

Quantitative Investment Decisions

The Safety Net For Your Portfolio

The Marathon Continues

- **QID believes that we are still in the middle of a long-term Secular Bull Market**
- **Expect U.S. and China to resolve trade issues by mid-year**
- **Fed stops raising rates as dual mandate is met at sub 4% unemployment and 2% inflation**
- **Earnings and Market Regain Strength, S&P 500 +19% for year**

The stock market stumbled to close-out 2018. However, we still believe we are in the middle stage of a secular bull market that will last another ten years. In August 2018, we published an article "Market May Rest Before Continuing Marathon Move". We felt that with the market up almost 7%, upper-end of our expected range for 2018 of +7.45 and -7.89%, that we were fairly-valued near-term. Trade tariffs, rising interest rates, mid-term election concerns derailed the market and we ended the year down 6.24%, bottom of our expected range.

Our expectation is that the U.S. and China will resolve trade issues by mid-year 2019. U.S. and China realize that being the dual global engines of growth that it is in both our interests to solve our differences, a world recession would hurt everyone. Intellectual Property (IP) issues are a big U.S. concern. It is the crux of a technological edge that America cannot afford to lose. China has made tremendous strides in numerous areas of technology that many argue is due to IP theft that has eroded our lead and could cause our companies to lose their industry leading edge. To me, that is the biggest threat to long-term U.S. company's earnings growth. Many question China's slowdown because a 6% GDP growth is still one of the leading growth rates in the world. However, many have noted in the past that for China to maintain a full employment level that a 6% plus GDP is needed. I was not surprised to see China announce decreased Imports and Exports for December. Their seemed to be dramatic increase in activity with China the last six months to beat the tariffs. Customers need to digest the inventory. In addition, the new tariffs were delayed in November. The sales cycle will cautiously ramp back up uncertain as to when the tariffs may be reimplemented, if at all. Therefore, there is pressure on China to negotiate a reasonable trade deal as the current fall off in activity is just a taste of the impact of all tariffs being put in place.

Fed stops raising rates as dual mandate is met at sub 4% unemployment and 2% inflation. We believe that the Fed stops raising rates in early 2019. The Fed's dual mandate from Congress is to "promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates". Unemployment is currently below 4% that is considered a full employment level. Inflation ended 2018 at an annual rate of 1.91%. According to the Federal Reserve website "The Federal Open Market Committee (FOMC) judges that inflation at the rate of 2 percent (as measured by the annual change in the price index for personal consumption expenditures, or PCE) is most consistent over the longer run with the Federal Reserve's mandate for price stability and maximum employment." So why is the Fed considering any future rate hikes? It appears that the Fed is in-line with their "Dual Mandate". We believe that the Fed's current wavering of whether to raise rates further is that they have come to the same conclusion. This should be positive for rates in the foreseeable future and reduce the pressure on P/Es.

Quantitative Investment Decisions

The Safety Net For Your Portfolio

We expect paralysis in the Washington legislative process over the next two with a Democrats controlling the House and Republicans the Senate. In the past, a divided Congress was always considered a plus for the market and will hopefully continue to be a non-event.

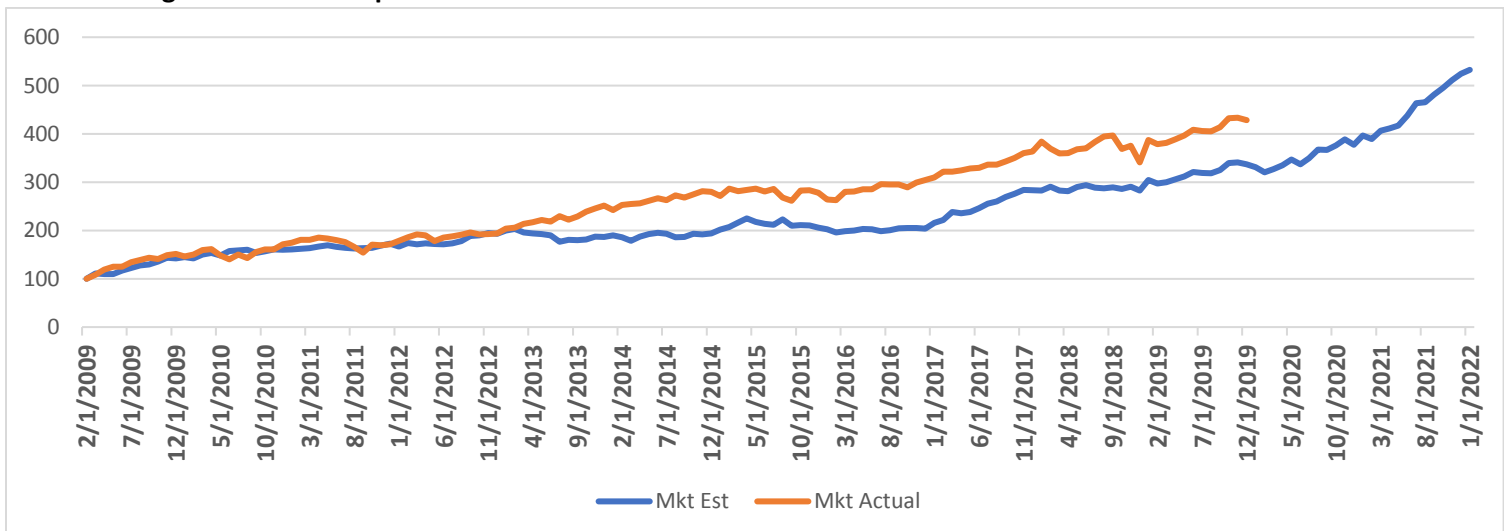
Earnings and Market Regain Strength, S&P 500 +19% for year. We believe that the marathon will continue in 2019 as the issues clouding year-end 2018 will be resolved and earnings will gather steam and drive the market forward. Our estimate for the S&P 500 for 2019 is plus 19% gain within a range of +26% and +12%. In Table 1 below are the results of our market estimate model versus actual results since 2009. Although we had two outliers of 32% and 19 % the median difference has been 7.65%. It does not mean that we will not have interim pullbacks such as 2018 but that we do not see a dramatic long-term period of market correction. In exhibit two is our long-term expectation for the market for the foreseeable future.

Exhibit 1 Model Estimate versus Actual Return 2009 to date.

Year-end	Estimated Return	Actual Return	Absolute Difference
2009*	42.500%	51.600%	9.100%
2010	12.400%	12.800%	0.400%
2011	7.900%	-0.002%	7.902%
2012	11.700%	13.400%	1.700%
2013	-3.000%	29.600%	32.600%
2014	3.900%	11.300%	7.400%
2015	6.500%	-0.727%	7.227%
2016	-1.253%	9.535%	10.788%
2017	39.320%	19.420%	19.899%
2018	-0.243%	-6.237%	5.994%
2019	19.100%		
	Median	2009-2018	7.65%

Source: QIDLLC * Feb 2009 to Dec 2009

Exhibit 2 Long-term Market Expectation Model



Source: QIDLLC

Quantitative Investment Decisions

The Safety Net For Your Portfolio

QID's short-term sector models continue to be cautious but improving, see exhibit 2 below. International equity is already starting to rebound. At end of 2018, Japan was only region "on" at 8.8% with 91.2% cash. In the first two weeks of 2019, the hope that U.S. and China will agree to a trade compromise has resulted in Asia ex-Japan (3.92%) and emerging markets (48%) to turn "on" as well, cash is down to 35%. Our Alternative asset strategy, commodities and REITs, remains positive with only energy remaining "off". Energy turned "off" as West Texas Intermediate decreased below \$68/bbl. in October. Will the OPEC countries find a way to rebalance supply and demand? According to U.S. Energy Information Administration, U.S. oil and gas production was expected to increase further in January 2019. You wonder if new U.S. rigs drilled decreases with price per barrel in low 50's. Back in 2014 -2015 there was a substantial decrease in new rigs as oil fell below \$40/bbl. Our expectation is that renewed GDP growth by mid-year provides stimulus for energy to rebound to \$60-75/bbl. level

Exhibit 2 Asset Class Sector "On/Off" Signals

U.S. Sector	On/Off	Intl Sector	On/Off	Fixed Income	On/Off	Alternative Asset Class	On/Off
Basic Materials	Off	Asia-Pac ex-Japan	On	Corporate Bd. Inv./HY	Off	Agriculture/S&P 500	On
Cons Disc	Off	Canada	Off	Converts	On	Energy	Off
Cons Staples	Off	Emerging Markets	On	Intl Bd.	Off	Metals	On
Energy	Off	Europe	Off	Mortgage	Off	Real Estate	On
Financials	Off	Japan	On	Municipals	On		
Healthcare	Off			TIPS	Off		
Industrials	Off			Treasury-Intermediate	On		
Technology	Off			Cash/Equiv.	Off		
Utilities	On						
% Invested	25%		62%		100%		56%

Source: QID

Because we believe we are in the mid-stage of a bull market QID has added growth strategies to its line-up. However, we continue to wrap each strategy with our downside protected algorithm. We believe that the best long-term plan for investors is to provide them with comfort to stay fully invested long-term with us. As we all know the market does not go straight up and therefore if we can give comfort to investors that we are prepared for rough periods, investors should stay fully invested with our strategies.

Quantitative Investment Decisions, LLC was founded with one objective in mind – to help investors protect assets in the event of an extended market downturn. While no investment model can predict the unexpected, QID's strategies help remove emotional and irrational behavior from the investment decision process. By limiting downside risk and participating in the market upside, the intent is to outperform an appropriate benchmark over a market cycle. QID strategies are built using 100% quantitative, proprietary algorithms that identify and react to changing market conditions. Our strategies tend to provide a more asymmetric risk profile with reduced left tail risk, a feature absent

Quantitative Investment Decisions

The Safety Net For Your Portfolio

from buy and hold portfolios. **QID provides investors the diversification that they need with the downside protection that they desire.**

Diversification is important with a twist! The industry preaches diversification of asset classes to reduce risk by adding asset classes together that have a low correlation to one another. Correlation is a term that indicates how much one asset class will move with another. A correlation near 1.0 would mean one would expect the two factors to move in the same direction with the same magnitude. Negative one would indicate that each factor would tend to move in opposite directions with same magnitude. Anything in between +1.0 and -1.0 the asset classes would move in same direction but different magnitude. The belief is that if you combine asset classes that have a low or negative correlation to one another that you may reduce risk overtime and perform better than being invested in only one asset class. Although this may be theoretically true, the issue is that when there is an unexpected negative global event, correlations converge to one and there are few if any places to hide besides cash. Human behavior indicates that **investors are loss averse not risk averse**. When losses start to exceed high teen low 20 percent levels investors run to cash and stay there for extended periods of time. The result is that they tend to miss the market rebounds, hindering their long-term investment returns. That is why QID's proprietary algorithm determines when excess risk persists and moves investors to the sidelines either in intermediate treasuries or a cash equivalent. By making the cash decision for investors, we believe we may be able to keep them fully invested through market cycles.

QID provides the diversification that investors need with the downside protection that investors desire. We currently offer the following suite of strategies to fill one's risk profile:

Asset Class	Sector Strategy	Growth Strategy	Concentrated Growth Strategy
U.S. Equity	QID U.S. Equity Sector	U.S. equity Growth	Titans
Intl - Non-U.S. Equity	QID International Equity		
Fixed-Income	QID U.S. Fixed-Income		
Alternative Strategy - Commodities and REITs	QID Alternative Assets		
Retirement Series/ Global Balanced	Moderate Risk	Growth Risk	Aggressive Growth

Source: QIDLLC

QID provides investors exposure to U.S. equity, international equity, fixed-income as well as alternative asset classes such as agriculture, energy, metals, and real estate. Investors can develop well diversified portfolios with our asset classes to diversify their risk as per academic research. For U.S. equity we provide investors a sector-based ETF strategy that equal weights the sectors that the model determines are "on" as well as two new growth stock portfolios. Titans focuses on selecting the companies deemed to be dominant in their industry. This portfolio typically contains 10 stocks or less. Therefore, it can be highly concentrated by stock as well as industry that introduces another level of risk. However, the strategy does have our protective algorithm overlay. The U.S. Large Cap Growth strategy selects the fastest 15 growing stocks in America and equal weights those that the model determines are "on". This portfolio may also be very concentrated by stock and sector as well. It too is wrapped with the QID protective algorithm. It does not mean we will not occur losses from time to time, but the algorithm was developed to reduce extreme loss.

Quantitative Investment Decisions

The Safety Net For Your Portfolio

Provide your clients the comfort to stay fully invested by using the QID strategies that provide investor's the diversification they need with downside protection they desire.

Disclosures

Quantitative Investment Decisions, LLC ("QID") claims compliance with the Global Investment Performance Standards (GIPS®).

Firm Definition

Quantitative Investment Decisions, LLC ("QID" or the "Advisor") is registered investment advisor in the state of Florida organized as a Limited Liability Company ("LLC") under the laws of the State of Delaware, whose principle place of business is in Naples, FL. The entire investment team and critical operations staff became affiliated with QID on January 2, 2015.

QID reviews a total firm AUM report broken out by account on a quarterly basis to ensure that only actual assets managed, or sub-advised, by QID are included. All accounts deemed to be advisory only, hypothetical, or model in nature are excluded from total firm AUM. Total firm assets are all discretionary (whether fee-paying or not) for which QID has investment management responsibility, including assets managed by sub-advisors that QID has authority to select.

Obtaining a Compliant Presentation and the Firm's List of Composite Descriptions

A compliant presentation, including the performance data for the composite, may be obtained by contacting QID at 239.631.8912 or by emailing info@qidllc.com.

The Quantitative Investment Decisions' (QID) Tactical U.S. Equity Strategy, Tactical International Equity Strategy, Tactical U.S. Fixed Income Strategy, and the Tactical Alternative Investments Strategy are long-term growth portfolios that invests in Exchange Traded Funds (ETF) as markets are rising and scales to cash as markets weaken using a trading algorithm. Their objective is capital appreciation. The portfolios represent United States markets, international markets, United States fixed-income markets and a blend of commodities and REITs that constitute the alternative investments strategy. The charts above show the total return, including reinvestment of all dividends. Returns are shown net (NR) of management fees and transaction fees for the composite account of the portfolios. The U.S. dollar is the currency used to express performance. QID claims compliance with the Global Investment Performance Standards (GIPS®). QID has been independently verified and its composites receive a quarterly performance examination by Ashland Partners & Company, LLP. **From April 30, 2012 through December 31, 2015 the performance shown is that of a composite of client accounts according to the dictates of the Program.** The quantitative engine providing strategy signals was enhanced effective April 1, 2014. The portfolio weighting scheme was also enhanced effective September 1, 2014.

Benchmarks are used for comparison purposes to correlate to each portfolio. The returns for the indexes shown include dividend reinvestment. Individual client accounts may have experienced investment results during the corresponding time periods that were materially different from those of the composite returns. **Performance data shown is past performance. Past performance is no guarantee of future results. Investments are subject to risk, and any of QID's investment strategies may lose money. QID's actively managed portfolios may underperform in bull or bear markets. The investment strategy presented is not appropriate for every investor and individual clients should review the terms, conditions and risk involved with specific products or services. The portfolio is constructed with Exchange Traded Funds that seek investment results that, before expenses, generally correspond to the price and yield of a particular index. There is no guarantee that the price and yield performance of the index can be fully matched. ETFs are subject to risks similar to those of stocks.**

Risks

No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment. Asset allocation, nor diversification, does not guarantee a profit or protect against loss. Investment returns may fluctuate and are subject to market volatility, so that an investor's shares, when redeemed or sold, may be worth more or less than their original cost. **All investments include a risk of loss that clients should be prepared to endure. Quantitative Investment Decision's actively managed portfolio may underperform in bull or bear markets.**