GLOBAL MARKET OBSERVATIONS

Quarterly Economic & Market Commentary
Q3 2018

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RAYMOND JAMES

THIRD QUARTER HIGHLIGHTS

DOMESTIC MARKETS

While the tailwinds of U.S. economic and earnings growth fostered by tax cuts were largely anticipated to propel markets onward and upward, the crosswinds created by trade tensions and rising rates have prevailed as of late. The broad U.S. equity market has struggled to make a meaningful march higher, and volatility has spiked substantially .

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DEVELOPED MARKETS

From its headquarters in Brussels, the European Union (EU) finds itself faced with a fiscal fiasco in Italy and a yet unresolved breakup with Britain following its 'Brexit' vote in 2016. A budget dispute pits Italian populists and Brussels against one another, while Prime Minister Theresa May continues to negotiate the terms of Britain's exit from the EU.

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EMERGING MARKETS

To a casual observer of their economies, the major emerging markets would appear to be in fine fettle. Yet, their equity performance has diverged substantially. So long as the influence of U.S. yields and the dominion of the dollar remain vast, emerging markets will remain financial vassals to Fed policy in spite of their own inherent strengths or weaknesses.

A Vexing Vassalage
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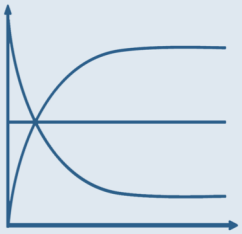

CREDIT MARKETS

Having met both its inflation and employment targets, the Fed has been keen to raise interest rates. Yet, long-term rates have not kept pace. The overall effect has been a 'flattening' of the yield curve. While increases in the federal funds rate have boosted the 'short' end of the curve, the 'long' end of the curve has remained obstinately flat.

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ASSET CLASS RETURNS OVER Q3 2018 (%)

Returns for Key Indices – Trailing 12 Months and the Third Quarter of 2018 – Ranked in Order of Performance (Best to Worst)

Broad Asset Class Total Returns

T12	Q3
U.S. Equity 17.58	U.S. Equity 7.12
Blended Portfolio 6.54	Blended Portfolio 2.94
Commodities 2.59	Non-U.S. Equity 0.71
Global Real Estate 2.07	Cash & Cash Alternatives 0.50
Non-U.S. Equity 1.76	U.S. Fixed Income 0.02
Cash & Cash Alternatives 1.57	Global Real Estate -0.92
U.S. Fixed Income -1.22	Commodities -2.02

Domestic Equity Total Returns

T12	Q3
Large Growth 26.30	Large Growth 9.17
Mid Growth 21.10	Mid Growth 7.57
Small Growth 21.06	Large Blend 7.42
Large Blend 17.76	Large Value 5.70
Small Blend 15.24	Small Growth 5.52
Mid Blend 13.98	Mid Blend 5.00
Large Value 9.45	Small Blend 3.58
Small Value 9.33	Mid Value 3.30
Mid Value 8.81	Small Value 1.60

S&P 500 Equity Sector Total Returns

T12	Q3
Cons Disc 32.54	Health Care 14.53
Info Tech 31.49	Industrials 10.00
Health Care 18.35	Comm. Serv. 9.94
S&P 500 17.91	Info Tech 8.80
Energy 13.94	Cons Disc 8.18
Industrials 11.18	S&P 500 7.71
Financials 8.73	Cons Staples 5.70
Real Estate 4.95	Financials 4.36
Comm. Serv. 4.39	Utilities 2.39
Materials 4.01	Real Estate 0.86
Utilities 2.93	Energy 0.61
Cons Staples 2.93	Materials 0.36

International Equity Total Returns

T12	Q3
U.S. Large Cap 17.91	U.S. Large Cap 7.71
Japan 10.20	EM Eastern Europe 6.99
EM Eastern Europe 7.75	EM Latin America 4.77
Pacific ex-Japan 4.27	Japan 3.68
United Kingdom 2.87	Europe ex-UK 1.77
Developed Markets 2.74	Developed Markets 1.35
EM Asia 1.00	Pacific ex-Japan -0.55
Emerging Markets -0.81	Emerging Markets -1.09
Europe ex-UK -1.49	United Kingdom -1.66
EM Latin America -9.09	EM Asia -1.83

Fixed Income Total Returns

T12	Q3
High Yield 3.05	High Yield 2.40
T-Bill 1.57	Emerging Mkt Bond 1.48
U.S. Tips 0.41	Credit 0.89
Municipal 0.35	T-Bill 0.50
Short-Term Bond 0.20	Short-Term Bond 0.33
Agency -0.56	Aggregate Bond 0.02
MBS -0.92	Agency -0.01
Credit -1.10	MBS -0.12
Aggregate Bond -1.22	Municipal -0.15
Global Bond ex-U.S. -1.45	Long-Term Bond -0.47
Treasury -1.62	Treasury -0.59
Long-Term Bond -2.73	U.S. Tips -0.82
Emerging Mkt Bond -5.01	Global Bond ex-U.S. -1.74

BEST ↕ WORST

Assume all asset classes are U.S. unless otherwise noted | Data as of 09/30/2018 | Ranked in order of performances (best to worst)

CAUGHT IN THE CROSSFIRE

Following a substantial selloff after the close of the quarter, U.S. stocks have continued their sideways slide. As noted in the previous edition of this quarterly commentary, the U.S. equity market continues to remain bridled by protectionist trade policy. An increasingly vitriolic trade war with China rages on. At the time of this writing, the Trump administration has applied tariffs of 10% to over $250 billion worth of Chinese imports. In order to bolster its bargaining leverage, the Trump administration has also threatened to raise the existing tariff rate to 25% by January 2019 if the current trade dispute is not resolved to its satisfaction. A recalcitrant China retaliated with tariffs of its own on $60 billion worth of American imports (see chart). Recent rhetoric has further inflamed the situation. A resolution between China and the U.S. does not appear to be forthcoming in the near future.

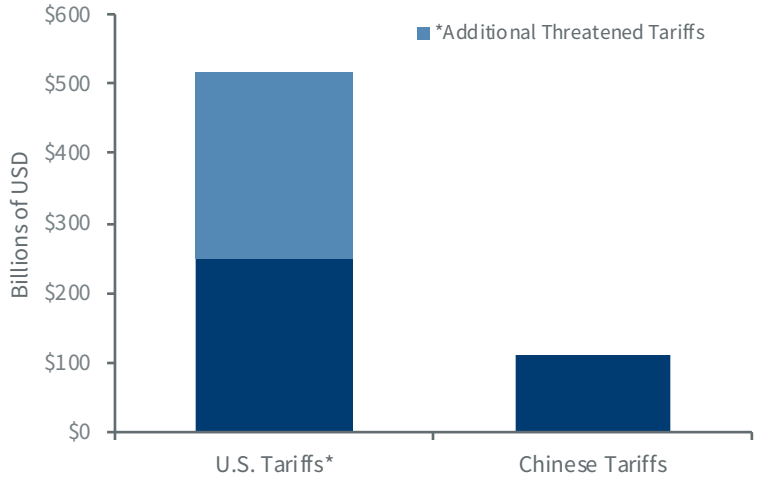
While many breathed a sigh of relief when the provisional U.S.-Mexico-Canada Agreement (USMCA) was finally brokered on 30 September to replace the North American Free Trade Agreement (NAFTA), simmering tensions with America's largest trading partner have done little to assuage markets. Many companies have voiced concerns that their supply chains have been caught in the crossfire of the trade war, disrupting plans for future investment. While the Trump administration is quick to encourage companies to bring production stateside, onshoring entire supply chains is often ineffective and inefficient. Additionally, the global effects of rising U.S. interest rates has further exacerbated existing uncertainty.

This stands in stark contrast to the relative sanguinity that characterized global growth forecasts at the beginning of the year. The International Monetary Fund (IMF) formerly had spoken of a period of "synchronized global growth" in their generally rosy economic outlook. That outlook has since been revised downward, citing rising "downside risks" to global growth due to "trade measures," amongst other factors. While the tailwinds of U.S. economic and earnings growth fostered by tax cuts were largely anticipated to propel U.S. markets onward and upward, the crosswinds created by trade tensions and rising rates have prevailed as of late. As measured by the S&P 500 Index, the broad U.S. equity market has struggled to make a meaningful march higher, whereas volatility has spiked substantially (see chart). So long as these uncertainties remain unresolved, they are likely to whip up crosswinds and induce continued turbulence in the markets.

CONTINUED CROSSWINDS AND CROSSCURRENTS

Source: Standard & Poor's, Bloomberg LP, FactSet as of 10/15/2018

TARIFF TURBULENCE



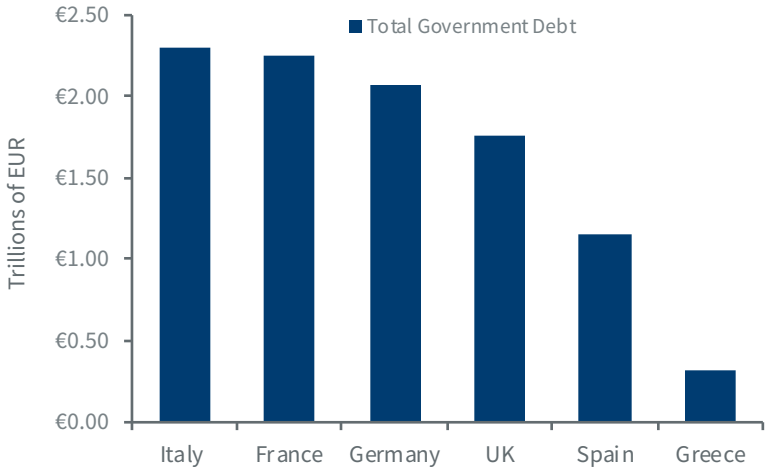
Source: U.S. Trade Representative, White House as of 10/15/2018

BUCKING BRUSSELS

From its headquarters in Brussels, the European Union (EU) finds itself faced with a fiscal fiasco in Italy and a yet unresolved breakup with Britain. The fireworks initially sparked by Italy's political pandemonium (see *Improbable Partners*, Q2 2018 Global Market Observations) have yet to fizzle out. As had been feared, a patchwork of proposals (largely derived from previous campaign promises) put forth by Italy's populist government prevailed in its initial budget plan. Much to Brussels' chagrin, the proposal by the populist coalition is projected to swell Italy's budget deficit to 2.4% of its GDP. While such a deficit would seem to be within reason (by comparison, the deficit of the U.S. stood at 3.4% of GDP in 2017), it threatens to further swell Italy's burgeoning government debt, which currently stands at €2.3 trillion (see chart). In nominal terms, it is the highest amongst all European Union countries. Relative to its GDP, Italy's debt is second only to Greece. Having been bullied by both Brussels and the bond markets (which balked at the prospect of Italy increasing its debt burden), the populist coalition hastened to caveat their proposed budget with a promise to trim back the deficit incrementally over the next few years. Even so, the dispute pits the populist coalition and Brussels against one another, which have remained at loggerheads since the Italian elections in March.

This comes as Brussels is due to resolve the terms of a breakup with Britain (which opted to exit the EU in its 2016 'Brexit' vote) at a summit on 17 October. Theresa May, Britain's embattled prime minister, has continued her ongoing negotiations with the EU as she has fended off attacks from within her own party. For a time, it appeared as if a contingent of hardline Brexiteers posed a serious threat to her leadership, and that she would be replaced with a vote of no confidence. However, having made a convincing showing at her Conservative party's conference, those concerns have since faded. Yet, Mrs. May has a long road ahead. She is still tasked with finding a final workable solution to Brexit that will appease both EU officials and Parliament, the specific details of which remain elusively opaque. Brussels has a vested interested in creating an example out of Britain, thus making Mrs. May's job difficult; were it to freely yield concessions, other EU member states (such as Italy) might be tempted to stage exits of their own, weakening the efficacy of the entire union. The value of the British pound, which was drastically dented following the original Brexit vote, has recently advanced on hopes of an agreement (see chart). Suffice to say, markets will be watching the outcome closely.

DAUNTED BY DEBT



Source: EuroStat as of 10/15/2018

DANCING QUEEN…?

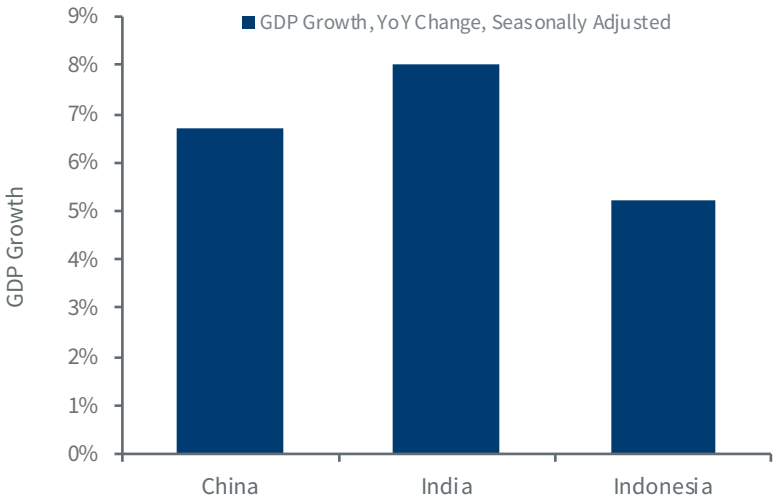
Source: Bloomberg LP, FactSet as of 10/15/2018

A VEXING VASSALAGE

To a casual observer of their economies, the major emerging markets would appear to be in fine fettle. Most (including those of China, India, and Indonesia) all grew at a healthy clip, which was generally in-line with their previous growth rates (see chart). One would expect that emerging equity markets would follow suit. Yet, their performance has diverged substantially. While notable exceptions include Turkey and Argentina, both of which continue to be plagued by substantial crises (see *Credit Crunch* and *Dominion of the Dollar*, Q2 2018 Global Market Observations), the continued fall of emerging markets as a whole would seem to be vexing. Endogenous, country-specific risks that were responsible for previous falls appear to be largely absent. Previously, emerging markets were the ones that had posed exogenous risks to American markets. The reverse now appears to be true. While trade tensions have posed the greatest threat to China (see *Caught in the Crossfire*, p. 3), rising U.S. interest rates have been the greatest and most pervasive threat to emerging markets.

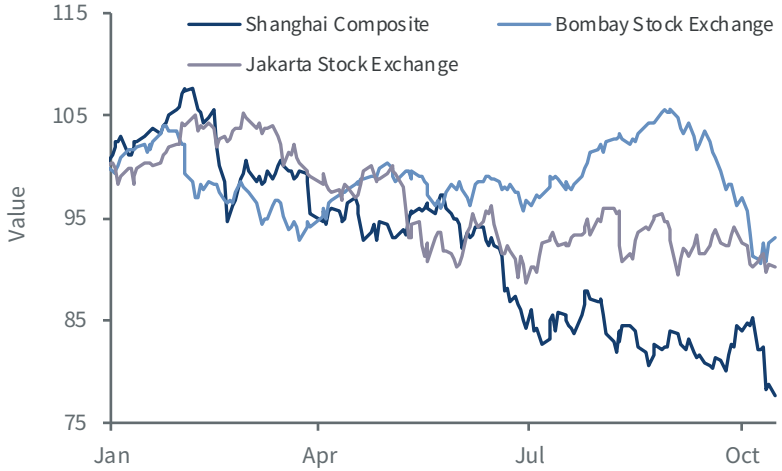
In short, rising rates have become a multi-faceted mace that has mauled emerging markets indiscriminately, irrespective of each country's underlying fundamentals. The fact remains that the fate of emerging markets (including their currencies, debts, and equities) are inextricably intertwined with the U.S. and the interest rates set by its central bank, the Federal Reserve (Fed). When the Fed raises short-term interest rates, it generally begets an appreciation of the dollar. Due to the fact that the overwhelming majority of currency exchanges utilize the dollar as their base currency (i.e., the dollar is the universal medium of exchange), a rise in the dollar inevitably precipitates a fall in the value of foreign currencies. As the dollar rises in value relative to a company's local currency, dollar-denominated debt becomes more expensive to service, causing a credit crunch. Given the sheer amount of dollar-denominated debt held by emerging market firms, this in turn has contributed to falling equity returns (see chart). Additionally, rising rates also beget higher government and corporate bond yields. As U.S. yields rise, they generally become more attractive to investors, often prompting outflows from other investments (including emerging equities and bonds) and inflows into U.S. bonds. So long as the influence of U.S. yields and the dominion of the dollar remain vast, emerging markets will remain financial vassals to Fed policy in spite of their own inherent strengths or weaknesses.

IN FINE FETTLE…?



Source: OECD Stat as of 10/15/2018

FED FEUDALISM



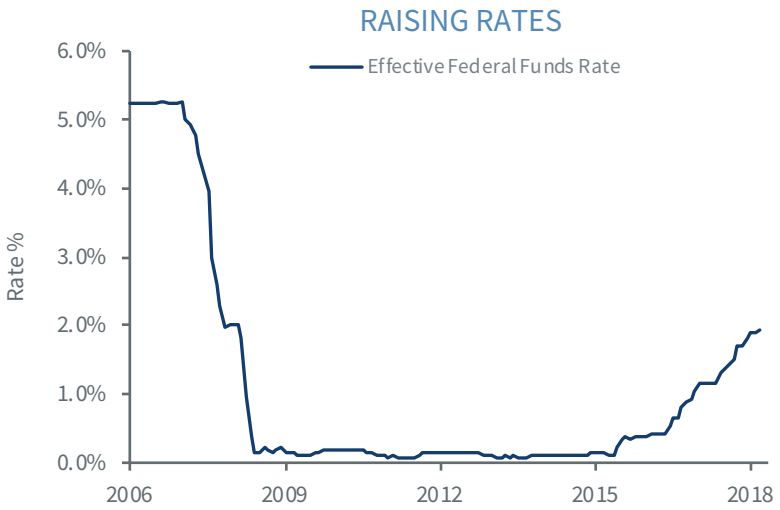
Source: S&P, Bloomberg LP, FactSet as of 10/15/2018 (100 = 1 January 2018 Value)

FADE TO FLAT

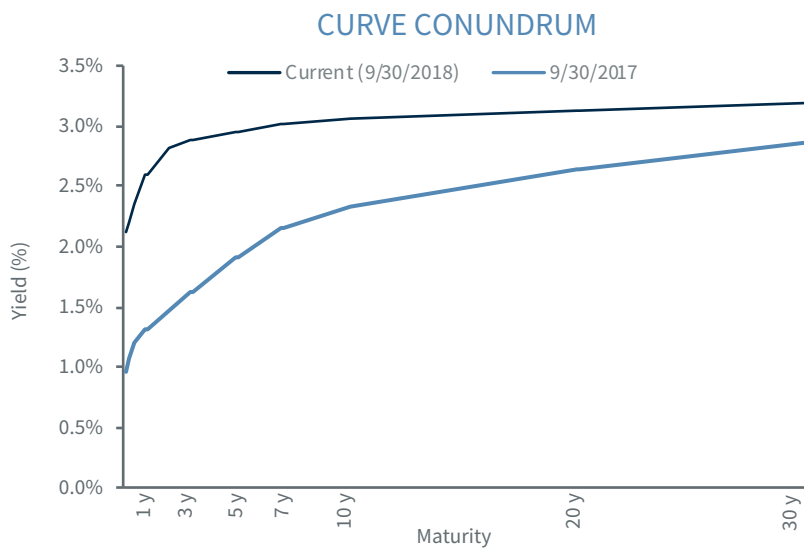
Having met both its inflation and employment targets, the U.S. Federal Reserve (Fed) has been keen to continue raising interest rates. On 26 September, the Fed increased its federal funds rate again by 0.25%, raising the target rate to 2.00% - 2.25%. With the Federal Government driving fiscal stimulus in the form of tax cuts and planned spending on infrastructure, the Fed is tasked with buoying the presently strong state of the U.S. economy and staving off runaway inflation, which would overheat it. The Fed also has an interest in raising rates so that it has room to lower them in the future, should a recession occur. It therefore follows that hawkish Fed policy begets both rising government bond yields and, generally, a strengthening U.S. dollar. While higher yields and a stronger dollar bode well for U.S. savers and consumers, both effects spell trouble for debtors and central banks around the world. This peripheral and rather paradoxical dynamic is due to the dominance of the dollar as the most widely circulated currency in the world (see *A Vexing Vassalage*, p. 6).

The rate decision on 26 September marks the eighth increase in the federal funds rate since the central bank first began raising short-term rates two years ago. Over that time, the federal funds rate has increased from 0.00% - 0.25% to 2.00% - 2.25% (see chart). Yet, over that same time period, long-term rates have not kept pace. The overall effect has been a 'flattening' of the yield curve. While increases in the federal funds rate have boosted the 'short' end of the curve, the 'long' end of the curve has remained obstinately flat (see chart).

Yield not only compensates creditors for the inherent risk they incur by lending their capital, but also serves as a shield from future inflation (which erodes the future purchasing power of their capital). As a result, an obvious culprit in this curve conundrum is the fact that future inflation expectations remain low. However, the global nature of credit markets points to a second culprit: interest rate disparity. While the Fed has transitioned from a period of easing to tightening, monetary policy around the globe remains rather loose. Yields on most government debt in developed markets struggle to break above 1%, let alone 2%. As a result, U.S. Treasury securities remain remarkably attractive to foreign investors, which contributes to the pressure on the long end of the yield curve and its flat shape.



Source: St. Louis Federal Reserve as of 10/15/2018



Source: Bloomberg LP, FactSet as of 09/30/2018

ECONOMIC SNAPSHOT

Recent data suggest that the economic expansion continued at a moderately strong pace in 3Q18, with moderate inflation. Trade tariffs have had a significant impact on some sectors, but only a modest impact on overall economic growth and inflation. However, the risks will increase as trade conflicts escalate. Fiscal stimulus (deficit spending) should continue to provide support into early 2019. Federal Reserve officials believe that policy is close to normal, but many believe that rates may need to become restrictive in 2019 or 2020.

DR.SCOTT BROWN
Chief Economist, Equity Research

	ECONOMIC INDICATOR	COMMENTARY
FAVORABLE	GROWTH	GDP growth is expected to remain moderately strong, although somewhat slower in the second half of 2018, reflecting the tight job market and the fading impact of fiscal stimulus.
	EMPLOYMENT	Demand for workers should remain strong and there may be some slack remaining in the labor market, but the pace of job growth is likely to slow as constraints become more binding.
	BUSINESS INVESTMENT	Sentiment remains strong, although there are some concerns about the negative impact of tariffs. Orders and shipments of capital goods have improved into 3Q18.
	THE DOLLAR	Trade policy conflicts and concerns about global economic risks have led to a flight to safety into U.S. Treasuries and the dollar.
NEUTRAL	HOUSING AND CONSTRUCTION	Builders continue to note supply constraints (a lack of skilled labor, higher costs). Demand remains strong. Home prices have continued to rise, making affordability an important issue.
	CONSUMER SPENDING	Job growth remains supportive, but inflation-adjusted average earnings are trending flat on a year-over- year basis.
	MANUFACTURING	New orders and production have been mixed, but the pace has been generally moderate. Trade tariffs are a concern, disrupting supply chains and dampening expectations for exports.
	INFLATION	Labor cost inflation remains moderate. Core consumer price inflation is at the Fed's target level, but officials have indicated a tolerance for somewhat higher inflation in the near term.
	MONETARY POLICY	Fed policy is close to neutral, but the neutral federal funds rate can be expected to rise over time. Some Fed officials believe that it may be necessary to raise the federal funds rate above a neutral level in 2019 or 2020 (to align the economy more closely with its potential).
	LONG-TERM INTEREST RATES	A strengthening economy, somewhat higher inflation, Fed tightening, and increased government borrowing would normally send bond yields higher. However, long-term interest rates remain low outside the U.S. and there is strong global demand for safe assets.
	FISCAL POLICY	Tax cuts and added spending have provided support for economic growth in the near term (more than expected), but budget deficit projections have risen sharply (a long-term concern given the expected strains on Social Security and Medicare funding).
	REST OF THE WORLD	Fed rate increases have had a negative impact on emerging market economies and trade policy has disrupted supply chains. Nationalistic tendencies and Brexit are concerns in Europe.

SECTOR SNAPSHOT

This report is intended to highlight the dynamics underlying the 11 S&P 500 sectors, with a goal of providing a timely assessment to be used in developing your personal portfolio strategy. Our time horizon for the sector weightings is not meant to be short-term oriented. Our goal is to look for trends that can be sustainable for several quarters; yet, given the dynamic nature of financial markets, our opinion could change as market conditions dictate. Most investors should seek diversity to balance risk versus reward. For this reason, even the least-favored sectors may be appropriate for portfolios seeking a more balanced equity allocation.

J. MICHAEL GIBBS
Managing Director of Equity
Portfolio & Technical Strategy

	SECTOR	S&P WEIGHT	TACTICAL COMMENTS
OVERWEIGHT	INFORMATION TECHNOLOGY	20.9%	We think the global macro environment and earnings expectations support a positive stance. However, the risk of heightened trade tensions could hamper many companies in the space. Additionally, a slight softening technical trend should have investors on alert. We expect 3Q earnings results along with management commentary will be important for this market leading sector. A healthy earnings season could suggest recent relative underperformance is likely to reverse. A disappointing quarter could lead to a continuation of declining relative strength trends.
OVERWEIGHT	HEALTH CARE	15.0%	Improving technical trends are supported by decent fundamentals and acceptable valuation. Upside to earnings in 2Q encourages us that more upside may remain in coming quarters. Valuation is mixed, with PEG one standard deviation above the 15-year average while P/E is well below the 15-year average. The continuation of an improving technical trend reinforces our Overweight opinion.
OVERWEIGHT	INDUSTRIALS	9.7%	We think fundamental trends and valuation levels are attractive. Technical trends are attempting to improve. There is a risk of negative fundamentals and sentiment if the U.S. dollar resumes its climb. Additional risk would develop if the U.S. and Canada fail to reach a trade agreement. Despite the highlighted risks, current economic conditions along with attractive fundamentals and valuation justify an Overweight position, in our view.
OVERWEIGHT	ENERGY	6.0%	We remain positive on the energy sector given the Raymond James Energy Team's bullish outlook for global supply and demand of crude. Short term, crude prices rallied due to bullish headlines out of OPEC. The rally has crude and the energy sector near the high of a trading range in place for six months. If price can push to a new high, we expect technical buying to extend the rally.
EQUAL WEIGHT	FINANCIALS	13.5%	We are moving to Equal Weight, influenced by the tight correlation of the yield curve spread and price movement of the sector that has developed this year. With the Fed raising the short end of the curve, lower global yields, and moderate inflation holding longer yields down, the odds seem high for a continuation of a flattening yield curve. Until the correlation of financial stock prices and the 2/10 year spread is broken, we are forced to focus on the yield spread. Sluggish technical trading trends also influence this change of opinion.
EQUAL WEIGHT	CONSUMER DISC.	10.3%	The sector lost visible members such as CMCSA, ATVI, DIS, CHTR, and NFLX to the new Communications Service sector. Sector heavy weight AMZN remains. Fundamental trends for this consumer-oriented sector are healthy with the U.S. consumer benefiting from robust job market conditions. Earnings growth expectations in the upper teens (2018) and low double digits (2019) reflect the positive environment. Investors recognize the sector tailwinds with valuations at elevated levels.
EQUAL WEIGHT	COMM. SERVICES	10.0%	We are Equal Weight on the new Communications Services sector. Projected earnings growth for the new sector is expected to be in line (2018) to slightly better (2019) than the overall market. Nonetheless, weakening technical trends for key members of the index in recent months along with growing attention to the companies' business practices by government authorities keep us equal weight. Although any government action, should it occur, would likely take a long time to transpire, we believe the stocks may experience a short-term overhang with the topic drawing media attention.
UNDERWEIGHT	CONSUMER STAPLES	6.7%	Forward-looking earnings continue to move lower for this fundamentally challenged sector. After a period of price underperformance, valuation is attractive on some measures. However, valuation is less enticing with P/E to Growth (PEG) over one standard deviation above the 15-year relative average (vs. S&P 500). Technical price momentum is building, but relative to the overall market, the improvement is less favorable.
UNDERWEIGHT	UTILITIES	2.8%	The sector's negative sensitivity to rising interest rates influences our Underweight view with the Fed raising rates. Expecta- tions of earnings growth in 2019 (4% and falling) is well below expectations for the S&P 500 (+9%) and solidifies our stance.
UNDERWEIGHT	REAL ESTATE	2.6%	Rising bond yields influenced a sharp pullback in prices over recent days and disrupted what had been an improving trend. With rates likely to trend higher with the Fed raising rates, we are comfortable with our Underweight view of this interest- sensitive sector. Valuation is somewhat attractive, but with modest earnings growth expectations vs. the overall market, valuation becomes less appealing.
UNDERWEIGHT	MATERIALS	2.5%	Moderating earnings expectations for 2019 and weak technical trading trends overrule somewhat attractive valuation measures to influence our Underweight opinion.

DISCLOSURES

All content written and assembled by Taylor Krystkowiak, Investment Strategy Analyst.

ADDITIONAL DISCLOSURES

Any charts and tables presented herein are for illustrative purposes only and should not be considered as the sole basis for an investment decision. There can be no assurance that the future performance of any specific investment or investment strategy made reference to be profitable or equal any corresponding indicated historical performance level(s). This information should not be construed as a recommendation.

The foregoing content is subject to change at any time without notice. Content provided herein is for informational purposes only. There is no guarantee that these statements, opinions or forecasts provided herein will prove to be correct.

Past performance is not a guarantee of future results. Indices and peer groups are not available for direct investment. Any investor who attempts to mimic the performance of an index or peer group would incur fees and expenses that would reduce returns. All investing involves risk. Asset allocation and diversification does not ensure a profit or protect against a loss. Dividends are not guaranteed and a company's future ability to pay them may be limited.

International investing involves additional risks such as currency fluctuations, differing financial accounting standards, and possible political and economic instability. These risks are greater in emerging markets.

High-yield bonds are not suitable for all investors. The risk of default may increase due to changes in the issuer's credit quality. Price changes may occur due to changes in interest rates and the liquidity of the bond. When appropriate, these bonds should only comprise a modest portion of your portfolio.

Investing in small- and mid-cap stocks are riskier investments which include price volatility, less liquidity and the threat of competition.

Not FDIC or NCUA Insured • No Bank Guarantee • May Lose Value

INDEX DECRIPTIONS

BROAD ASSET CLASS RETURNS

U.S. EQUITY | Russell 3000 Total Return Index: This index represents 3000 large U.S. companies, ranked by market capitalization. It represents approximately 98% of the U.S. equity market. This index includes the effects of reinvested dividends.

NON-U.S. EQUITY | MSCI ACWI Ex USA Net Return Index: The index is a market-capitalization-weighted index maintained by Morgan Stanley Capital International (MSCI) and designed to provide a broad measure of stock performance throughout the world, with the exception of U.S.-based companies. The index includes both developed and emerging markets.

GLOBAL REAL ESTATE | FTSE EPRA/NAREIT Global Net Return Index: This index is designed to track the performance of listed real estate companies and REITs in both developed and emerging markets. By making the index constituents free-float adjusted, liquidity, size and revenue screened, the series is suitable for use as the basis for investment products. Prior to 2009, this asset class was represented by the NASDAQ Global Real Estate Index.

CASH & CASH ALTERNATIVES | Citigroup 3 Month U.S. Treasury-Bill Total Return Index: This index is a measurement of the movement of 3-month T-Bills. The income used to calculate the monthly return is derived by subtracting the original amount invested from the maturity value.

FIXED INCOME | Bloomberg Barclays Capital Aggregate Bond Total Return Index: This index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

COMMODITIES | Bloomberg Commodity Total Return Index: The index tracks prices of futures contracts on physical commodities on the commodity markets. The index is designed to minimize concentration in any one commodity or sector. It currently has 22 commodity futures in seven sectors. No one commodity can compose less than 2% or more than 15% of the index, and no sector can represent more than 33% of the index (as of the annual weightings of the components). The weightings for each commodity included in the Bloomberg Commodity Index are calculated in accordance with rules that ensure that the relative proportion of each of the underlying individual commodities reflects its global economic significance and market liquidity. Annual rebalancing and reweighting ensure that diversity is maintained over time.

DOMESTIC EQUITY RETURNS

LARGE GROWTH | Russell 1000 Growth Total Return Index: This index represents a segment of the Russell 1000 Index with a greater-than-average growth orientation. Companies in this index have higher price-to-book and price-earnings ratios, lower dividend yields and higher forecasted growth values. This index includes the effects of reinvested dividends.

MID GROWTH | Russell Mid Cap Growth Total Return Index: This index contains stocks from the Russell Midcap Index with a greater-than-average growth orientation. The stocks are also members of the Russell 1000 Growth Index. This index includes the effects of reinvested dividends.

SMALL GROWTH | Russell 2000 Growth Total Return Index: This index represents a segment of the Russell 2000 Index with a greater-than-average growth orientation. The combined market capitalization of the Russell 2000 Growth and Value Indices will add up to the total market cap of the Russell 2000. This index includes the effects of reinvested dividends.

LARGE BLEND | Russell 1000 Total Return Index: This index represents the 1000 largest companies in the Russell 3000 Index. This index is highly correlated with the S&P 500 Index. This index includes the effects of reinvested dividends.

MID BLEND | Russell Mid Cap Total Return Index: This index consists of the bottom 800 securities in the Russell 1000 Index as ranked by total market capitalization. This index includes the effects of reinvested dividends.

SMALL BLEND | Russell 2000 Total Return Index: This index covers 2000 of the smallest companies in the Russell 3000 Index, which ranks the 3000 largest U.S. companies by market capitalization. The Russell 2000 represents approximately 10% of the Russell 3000 total market capitalization. This index includes the effects of reinvested dividends.

LARGE VALUE | Russell 1000 Value Total Return Index: This index represents a segment of the Russell 1000 Index with a less-than-average growth orientation. Companies in this index have low price-to-book and price-earnings ratios, higher dividend yields and lower forecasted growth values. This index includes the effects of reinvested dividends.

DOMESTIC EQUITY RETURNS (CONT.)

MID VALUE | Russell Mid Cap Value Total Return Index: This index contains stocks from the Russell Midcap Index with a less-than-average growth orientation. The stocks are also members of the Russell 1000 Value Index. This index includes the effects of reinvested dividends.

SMALL VALUE | Russell 2000 Value Total Return Index: This index represents a segment of the Russell 2000 Index with a less-than-average growth orientation. The combined market capitalization of the Russell 2000 Growth and Value Indices will add up to the total market cap of the Russell 2000. This index includes the effects of reinvested dividends.

FIXED INCOME RETURNS

AGGREGATE BOND | Bloomberg Barclays US Agg Bond Total Return Index: The index is a measure of the investment grade, fixed-rate, taxable bond market of roughly 6,000 SEC-registered securities with intermediate maturities averaging approximately 10 years. The index includes bonds from the Treasury, Government-Related, Corporate, MBS, ABS, and CMBS sectors.

HIGH YIELD | Bloomberg Barclays US Corporate High Yield Total Return Index: The index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below.

CREDIT | Bloomberg Barclays U.S. Credit Total Return Index: The index measures the investment grade, US dollar-denominated, fixed-rate, taxable corporate and government related bond markets. It is composed of the US Corporate Index and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities.

SHORT-TERM BOND | Bloomberg Barclays US Govt/Credit 1-3 Yr Total Return Index: The index is the 1-3 year component of the Bloomberg Barclays U.S. Government/Credit Index. The Bloomberg Barclays U.S. Government/Credit Index covers treasuries, agencies, publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

LONG-TERM BOND | Bloomberg Barclays US Govt/Credit Long Total Return Index: The index is a measure of domestic fixed income securities, including Treasury issues and corporate debt issues, that are rated investment grade (Baa by Moody's Investors Service and BBB by Standard and Poor's) and with maturities of ten years or greater.

MBS | Bloomberg Barclays US MBS Total Return Index: The index tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage.

TREASURY | Bloomberg Barclays US Treasury Total Return Index: The index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. Treasury bills are excluded by the maturity constraint, but are part of a separate Short Treasury Index.

U.S. TIPS | Bloomberg Barclays US Treasury US TIPS Total Return Index: The index includes all publicly issued, U.S. Treasury inflation-protected securities that have at least one year remaining to maturity, are rated investment grade, and have $250 million or more of outstanding face value.

GLOBAL BOND EX U.S. | Bloomberg Barclays Gbl Agg Ex USD Total Return Index: The index provides a broad-based measure of the global investment grade fixed-rate debt markets, excluding the United States. Currency exposure is hedged to the US dollar.

T-BILLS | Citi Treasury Bill 3 Mon Total Return Index: This index is a measurement of the movement of 3-month T-Bills. The income used to calculate the monthly return is derived by subtracting the original amount invested from the maturity value.

EMERGING MKT BOND | J.P. Morgan EMBI Plus Total Return Index: The index tracks total returns for traded external debt instruments (external meaning foreign currency denominated fixed income) in the emerging markets.

AGENCY | Bloomberg Barclays US Agency Total Return Index: The index includes native currency agency debentures from issuers such as Fannie Mae, Freddie Mac, and Federal Home Loan Bank. It is a subcomponent of the Government-Related Index (which also includes non-native currency agency bonds, sovereigns, supranationals, and local authority debt) and the U.S. Government Index (which also includes U.S. Treasury debt). The index includes callable and non-callable agency securities that are publicly issued by U.S. government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. government (such as USAID securities).

FIXED INCOME RETURNS (CONT.)

MUNICIPAL | Bloomberg Barclays Municipal Total Return Index: The index is a measure of the long-term tax-exempt bond market with securities of investment grade (rated at least Baa by Moody's Investors Service and BBB by Standard and Poor's). This index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and prerefunded bonds.

INTERNATIONAL EQUITY RETURNS

EMERGING MARKETS EASTERN EUROPE | MSCI EM Eastern Europe Net Return Index: The index captures large and mid cap representation across 4 Emerging Markets (EM) countries in Eastern Europe. With 50 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

EMERGING MARKETS ASIA | MSCI EM Asia Net Return Index: The index captures large and mid cap representation across 8 Emerging Markets countries. With 554 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

EMERGING MARKETS LATIN AMERICA | MSCI EM Latin America Net Return Index: The index captures large and mid cap representation across 5 Emerging Markets (EM) countries in Latin America. With 116 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

EMERGING MARKETS | MSCI Emerging Markets Net Return Index: This index consists of 23 countries representing 10% of world market capitalization. The index is available for a number of regions, market segments/sizes and covers approximately 85% of the free float-adjusted market capitalization in each of the 23 countries.

PACIFIC EX-JAPAN | MSCI Pacific Ex Japan Net Return Index: The index captures large and mid cap representation across 4 of 5 Developed Markets (DM) countries in the Pacific region (excluding Japan). With 150 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

UNITED KINGDOM | MSCI Pacific Ex Japan Net Return Index: The index captures large and mid cap representation across 4 of 5 Developed Markets (DM) countries in the Pacific region (excluding Japan). With 150 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

U.S. LARGE CAP | S&P 500 Total Return Index: The index is widely regarded as the best single gauge of large-cap U.S. equities. There is over USD 7.8 trillion benchmarked to the index, with index assets comprising approximately USD 2.2 trillion of this total. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.

JAPAN | MSCI Japan Net Return Index: The index is designed to measure the performance of the large and mid cap segments of the Japanese market. With 319 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

FOREIGN DEVELOPED MARKETS | MSCI EAFE Net Return Index: This index is designed to represent the performance of large and mid-cap securities across 21 developed markets, including countries in Europe, Australasia and the Far East, excluding the U.S. and Canada. The index is available for a number of regions, market segments/sizes and covers approximately 85% of the free float-adjusted market capitalization in each of the 21 countries.

EUROPE EX UK | MSCI Europe Ex UK Net Return Index: The index captures large and mid cap representation across 14 Developed Markets (DM) countries in Europe. With 337 constituents, the index covers approximately 85% of the free float-adjusted market capitalization across European Developed Markets excluding the UK.

EQUITY SECTOR RETURNS

ENERGY | S&P 500 Sec/Energy Total Return Index: The S&P 500® Energy Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Energy sector.

MATERIALS | S&P 500 Sec/Materials Total Return Index: The S&P 500® Materials Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Materials sector.

UTILITIES | S&P 500 Sec/Utilities Total Return Index: The S&P 500® Utilities Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Utilities sector.

INFO TECH | S&P 500 Sec/Information Technology Total Return Index: The S&P 500® Info Tech Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Info Tech sector.

EQUITY SECTOR RETURNS (CONT.)

CONS STAPLES | S&P 500 Sec/Cons Staples Total Return Index: The S&P 500® Consumer Staples Index comprises those companies included in the S&P 500 that are classified as members of the GICS® consumer staples sector.

INDUSTRIALS | S&P 500 Sec/Industrials Total Return Index: The S&P 500® Industrials Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Industrials sector.

TELECOM | S&P 500 Sec/Telecom Services Total Return Index: The S&P 500® Telecom Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Telecom sector.

HEALTH CARE | S&P 500 Sec/Health Care Total Return Index: The S&P 500® Health Care Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Health Care sector.

S&P 500 | S&P 500 Total Return Index: The index is widely regarded as the best single gauge of large-cap U.S. equities. There is over USD 7.8 trillion benchmarked to the index, with index assets comprising approximately USD 2.2 trillion of this total. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.

CONS DISC | S&P 500 Sec/Cons Disc Total Return Index: The S&P 500® Consumer Discretionary Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Consumer Discretionary sector.

REAL ESTATE | S&P 500 Sec/Real Estate Total Return Index: The S&P 500® Real Estate Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Real Estate sector.

FINANCIALS | S&P 500 Sec/Financials Total Return Index: The S&P 500® Financials Index comprises those companies included in the S&P 500 that are classified as members of the GICS® Financials sector.

MISC.

STOXX 600 | The STOXX Europe 600 Index is derived from the STOXX Europe Total Market Index (TMI) and is a subset of the STOXX Global 1800 Index. With a fixed number of 600 components, the STOXX Europe 600 Index represents large, mid and small capitalization companies across 17 countries of the European region: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

CAC 40 | The CAC 40® is a free float market capitalization weighted index that reflects the performance of the 40 largest and most actively traded shares listed on Euronext Paris, and is the most widely used indicator of the Paris stock market. The index serves as an underlying for structured products, funds, exchange traded funds, options and futures.

DAX | The DAX® index, the best known German stock exchange barometer, measures the performance of the 30 largest and most liquid companies on the German stock market. It represents around 80 percent of the market capitalization of listed stock corporations in Germany.

NIKKEI 225 | Japan's Nikkei 225 is a price-weighted index comprised of Japan's top 225 blue-chip companies traded on the Tokyo Stock Exchange. The Nikkei is equivalent to the Dow Jones Industrial Average Index in the United States.