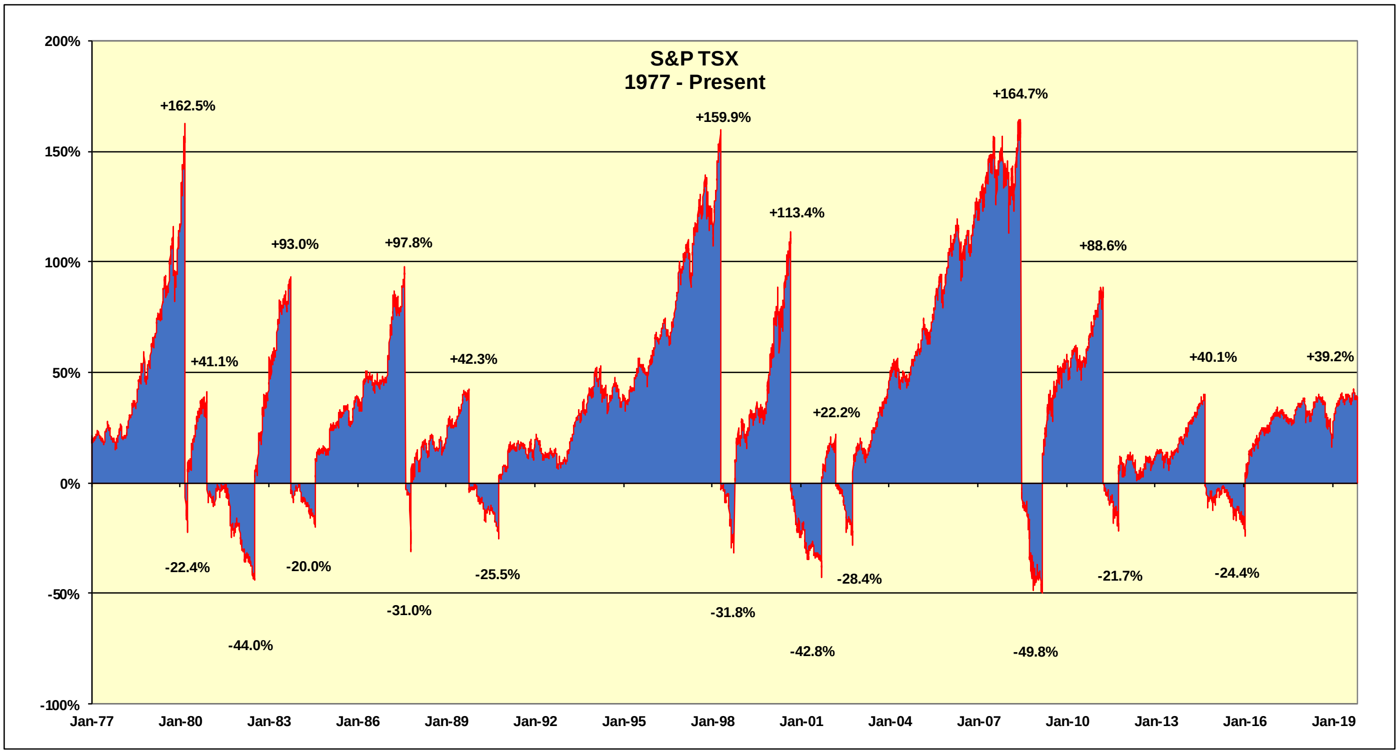
Breaking the Canadian bear markets down into the three categories used above, some similarities emerge. However, there are also some differences. As shown in the table below, most (seven) of the bear markets have been small, with four medium-sized bears and three large bears. Compared to small bears, medium-sized bear markets have occurred less often, but they have taken about the same amount of time to move from peak to trough. In Canada, the bottom for a small or medium bear occurred after an average of between nine and 10 months. The recovery times are different than those of their U.S. counterparts as the average recovery time for a small bear has been 18 months, while a medium bear has taken 42½ months. This marginally longer that the average recovery from a large bear (41½ months).

S&P TSX Bear Market Recoveries 1956 - Present				
Decline	Number of Declines	Average Decline	Average Length of Decline (months)	Average Time to Recover (months)
20% - 29.9%	7	-24.4%	9.4	18.0
30% - 39.9%	4	-32.4%	9.7	42.5
40%+	3	-45.5%	13.5	41.5

Source: Yardeni Research Inc, Bloomberg, Standard & Poor's, Yahoo! Finance, Stooq

Once again the graph below reveals that, like the U.S. equity market, the long-term trend is higher. New all-time highs were also recorded by the Canadian equity market in November. In Canada, the end of an average small bear decline of 24.4% has required that the index rise 32.2% to reach a recovery. Average medium bear losses of 32.4% and large bear declines of 45.5% have required index gains of 47.9% and 83.6%, respectively, in order to achieve a recovery.

Percentage Gains and Declines are not Equal						
Start	N/A	$ 100.00	N/A	$ 100.00	N/A	$ 100.00
Percent decline	-24.4%	$ 75.64	-32.4%	$ 67.62	-45.5%	$ 54.48
Gain required for recovery	32.2%	$ 100.00	47.9%	$ 100.00	83.6%	$ 100.00



Source: Yardeni Research Inc, Bloomberg, Standard & Poor's, Yahoo! Finance, Stooq

Conclusions

- Even though the U.S. equity market has seen an extended period of gains, bulls and bears are part of the normal cycles of the market. The current bull market will eventually end and be relegated to history.
- Even though Canada has witnessed two bear markets during the current U.S. expansionary phase, the intertwined relationship between the two countries and Canada's greater dependence on trade raises concerns that the Canadian equity market will follow when the U.S. bear finally does show up.
- The size and timing of bear markets is unpredictable. This is of greater concern to those near or at retirement. Taking advantage of professional advice can help protect hard-fought portfolio gains and limit the impact when the bear eventually emerges.