



Tech Talk - Miles Driven, Gas Used, and OPEC Projections

Posted by [Heading Out](#) on January 23, 2013 - 10:59am

[Leanan has noted](#) the API report of the [continuing drop in US oil demand](#). It would be wrong, I believe, to explain this purely by reference to the increased efficiency of vehicles now on the road, nor would it be realistic to expect that these changing conditions will result in a lowering of gas prices.

To explain the rationale behind these thoughts requires reference to two sets of data. The most potent is the behavior of the Kingdom of Saudi Arabia (KSA), but before discussing their actions the story begins with the changes in the miles travelled reports that are issued by the Federal Highway Administration each month. Driven [by a comment](#) on recent versions of that plot, it is worth revisiting the summary of the rolling total of miles travelled in the United States, with the October 2012 plot being the last available.

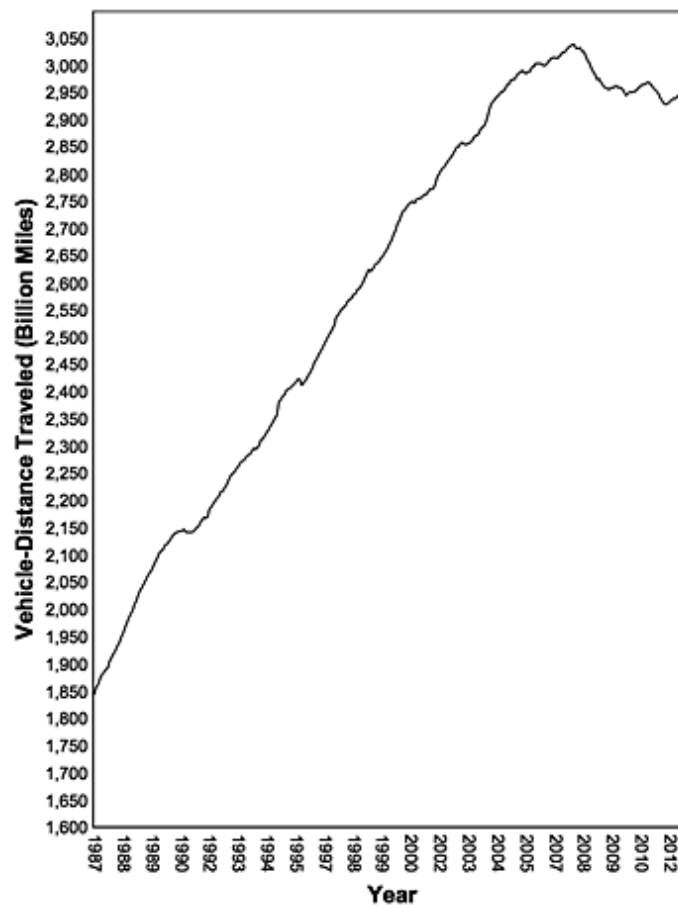


Figure 1. 12 month rolling total of miles driven on all roads in the United States ([FHWA](#))

It should be noted that this is not the amount of fuel used, but rather the distance travelled, and thus in itself this does not reflect any changes in vehicle performance because of the increased

And while there does not appear to be any great difference between the numbers for 2011 and 2012 when broken down by month for rural and urban travel, they both lie below the values for 2010.

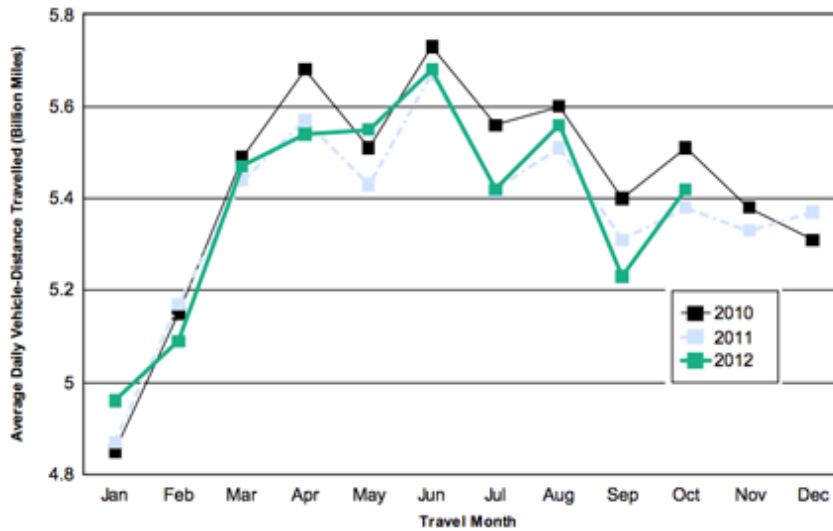


Figure 2. Travel on US Urban Highways by Month (FHWA)

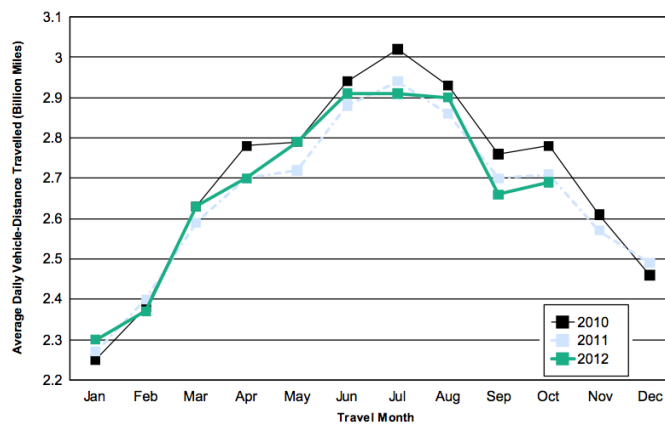


Figure 3. Travel on US Rural Highways by month (FHWA)

This shows that folk are actually driving less than they have previously, which may be reflective of the current economic condition when combined with the high price for gasoline in relative historic terms. One can compare these curves with the demand for gasoline from This Week in Petroleum, though this has data through the end of the year and a slightly different lower scale range.

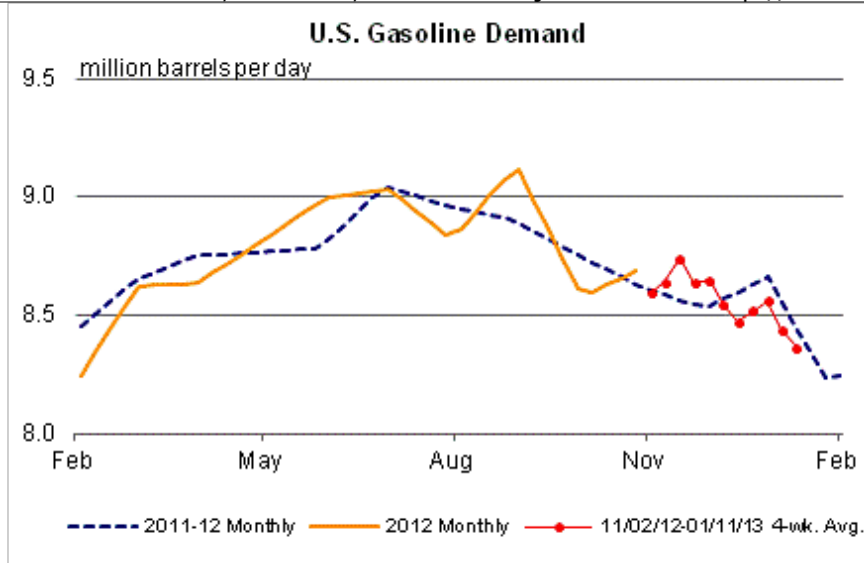


Figure 4. Demand for gasoline in the United States ([EIA TWIP](#))

Demand for gasoline, as with miles travelled, seems relatively equivalent for data for 2011 and 2012. The demand for ethanol, on the other hand, seems to be significantly less, assuming production matches that demand.

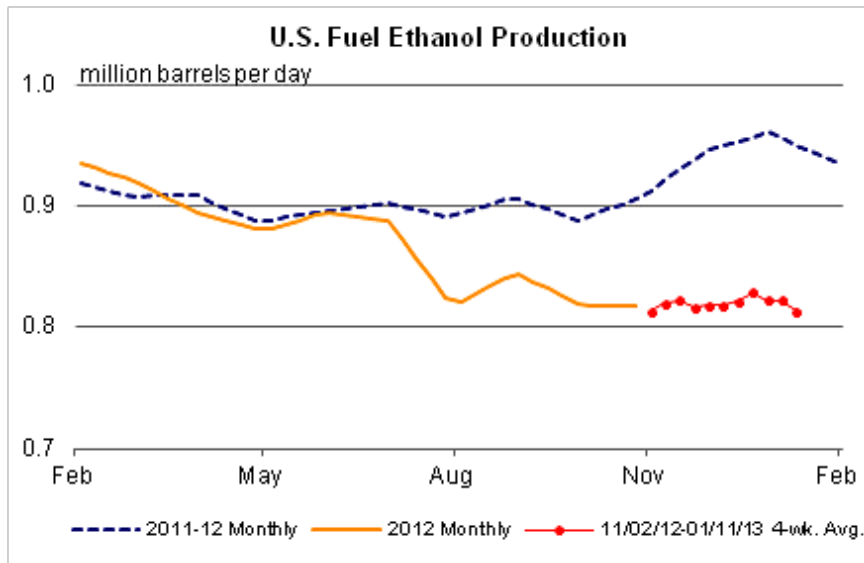


Figure 5. Production of fuel ethanol in the United States ([EIA TWIP](#))

OPEC take a keen interest in those activities that impact the demand for oil in the United States, and in their latest [Monthly Oil Market Report](#) (MOMR) have plotted the variation in oil price with miles driven:

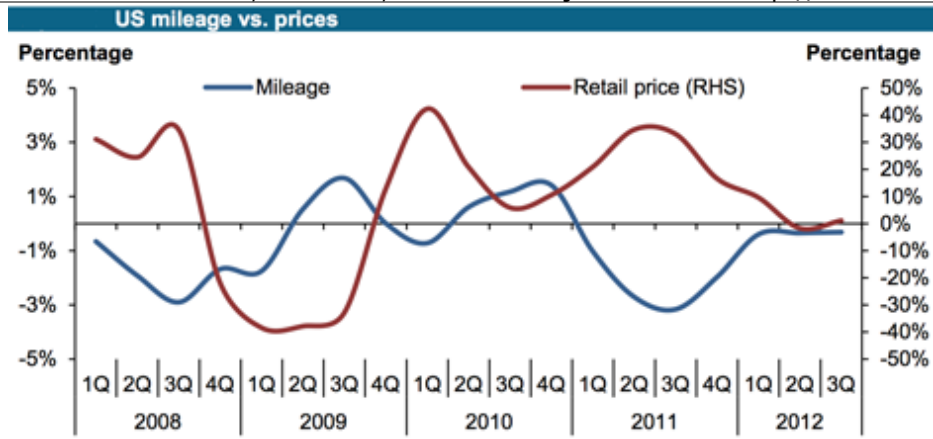


Figure 6. US mileage plotted against the retail price of gasoline (OPEC [January MOMR](#))

Driven by increased demands for vehicular fuel, OPEC anticipates continued growth in domestic demand for oil, both in the Middle East and in Latin America.

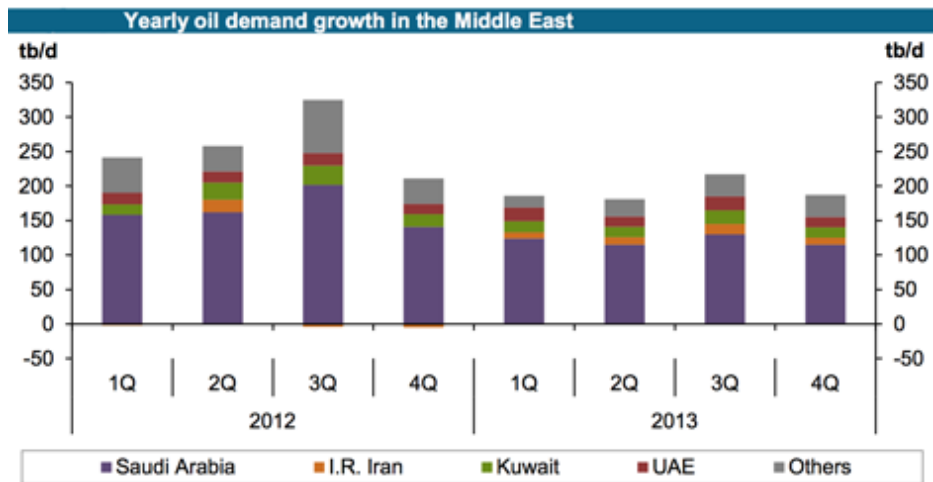


Figure 7. Increase in domestic oil demand in the Middle East over 2012 and 2013. (OPEC [January MOMR](#))



Figure 8. Anticipated growth in domestic demand in Latin America (OPEC [MOMR](#))

Both of these tables feed into and support the position that [Westexas has discussed](#) in regard to

the drop in available exports of oil in the coming years.

OPEC is not expecting to increase production in the coming year, but rather expects that increase in demand will be met by production growth from the non-OPEC nations with numbers similar to those discussed earlier. And as noted, most of that production growth is expected to come from America.

The report confirms that OPEC and particularly Saudi Arabia is willing to cut production when demand falls, so that price levels are sustained. As in previous months, the numbers showing production differ when the reports come from the countries themselves in contrast with reports from secondary sources.

OPEC crude oil production based on <i>direct communication</i> , tb/d									
	2011	2012	2Q12	3Q12	4Q12	Oct 12	Nov 12	Dec 12	Dec/Nov
Algeria	1,173	1,203	1,213	1,201	1,184	1,207	1,175	1,170	-5.0
Angola	1,618	1,704	1,716	1,677	1,690	1,674	1,640	1,753	113.0
Ecuador	500	504	500	509	503	503	504	503	-0.8
Iran, I.R.	3,576	3,740	3,758	3,746	3,713	3,721	3,708	3,710	2.0
Iraq	2,653	2,942	2,936	3,150	3,052	3,035	3,190	2,935	-255.0
Kuwait	2,660	2,977	2,990	2,957	2,967	2,930	2,985	2,988	3.2
Libya	462	1,449	1,503	1,504	1,493	1,562	1,544	1,375	-168.6
Nigeria	1,896	1,928	1,971	2,032	1,831	1,786	1,915	1,794	-120.4
Qatar	734	734	737	726	727	725	730	726	-3.8
Saudi Arabia	9,311	9,763	10,002	9,760	9,413	9,724	9,492	9,025	-466.7
UAE	2,565	2,652	2,615	2,727	2,664	2,647	2,674	2,673	-0.6
Venezuela	2,795	2,804	2,818	2,820	2,785	2,779	2,807	2,769	-38.2
Total OPEC	29,942	32,401	32,758	32,808	32,022	32,292	32,363	31,422	-941
OPEC excl. Iraq	27,290	29,459	29,823	29,658	28,970	29,257	29,173	28,487	-686

Totals may not add up due to independent rounding.

Figure 9. OPEC crude production as reported directly. ([OPEC MOMR](#))

There are significant drops in production reported for Iraq, Libya, Nigeria, and Saudi Arabia so that the reported drop in production comes close to 1 mbd. There is not quite the same amount of sacrifice evident in the numbers from secondary sources.

OPEC crude oil production based on <i>secondary sources</i> , tb/d									
	2011	2012	2Q12	3Q12	4Q12	Oct 12	Nov 12	Dec 12	Dec/Nov
Algeria	1,240	1,211	1,214	1,209	1,190	1,183	1,188	1,200	12.5
Angola	1,667	1,734	1,738	1,709	1,726	1,718	1,720	1,740	20.2
Ecuador	490	496	493	500	499	498	499	500	1.6
Iran, I.R.	3,628	2,970	3,086	2,742	2,666	2,665	2,677	2,656	-20.4
Iraq	2,665	2,980	2,956	3,135	3,120	3,145	3,208	3,011	-196.3
Kuwait	2,538	2,798	2,793	2,810	2,820	2,825	2,818	2,815	-3.3
Libya	462	1,399	1,424	1,466	1,491	1,507	1,481	1,485	4.3
Nigeria	2,111	2,070	2,143	2,110	1,955	1,961	1,882	2,019	136.6
Qatar	794	755	748	745	741	741	738	744	5.4
Saudi Arabia	9,293	9,772	9,919	9,818	9,526	9,738	9,632	9,211	-420.8
UAE	2,516	2,624	2,607	2,653	2,650	2,646	2,651	2,654	3.1
Venezuela	2,380	2,357	2,367	2,348	2,332	2,330	2,337	2,330	-7.5
Total OPEC	29,785	31,166	31,488	31,243	30,715	30,955	30,829	30,365	-464.6
OPEC excl. Iraq	27,119	28,187	28,532	28,108	27,595	27,810	27,622	27,354	-268.3

Totals may not add up due to independent rounding.

Figure 10. OPEC crude production as reported from secondary sources ([OPEC MOMR](#))

Overall production is down only around 500 kbd, with almost all of that being a reduction from Saudi Arabia. The difference between the production numbers from Nigeria (they report cutting production 120 kbd while others report they have increased production 136 kbd) are perhaps indicative of some of the problems that exist within the OPEC organization when they try and balance the supply:demand equation.

However, given that KSA is willing to do the heavy lifting, it seems likely that prices will continue at their current levels despite any changes in American production levels.



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