The Oil Drum: Europe
DISCUSSIONS ABOUT ENERGY AND OUR FUTURE

Oilwatch Monthly - June 2007

Posted by Rembrandt on June 12, 2007 - 11:33am in The Oil Drum: Europe
Topic: Supply/Production
Tags: exports, non-opec, oilwatch, opec [list all tags]

This edition focuses on exports of all fuel liquids including conventional + unconventional crude oil, natural gas liquids, lease condensates, gas-to-liquids, coal-to-liquids and biofuels. The June newsletter can be downloaded at this weblink (PDF size 1 megabyte).

Three main conclusions have been found based on available data from January 2002 to February 2007:

1) Total world exports of all fuel liquids have been on a plateau since the end of 2004, and declined slightly in the last year, despite production increases.
2) Liquids exports from non-OPEC countries as a whole have declined since the beginning of 2004.
3) OPEC liquids exports have increased until the end of 2005, followed by a short plateau after which a slow decline set in, mainly due to declining production in Saudi Arabia.

Next months edition will return to production data with the inclusion of the export assessment. A definite format for the newsletter is still being found at this stage. All suggestions for additional analysis and data inclusion next to liquids/crude oil production, stock and export data will be taken into consideration.

A permanent basis for the monthly newsletter has been made on the Oildrum under the following webadres: http://www.theoildrum.com/tag/oilwatch, with thanks to Super G. There all the previous editions can be found in order from newest to oldest. Feel free to use this newsletter in writing and communication as long as you cite the following: Rembrandt Koppelaar, Oilwatch Monthly June 2007, The Oildrum & ASPO Netherlands.

Liquids exports market on a plateau

The liquids export series was derived by subtracting the consumption of oil products, refinery fuel and direct crude oil sales from liquids production in producer countries. Data comes from the Joint Oil Data Initiative (JODI) for demand and the International Energy Agency (IEA) and Energy Information Agency (EIA) for supply. Biofuels are not included in consumption data but are included in production data. Because biofuels are not identified in the production data it is not possible to separate this flow. Given that net energy biofuel production has increased by approximately 50,000 to 100,000 b/d annually in recent years, the series is slightly optimistic.

No actual flows between producers and consumers have been taken into account, and only producer countries have been examined. Thus nothing can yet be said about how consumer countries react to an expanding or shrinking world export market. To bridge this gap, data on flows and consumer countries will be added over the next few months.

From 2005 to 2006, worldwide liquids production increased by nearly 1 million b/d from 84.1

million b/d in 2005 to 85 million b/d in 2006. Initial results on exports show that annual worldwide exports were 43.6 million b/d, 46.3 million b/d, 47.1 million b/d and 47 million b/d in 2003, 2004, 2005 and 2006 respectively. Data for the first two months of 2007 shows a similar export level of 47 million b/d. This plateau implies that all liquids production growth in producer countries has been absorbed by internal markets in recent years.

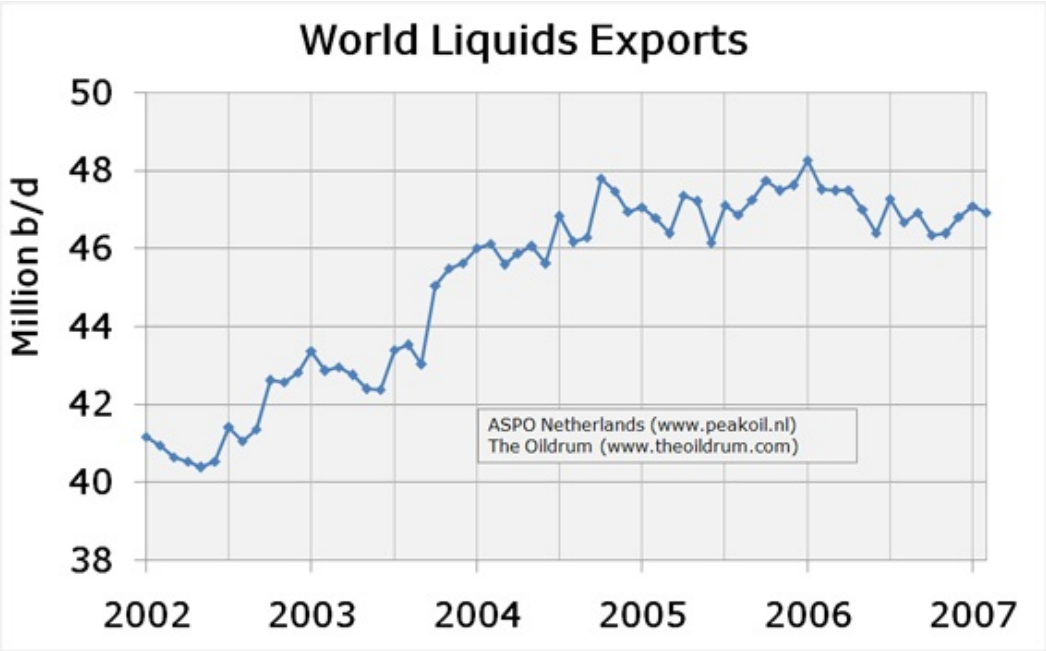

Chart 1 - World Liquids Exports from January 2002 until February 2007

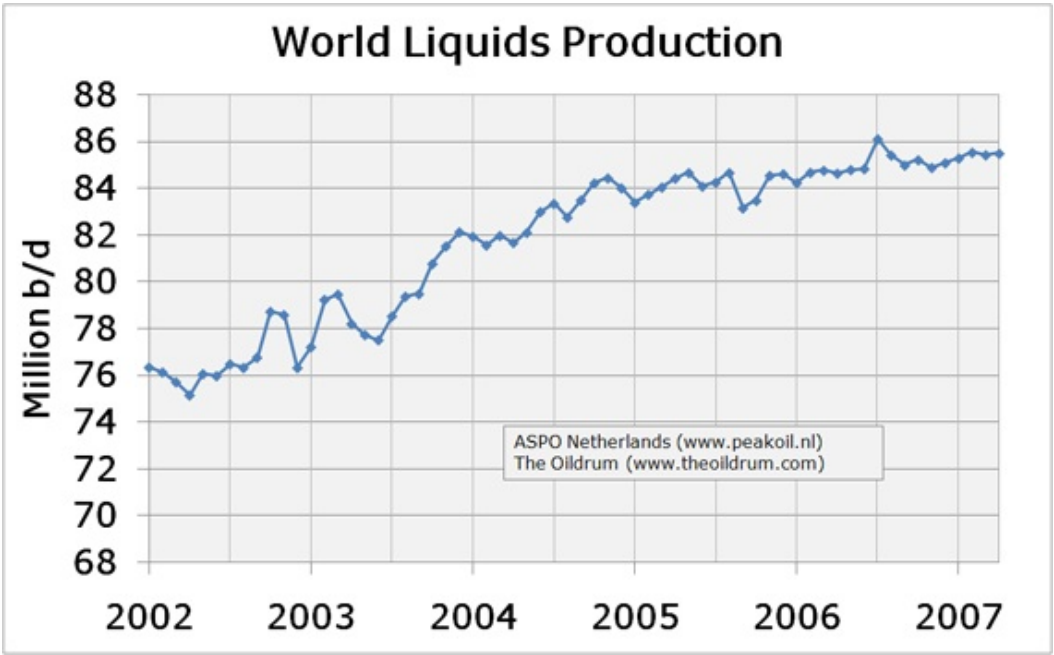

Chart 2 - World Liquids Production from January 2002 until April 2007

A worrisome trend is visible in the exports of non-OPEC countries. In 2003 exports were estimated at 17.3 million b/d, increasing to 18 million b/d in 2004 and subsequently declining to 17.5 million b/d in 2005 and 17.3 million b/d in 2006. The decline was caused by a multitude of factors.

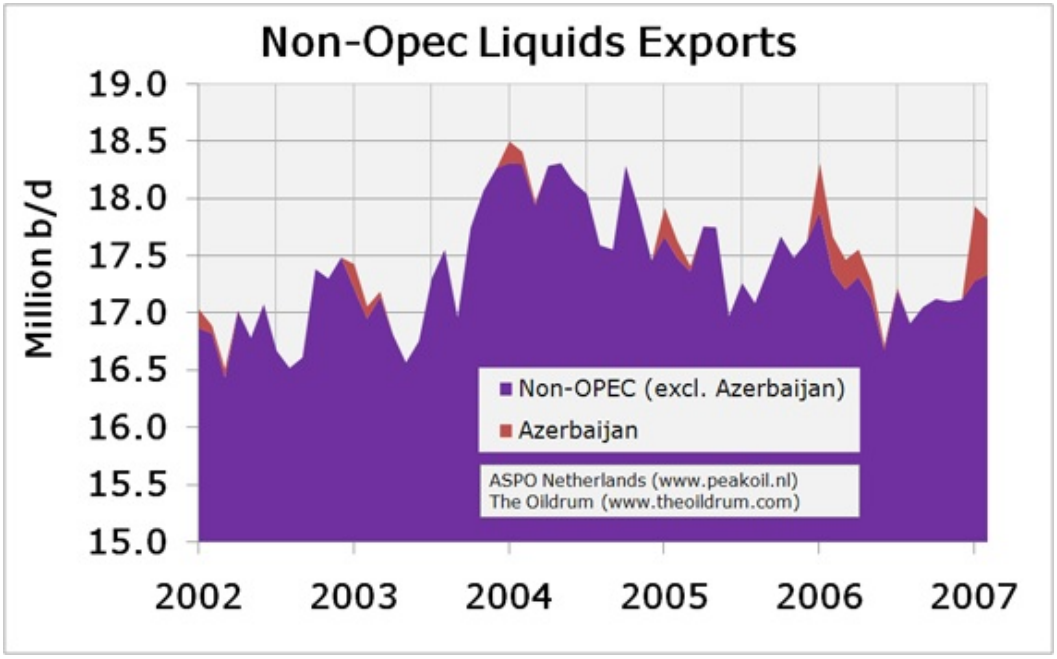

Chart 3 - Non-OPEC Liquids Exports from January 2002 until February 2007. Exports from Azerbaijan are shown separately because it is the only country with very large seasonal fluctuations in liquids consumption.

Firstly, sharp declines in the production of Mexico due to the peak of the supergiant oilfield Cantarell in 2005. Secondly, declines in the north sea oil producing countries Denmark, the United Kingdom and Norway. Thirdly, a plateau in exports from Russia at 6.6 million b/d since August 2004. The cause lies in Russian consumption which has increased at a similar pace as production. A similar situation is noticeable in Brazil. Fourthly, a decline in production in various small producers including Ecuador, Colombia, Oman, Syria and Yemen. Net export increases in countries such as Azerbaijan, Kazakhstan, Canada and Sudan were not sufficient to offset these declines.

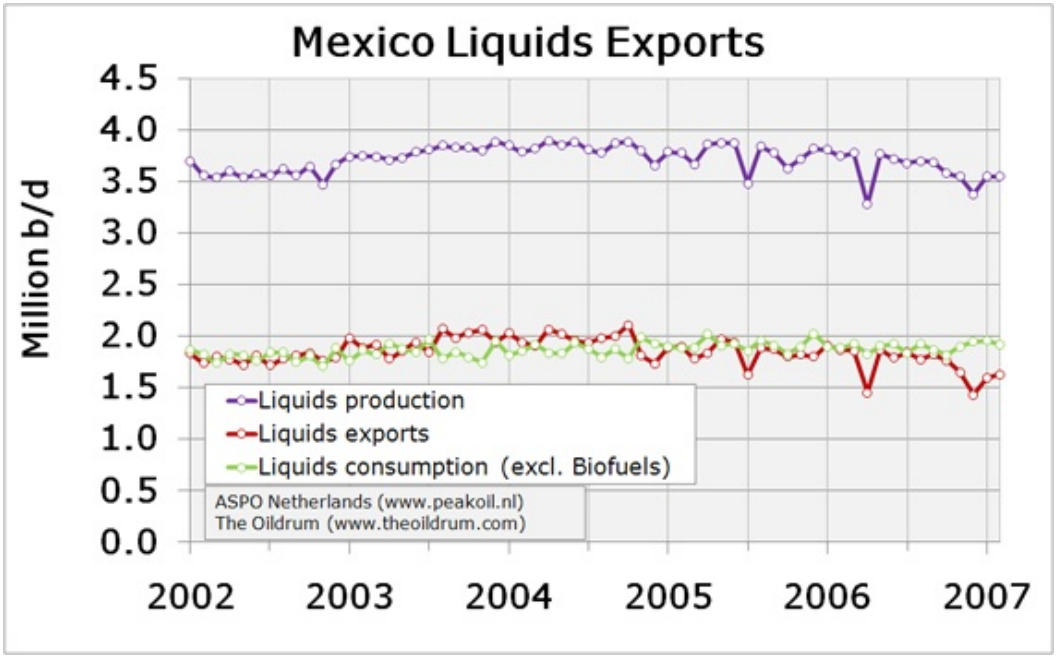

Chart 4 - Mexico Liquids Exports from January 2002 until February 2007

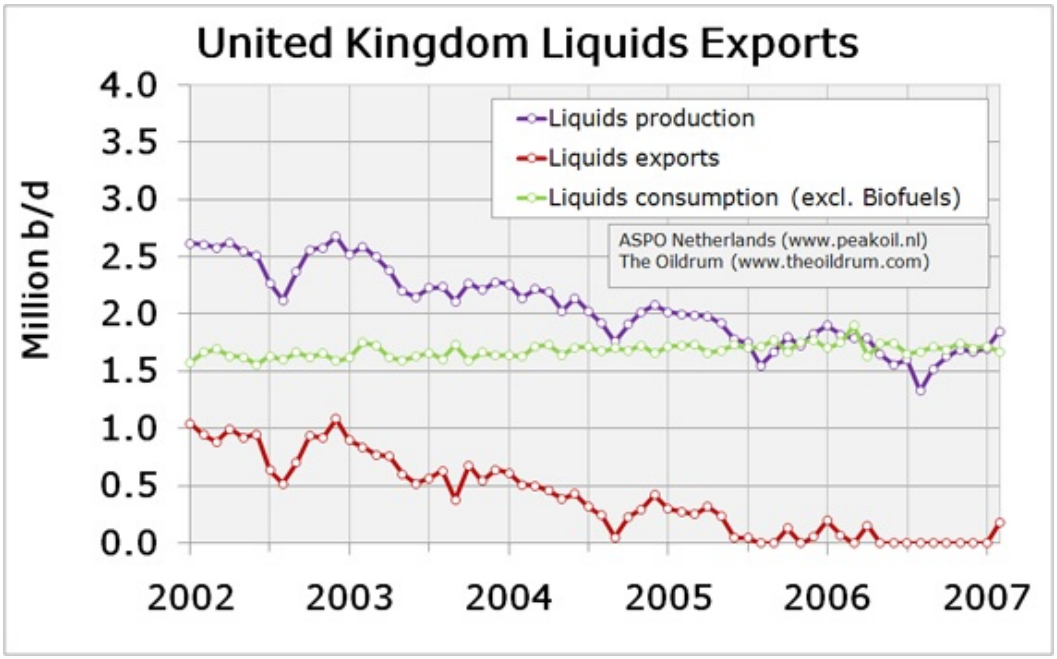

Chart 5 - United Kingdom Liquids Exports from January 2002 until February 2007

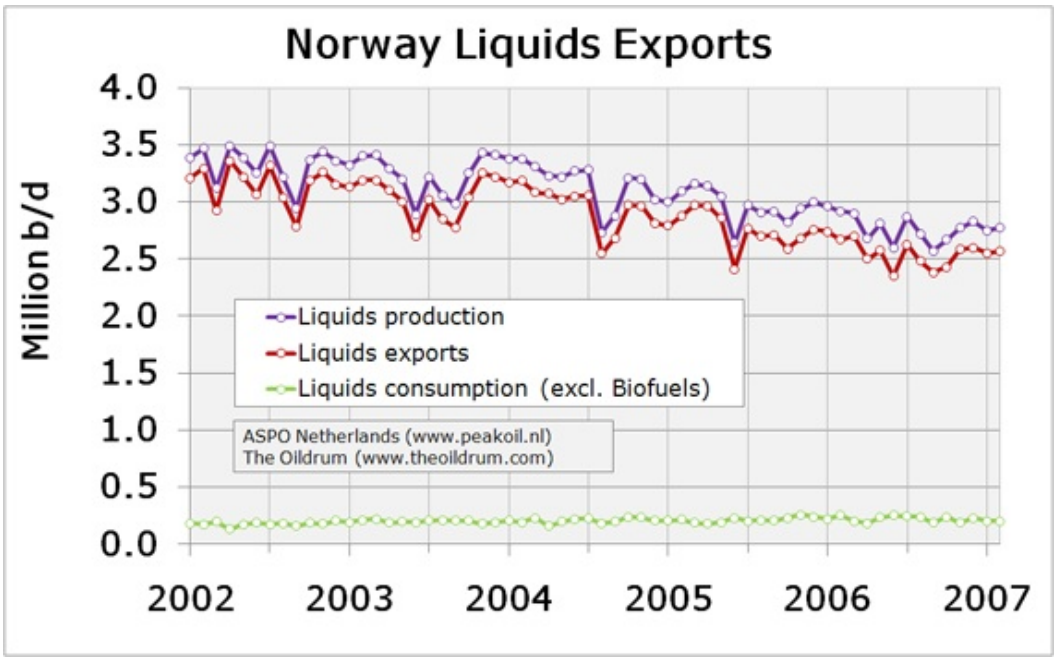

Chart 6 - Norway Liquids Exports from January 2002 until February 2007

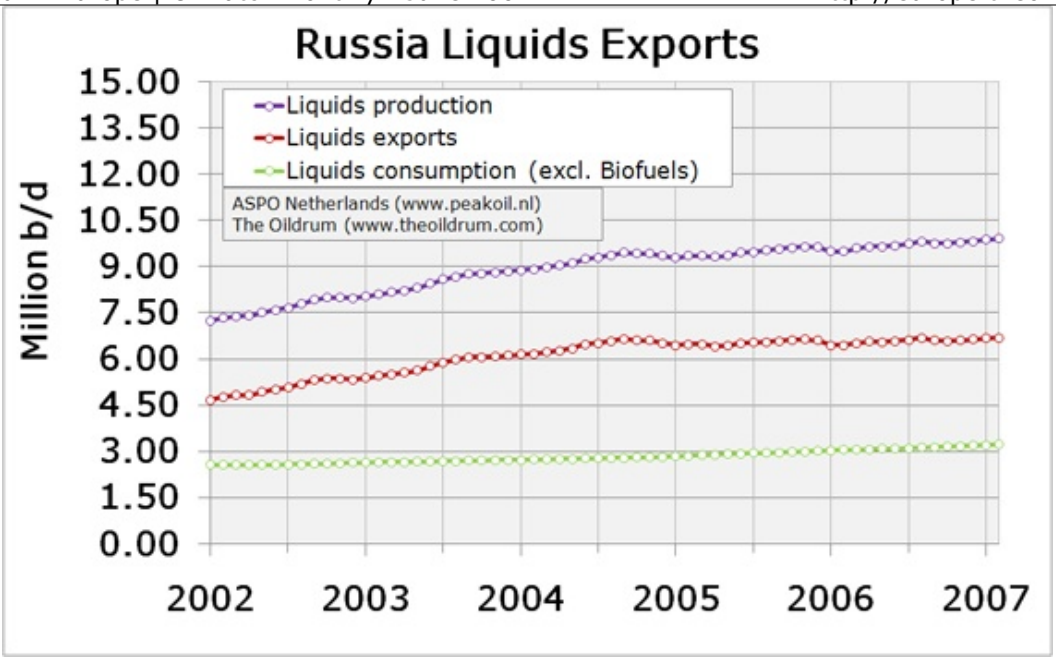

Chart 7 - Russia Liquids Exports from January 2002 until February 2007

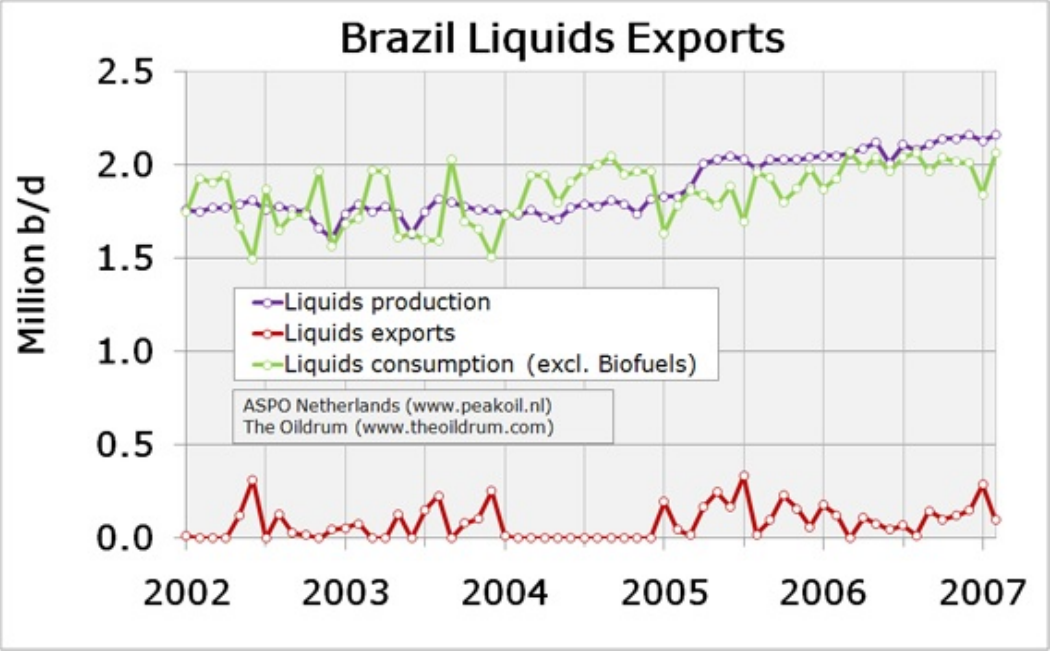

Chart 8 - Brazil Liquids Exports from January 2002 until February 2007

While overall exports declined, production in non-OPEC has remained on a plateau in recent years. In 2003 production was 46.1 million b/d, in 2004, 47.1 million b/d, in 2005, 46.9 million b/d and 47.2 million b/d in 2006. The trend shows that the importance of OPEC in meeting worldwide demand has increased. Implying that it comes down to OPEC to increase exports to meet demand growth in non-OPEC importer countries. If OPEC fails to do so it will lead to significant price increases needed to slow down demand growth in consumer countries. Only if non-OPEC production sharply ascends from the current plateau can this situation be averted.

In 2003 exports from OPEC (including Iraq) were 26.3 million b/d, increasing to 28.3 million b/d

in 2004, to 29.6 million b/d in 2005 and 29.7 million b/d in 2006. This increase has recently halted. Since July 2006 exports from OPEC have declined due to Production declines in Saudi Arabia, Venezuela, Iraq and large consumption increases in Iran.

It is currently unclear whether these production cuts are truly for the purpose of price management or an attempt to mask a geological decline. The difficulties OPEC has faced in recent years in controlling oil prices prompt the belief that the decline is a geological rather than a 'price management' cut. If this is so, it is likely caused by the loss of swing production capacity in Saudi Arabia.

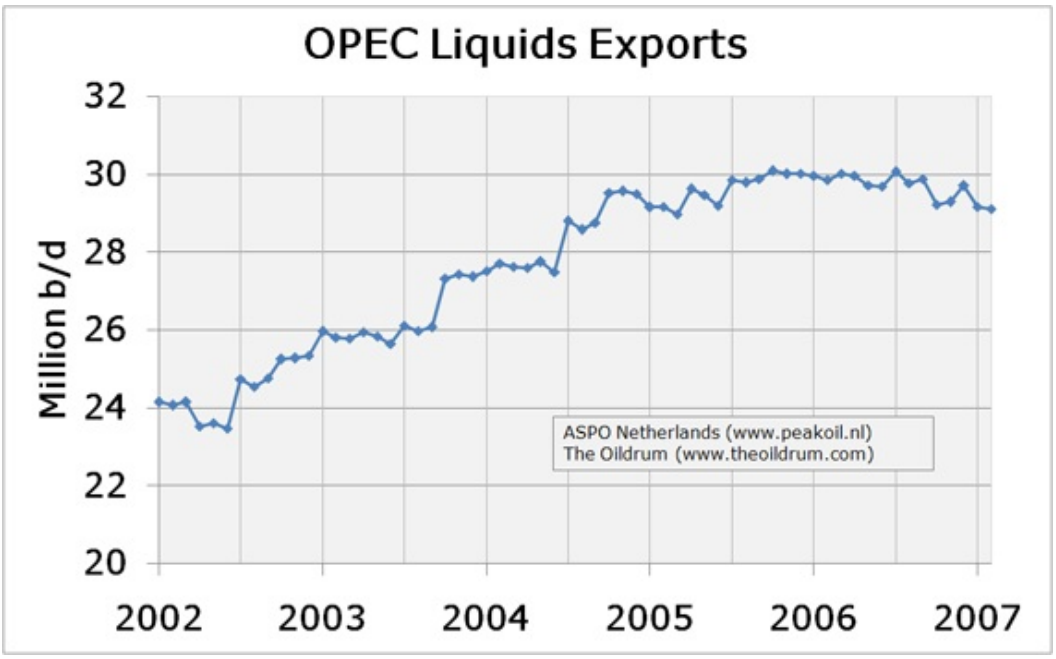

Chart 9 - OPEC Liquids Exports from January 2002 until February 2007

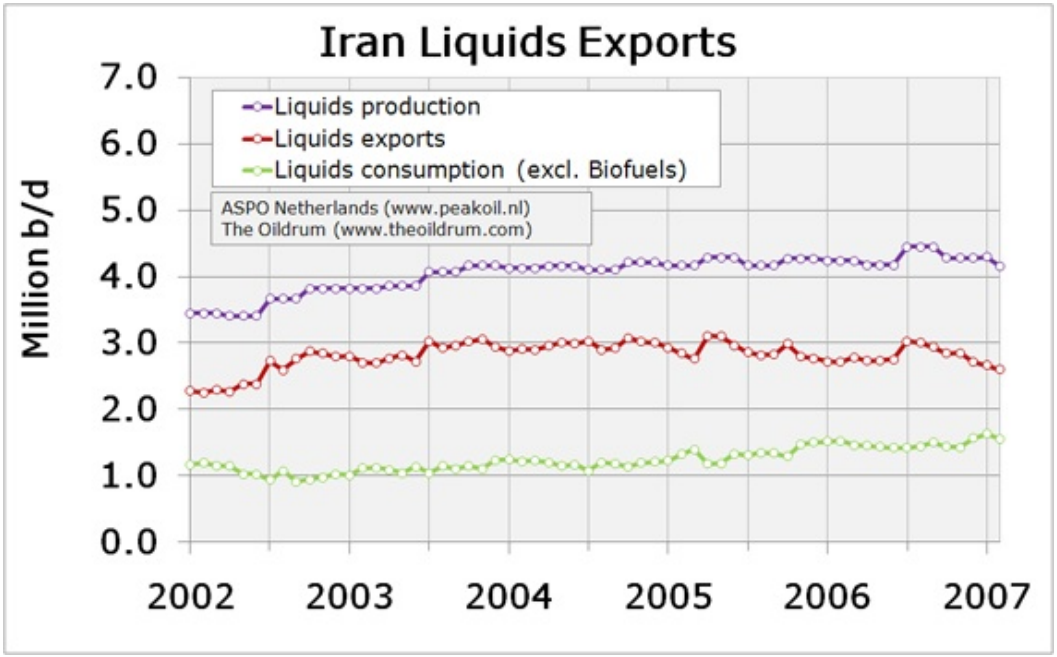

Chart 10 - Iran Liquids Exports from January 2002 until February 2007

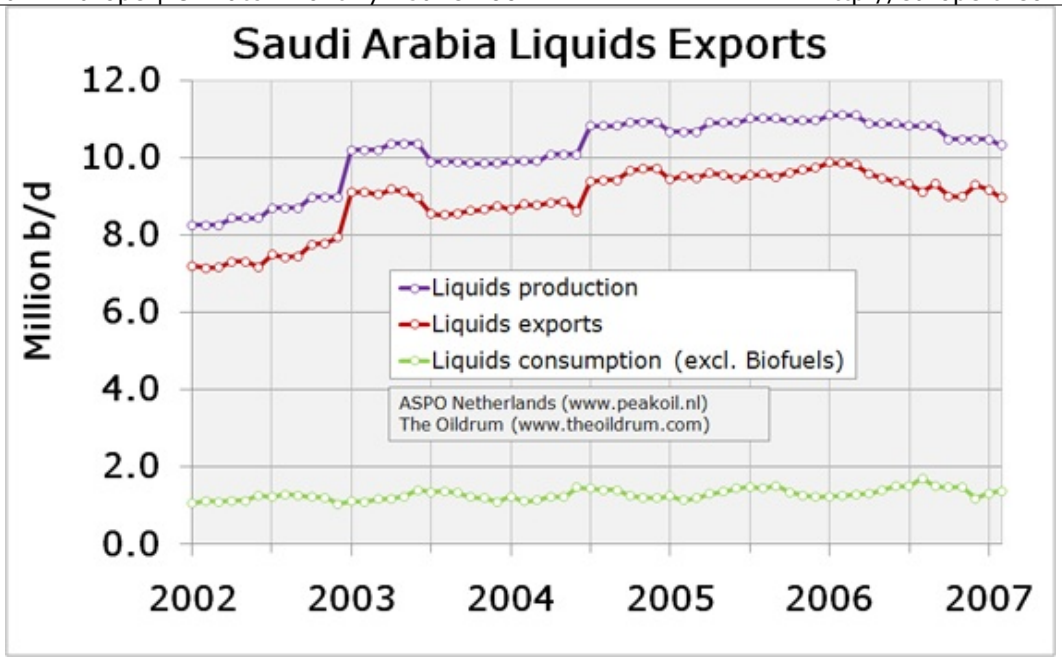

Chart 11 - Saudi Arabia Liquids Exports from January 2002 until February 2007

Export charts for individual producing countries can be found in the newsletter.

Robustness of the outcome

To verify the results, a second demand data set was taken from the International Energy Agencies oil market report. It contains demand data for regions as a whole including North America, Europe, the Middle East, the Former Soviet Union, Asia, Latin America and the Pacific. Because of this division only aggregate net export flows from regions could be ascertained. An example is North America where export data from Canada and Mexico is lost because North America as a whole is a net importer. Therefore, actual export levels are much lower than in the series with the individual countries demand data. Nonetheless, a similar liquid export plateau in recent years as in the detailed series is derived.

Suggestions and remarks related to the newsletter of May 2007

**ThatsItImout "Please consider adding any information you can find on LPG (Liquified Petroleum Gas) or propane."*

I didn't have time to look into this yet. It will probably be very difficult to find such a differentation. If I come across something I will let you know, but don't expect anything.

**Marco "Is it possible to also have a "world crude oil export" chart? This would be very interesting."*

This has been added for liquids, further differentation between different streams (conventional and unconventional crude and other liquids source) will be made in the upcoming months as additional data is incorporated.

**And1 Is it possible to aggregate the North sea figures into one "north sea" diagram ?*

I do not intend to add this at the moment, but maybe I will reconsider later when I decide to create a regional production series. For now here is a one time chart on European Liquids Production:

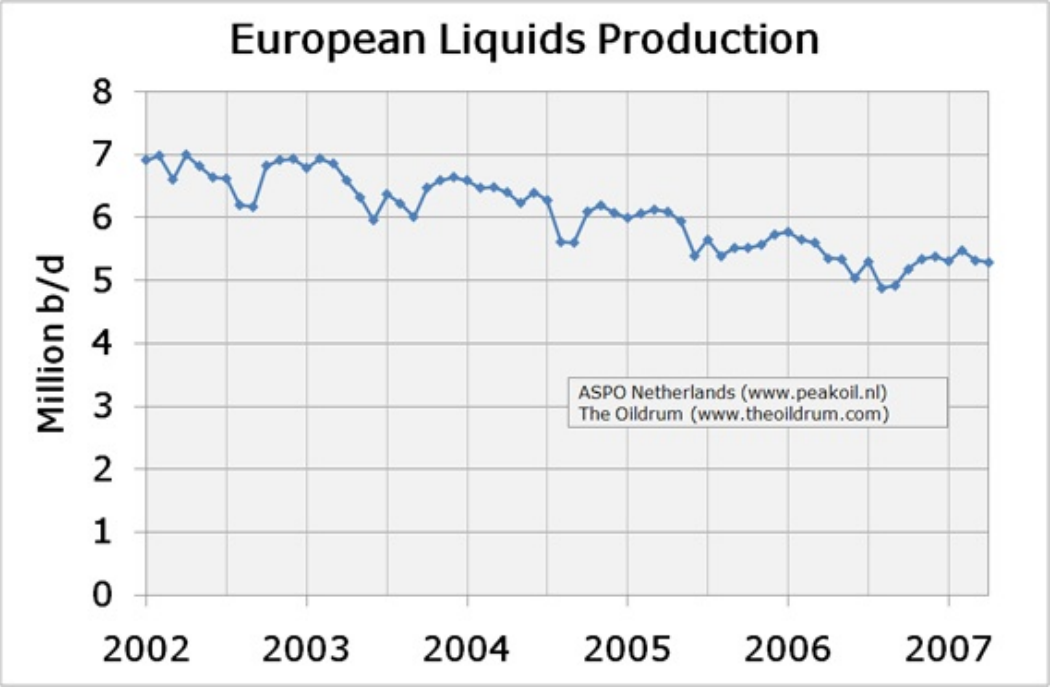

Chart 12 - Total European Liquids Production from January 2002 until April 2007. Including production from Denmark, United Kingdom, Norway, the Netherlands, Italy, Germany and Romania next to other even smaller European producers.

**FTX- It looks like there's room on page 3 for US distillate stocks. I know gasoline is all in the news at present, but if we ever have a bad winter...*

I will add this in the next edition when I return to production and stocks.

**cuchulainn - Please could there be a graph of oil production by "OPEC subject to quota" countries - ie with Iraq and Angola excluded.*

I have gathered this data and it will be added in next months edition

**john macklin - Please consider adding at least one graph of global production that starts at a date earlier than 2002. Such a graph would give greater perspective of more recent trends over the last 5 years.*

Production dating back until probably 1930 will be added in next months newsletter for nearly all individual countries.

**Echelon - I'm curious, I can't tell from the graph. What is the IEA reporting Saudi and Neutral Zone production as for February, March, and April?*

IEA says for Crude oil (excluding lease condensates) respectively 8,600 million b/d, 8,550 million b/d and 8,605 million b/d for February, March and April

**estamos jodidos - There has been a number of variations of charts showing Crude, liquids, crude & condensate, oil and gas in Barrel equivalent, etc. It seems to me that each liquid including crudes of different weights have varying Energy content. There appears to be an increase in the percent of heavy vs light etc. Would it be possible to normalize all of these and track something such as a Net BTU or Net Energy Production? If that were possible, I believe the point of Peak would become more relevant.*

At the moment this is not possible because data on most liquid streams are not individually published.

**godraz - Another set of graphs I'd like to see are demand and/or import growth/decline ones of various key countries or regions. Production is but one half of the picture, whereas where it is and is not going lately is worth understanding too.*

I am looking at incorporating crude oil trade flows. When the data is gathered and the analysis is done I will incorporate import growth/decline curves for several countries. This will take some time so don't expect anything soon.