

Weekly Briefing

Ellen Hughes-Cromwick
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Forecasting the Unforecastable

- Short-term and even long-term forecasts of oil demand and prices are an art, not a science.
- There is a range of potential outcomes supported by demand, supply, technology, and policy drivers.
- Even so, many analysts must recommend oil forecast assumptions for business planning.

Oil demand and price forecasts can drift far away from actual outcomes. Oil and gasoline futures prices can also be wildly inaccurate. Even with its high degree of imprecision and complex market behavior, many businesses must develop “assumptions” about oil demand growth and prices are likely to trend in the months and years ahead.

The National Association for Business Economics (NABE) held its 59th annual meeting this week and included a session on the topic of “Peak Oil Demand: Timing and Implications.”

The panel of experts provided some very interesting insights about the prospect for the peaking in global oil demand. Not surprisingly, most of these experts focused on the likely trend in Asia’s energy demand growth. But unlike past sessions on this topic, the role of new technologies — electrified vehicles (EVs) and autonomous vehicles (AVs) — as well as the significant reductions in the unit costs of wind and solar, figured prominently in their assessments.

Here are some of the key points from the presentations made during this panel session:

- As a thought starter, the International Energy Agency’s (IEA) forecast indicates that peak oil demand is sometime after 2040.
- McKinsey & Company assess that IEA’s outlook is too benign, that oil will peak by 2027 (baseline scenario). This forecast is underpinned by relatively rapid growth in EVs to 35% of all vehicles sold globally by that time. The other two panelists from Rice and Columbia Universities were more inclined to think that EV and AV penetration rates will take more time and, as a result, the peak in oil demand is not likely to occur in the next decade.

Oil Prices?

- I conducted an informal poll of NABE meeting attendees. Most expect oil prices to hover in the current range or slightly higher in 2018. Why? Global economic growth is picking up, especially in Asia. As a result, energy consumption growth is likely to keep pricing in its current range.
- The most recent EIA forecast calls for oil prices to remain close to \$50 per barrel, well in line with oil futures (see red and green lines in chart). Rightly so, the range of potential outcomes is quite wide, from \$25 to over \$80 per barrel by yearend 2018.

Peak Oil Demand

The point at which global oil consumption hits a high point and begins to decline

59th NABE Annual Meeting “Peak Oil Demand: Timing and Implications”

Antoine Halff, Senior Research Scholar, Center on Global Energy Policy, Columbia University

Ken Medlock, Senior Director, Center for Energy Studies, Rice University’s Baker Institute for Public Policy

Scott Nyquist, Senior Partner, McKinsey & Company

Moderator: Marianne Kah, Chief Economist, ConocoPhillips

Peak Oil Demand: Key Factors

1. GDP and population growth, especially in Asia
2. How many people are in the take-off stage of their income growth (i.e., joining the middle class) when they increase their consumption rates of goods and services?
3. Unit pricing of solar and wind: How will these renewable fuels compete and take share from oil?
4. Pricing factors: shale production rates, behavior of national oil companies, OPEC (but less relevant now).
5. Electrified vehicle penetration rates.
6. Policies: China’s next five-year plan’s emphasis on implementing new energy vehicles; subsidies toward purchase of electrified vehicles; renewable usage mandates among many other policy considerations.

West Texas intermediate (WTI) crude oil price



Source: Short-Term Energy Outlook, September 2017
Note: Confidence interval derived from options market information for the 5 trading days ending Sep. 7 2017. Intervals not calculated for months with sparse trading in near-the-money options contracts.