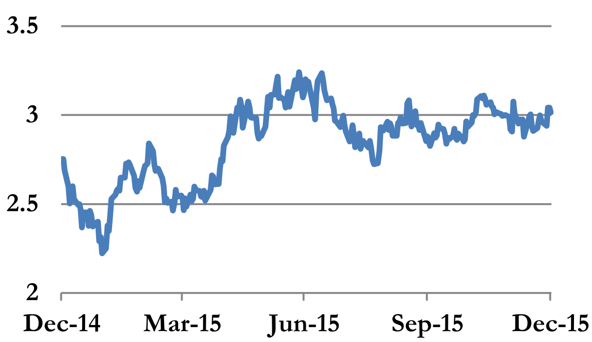
# Seamans Capital Management – Q4 2015 Quarterly Report

## GLOBAL BONDS AND CURRENCIES

The Federal Reserve reiterated a moderately positive outlook on the U.S. economy, citing increased consumer and business spending, an increased number of jobs and subdued inflation. In December 2015, the Federal Reserve announced that it was raising the interest rate by 25 basis points. This rate increase was the first since 2006, and signaled that the Federal Reserve believes the U.S. economy no longer needs as much stimulus.

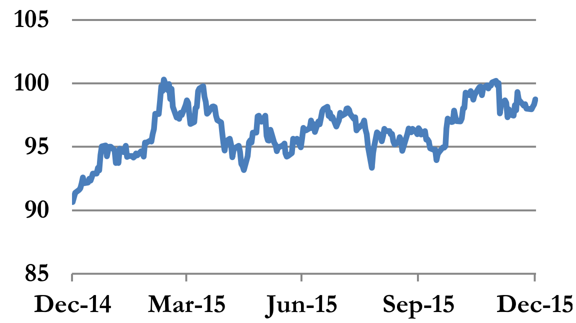
**Long-Term U.S. Treasury Yields**




**Source: Bloomberg**

By contrast, European and Asian central banks further reduced interest rates to support their economies, leading to a 9% gain in the U.S. dollar index shown at right. The European Central Bank's quantitative easing programs have resulted in lower interest rates and $3 trillion in European sovereign bonds trading with negative yields.

**U.S. Dollar Index**



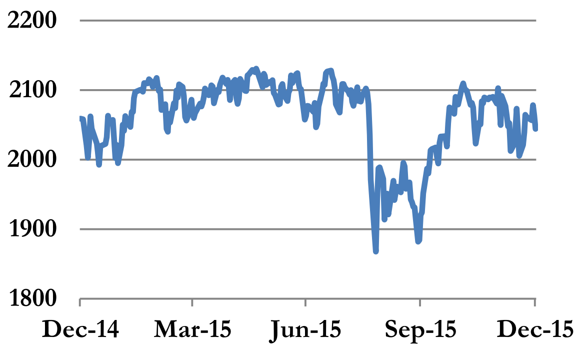

**Source: Bloomberg**

*The Federal Reserve raised interest rates while other central banks reduced rates leading to a stronger U.S. dollar.*

The People's Bank of China (PBOC) lowered interest rates by another 0.25%, the sixth interest rate reduction since November 2014. The PBOC encouraged banks to offer more loans to the private sector by accepting existing loan assets as collateral for new loans. China's foreign exchange reserves declined by $405 billion to $3.4 trillion, the cost of currency and stock market intervention. The government spent 1.5 trillion yuan ($231 billion) to shore up stock prices after China's market declined by more than 35%.

The U.S. stock market recovered from its August decline, with the S&P 500 index gaining 6.4% over the fourth quarter to finish the year with a 0.7% decline.

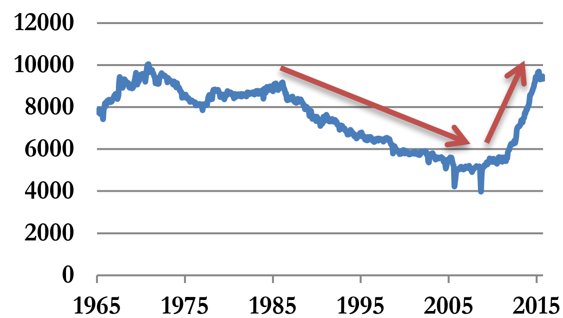
S&P 500 Index




Source: Bloomberg

The decline in the price of oil was one of the major stories in 2015 with crude prices falling 23% in Q4 and 38% over the year. While several OPEC members have expressed interest in reducing oil supplies to stabilize prices, Saudi Arabia has continued to produce excess supplies and aggressively priced its product in an attempt to edge out U.S. shale competitors. Developments in horizontal drilling and hydraulic fracking in the past decade have allowed less porous shale deposits to be successfully developed. This has resulted in a 4 million barrels per day increase in U.S. production over the past five years. The Saudis apparently believed that driving oil prices significantly below $50 per barrel would be sufficient to curtail this supply. The shale oil producer's ability to reduce costs and continue pumping has been more resilient than the Saudis expected. The credit markets are keeping the oil flowing. In 2014, when oil prices averaged about $85 per barrel and companies were still well hedged, the industry spent $100 billion more than it produced in cash flow. In 2015, the average price for crude oil was about $55 per barrel and the growing deficit was financed by the high yield bond market and bank credit departments. With oil trading below $30 per barrel, the oil industry is reportedly experiencing a cash flow deficit of more than $1 billion a day. We expect the banks will reduce their loans to shale oil producers as losses mount, which will ultimately rebalance supply and demand. This process is expected to take most of 2016 and result in an oil price of about $40 per barrel. Meanwhile, the U.S. government responded by lifting a 40 year ban on oil exports in December 2015 to increase the competitiveness of domestic oil production.

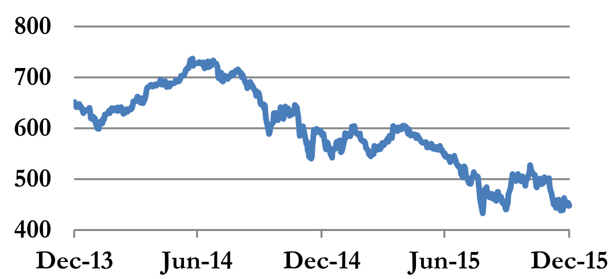
U.S. Oil Production




Source: U.S. EIA

The energy sector of the S&P 500 index declined 23.6% for the year as the price of oil declined 38%. The values of conventional energy stocks continue to reflect significantly higher expected oil prices.

S&P 500 Energy Index




Source: Bloomberg

## CLEAN TECHNOLOGY

In December 2015, 196 countries gathered for the United Nations Climate Change Conference in Paris. The Paris Agreement marks the first time that developing and developed countries all agreed to take action against global warming. This deal succeeds the outdated 1992 Kyoto Protocol, which included only 35 countries, and excluded major polluters including China, India, and the United States. The International Energy Agency (IEA) estimates $16.5 trillion needs to be spent on renewable energy by 2030 to achieve the targets outlined during the conference. Governments are expected to increase incentives for clean energy production and reduce fossil fuel supports.

Environmental concerns continued to grow in China, with Beijing issuing its first "red alerts" for air pollution in December 2015. The government has since taken a series of actions to combat growing pollution levels. In October 2015, China increased its 2020 solar energy target from 100 GW to 150 GW and its wind energy target from 200 GW to 250 GW. The 2015 installed solar and wind power generating capacities are estimated to be 43 GW and 120 GW, respectively, according to China's National Energy Administration. China is targeting renewable and nuclear energy to be a 20% share of energy production by 2030, about three times the current share. China is subsidizing renewable energy projects by increasing surcharges on electricity bills. Regulators have suspended approvals for new coal mines over the next three years.

India increased its subsidies for solar-rooftop installations eightfold, to 50 billion rupees. The country plans to install 100 GW of solar capacity by 2022, with 40 GW coming from solar-rooftop systems. Currently, India has only 4 GW of solar power and 25 GW of wind power, leaving it well behind China's renewable energy program.

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Uncertainty over the solar investment tax credit (ITC) extension, as well as declining conventional energy prices left many U.S.-oriented solar stocks trading at low valuations. The U.S. government announced an extension of the ITC program which will continue to offer the current 30% tax credit up until 2020. These subsidies allow utility scale solar power to be produced at 5 to 6 cents per kWh, less than half the cost of conventional energy. Residential rooftop solar developers have been able to finance installations that provide savings to residential customers over conventional power during a period when conventional power rates are rising. For some U.S. residential solar developers, this ITC can be coupled with state tax rebates and project financing debt to fully finance new projects. Market projections from the Solar Energy Industries Association estimate that the U.S. solar market capacity will grow by 72 GW between 2016 and 2020 resulting in a $40 billion increase in solar investment.

Significant growth requires significant financing, and low-cost financing enhances profitability. Yieldcos were originally established as a way for development companies to access low-cost capital and create a dividend paying investible asset. Yieldcos, however, were not designed for aggressive growth. SunEdison's structure required it to more than double its annual installations to achieve a positive cash flow. The company's success depended on access to capital and an increasing share of the revenues from projects it sold to its yieldcos. SunEdison's reliance on low-cost financing through its subsidiary yieldcos, TerraForm Power and TerraForm Global faced two issues. First, competition lowered project returns. Second, SunEdison's agreement with its subsidiaries provided it with an increasing share of the revenues which meant that the yieldcos would not be able to produce the higher dividends the market demanded. This led to a decline in the prices of its yieldcos and increased their financing costs until they rose above the returns on their prospective projects. SunEdison's aggressive approach has raised questions about its ability to cover its fixed costs, creating a negative sentiment across the whole sector.

*Subsidized wind power produces electricity at about 1.4 cents per kWh or 10% of conventional power costs.*

In December 2015, the U.S. government announced an extension of its federal production tax credit program for wind producers. The current subsidy has been extended through 2016 and will decline 20% per year starting from 2017 to 2019. The program is the U.S. wind industry's most important tax credit, providing a 2.3 cent subsidy per kWh of electricity generated. The price of wind energy in the U.S. is at an all-time low, averaging under 2.5 cents/kWh, or about 20% of the cost of conventional power. The greatest use is to power server farms for cloud computing, which consume about 10% of all electric power. Wind companies already exhibit strong balance sheets and positive cash flows, and this predictable subsidy schedule will help wind companies develop a large installation base and further increase competitiveness by 2019.

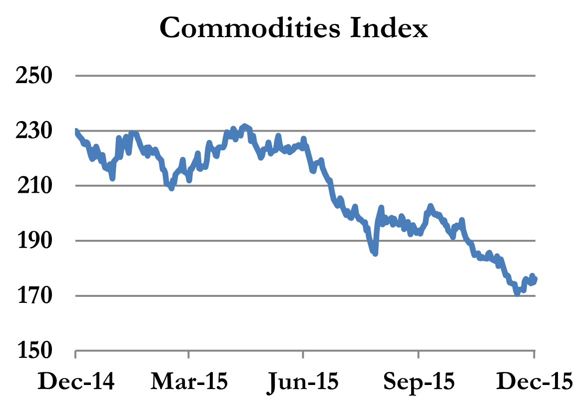
## ELECTRIC AND AUTONOMOUS CARS

Both China and India have rapidly growing car markets and significant pollution issues. For these reasons, it is only natural for them to focus on developing electric and hybrid cars. In the U.S. and Europe, the development of electric vehicles (EVs) is focused on performance, as electric motors produce tremendous torque for acceleration. A new Tesla easily outperforms the most powerful gas-powered car. Tesla announced its goal of selling 500,000 EVs per year by 2020. Improvements in battery technology and manufacturing scale are rapidly reducing costs. This will make electric powertrains economically competitive in average priced U.S. cars within five years and in the lowest priced cars within eight years. Other well-funded companies have also announced their entry into the EV space, such as China's Karma and Faraday. Ford announced plans to invest $4.5 billion in electric and hybrid cars by 2020 and is in discussions about self-driving cars with Google. General Motors expects to offer an EV at the end of 2016, and is in discussions with a ride-sharing company about their long-term needs. Apple promises to have an electric car in production by 2019. While the U.S. already has a growing car charging infrastructure, China has promised to establish a nationwide charging station network capable of handling 5 million EVs by 2020.

In 2015, Audi demonstrated an A7 that drove itself from San Francisco to Las Vegas. The new Tesla has many self-driving features. While technology appears to be ready, the regulatory structure is not; however, that is about to change. The U.S. Department of Transportation recently announced that it would spend $2 billion to promote the development of self-driving cars and provide a new regulatory structure. We expect to see these programs rolled out in less-developed states, and move progressively to more heavily trafficked regions. There are already self-driving trucks on the road in Nevada, where the rule states there must be a driver behind the wheel. Self-driving cars promise greater safety, improved traffic flows and greater mobility for senior citizens.

## COMMODITIES

A combination of continuing strength in the U.S. dollar, weak global demand and overcapacity led to further declines in commodity prices in 2015. The Thomson Reuters commodities index declined 9.1% in the fourth quarter and 23.4% over the year. Lithium, the key component in electric car batteries, was the most notable exception, as prices more than doubled in December 2015. Major new supplies are not expected for several years. Auto-makers ramping up electric and hybrid car production will have to compete for supplies.



Source: Bloomberg

## U.S. MARKETS

Bonds, stocks and commodities represent major distinct asset classes. Historically, with just two exceptions in the past 20 years, at least one of those asset classes has produced annual returns exceeding 10%. In 2015, none of those asset classes were able to produce such returns, with the S&P 500 declining 0.7%, Treasuries returning 0.9% and commodities declining 23.4%.

In order to encourage foreign investment, President Obama waived a tax on foreign pension funds known as the 1980 Foreign Investment in Real Property Tax Act in Q4 2015. Foreign investment into U.S. real estate has been steadily growing since 2009 because of the rise in the U.S. dollar, the appeal of physical assets and real estate investment's ability to provide current income in a low-interest rate environment.

## OUR CONCLUSIONS

The world's central banks continue to use quantitative easing strategies to support their economic growth. This has resulted in historically low interest rates, but it has done little in the way of additional economic growth. As a result, major asset classes failed to perform in 2015. While the U.S. prepares to maintain or raise interest rates, Europe, Japan, China and other emerging countries are still easing. We expect the divergence between the Federal Reserve and other central banks to continue to drive U.S. dollar strength. The strong dollar and over capacity have resulted in lower commodity prices. This has been particularly true of oil since mid-2014, when Saudi Arabia began reducing prices to drive out marginal high-cost shale oil producers. Governments around the world ended the year with an agreement to help reduce climate change, which will help spur renewable energy investments. Major power-producing countries including, China, India and the United States, continue to set aggressive renewable power targets backed by significant tax and investment incentives. Performance and pollution issues are leading car manufacturers to develop electric vehicles, and innovations in self-driving cars are well on their way to becoming a reality in our everyday lives. As the world adopts new advances in technologies, we continue to favor clean technology companies that have growing revenues and positive cash flows.