



Oil price volatility and possible consequences

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Over the course of this past week I happened to be at lunch with a senior state official who is closely involved in the development of alternate sources of energy for the state. As we discussed some of the current fluctuations in the market, and their impact on upcoming decisions by the state on investment, the current drop in oil price brought back, to both of us, memories of the '80's. Back in those days industry and the Federal Government were investing heavily in alternate sources of energy. And then the taps were opened in KSA and the price of oil dropped, and all those programs stopped. The investments were written off.

So here we are, with the world beginning, yet again, major investments in alternate sources of energy, and the official was becoming nervous that we are about to see history repeat itself. The concern is sufficient that a significant state investment is being postponed a year to see how the events of the next few months play out. Are we again going to see companies lose large amounts of money chasing technologies that will no longer be needed? While I argued against such a decision, the nervousness and resulting caution is not restricted to one state official. I commented earlier in the week about the concerns I have heard from those in the oil industry, about the possible drop in prices. They've been here before, and barely survived the last drop and so are much more cautious this time.

It is a caution that is not restricted to the United States, [Spiegel](#) in Germany has an article about the strength of the coal industry in Germany. It is a story that carries with it very much a mixed message. German equipment manufacturers are seeing large orders, but they are from [China](#) where the demand for energy is barely being met by existing production. Thus, while the Chinese are investing in renewable resources such as wind, with one wind farm anticipated to house 167 turbines about 4 hours drive from Guangdong, up to 70% of their energy needs are still coming from coal.

China, the most important coal-producing nation, uses coal to cover about 70 percent of its energy needs. About 26,000 of the 28,000 registered mines are small firms, which use mining techniques last seen in Europe during the 19th century. It's a deadly trade: According to official estimates, more than 6,000 Chinese miners lose their lives in work accidents every year; the actual figure is probably about twice as high.

The move is toward the larger mechanized mines such as those that Germany can equip from their long experience in the business. And this is one of the European problems since many of the good seams have been mined many years ago, and current seams are deep, and not of as high a quality.

After all, this is no business for idiots," says Strakerjahn as he crawls along a mining face 1,100 meters (3,609 feet) below the ground. Along the mining face, coal chunks are being torn from the rockbed with a giant planing machine. (Ed. Note The machines are called plows, photo [here](#)).

The technology that the Chinese - but also the Russians, Iranians and Iraqis - are inspecting at Auguste Victoria/Blumenthal is the most up-to-date available. German mines are among the most modern in the world: Instead of hammers, the miners hold mini computers with barcode readers, using them to exchange information via the mine's own wireless LAN system.(but) the decline of German black-coal mining, however, isn't something he particularly enjoys talking about.

In 1860 there were 277 mines in the Ruhr region alone. Now only eight are left, of which at least two will be shut down in the coming years. Germany has become a dwarf among black-coal producing nations: It produces less than 25 million tons of black coal a year, out of a global total of 5,000 million tons.

And this brings us back to the perceived reality of the current situation. The coal industry in Germany is heavily subsidized, but a global rise in demand, and price could be used to argue for sustained funding and development. There were plans for growth

One -and-a-half years ago, CEO Werner Müller announced that a new German mine could be opened for the first time in decades, on the eastern fringe of the Ruhr. But the record-price of coal soon turned out to be a short-term phenomenon: The price of coking coal dropped again, and no investors have been found for the mining project yet.

There is thus some concern as to what will happen with the price and availability of oil. Historically this has been controlled to an extent by OPEC, and certainly the world's memory recalls the flooding of the market by KSA. So what are their current plans?

In Friday's discussion [Cry Wolf](#) asked about rig counts. And long-time readers of the site might remember that I find occasional interest in multiplying the number of rigs in KSA by the number of wells each can drill, and multiplying this by an estimated average production to determine potential production gains for the country. One of my sources for this has been the [Annual Statistical Bulletin](#). It was not so long ago but that the Kingdom was suggesting that it would be more open. But in the current bulletin they are not making the break between oil, gas dry and other wells that they made in 2003 (when the break was 214; 58; 11 and 46). The total number of wells drilled last year was 335, just 5 more than in 2003. If we assume that 220 of these were in oil, and one assumes that each produces an average of 4,000 bd (which one can argue may now be a little high), then the total oil increase (not counting NGL from the gas wells) would be 880,000 bd. Now you take a guess on what the depletion rate was and take that away, and you have the increase in overall production. Incidentally there were, on average, 44 rigs drilling in KSA in 2005. That means that each drilled, on average $335/44 = 7.6$ wells. A quick glance at [Baker Hughes rig count](#) shows 50 oil rigs and 24 gas rigs working, which is a significant increase in number. Were this to be the average for the year then $74 \times 7.6 = 562$ wells, $2/3$ of which would be 376 oil wells, and using the same 4,000 bd would provide a total oil increment of 1.5 mbd. But of course these numbers do make some assumptions.



