

Ferguson: Energy Matters

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When Do We Start Worrying?

Global warming gets a lot of attention these days, and rightfully so. But it's a long-term threat—I'll likely be dead before dramatic climate changes occur. In the next decade, diminishing oil supplies are much more likely to disrupt world order. The possibility that oil supplies soon may begin to decline is a hot topic. When you Google "peak oil," you get more than 9 million hits. Some oil experts say supplies will begin shrinking any day, while others say declining production is decades away. So when should the rest of us start to worry?

The difficulty with these expert opinions is that they rely on obscure, controversial, and even secret information. For example, who knows how much oil remains to be discovered? Or, how fast can oil be squeezed out of tar sands? And, how much oil is left in Saudi Arabia?

Should we be worrying while the wonks are squabbling over questions like these?

An unanticipated decline in the world's oil supply would be a disaster. If supplies decline, consumption must also decline. What makes consumption decline? High prices. Since there are currently no realistic alternatives to petroleum-based liquid fuels, shrinking oil supplies would drive prices sky high. Economies would collapse, rioters would take to the streets, and the war in Iraq would seem like child's play.

It would be foolish to ignore the possibility that oil supplies soon may cease growing and begin shrinking, but how seriously should we take the need to prepare? What indicators should we be watching? What easily-read signs are there to warn us of impending disaster?

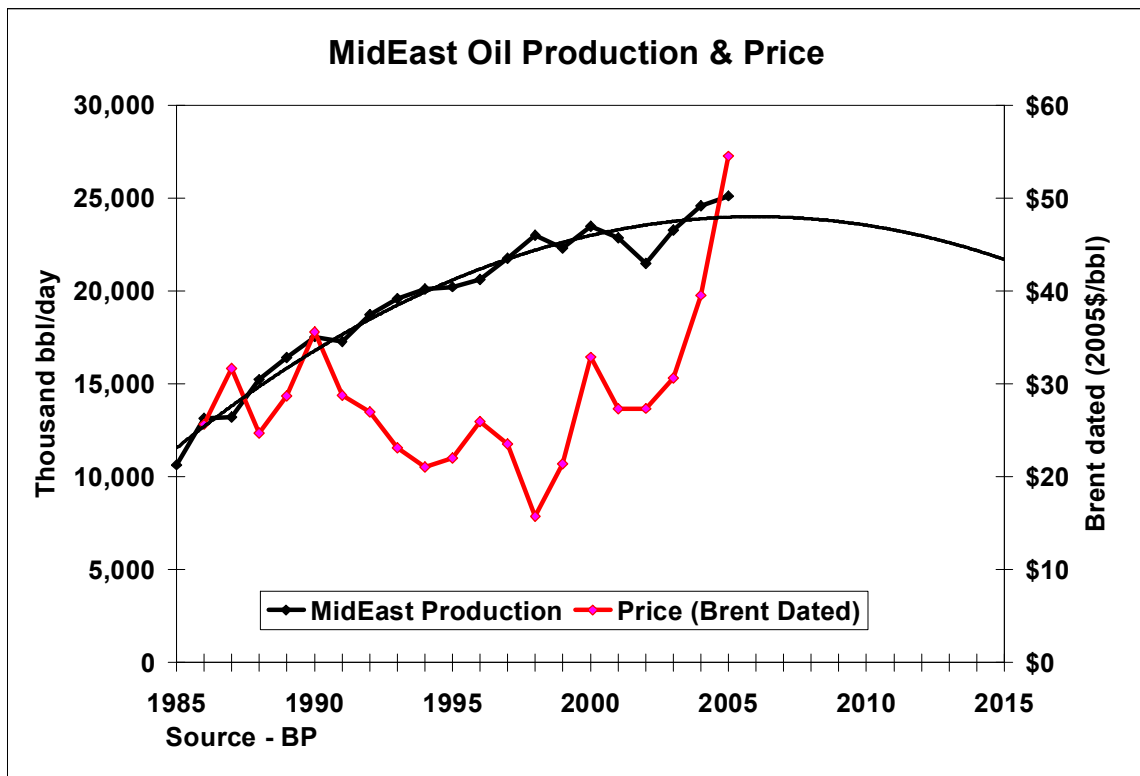
The world price of oil is the surest indicator. Prices are recorded minute by minute in various markets and there is no difficulty getting this information. Current crude oil prices, adjusted for inflation, are higher than at any time in recent history except for episodes when supplies were curtailed by politicians or weather. Nevertheless, government officials and some experts assure us that current prices are not a sign that oil supplies will begin declining any time soon. Is there some price at which they change their tune?

Most of the remaining world oil reserves are located in the Middle East. If oil production in this region begins to falter, perhaps then it's time to start worrying.

Reliable estimates of oil production in the Persian Gulf region are made by several organizations, and this data is high on my list as indicators of looming disaster.

The chart below shows Middle Eastern oil production and world oil prices, based on data from BP. In addition, my spreadsheet program has drawn a smooth curve through the production data and extrapolated it ten years into the future. As you can see, the projection shows oil production from this important region peaking in 2006, despite very attractive prices which should be boosting production. Preliminary 2006 data from the U.S. Energy Information Administration shows little, if any, production increase over 2005—in agreement with the projection.

The apparent slowdown in Middle Eastern oil production may just be temporary, of course. Perhaps the Saudis and others are waiting for the price to hit \$100 per barrel before opening the valves as they swear they can. On the other hand, perhaps their increasingly depleted oil fields are unable to sustain production increases, as some experts believe.



Perhaps Russia, Kazakhstan, and other countries in the former Soviet Union will pick up the pace and replace whatever production we lose from the Middle East. Experts say this is unlikely, but perhaps former Soviet Union production is a third indicator we should be watching.

I don't expect us to be able to foretell the future with certainty, but surely we should be paying more attention to potentially imminent disaster. I'm worried already.

—*Dr. Rich Ferguson, Research Director, CEERT, rich@ceert.org.*