

September 9, 2019

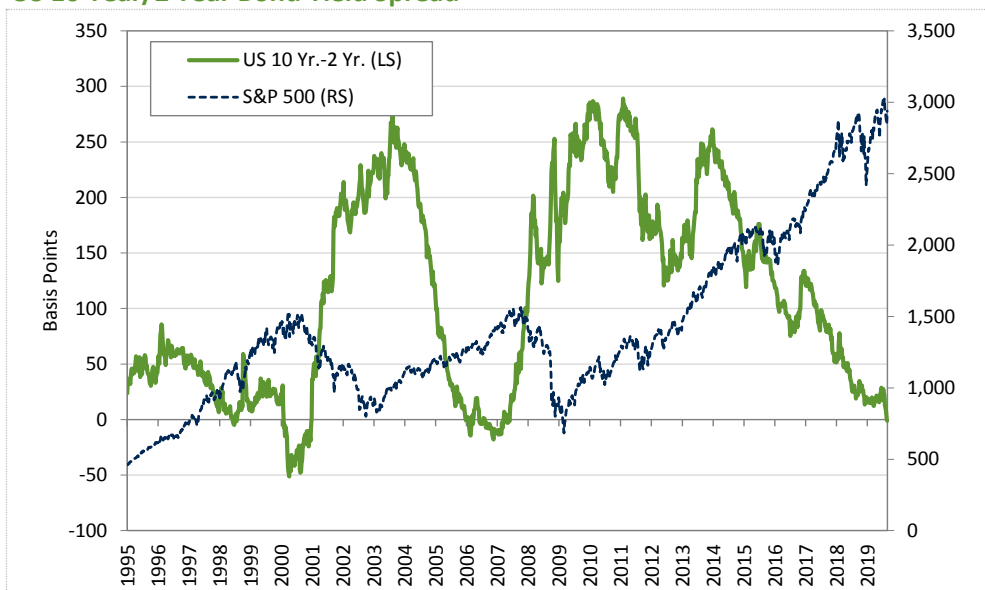
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Inversion Diversions

In mid-August, we saw a significant correction in North American equity markets. This came after a key part of the US yield curve inverted only two weeks after the Federal Reserve completed its “pivot” and cut interest rates by 25 bps, the first rate cut since the Great Recession in 2008. On August 14th, the yield on the US 10 year bond fell below the 2 year, marking the first inversion of that part of the curve since June 2007. This created a fear-induced sell-off in US equity markets as a yield curve inversion is often the sign that an economic recession is coming. In the days since, we have seen a rebound in equity markets. The sequence of events has led to considerable confusion and anxiety amongst investors.

US 10 Year/2 Year Bond Yield Spread



Source: Bloomberg, Raymond James Ltd.

In this issue of *Insight & Strategies* we will analyze the reasons that caused the US yield curve to invert and why equity markets have reacted in the way they have. We will put the yield curve into context with other key economic indicators and show why an inverted yield curve on its own is difficult to argue for an impending US recession. Finally, we will provide suggestions on how investors should position their portfolios under the current economic back drop and adjust to an inverted yield curve market.

Please read domestic and foreign disclosure/risk information beginning on page 12.

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Trade Wars & Negative Yields

In last month's *Insights*, we talked about the potential of a yield curve steepening following a Fed rate cut. What a difference one month makes! In September we are instead talking about the implications of the opposite of curve steepening, the dreaded inversion. The main drivers behind the inversion are: 1) fall-out from the US/China trade war and 2) the contagion of negative bond yields.

It is probably an understatement to say that the impact of the Trump administration's trade policies with allies (USMCA fight, threat of European tariffs) and rivals (escalating trade war with China) is a major factor creating disruptions in the global economy. The trade uncertainty has led companies and trading partners to become more circumspect, resulting in a global slowdown in manufacturing. We can see this through the deterioration of PMIs (Purchasing Managers' Index) in major economies. The global average fell below the 50 level last month, which represents a contraction in manufacturing activity. In September, the US PMI fell to a negative level for the first time in three years, joining more export-reliant economies like Canada, Japan and the Euro zone.

Global PMIs

Global PMIs	Current	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
Global	49.3	49.4	50.4	50.8	52.7
U.S.	49.1	51.7	52.8	56.6	58.4
Canada	49.1	50.2	49.1	52.6	56.8
Japan	49.3	49.4	49.8	48.9	52.5
U.K.	47.4	48.0	49.4	52.1	52.9
Euro zone	47.0	46.5	47.7	49.3	54.6
Germany	43.5	43.2	44.3	47.6	55.9
France	51.1	49.7	50.6	51.5	53.5
Italy	48.7	48.5	49.7	47.7	50.1
Brazil	52.5	49.9	50.2	53.4	51.1
China	50.4	49.9	50.2	49.9	50.6

Source: Bloomberg

Falling manufacturing rates can be contagious and investor fear has certainly been exacerbated by the global situation. Greater fear typically leads investors to seek greater safety in the long end of the US bond market.

The threat of a manufacturing recession is a typical reason for an inverting yield curve. The second part of the equation, however, is not. There are currently US\$16 trillion worth of sovereign bonds trading at a negative yield and they are affecting the US bond market.

US\$16 trillion of Negative Yielding Sovereigns

	12m	2Yr	5Yr	10Yr	20Yr	30Yr
Germany	-0.85	-0.92	-0.92	-0.71	-0.42	-0.19
Switzerland	-1.16	-1.16	-1.13	-1.04	-0.74	-0.59
Japan	-0.25	-0.30	-0.36	-0.29	0.03	0.10
France	-0.75	-0.83	-0.76	-0.40	0.01	0.43
Sweden		-0.67	-0.73	-0.37	0.06	
US	1.73	1.45	1.32	1.45		1.94
Canada	1.54	1.33	1.16	1.13	1.36	1.40

Source: Bloomberg. As at August 31, 2019

The reasoning for negative yields are numerous (high overnight lending rates, search for safety and liquidity, foreign exchange) but the significance regarding the US yield curve is that large institutional bond investors will increasingly move money away from negative yielding jurisdictions to positive ones. With the US bond market being the largest in the world and trading at positive yields, we are seeing massive inflows of capital into the long-end of the market, depressing yields more quickly than the Fed can cut rates at the short end. As a result, the US 10 and 30 year bond yields are currently trading at all-time lows despite the fact that the US economy remains in expansion. We expect that the differential between positive and negative yielding markets will continue to push US long rates down for some time to come.

Taking the Temperature of the US Economy

Yield curve inversions have a strong predictive track record but they represent only one fundamental indicator through which to look at an economy. For our "US Recession Checklist" we typically look at the yield curve plus six other leading and coincident economic indicators to give us a more complete picture to help us predict recessions. As the checklist shows, in past US recessions, a majority of these factors were flashing negative or neutral prior to recession. Today, only the yield curve and manufacturing are flashing red, while all others are neutral or positive.

US Recession Checklist

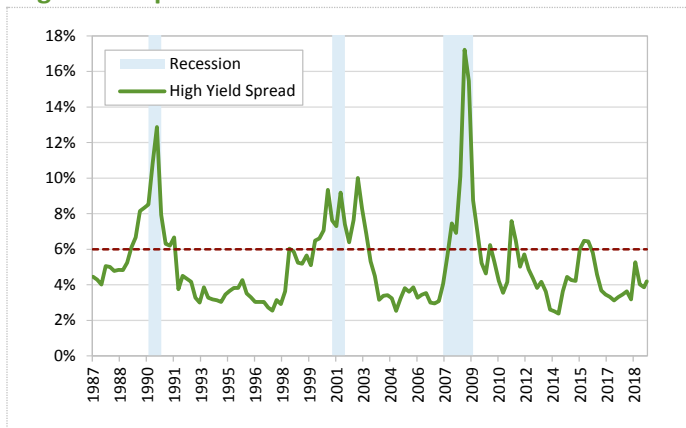
Start of Recession	Yield Curve	Inflation Trend	Labour Market	Housing Market	Consumer Confidence	ISM Manufac.	Hi Yield Spread
Nov-73	▼	▼	▼	▼	▼	▼	▼
Jan-80	▼	▼	▼	▼	▼	▼	▼
Jul-81	▼	▲	▲	▼	◀	▼	▼
Jul-90	▼	▼	▼	▼	▼	▼	▼
Mar-01	▼	▼	▼	◀	▼	▼	▼
Dec-07	▼	▼	◀	◀	◀	▼	▼
Current	▼	◀	▲	◀	▲	▼	◀

Key: ▼ Recessionary ▲ Expansionary ◀ Neutral

Source: Bloomberg, Raymond James Ltd.

The high yield spread is the second most important factor in our model as it has a strong predictive capacity and is reflective of investors' risk appetite at the corporate bond level. Under times of economic strength, the yield differential between high quality (investment grade) issuers and lower grade (junk bonds) tends to be tight as investors are willing to take on risk, while the opposite is true in economic downturns. Historically, we have seen the high yield spread spike and move above 6% between investment grade and junk issuers prior to recessions. Today the differential is moving higher but is still well below the 6% threshold at around 4.5%.

High Yield Spread and US Recessions

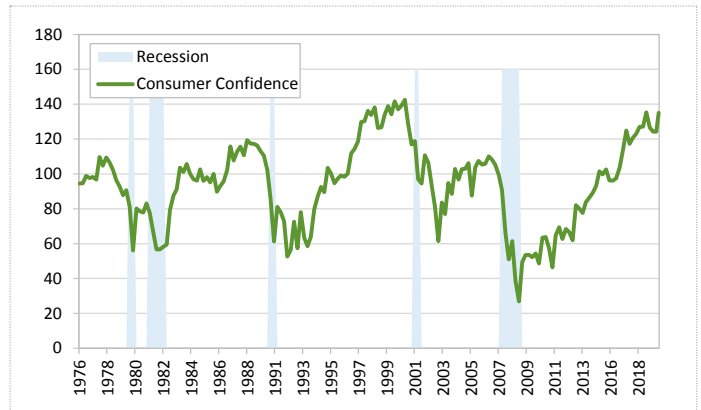


Source: Bloomberg, Raymond James Ltd.

Inflation is also a key factor in determining risks to the economy. High inflation is a destroyer of wealth and the key factor in dictating the Fed's rate policy. Inflation has consistently underwhelmed the market through the majority of the post credit-crisis recovery and represents the biggest argument against recent rate hikes. Likewise, employment levels are also a factor in the Fed's decision-making process and assumed a more significant role in late 2010 when the Fed adopted the so-called 'dual mandate'. Here too we see unemployment rates continue to set new lows and reflect a relatively strong economy.

Finally, concerning the US economy, we can't overlook the impact of the US consumer. Despite the Trump administration's obsession with trade balances and the manufacturing sector, personal consumption is by far the largest component of the US economy as it makes up over 70% of GDP. As a result, the health of the US consumer is of greater concern to us than manufacturing or trade balances. With extremely low unemployment and high consumer confidence, at this point in time the consumer segment of the economy argues against a recession.

Consumer Confidence and US Recessions

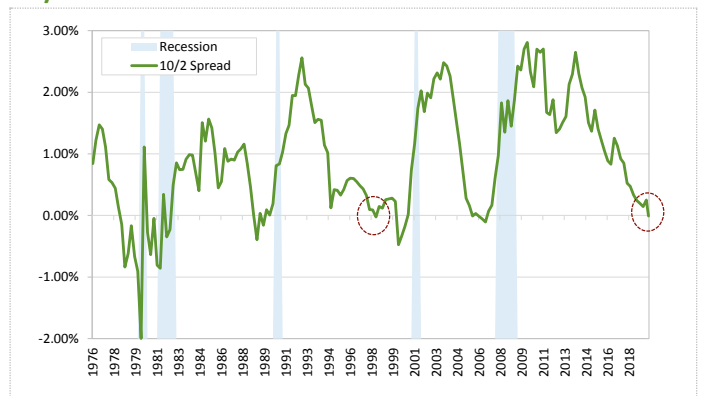


Source: Bloomberg, Raymond James Ltd.

It is Never "Different This Time"... or is it?

So if the rest of our economic indicators are largely in disagreement with the inverted yield curve, we find ourselves asking the dreaded investment question: "Is it different this time?" Inversions in the yield curve are the best predictors of US recessions that we have but they are far from perfect. **First, all US recessions have been preceded by a yield curve inversion but not all yield curve inversions have preceded recessions.** Since the 1960's, the US economy has experienced eight recessions with an inversion preceding all of them by a range of six to twenty-four months. However, there have been two false positives over the same period (1966 and 1998) where the yield curve inverted but a recession was not forthcoming. The latest instance of a false positive occurred in 1998 when the 10 year yield traded below the 2 year for only a few days but the US economy continued to grow. This inversion was followed by a second, deeper inversion in 2000, which preceded the dot-com crash and the 2001 recession.

10/2 Yield Curve and US Recessions



Source: Bloomberg, Raymond James Ltd.

If we look at our recession checklist at the time of the 1998 inversion (we don't have a full data set for 1966), we see a very similar picture to today. In 1998 only two of the seven factors we use in our model were in the recessionary range while the rest were expansionary or neutral. In 2019, the same two factors are in the red and all but housing registered the same readings of neutral/expansionary.

Recession Checklist: False Positive?

False Positive:	Yield Curve	Inflation Trend	Labour Market	Housing Market	Consumer Confidence	ISM Manufac.	Hi Yield Spread
Jun-98	▼	▶▶	▲	▲	▲	▼	▶▶
Current	▼	▶▶	▲	▶▶	▲	▼	▶▶
Key: ▼ Recessionary ▲ Expansionary ▶▶ Neutral							

Source: Bloomberg, Raymond James Ltd.

In summary, the shape of the US yield curve, when taken in context with the rest of the economic indicators, as well as the wide timeframe between inversions and recessions, leads us to believe that now is not the time for equity investors to panic. Moreover, with ultra-low bond yields, negligible returns for cash and a pivoting Fed dropping rates, it makes sense for investors to maintain exposure to equity markets. However, there is no avoiding the apparent risks indicated by global economic weakness, negative bond yields and an inverted US yield curve. Therefore, investors should consider allocating capital in a more defensive manner to balance risk and returns in what could be a volatile market going forward.

Robert Mark, CFA
Portfolio Manager

Inversion Mania Provides a Lift to Safe-Haven Currencies

With US Treasury yields continuing to slide deeper into inversion territory, recessionary fears have naturally gripped the market given the fact that the yield curve has inverted prior to recent recessions. For example, the US 3-month and 10-year yield curve is now the most inverted since 2007, which caught the eyes of many because this particular section of the yield curve is apparently the Fed's preferred inversion metric. The primary reason why inversion suggests that a recession may be looming over the horizon is that it causes a funding squeeze. Banks earn profits on the spread between their funding cost and their return on lending. In a normal environment where the yield curve is upward sloping, banks borrow short-term funds and lend long-term. If short-term funds become more expensive than long-term, banks must refinance their longer-term loans at higher interest rates than what they earn from the loans.

Earlier this month, the US received its biggest recession warning yet when the spread between 2- and 10-year Treasury yields fell below zero, something that has preceded every recession over the past 50 years. While the inversion of this particular section of the yield curve was expected given the fact that the curve had been flattening for months, it naturally worried the market that the Fed was not moving fast enough to keep the economic expansion going. This sentiment has routinely been echoed by Trump who has pointed the finger directly at the Fed for not lowering rates more quickly relative to other countries.

Inverted US Treasury Yield Curve: 10 – 2 Year Yields



Source: Bloomberg, Raymond James Ltd.

Prior to the constant coverage of the yield curve inversion mania, central banks across the globe have been talking about weaker growth overall and easing monetary policy in order to lift inflation. However, between the intensifying

US/China trade war, Brexit risks and Germany’s cloudy economic outlook, it appears optimism is in fact on shaky footing. This can be seen with the 10-year yield on German bunds falling below 0% and bringing the total market value of negative-yielding debt to over US\$16tn. With the continuing inversion of the US yield curve stoking recessionary fears, the single most notable currency that has stood tall over its peers has been the Japanese yen, which has benefited significantly as investors scramble for safe-haven assets. Similarly, emerging market investors appear to be the most sensitive of the bunch as they ramp up their liquidations of higher-yielding currencies in favour of safe-haven assets, which sent emerging market currencies to record lows according to JPMorgan’s EM FX Index.

JPMorgan’s EM FX Index.



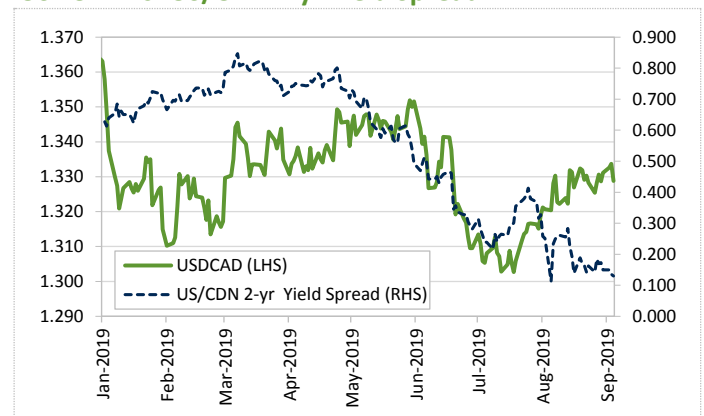
Source: Bloomberg, Raymond James Ltd.

When it comes to monetary policy, the BoC is expected to stay behind the Fed for the time being. Inflation for the month of July held steady right at the BoC’s 2% target while Q2 GDP came in at 3.7%, which was significantly higher than the 2.3% level the BoC had forecasted in their last MPR in July. These prints were just the latest of a long string of strong domestic economic data, which naturally provides the BoC even more room to stay comfortably on the sidelines while other central banks continue to ease. In addition, this has also alleviated some of the strength the USDCAD pair has seen in the last two months on the back of a well-bid US dollar and spilled over into rate cut probabilities. However, while the data at home does not necessarily warrant any immediate rate cut, the escalation of the US/China trade war and further signs of global economic weakness have led the market to ramp up its bets on monetary policy eventually becoming looser in Canada. Unlike most of its G10 peers, the BoC has not explicitly signaled a readiness to easy policy, stating that the current degree of monetary policy stimulus is “appropriate;” however, many are expecting the tone to shift

in light of increased downside risks should global growth continue to weaken and weigh on Canadian output. The odds of a rate cut in October has risen from 31% in July to 55% now as the BoC is expected to set the stage for an interest rate cut. Overall, the market is currently pricing in around 25bps of easing from the BoC by year-end, compared to 63bps from the Fed over the same period.

So what does this mean for the USDCAD pair going forward? We believe that with the global economic backdrop still deteriorating, trade tensions between the US and China ongoing and global central banks continuing down a path of monetary easing, the USD should remain well-bid in a broad risk-off environment. However, while the loonie has received some support from firmer oil prices and narrowing US/CDN yield spreads, the pair is still considered overvalued by many. The combined effect of these factors should keep USDCAD relatively range-bound for the time being, which is evidenced by market forecasts from the “Big Six” Canadian banks showing a median forecast of 1.32 by year-end. With the pair pinned between 1.3225 and 1.3330 (key retracement levels) for most of August and unable to make any significant headway above its 100- and 200-day moving averages, it is clear that the market is in a holding pattern and looking for clarity before deciding which way to break. Our view is that the pair is in fact more vulnerable to the downside as we believe that rates are the larger driver at play at this time, especially with US/CDN 2YR spreads suggesting a fair value in the 1.30-1.31 range.

USDCAD vs. US/CDN 2-yr Yield Spread



Source: Bloomberg, Raymond James Ltd.

Ajay Virk, CFA
Foreign Exchange

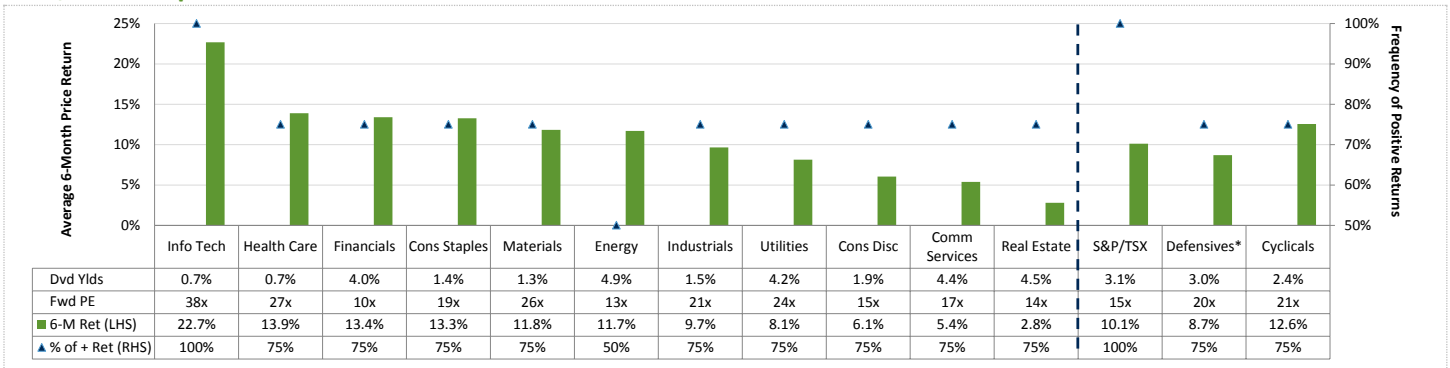
Quality Defensive Safe Havens

Despite yield curve inversions being one of the early indicators of economic weakness, data shows that there remain buying opportunities for stocks on both sides of the border if investors allocate to certain sectors. We found four occurrences where the yield curve inverted in the US and Canada: 1989, 1998, 2000 and 2005 (US)/ 2007(Canada). For the sake of this exercise, we define inversions as the moment when the 10 year government bond yields less than the 2 year. From there, we determined the six month price return of each sector from the first day the yield curve inverted.

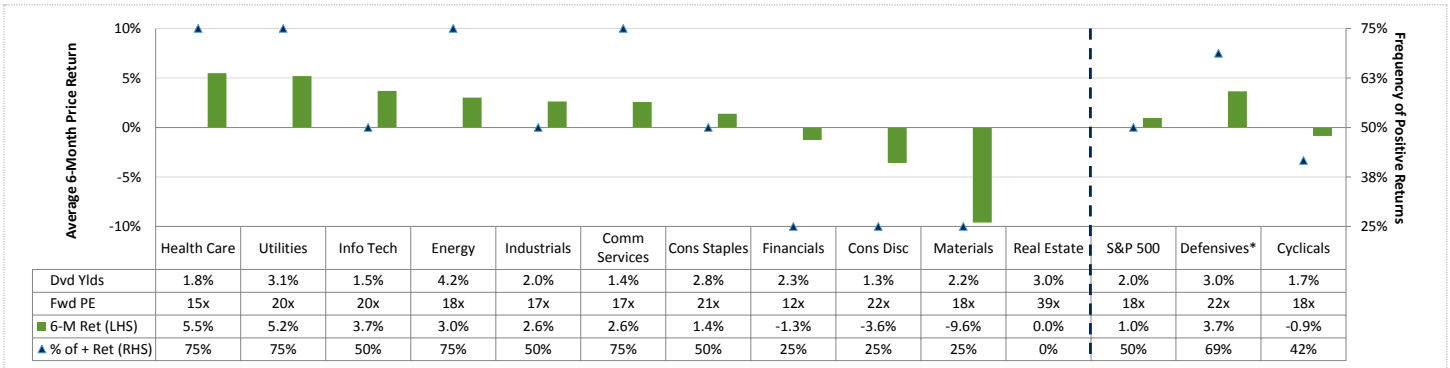
In the US, it was no surprise to find that defensive sectors largely outperformed the S&P 500 Index with an average return of 3.7% compared to cyclicals, which had a negative return of 0.9%. Defensive sectors provide the basic necessities to consumers and businesses, meaning these sectors are less dependent on the health of overall economic environment. In other words,

even when times get tough, demand is consistent for things like food, medicine, rental housing, mobile phone plans, Wi-Fi and water/hydro. Defensives also showed positive returns almost 70% of the time compared to cyclicals at only ~40%. As for Canada, while we had anticipated the defensive sectors to dominate the leaderboard, we were surprised to find that not only had they underperformed the S&P/TSX Composite Index, but cyclical sectors outperformed the defensives by an average of 390 bps six months following a yield curve inversion. Anecdotally, the financial sector, which averaged the third best return, represents a significant portion of the index. The sector is dominated by the Canadian banks, which are considered safe havens by domestic investors given their oligopolistic nature, (seen as too big to fail and providing better-than-market dividend yields). However, we remind readers that banks are cyclical in nature and may perform adversely in an inverted yield curve environment (banks borrow at the short end of the yield curve and lend at the long end) as their net interest margins compress.

S&P/TSX Composite



S&P 500



Source: Bloomberg, Raymond James Ltd, *defensive sectors = utilities, communication services, staples, real estate and health care.

Defensive Investments

Ticker	Security Name	Sectors	Price	Market Cap	YTD Price Return	Div Yld	Nxt Yr Div Growth	Nxt Yr EPS Growth	Nxt Yr PE	Debt/Capital	Int Cov	Upside
T-CA	TELUS Corp	Comm Svs	\$48.39	29,113	6.9	4.7	8.5	2.0	16.6	61.4	6.6	8.4
VZ-US	Verizon Comm Inc.	Comm Svs	\$77.40	320,206	0.8	4.1	2.1	1.6	12.2	60.9	5.7	4.4
NWC-CA	North West Company Inc.	Cons Staples	\$30.80	1,512	(2.0)	4.3	3.1	11.4	17.4	56.9	5.5	1.4
CSH.UN-CA	Chartwell Retirement Res	Health Care	\$14.76	3,175	8.0	4.1	1.7	15.7	147.6	71.6	0.9	10.8
CVS-US	CVS Health Corporation	Health Care	\$80.18	104,279	(10.4)	3.3	(7.9)	(1.5)	8.7	47.7	4.5	15.4
BPY.UN-CA	Brookfield Prop Partners	Real Estate	\$25.20	22,024	14.4	6.9	4.3	(38.9)	13.0	81.2	1.3	23.4
AP.UN-CA	Allied Properties REIT	Real Estate	\$52.10	6,062	17.6	3.1	2.6	(31.7)	13.8	28.7	2.7	0.9
REI.UN-CA	RioCan REIT	Real Estate	\$26.35	8,022	10.7	5.5	0.0	16.1	13.5	44.3	3.3	6.7
AQN-CA	Algonquin Power & Utilities	Utilities	\$17.34	8,542	26.3	4.3	10.0	(7.7)	21.5	53.0	1.2	4.0
BIP.UN-CA	Brookfield Inf Partners LP	Utilities	\$62.78	25,628	33.2	4.4	6.9	155.4	31.6	74.3	1.9	2.6
FTS-CA	Fortis Inc.	Utilities	\$54.85	23,939	20.5	3.3	5.8	2.3	21.4	57.6	2.0	(0.2)
EXC-US	Exelon Corp	Utilities	\$62.90	60,993	2.1	3.1	5.0	0.5	15.1	54.2	1.1	10.9
EMA-CA	Emera Inc	Utilities	\$57.30	13,685	31.1	4.1	3.9	(2.2)	20.3	64.5	1.1	(1.2)
NPI-CA	Northland Power Inc.	Utilities	\$25.31	4,564	16.6	4.7	0.0	43.3	11.8	87.4	1.6	12.2

Source: Bloomberg, Raymond James Ltd. As at August 30, 2019

If economic weakness and further global growth uncertainty persist, we believe holding defensive sectors that have more earnings stability can pay dividends, both figuratively and literally. While valuations are a point of contention, as most are trading at a premium to their historical averages, defensive sectors have an average dividend yield of 3.0% both in Canada and the US, 60-130 bps higher than their cyclical counterparts and 120-185 bps higher than their respective 10-year government bond yields. Within defensive sectors, we prefer sticking to quality companies. In this list, we highlight our top quality defensive picks with a dividend yield greater than 3.0%.

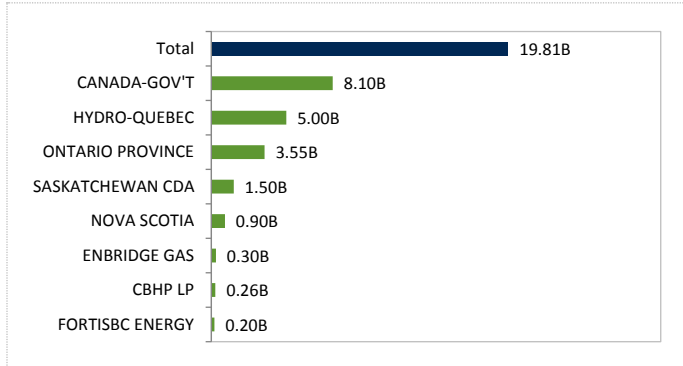
Larbi Moumni, CFA
Senior Equity Specialist

Record Low Yields

A steep slide in US Treasury yields has investors questioning if US yields could turn negative. Over the past year, the Federal Reserve has shifted from raising rates to cutting them due to fears of a global slowdown and an escalating, unpredictable trade war. In August, Trump announced an additional 10% tariff on the remaining \$300 bln of Chinese goods and the US Department of Treasury officially declared China a currency manipulator. The Chinese Ministry of Finance retaliated with tariffs on \$75 bln worth of US goods. The back and forth has resulted in tumbling yields, usually a sign of a flight to safety by investors. The yield on the 30-year US Treasury, the longest type of US government debt, fell to a record low this month, touching 2.018%. Furthermore, the US Treasury's active curve, which already had an inversion between the 3M and 10Y tenors for several weeks, now has an inversion along the 2Y and 10Y bonds, peaking at a spread of 6.7 bps. The 2Y vs 10Y inversion is an ominous metric to investors as it has accompanied all recessions over the past 50 years, and indicated greater macro risks in the short term.

Month over month, the Canadian yield curve is down 15 – 30 bps across the 2 – 30 Year tenors, with the largest decline on the 30 year term. With record low yields on longer-term debt, the Canadian debt market has seen extremely high amounts of issuances for a total \$19.81bln for long-term debt over the last month.

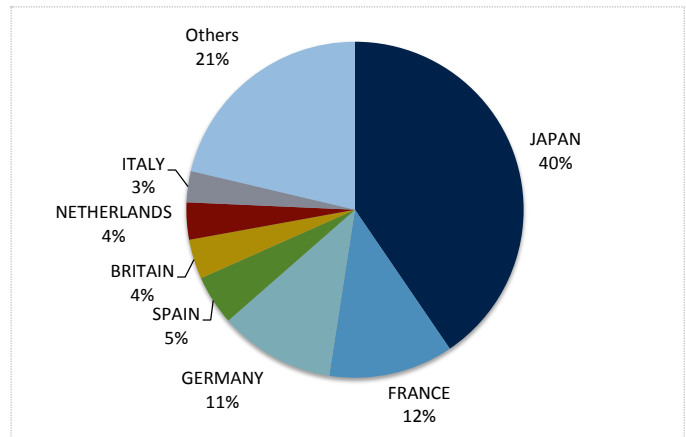
Long Term Bond Issuance Strong in August 2019



Source: Bloomberg, Raymond James Ltd.

Currently there is roughly US\$16tn of negative-yielding sovereign debt outstanding, which is counterintuitive to the traditional merits of investing in fixed income, which compensates investors for taking on inflation and credit risk. In the Eurozone and Japan, negative yields were a result of subpar growth and inflation combined with aggressive central bank policies. Though providing relief to the economies, they have not truly recovered.

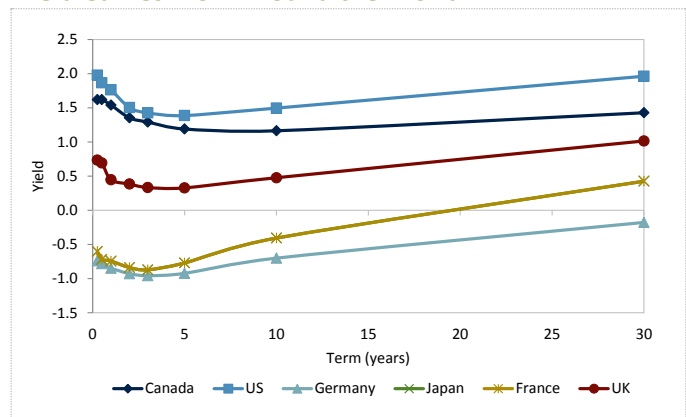
Top 7 Countries With Negative Yielding Corporate & Government Debt



Source: Bloomberg, Raymond James Ltd.

On August 21st, for the first time, Germany sold €824 mln worth of 30-year negative yielding zero-coupon bonds. If you hold this debt to maturity, you will receive less money than what you invested. The rationale for investing in this debt is that if yields continue to decline, the bonds will trade at a higher value on the secondary market and thus selling them once yields are lower will allow you to earn a capital gain. As global growth concerns and geopolitical tensions rise, demand for longer-term government debt rises, amid expectations for stimulative monetary policy from central banks. The list of major sovereigns with negative yielding debt now includes Japan, France, Germany, Spain, Britain and The Netherlands.

Yield Curves From Around the World



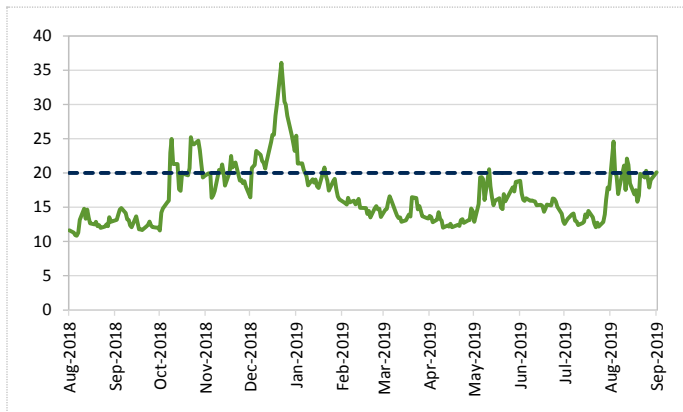
Source: Bloomberg, Raymond James Ltd. As at August 31, 2019.

Ahmed Husain
Fixed Income

Volatility Keeping You up at Night?

Forget the ‘summer of ‘69’. The broad scope of events unfolding across the global political and economic landscape has turned the summer of ‘19 as one to remember. The Fed, decidedly hawkish as ever at the beginning of the year, is now poised to continue cutting its overnight rate to combat persistently lagging inflation despite the influx of otherwise positive economic data releases. The US-China trade war has stubbornly remained at the forefront while in Europe, the chances of a soft Brexit dwindle. These issues, combined with a dozen other important issues, have remained a source of consternation for investors in nearly all major asset classes. More importantly, a swift resolution to these issues appears out of reach, so the uncertainty of market directionality continues to peak. One way to measure the collective views of the market, with respect to uncertainty, is by using the Chicago Board Options Exchange’s volatility index, also known as the VIX index.

Volatility Index Hangs Around Crucial 20 Level as Global Growth Concerns Persist



Source: Bloomberg, Raymond James Ltd.

The VIX, colloquially referred to as the “fear gauge”, measures the expected volatility of the S&P 500 index by assessing the differences in various options on the index. When looking at the value of the index, the number represents the expected range of movement, in percentage points, for the S&P 500 at a 68% confidence level. For example, if the value of the VIX is 10, we can read this as the market pricing in 68% probability that we will see a plus or minus 10% change in the S&P 500 over the coming year. In simple terms, a higher value of the VIX index represents a growing uncertainty in investment professionals of both the direction and magnitude of the market’s future movements. This August the VIX index averaged a high reading of ~19.0 -- the 12th highest monthly reading in the past five years. While the VIX index focuses on the S&P 500, investors in Canadian

equity markets can also use this as a gauge given that the correlation in the movements of the S&P 500 index and the S&P/TSX index have been at a very strong 0.83.

For short-term investors the risk to portfolio performance is obvious but those focusing on the longer term should also keep a close eye on short-term volatility for impacts on longer-term returns. To demonstrate this, let’s consider three portfolios that begin with \$100,000 while averaging a 5% return over 12 periods. Portfolio A enjoys a smooth 5% return each period. Portfolio B has either a plus or minus 10% return each period, and Portfolio C has a plus or minus 20% return each period. Despite each portfolio averaging the same return over the 12 periods, the compounding effect of the varying portfolio returns results in different dollar value outcomes. As we can see, there is a direct inverse relationship between the amount of volatility in the portfolio returns and the dollar value of those returns.

Impact of Volatility on Portfolio Returns

Period	Returns		
	Portfolio A	Portfolio B	Portfolio C
1	5%	-5%	-15%
2	5%	15%	25%
3	5%	-5%	-15%
4	5%	15%	25%
5	5%	-5%	-15%
6	5%	15%	25%
7	5%	-5%	-15%
8	5%	15%	25%
9	5%	-5%	-15%
10	5%	15%	25%
11	5%	-5%	-15%
12	5%	15%	25%
Average	5%	5%	5%
Growth of \$100k	\$179,586	\$170,031	\$143,871

Source: Raymond James Ltd.

There are many different ways investors can mitigate the impacts of volatility on portfolio returns. In the managed money space there are two particular strategies used to provide investors with broad market exposure without realizing the same volatility. The more common way for reducing volatility is by focusing on the reduction of the absolute volatility of the portfolio. This is accomplished by minimizing the standard deviation of the portfolio by selecting those securities in the index with the lowest standard deviation. Meanwhile, some strategies focus on minimizing the relative volatility of the portfolio compared to the broader market, by selecting securities with the lowest beta relative to the broad market. As a quick refresher, beta is a measure of a stock’s volatility in relation to the market. A stock with a beta of 1.0 has the same volatility as the broader

market; greater than 1.0 implies volatility is greater than the market; and less than 1.0 implies volatility less than the market. For an example of how effective these strategies can be, we look at two particular ETF products that are designed to provide broad market performance while reducing volatility.

Invesco S&P/TSX Composite Low Volatility Index ETF (TLV-T)

Invesco has a suite of low volatility products focused on standard deviation (absolute volatility). To create the underlying portfolio, the standard deviation of all of the index constituents for the prior 12 months are calculated and then ranked based on that volatility calculation. Next, the top 50 securities based on the volatility ranking (i.e. 50 securities with the lowest volatility) are selected to be placed in the portfolio, with security weighting set inversely proportional to its volatility (i.e. the security with the lowest volatility will have the highest weight). An important consideration is that TLV has no constraints on sector exposure, which means that in times when an entire sector (e.g. oil & gas) is experiencing turbulence, it will not be exposed to that sector.

BMO Low Volatility Canadian Equity ETF (ZLB-T)

Much like the Invesco ETF above, ZLB is a rules-based product focused on reducing volatility; however, that is more or less where the similarities end. This ETF from BMO aims to manage volatility by focusing on reducing the sensitivity of the portfolio’s movements relative to the broader market, meaning beta is the focus here rather than standard deviation. To create the portfolio, securities are first screened based on size and liquidity, which helps reduce potential volatility of the portfolio by removing smaller cap names that trade less frequently. For each security, beta is then calculated for each of the prior five years and the portfolio is then built by placing the most weighting on the most recent year’s beta. As part of the portfolio construction process, there are some exposure constraints. For example, there is a maximum 10% weighting to any one security; a maximum 35% weighting to any single sector; and no more than 50% of the portfolio can be exposed to interest rate sensitive sectors, specifically utilities, REITs, consumer staples and telecom.

ETF Features

Period	Invesco S&P/TSX Composite Low Volatility Index ETF	BMO Low Volatility Can Equity ETF
Symbol	TLV-T	ZLB-T
MER	0.34%	0.39%
Rebalancing Frequency	Quarterly	Semi-Annual
Number of Securities	50	45
% Top 10 Holdings	24.5%	30.2%
Distribution Yield	3.9%	2.5%
Net Assets (mlns)	\$384	\$1,532

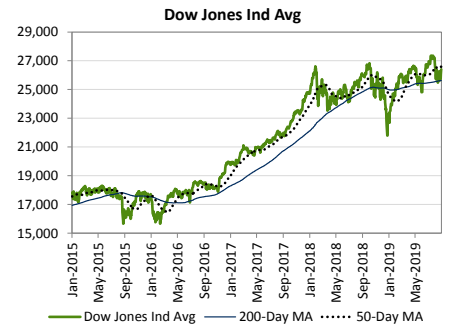
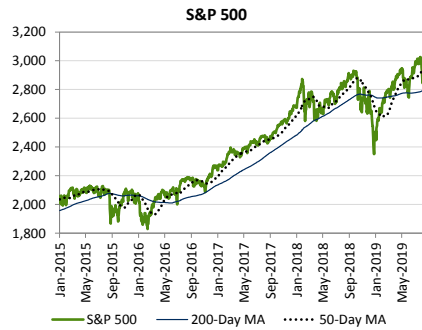
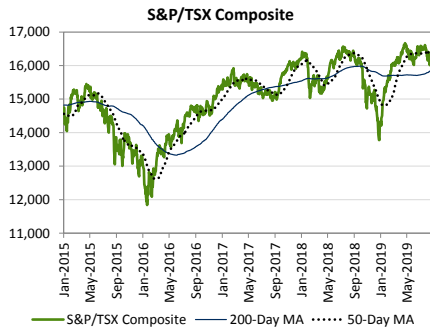
Source: Company Reports, Raymond James Ltd.

The volatility of your portfolio can be measured in multiple ways, whether in absolute (standard deviation) or relative (beta) terms. While the objectives of each method are similar, the outcomes can be different depending on the environment. For example, in 2015 the former Valeant Pharmaceuticals (now Bausch Health Co., BHS-T) had a relatively high standard deviation but a low beta. Meanwhile, shares of Royal Bank of Canada (RY-T) had a low standard deviation but a high beta. When considering a low volatility ETF option, it is important to ensure that the methodology used in the product aligns with your needs concerning volatility reduction. With the *fear gauge* nearing recent highs, now is an opportune time to re-evaluate your portfolios to determine how today’s market volatility might disrupt your long-term financial plans. Before buying any of these products, speak with your Raymond James financial advisor to see if they are suitable for you.

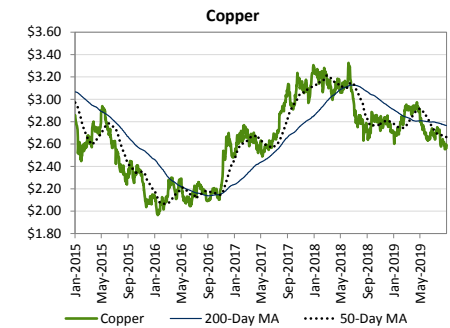
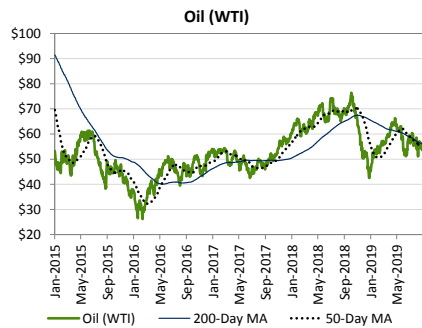
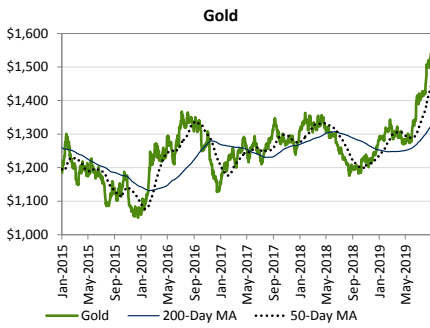
Chris Antony, CFA

Charts of Interest

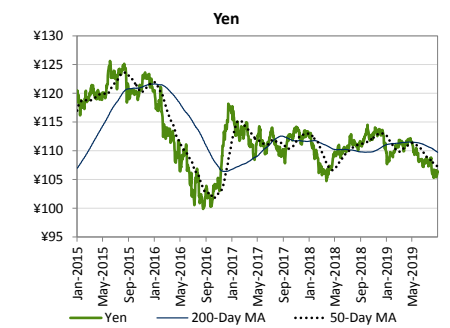
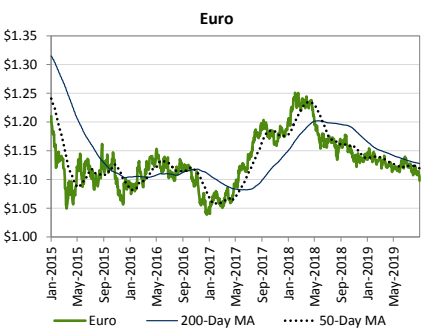
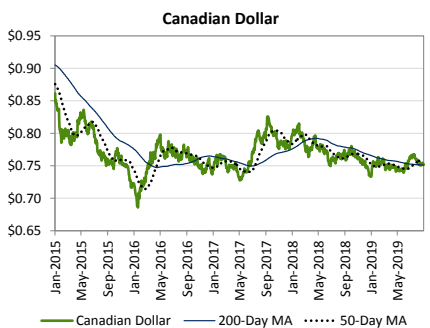
Markets



Commodities



Currencies



Source: Bloomberg, Raymond James Ltd. Performance as at August 31, 2019.

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