

The Challenge of Stable Energy Expansion in a Supply Constrained World and the Threat of Volatility to Nascent Energy Industries

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(1) Overview

Conventional oil is the low cost energy provider for a significant percentage of the world's energy needs and in recent years, the world's spare oil production margin decreased while prices have increased to near record heights. Nascent energy industries such as unconventional oil from tar sands, deep water oil, biodiesel, and ethanol have become economically viable at these higher costs but the high energy prices coupled with the low production margins could potentially push the world into a supply constrained scenario for oil which could push the world's economies into recession or depression. Such economic slowdowns could loosen demand for energy supplies and cause oil prices to decrease materially. If such a decrease causes oil prices to drop below the economic viability level needed by nascent energy industries, widespread disruption of such industries could occur. Volatility of oil prices in a volatile environment therefore could pose a significant and unique threat to nascent energy industries.

(2) Methods

The paper will look at various items to model potential impacts to the nascent industries:

- A) Early 1900s volatility in the oil industry
- B) 1980s oil prices and their effect on alternatives industries such as oil-shale industries
- C) Extrapolation to economic conditions with scenarios for stable growth, volatility, and impacts to nascent energy industries

(3) Results

The results will show that the challenge in establishing nonconventional energy sources rests in part on how the world manages the low cost provider (conventional oil) during the multi-decade transition to a more diverse basket of energy sources.

(4) Conclusions

Stable Expansion is a material necessity to nascent energy industries. More specifically:

- a) Prices must be high enough to make nascent industries viable
- b) Prices must be high enough that enough spare production remains in reserve
- c) Prices must not be so high that world economies are pushed to recession or depression.

Volatility is the biggest threat to nascent energy industries and stable / adequate expansion in energy supplies is vital to the world's economies.

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