#### Is There Green In Green?

"Get off this, get on with it / If you wanna change the world shut your mouth and start this minute" - Cracker

With apologies to Samuel Johnson, those who have never faced the prospect of being hanged in a fortnight can substitute therefor with experiences such as attending a luncheon on world hunger. It opens one's eyes to the hypocrisies of the sanctimonious class wonderfully. Even today, there are those who have stopped a conversation on global warming by declaring, "I agree with everything you say. Starting tomorrow, what will *you* do differently?"

Human history is quite clear on two effects of growing wealth. One is it lowers birthrates remarkably; money is both an aphrodisiac and a contraceptive. Children in a subsistence economy require little in the way of educational investment and become productive members of society at an early age; children in wealthy societies require huge investments in education, training and expensive sneakers, and have been observed languishing in exquisite indolence well into their late twenties.

Second, rising wealth levels lead to environmentalism. What economists call the negative externalities of pollution are quite expensive to address. The sad reality is all societies build wealth while degrading the environment and then spend part of this accumulated wealth in a cleanup effort. And these do not have to be industrial societies: The Indus river valley in modern Pakistan was deforested thousands of years ago. It matters not whether we are dealing with coal in 20<sup>th</sup> century Düsseldorf, London or Pittsburgh or in 21<sup>st</sup> century Guangdong; societies clean up their act only when they can afford to do so.

## **No Virtue In Poverty**

We first have to ask whether society values various virtues as much as it does vices. One obvious way to answer this is to ask whether there are virtuous counterparts to Las Vegas or Macau. A second way is to compare the historic returns on the socially responsible (a self-designation, we might add) Domini Social Equity fund to those for both the S&P 500 and the Mutuals.com Vice fund (another self-designation, in fairness). The answer, illustrated in Chart 1, is stunningly obvious: Not only did the Vice fund outperform the S&P 500 since its inception in October 2002, the Social Equity fund underperformed the S&P 500 as well.



Chart 1: Making A Virtue Out Of Vice

#### How Green Is My Tally?

We should not, of course, confuse environmental investing with socially responsible investing, and for reasons other than everyone is trying to slap a green label on everything. Standard & Poor's has created several investing benchmarks designed specifically for green investors. These indices are named Global Eco, Global Clean Energy and Global Alternative Energy. The Alternative Energy index, it should be known, is a 50-50 blend of the Global Clean Energy and Global Nuclear Energy indices.

Someone awaking from a thirty-year coma might be shocked to see the words "nuclear" and "clean" used in the same context. Of course, we were alleged to be entering a new Ice Age in the late 1970s, and polar bears were seen as frightening carnivores, not as sympathetic victims of melting ice floes.

Truth be told, there really is no such thing as clean energy. As Stalin's apologist Walter Duranty observed, "You can't make an omelet without breaking a few eggs." Even apparently benign sources of energy such as wind (birds are to windmills what bugs are to windshields) and solar involve large environmental costs in terms of land use and manufacturing costs. Hydroelectric power used to be viewed as relatively friendly, but few things are as environmentally disruptive to a riparian ecosystem as a dam. The tradeoff between energy benefits and environmental costs is a permanent one. To suggest otherwise is to suggest the laws of thermodynamics no longer apply and we are missing a great investment opportunity in perpetual motion machines.

Let's focus on the Global Eco and Global Clean Energy indices. Their constituents are shown in the table below. The firms overlapping the two indices are highlighted with a blue-green background; those unique to a single index are highlighted in a pale yellow background.

# The S&P Clean Energy Index

# The S&P Global Eco Index

Acciona SA	Aguas de Barcelona SA (Sociedad general de)
Archer-Daniels-Midland	Allied Waste Industries
Babcock & Brown Wind Partners Group	Archer-Daniels-Midland
Cemig-PN (Companhia Energetica de Minas Gerais SA) (ADR)	China Grand Forestry Resources
Conergy AG	Copel -PNB (Companhia Paranaense de Energia SA) (ADR)
Copel -PNB (Companhia Paranaense de Energia SA) (ADR)	Covanta Holding Corp
Cosan Ltd	EDF Energies Nouvelles SA
Covanta Holding Corp	First Solar Inc
EDF Energies Nouvelles SA	Gamesa Corp Tecnologica SA
Energy Conversion Devices	Geberit AG
Ersol Solar Energy AG	Iberdrola S.A.
Evergreen Solar Inc	Itron, Inc.
First Solar Inc	Kurita Water Industries Ltd
Fuelcell Energy Inc	Nalco Holdings Inc
Gamesa Corp Tecnologica SA	Ormat Technologies Inc
Iberdrola S.A.	Pentair Inc.
JA Solar Holdings Co Ltd	Plum Creek Timber Co.
LDK Solar Co. Ltd	Q-Cells AG
MEMC Electronic Materials	Rayonier Inc.
Ormat Technologies Inc	Renewable Energy Corporation AS
Q-Cells AG	Republic Services
Renewable Energy Corporation AS	Severn Trent
Solarworld AG	Sino-Forest Corporation
Sunpower Corp.	Suez SA
Suntech Power Holdings	United Utilities Plc
Theolia	Veolia Environnement
Trina Solar Ltd.	Vestas Wind Systems A/S
VeraSun Energy Corp	Waste Connections
Vestas Wind Systems A/S	Waste Management Inc.
Yingli Green Energy Holdings- ADR	Weyerhaeuser Corp.

These are international indices whose constituents are spread across the globe and quoted in different currencies. We will rely on S&P's calculations for their total returns in U.S. dollars. Their histories begin in late November 2003. We can compare their performance relative to the Morgan Stanley Capital International World Free index over this period.

Chart 2: Cleaning Up In Clean Energy



The results should bring a smile to every flint-eyed investor. You can do well by doing good; both indices have outperformed the global benchmark handily for almost four and one-half years. The Clean Energy index with its heavy weight in solar and wind energy companies has been the stronger of the two green investing alternatives.

## A Crude Relationship

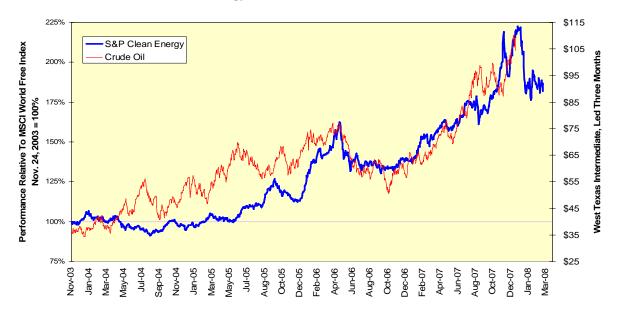
Are there any words in the English language more devoid of content than "energy policy?" Every U.S. administration since Nixon has promised a national energy policy, generally with the stated goal of something called "energy independence," which in reality is nothing more than a threat to exporters of cheap energy we will show them a thing or two by making it more expensively ourselves.

The simple fact of the matter is the administration with the most effective energy policy was Reagan's; his policy was to decontrol the price of crude oil, end the Synfuels Corporation boundoggle and in general get out of the way. Two decades of declining real prices followed, but we digress.

One financial writer can recall a piece of oil shale on an executive's desk in 1978 with a piece of paper taped to it reading, "This is oil shale. The fuel of the future and always will be." You can *always* and we do mean *always*, produce a BTU of conventional energy more cheaply than you can a BTU of non-conventional energy if the non-conventional source requires energy to produce. Those laws of thermodynamics must be taken seriously.

If conventional energy prices rise, alternative energy producers can capture the rent of higher prices. We can demonstrate this quickly and cleanly by comparing the relative performance of the Clean Energy index to the World Free index to crude oil prices. If stock markets are in fact discounting mechanisms, this relative performance should lead crude oil prices, and it does by three months on average as depicted in Chart 3.

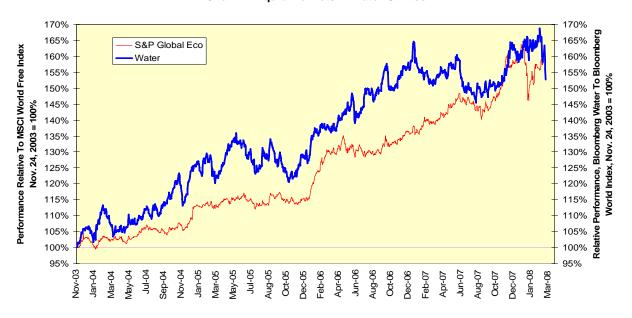
Chart 3: Clean Energy's Relative Performance A Function Of Crude Oil



### Water, Water, Not Everywhere

There are no parallels for the Global Eco index. The odd combination of service industries, utilities, forest product, agribusiness and members of the Clean Energy index is too diverse to have a single overriding factor relationship. One intriguing subset of firms in the Global Eco index is water utilities. Water is a major constraint on urban growth, agriculture and, yes, energy production.

Water is a high-bulk, low-value commodity whose value lies more in its transportation and delivery than in itself. Paradoxically, we could say the same for natural gas until the mid-1990s. The relative performance of the Bloomberg index of global water utilities to the Bloomberg World index, shown in Chart 4, is quite similar to the relative performance of the Global Eco index, and it is a simpler basket to understand. Water is not an investment fad; it will be required by humans so long as we are here.



**Chart 4: Liquid Markets In Water Utilities** 

The secret to successful investing is to own assets whose returns can grow over long periods of time; it is not chasing the latest marketing ploy cooked up to make you feel good about yourself (see the relative performances of

the Social Equity and Vice funds). Both the Clean Energy and especially the Water firms meet this simple criterion. You can make a decent return and quite possibly leave the world a better place. Not bad for a day's work, is it?