

**Irrational Market Rules
And
Irrational Market Consequences:
Possible Trajectories Of The Market Price Of Petroleum**

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Summary The price of petroleum is not set freely in a competitive market. It is instead determined by the Organization of Petroleum Exporting Countries (OPEC), taking into account many political and economic factors. Saudi Arabia, in consultation with the United States, plays a central role in OPEC, increasing or decreasing production to maintain prices as demand or supply changes or as political circumstances dictate. The market price is set far above both the marginal cost of extracting oil from existing fields and the cost of new oil from remote, or deep-water fields.

Some of the consequences of these market rules are as follows:

- Market price gives no indication how rapidly oil reserves are being depleted.
- Market rules favor maximum rates of current production.
- More expensive non-OPEC reserves are being depleted much more rapidly than low cost OPEC reserves.
- Prices may actually decrease as production approaches a peak. This would happen if production rates of low cost producers were dictated by the US following the occupation of the Persian Gulf oil fields. This would encourage higher consumption and accelerate the date of peak production.

Given these market rules, a transparent model can be used to determine when maximum world oil production might occur. Using the new science-based United States Government petroleum reserve estimates (United States Geological Survey World Petroleum Assessment (2000)) (www.usgs.gov), the model predicts that non-OPEC production will peak due to resource constraints at the latest by 2010-2018, and world production by 2020-2028. Political and economic factors and resource constraints for non-OPEC producers will probably cause oil production to peak much sooner.