JPS Global Investments—The Quarter in Review

April 2010

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Market Summary

The first quarter extended the market rally of 2009, be it with a brief repose from mid-January to mid-February. A slew of economic indicators turned positive, and corporate earnings were strong, which was enough for the market to continue its upward march, be it on light trading volumes. The Dow Jones Industrial Average was up 4.1% and the S&P 500 Index rose 4.9%, though it is still 25% below where it was in October of 2007.

The green sectors did not do as well, which, in my view, is not an indication of a lack of prospect, but more an expression of a weak appetite for these sectors by mainstream investors due to uncertainty surrounding solar and wind stocks and a "stick-to-what-you-know" attitude that has marked the stock market rally. If you think of the Green Economy as a long-term opportunity today, then you have to approach the market as a buyer, meaning you want stocks to trade at attractive valuations. As such, it is a positive that the green stocks haven't rallied as compared to the overall market, allowing for attractive entry points.

One of the reasons volumes were light in the stock market, is the fact that individual investors were largely focused on buying bonds. The Federal Reserve was also buying bonds (mortgage-backed securities), which led to positive returns for the bond market. However, individual investors have a knack for being late to the party, as such I wouldn't recommend loading up on bonds, especially longer maturity bonds, as rates are so low that they can really only go up, which hurts bondholders.

If the first leg of the market rally was a bounce off depressed prices, which benefited the lower-quality companies the most, the markets are now hoping for solid earnings and strong balance sheets to continue the rally. This implies that the market should favor higher quality companies, which is more in line with what we are trying to accomplish as longer-term investors.

Europe was a laggard this past quarter as was the euro currency. I am of the belief that the Greece debt crisis will be contained. However, perhaps Greece foreshadows problems that other developed countries could face in the future, due to pervasive high debt levels. The IMF noted recently that debt levels among advanced countries have risen to levels not seen since the end of World War II. This is the ultimate challenge of developed country governments: if you let your foot of the gas too quick and slow the flow of money the economy could double-dip, but if you keep going ahead full speed, eventually you will drive off a cliff.

Sustainable Investing Update

Synthetic Fuels

One of the reasons I haven't been overly enthusiastic about hydrogen as an alternative fuel, is that it doesn't mesh well with the current energy infrastructure. "But the infrastructure could change," one might argue. Perhaps. But perhaps

not. It was recently explained to me why the booster rockets on the space shuttle have a relatively small diameter: so that they could be transported by rail. The railroad gauge in the US is 4 feet 8.5 inches because it is based on the British rail system, which has that length because trains were built with the same tools that wagons were built with and they used that wheel spacing. Wagons had that wheel spacing because roads were made with Roman chariots in mind 2,000 years ago. This is a long-winded way of saying that perhaps the fuel infrastructure we have may be around for a while, and swapping out fuel types might be easier accomplished than building an entire infrastructure from scratch.

As such, I think synthetic liquid fuels hold great promise in the transportation industry. One company that is making advances in this arena is San Diego-based Synthetic Genomics. Exxon Mobil announced it would invest $600 million in a co-development effort with the company to create biofuel from algae. Unfortunately, this company is not publicly traded, so I can't consider it for our portfolios quite yet.

Another synthetics project is Shell's $19 billion Pearl plant in Qatar, covering 556 acres, which makes it the industry's largest construction site. Qatar has an abundance of cheap natural gas, which is turned into a synthetic gas (syngas) in a gasifier. Subsequently, the syngas is converted into liquid hydrocarbons. The end-product is an odorless, clean burning diesel. The downside of this project is that it is still fossil fuel based, it is energy intensive, with 40% of the feedstock gas needed to fuel the plant, and it relies on cheap gas and cheap labor for its financial attractiveness. As large energy firms demonstrate the technological know-how and ability to "scale up," it might lead to additional projects with better fuel economy and cleaner feed stocks. Therein, I believe, lies the true opportunity for gas-to-liquids companies: to develop more energy efficient flexible fuel source syn gases in partnership with existing large scale energy companies.

Military Goes Green

One of the strengths of the Green Economy is its inclusiveness and broad appeal. Investing in green companies pencils out whether you are motivated by personal values, a desire for above average investment returns, or concerns about energy security. In a recent report released by the Pew Charitable Trusts, the US military was credited for "leading the way and helping to re-energize America's future." The Department of Defense is responsible for 80% of the government's energy usage, which equates to 330,000 barrels of oil and 3.8 billion kilowatts of electricity per day. To improve that number, the military is on track to meet its stated goal of having 25% of its energy come from renewables by 2025.

Similarly to how the military spurred internet and global positioning technologies, so too does it stimulate the development of technologies surrounding energy efficiency and alternative fuels. In this year's Quadrennial Defense Review, for the first time in its history the military assigned top priority to "developing enterprise-wide climate change and energy strategies."

By 2020, the Navy plans to have 50% of its fuel use come from non-fossil sources. Currently, both the Navy and the Air Force are testing biofuels for their planes. The military's classification of energy independence as an asset and climate change as a liability, is a development that many can welcome, whether from an investor or citizen's viewpoint.

Wind Industry Update

Companies in the wind industry haven't performed very well for investors as of late, though the macro picture tells a different story. Despite the financial crisis, 2009 was a record year for new installations with 38GW installed and a cumulative worldwide installed capacity of 159 GW. According to the World Wind Energy Association (WWEA), China and the US represented 36% and 26% respectively of the new installed capacity last year. The US retains first place as far as cumulative installed capacity, with 35GW. China has now surpassed Germany to take second place. According to the WWEA, 550,000 persons were employed in the wind industry worldwide in 2009, and this number

is expected to grow to 1 million jobs by 2012. This employment picture will not go unnoticed by governments and is a positive in terms of government support for the industry.

So what's the problem? Capacity. There is a plentiful supply of turbines, and there is more competition, which has hurt Vestas, the industry leader, and has been a headwind for wind companies in general. As of late, however, the stock is up 25% off its March low. As in almost every other facet of the global economy, one should always ask: "what about China?" In 2009, Chinese wind turbine manufacturers continued their relentless growth. Sinovel is now amongst the top five manufacturers worldwide, although it and other Chinese turbine manufacturers have focused exclusively on the domestic market. However, that may change soon and China will become both a source of opportunity and competition.

One area of wind I can't get too excited about is offshore development. The UK is the leader in this segment. To meet EU emission reduction targets, the UK figures it will need to get 30% of its energy from renewables by around 2020. Britain is banking on offshore wind to get there and its plan is estimated to cost $150 billion. The risk is twofold. Firstly, the new wind parks will be in deeper waters, 180 miles offshore where 30 foot waves and 60 mph winds are not unheard of; the existing parks are closer to shore. This poses engineering, operating, and maintenance challenges, which translates into higher costs and possible delays in deployment and electricity generation.

Secondly, government subsidies are ultimately paid for by the voters and a consumer backlash could put into question the ability of the government to complete its ambitious plan. On the positive side, it is an engineering challenge that will eventually be conquered and the cost curve can come down as the industry matures. However, I would prefer to invest in the more cost competitive clean energy alternatives. The UK is certainly not flush with budget surpluses to be in a position to ignore cheaper alternatives.

As for our strategy in the wind space: we are looking to invest in those companies that are betting on China and the US, which are the most attractive markets. With regards to the vertical supply chain, we are most interested in those companies that are specialty suppliers of components and materials to the turbine manufacturers and have a dominant market position in their respective niches. We are currently sorting out our picks and hope to have names to share in a later newsletter.

Venture Capital Update

Periodically I will take a look at the venture capital picture for cleantech in this newsletter, even though our in-house investments are exclusively dedicated to publicly traded companies. We are trying to invest in those companies that will do well in the next 2-3 years and it helps to know what is coming down the pipe, in order to properly position our portfolios for the future which is in a state of perpetual flux. If the cleantech venture capital activity is a barometer for cleantech in general, things are looking up.

For the first quarter of 2010 VC investments in North America, Europe, China and India, totaled $1.9 billion across 180 companies. This was an increase of 29% from the previous quarter and 83% from the first quarter of 2009, according to the Cleantech Group.

The transportation sector was the largest recipient of VC dollars, recording inflows of $704 million; 50% of that represented an investment in Better Place, the second largest cleantech VC deal to date. Better Place is a provider of electrical vehicle charging stations and services such as battery swaps. The solar sector came in second with $322 million. From a geographical standpoint, North America raked in 81% of the invested dollars, followed by Europe & Israel (14%), China (4%), and India (1%). The IPO picture was the inverse of the VC picture, with 13 of the 18 IPOs going to market in China, representing $1.5 billion of the $2.9 billion IPO capital raised.

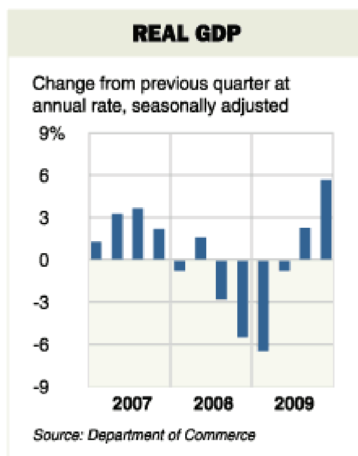
Financial Markets Data

Performance as of 3/31/10

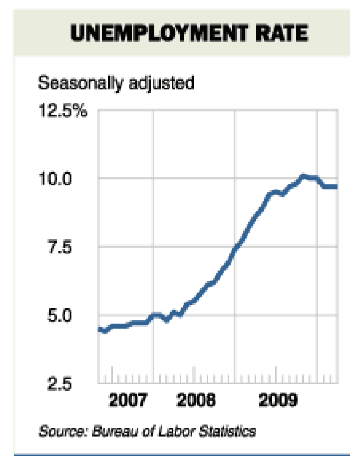
	quarter	yr-to-date	1-yr	3-yr avg.
S&P 500 Index	5.38%	5.38%	49.75%	-4.17%
MSCI World Index	2.66%	2.66%	52.15%	-6.44%
KLD Global Climate 100 Ind.	0.06%	0.06%	52.23%	-2.99%
WilderHill Clean Energy Ind. (PBW)	-9.46%	-9.46%	31.05%	-19.21%

All returns are Total Return, with the exception of MSCI World Index and PBW returns, which are Price Return.

Economic Indicators

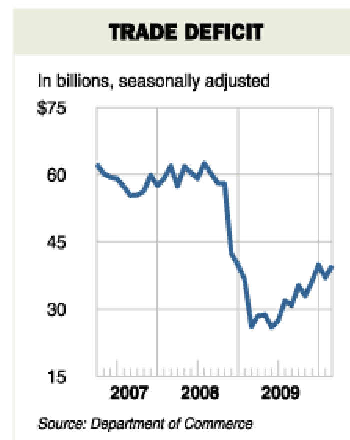


Q4: 5.6%



March: 9.7%

March: 52.5



February: $39.7 billion

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