

Intelligent Money

Current thinking from Haven Financial Advisors

The Economics of Oil



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Special Notes of Interest:

- Texas residents may add the sales tax of new cars purchased to the standard sales tax deduction they are allowed on their Federal income taxes in 2005
- The last major oil field, Cantarell, off Mexico's shore, was discovered in 1976

The emergence of oil in the world economy has been a major theme over the past two years. A previous newsletter addressed the efficacy of direct investment in commodity indices. This article will consider the implications of new competition for energy resources on the American economy and its investors.

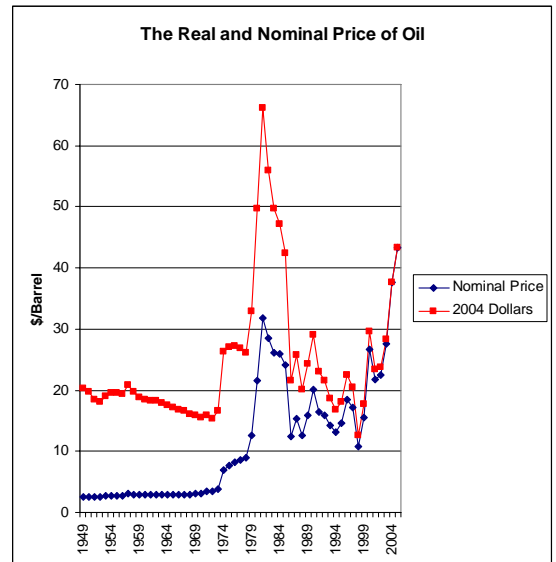
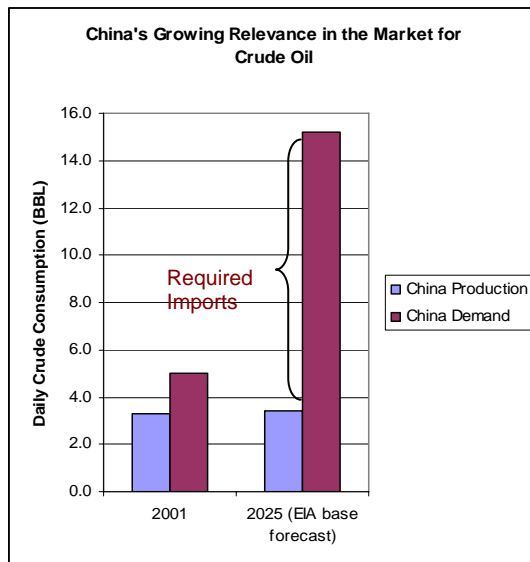
Oil is a fundamental input to the global economy. Today it supplies about 40% of global energy requirements and 96% of its transportation energy. The world uses about 80 million barrels per day with the US comprising about one quarter of that demand.

China and India have been rightly identified as major engines of future economic growth. These Asian powers are expected to grow their demand for oil from 4% to 6% annually over the next 2 decades as opposed to a growth rate of 1.1% in the industrialized countries. As recently as 1993, China was a net exporter of oil. All of its future demand will have to be satisfied by imports. See the chart below.

Newly industrialized countries are now competing directly with the US and Europe in securing long term sources of supply of both oil and natural gas. Much of the developing world is in the throes of economic takeoff and this has shifted the dynamics of the oil market. Here are some recent examples.

Three government-controlled Indian companies concluded a \$40 billion contract with Iran on Jan. 7 for the purchase of liquefied natural gas over 25 years and for stakes in oil fields there. In Iran, the Chinese state-owned oil group Sinopec acquired a 50 percent share in the Yadavaran oil field. Last year, it concluded a staggering US\$70 billion deal to buy Iranian crude oil and natural gas over three decades.

For many years, the OPEC oil cartel retained slack capacity that allowed them to manage output to smooth prices. Previous shocks to the global oil market have been driven by changes in *supply* – usually orchestrated by OPEC. That is no longer the case. The recent increase in oil prices is not driven by





Toyota Prius : Over 120,000 units sold in the US

Economics of Oil (Cont)

a particular event but rather substantial upward revisions to global *demand* for oil.

While there is abundant evidence of a sea change in demand, global production has apparently stagnated. Outside of the Middle East, the most profitable oil fields are past their peak yields

No one can predict short term prices of commodities. In fact, the real price of oil is substantially cheaper than it was in the early 1980s (See chart on previous page). There is still plenty of oil left in the ground. It will just be more expensive to extract it as the low-hanging fruit has already been pruned.

It does appear that the real cost of energy resources is not going down. The long gas

lines of the 70s are not in our immediate future but an increase in the cost of a major factor of production may constitute a drag on the US economy. Most analysts believe that an increase of \$10 in the price of a barrel of oil would cost us 0.3% in annual GDP growth.

Oil is the major constituent of all the major commodity indices. PIMCO's real asset strategy (PCRIX) is the cheapest fund product right now. More and better funds may soon follow. Aside from diversifying an investment portfolio, a direct investment in a commodity fund should put investors on the right side of a long term price trend.

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Consumer Choices in the Automotive Sector

Transportation is, of course, one of the primary uses of crude oil. In the US, 9 million of the 20 million barrels of oil that we consume every day is refined into gasoline. The increase in the cost of oil has naturally filtered through to the gas pump. This Monday, the federal government announced that the average price of a gallon of gasoline had risen to \$2.15 – nearly \$0.40 higher than one year ago.

Despite rising costs of transport fuels, the overall gas mileage of the American car fleet has steadily declined since 1988. Pound for pound, cars are more efficient than they were then. What has changed is consumer taste in the size of their vehicles. Currently, light trucks make up more than 50% of new vehicle sales - up from 28.1% in 1988. These heavier vehicles naturally obtain lower gas mileage.

Political action may help. Automakers are required to meet fuel-economy standards set by Congress for their entire fleet of models sold. Those benchmarks, known as *Corporate Average Fuel Economy* or CAFE, have been slow to increase. Today, the standard for a manufacturer's auto fleet is 27.5 mpg and is clearly lower than what current technology can deliver. This may be an area where government regulation may have a salutary effect on the market. If the government set uniform tougher standards, manufacturers would have a level playing field on which to shift to a more fuel-efficient product mix.

We, as consumers, need not wait for

government intervention. Fuel efficient cars are available today. Hybrid vehicles, which utilize an electric motor to complement the internal combustion engine, can obtain gas mileage that is 25% to 40% higher than traditional vehicles. Today, the cost of the electric motor adds between \$2,000 to \$4,000 to the base price of the car.

Is it worth it to consider a hybrid vehicle? At today's gas prices, it looks like a good alternative. The prospective savings on gasoline should generate a respectable return on investment.

Assuming that the useful life of a car is 150,000 miles, the average car owner with a fuel efficiency equal to today's CAFÉ standard of 27.5 mpg would spend \$11,727 on gasoline over the next ten years. The Toyota Prius, today's most popular hybrid vehicle, gets just about twice that gas mileage according to the EPA. The consumer would save \$5863 over the useful life of the vehicle. As the Prius is priced about \$3000 more than a comparably equipped Toyota Corolla, the return on investment in the electric motor is 14.4%.

Moreover, there is a tax incentive to purchase hybrid cars. 2005 buyers of qualifying vehicles such as the Toyota Prius and the Ford Escape Hybrid may take a \$2000 deduction on their federal income tax. When immediate tax savings of \$500 to \$700 are factored in, the return on investment is nearly 20% over ten years

"Currently, light trucks make up more than 50% of new vehicle sales - up from 28.1% in 1988."