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ESG Perspectives

August 2017

INNOVATIVE CLEAN ENERGY INVESTING: THE COLOMBIA PULP MILL PROJECT

When it comes to ESG investing, one of the major questions out there centers around measuring impact. How do you do it? What metrics do you use? How do I, as an investor, know what impact my investment dollars are having on the environment or a local economy? A major part of the ESG evaluation process at Sage is looking at and trying to measure impact, be it on the environment or on the underlying community. The municipal issue we will look at below will help show how Sage looks at and how an investor can look at what type of impact their investment dollars are having from an ESG perspective.

Resource & Project

Wheat has been the preeminent crop in South Eastern Washington for the last 150 years. Currently the region generates approximately 100 million bushels per year, with a crop value of around $1 billion. Harvesting all this wheat generates 4.8 million tons of waste straw per year. The current market for waste straw is approximately 250,000 tons with users ranging from dairies, feedlots, mushroom growers and erosion control. That leaves a lot of waste straw that farmers have to dispose of prior to planting the next year's crops. Previously, farmers had to two options; they could till the straw under or they could pay to burn their fields, thus eliminating the waste straw. Tilling reduces soil quality and increases erosion as it eliminates any vegetation holding the soil together. Burning produces undesirable air emissions. Both come at a cost to the farmer, averaging $10 - $30 per acre to dispose of the waste straw. Columbia Pulp is hoping to provide a third alternative.

Columbia Pulp issued $133 million dollars of municipal debt through the Washington State Economic Development Authority and is planning on building and operating a facility in eastern Washington using a proprietary process to profitably convert wheat waste straw into three product streams; paper pulp, sugars and lignin. The new pulping process uses less chemicals, energy and water than conventional pulping, notable in the absence of sulfur. If you've ever been around a standard pulp mill and the wind shifted in an unfavorable direction, then you are familiar with the….smellier side of a pulp mill. This will be eliminated with the new mill. In addition the process produces quality pulp at a significant cost advantage to standard pulp, as well as valuable by-products (sugars and lignin) which can be sold rather then disposed of.

Measuring the Impact: Environmental and Economic

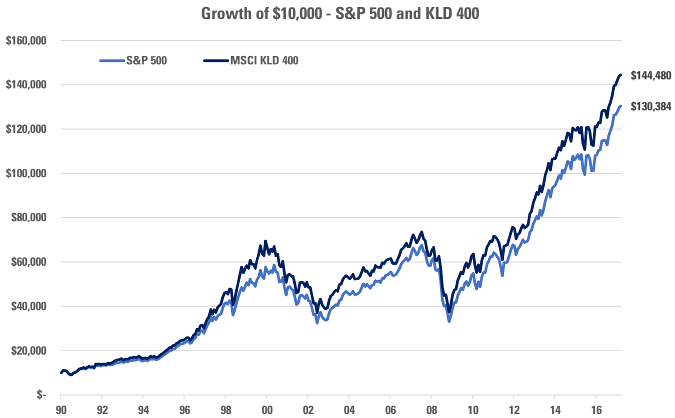
The facility will require 230,000 tons of straw per year, which will replace 280,000 tons of hard wood chips normally used, thus positively impacting forest sustainability. There were 127,000 acres of agricultural residue burned in Washington State in 2014. This put approximately 45,000 tons of ash, particulates, carbon monoxide and carbon dioxide into the atmosphere. 18,000 tons of these compounds will be prevented from entering the atmosphere by the introduction of this plant. In addition, the by-products will be used as additives in De-icing products and crop and soil additives, where it will increase their efficacy, adhesion and penetration, thus lowering the amount needed to be applied.

Columbia pulp has contracts in place with area farmers to purchase their wheat fiber waste for $5/acre. Considering the cost to either till or burn the waste previously at $10 to $30 per acre, farmers should see an increase of approximately $15 - $35 per acre of additional funds, either through revenue or savings. The impact on the local economy goes beyond just the benefit to the farmers. The facility expects to hire approximately 75 people for production, maintenance and product support. On an annual basis, wages for these jobs are expected to exceed $50,000. Columbia County, where the facility will be located, has a median household income of $42,000 and a 17.1% poverty rate. There are approximately 4,000 people that reside within Columbia County, and with 82.2% of the population not having a college degree (national average is 71.2%), a employment opportunity like this, in this small of a populace, should have a large economic impact on the underlying economy.

At Sage we feel measuring impact, and the intensity of that impact are integral parts to a robust ESG evaluation framework. By looking past labels that might give an indication of sustainability, and working to measure the impact the project is going to have, a more robust ESG portfolio can be constructed that better aligns with the goals of the investor.

RESPONSIBLE INVESTING: A BRIEF PERFORMANCE REVIEW

Sage's approach to ESG investment in ETFs includes a thorough due diligence process which involves the evaluation of the ETF as well as the underlying index for addition to Sage's ETF focus list. In this edition of ESG perspectives, we focus on one of the longest-standing ESG indexes and examine its long-term performance vs. a traditional broad market index, the S&P 500.



The KLD 400, which was originally developed in 1990 by KLD analytics and currently owned by MSCI, aims to provide exposure to roughly 400 companies with high ESG rating while excluding companies with negative social or environmental impact. The KLD 400 provides a good starting point and a way for investors to assess the long-term performance of ESG investing. Given its positive and negative screening methodology, the KLD 400 serves as a suitable proxy for the ESG integrated strategies that have grown rapidly over the past 18 months.

The growth chart shows the cumulative performance of the KLD 400 vs. the S&P 500 since 1990. The statistical summary shows summary statistics of the KLD vs the S&P 500. Since its release in May 1990, the KLD has outperformed the S&P 500, and on an annualized basis, the KLD 400 outperformed the S&P 500 by 0.4% with a similar Sharpe Ratio.

Sage's approach to ESG integration includes both positive and negative screening, resulting in a "best-in-class" ESG portfolio. The frequent criticism for responsible investment generally centers around forgoing investment return in exchange for an alignment of social values. The KLD 400 performance history shows that it is possible to track or outperform a broad market index over the long term using this "best in class" ESG integration approach.

Summary Statistics, May 1990 - June 2017

	Return	Risk	Sharpe Ratio	Max Drawdown
MSCI KLD 400	10.3%	14.8%	0.55	49.2%
S&P 500	9.9%	14.3%	0.54	51.0%

CLEAN ENERGY DRIVE ADVANCES

Despite the Trump Administrations' recent rejection of the Paris climate accord several U.S. and international companies have continued their commitment to the development and reliance upon sources of clean energy. Companies are increasingly signing long term power purchase agreements (PPA's) at agreed prices with solar and wind generated providers. While many of these corporate consumers still utilize public utility companies that produce less than 100% clean energy to support some of their operations that reliance is in decline. In 2015 more than half of the U.S. wind energy PPA's went to large corporate consumers which has helped to spur the global development of a cumulative 20 gigawatts of wind and solar farms. For perspective, a single gigawatt would fuel the monthly energy consumption of approximately 500,000 homes in the U.S.
To date most of the leading PPA buyers have been found in the technology sector with names such as Google, Amazon, Facebook and Microsoft leading the charge to fuel their vast server and communication networks. However, manufacturing and consumer product companies have quickly jumped on board in recent years thus augmenting this trend across many U.S. industries. Dow Chemical, 3M and Walmart are leading clean energy adoption within their corporate structures and promoting similar efforts with key suppliers. For example, Walmart recently introduced Project Gigaton, an organized effort to reduce CO2 emissions, to its organization and key suppliers. The goal of the project is to reduce 1 billion tons of emissions by 2030 or the equivalent output of 211 million U.S. cars over one year. Another interesting example is found in Anheuser-Busch InBev, the world's largest beer brewer, which uses a significant amount of electricity in the production of its products. This resource represents 10% of its total production input costs. In keeping with its established environmental and sustainability policies, the company has committed to increasing its reliance upon renewable sources of energy from 7% of the energy mix to 100% by 2025 with 85% to be supplied through PPA's.

At Sage, we view the introduction and reliance upon clean energy PPA's by many large U.S. manufacturing, consumer services and technology companies to increasingly meet their energy consumption needs as positive financial measures in addition to their inherent environmental benefits. Clearly, there may be financial risks or drawbacks for some entities given the long-term nature of PPA commitments if power prices decline for an extended time. However, as the standardization of PPA's structures continues to evolve the ability to hedge or replace sub-optimal agreements should improve and thus expand their use by more corporate energy consumers.

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