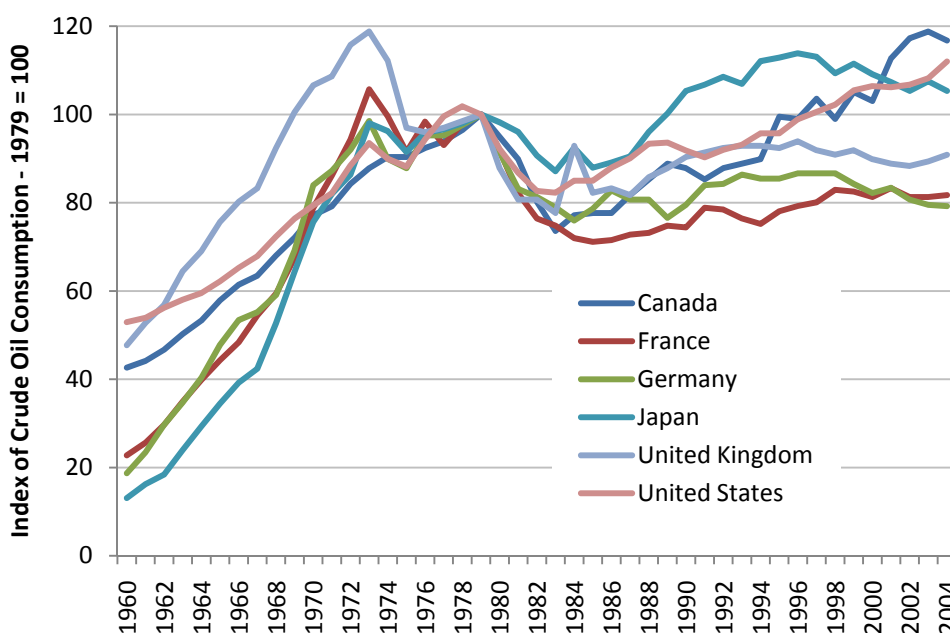


Debunking Peak Demand

Steven R. Kopits

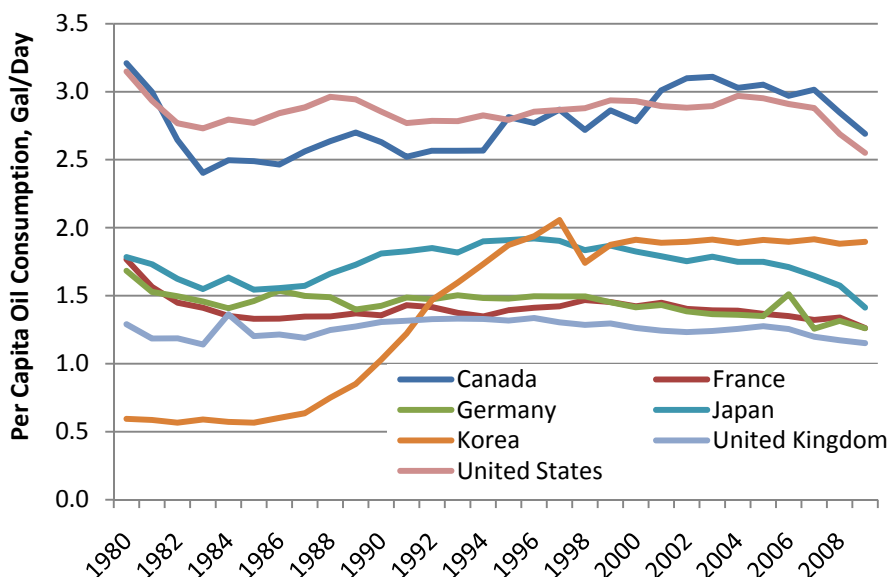
The notion of ‘peak demand’ is often invoked to suggest that the US or global economy is somehow less in need of affordable oil today or that Americans are simply finding owning a car passé. But is this really the case? Are we weaning ourselves from dependence on oil? The statistics paint a more nuanced story. It is fair to say that consumption in most of the OECD countries has peaked. In fact, consumption peaked in Germany, France, Italy, Japan and the United Kingdom in 1979—more than 30 years ago. Per capita consumption also peaked in the United States and Canada in 1979, although total consumption has increased as a function of population growth. So, by some measures, peak demand in the advanced economies is nothing new—it occurred more than a generation ago.



Index of Crude Oil Consumption in Selected OECD Countries: 1979 = 100

Source: EIA

However, per capita consumption in the more dynamic economies of the OECD—the United States, Canada and the UK, for example—had remained steady for a generation before 2005, and so total overall consumption in these countries was largely unchanged or growing modestly. Oil was like a utility: demand did not grow much year to year, but volumes were largely dependable. This refutes the notion of peak demand in any meaningful sense for the English speaking countries of the OECD, that is, if peak demand is defined to mean ‘decreasing consumption of oil at constant or lower oil prices’, then this cannot be said to be true of the United States or Canada, at a minimum.



Per Capita Crude Oil Consumption, Selected OECD Countries: 1980 - 2009

Source: EIA, IMF

Notwithstanding, both per capita and aggregate oil demand is lower today in all the OECD countries than it was in 2007. This is not primarily the result of demographics or changed tastes. It was directly caused by recession, which we know because demand fell to current levels in less than a year, a period too short for either changing tastes or demographics to have a material impact. At the same time, the collapse of OECD demand was entirely consistent with the oil shocks of 1973 and 1979, during which rapid increases in oil prices drove the US and global economy into recession, leading to rapid and, after 1979, sustained drops in oil consumption.

Whether future oil consumption will be constrained by demand or bounded by supply matters. If it is constrained by demand, as some proponents of peak demand seem to suggest, then oil is presumably plentiful and there is no need to increase production, for example, through offshore drilling on the east or west coast of the US. Nor is there a need to seek substitute fuels like compressed natural gas for use in transportation. We simply don't want or need as much oil as we did in the past. This does appear to be the case in certain countries, most notably Germany and Japan. Both of these have been characterized by slowing growing economies, aging populations, and even population declines. Thus, a country with a graying population is likely to consume less oil, even at constant fuel prices. But importantly, this is a matter of demographics, not necessarily tastes.

On the other hand, if consumption is constrained by supply, then there is no peak demand in any meaningful sense. Rather, Americans, Japanese and Europeans are simply unable to afford oil and are being priced out of the market as voracious emerging economies bid away the available oil supply. In such a case, if the advanced economies are effectively being starved of energy, then re-starting their economies may prove both more difficult and their recovery more fragile than expected.

Which seems more likely, a lack of desire for oil or a lack of inexpensive supply? In our oil and gas consulting practice, we are already seeing signs of the re-emerging pressures in the oil business. Oil field services capacity—particularly in high-end applications like deepwater offshore and unconventional sources like oil sands—looks to be tightening quite quickly. One manager at a major engineering firm is already noting a looming shortage of engineers. "So, it will be like 2007?" I asked my friend at the firm. "No, he replied. It could be worse. The industry has downsized and deferred capital expenditures over the last two years, so it's not positioned to respond quickly."

In short, we need to distinguish between observed oil consumption and inherent demand. If they are the same, then increases in observed demand (consumption) should not be accompanied by notable increases in oil prices, consistent with events since approximately June of last year. Oil consumption has increased, but prices have not shot up, as OPEC has been able to increase production as demand has warranted. On

the other hand, if the oil supply is unable to keep up with demand, then inherent demand will be greater than observed demand, and slow growing consumption will be accompanied by heady increases in oil prices—exactly the situation which pertained from late 2004 to H1 2008. During this period, oil consumption increased by 2%, but inherent demand—calculated as a function of GDP, adjusted for efficiency gains—increased by 17%, and oil prices soared.

Where are we today? Given that oil prices seem to be settling in above \$80—with nary a story in the media about speculation—the odds would seem to favor peaking supply, rather than peaking demand.

Mr. Kopits heads the New York office of Douglas-Westwood, energy business consultants. The firm assists oil and gas service companies with market research, strategy development and commercial due diligence.