

# Portfolio Management

June 2018

## Equity Strategy

### Productivity Growth Could Lengthen this Cycle

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Our asset allocation strategy is to continue to overweight equities and to underweight fixed income. After 9 years of economic recovery, we are certainly later in the economic cycle as bears like to point out. Still, we think it is premature to get overly defensive at this stage and continue to see better value in high quality dividend growing stocks than other asset classes. We would argue that the sheer severity of the financial crisis of 2008/2009 and the relatively slow recovery argue for a prolonged global recovery and an associated longer bull market than typical cycles. In other words, rather than the typical V-shaped recovery from the depth of the last recession, we have witnessed a “slow burn” both in the U.S. and in other developed economies with GDP growth (in the U.S.) of barely 2% per year following the crisis versus a more typical 4-5% rate following the previous five recessions going back to the late 1950s.

This view fits the narrative from BMO Nesbitt Burns’ technical analyst Russ Visch. Taking a very long term view, he argues that the U.S. stock market has exhibited fairly consistent 16 year cycles. Looking at the chart below, if this pattern continues, then the current secular (i.e. long term) bull market could still have several years to run. Of course, markets never go up in a straight line and there will be cyclical (i.e. medium term) bears along the way. For example, during the 1950-1966 cyclical bull market, we had four significant pullbacks with an average decline of 20% and length of 7 months. In the 1982-1998 episode, there were 5 cyclical bear markets with an average decline of 21% and length of 5 months. The conclusion for long term investors, based on our fundamental and technical models, is that pullbacks continue to present buying opportunities.

Figure 1: S&amp;P 500 – Approximate 16 Year Cycles



Figure 2: BMO Nesbitt Burns Investment Strategy Committee’s Recommended Asset Allocation (%)

	Income		Balanced		Growth		Aggressive Growth	
	Recommended Asset Mix	Benchmark Weights	Recommended Asset Mix	Benchmark Weights	Recommended Asset Mix	Benchmark Weights	Recommended Asset Mix	Benchmark Weights
Cash	5	5	5	5	5	5	0	5
Fixed Income	70	70	40	45	20	25	5	0
Equity	25	25	55	50	75	70	95	95
Canadian Equity	15	15	25	25	35	35	40	40
U.S. Equity	10	5	25	15	25	20	35	30
EAFE Equity*	0	5	0	5	5	10	10	15
Emerging Equity	0	0	5	5	10	5	10	10

Within EAFE, we specifically recommend Continental European equity. Canadian Equity = S&P TSX; U.S. Equity = S&P 500; Cash = Cdn T Bills; Fixed Income = Cdn Bond Universe; EAFE = MSCI EAFE Index; Emerging Equity = MSCI Emerging Markets

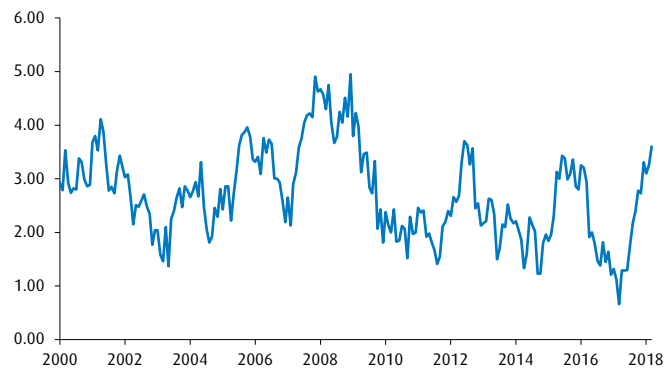
Source: BMO Nesbitt Burns Private Client Strategy Committee

Historically, the economic cycle and bull markets die because the economy overheats, leading to rising inflation which forces central banks to raise interest rates rapidly. Recall that the stock market discounts the economy’s trajectory 6-9 months ahead of time. Since it is hard to precisely gauge the amount of tightening required to contain inflation, rates have often gone too high, limiting growth and making equities far less attractive relative to bonds.

Given the pain inflicted during the financial crisis, central bankers appear determined to avoid tightening conditions too quickly. In effect, they would prefer that the next recession not happen on their watch. While the Fed is leading the charge in raising rates, they are doing so in a slow, deliberate fashion while monetary conditions remain very accommodative in Canada, Europe and Japan. We would argue that inflationary pressures are building in North America (wages, commodities and producer prices paid for example) but that has not yet translated into an ominous rise in the consumer price index (CPI). This gives central banks air cover to continue on the current dovish path for the time being with obvious positive implications for equity markets. Specifically, the Federal Reserve recently said that “inflation on a 12-month basis is expected to **run near** the Committee's symmetric 2 percent objective over the medium term.”

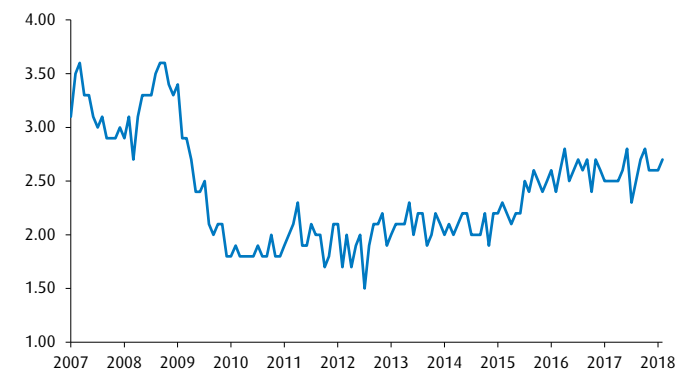
Aside from potential trade wars and the latest European existential crisis (courtesy of Italy), we think that inflation presents the greatest risk to financial markets over the next few years. As our historical work has shown, the market can withstand some inflation and associated higher rates, but not too much. Specifically, we would get worried about equity valuation compression if the CPI rose to the 3% range. The rate of increase as always is important since higher inflation reduces the present value of future corporate cash flows (i.e. a dollar generated by Microsoft in 5 years is worth less today in an inflationary world). That being said, in an environment where inflation starts to rise, Canada does have an advantage. Over the last 25 years, the S&P/TSX outperformed the S&P 500 when the consumer price index was rising (8.3% vs. 5.5% annualized). The Canadian Basic Materials, Energy and Financials sectors had average annual returns of 13%, 14% and 10% in this environment.

Figure 3: Canadian Average Hourly Wages (Year over year percentage growth)



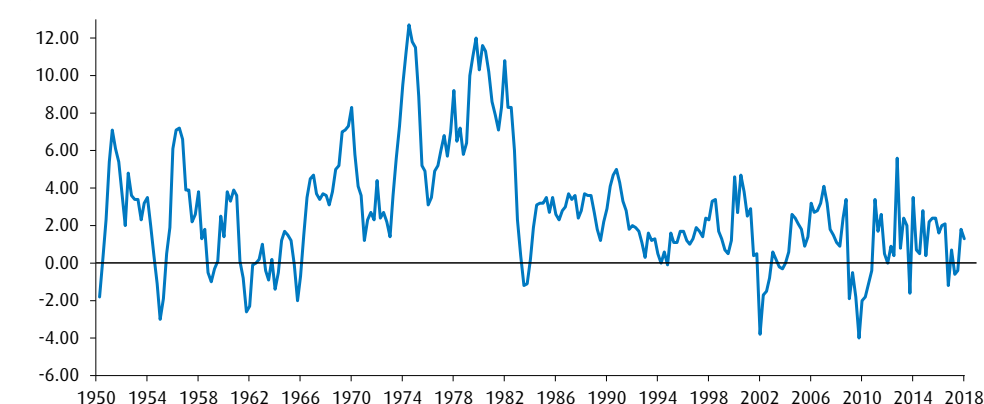
Source: Bloomberg

Figure 4: U.S. Average Hourly Wages (Year over year percentage growth)



Source: Bloomberg

Figure 5: Unit Labour Costs are Contained



Source: Bloomberg

## Everyone is Talking About Inflation, But What About Productivity?

We believe productivity growth could come to the rescue and lengthen the economic cycle by offsetting some price pressure. This concept is hugely important because higher productivity reduces unit labor costs (the cost of producing a given quantity of goods and services). Simply put, even if salaries are rising by 3% annually, if the economy can produce 3% more with the same equipment and workers, then companies in aggregate won't have to increase prices to protect their profit margins (all things being equal).

By way of background, Janet Yellen wrote an insightful report when she was at the Federal Reserve Bank of San Francisco:

“[Let's begin with] a brief look at the sources of productivity growth since the surge began in the mid-1990s. There are three basic factors to consider. First is capital deepening—in particular, the pace at which the quantity of capital per worker rises over time. Second is improved labor quality, or human capital—that is, a better educated or more skilled workforce. Third is “multifactor productivity,” or MFP, which essentially stands for all the gains in productivity that are not accounted for by either capital deepening or improved labor quality. It captures, more or less, the productivity gains that ultimately stem from innovation. For example, it would include not only the engineering and scientific knowledge that goes into new technology, but also improved management processes, such as “just-in-time” inventory management, as well as “creative destruction,” whereby innovative firms expand market share at the expense of less innovative firms.”

The always excellent Nancy Lazar from Cornerstone Macro notes that “although (U.S.) productivity gains are still historically low, they have moved up from averaging 0.7% year over year over the past 5 years, to averaging 1.3% year over year over the past 4 quarters. And our model forecasts productivity will accelerate on a sustained basis to 1.5% year over year by 2020, which is very impressive given that this expansion is in late cycle.”

One of the drivers for this acceleration will be the lower U.S. corporate tax rate which is finally competitive with other developed countries. This makes the U.S. all the more attractive as an investment destination for companies (especially with full capital expenditure expensing providing a significant tax break). This view fits very well with the “Re-industrialization of America” theme we have highlighted several times over the last ten years. In essence this relates to the ongoing shift taken by multinational companies to expand production in North America or bring factories back to the U.S. and Canada from China and other emerging market countries. Among the main reasons cited for re-shoring: the rapidly diminishing Chinese labour cost advantage; a desire to get products to market faster and respond rapidly to customer orders; savings from reduced transportation and warehousing and protection of intellectual property.

This matters greatly to the topic at hand since more investment means more machinery, robots/factory automation and cutting edge IT and production processes. At the same time, a significant amount of research and development continues to be done in North America in exciting areas such as Artificial Intelligence, On-Demand Software, Cloud Computing and Electric Vehicles just to name a few. We believe we are on the cusp of seeing these hundreds of billions in investments start to pay growth and productivity dividends for the economy as a whole.

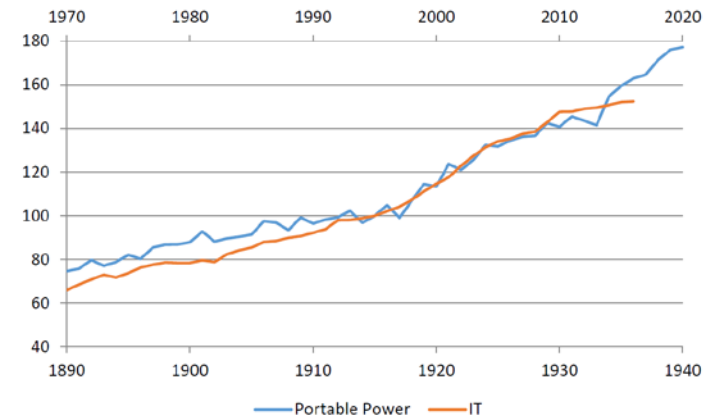
A recent National Bureau of Economic Research (NBER) working paper entitled “Artificial Intelligence and the Modern Productivity Paradox: A Clash of Expectations and Statistics” backs up our view with compelling examples and historical parallels.

In it, the authors conclude that “there really is good reason to be optimistic about the future productivity growth potential of new technologies, while at the same time recognizing that recent productivity growth has been low. The core of this story is that it takes a considerable time—often more than is commonly appreciated—to be able to sufficiently harness new technologies. Ironically, this is especially true for those major new technologies that ultimately have an important effect on aggregate statistics and welfare....the bigger source of optimism is the wave of recent improvements in AI, especially machine learning. Machine learning represents a fundamental change from the first wave of computerization... For instance, error rates in labeling the content of photos on ImageNet, a dataset of over 10 million images, have fallen from over 30% in 2010 to less than 5% in 2016 and most recently as low as 2.2%...” These are notable technological milestones. But they can also change the economic landscape, creating new opportunities for business value creation and cost reduction. For example, a system using deep neural networks was tested against 21 board certified dermatologists and matched their performance in diagnosing skin cancer (Esteva et al., 2017). Facebook uses neural networks for over 4.5 billion translations each day.

They go on to cite the example of call centers. “As of 2015, there were about 2.2 million people working in more than 6,800 call centers in the United States, and hundreds of thousands more work as home-based call center agents or in smaller sites. Improved voice-recognition systems coupled with intelligence question-answering tools like IBM’s Watson might plausibly be able to handle 60-70% or more of the calls, especially since, in accordance with the Pareto principle, a large fraction of call volume is due to variants on a small number of basic queries. If AI reduced the number of workers by 60%, it would increase US labor productivity by 1%, perhaps again spread over 10 years. Again, this would likely spur complementary innovations, from shopping recommendation and travel services to legal advice, consulting, and real-time personal coaching.”

Labor productivity during the portable power era (the adoption of electric motors and internal combustion engines) shared remarkably similar patterns with the current series. In both eras, there was an initial period of roughly a quarter century of relatively slow productivity growth. Then both eras saw decade-long accelerations in productivity growth, spanning 1915 to 1924 in the portable power era (the adoption of electric motors and internal combustion engines) and 1995 to 2004 more recently... Very interestingly, and quite relevant to the current situation, the productivity growth slowdown we have experienced after 2004 also has a parallel in the historical data, a slowdown from 1924 to 1932. As can be seen in Figure 6, and instructive to the point of whether a new wave of AI and associated technologies (or if one prefers, a second wave of IT-based technology) could re-accelerate productivity growth, labor productivity growth at the end of the portable power era rose again, averaging 2.7 percent per year between 1933 and 1940.

Figure 6: Labour Productivity Growth in the Portable Power and IT Eras



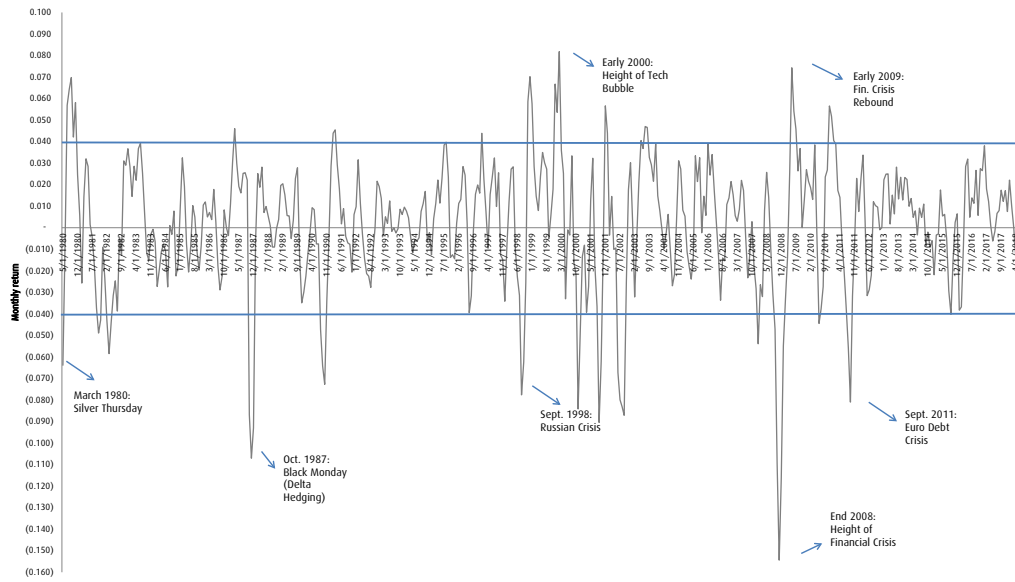
Source: NBER

## BMO Risk Appetite Index Bounces Back to the Long Term Average

Looking at our proprietary BMO North American Risk Appetite Index (RAI), which we introduced last July, the stabilization in stock markets following the February pullback has taken risk appetite back to its long term average going back to the early 1980s. As a reference point, the infamous “Silver Thursday” where the Hunt Brothers failed to corner the silver market is the first “panic episode” which appears on the left hand side of the chart. With fundamentals for stocks still sound and barring a full trade war (which we still do not expect), the upshot is that stocks could still grind considerably higher before entering a more dangerous “euphoria zone” which has historically been followed by sharp pullbacks.

We created the RAI to get a more rigorous and less anecdotal sense for market sentiment. In order to do this, we use exclusively market price data and compare the relative performance of risky assets (a composite of the S&P 500, TSX, Philly Semiconductor Index, Nasdaq Biotech Index and several other indices) versus safe assets (several Canadian and U.S. Government, provincial and municipal bond indices). Simply put, when stocks outperform bonds, the RAI goes up and when bonds do better than stocks (which is typical when investors fear an economic slowdown for example), the RAI goes down. Given the market is inherently “mean reverting”, being able to know where we are on the risk appetite continuum can help investors optimize portfolios and boost long term returns in our view.

Figure 7: BMO Risk Appetite Index



Source: BMO Nesbitt Burns, Bloomberg

## Stock Fair Value Update

Our fair value discounted cash flow models for the S&P/TSX and S&P 500 yield fair values of ~18,000 and 2,850 to 2,900 respectively.

Figure 8: S&P 500 Fair Value

	Present value	% of value	Earnings per share growth	Discount rate
Period 1 (2018-2021)	\$535.49	18.7%	7%	9.0%
Period 2 (2022-2026)	\$582.64	20.3%	5%	9.0%
Period 3 (2027 - )	\$1,750.42	61.0%	3%	9.0%
<b>Rounded Fair Value</b>	<b>\$ 2,870</b>	100.0%	Next 12 month consensus Implied terminal mult.	140 16.2 X
<b>Current Price</b> (May 31, 2018)	<b>\$ 2,705</b>		Long Bond	2.5%
			Historical Equity Risk Premium	4.5%
<b>Upside Potential</b>	<b>6%</b>		Additional Risk Premium	2.0%
			Total discount rate	9.0%

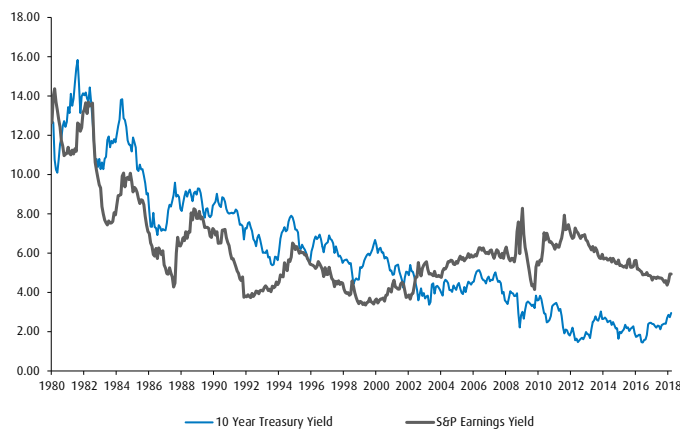
Source: Bloomberg, BMO Nesbitt Burns

Figure 9: S&P/TSX Fair Value

	Present value	% of value	Earnings per share growth	Discount rate
Period 1 (2018-2021)	\$ 3,774.51	21.0%	7%	9.0%
Period 2 (2022-2026)	\$ 3,993.85	22.2%	5%	9.0%
Period 3 (2027 - )	\$ 10,214.43	56.8%	2%	9.0%
<b>Rounded Fair Value</b>	<b>\$ 18,000</b>	100.0%	Next 12 month consensus Implied terminal mult.	970 14.1 X
<b>Current Price</b> (May 31, 2018)	<b>\$ 16,062</b>		Long Bond	2.5%
			Historical Equity Risk Premium	4.5%
<b>Upside Potential</b>	<b>12%</b>		Additional Risk Premium	2.0%
			Total discount rate	9.0%

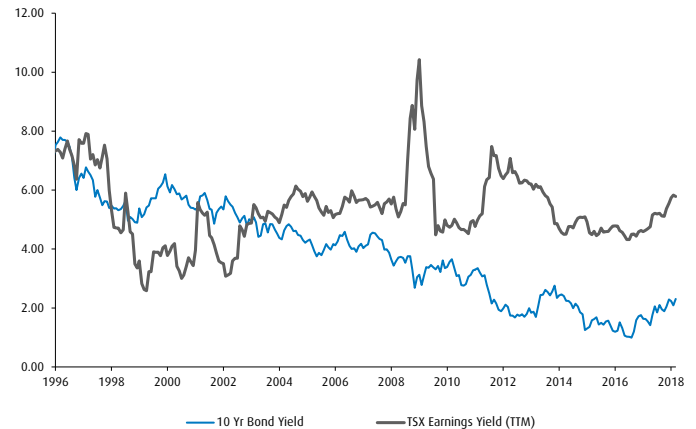
Source: Bloomberg, BMO Nesbitt Burns

Figure 10: S&P 500 Earnings Yield versus 10-year Treasury Yield



Source: Bloomberg

Figure 11: S&P/TSX Earnings Yield versus 10-year Canada Bond Yield



Source: Bloomberg

Figure 12: S&P 500 Index Sector Total Returns to May 2018

S&P 500 Index Sector Total Returns (%)	MTD	YTD
Info. Technology	7.37	11.26
Cons. Discretionary	1.99	7.63
Energy	3.04	6.05
<b>S&amp;P 500 Index</b>	<b>2.41</b>	<b>2.02</b>
Health Care	0.22	0.20
Industrials	3.01	-1.43
Financials	-0.90	-2.21
Utilities	-1.13	-2.38
Materials	2.07	-3.41
Real Estate	1.97	-4.66
Telecom. Services	-2.28	-10.48
Consumer Staples	-1.53	-12.49

As of May 31, 2018

Source: Bloomberg

Figure 13: S&P/TSX Composite Sector Total Returns to May 2018

S&P/TSX Composite Index Sector Total Returns (%)	MTD	YTD
Info. Technology	7.77	21.62
Industrials	6.81	7.00
Cons. Discretionary	4.67	2.86
Real Estate	2.86	1.54
Materials	5.55	1.42
<b>S&amp;P/TSX Composite Index</b>	<b>3.12</b>	<b>0.25</b>
Energy	2.81	-0.50
Financials	1.44	-1.55
Consumer Staples	1.61	-5.67
Telecom. Services	-0.57	-6.59
Health Care	11.88	-6.71
Utilities	-1.24	-8.49

As of May 31, 2018

Source: Bloomberg



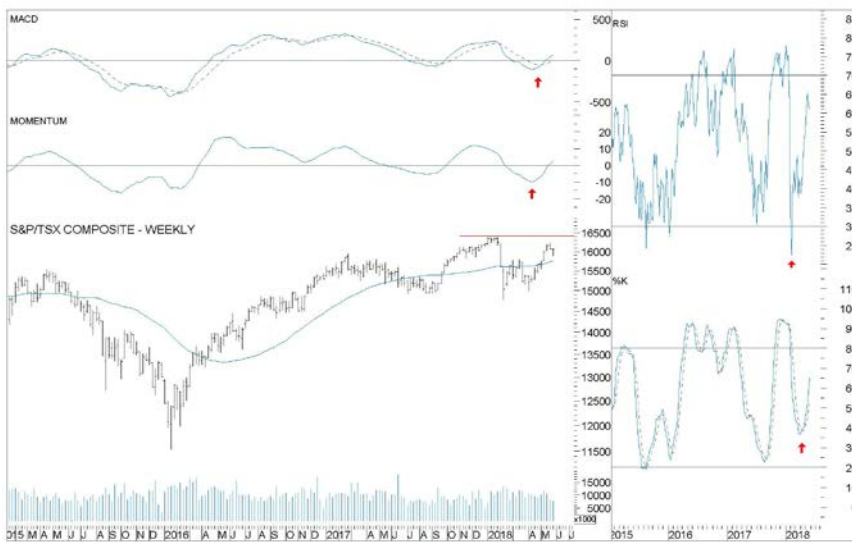
## The Technical Picture— Medium-Term Correction Complete, New Uptrend Underway

Russ Visch, CMT, Technical Analyst

Since our comments last month, the S&P/TSX Composite and S&P 500 have both reversed declining trendlines drawn from their late January peaks, effectively signalling an end to the medium-term correction underway for the past three months and the beginning of a new leg up in this ongoing cyclical bull market. There is some minor price resistance between here and there but ultimately, we expect the major averages should challenge their all-time highs (TSX: 16,421, S&P: 2872) at some point in the weeks ahead.

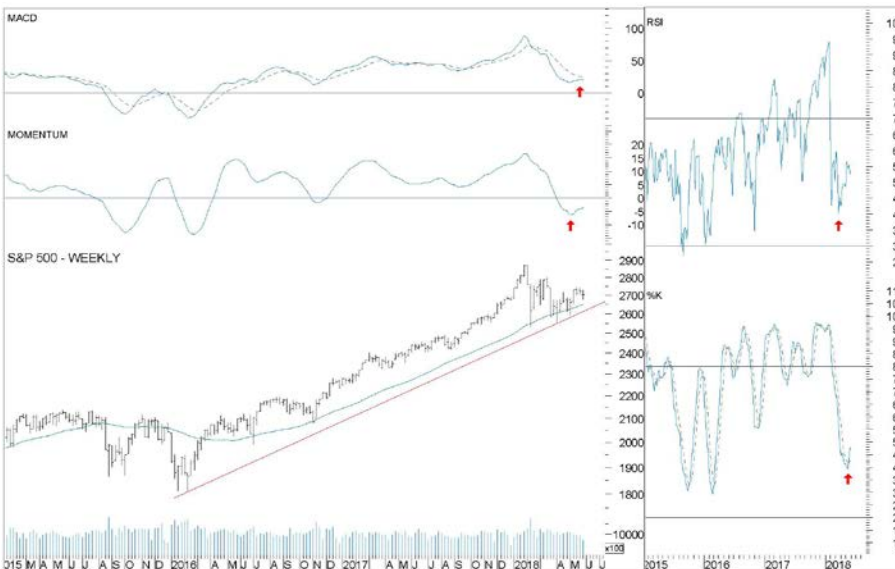
While that may seem like a bit of a stretch given the seasonally weak part of the calendar we are in as well as all of the recent pessimism, note that all aspects of our medium-term equity model are now bullish and supportive of more upside. This includes weekly momentum gauges, which are now “4 for 4” bullish for the first time since last Fall.

Figure 14: S&P/TSX Composite Index Weekly Momentum Indicators



Source: BMO Nesbitt Burns Technical Analysis

Figure 15: S&P 500 Index Weekly Momentum Indicators



Source: BMO Nesbitt Burns Technical Analysis

More importantly though, all of the Advance-Decline lines we follow have made new all-time highs as recently as the last week of May. This includes the broadest measures such as the traditional NYSE A-D line as well as narrower measures such as the S&P 400, 500, and 600 A-D lines. Heck, the S&P 600 index itself made a new all-time high as did the Russell 2000 index. That sort of improvement underneath the surface typically precedes breakouts in indexes such as the S&P 500 and Dow Jones Industrials so don't be surprised if they too make new all-time highs in the months ahead.

Figure 16: NYSE Advance-Decline Lines



Source: BMO Nesbitt Burns Technical Analysis

Figure 17: S&P 400 and S&P 600 Advance-Decline Lines

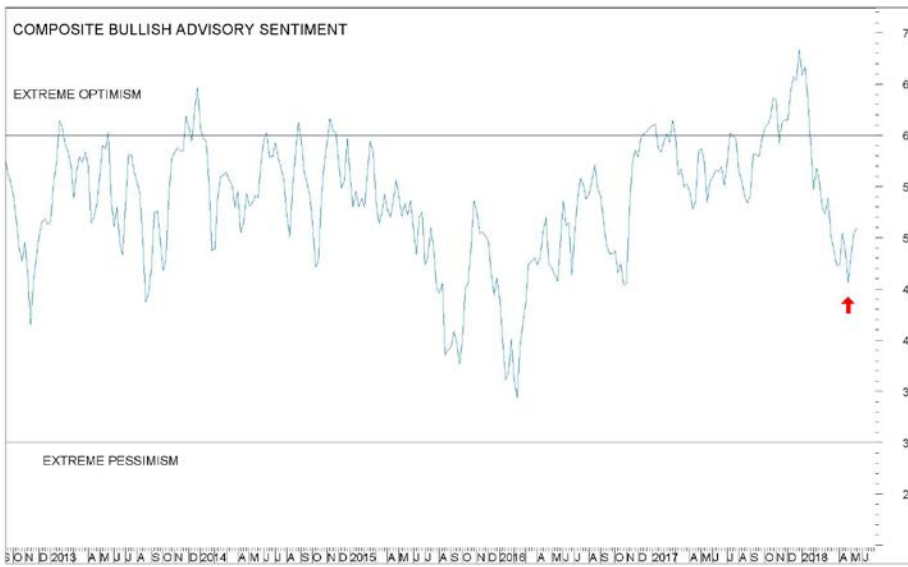


Source: BMO Nesbitt Burns Technical Analysis

Finally, our Composite Sentiment Indicator just underwent its biggest two week jump in more than a year. Make no mistake – improvement in sentiment within this middle zone is bullish for stocks. It's an indication of more money being put to work.



Figure 18: Composite Sentiment Indicator



Source: BMO Nesbitt Burns Technical Analysis

“Sell in May and go away!” was a phrase coined by the editors of the Stock Trader’s Almanac, and it’s based on the fact that over the last few decades the stock market tends to go soft over the Summer. In fact, five of the six worst calendar months of the year for the S&P 500 occur sequentially from May to September. Given the improving medium-term structure, we think the traditional Summer sell-off is simply out of the question this year.

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