The effects of drought on sustainability and financial performance

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ABSTRACT

As "greenwashing" is becoming more prevalent with the 21st century, many companies are claiming their "name to fame," by their over-the-top sustainability efforts and their positive actions towards the environment, communites they serve and stakeholders. Using profits as a sole indicator for success is slowly becoming a past-time. However, while the CSR trend is surely affecting many industries, some companies are forced to become more sustainable due to macro-environmental aspects, such as the drought in California. While many companies are focusing their efforts to limit their "economic footprint" along their value chain, drought impacted companies, such as agricultural companies, are trying to use their sustainability efforts to make smarter decisions and survive when there is limited water and resources. We looked at three companies in the agricultural sector that have been impacted by the drought and compared them to their monthly returns in relation to the S&P 500 market return over the past six years.

Keywords: corporate social responsibility, financial, drought, ConAgra, agribusiness, honeybees, almonds, pistachios, agriculture

PRIOR WORK

Professor Charles McPeak from Pepperdine University has been conducting research since 2008 regarding the effects of a company's Corporate Social Responsibility (CSR) efforts and its relation to the company's financial performance. While analyzing the Dow Jones Sustainability Index (DJSI), McPeak's research shows a correlation between a company's initiatives to be more sustainable and their financial performance. While a company's sustainable efforts may affect financial performance, there might be other macro-environmental aspects that explain the positive correlation. Yet, due to the 2008 financial crisis, companies that had CSR efforts in place did not drop as significantly as the S&P 500. Prior research has also been conducted regarding how the "green trend" has influenced the automotive industry. The automotive industry is one that is looked down upon due to an automobile's CO2 emissions and the negative impact on the environment, thus the author focused on Tesla as a leading company that is reducing it's economic footprint through reducing toxic emissions and impact on the environment. In this study, the author's team aims to show how the drought has impacted the financial performance of agricultural companies and what CSR initiatives companies are taking to use their scarce resources.

INTRODUCTION

CSR seems to be embedded in most corporations mission statement and values in this day and age. CSR is beyond simply increasing your bottom line through acting ethically; rather it is summarized as a way in which a company is operating in a transparent, environmentally, socially and economically sustainable manner. In other words, the crux of CSR is how a company makes the world a better place through their sustainable actions and management decisions. Examples of CSR range from Starbucks contracting with local growers for their coffee beans to The United Parcel Service (UPS) not making left turns to limit their environmental footprint. In a society that values sustainability highly, many companies now have CSR in their mission statements and have certain departments dedicated to CSR. Consequently, there are some organizations that have CSR implemented throughout the whole value chain, such as the companies used in this research study.

Source: Jeremy Galbreath, 2009.

Many companies view CSR as having excellent, "PR campaigns, codes of ethics and triple bottom line reports," however these efforts are, "far too

removed from strategy" and CSR has much more depth than a simple PR campaign (Galbreath, 2009). CSR should not be looked upon as a cause and effect ideology; rather CSR is a strategic aspect for a company. Upper management is well aware that CSR will be a benefit to a company, yet some CEO's struggle to incorporate CSR into the company's strategy. A company's, "strategy serves as a foundation for a business firm's creation, while establishing its position in the market, its competitiveness and its on-going existence" (Galbreath, 2009). Thus, CSR is an ongoing pattern within the company, rather than one mission statement that states that a company values CSR highly. CSR is implemented throughout every function in an organization. A visual form of CSR being "built into each component" of an organization is depicted in the figure in this section.

CURRENT SITUATION

If the California drought persists, California is starting to look like the desolate dessert scene from the Lion King where vegetation is nowhere to be found. The California drought is something that is not taken lightly, especially when the Department of Water & Power checks up on your home's water consumption weekly. The lack of supply for water is affected by alcoholic beverage breweries, dairy farms, golf country clubs and surprisingly by marijuana growers (Roach, 2014). However, an industry that is affected the most is agriculture & farming in California, considering that California is a state that provides the majority of the U.S. with its produce, including half of "U.S. grown fruits, nuts and vegetables" (California Department of Food & Agriculture). In addition, even the most basic animals feel the drought, especially the honeybees. Honeybees are crucial in the agricultural system as a whole because they pollinate about, "one-third of all U.S. crops" (Koba, 2014). Thus, in 2014 the state of California has been unable to meet the demand of their crop quotas and their honey production has decreased significantly by about 20%. A crop that is entirely dependent on the pollination process of honeybees is Almonds. If the honeybee population diminished due to the lack of resources and water to feed the honeybees, there will no new almond production. According to the California Department of Food & Agriculture, California accounts for 73% of the national value of non-citrus fruit and nut production (California, 2013). In terms of growing almonds and pistachios, "California is the number one producer in the world, producing over 90% of the world's almonds and around 40% of the world's pistachios" (California Agricultural Statistic Review, 2013). Thus, agricultural companies need to live, breathe and act with the mindset of "doing more with less," due to their lack of water.

Top 5 Agricultural States in Cash Receipts, 2012

State	Rank	Total Value *Billion Dollars*
California	1	44.7
Iowa	2	31.9
Nebraska	3	24.4
Texas	4	22.7
Minnesota	5	20.5

DROUGHT IMPACTED COMPANIES

ConAgra Foods, Inc.

Average Return for CAG:
1.12339%
APR of the Monthly Return for CAG:
13.481%
Calculate Market Return of CAG:
14.3456%

Average Return for S&P500:
1.30608%
APR of the Monthly Return for S&P500:
15.673%
Calculate Market Return of S&P500:
16.8493%

California was on the rise in agricultural production of fruits and vegetables, but has been faced with a macro-environmental variable that cannot be ignored. Water has been scarce and new governmental regulations regarding the drilling of water wells on agricultural lands have many farmers worried for the upcoming year. The lack of substantial agricultural growth affects the financial performance of many privately owned and publically held companies. A Food processor company named ConAgra Foods Inc., (NYSE: CAG) has had an increase in pricing due to higher downstream costs, which gets "passed to consumers, but can lead to fewer sales and often fewer profits" (Helm, 2014). When compared to the return of the market in the S&P500, CAG has been doing about 2.5 percentage points below the average monthly return of the S&P for the past 6 years. CAG can be found in 99% of homes through their everyday popular brands such as Hunts, PAM, and Healthy Choice, just to name a few (ConAgra, 2014). They are listed as a leader on the DJSI and are committed to helping the communities they serve. They want to be a "leading corporate citizen" and have adopted sustainable business practices. In their 2014 Citizenship Report there are many goals that target the pressing macro-environmental matters that affect the company, such as, climate change, water use, solids waste and sustainable packaging and sourcing techniques.

One of their main areas of focus is the well-known drought. The company understands that their, "suppliers and contracted growers depend on the availability of clean water to grow crops and produce the raw materials needed for making [their] food" (ConAgra Foods, 2014). CAG even has a 2020 Vision to reduce water use by 20% per pound of production by 2020. Thus far, CAG has, "decreased its total water use by 11%," which is 5% lower than last year. CAG states that 80% of the nation's water use is used by the agricultural sector, thus they have reduced water for crops and have direct relationships with their growers. Their growers, who farm over 150,000 acres of cropland, adopt their sustainable agricultural programs. However, with the drought that has fallen upon California, CAG needs to mitigate the water risk for such events. Most of their California farmland is categorized under their "High Risk" in their books in terms of water risk due to the drought and unknown weather conditions (ConAgra Foods, 2014).

AGCO, Your Agricultural Company

AGCO Corporation is one of the leaders in manufacturing and distributing agricultural equipment worldwide (Yahoo! Finance, 2014). The company, "offers tractors, such as high horsepower tractors that are used on larger farms and cattle ranches for hay production; utility tractors, including two-wheel and all-wheel drive versions for small- and medium-sized farms, dairy, livestock, orchards, and vineyards; [and] compact tractors for small farms and specialty agricultural industries, such as dairies, landscaping, and residential areas" (Yahoo! Finance, 2014). AGCO Corporation strongly believes that having sustainable measures along their value chain provides long-term value to their stakeholders. AGCO's, "approach to long-term economic, social and environmental sustainability is aligned with our vision to provide high-tech solutions for professional farmers feeding the world" (AGCO, 2014). AGCO's materiality matrix can be seen in Appendix A.

5%

of Total Parts Sales

That's our 2015 target for the remanufacturing process — known as REMAN — that takes back used components, such as engines, transmissions and gears, and remanufacturing them to OEM (Original Equipment Manufacturer) specifications. In addition to reducing waste and conserving materials, this process also utilizes 80 percent less energy than producing new parts.

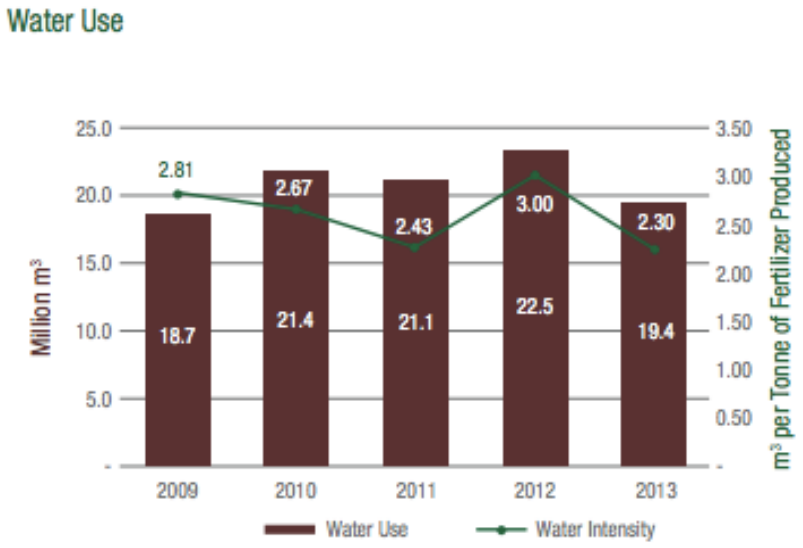
Average Return for AGCO:
1.50176%
APR of the Monthly Return for AGCO:
18.021%
Calculate Market Return of AGCO:
19.5868%

The company aims for all their new products to undergo a sustainability review to make sure it is not damaging to the environment. Furthermore, the company makes sure that their operations, customers, suppliers and community relationships are all in line with their sustainability goals. As a leader in agricultural equipment, the company celebrates its recent recognition in *Harvard Business Review*, "for the company's work in developing smart farm equipment and solutions" (Business Wire, 2014). AGCO is developing products to disrupt the farming marketplace and redefining industry standards. Even though the drought has affected companies like CAG mentioned above, when compared to the S&P 500 monthly returns for the past five years, AGCO has been outperforming the market by about three percentage points. AGCO's return is 19.6% and the return on the market of the S&P 500 is about 16.8%. However, even though their sustainability efforts are strong and they are trying to reduce, reuse and recycle, due to the drought and decrease in farming, Deere & Co. has predicted a decrease by 20% in 2015 in equipment and machinery sales in the agricultural industry (Tita, 2014). Thus, due to the "newness" of sustainability efforts during the drought, we cannot conclude that the average monthly returns for AGCO will remain high. However, even though the market took a

toll in 2008, agricultural companies among the S&P 500 actually outperformed the market (Kramer & Schnitkey, 2011).

AGRIUM, INC.

Agrium Inc. (AGU) is a global distributor of crop nutrients to "help growers increase crop yields sustainably" and is a global leader in agricultural products and services. Fertilizer is a critical ingredient for the growing of crops because without fertilizer, farmers would only be able to produce about half of the quantity of food provided in the marketplace today (Agrium, 2014). In response to a limited amount of water available for their operations in a Texas facility, the corporation has started to use wastewater from the cities sewage treatment plant and make an effort to recycle and reuse water wherever possible. The progress of their water usage and water intensity over the years can be seen to the right. Even though the drought has affected their operations and sales, they have implemented various ways to reduce their emissions and conserve their water usage. However, despite the drought, their return in comparison to the S&P 500 is about 10 points above the average market return. AGU has been performing considerably well with a 26.15% monthly return. Despite the company's high market returns, many analysts say that the "U.S. drought presents downside risks for the company" (Nickel, 2012). In addition, due to the macro-outlook, analyst Steve Hansen "cut his rating on the stock to market perform from outperform and trimmed his target price to US$100 from US$106" (Ratner, 2014). According to AGU's September 2014 quarterly report, AGU's quarterly profit decrease by a significant 34% compared to last year as "low crop prices and favorable growing conditions hurt demand for some of the company's products" (Kumar, 2014). With little rain in late 2014, analysts simply need to wait to see how the company does in the fourth quarterly reports.



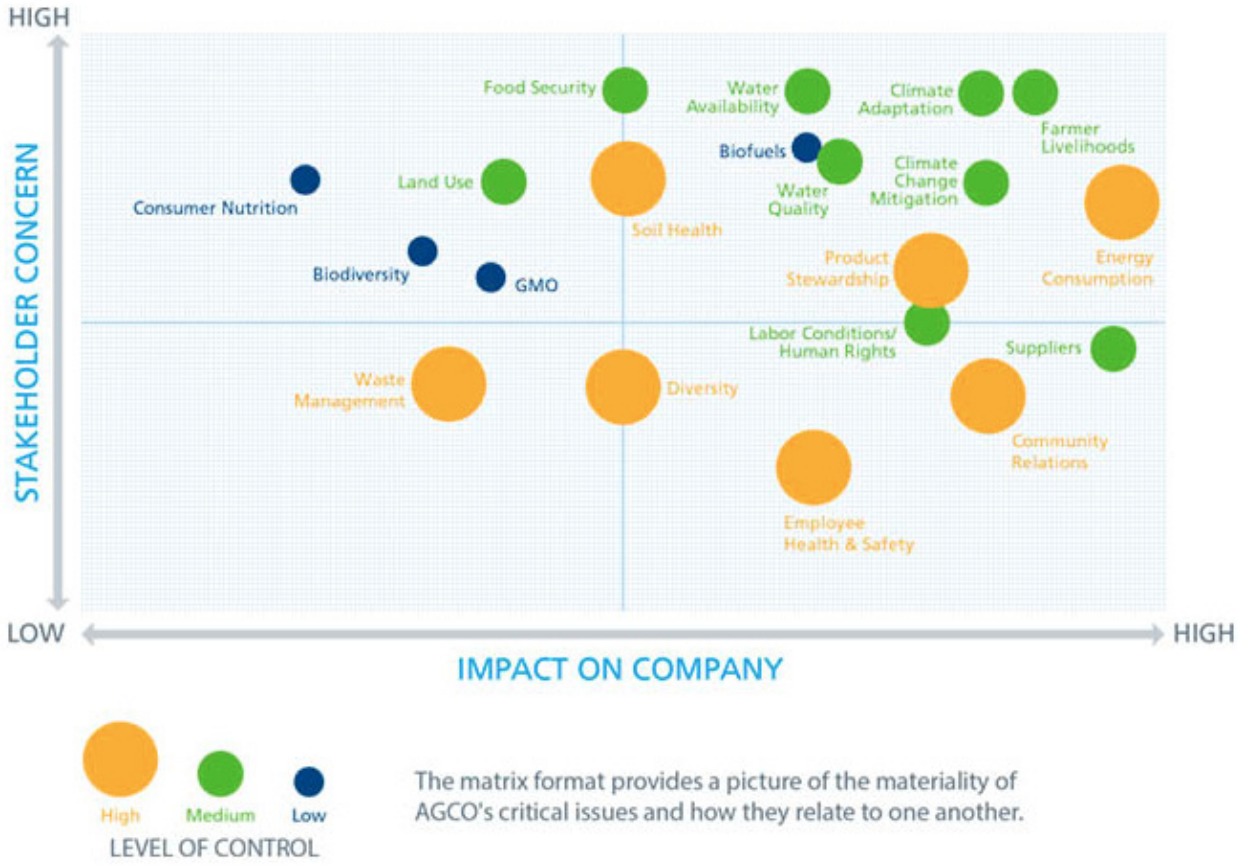
Water intensity is related to our production; generally, as production increases, water intensity decreases. Water use per unit of production has been relatively constant with a 10 percent reduction since 2009. Water use, defined as water intake minus surface water discharge, is generally constant year-over-year, with some variability due to precipitation and site operations.

Average Return for AGU:
1.95441%
APR of the Monthly Return for AGU:
23.453%
Calculate Market Return of AGU:
26.1456%

CONCLUSION

As the demand for food surpasses supply, there is anticipation that agri-business companies will indeed have greater returns in relation to the market. Due to the drought, farmers are only getting "one-third of the usual amount of surface water" (Business Insider, 2014). Even though California produces the majority of crops and nuts for the United States, agricultural companies success may not continue if the drought persists. It is more than just a lack of water and being sustainable to conserve the water one has, however, many jobs will be lost if there is a lack of farming. Many companies are also replanting into commodity crops to make better use of the scarce resource of water. The rarity of water has allowed companies to refocus their efforts on more valuable crops (Bjerga, 2014). With drought forecasts persisting for a bit longer, drought impacted agricultural companies need to make sure their operations are fully sustainable and limiting their waste as much as possible. As Victor Hugo once said, "The future has many names: for the weak, it means unattainable. For the fearful, it means the unknown. For the courageous, it means opportunity." The extended drought has presented many opportunities for courageous companies to step forward and increase their sustainability efforts and outperform their competitors. However, with some early rainstorms in the beginning of 2015, agricultural companies are smiling at what lies ahead.

APPENDIX A: AGCO's Materiality Matrix



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