

The Challenge of Peak Oil

Richard Heinberg

[Back to Previous Page](#)

The supply of extractable oil is subject to geological limits. At some point those limits will overcome our ability to produce oil at the ever-expanding rates that growing economies demand. The global peak is likely to occur well before societies adapt painlessly to a different energy regime. And that likely time lag contradicts the way orthodox economists imagine that rising prices solve supply shocks by steering economies to develop and use substitutes.

Oil is different from most commodities, because, as President Bush so memorably declared, we are addicted to it, and because substitute energy sources cannot be developed and deployed overnight. And as long as oil remains available and profitable, the existing energy regime also resists the development and substitution of alternatives.

During the early 20th century, America was the world's foremost producer and exporter of oil. In 1970, the rate of US oil extraction reached its all-time maximum and has generally declined since, even with later discoveries in Alaska and the Gulf of Mexico. Today the United States imports almost two-thirds of the oil it uses.

According to ChevronTexaco, out of 48 significant oil-producing nations worldwide, 33 are already experiencing declining production. Few doubt that the rate of oil production for the world in total will peak at some point. That point is known as peak oil. If the peak were to occur within the next five years, national economies could not adjust quickly enough without major dislocations, while a peak 20 years hence would present easier adaptation, assuming we begin adapting now.

Further evidence for a near-term peak includes the fact that global rates of oil discovery have been falling since the early 1960s - a fact confirmed by no less than ExxonMobil. Currently, only about one barrel of oil is being discovered for every five extracted.

On their face, current world petroleum reserves numbers look reassuring. US government agencies estimate proven reserves at more than 1.1 trillion barrels. Some sources claim even more. However, oil optimists include costly and hard-to-extract sources such as Canadian tar sands. And some of the largest producing nations may have inflated their reserves figures for political reasons. An important study released in January concluded that Kuwait's official reserves figures are double the amount that can actually be produced.

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