

Today's Notes:

1. Domestic Energy

1. DOMESTIC ENERGY AND SECURITY

Over the weekend I spoke with an old friend from my days at the Darden Graduate School at UVA. He was excited. He related that he had accumulated several hundred million tonnes of coal and lined up enough political, infrastructure and monetary capital to build a "clean coal" plant in a western state to produce electricity. "Clean coal" has actually become a dirty "word." The very phrase connotes the problem with coal. Scientists tell us that it has too many carbon chains and that they are difficult to uncouple. On the other hand the US (and Canada) is the king of the coal pile. Besides China, North America has more potential coal energy than **all** the rest of the world has oil energy. My conclusion is that irrespective of our "druthers," clean coal technology is going to be used to produce electricity and liquid fuels, including low sulphur gasoline. Here's why.

Within the last 30 years the imported US liquid fuel addiction has increased to 70%. Canada is the largest exporter (2.5 million BPD) to the US followed by Mexico, Saudi Arabia and Venezuela. The US consumes approximately (2006) 20 million barrels of oil per day. Over 13 million barrels originated from foreign sources in 2006. In the 1950's through 1970's, before peak oil occurred in the lower 48 states, the US was energy self-sufficient. Now we are an energy hungry ward of the rest of the world. This is the fault of our legislators, both Republicans and Democrats. They have failed time and again to draft and pass legislation that solves this **MOST important problem** of the country. MOST important? Yes, definitely. Any country must have secure access to plentiful, cheap, clean energy to sustain a high quality of life with all the social benefits therein. There is not a single American or Canadian family that doesn't strive for a "better life." Without secure access to clean energy, in all its myriad forms, the end result in history has been war. Japan and Germany in the 1930s caused the most recent conflagration stimulated by their need for energy and a better life for their populations. More than 70 million humans, including 47 million civilians, perished in that global conflagration. Securing cheap, clean energy is indeed a very deadly business in the end game – make no mistake about that.

The Looming Impasse

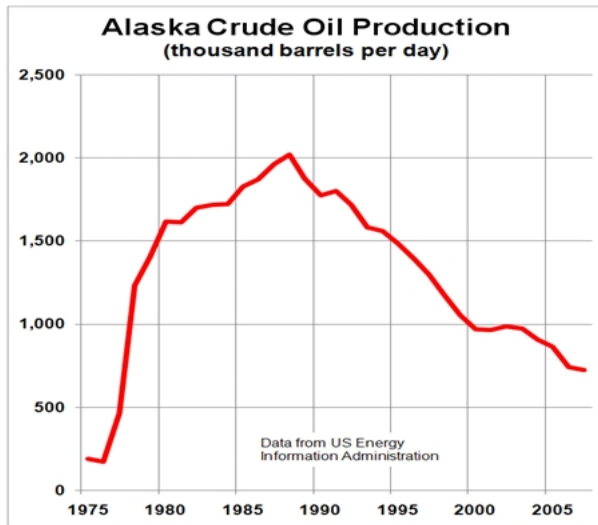
Within a few years (perhaps 5) Mexico will no longer be exporting its current 600 million barrels each year to the US. Its oil fields are rapidly declining even with the assist of nitrogen injection into the Cantarell field, once the world's second largest. Cantarell was discovered in shallow waters of the Gulf of Mexico in 1974. That's how quickly oil production can "peak." The Saudi's oil is also peaking despite their repeated contention that they can increase production at will. Venezuela's garrulous president Chavez, chief American Hater, is in China proclaiming socialist solidarity and promising both Russia and China a bigger slice of his "oil pie" that now comes to North America.

That leaves only Canada as a large and reliable supplier of energy to the US. Even here, the Obama administration bashed the Canadian oil sands (1.3 million barrels of synthetic crude production each day). The Alberta and Saskatchewan oil sands may be dirty but they provide the equivalent of 60% of all exports to the US. In spite of fierce environmental opposition to the oil sands – they will never, in the next hundred years, experience a decline curve comparable to that in Mexico, the North Sea, Saudi Arabia or even, yes, Alaska.

Globally Oil And Gas Investment And Production Is Rapidly Dropping.

The great short-dollar liquidation begun, perhaps unintentionally, by Treasury Secretary Paulson in July 2008 has assured that investment in new energy (and other commodity) projects has come to a standstill. This AM the Financial Times reports, that the number of wells drilled in the North Sea has fallen by almost 80%. Officials in the UK confirmed that as a result of the current lack of new drilling the North Sea's production life could be shortened from 20 to 30 years to 10 to 15 years (50%) within the next decade. Instead of supplying 45% of oil and gas needs of the UK by 2020 (a very near term date) the North Sea might only supply only 12%. The end is in sight for the prodigious North Sea's Brent energy bounty only 46 years after its first wells were discovered and produced in 1963. The FT notes that 50,000 to 400,000 North Sea jobs are at stake along with significant tax revenue.¹

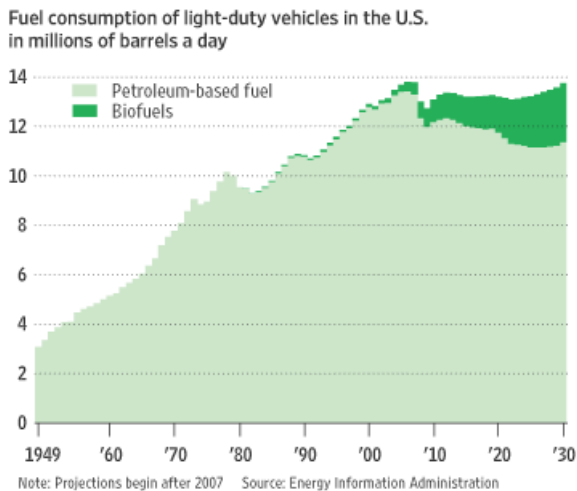
The New York Times reported on Saturday that the Alaskan oil fields are now in clear decline. Here's that picture. In 2005 the Department of Energy published a report on Peak energy. Many scientists worked on the report which was led by Robert Hirsch. The conclusion was that world oil production would peak soon after 2010. The view of Alaskan oil production from 1975 until today clearly shows how rapidly oil fields can decline. What has happened in the United States is now happening on a worldwide basis.



¹ By the way as the proposed new mining law passes in the US (as it will eventually), with its 2% to 5% gross royalty penalty the pot of gold that Congress expects will vanish as exploration companies pull up stakes and head elsewhere, Canada and Mexico being two important destinations. Unfair taxation always and everywhere puts a cap on productivity and business expansion. It will make the US equally dependent on our adversaries for the metals needed for infrastructure development envisioned by President Obama.

In 2008 Alaskan oil production declined almost 4% from 2007. These are steep decline rates that put even more pressure on the US to import oil from both our friends and enemies. And yet the IEA suggests, this AM, that demand destruction in the oil markets still runs ahead of supply destruction. In the developed economies oil and gas inventories are piling up. According to the IEA there were 61.6 days of oil inventory cover at the end of February. This is the highest cover since 1993.² At present Americans (and Canadians) are driving less. Eventually someone will unlock the key to biofuels which will likely be algae or jatropha-based production. But for now, and possibly for the next decade (till about 2020), gasoline and diesel derived from coal, oil sands, natural gas and oil will make up the lion's share of the transportation fuel for the world.

Refined Tastes | Gasoline demand is expected to decline with efficiency, biofuels



The Demise of the Incubator Oil Stocks

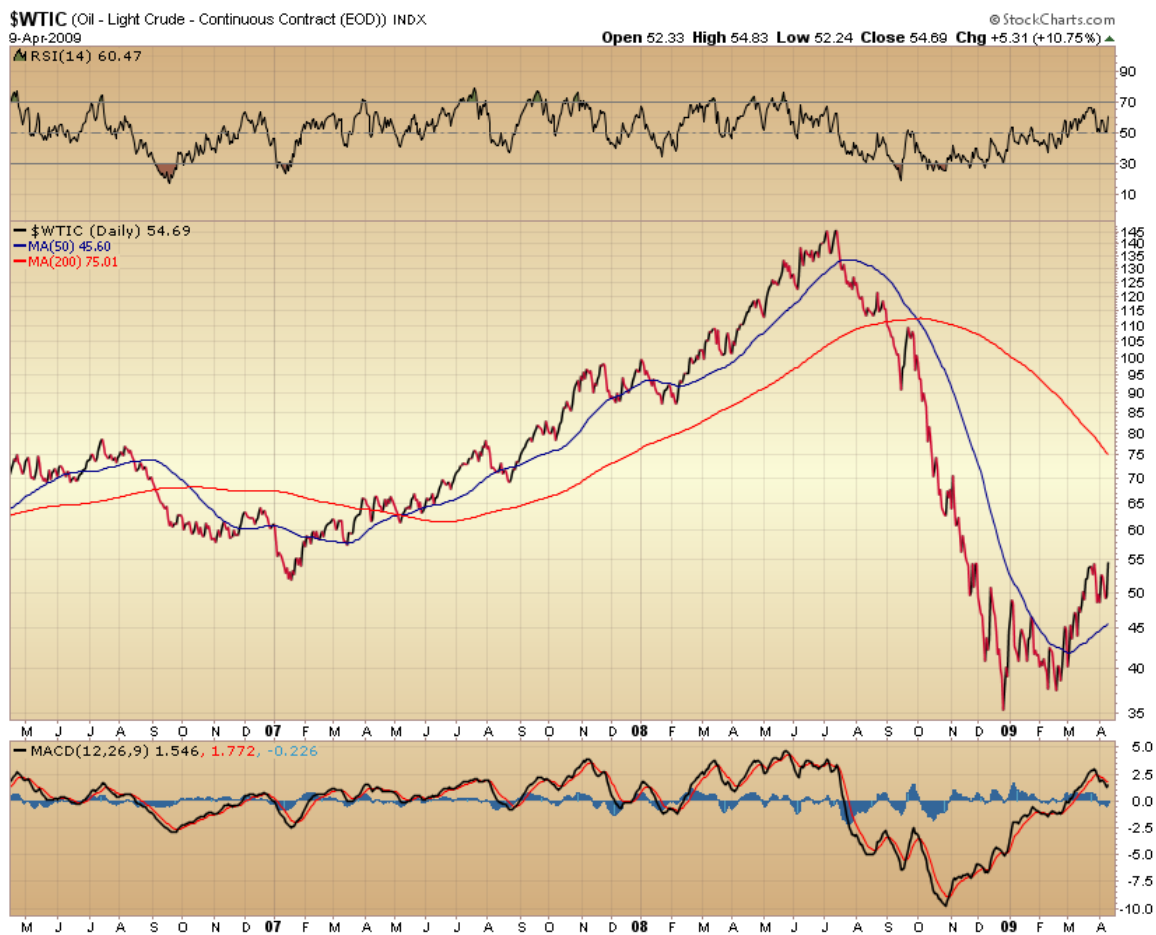
One very unfortunate event that occurred with this global economic contraction was the demise of the exploration sector another supply factor. Stocks that we have followed for some time (MegaWest, Derek Oil and Gas, Ivory Energy) have been decimated as capital markets turned their backs and liquidated them much in the same way that drilling for oil and gas around the world by the majors (legacy Companies) has fallen to record low levels. This has reduced prices on these “Penny Dreadfuls” to minuscule levels and in many cases shattered their (and our) hopes for wealth creation. This in turn causes further supply disruption. It will eventually come home to roost. MegaWest has one of the best domestic oil land positions. They were just beginning domestic production in Missouri when the bottom fell out of the global economy. I still like this company and its land positions. Derek Oil and Gas are also close to production in Wyoming. Both companies need steady \$50 or \$60 oil to breakeven in my view. Ivory Oil with its heavy oil at Lloydminster Saskatchewan did not make it. Its assets purchased for pennies per share. In the meantime

² On another note, we can talk all we want about the “green shoots” of spring in the global economy but as long as oil inventories pile up, even in spite of OPEC’s largely compliant 4.2 million BPD output cut, growth in the global economy is still sliding.

all these companies have had to dilute shareholders significantly in the face of the global credit crisis.

The Good News: Or Is it?

While the price of WTI oil is falling as I write this AM (\$50.96 down \$.96). Help is on the way. Given the extreme global supply destruction the situation will eventually equilibrate and reverse. Some, but not all of the incubator companies that we have followed will survive, albeit weakened. However, when \$100 oil returns the US will not be ready for the trauma. Talk all you want about the new spring of economic recovery; but within a year or two \$100 per barrel oil (or higher) is on the way. OPEC already is calling for \$75 oil but is afraid to press that issue under the current economic circumstances. The impact of \$100 oil to the global economy is already foretold. I will not reiterate the potential carnage.



Coal

To return to the theme originally proposed, the North American energy picture need not be hopelessly pessimistic for the intermediate future. Till alternative energy infrastructure (wind and sun) can be built we must support coal, oil and natural gas production - here. In the next 50 years we need them to rebuild our infrastructure and industrial base and to supply citizens with a high quality of life. **We need cheap, clean and accessible electricity and transportations fuels such as natural gas, gasoline and diesel. Prices of \$100 oil**

will allow for technologies that can supply these. We must plan for these now.

Moreover, the US needs a domestic energy policy aligned with a Canadian policy that supports efficient North American energy production.

I have oft made the case for nuclear renaissance in past Morning Notes. I will not reiterate that issue here. The Chinese started up the giant Shenhua coal to liquids plant in January 2009. West Virginia University estimates that a price range of \$35 to \$50 oil is required to produce an economic, low sulphur gasoline fuel (or other liquid fuel) from coal **and to capture and sequester the infamous and much maligned carbon dioxide**. Please see their recent presentation.

The key element in this challenge is that there are significant tonnages of coal and trillions of BTUs of natural gas available in our own backyard. What part of this coal, heavy oil, natural gas and nuclear equation does Washington not understand? Ottawa gets it. Are there strange ethers that confuse our legal beagles in DC? We had better catch on quickly.

Last week I introduced a project (NuCoal) in Saskatchewan, Canada which will involve the same clean technology now up and running at Shenhua in China to produce low sulphur gasoline from lignite coal. Currently the project is not public. However, Tom MacNeill's 49 North Fund is invested in it. At present the 49 North fund is the only way you can invest in NuCoal (as well as a number of other interesting resource oriented projects). I mention this because I received so many inquiries about the NuCoal project from MN readers.

If, as I suspect, \$100 or \$200 oil is in our intermediate future, it is critical that the Obama Administration develop plans for the next 30 or 40 years to support of Coal to Liquids, Coal gasification for electricity production, Gas to Diesel, domestic drilling for heavy oil and nuclear. There are now few technological challenges in these areas. The energy produced will be, according to the DOE's EIA, relatively cheap and clean. Otherwise we are stuck importing expensive and dangerously foreign energy supplies from the rest of the world in increasing proportion. We can pay our own workers or we can pay foreign governments. It is time to make a decision.

Education is everything. Each of us must have a say in our own governance. Please do not hesitate to contact your elected representative and make your views known on these issues. For me, I like natural gas, coal and oil in that order as discovery investing alternatives. I plan to seek more coal investments going forward for the Discovery platform.

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