


MRP

MCALINDEN RESEARCH PARTNERS

Change-Driven
THEMATIC INVESTING

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•Change-driven thematic investing captures alpha opportunities that arise from sudden shifts, discontinuities, and other disruptions to the status quo that usher in new market themes.

Change-Driven Thematic Investing

- Efficient Market Theory argues that market prices reflect all available information and adjust incrementally to routine data flows.
- In contrast to incremental changes within an ongoing equilibrium, disruptive change marks a radical break to the equilibrium itself.
- Research from behavioral economics has identified a natural human tendency to resist new knowledge that contradicts the status quo.
- Investment opportunities in financial markets arise when there is a lag between a disruption to the status quo and the market's adjustment to the new equilibrium.

The MRP Formula

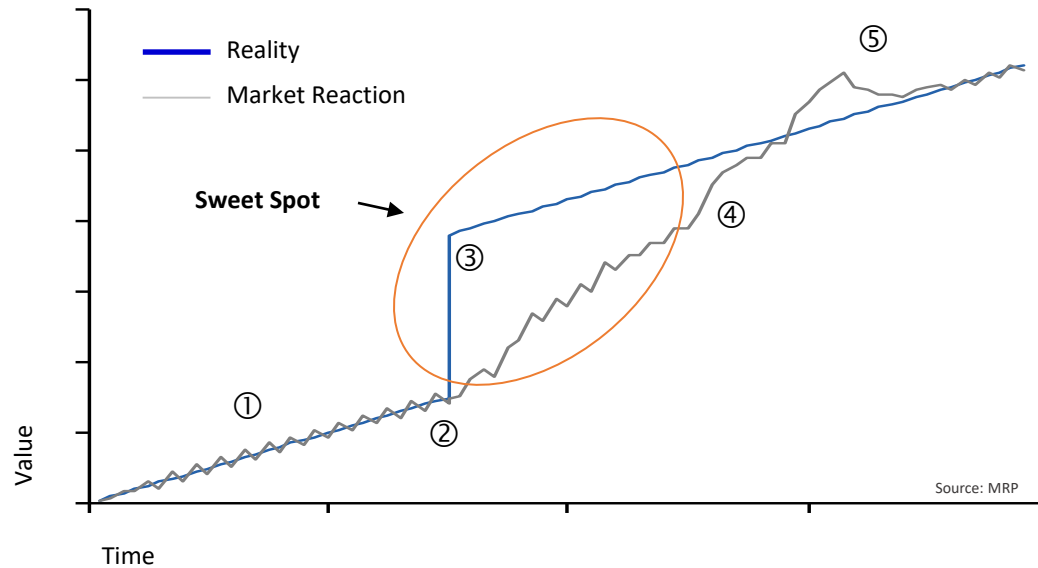
$$\begin{aligned} &\text{Disruptive Change} \\ &+ \\ &\text{Status Quo Bias} \\ &= \\ &\text{Thematic} \\ &\text{Opportunities} \end{aligned}$$

Disruptive change can be caused by:

- Technological innovations
- Business-cycle turning points
- Government regulations
- Elections
- New business models
- Natural events

- These changes can arise gradually as tipping points or suddenly when gales of Schumpeterian creative destruction rip through economies.

Disruptive Change



Source: MRP

① When in equilibrium, markets are continuously oscillating gently around an established equilibrium

② Disruptive change alters the status quo

③ The equilibrium is shifted, disrupting assumptions that are embedded in security prices

④ Status quo bias creates alpha opportunities when markets adjust incrementally to disruptive change

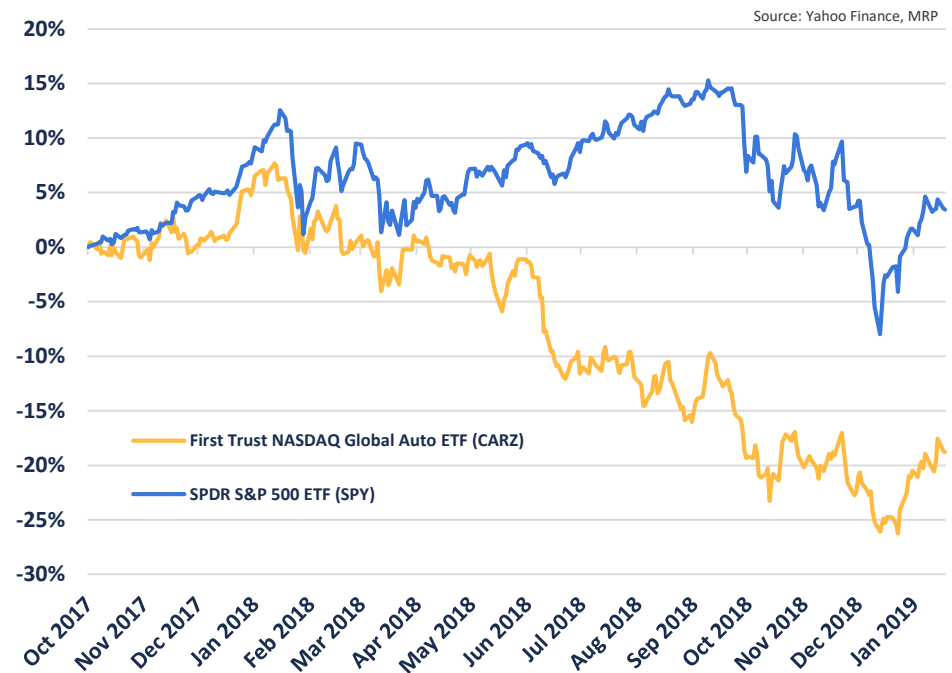
⑤ Markets can overreact before eventually settling into the new equilibrium

SHORT Autos

Launched: October 12, 2017

- Sales began slowing in 2017, despite record spending on consumer incentives by automakers and the average used car had lost 17% of its value in the 12 months prior, a depreciation pace that is nearly twice that of 2014, when the annual rate was just 9.5%.
- In addition, U.S. consumers were more underwater on their auto loans than they had ever been before, as lengthening loan terms, rising transaction prices took a toll. In the first quarter of 2017, one out of three trade-ins on new-vehicle sales had negative equity. Data from Edmunds showed the average amount of negative equity at \$5,195, also a record high.
- The National Automobile Dealers Association (NADA): 2019's sales are expected to decline over a full percentage point, falling toward only 16.8 million passenger vehicles, would mark the first year that sales total less than 17 million since 2014. According to NADA, rising rates are one of the largest factors putting pressure on sales. Average interest rates on new-vehicle financing have risen 60 to 70 basis points from 2017 through the third quarter of 2018.
- The Chinese auto market, the largest in the world, has also fallen into a deep slump as total sales in the country fell for the first time in 27 years in 2018.

Autos (CARZ) vs S&P 500 (SPY)
October 2017 – January 2019



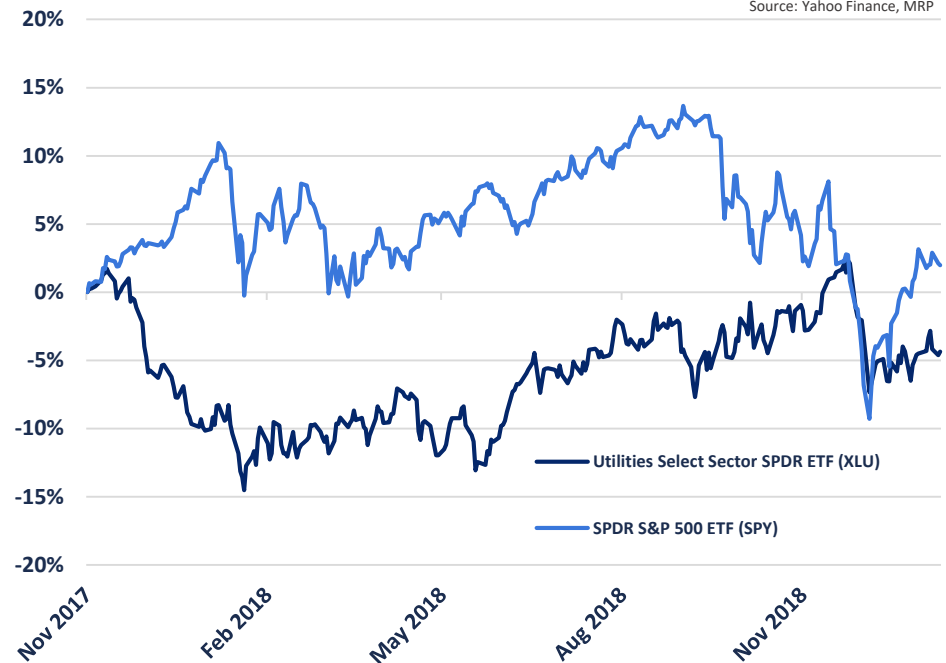
LONG Electric Utilities

Launched: November 20, 2017

- The explosion of IOT devices and cloud computing represents another powerful source of electricity demand in the future. CISCO predicts the number of connected devices on the Internet will exceed 50 billion by 2020 (from just 8.4 billion this year), then rise to 1 trillion by 2022, and 45 trillion in 20 years.
- According to the National Resources Defense Council (NRDC), electricity consumption is projected to increase to roughly 140 billion kilowatt-hours annually by 2020, the equivalent annual output of 50 power plants, costing American businesses \$13 billion annually in electricity bills.
- According to EII-IEIA, U.S. households with an electric car could see a 50% increase in its electricity usage. So, for a standard two-car American household, the electricity bill would double if they switch to EVs. 5 million charging ports will be needed by 2025.
- Wireless technologies consume more energy than wired technologies such as fiber, cable or DSL: 3G technologies use 15 times more energy than wired connections, 4G consumes 23 times more energy, and new 5G will require even more.
- In 2018, the EIA reported wholesale electricity prices were generally higher across the country, with increases ranging between 14% over 2017 prices in the area served by the Midwest Independent System Operator (MISO) to 60% higher in the ERCOT electricity market. The Utilities Select Sector SPDR ETF (XLU) was the 2nd best performing sector ETF for the year.

Utilities (XLU) vs S&P 500 (SPY)
November 2017 - October 2018

Source: Yahoo Finance, MRP

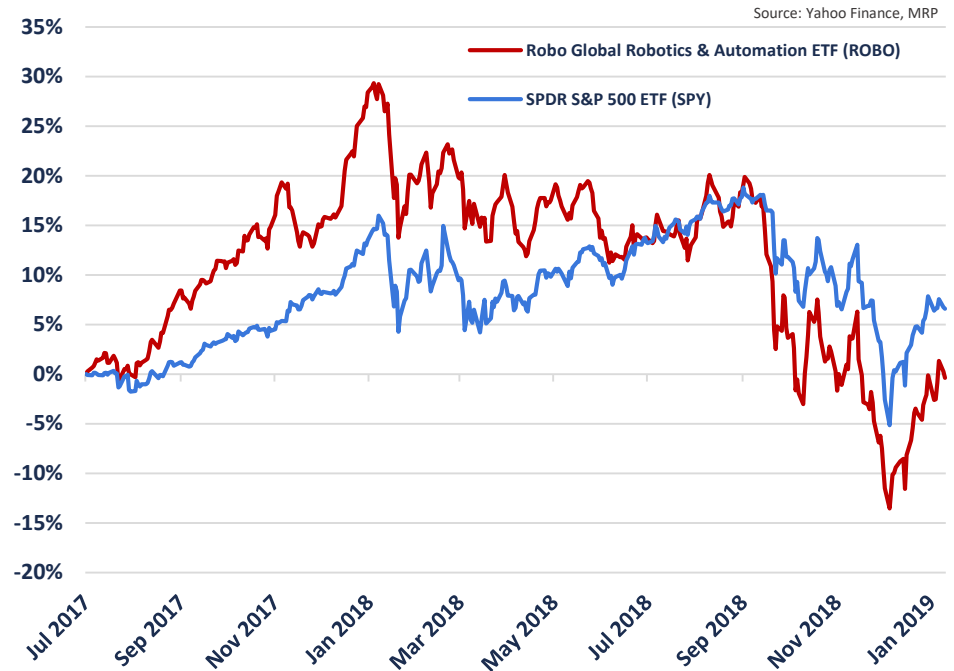


LONG Robotics & Automation

Launched: July 20, 2017

- International Data Corp. estimates the money spent globally on robots in 2015 was \$71 billion and is expected to total \$135 billion in 2019. Meanwhile, worldwide shipments of industrial robots will triple by 2025.
- Low unemployment rates are leaving a lot of manufacturing firms without human labor to staff factories, accelerating the pace of automation. Only about 12.4 million factory workers were employed nationwide in 2016, a decline of almost 2 million industrial jobs in a decade and 5 million since 1997. However, output as a share of GDP continues to hold steady, indicating that robotic technologies are picking up the slack.
- E-commerce leader Amazon.com already has more than 100,000 robots at over 175 order-fulfillment centers worldwide. Per IDC, 60% of the world's 2,000 largest companies will have deployed autonomous mobile robots by 2021.
- Even the mining industry is beginning to advance automation technologies. Rio Tinto is rolling out the world's first heavy freight driverless rail network in the Pilbara, a remote desert region in Western Australia that supplies half the world's seaborne iron ore trade. Three-quarters of its trains run without drivers as they carry ore from its network of 16 mines to ports.

Robotics & Automation (ROBO) vs S&P 500 (SPY)
July 2017 – January 2019



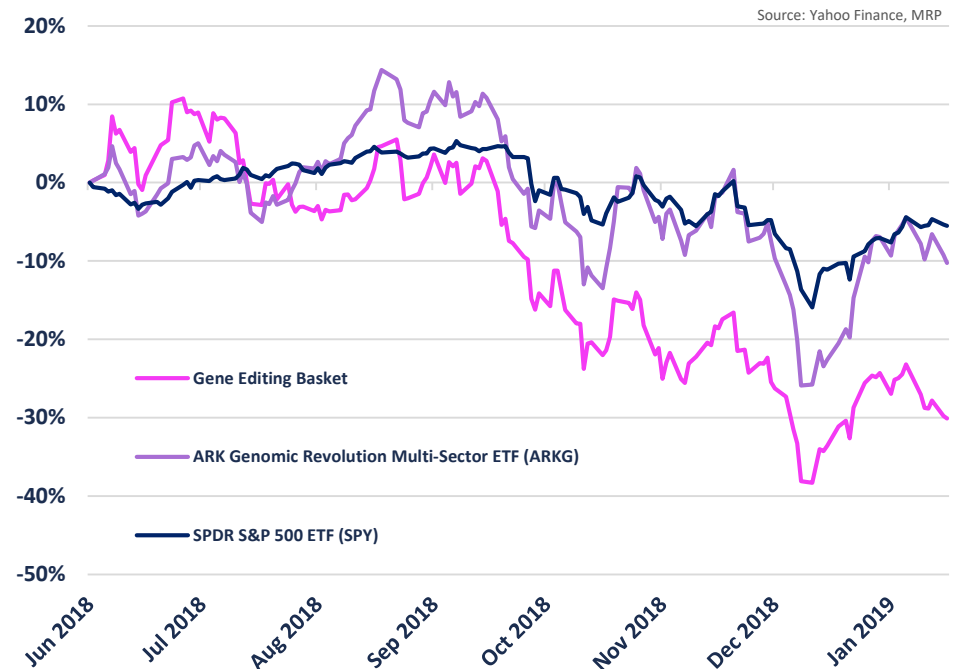
Source: McAlinden Research Partners

LONG CRISPR & Gene Editing

Launched: June 14, 2018

- Gene editing tool CRISPR-Cas9 (for Clustered Regularly Interspaced Short Palindromic Repeats) has been hailed as a breakthrough that could allow scientists to treat and possibly cure genetic diseases, as the technology allows scientists and doctors to modify a living organism's genome by snipping away genetic diseases.
- Editas Medicine (EDIT) recently won FDA approval of its IND application for its LCA 10 (an eye disorder, caused by a mutation in the CEP290 gene) candidate EDIT-101, enabling future clinical trials for what could emerge as the first in vivo (involving embryonic subjects) CRISPR genome editing treatment. People with this disorder typically have severe visual impairment beginning in infancy. EDIT-101 is designed to eliminate that mutation by using CRISPR to cut out that nucleotide and surrounding DNA, thus restoring normal protein expression and function of remaining photoreceptor cells.
- The next step in gene editing could be right on the precipice of success as Harvard scientists begin working toward germ-line editing in human sperm cells, the process by which the genome of an individual is edited in such a way that the change is heritable. By editing germ cells, Harvard Medical School dean George Daley, interviewed by MIT, says they will be possible to remove mutations that cause childhood cancer or cystic fibrosis.

Gene Editing Basket vs S&P 500 (SPY)
June 2018 - October 2018



MRP's Current List of Themes:

LONG ASEAN Markets	SHORT Autos	LONG CRISPR
LONG Defense	LONG Electric Utilities	LONG Gold & Gold Miners
LONG Industrials	LONG Lithium	SHORT Long-Dated UST
LONG Materials	LONG Obesity	LONG Oil & U.S. Energy
LONG Robotics & Automation	LONG Solar	LONG Steel
LONG TIPS	LONG U.S. Financials & Regional Banks	SHORT U.S. Housing
SHORT U.S. Pharmaceuticals	LONG Value Over Growth	LONG Video Gaming

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