Artemis
FINANCIAL ADVISORS LLC

Market Outlook & Strategy

First Quarter of 2019

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Executive Summary

- Equity markets staged a very impressive recovery in Q1, with every major asset class posting positive returns. The U.S. market led the way, increasing by +14.1% as the Federal Reserve sharply changed its tune, and we saw some incipient progress in the U.S.-China trade talks.

- International market returns were more muted but still nicely positive, with international developed stocks returning +10.7% and emerging markets up +9.9%. As in the U.S., the European Central Bank (ECB) also stepped away from tighter monetary policy.

- Bond returns were also stellar for the quarter. While government bonds often decline when equity markets are rallying strongly, the Fed's sharp change in tune led to a rally in bond prices. Emerging market bonds led the way increasing +6.0%. The Barclay's Aggregate Bond Index, which is heavy in government bonds, increased +2.9%.

- Of note is that the U.S. yield curve inverted briefly during the quarter, with the 3-month Treasury bill yield rising higher than that on 10-year bonds. Yield curve inversions often have been the harbinger of recession in the next year or so, although many argue that a brief inversion is not sufficient to draw such a conclusion.

- In this issue, we take a close look at the leading U.S. large company passively-managed ESG (Environmental, Social and Governance) funds – funds that seek to overweight (i.e., reward) companies that are embracing ESG best practices. We also review some of the more recent research on ESG and financial performance, most of which shows a strong correlation between good ESG practices and financial outperformance over time. Our purpose was to find a fund that we can begin to use in all client portfolios with the confidence that we are not sacrificing returns, and with the satisfaction that we might be contributing to create a cleaner and more just world.

- Artemis Strategy: We were not very active in the portfolios this quarter, except to add to our new technology-based global thematic exposure, something we had put on pause late last year due to market turbulence.

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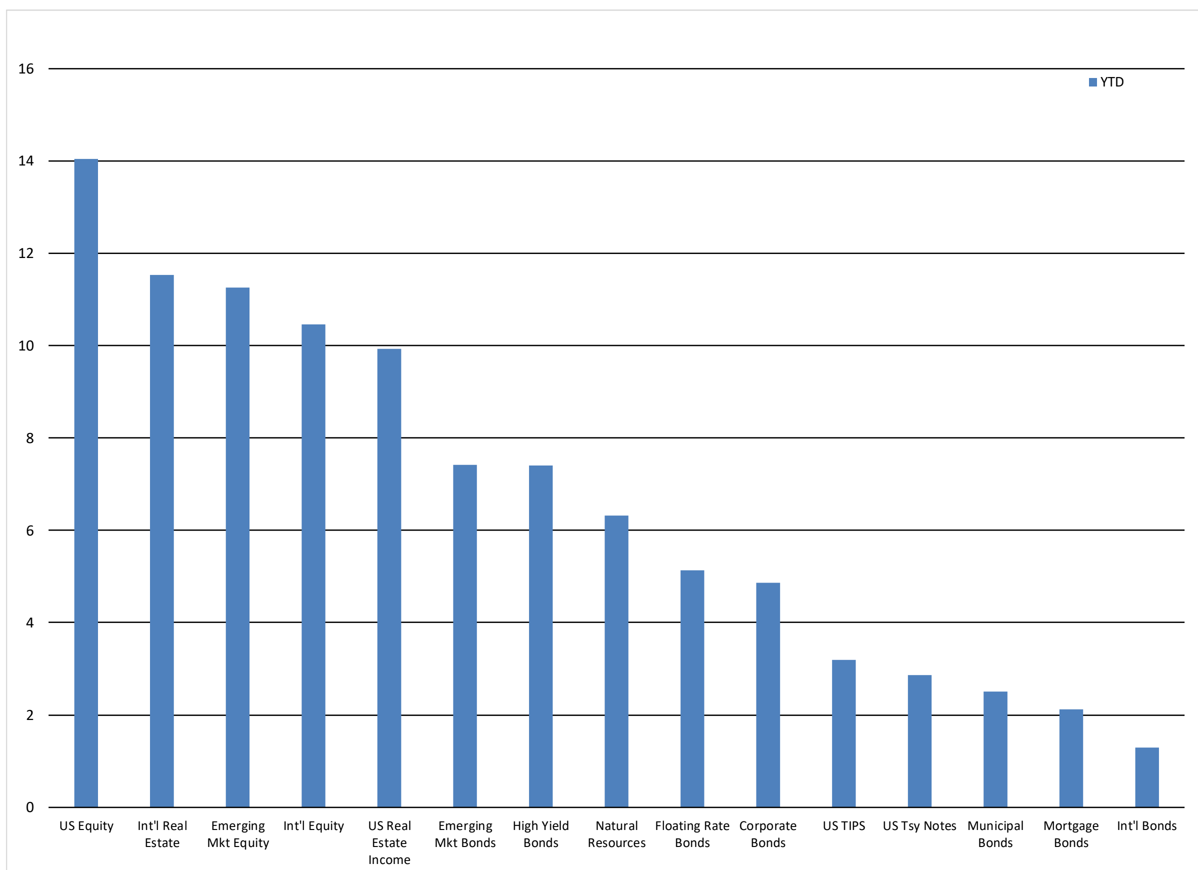
Markets in Review

As most of you likely noted, equity markets staged a very impressive recovery in Q1, with every major asset class posting positive returns. See Figure 1. The U.S. market led the way, increasing by +14.0% as the Federal Reserve sharply changed its tune, and we saw some incipient progress in the U.S.-China trade talks. Equity gains were widespread across sectors, with technology leading the way. Healthcare generated modestly lower gains due to uncertainty over potential regulatory changes. Gains in financials were also hindered by the Fed's comments on the trajectory for interest rates. Finally, smaller company returns very modestly outpaced larger company returns, and value stocks held their own relative to growth (for a change).

Figure 1: Index Returns by Asset Class in Q1 2019 (%)



International market returns were more muted but still nicely positive, with international developed stocks returning +10.4% and emerging markets up +11.3%. As in the U.S., the

European Central Bank (ECB) also stepped away from tighter monetary policy. There was also optimism over global trade as the U.S. suspended planned additional tariff hikes on Chinese goods. Nevertheless, growth worries continued to persist – in the final three months of 2018, Germany saw zero growth, while Italy slipped into recession. Forward-looking data don't look particularly rosy either.

Emerging market equity returns were led by China, whose market increased by +17.9% in Q1, in part due to trade optimism, but also due to the MSCI (the creator of major global equity indices) announcing plans to quadruple its weight to the China (A share) index later this year. The rally in energy prices also helped oil exporters such as Russia.

Bond returns were also stellar for the quarter. While government bonds often decline when the market is rallying strongly, the Fed's sharp turn toward a more "dovish" stance (financial jargon for the Fed moving to lower interest rates to stimulate the economy) led to a rally in bond prices. Emerging market bonds led the way increasing +7.4%. The Barclay's Aggregate Bond Index, which is heavy in government bonds, increased +2.9%.

Of interest is that the U.S. yield curve (which shows what Treasury bonds of varying maturities are paying in terms of yield) inverted briefly during the quarter, with the 3-month Treasury bill yield rising higher than that on 10-year bonds. Yield curve inversions have often been the harbinger of recession in the next year or so, although many argue that a brief inversion is not sufficient to draw such a conclusion.

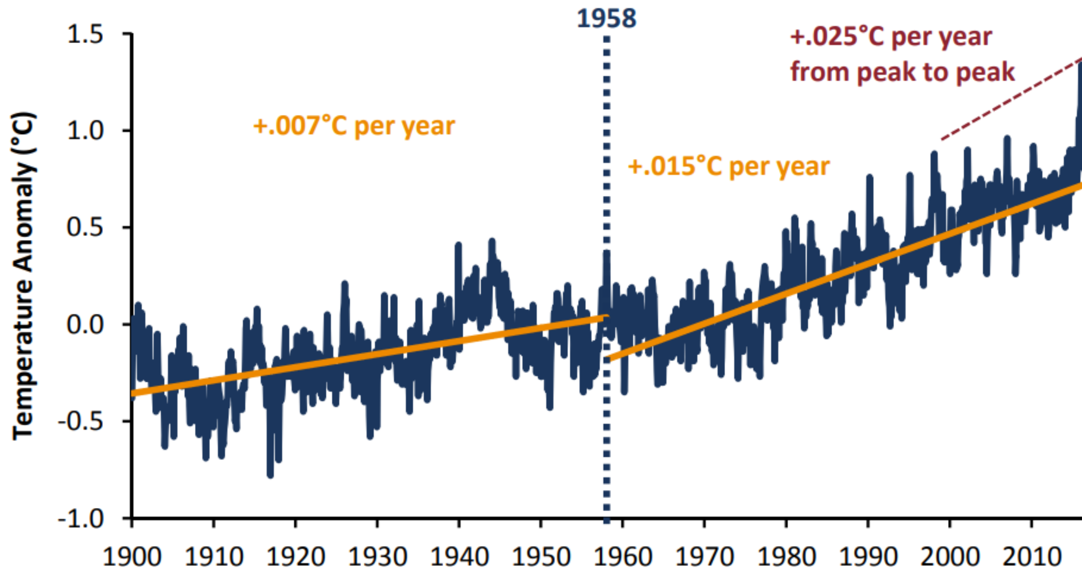
Finally, real estate (REITs) had a great quarter, up +17.2%, and commodities did nicely on the back of a rally in energy prices. In short, with everything showing positive returns, investors had no excuse to curse the markets (and their financial advisor) this quarter – phew!

Climate Change and What We Can Do

Climate change is a big problem

Rest assured, I am not going to spend the next pages convincing you that the problems of climate change are severe. (See Figure 2 below if you are still unconvinced.) While reasonable people may disagree over the magnitude of the problem and the extent to which technological innovation might avert the worst consequences, it seems that only those who still believe the earth is flat (and our anti-science President) argue that we don't have a real problem on our hands now, and one that is sure to get worse before it gets better.

Figure 2. Global Surface Temperature Compared to 1951-1980 Average[1]



As of 8/31/16
Source: NASA Goddard Institute for Space Studies, GMO

Neither am I going to try to convince you that we investors, by voting with our dollars, can and will fix the problem. It's going to take everyone – individuals, companies and governments – working together to change the current trajectory. As is well known, the incentives for many companies and governments to address this kind of long-term, slow-burning issue is just not there due to their focus on short-term profits and/or the next election cycle. Nor can mainstream economics alone fully deal with the problem, as much of the damage caused by bad corporate behavior has traditionally not had an impact on the bottom line.

But there are things we can do as small investors – remember when we all thought a bunch of $5 donations wouldn't be near enough to elect a president. According to factchecker.org, about a third of Obama's fundraising intake in the 2012 election came from folks contributing less than $200. I highly suspect this cache helped him win.

[1] This chart comes from a fascinating report by Jeremy Grantham, a founder of the Boston-based asset management firm G.M.O. Grantham is a huge proponent of regulating and properly pricing hydrocarbons to accelerate technological change toward cleaner sources. If you still have any doubt that climate change is a big problem, have a look at his latest missive "The Race of Our Lives Revisited." GMO White Paper. August 2018.

Our purpose below (and in future writing we plan to do) is to convince you that it is both worthy to reward good stewards of the environment and profitable to do so. The evidence is strong that the same can be said about investing with an eye to companies that have strong records of workplace safety, fair labor practices, and gender diversity.

Companies can have an impact

There is growing evidence that companies are beginning to factor in climate change and other sustainability practices as part of their business equation. This is especially true in Europe, where regulation is tighter and more abundant. But companies all over the globe are paying attention due to the increasing realization that climate change could well be disruptive to revenues and costs.

Moreover, and perhaps even more encouraging, companies are discovering that implementing long-term sustainability measures often increases overall efficiency and operational performance. Coca-Cola, for example, has reduced the water intensity of its production process by 20% over the last decade. Walmart claims it is saving hundreds of millions of dollars through more efficient waste management and recycling, and via implementing renewable energy projects. And the company clearly states that sustainability is a means to an end in safeguarding low prices and satisfying consumers.

Over time, these savings have been shown to have a positive impact on margins. Indeed, the existing literature shows that product and process innovation is critical to benefit financially from sustainability issues. But this is not the only source of outperformance. Case studies are also very clear that environmental externalities impose particular risks on corporations – reputational, financial, and litigation – which can have direct implications for the cost of debt. For example, five years after British Petroleum's Deepwater Horizon catastrophe in 2010, the company was still paying 0.2-0.5% more for debt than other major oil companies. Another example is the pulp and paper industry, where it has been shown that industry firms that release more toxic chemicals have significantly higher bond yields than firms that release fewer toxic chemicals. In brief, the literature demonstrates that good environmental practices pay off in terms of reduced borrowing costs.[2]

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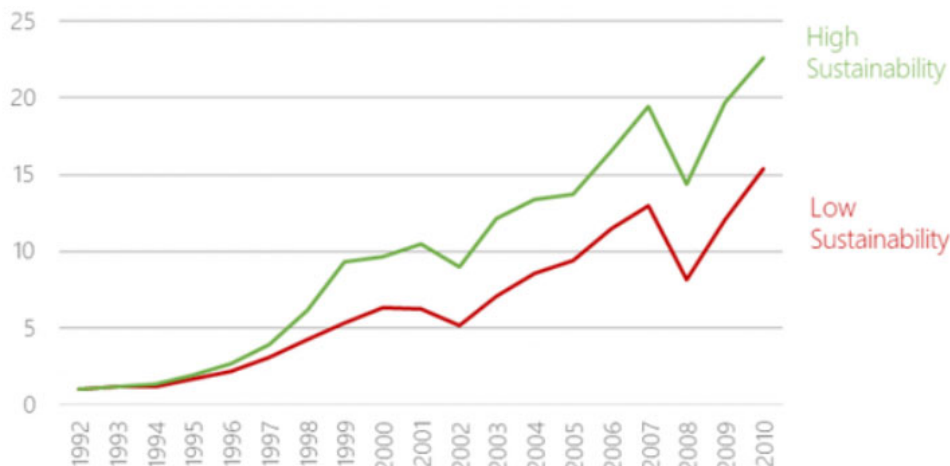
[2] The report citing these examples is well worth reading as it examines and categorizes the results of over 200 different studies and finds a very strong correlation between diligent sustainability business practices and economic performance. See Clark, Gordon, Andreas Feiner and Michael Viehs*. From The Stockholder to The Stakeholder: How Sustainability Can Drive Financial Outperformance.* Report published by the University of Oxford and Arabesque Partners, March 2015.

But do these efforts have a positive impact on the company's stock price? Yes again, according to the research. One of the most quoted and respected academic studies looked at a matched sample of over 180 companies and found that corporations that voluntarily adopted sustainability policies by 1993 – termed "High Sustainability" companies – exhibited by 2009 significant outperformance, both in terms of stock market as well as accounting performance.[3] See Figure 3. Since this study was published, numerous additional studies have largely confirmed this result.[4]

Figure 3. Environmental, Social and Governance Factors and Market Performance



[3] Eccles, Robert, Ioannis Ioannou, and George Serafeim. "The Impact of Corporate Sustainability on Organizational Process and Performance." Management Science 60, no 11, November 2014.

[4] See, for example, Giese, Guido and Linda-Eling Lee. *Weighing the Evidence: ESG and Equity Returns., MSCI Research Insight*. April 2019. This research also looked at a wide range of studies and found that high-ESG-rated companies were more profitable, paid higher dividends and showed slightly higher valuation levels, when controlled for other financial factors over a 10-year period between May 2007 and November 2017.

ESG Index-based fund investing

If the above research is anywhere near accurate, the question becomes why not invest with an Environmental, Social and Governance (ESG) lens? For one reason, until recently, it was hard and expensive to do so because the investor had to pay a specialized investment management firm a premium to do a lot of digging to find out which firms were making progress on ESG factors, and which of those factors were truly material to the firm's financial performance. Today, the job is much easier (although not perfect by any means) because many more firms are voluntarily reporting the requisite data, the data are more standard and comparable, and several ratings firms have stepped in to rank firms based on the data.

Armed with such data and increasing investor interest, asset management firms are, frankly, falling all over themselves these days to launch both active and passively-managed ESG funds. These funds seek to overweight those companies that score well across E, S, and G factors, as opposed to simply excluding the worst offenders. Moreover, vendors are also increasingly optimizing the sector weights in their products so that they remain representative of the starting universe of public companies in that sector. This means that the sector exposure – and for international products, the country exposure – will be similar to non-ESG funds, and that has helped these products deliver a competitive risk and return profile.

We recently took a hard look at the leading U.S. large capitalization ESG index-based funds to find one that we hope to be able to utilize in most all client portfolios. We intentionally excluded all of the very index-based new funds, both because there is little performance data on them and because we prefer investing in larger funds that have better liquidity.

Figure 4 (next page) summarizes the performance behavior of the five largest index-based ESG mutual funds and ETFs that are focused on providing blended (value and growth) exposure to U.S. large companies, and compares their returns to the S&P 500. Despite some notable differences across the funds (more on this later), performance is very similar across all of them. The Vanguard fund leads, and this may be due to its slightly higher growth tilt. In addition, unlike the other candidate funds that attempt to overweight exemplary ESG companies, the Vanguard fund is constructed solely by excluding what it considers to be bad actors. This led to us eliminate the fund because, as discussed earlier, we are seeking one that rewards good behavior due to the correlation with outperformance over long periods of time. (This is the key finding of the early-cited research.)

Figure 4: Performance of Leading ESG U.S. Large Capitalization Funds

Annualized Returns[1] (%) *as of March 31, 2019*		YTD	1 Year	3 Years	5 Years	10 Years
Calvert US Large Cap Core Responsible	**CISIX**	14.2	9.7	13.5	10.8	16.4
DFA US Sustainability Core	**DFSIX**	14.2	6.7	13.2	9.5	16.2
iShares MSCI KLD 400 Social ETF	**DSI**	13.9	9.7	12.9	10.1	15.2
iShares MSCI USA ESG Select ETF	**SUSA**	15.1	8.5	13.3	10.3	14.9
Vanguard FTSE Social Index I	**VFTNX**	13.8	10.7	14.9	11.5	17.2
S&P 500 TR USD		13.7	9.5	13.5	10.9	15.9

[1] Returns for periods shorter than one year are not annualized

With the performance question addressed, we then looked to other characteristics of the candidate funds, such as style analysis (i.e., how much of the fund is value versus growth-oriented companies and small companies versus large companies). Not surprisingly, the DFA fund tilts more toward smaller companies and value-oriented ones, as these tilts are core to the firm's philosophy. We did not want these tilts in our ESG fund, so this led us to eliminate the DFA fund from further consideration.

Next we looked at exactly how the funds are constructed. We learned that the MSCI KLD 400 Social fund, while rewarding companies with high ESG scores, remains eliminates companies that produce alcohol (and we like our wine), military weapons (we unfortunately need some), genetically modified foods (we would have global hunger today if it weren't for the Green Revolution!), among the more common exclusions such as tobacco producers and gambling companies. In other words, it's too exclusionary and strict.

This led us to the final choice between the Calvert Fund and the remaining MSCI fund (Ticker: SUSA). Here, we made a positive choice to select the Calvert Fund because we believe the most powerful agent of change is through active engagement with companies to urge them to improve corporate behaviors. The most visible forms of shareholder advocacy are proxy voting and shareholder resolutions. Unlike MSCI (to the best of our knowledge), Calvert actively engages with companies. Figure 5 is a comparative table we created of the five funds and how they measure up on ESG metrics.

Figure 5. ESG Metrics

As of March 31, 2019	Calvert US Large Cap Core Rspnb Idx CISIX	DFA US Sustainability Core 1 DFSIX	iShares MSCI KLD 400 Social ETF DSI	iShares MSCI USA ESG Select ETF SUSA	Vanguard FTSE Social Index VFTNX	S&P 500 TR USD
Engagement[1]						
Environmental Proposals (% of Proxy Votes in favor)	100.0	86.4	65.0	100.0	0.0	—
Gender Pay Equality (% of Proxy Votes in favor)	100.0	0.0	85.7	71.0	0.0	—
Impact						
Fossil Fuel Stock Ownership (% of companies)[2]	2.25	2.74	5.46	7.26	4.42	10.00
Carbon Footprint (metric tons CO_2e/$1M USD invested)[2]	50.0	37.0	59.0	48.0	54.0	90.00
Carbon Intensity (metric tons CO_2e/$1M USD revenue)[2]	91.0	47.0	125.0	79.0	110.0	172.0
Impact Comparison						
Fossil Fuel Stock Ownership (% Lower vs. S&P 500)	7.97	7.47	4.74	2.95	5.79	—
Carbon Footprint (% Lower vs. S&P 500)	44.0	58.9	34.4	46.7	40.0	—
Exclusion Screen Applied						
Adult Entertainment			☑		☑	
Alcohol			☑		☑	
Civilian Firearms			☑		☑	
Gambling			☑		☑	
Genetic Engineering			☑			
Nuclear Power			☑		☑	
Tobacco	☑		☑	☑	☑	
Military Weapons			☑			
Controversial Issues						
Involvement in fossil fuel reserves, coal, nuclear generation	☑	☑				
Large-scale data privacy and security concerns	☑					
Extensive and ongoing product safety controversies	☑			☑		
Land use and biodiversity		☑				
Human rights issues and violations	☑	☑			☑	
Operational waste		☑				
Potential for catastrophic environmental events					☑	
Ongoing labor standard issues				☑	☑	
Management and board diversity					☑	
Toxic spills and releases		☑				
Water management		☑				
Governance and ethics practices				☑		

[1] Engagement reflects the percentage of votes that are in favor of a proposed resolution in 2018

[2] www.fossilfreefunds.org

Bottom line: why not ESG?

ESG and low-carbon values can now be used as part of an overall investment philosophy, while still achieving an investor's long-term investment objectives. ESG can be integrated without disrupting the risk and return profiles that investors have come to expect from non-ESG portfolios. As such, we have now added the Calvert U.S. Large Company Core Responsible Fund to our preferred fund list and, absent any request to the contrary from

our clients, we will be incorporating this fund into all client portfolios over time. We will also be researching other asset classes to add, given what we have now learned.

Artemis Portfolio Strategy

Over the last year or so, I have been writing about three investment themes. The first theme is that the best of this long, wonderful economic cycle is likely behind us, and, as such, it is likely prudent to rebalance our equity weights downward closer to their strategic targets. We have largely completed this exercise, and there aren't any new data to suggest we should change our course. This in no way means that portfolios are now inoculated against market turmoil; our goal is to create a modestly smoother journey for our clients and achieve superior risk-adjusted returns.

The second theme we have been talking a lot about is thematic investing. The basic premise of thematic investing is that in an increasingly globalized world, it's wise to invest in the companies and sectors that will benefit from the structural changes facing the global economy. These global trends will provide opportunities to investors who can take a longer-term view.

To date, we have been focused on technological innovation, gender diversity, and sustainability as three promising themes, and we are modestly tilting client portfolios in these directions. (Our gender diversity tilts are implemented by client request.) Our recent discussions with clients during their annual reviews indicates that clients are supportive of our efforts, provided we don't go overboard. As a reminder to all of you, our tilts come wholly from within the existing risk budget; put differently, we are selling equity (not fixed income) to invest in these themes. Thus far, most of the equity sold has been in the international allocation due to our increasingly pessimistic view of the diversification value of developed international equities, not to mention the diminished prospects of and structural issues facing many developed economies outside of the U.S.

As I mentioned in a prior report, we started investing in these themes (technology especially) just prior to the market debacle late last year and so took a pause. We restarted our buying this quarter, and so most clients are now near their targets. I will be reporting out our progress on the technology themes next quarter.

Finally, we got more defensive in fixed income late last year and have no plans to change any time soon. In brief, a greater portion of fixed income in all client portfolios is now less correlated to equity, and so should hold up better when equity markets decline.