TD Wealth

Economic Jenga

Monthly Perspectives // October 2018

Portfolio Advice & Investment Research

In this issue

Maytag Market

Brad Simpson, Chief Wealth Strategist

The job of a risk manager can be lonely work. Memories in the investment industry are short, and the farther you get from a crisis, the less need there seems to be for risk management. Markets today are a terrific example of that. When I started writing this article, we were sitting in the relative tranquility of a long bull market, with assets trading at or near their all-time highs. The financial crisis was a distant memory, and it was becoming increasingly easy to forget that, just ten years ago, many of us wondered whether we would ever recover from our losses.

We just went through one of the most extraordinary times in history — wherein the Federal Reserve brought the U.S. economy back to life after the 2008 crisis — instituting policies and making moves that had never been tried before. No one knows the long-term impacts of these tactics, but we do know they revived the economy, and in doing so, contributed to a financial world dominated by four tremendous trends: low interest rates, easy credit, lots of share buybacks and multiple expansion.

Throw in exuberant free trade and fantastic FAANGs and you have the perfect outcome for anyone owning the traditional 60/40 stock and bond portfolio: great equity returns and good bond returns with no volatility. It's hard to see how any one of these trends will be able to continue to drive major returns going forward; it is unthinkable that all six will be. That's why the traditional approach of taking past successful strategies and applying them to the future seems so dubious. When the circumstances change, so should your strategy and your thinking.

Being well-diversified, with protection against downside risk, has been terribly out of fashion. The dismissive attitude recalls a cartoon from the Wall Street Journal back in June 2017: A bearded panhandler holds a sign that reads, "Bought too much downside protection." *Ba-dum ching!*

The truth is, grand distortions caused by a decade of unprecedented monetary policy have turned risk managers into the industry's version of Maytag repairmen — which is to say idle, but only for the moment. Accidents do happen, and a lot of risk management is about preparing for unknowns.

Then again, as Donald Rumsfeld reminded us so many years ago, there are unknowns and then there are "known unknowns." So this month, we thought we would review the catalysts behind the considerable market volatility so far in October. Then we go over the five market themes being highlighted by the TD Wealth Asset Allocation Committee (WAAC), and finally dig into the areas of greatest focus, in terms of risk management, for the Portfolio Advice and Investment Research (PAIR) team: equity risk, fixed-income risk (credit and interest rates) and entailed volatility risk.

The known unknowns of risk

The big question on most investors' minds is how has recent volatility happened? Like there is some sort of trip wire. We think a better way to look at this is, kind of like the game of Jenga — yes Jenga, the game with the wooden tower where players take turns pulling blocks away until the tower comes tumbling down.

The first Jenga block is monetary policy and the second, closely aligned, is interest rates. Welcome to the real world, where the U.S. Federal Reserve is not always going to be there. Gone are the days when we can count on the Fed to apply its quantitative easing (QE) program on a monthly basis, buying up bonds to revive the flow of credit to a shrinking economy. Over the past ten years, it added over $4 trillion to its balance sheet and now it is doing the opposite by letting over $50 billion of its bond holdings mature every month. This takes money out of the financial system, which is a big change.

Now add to this the fact that the U.S. Federal Reserve is simultaneously raising interest rates — eight hikes so far, with plans for more. This has a real impact on investment, particularly equity markets. Investors have been waking to the realization that rates are a lot higher than they were a year ago. Over the past year, the bond term an investor had to commit to the U.S. Treasury to get a return guaranteed to be better than the trailing dividend yield of the S&P 500 has shrunk from ten years, to two years to three months (Figure 1). There is an adage that says "don't fight the fed" when interest rates are going down. Apparently some investors are starting to say the same when interest rates are headed up.

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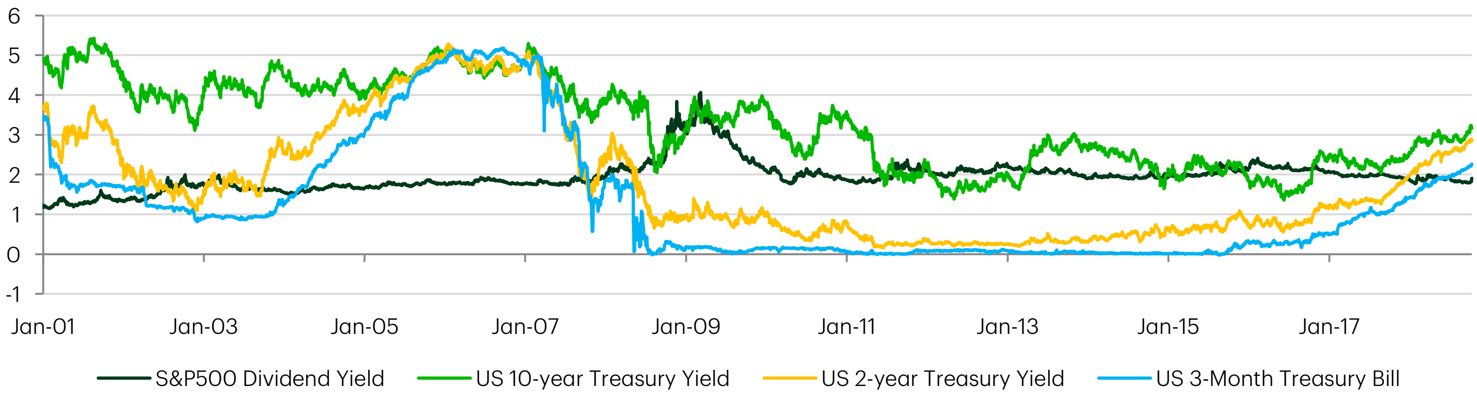
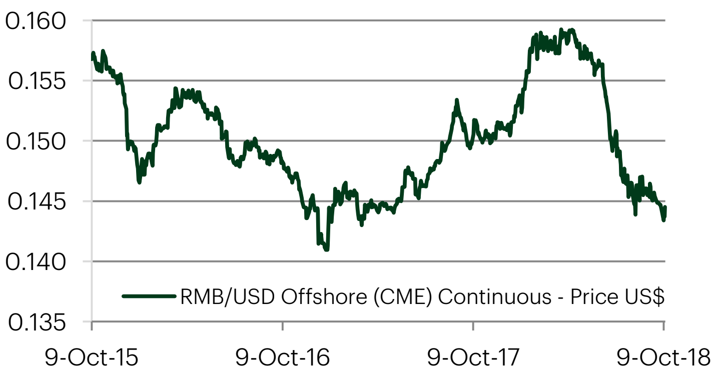
Figure 1: Shrinking bond terms with higher interest rates



Source: Bloomberg Finance L.P. As at October 11, 2018.

Figure 2: Rising currency costs



The next Jenga block is currency, specifically the U.S. dollar versus the Chinese renminbi. The good news is that the U.S. economy is firing on all cylinders; the bad news is that this is driving a stronger dollar, which increases the financing costs of emerging-market companies that hold record levels of USD debt. Slowing growth in China has further shaken sentiment in emerging markets, as investors become increasingly concerned over Washington-led global trade protectionism. China's renminbi continues to be pressured versus the USD, which is adding strain to market sentiment (Figure 2).

Figure 3: Weakening purchase intent

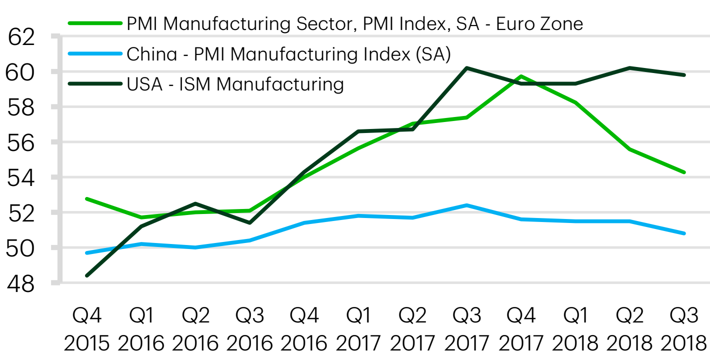
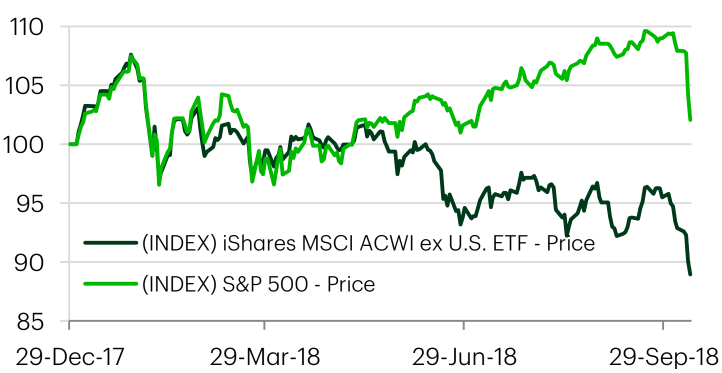


Figure 3 charts the difference between U.S. and global PMIs. Simply defined, PMI stands for "Purchasing Manager Index" and is a monthly survey that questions the activity of purchasing managers at companies in various sectors. While U.S. PMIs continue to be very strong, similar measurements in Europe, China and Japan are weakening. This too can be seen as a Jenga block being pulled from the financial market wooden tower.

Figure 4: Equities alligator



Source: Charts 2-4: FactSet. As at October 11, 2018.

Finally, Figure 4 is what market folks like me call an "alligator chart," I hope for obvious reasons. This chart plots the relative outperformance of the S&P 500 versus the rest of the world. Simply put, the United States is quickly becoming the only game in town. At some point, the jaws of the alligator will close. The big question right now is whether the bottom part will come up, or whether the top part will come down. Current market activity suggests that investors are worried about the latter ... and so another Jenga block is moved.

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The big question from here is stupendously obvious: Will the whole tower fall? Are we headed to a big correction? Typically, big market corrections occur as late-stage expansions (like where we are today) move into recessions. This, however, is not a typical cycle. I have used the term “grand distortions” consistently to describe this financial era, and there’s a reason for that. We are coming up to the longest expansion in history, 120 some months; however, as I have written in the past, it is also the slowest expansion in history. The global economy is performing better than it has in years.

Figure 5 is a rough sketch of the conditions that acted as a precursor to past recessionary environments. Think of each one of them as a Jenga block. Of the seven usual precursors that point to a recession, only one is sitting at neutral: inflation. This stands in contrast to what we laid out in our Winter 2018 commentary, Double Doppelganger, where we presented a “thumbs up” expansion. The September inflation report once again showed that, while inflation is simmering away at around a 2% pace, there are few signs that it is starting to boil. Price pressures for core services can best be described as steady. Meanwhile, a strong U.S. dollar and a competitive retail sector are keeping core goods inflation weak. Overall for the third quarter, headline and core inflation came in a tick lower than expected by TD Economics. We continue to expect inflationary pressures to pick up slightly over the coming quarters.

Figure 5: Recessionary indicators dashboard

Start of Recession	Yield Curve	Inflation Trends	Labour Market	Credit Perform.	ISM Mfg.	Earnings Quality	Housing Market
Nov. 1973	Recessionary	Recessionary	Recessionary	Recessionary	Recessionary	--	Recessionary
Jan. 1980	Recessionary	Recessionary	Recessionary	Recessionary	Recessionary	--	Recessionary
July 1981	Recessionary	Expansionary	Expansionary	Recessionary	Recessionary	--	Recessionary
July 1990	Recessionary	Recessionary	Recessionary	Recessionary	Recessionary	Recessionary	Recessionary
Mar. 2001	Recessionary	Recessionary	Recessionary	Recessionary	Recessionary	Recessionary	Neutral
Dec. 2007	Recessionary	Recessionary	Neutral	Recessionary	Recessionary	Recessionary	Recessionary
Present	Expansionary	Neutral	Expansionary	Expansionary	Expansionary	Expansionary	Expansionary

Recessionary Expansionary Neutral

Source: PAIR. As at October 15, 2018

The latest from WAAC

TD Wealth Asset Allocation Committee

Every month, WAAC convenes to fulfill the following mandate: to articulate broad market themes, provide macro-level asset allocation and identify the major risks on the horizon. The following are five current themes the committee is following:

Bad moon rising: Volatility is likely to rise, driven in large part by central bank tightening, a closed economic output gap, fear of rising inflation and heightened trade frictions.

Yearning for yield: Central banks are transitioning from emergency to neutral monetary policy, but investors can expect the “lower for longer” environment to continue.

Against the wind: WAAC’s neutral rating in equities reflects strong corporate fundamentals, offset by quantitative tightening in the U.S. and slowing growth globally.

Estranged: WAAC anticipates protracted conflict between China and the U.S. on issues of trade and technology leadership.

Northern cold: WAAC is cautious on the Canadian dollar, due to elevated household debt and the expectation of slower rate increases from the Bank of Canada vs. the U.S. Federal Reserve.

On the whole, global growth still looks healthy and corporate earnings are performing strongly. WAAC retains its neutral mix between fixed-income and equities and continues to favour a diversified portfolio that includes: (1) high-quality equities that have the ability to increase their earnings and dividends in a low-growth environment; (2) an allocation to cash to provide stability and safety of capital; and (3) an allocation to high-quality domestic government bonds and investment-grade corporate bonds to provide some income, diversification and stability.

Chasing the dragon

Christopher Blake, Senior Portfolio Manager, Equities

Equities come with many risks, but as far as investors are concerned, the important ones have to do with price volatility and losses. That's easy enough to understand. Each of us invests with the goal of building a resource for future needs, and volatility or loss can make it difficult to meet those needs.

Managing equity risk, then, is one of the essential objectives of any asset-management program, and there are a few ways to do that. The first one is simple: choose active management.

Many investors are convinced that active equity management is passé — a quaint notion, but no longer necessary in a world of low-cost computing and trading. The argument is that an exchange-traded fund (ETF) can provide low-cost exposure to many asset classes in addition to improved performance, since many active managers fail to produce returns that, over the long term, beat the benchmark index.

The problem is, while an ETF may give the investor nearly 100% of the benchmark return, it also gives that investor 100% of the benchmark risk. So we have to ask ourselves, is that what we really want to achieve, or is there a better way?

The equity market is a dynamic organism, with prices responding to a wide variety of signals. Some of these signals are easy for investors outside the market to understand, such as the effect of the broader economy. Over the past 30 years, there have been three major recessionary periods in the United States. A look at the S&P 500 index over that period of time (Figure 6) shows a pretty obvious correlation between economic contractions and market crashes.

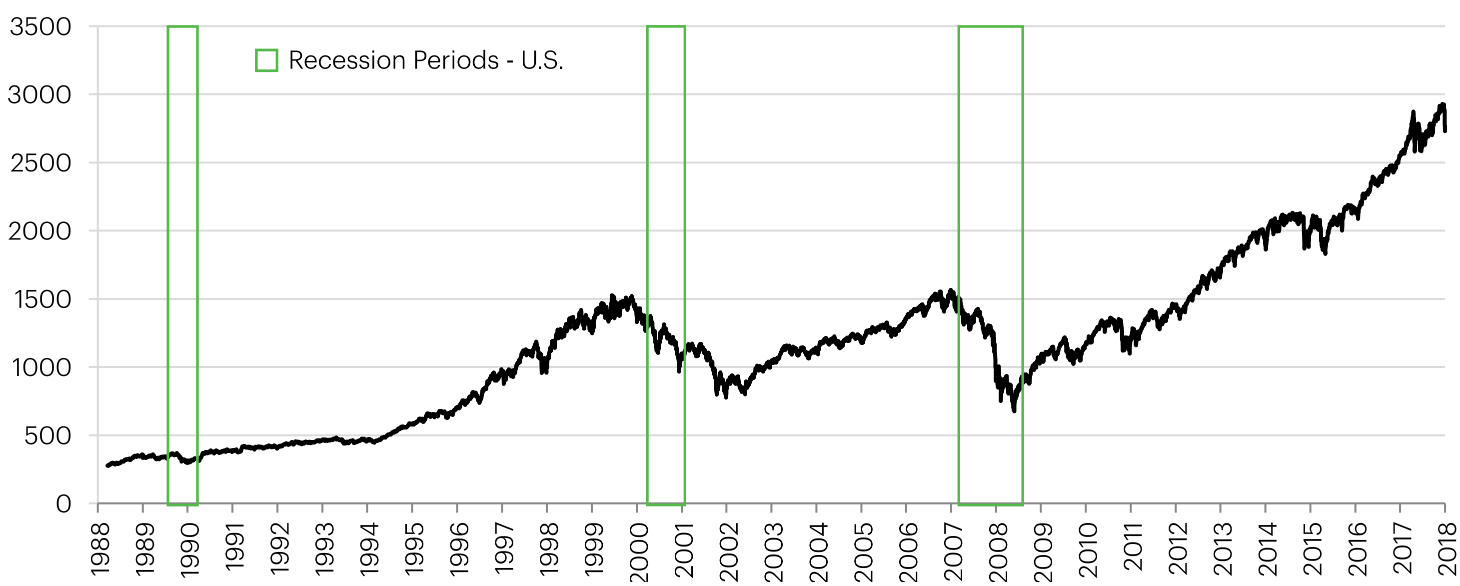
Clearly the market responds to these kinds of economic inputs. Some signals, though, aren't quite so easy to spot — when an individual company's strategy fails, for example, or when a powerful trend leads investors to pile into particular segments of the market. Small-cap vs. large-cap, value vs. growth.

When we own an ETF, we own all the risks associated with this homogenous approach, as we join the multitudes of investors who are happily piling into whatever segment seems to be in favour, regardless of the underlying fundamentals. And with new ETFs that double down on these exposures, we can be even more vulnerable. So it's important understand the market's propensity to follow trends.

The stock market is loaded with sayings that are generally intended to help investors but quite often lead them astray. One such old saw is, "The trend is your friend." This is a tribute to a field of investing known as momentum investing, in which positive price actions yield yet more positive price action. But is the trend always your friend? Not necessarily.

When you follow a trend, you assume the risk that comes with that trend, including the possibility that some disruptive event precipitates a reversal. A simple example of this is the current market flavour for growth stocks over value stocks. This is a trend that has been in place essentially since the end of the great financial crisis of 2008/09, with the Russell 1000 Growth Index easily outstripping its counterpart value index (Figure 7). It's a trend, moreover, that seems to have accelerated over the past 15 months (Figure 8).

Figure 6: How the market responds (S&P 500 Index)



Source: Bloomberg Finance L.P. As at October 15, 2018.

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Is this a trend that we want to invest in? Or, more importantly, is this a trend that is liable to shift in dramatic fashion? We know that, at the turn of the century, we had an example of a market — the so-called "dot-com bubble" — that was quite similar, with growth stocks outpacing value stocks materially.

That growth phase was all about tech and the early stages of growth in internet services. As we reached the end of that great bull market, the market narrowed to a few select names that provided the bulk of the return. In Canada, we still remember the shocking fate of Nortel Networks Corp., which in late 2000 represented about one-third of the old TSE 300 index.

So how does the market of today compare to the dot-com bubble? Through August 31, 2018, the six U.S. tech giants known as the FAANG+M group (Facebook, Amazon, Apple, Netflix, Google, Microsoft) contributed 51.4% of all market returns on the S&P 500 index (Figure 4) with FAANG+M stocks returning 27.9% during that period of time. This trend actually accelerated in September.

So it's plain to see that we now have some of the ingredients that led to the dot-com bubble of the late '90s. We are right now in a narrow market in which growth has outperformed value. This is likely to be the No. 1 risk we face in the equity market today — chasing trends reinforced by passive investing and, specifically, chasing growth.

To be sure, there remain a number of positives in this market. The consumer is in pretty good shape and earnings continue to rise, but so too have the multiples on those earnings. On a price-to-earnings basis, the price an investor pays for each dollar of annual corporate earnings has gone from around $12 to $17. That has left valuations full, but perhaps not stretched quite yet.

The current environment, however, has me a little more cautious. Earnings momentum has slowed, with estimates for growth flattening, and there are signs of incipient inflation — which is all the more reason for investors to take risk management seriously.

Markets may be experiencing the euphoric effects of stimulus, but as any connoisseur of stimulants will tell you, chasing the dragon rarely leads to catching the dragon.

Figure 7: Momentum accelerating

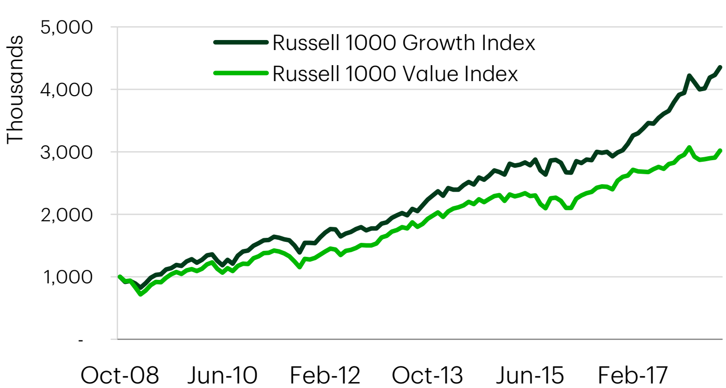
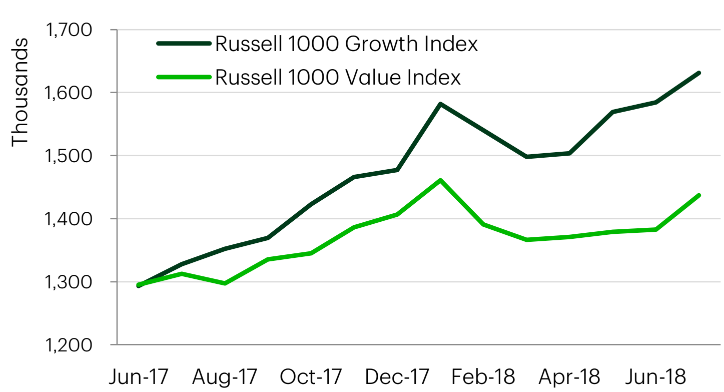


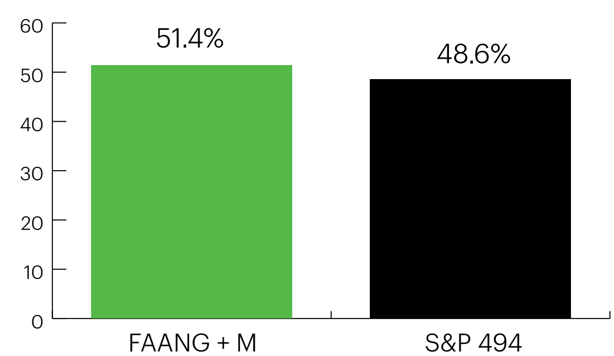
Figure 8: Momentum accelerating (last 15 months)



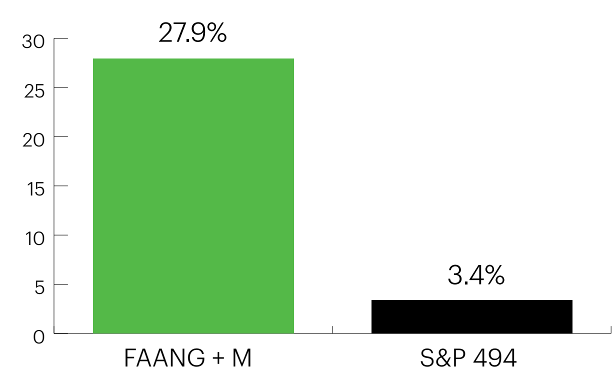
Source: Bloomberg Finance L.P. As at July 31, 2018. Rebased to 100.

Figure 9: FAANG+M vs. the S&P 494

Contribution to S&P 500 Return Year-to-date (as at 8/31/2018)



Year-to-date Returns (as at 8/31/2018)



Source: Bloomberg Finance L.P. As at August 31, 2018.

Rate Reverberations

Sheldon Dong, Vice President, Fixed Income Strategy

Over the past four decades, the U.S. trend for interest rates has also been the global trend — a convergence that is the result, arguably, of the growing integration of international asset markets and the global nature of underlying economic factors. What this means, when it comes to higher-quality sovereign bonds, is that there is now just one market: the global market. And that leaves fixed-income investors with few places to hide from rising interest rates and market volatility, as central banks remove measures that have suppressed them. The return of volatility and term premium to interest rates to historically more normal levels is actually healthy for financial markets, although it may not appear to be the case at the moment.

The stage for all of this was set in 2007 and 2008, when the world's central banks, in response to the financial crisis, flooded their economies with liquidity to counter contractionary effects. Government bond yields fell to historically low levels in developed economies — near zero or even negative. This flood of liquidity into the credit market assuaged investors' fears and rekindled their willingness to bear risk. Now, however, the appetite for risk-taking has perhaps swung too far on the pendulum, necessitating the removal of central bank liquidity.

The U.S. Federal Reserve Board (Fed) has increased its federal funds rate eight times since December 2015, and with the latest hike in September, Fed Chairman Jerome Powell continued to signal the Fed's current policy of "gradual" rate hikes. Nevertheless, strong economic data and comments from Fed officials have given rise to expectations that the Fed may move to hike its benchmark rate beyond r* — that is, the "natural real rate of interest," which is defined as the inflation-adjusted short-term interest rate consistent with the economy operating at full potential (a policy rate that neither stimulates nor hinders economic growth), once transitory shocks to aggregate supply and demand have abated.

The r* benchmark is an important one for monetary policy because it determines the rate that policymakers should aim for once temporary shocks to the economy have dissipated and the Fed's macroeconomic goals have been achieved. What that number happens to be, however, is uncertain as estimates continue to shift. Currently, that estimate is 3.0%.

Over the shorter term, technical considerations also play a very important role in the movement of yields. Supply and demand is a crucial technical, given that is the basis for the quantitative easing (QE) programs used by central banks to artificially lower bond yields to compel investors to move out the risk curve. QE is a massive large-scale asset-purchase program that took much duration and liquidity out of the market to lower longer-term rates. It only stands to reason that, once QE ends and quantitative tightening (QT) begins, this process should work in reverse. Both programs are subtle, however, and work their influence over time rather than with the flip of a switch. This is also occurring at a time when the U.S. Treasury is ramping up a separate and distinct amount of debt issuance, due to the recent tax cuts and increased government spending.

The corporate credit market has also been impacted by supply/demand imbalances. The Tax Cuts and Jobs Act shifted the tax code toward a territorial system where the U.S. will no longer attempt to tax earnings of foreign subsidiaries. This has prompted a repatriation of so-called "foreign cash," which in fact had been held by corporations in U.S.-denominated fixed-income securities. This repatriation has seen companies like Apple, Microsoft and Alphabet — which had been large buyers of corporate bonds — unwinding some these holdings to buy back shares and fund dividend increases.

The Bank of Canada, meanwhile, has restated its intention to pursue higher rates, re-emphasizing its data dependency and "measured pace" approach. In his speech on September 28, Governor Stephen Poloz noted that the Bank's models put the economy at full capacity, but cautioned that the forecasts were inexact. He argued that the Bank could not conduct monetary policy mechanically, citing uncertainties like high household debt levels, new mortgage lending guidelines and uncertainty around international trade policy.

Two days after Poloz's speech, as it happens, the international trade uncertainty he cited was resolved to some extent, when the U.S. and Canada reached a last-minute agreement to salvage the trilateral trade pact. The 24-year-old North American Free Trade Agreement will now be superseded by the U.S.-Mexico-Canada Agreement, or USMCA, giving the Bank more latitude to raise rates. A rate hike is expected on October 24, to 1.75%, which still puts it roughly 75 bps below "neutral," according to TD Economics, which expects the policy rate to reach 2.50% by 2020.

Developed market equities and emerging markets have also experienced an increase in volatility in response to the rise in global interest rates. Higher interest rates increase debt-servicing costs for companies and weaken their valuations based on discounted cash flow analysis. For emerging markets (EM), the main concern is a strengthening U.S.

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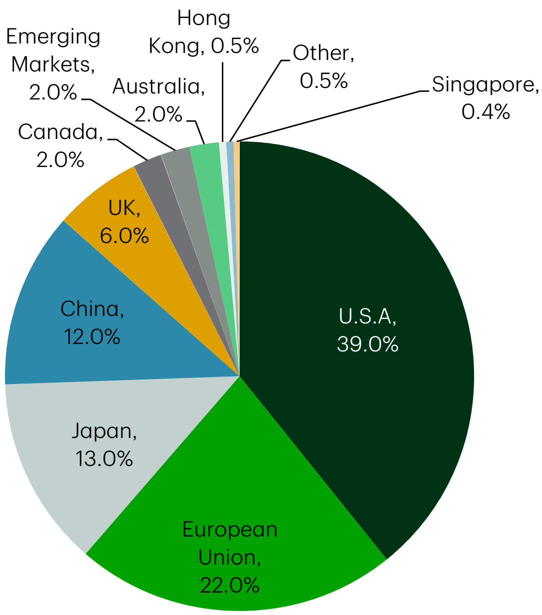
dollar and the servicing of external debt, with the Fed further ahead than other central banks in normalizing interest rate policy. The outstanding level of U.S. dollar debt in EM has more than doubled, from about $1.5 trillion a decade ago to approximately $3.7 trillion.

Figure 10: $100 trillion global fixed income market



Source: Bank of International Settlements. As at FY2017.

The contention remains that the extraordinarily accommodative monetary policies from the world's central banks have supported a benign backdrop for asset prices. This leads to expectations that central banks will be continue to be slow and deliberate in removing accommodation and normalizing monetary policy, fearful of a policy mistake and from pushback by politicians: for example, U.S. President Donald Trump's criticism of the Federal Reserve's rate hikes and the Italian government's suggestion that it will ask the European Central Bank to formulate another program to make large-scale purchases of Italian sovereign bonds once the current iteration of quantitative easing runs its course.

Despite the pushback, a move toward higher interest rates and tighter monetary policy, however deliberate, is likely to lead to higher market risks in the form of volatility, with asset prices becoming more sensitive to interest-rate changes.

Get a handle on risk

Risk Priority Management

Brad Simpson, Chief Wealth Strategist

So what does all this mean in today's market? Fed hiking rates, rising trade tensions with China, risk of slowing growth and inflation creeping higher — what does managing these risks mean in terms of your portfolio? It's hard not to feel like the "new era" thesis of ever-appreciating financial assets — thanks to globalization and perfected monetary policy — has come to an end. There is still compelling evidence to suggest that the genie is out of the bottle: Globalization continues, interconnectedness is alive and well and technology will continue to have a dramatic impact on our lives.

However, much to the chagrin of investors everywhere, we have not achieved perfection, and in a world that is open and complex, the only thing you can be certain of is that uncertain things will occur. Higher inflation and with it significantly higher interest rates, while unlikely, are possible. Credit can restrict and spreads can widen when you least expect it. A global economy based on an omnipresent central banking system is unworkable in the long run. Despite our preference for linear returns, companies will fail, countries will teeter and volatility in financial markets will be the result.

The Federal Reserve brought the U.S. economy back to life after the financial crisis, using unprecedented policies. That has contributed to a world with low interest rates, easy credit, share buybacks galore, and a multiple expansion. But that era has ended. These trends are unlikely to drive returns going forward, and so you need a new way forward. At TD Wealth, this new way is guided by the investment philosophy we call "Risk Priority Management."

The folly of closed systems

The most common approach to portfolio management is based on a conceptual framework that is over 60 years old. To proponents of this approach, financial markets are like a machine, a closed system where predictions can be made based on how the machine functioned in the past.

We think markets are more like a biological being that is always adapting and changing as the world changes. When the financial system was imploding 10 years ago, the people working in governments and central banks didn't sit idly by and let it happen; they took dramatic measures, and these measures have changed things. To us, financial markets are an open system; what worked yesterday may not work so well tomorrow.

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Figure 11: Mitigate outside and inside risk

Source: Portfolio Advice & Investment Research, TD Wealth.

One of the core principles of Risk Priority management is "Embrace human behaviour." Markets are an open complex system, so investors have to always be adapting. This is a real challenge because there are innate and learned behaviours that impact our decision-making. First, we have biases. And at TD Wealth, we've done a lot of work on this — we've worked with behavioural finance scientists to really try to figure out how we can be our own worst enemies when it comes to decision-making. We've even created a tool to help our clients understand these biases for themselves.

Consider our response to the markets over the past 10 years. During that time, if you owned the S&P 500, you enjoyed annualized returns near 11%, with no volatility and the comfort of knowing that the second digital age will help deliver wondrous returns for growth stocks. In our minds, we take this information and extrapolate it and create a world that we believe is going to be similar going forward — an assumption that can be completely wrong, and it's all due to three biases: recency, confirmation and overconfidence.

We think the world we're moving into is going to be very favourable to real assets and hedge funds, and tougher for stock and bonds. It's a belief founded on deep analysis of where markets are headed, not where they've been. But this new approach will require us, as investors, to get over some of our own biases, and that means looking within ourselves and acknowledging the individual blind spots that make us who we are. We've created a discovery tool that facilitates that inner exploration.

Simply put, knowledge is power. We believe that the more self-aware you are, the more knowledge you have about your own thinking, the more likely you are going to make good decisions. In addition to discovering biases, the tool that we use with clients also sheds light on our attitudes about things like: how open we are to new ideas; how quick we are to react to things; and how likely are we to listen to other people. Knowing who you are will help you challenge your own thinking and could increase the likelihood of your investment success.

Another principle of Risk Priority Management is "Mitigate outside and inside risk." Traditional asset allocation is superficial, looking at everything on the surface. Portfolios are always shown as one portion allocated to fixed-income and another to equities, and that's what passes for diversification — hence the 60/40 rule.

We say no. We believe what is happening on the inside is more important. Portfolios have a DNA, if you will. Open up each asset and look at what is happening on the inside, and you find a host of risk factors that are common to many asset categories. Not all equities are risky, and not all fixed-income instruments are safe. But that's the method of diversification that's been drilled into people's heads forever.

Today too many clients are overexposed to three of our major risk factors: equity, volatility and fixed-income (credit and interest rates). We build our portfolios based on managing the most important risks — outside risks (the macro factors) and inside risks (what's in your portfolio).

After decades of decline, interest rates are rising, inflation is ticking upwards, and globalized trade is under threat. We don't know what's going to happen, but we do know that the world has evolved. Have your strategies evolved to match? If you're not sure, read our philosophy piece on Risk Priority Management. Other advisors may be satisfied with the old way of analyzing and extrapolating from the past. We're not. We're looking forward.

Market performance

		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Canadian Indices ($CA) Return	Index	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	Since 1/1/2012	10 Yrs	20 Yrs
S&P/TSX Composite (TR)	54,739	-0.89	-0.57	1.36	5.87	9.70	7.80	7.64	6.30	7.99
S&P/TSX Composite (PR)	16,073	-1.17	-1.26	-0.84	2.80	6.50	4.68	4.48	3.18	5.40
S&P/TSX 60 (TR)	2,624	-1.12	-0.65	1.48	6.48	9.95	8.56	8.31	6.11	8.16
S&P/TSX SmallCap (TR)	990	-1.34	-2.81	-4.42	0.07	11.21	4.24	2.88	4.98	-
U.S. Indices ($US) Return	Index	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	Since 1/1/2012	10 Yrs	20 Yrs
S&P 500 (TR)	5,763	0.57	7.71	10.56	17.91	17.31	13.95	15.66	11.97	7.42
S&P 500 (PR)	2,914	0.43	7.20	8.99	15.66	14.92	11.62	13.26	9.59	5.40
Dow Jones Industrial (PR)	26,458	1.90	9.01	7.04	18.09	17.56	11.83	12.13	9.32	6.27
NASDAQ Composite (PR)	8,046	-0.78	7.14	16.56	23.87	20.31	16.36	18.19	14.47	8.10
Russell 2000 (TR)	8,424	-2.41	3.58	11.51	15.24	17.12	11.07	14.62	11.11	9.45
U.S. Indices ($CA) Return	Index	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	Since 1/1/2012	10 Yrs	20 Yrs
S&P 500 (TR)	7,461	-0.28	5.88	14.08	22.31	15.98	19.31	19.88	14.23	6.54
S&P 500 (PR)	3,772	-0.42	5.38	12.46	19.98	13.62	16.88	17.39	11.80	4.54
Dow Jones Industrial (PR)	34,250	1.04	7.16	10.44	22.49	16.23	17.09	16.22	11.53	5.40
NASDAQ Composite (PR)	10,416	-1.61	5.32	20.27	28.48	18.95	21.84	22.50	16.79	7.22
Russell 2000 (TR)	10,905	-3.23	1.82	15.06	19.53	15.80	16.30	18.80	13.36	8.55
MSCI Indices ($US) Total Return	Index	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	Since 1/1/2012	10 Yrs	20 Yrs
World	8,965	0.60	5.10	5.89	11.84	14.19	9.89	12.39	9.18	6.69
EAFE (Europe, Australasia, Far East)	8,055	0.91	1.42	-0.98	3.25	9.77	4.90	8.61	5.87	5.64
EM (Emerging Markets)	2,335	-0.50	-0.95	-7.39	-0.44	12.77	3.99	4.93	5.76	10.17
MSCI Indices ($CA) Total Return	Index	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	Since 1/1/2012	10 Yrs	20 Yrs
World	11,606	-0.25	3.32	9.27	16.01	12.89	15.07	16.49	11.38	5.82
EAFE (Europe, Australasia, Far East)	10,427	0.06	-0.30	2.17	7.10	8.53	9.84	12.57	8.01	4.78
EM (Emerging Markets)	3,023	-1.33	-2.63	-4.44	3.27	11.50	8.89	8.76	7.90	9.27
Currency	Level	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	Since 1/1/2012	10 Yrs	20 Yrs
Canadian Dollar ($US/$CA)	77.25	0.85	1.73	-3.09	-3.59	1.14	-4.50	-	-1.98	0.83
Regional Indices (Native Currency) Price Return	Index	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	Since 1/1/2012	10 Yrs	20 Yrs
London FTSE 100 (UK)	7,510	1.05	-1.66	-2.31	1.86	7.40	3.05	4.73	4.36	0.02
Hang Seng (Hong Kong)	27,789	-0.36	-4.03	-7.12	0.85	10.06	3.98	8.06	4.43	6.50
Nikkei 225 (Japan)	24,120	5.49	8.14	5.95	18.49	11.53	10.78	18.17	7.92	2.98
Benchmark Bond Yields		3 Month		5 Yr		10 Yr		30 Yr		
Government of Canada Yields		1.60		2.41		2.50		2.48		
U.S. Treasury Yields		2.20		2.95		3.07		3.22		

Canadian Bond Indices ($CA) Total Return	Index	1 Month	3 Months	YTD	1 Yr	3 Yrs	5 Yrs	Since 1/1/2012	10 Yrs
FTSE TMX Canada Universe Bond Index	1,033	-0.97	-0.96	-0.35	1.66	1.60	3.26	2.70	4.44
FTSE TMX Canadian Short Term Bond Index (1-5 Yrs)	701	-0.20	0.01	0.54	0.82	0.71	1.61	1.63	2.80
FTSE TMX Canadian Mid Term Bond Index (5-10 Yrs)	1,114	-0.93	-0.76	-0.51	0.61	1.01	3.24	2.93	4.99
FTSE TMX Long Term Bond Index (10+ Yrs)	1,678	-2.05	-2.43	-1.53	3.60	3.15	5.61	3.97	6.73

Sources: TD Securities Inc., Bloomberg Finance L.P. TR: total return, PR: price return. As at September 28, 2018.

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Action List BUY: The stock's total return is expected to exceed a minimum of 15%, on a risk-adjusted basis, over the next 12 months and it is a top pick in the Analyst's sector.

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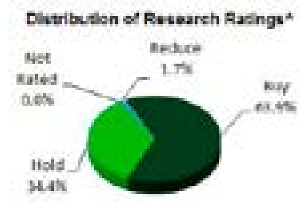

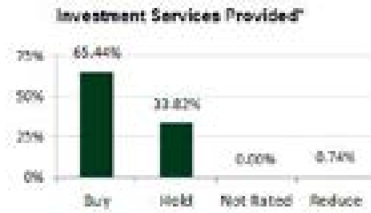

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