



Presentation

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Oil and Gas Strategy in Treachurous Times

Vermont

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Summary and Recommendation

- Financial crisis opportunity
- Natural gas most promising growth fuel
 - North American unconventional natural gas
 - Liquefied natural gas, Russian natural gas
- New oil supply replaces decline
 - Brazil deep water oil, Canadian oil sands
- Oil and gas stocks priced for oil less than \$60
- DVN, XEC, HGT, COP, STO, PTR, COSWF

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2

The Financial Panic of 2008 has created more attractive long-term buy opportunities in energy stocks. Seasonally we might expect a rebound in stock prices after Halloween and into next year. Cyclically, 2009 might still be a down year and the lasting rebound would begin in 2010.

As a result, I am dealing with this by having a low number of buy recommendations compared to companies in my coverage. That gives me the option to increase the number of buy recommendations opportunistically over the next year or more.

Fundamentally, natural gas is the world's most promising fuel to furnish incremental volume.

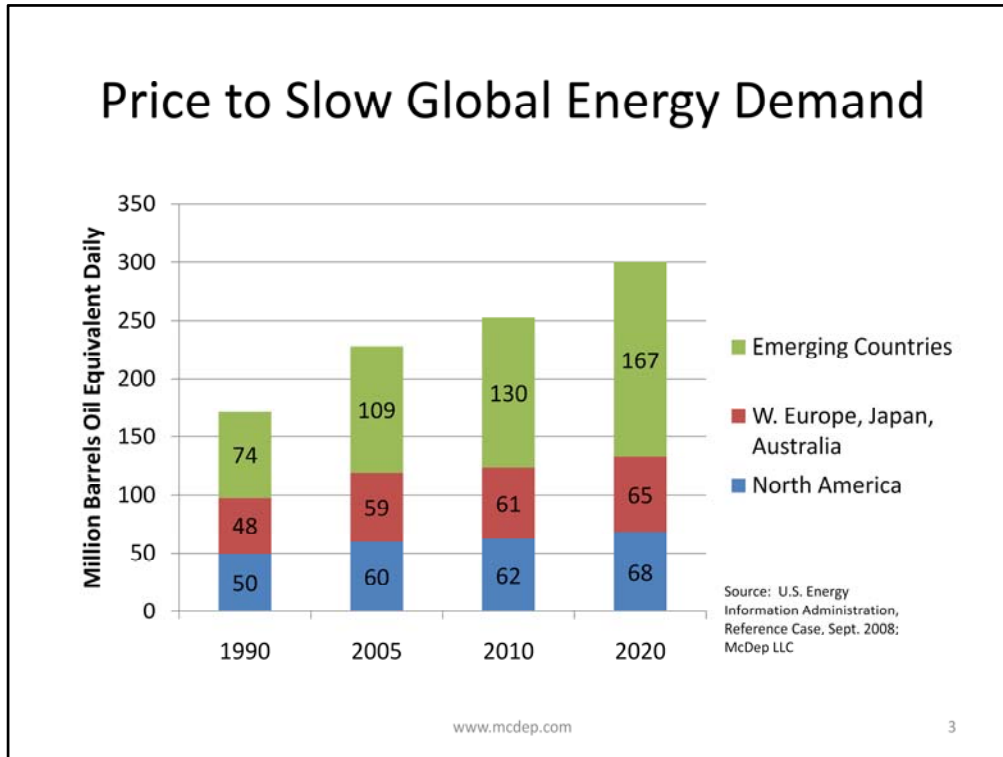
Oil may not grow much in total annual volume, but there is money to be made in existing production and in new supplies to replace decline.

Oil price may pause in 2009. Then we see oil price rising again to an average of perhaps \$125 in 2010.

For equity investment, we believe current stock prices can be justified at less than \$60 a barrel.

Stocks to buy with patience include seven solid recommendations in five groups that we will discuss.

Now let us turn to the fundamental outlook beginning with Global Energy Demand.

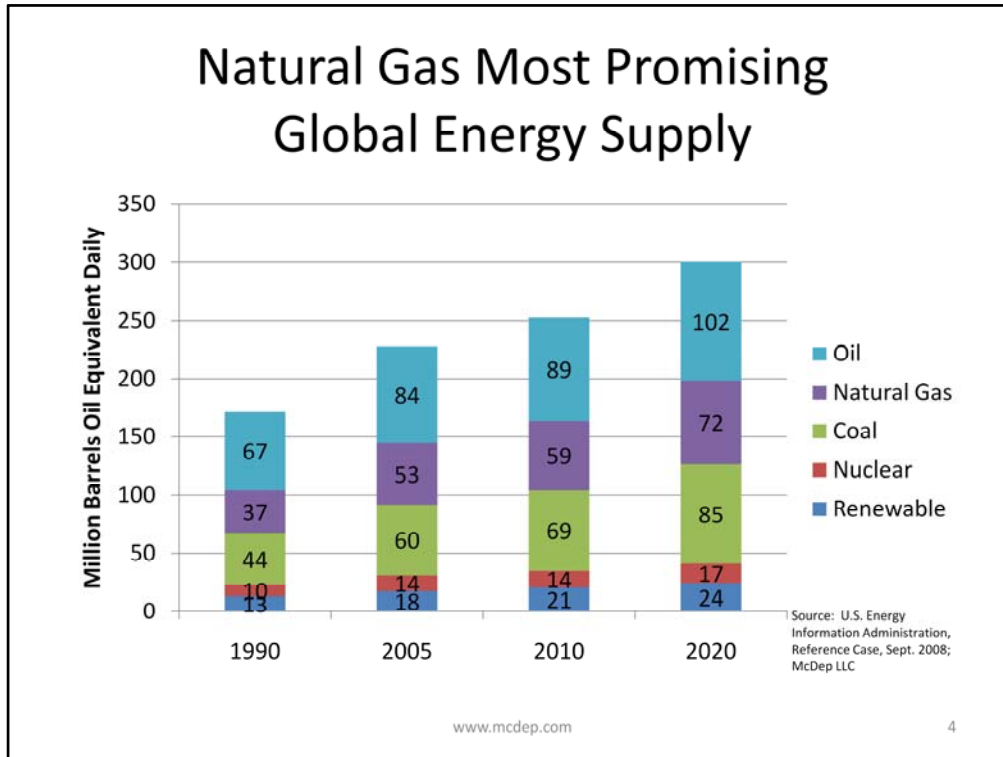


Current global energy demand is about 240 million barrels equivalent daily (mmbd). Primary energy is a \$9 trillion dollar a year industry at \$100 a barrel.

A continuation of past trends points to additional demand of 70 million barrels oil equivalent daily over the next 15 years. It won't be that much because of the upward price adjustment now in place. The economic tradeoff between energy price and capital investment is well defined for heavy users. In my early days as a chemical engineer with Chevron I specialized in heat transfer. Where energy price was low as in Venezuela, I specified cheaper equipment that used more energy. Where energy price was higher as in California, I specified more expensive equipment that used less energy.

The other main point in demand is that most of the growth, some 80%, would occur in Emerging Countries. That continues to be the case, I believe, despite the world financial crisis. As confidence in the outlook for emerging countries is down even more than for developed countries, judging by stock prices, I believe this is a good time to be interested in the growth prospects of China, Russia and Brazil, for example.

Meeting new energy demand will be a challenge for supply.



A continuation of recent trends suggests that coal would furnish the largest increment, 25 mmbd, of new supply. Environmentally, that can't happen. We will want more stringent control of microsmoke, sulfur dioxide, mercury, other pollutants and perhaps carbon dioxide. Those requirements and the anticipation of them are likely to slow the growth of coal.

We have been using so much oil, that it is our largest volume fuel at about 86 mmbd today. Meanwhile we have reached the limits for cheap oil. Expensive oil is available, but it takes too much time and political will to achieve projected levels.

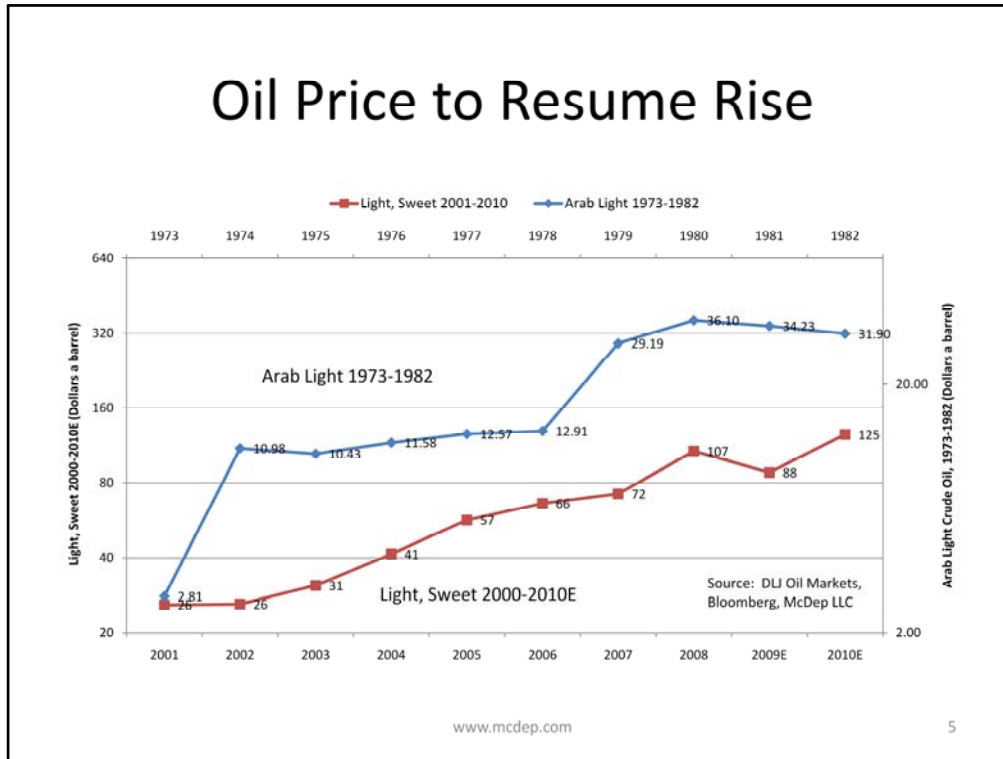
At only 14 mmbd currently, nuclear can't contribute large increments rapidly enough because of long lead time, extreme capital costs, thermal and radioactive waste.

Renewables may be promising as niche fuels. Capital costs are the highest. Most depend on natural gas for processing or backup.

I believe natural gas is most promising and most likely to meet projections. At about 57 mmbd globally, third after oil and coal, it is already a large supply source and well-known.

Regardless, any fuel that is economic and can meet reasonable environmental standards is welcome. There is no shortage of energy supply. All it takes is money and time, lots of both.

The bogey for determining the economics of any fuel, conventional and alternative, is the price of oil.



It will take a strong price to bring future oil demand and supply into balance, in my opinion.

Much of my perspective on oil price in the 2000s was formed by my experience during the 1970s. The tell tale economic events of the two periods were the stock market declines in 1974 and 2002, unmatched in each case during the last 80 years except for 1932. I have scaled the chart so that 1974 on the top horizontal axis matches 2002 on the bottom horizontal axis.

As the chart relays, the oil price trend in the 2000s has been steadier than in the 1970s. Moreover the rate of gain to 2008 has been a more sustainable four-fold rather than the less sustainable 13-fold to 1980.

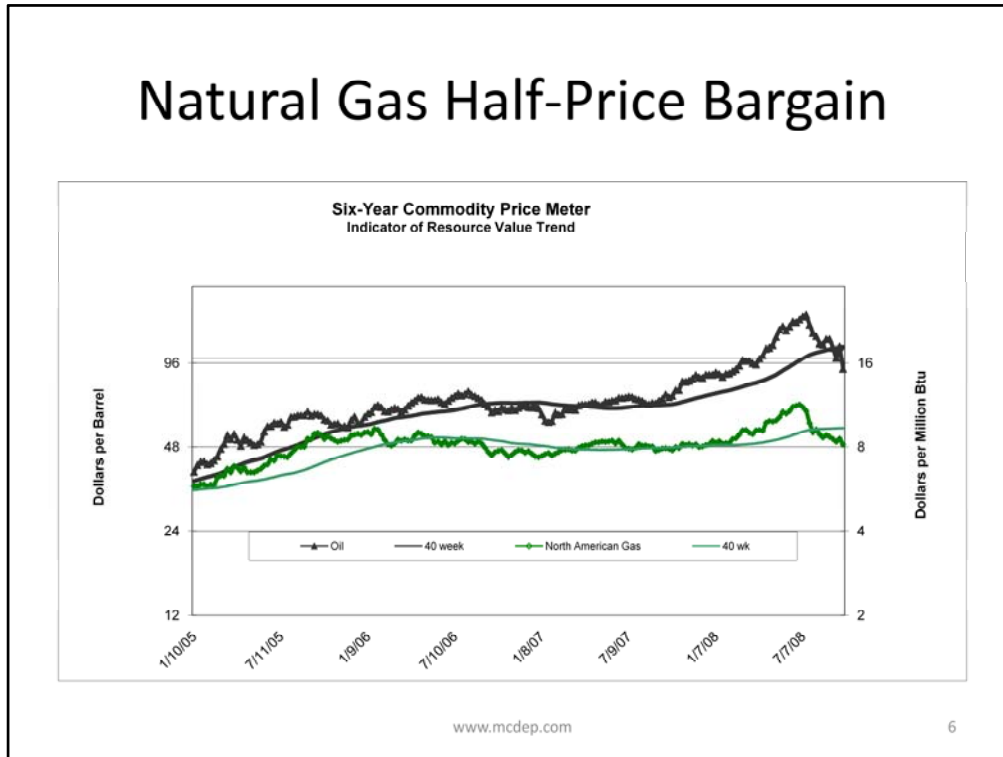
With that in mind, we plot Light, Sweet crude oil for immediate delivery at an average \$88 next year, 2009, down from \$107 in 2008. The expected decline parallels a dip in 1981 after a long rise in the 1970s. After 2009 we see a resumed uptrend to perhaps \$125 in 2010. After 2010, oil could continue rising as we remain well below a 1980-type peak.

Also adding strength to the outlook today we are more optimistic about global economic growth as it drives energy demand than we were 28 years ago. Also, oil supply is tighter at higher absolute volume and little spare capacity.

Government measures to address recent financial turmoil are aimed at sustaining economic growth. The cost may be depreciation in the purchasing power of the dollar and appreciation in the nominal price of energy and other goods and services. If the efforts are not fully successful, growth may be weaker.

Unlike the 1970s when we relied on press reports of spot and contract prices, today we have futures prices on a public exchange that are quoted continuously.

Natural Gas Half-Price Bargain

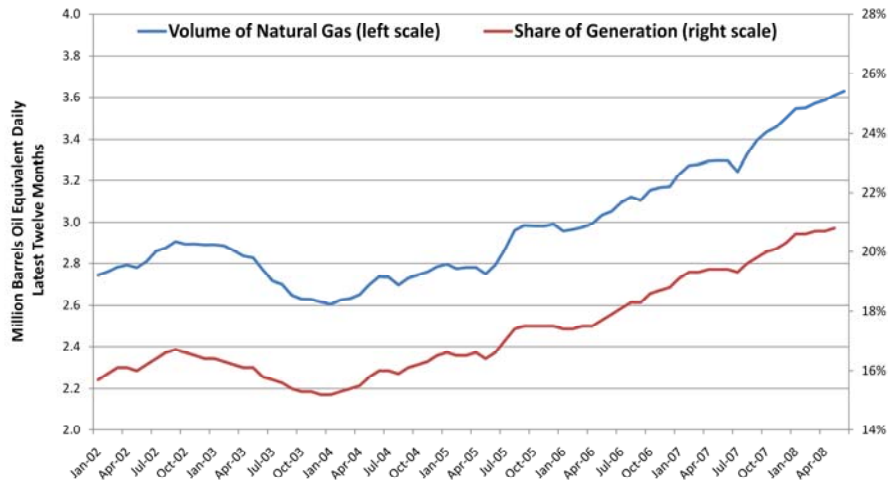


Not only do we have the near-month future that is widely reported in the media, we can look at expected prices for the next six years or longer. The record shows extended times when current quotes tracked on the same side of the 40-week average. We have just finished a year-long upcycle and now it looks like a flatter trend may be in store for a year for oil.

Except for brief periods, natural gas has been in a flat trend for three years. A wide gap has opened with oil priced 100% above natural gas in energy equivalent terms. We expect that gap to close though it may be 2012 before that occurs on a sustained basis.

Along with the gap in price, natural gas volume has been moving up in the U.S. electricity market.

U.S. Natural Gas Grows with Electricity



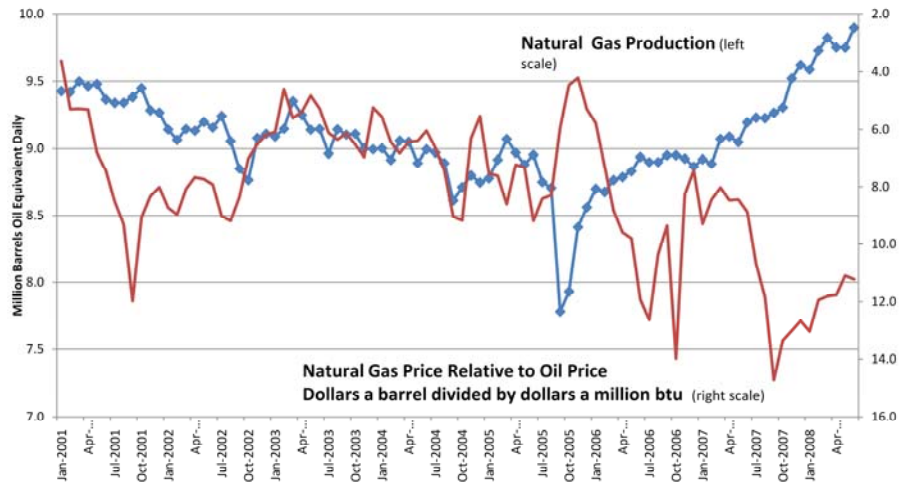
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7

From a low point five years ago, natural gas consumed in the generation of electricity has increased a million barrels daily. At the same time the share of natural gas in electrical generation increased to 21% from 16%. That share could go higher, much higher.

Strong electricity demand is met by new supply.

U.S. Natural Gas Supply Turnaround



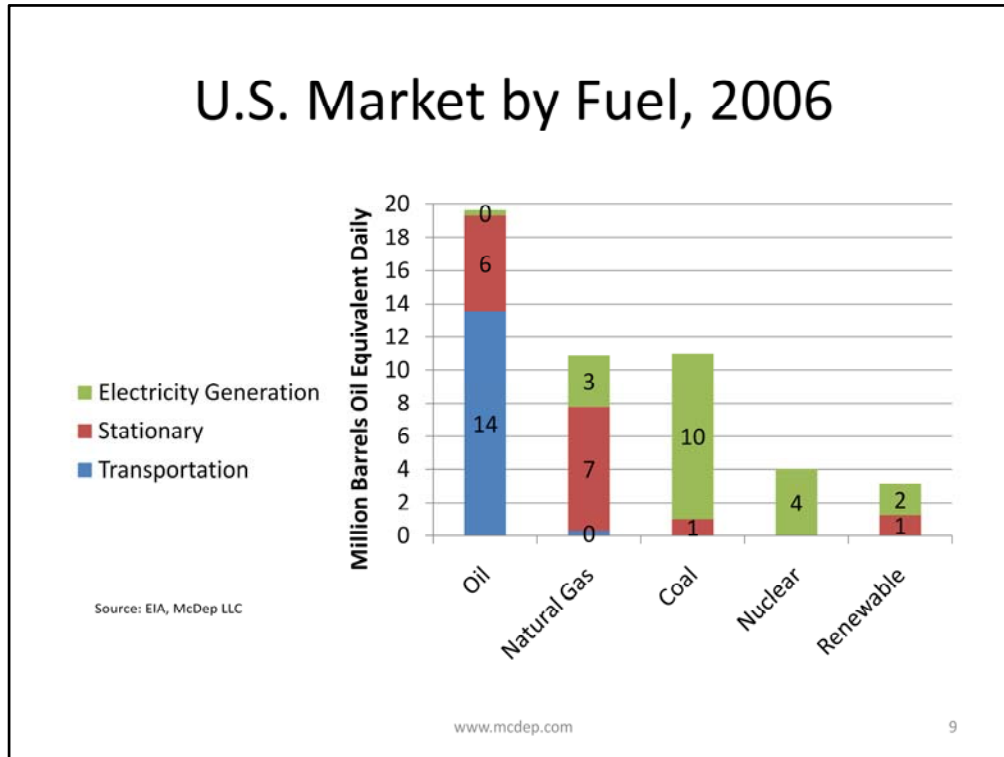
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8

U.S. natural gas volume has been in a distinct uptrend since the shut-ins of Hurricanes Katrina and Rita three years ago. Since the initial rebound after the storms, production is up a million barrels daily. Yet the gain is only half a million barrels daily since 2001. Take away the Independence Hub in the Gulf of Mexico and the Rockies Express pipeline that came on stream and a net gain is harder to see. Nonetheless, with the rapid development of the Haynesville Shale, total volume might increase a million barrels a day in five years, but that seems ambitious.

The supply turnaround has occurred despite natural gas price dropping to a surprisingly low level relative to oil. Low price can help natural gas increase its penetration into vast markets served by environmentally-challenged coal and supply-constrained oil.

U.S. Market by Fuel, 2006

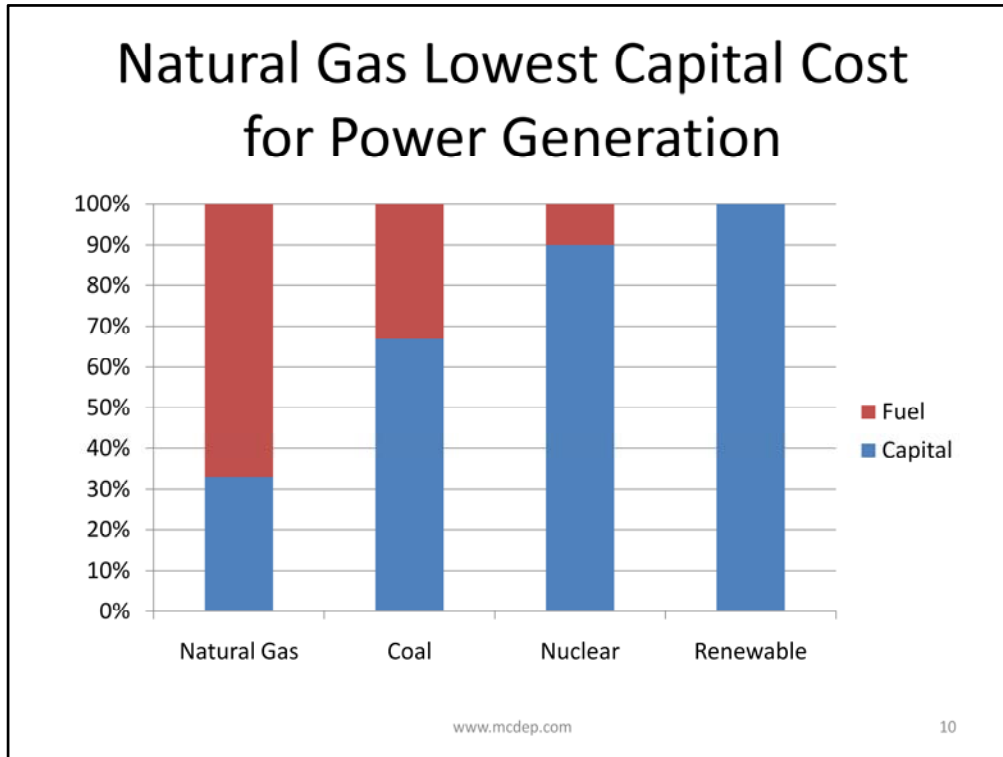


Sitting in the second column on the chart, natural gas can look covetously to the left to 14 mmbd of oil used in transportation and to the right to 10 mmbd of coal used in power generation.

The transportation market for cars, trucks, airlines, railroads and ships at 14 million barrels daily in the U.S. is some 40% larger than the total supply of natural gas. A ten percent share of the transportation market would expand the total natural gas market by 14%.

Today's low price for natural gas at half the equivalent price of oil provides a real incentive for the spread of natural gas-fueled vehicles. We like the idea of adding a second tank for natural gas to those millions of big sport utility vehicles. Buyers could then play the market that history shows would sometimes favor natural gas and sometimes favor oil. Until now the relatively few natural gas powered vehicles in the U.S. have been dedicated to a single fuel.

The amount of coal used in power generation is almost as much as all the natural gas consumed in the U.S. It would not take much displacement of coal to have a noticeable impact on natural gas.



Among the four major fuels for electrical generation, natural gas has the lowest capital cost. As a result, natural gas plants are ideal for more lightly used and spare capacity that must be in place to generate incremental electricity needed at peak times such as for air conditioning on a hot summer day.

The high capital cost plants that use coal, nuclear or renewable fuel tend to run most of the time because the expensive investments are sunk and incremental costs are less. Meanwhile, little new coal and nuclear capacity is planned. Renewables might help, but it takes a lot of windmills and solar panels to make a dent in supply. Besides, natural gas is usually the backup when the wind doesn't blow, often on the hottest days. It is also the backup when the sun doesn't shine and the lights go on. Thus, as electricity grows and capacity lags, existing generators on natural gas can simply run longer.

Capital costs are subject to rapid escalation during cycles of rapid expansion as we have been in. Construction schedules tend to stretch out. It is a major challenge to expand capital intensive energy sources.

The challenge in wind is to build larger turbine blades and higher towers because the useful energy increases with the square of blade length and wind speed increases with height above ground. Conventional materials are not up to that challenge and new super-strength materials are expensive. Neither wind nor solar are economic today in any but the smallest special applications without government subsidies.

Considering subsidies, what should government policy be toward energy?

Energy Policy Recommendation: Encourage Interfuel Competition

- Accelerate infrastructure development
 - Natural Gas Vehicles and Refueling
 - Transmission Grid for new sources of power
- Minimize direct subsidies
 - Ethanol per gallon
 - Wind per kilowatt-hour
- Tighten environmental restrictions

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11

As we saw with all the details added to the bailout legislation last week, there is a lot to keep track of. Thus, I will be simple and just highlight the lines in the slide.

Oil and Gas Growth Segments

- Natural gas
 - North America unconventional
 - Liquefied Natural Gas (LNG)
 - Eurasian pipeline
- Oil
 - Deep offshore
 - Oil sands

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12

A 70 mmbd increment in energy demand for the next 15 years will be met by a combination of conservation, or efficiency, along with changes in the supply of oil, natural gas, coal, nuclear and renewables.

Around 10 mmbd may come from five oil and gas growth segments listed in the chart. Large oil discoveries in the deep waters offshore Brazil are new as is more shale gas in North America.

Unconventional Natural Gas

- Coalbed methane – San Juan Basin
- Tight gas – Rockies
- Barnett Shale – Texas
- Haynesville Shale – Louisiana/Texas (July 2008)
- Volume picking up
- Price heavily discounted

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13

In the intensely-drilled U.S. it is no surprise that the easy-to-flow natural gas has been mostly produced. The surprise has been how bounteous unconventional gas has become. Not so bounteous to be negative for profits, but bounteous enough to be beneficial in the national energy supply picture.

Coal bed methane was a technological breakthrough around 1990.

Potential gas supplies have long been known to be large in the Rockies and have been coming to market in waves of drilling and pipeline building. We have just completed a pipeline expansion this year and we await more capacity before Rockies gas can undergo another wave of growth.

The Barnett Shale in Texas is comparatively new with most of the drilling in just the past few years. Expanding capacity rivals the San Juan Basin as the largest field in the U.S.

Appearing on the horizon in just the past several months we have the Haynesville Shale in Louisiana that may surpass the Barnett. Other shale areas including the Woodford in Oklahoma, the Fayetteville in Arkansas and the Marcellus in Appalachia help replace declining volume elsewhere.

LNG

- Doubling to about 300 million tons a year (6 mmbd) by 2015
- Links natural gas markets in Asia, Europe and America to oil
- Recent prices in dollars a million btu - \$20 Asia, \$12 Europe, \$8 U.S.
- ExxonMobil (XOM), Royal Dutch Shell (RDS), Total (TOT), BG Group (BRGXF)

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14

At an incremental 3 mmbd, LNG may be the largest medium term contributor to supply growth among the five areas we highlight.

Once on the water, LNG can go almost anywhere to capitalize on the most profitable opportunity. Markets are not fully linked yet, but we are going in the direction of a global market for natural gas priced at the oil equivalent.

As it has turned out, the expensive liquefaction plants built at remote natural gas sources are the bottleneck in supply growth. Construction delays are common and political agreement is slow to materialize to authorize new plants. Tankers are also expensive, but a glut may be developing as shipyards have been meeting schedules, unlike construction crews in the field. A complete glut of terminal capacity in the U.S. has developed with recently completed facilities idle while LNG goes to higher priced markets in Asia and Europe.

Eurasian Pipeline Natural Gas

- Russia 22% of global production, 27% reserves
- Gazprom (OGZPY) sold 9 mmbd in 2007 at \$18 a barrel
- Russia supplies 30% of 9 mmbd Western Europe natural gas
- Solution to China's Pollution
- Political risk
- Turkmenistan's Yoloten may be one of world's largest fields

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15

In pipeline transported natural gas, Russia is the global leader in production and reserves. State-controlled monopoly, Gazprom, has sales today that are three times the volumes in the global LNG business. Volume growth is possible, but the immediate need is to get the price of the resource up to the level that justifies new investment.

The price is low mainly in Russia where the transition to higher price is underway.

Europeans pay a market price.

The Chinese have so far been unwilling to pay a global price.

A buyer's battle is raging over Turkmenistan natural gas where the resources may be much larger than reliable estimates have indicated so far. China has tapped directly into Turkmenistan natural gas at a low price for now. Russia has agreed to pay a global price for Turkmenistan natural gas it has traditionally purchased for Ukraine and other destinations. With little success so far, the U.S. is backing a European pipeline that would bypass Russia.

Brazil Pre-Salt

- Tupi (2007) and Iara (2008) ten billion barrels, 1 mmbd by perhaps 2020
- Jupiter (?), Guara (?), Carioca (?) 3 mmbd 2030 (?)
- Water depth a mile, total well depth four miles
- Hundreds of billions of dollars capital required
- Petrobras (PBR), BG Group (BRGXF)

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16

Reminiscent of Alaska, the North Sea and Mexico in the 1970s, Brazil has new frontier oil discoveries that promise a history changing impact. Announced discoveries, Tupi and Iara, have triggered a hundred billion dollar program to develop a million barrels daily in the next decade. Announcement of a reserves estimate on Jupiter, a natural gas discovery expected to be comparable in hydrocarbon size as Tupi, is expected within weeks. Carioca, the big prize, may be 20 billion barrels or more.

Large as the reserves may be, the capital investment and technological challenge is formidable in mile deep water. The discoveries lie in the Santos Basin offshore Rio de Janeiro. Pre-Salt refers to the position of the oil producing formation beneath a thick layer of salt, a layer that both traps the hydrocarbons and is difficult to penetrate with seismic analysis.

Canadian Oil Sands

- A million barrels a day (mmbd) now to about 3 mmbd in 2020 (1% of world energy supply in 2020)
- Price for normal return on new investment about \$80 a barrel
- Capital costs for 1 mmbd about \$150 billion
- Suncor (SU), Canadian Oil Sands Trust (COSWF), Imperial Oil (IMO), Royal Dutch Shell (RDS), and Canadian Natural Resources (CNQ) among others

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17

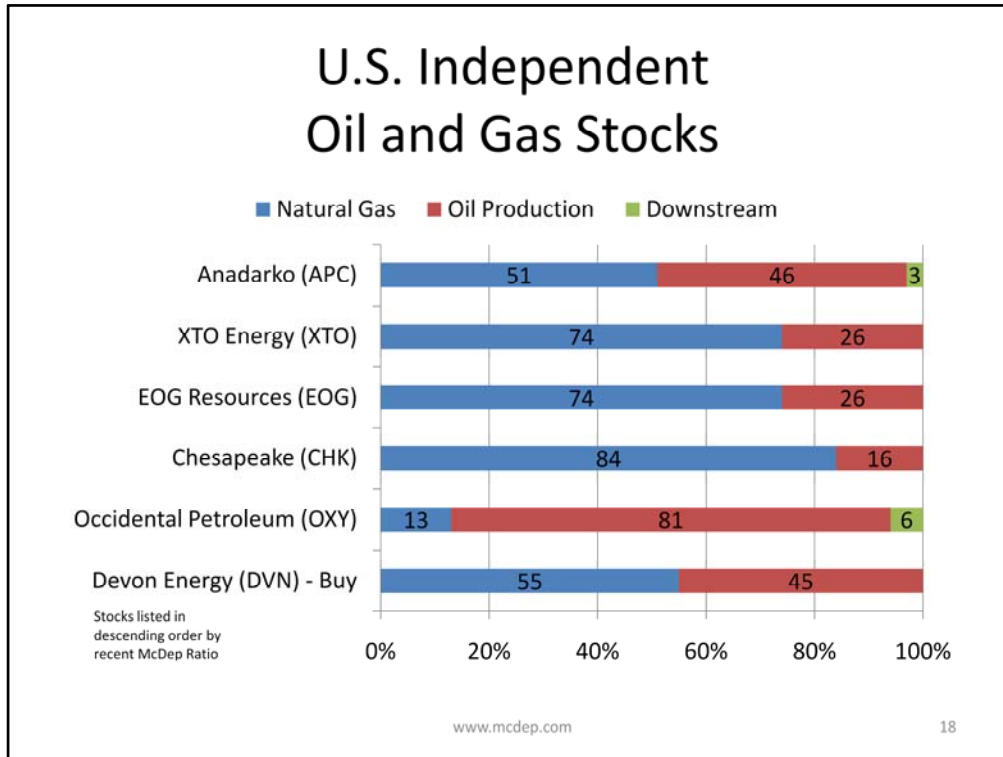
While the commercial potential of Brazil Pre-Salt has been confirmed only in the past year, the prospects for growth from Canadian Oil Sands have been attracting top attention for several years. If anything, the timing for achieving 3 mmbd has slipped from 2015 to 2020.

A cynic might say that costs expand to keep pace with prices. That has happened regardless of causality. We suggest that the economic breakeven oil price required to deliver a normal return on investment has risen to \$80 a barrel. Capital costs have jumped accordingly to perhaps \$150 billion for capacity of 1 mmbd.

Oil sands are attracting attention from environmentalists perhaps because of the sheer size of operations. Inevitably there is some pollution, but most is under control. Economies of scale can be an advantage in environmental protection as well as in resource production. We also take comfort that oil sands is inherently cleaner than coal though not as clean as conventional oil. As long as the world derives a fourth of its energy from coal, the environmental issues of oil sands are manageable in a practical context.

Canadian Oil Sands Trust is one of our seven current buy recommendations. We like owning the existing plant, which is running smoothly, while the rising cost of new plants help drive up oil price.

Having just discussed five major sources of new supply, we now turn our attention to stocks that offer participation in those trends.



Five of six large independents have more than 50% concentration on the fuel with the most growth potential. All have had favorable performance. In today's environment we might pay more attention to risk. Devon Energy may be the safest with low debt and management by the same conservative leader who has produced its long record of strong investment returns.

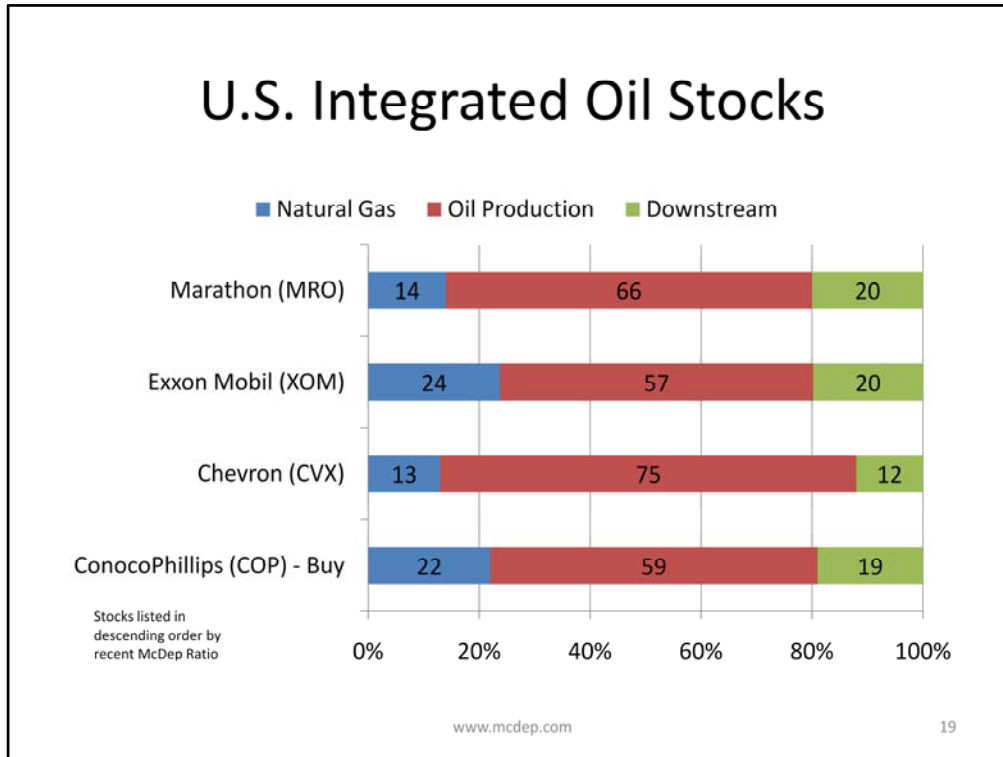
After Devon we like EOG and XTO for current investment. EOG has cash flow risk, but no balance sheet risk. XTO has moderate balance sheet risk as it has been expanding aggressively into the downturn.

Chesapeake has the highest risk. Its aggressive expansion has uncovered the Haynesville Shale natural gas discovery that it represents as possibly larger than all the other U.S. fields currently producing. That is good for the country though we need to discount that observation by 80% or more. Meanwhile the company is scrambling to shore up its finances as its rate of expansion became a burden when oil price turned down in July taking natural gas with it.

We like Anadarko more for its takeover potential as its chief executive has a record for selling the companies he leads, sometimes at too low a price.

Occidental has solid appeal distinguished by a concentration on oil. There is less need to own Occidental in view of all the oil exposure we get in the integrated companies in the U.S., Europe, Emerging Countries and Canada group.

I have two small cap buy recommendations not on the slide. Both are concentrated on natural gas. Cimarex Energy has low debt and reinvests its cash flow. Hugoton Royalty Trust has no debt and pays a distribution, currently about 9% a year.



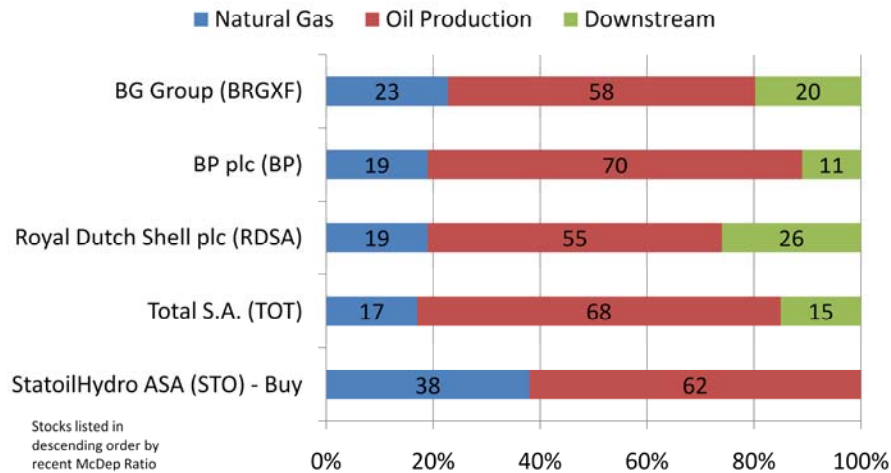
For investors seeking \$100 billion dollar companies in the U.S. Oil Industry, the list has three stocks – 1. ExxonMobil, 2. Chevron and 3. ConocoPhillips. We would put the most emphasis on ConocoPhillips mainly because it has a lower McDep Ratio, i.e. stock price plus debt is lower relative to our estimate of the present value of the company’s businesses. We also like the fundamental prospects and the valuation of ExxonMobil and Chevron. Marathon may have takeover appeal.

McDep Ratios for the four stocks range above and below 0.60. Considering that the denominator of the McDep Ratio is estimated using a long-term oil price of \$100 a barrel, a McDep Ratio of 0.6 implies that a stock is priced as though the long-term oil price is \$60, not \$100.

Objectively, we have to like ExxonMobil as an investment. Some of our subtitles on past quarterly analyses include “Income Model”, “World’s Safest Investment”, “Energy Money Market” and “World’s Most Profitable Company”. Professionally, ExxonMobil is our greatest competition. If we can’t come up with investments that may have more potential than ExxonMobil, who needs our oil investment analysis?

One feature ExxonMobil cannot provide is geographic and political diversification by country of domicile. There are times when non-U.S. stocks perform differently than U.S. stocks. Thus, we like European Oil and Gas Stocks.

European Oil and Gas Stocks



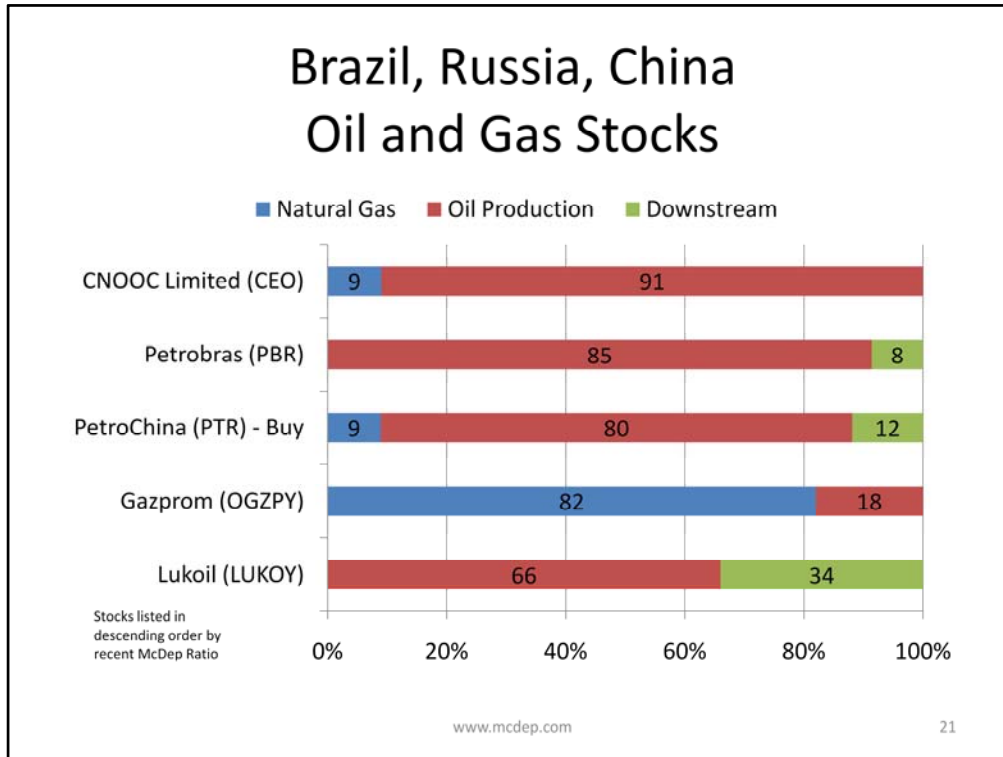
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20

Our representative buy recommendation in the European group is StatoilHydro, the Norwegian oil and gas champion. We most like StatoilHydro's concentration on natural gas, almost all offshore Norway. Europeans appreciate Norwegian natural gas as diversification of dependence on Russian natural gas.

BG Group is a special company because its downstream business is all Liquefied Natural Gas rather than oil refining and marketing. Formerly part of the U.K. natural gas monopoly, BG astutely pursued the global production, liquefaction, transportation and marketing of the fast-growing clean fuel. Uncannily the company also gained participation in some of the world's largest oil discoveries from Kazakhstan to Brazil where it has the largest share after Petrobras in announced Pre-Salt discoveries.

Like Petrobras, state oil companies in emerging markets provide unusual opportunities.



Considering it is the national oil company of Brazil and that it is a pioneer in deep water drilling, it is no surprise that Petrobras has the leading commercial position in its country's offshore petroleum discoveries. We like the prospects for the stock, but long-term investors need to be especially patient as Pre-Salt payoff is years away.

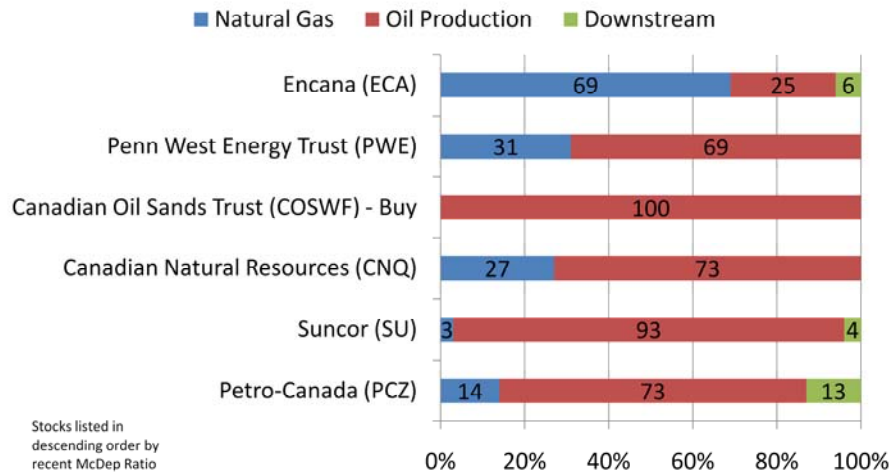
Our official buy recommendation in this group is PetroChina. Down more than 50% from its high, the stock offers participation in rapidly growing underpriced natural gas. Further profits from growing oil production have been delayed by a windfall profits tax that should be relaxed. Downstream operations should return to normal profitability with the recent decline in crude oil price and the lifting of price controls.

The Russian stocks offer the most resource potential relative to stock price along with political risk. Investors can manage that risk by limiting exposure to a single country just as the major oil companies have done successfully for many years. The main political risk may be the deteriorating relationship between Russia and the U.S. Irrespective of who wins the upcoming U.S. presidential election, Russian stocks and the global economy may benefit if the U.S. were to pursue a more diplomatic foreign policy.

Gazprom has unique appeal among global stocks for its concentration on natural gas. The Russian giant sells practically as much natural gas as Saudi Arabia sells oil. The difference is that investors can own a piece of Gazprom, but not the Saudi producer, Aramco.

Finally, international investment opportunities abound just across the border in Canada.

Canadian Oil and Gas Stocks



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22

Canada's natural gas prospects are favorable while the country's energy future and its investment distinction is oil sands, one of the five growth areas we highlighted. Our buy recommendation is the pure play Canadian Oil Sands Trust concentrated entirely on 37% ownership of Syncrude, the largest producer. Income investors appreciate its cash distribution estimated to be 13% for the next twelve months at recent oil futures prices. The trust has the resource base to support production at the current level indefinitely and to allow further growth.

Among other Canadian stocks, Encana is an outstanding performer with a growth record in natural gas and in situ oil sands. It will soon be two companies, one concentrated on natural gas and the other, oil sands including a joint venture with ConocoPhillips.

While most of the stocks I have highlighted are large companies, there are also attractive small operating companies and income stocks in my regular research coverage. You can see an archive of past research on my website mcdep.com.

Conclusion

- I believe in global growth and consequently energy growth
- Natural gas offers best supply potential
- Presidential candidates should promise competition
- Five growth areas for capital investment
 - Deep water oil, Canadian oil sands
 - Liquefied natural gas, Eurasian natural gas
 - North American unconventional natural gas
- Oil and gas stocks priced for less than \$60 oil
- Seven buys- patience may be necessary
 - COP, STO, PTR, DVN, HGT, XEC, COSWF