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The effects of high oil prices

In the past few years countless infrastructure studies were conducted in my home country, the Netherlands, in an attempt to solve persistent traffic jams. When politicians and most scientist alike considered the future of road transport, only one objective seemed set in stone, how to prevent a further increase in traffic jams due to increasing oil consumption. Now that perception is changing, no longer is the newspaper filled with worry about the roads being totally gridlocked in the future. Traffic jams are decreasing because oil consumption is decreasing in the Netherlands. A similar downward consumption trend is occurring in many other countries. The United States being most exemplary with a consumption decline of 745.000 b/d year on year in the first five months of 2008.

Not only consumption patterns are changing with oil above 100 dollars per barrel. Production is also being highly influenced both from an unconventional as well as a conventional oil perspective. The production patterns of several countries that are declining show an unusual turnaround of the downward trend. In Egypt production peaked in 1995 at 941.000 b/d with a continued decline for every single year but 2006 and 2007 which actually noted a small increase. The same pattern is observable in the United States, Colombia, Cameroon, and Tunisia. In another batch of countries that have peaked production still continues to decline, but less pronounced. Tiny fields are now economical to produce, and relatively small players are economically able to step in where the fields are too small for the big oil companies. In the North Sea alone 135 companies are now drilling for oil and gas, a huge change from a few years ago when there were 30 or so companies present.

Nevertheless, these production additions have proven to be insufficient for consumption to continue its onward path of increase. The production part of the equation prices can only do so much as there is material and personnel available for drilling. The latest global offshore rig order count now totals 165 for just the next three years, from a total existing amount of 584 offshore rigs. A huge increase in such a short space of time. To man those rigs and provide ground personnel approximately 16.500 new employees are needed in just the next few years. Already there is difficulty in acquiring new personnel. This new cycle of oil industry material buildup will therefore inherently be constrained by delays that are not about to ease.

Rembrandt Koppelaar

President ASPO Netherlands

Definitions

Crude Oil, petroleum found in liquid and semi liquid form including deepsea and lease condensates.

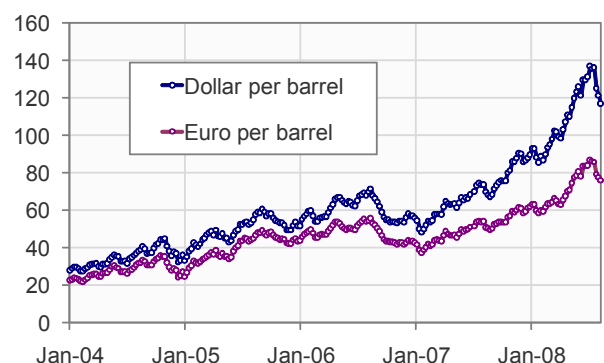
Liquids, all forms of liquid fuels including conventional, heavy, and extra heavy oil, oil shale, oil sands, natural gas liquids, lease condensates, gas-to-liquids, coal-to-liquids, and biofuels.

One Barrel of oil is equivalent to 159 litres

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Chart 1: Oil Price Weighed Average of Blends

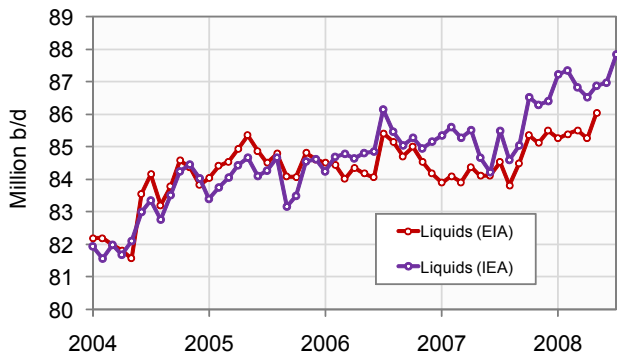


Source: Energy Information Administration

World liquids production status

In July world production of total liquids increased by 890,000 barrels per day from June according to the latest figures of the International Energy Agency (IEA). Resulting in total world liquids production of 87.84 million b/d.

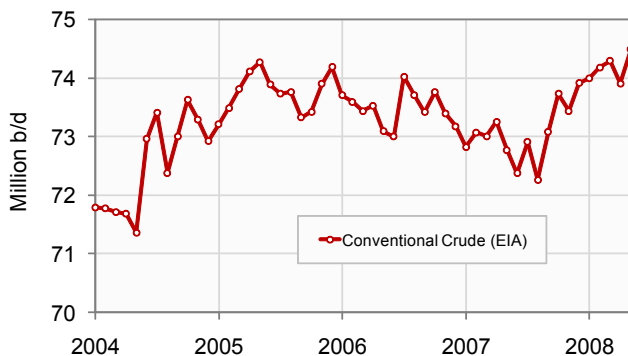
Average global production in 2007 was 85.41 million b/d according to the IEA. In 2008 an average of 87.08 million b/d has been produced from January to July. The US Energy Information Administration (EIA) in their International Petroleum Monthly puts average global 2007 production at 84.44 million b/d and average production in the first five months of 2008 at 85.49 million b/d.

Chart 2: World Liquids Production January 2004 - July 2008


Source: Energy Information Administration, International Energy Agency

World crude oil production status

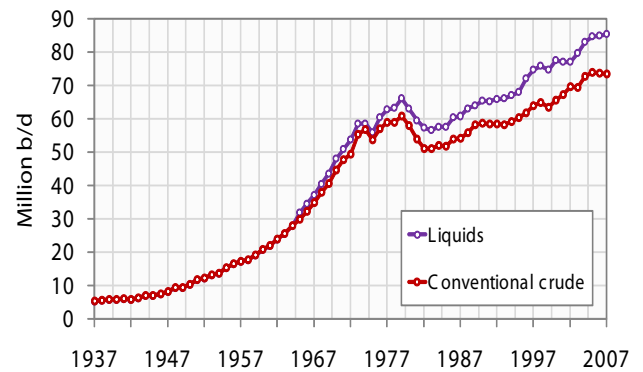
Latest available figures from the Energy Information Administration (EIA) show that crude oil production including lease condensates increased by 580,000 b/d from April to May. Due to the recent downwards revision of historical crude oil production statistics and the 580,000 b/d increase, the long held May 2005 record of all time high crude oil production has been broken in May. The new record is 74.48 million b/d.

Chart 3: World Crude Oil Production January 2004 - May 2008


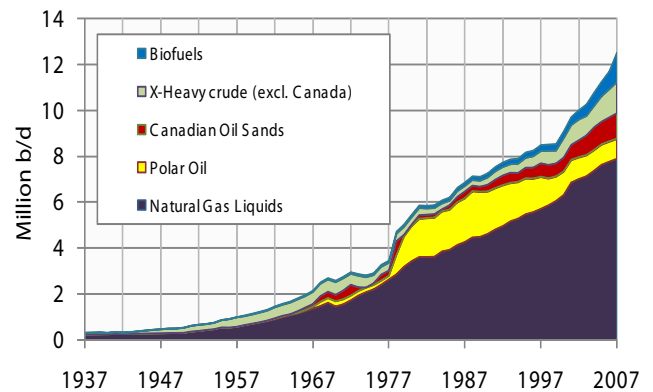
Source: Energy Information Administration

World conventional crude versus liquids production ratio

Approximately 86% of world liquids production in 2007 came from conventional crude oil including lease condensates. The remaining share of 14% was produced by other unconventional sources including Biofuels, Extra Heav Oil, Tar Sands, Polar Oil and Natural Gas Liquids. In absolute amounts unconventional production has increased steadily, from 4 million b/d at the end of the 1970's, to approximately 12 mb/d in 2007 excluding lease condensates.

Chart 4: World Crude and Liquids production 1937 - 2007


Source: Energy Information Administration, IHS Energy, International Energy Agency

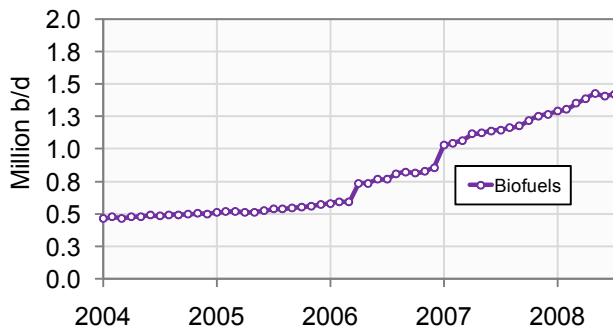
Chart 5: World Unconventional Production 1937 - 2007


Source: Energy Information Administration, IHS Energy, International Energy Agency, Canadian Association of Petroleum Producers

World biofuel production status

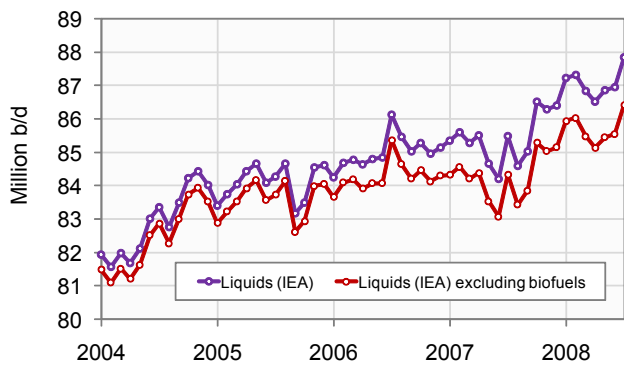
In July total world biofuel production was 1.42 million barrels per day according to statistics compiled from the Energy Information Administration, the International Energy Agency and the Brazilian ministry of Energy. With 574,000 b/d from the United States, 388,000 b/d from Brazil and 460,000 b/d from other countries.

Chart 6: World biofuels production January 2004 - July 2008



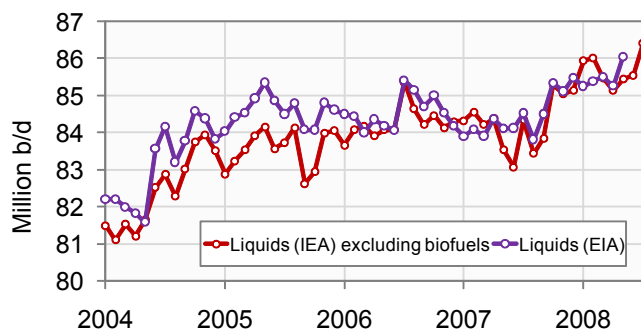
Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

Chart 7: Liquids vs liquids excl. biofuels I Jan. 2004 - July 2008



Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

Chart 8: Liquids vs. liquids excl. biofuels II - Jan. 2004 - July 2008

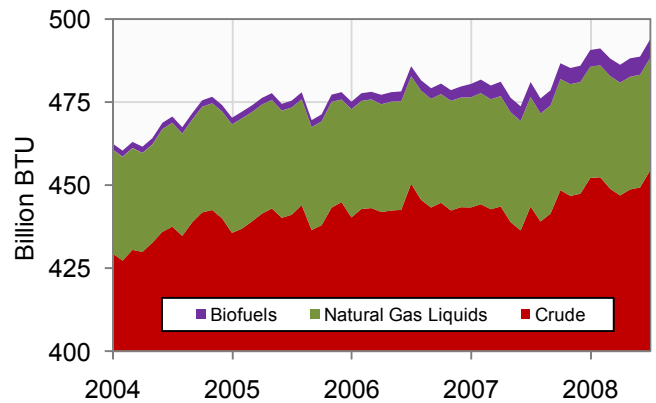


Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

World gross & net energy available from liquids

In oil production statistics the barrel that gets counted is not the barrel that can be used by society. Different types of liquids that are aggregated as total 'oil' production, in the oilwatch monthly defined as total liquids, contain different amounts of energy per barrel. For example, a barrel of crude oil contains approximately 5.8 million BTU while a barrel of natural gas liquids contains 4.2 million BTU. In 2008 11 percent of total liquids production consists out of natural gas liquids and biofuels. When converting to actual energy values we learn that the energy available to society is 3.5% lower than all liquids production statistics counted in barrels suggests. This difference has been rising slightly over time, with 2.5% less energy available to society in 2002 when comparing a barrel to the BTU's in a barrel.

Chart 9: Gross Energy available from liquids Jan. 2004 - July 2008

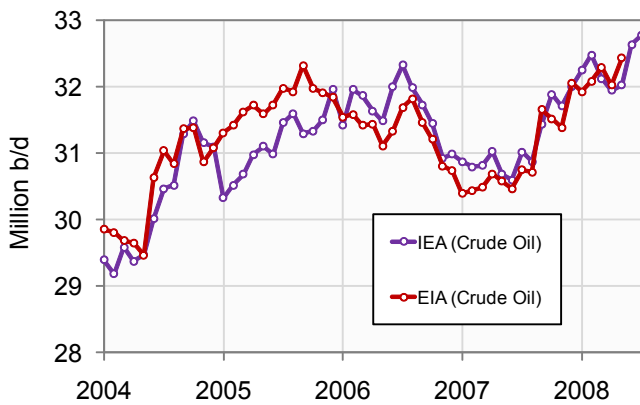


Source: Energy Information Administration, International Energy Agency

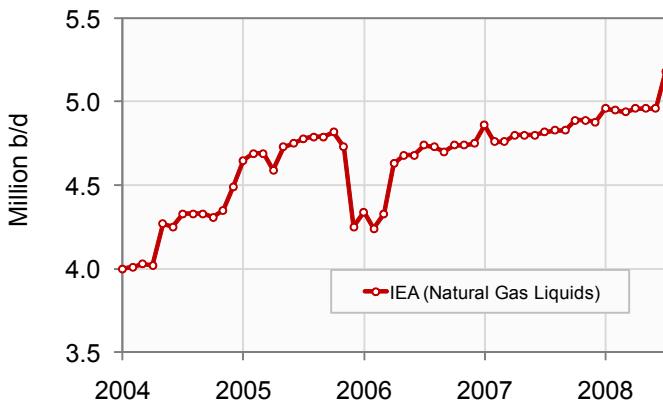
The actual energy available for society to consume is lower than shown in chart 9, however, because an incremental amount is needed to bring the oil out of the ground as the oil industry has to drill deeper at more extreme locations which costs more energy. Next to the additional energy needed in processing oil to deliver a useful product due to a decline in quality from conventional to more unconventional oil. Studies by Professor Charles Hall and his science group at State University New York show that the energy that is necessary to draw a barrel of 159 liters of oil out of the ground from conventional oil has increased from approximately 3 liters of oil equivalent in the beginning of the 1990s to 6 liters of oil equivalent now. It is not known to what percentage this amount of energy comes from oil, gas or coal, the main energy inputs for the oil and gas industry.

OPEC production status

Total crude oil production including lease condensates of the OPEC cartel increased by 140,000 b/d to a level of 32.77 million b/d, from June to July, according to the latest available estimate of the IEA. Natural Gas Liquids production increased by 220,000 b/d to 5.18 million b/d from June to July. Average total liquids production in OPEC countries in 2008 from January to July was 37.30 million b/d, versus 35.96 million b/d in 2007 and 35.71 million b/d in 2006.

Chart 10: OPEC Crude Oil Production January 2004 - July 2008


Source: Energy Information Administration & International Energy Agency

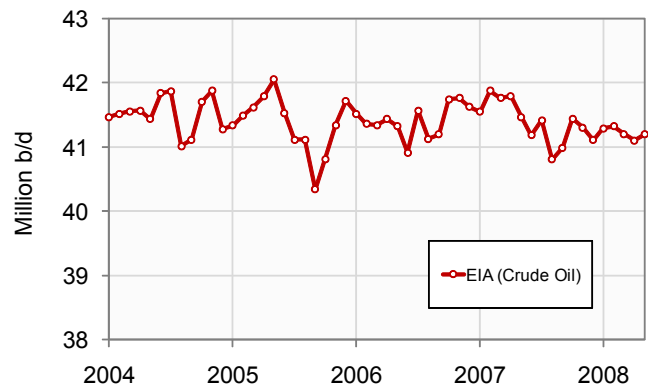
Chart 11: OPEC Natural Gas Liquids Prod. Jan. 2004 - July 2008


Source: International Energy Agency

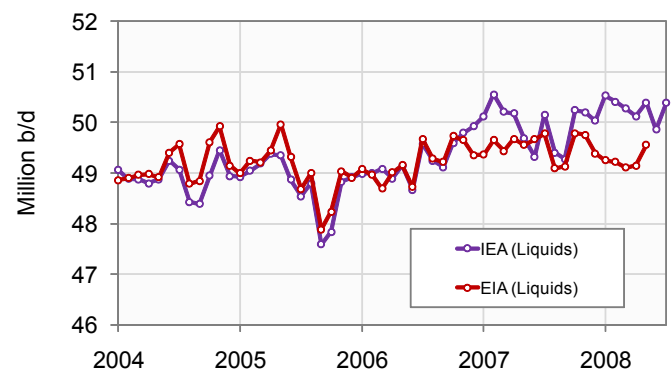
Non-OPEC production status

Total crude oil production including lease condensates of non-OPEC increased by 94,000 b/d from April to May to a level of 41.19 million b/d, according to the latest available estimate of the EIA. Average crude oil production of Non-OPEC in the first five months of 2008 was 41.22 million b/d, versus 41.39 million b/d in 2007 and 41.41 million b/d in 2006.

Total non-OPEC liquids production increased by 530,000 b/d to a level of 49.89 million b/d from June to July, according to the latest figures of the IEA. A level similar to production in May. Average total liquids production of non-OPEC in 2008 from January to July was 49.78 million b/d, versus 49.45 million b/d in 2007 and 48.75 million b/d in 2006.

Chart 12: Non-OPEC Crude Oil Production Jan. 2004 - May 2008


Source: Energy Information Administration

Chart 13: Non-OPEC Liquids Production Jan. 2004 - July 2008


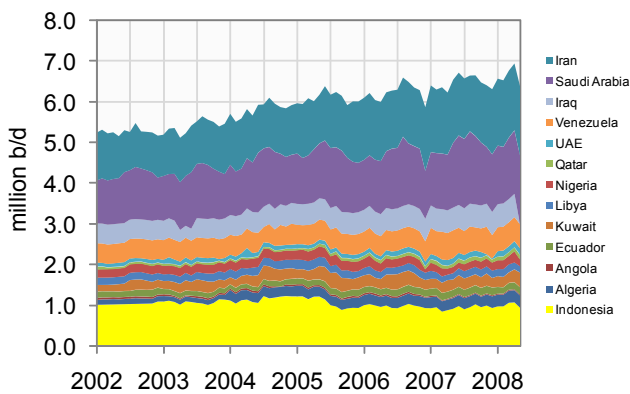
Source: International Energy Agency & Energy Information Administration

OPEC liquids demand developments

In 2002 OPEC-13 (including Iraq and Indonesia) consumed 5.26 million b/d according to the JODI database. Since then, demand has increased by 1.2 million b/d to 6.46 million b/d in 2007. The increase was mainly caused by higher consumption in Iran and Saudi Arabia, which increased by 476,000 and 357,000 b/d between respectively 2002 and 2007.

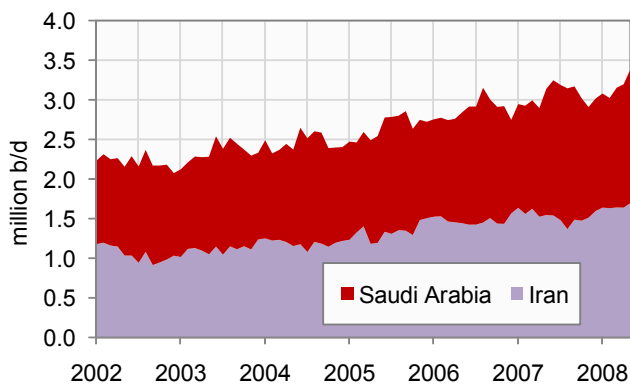
In 2008 this pace of growth appears to continue. Average consumption in Saudi-Arabia in the first five months of 2008 was 1.52 million b/d and in Iran 1.65 million b/d. Average consumption in the first five months of 2007 in Saudi Arabia was 1.40 million b/d and in Iran 1.57 million b/d in Iran.

Chart 14: OPEC-13 Liquids Demand January 2002 - May 2008



Source: JODI Database

Chart 15: Iran & S. Arabia Liquids Demand Jan. 2002 - May 2008



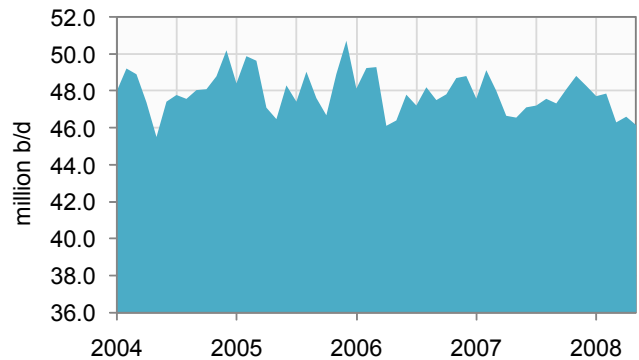
Source: JODI Database

Non-OPEC liquids demand developments

In 2005 the group of OECD countries consumed an average of 48.34 million b/d, which declined to 47.93 million b/d in 2006. Of the total 2006 OECD consumption decline, 315,000 b/d came from North America and 156,000 b/d from other OECD countries while consumption in OECD Europe increased by 56,000 b/d. In 2007 the OECD consumption decline continued by 241,000 b/d to an average of 47.68 million b/d. This decline was caused by a consumption decline of 350,000 b/d in OECD Europe and a decline of 157,000 b/d in OECD Asia. Consumption in OECD North America grew by 267,000 b/d.

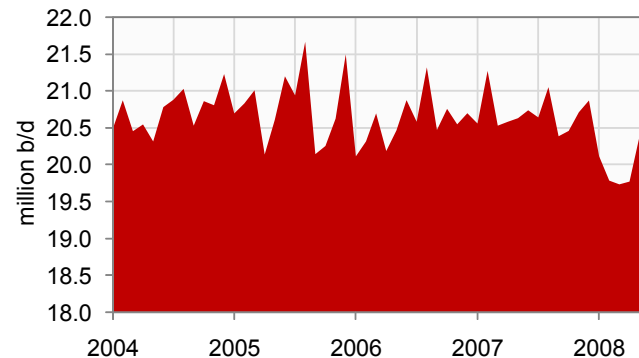
The decline in OECD consumption is accelerating in 2008. Consumption in May 2008 was 46.14 million b/d, a decline of 409,000 b/d year on year. Average consumption in 2008 in the first five months of 2008 was 46.92 million b/d, which is 659,000 b/d lower than consumption in the same period in 2007. The decline is mainly a result of a decrease in oil consumption in the United States. Consumption is 757,000 b/d lower on average in the US from January to May 2008 than in the same period last year. In comparison, Mexican and Canadian consumption are almost flat relative to 2007 consumption.

Chart 16: OECD Liquids Demand Jan. 2004 - May 2008



Source: Energy Information Administration

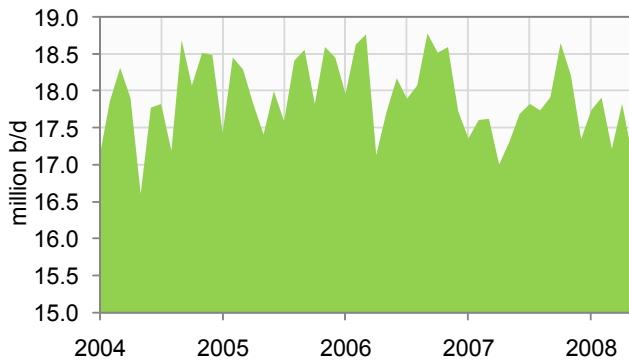
Chart 17: United States Liquids Demand Jan. 2004 - May 2008



Source: JODI Database

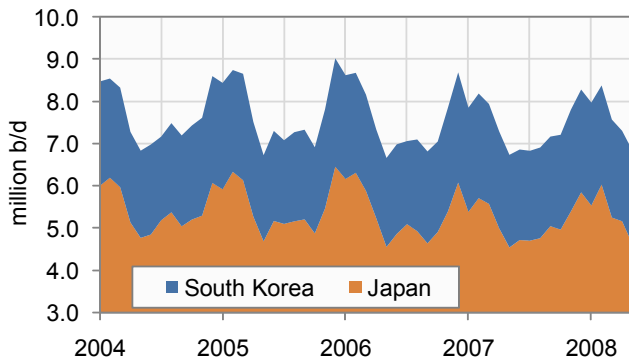
In OECD Europe the decline in consumption apparent in recent years appears to have halted for now. In the first five months of 2008 15.15 million b/d were consumed relative to 15.11 million b/d in the same period in 2007. The same holds for OECD Asia, where consumption averaged 7.75 million b/d on average between January and May 2007, versus 7.77 million b/d in the same period in 2008.

Chart 18: EU-27 Liquids Demand January 2004 - May 2008



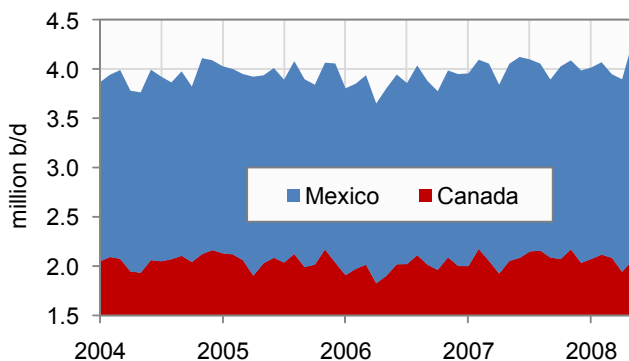
Source: JODI Database

Chart 19: S. Korea & Japan Liquids Demand Jan. 2002 - May 2008



Source: JODI Database

Chart 20: Mexico & Canada Liquids Demand Jan. 2004 - May 2008



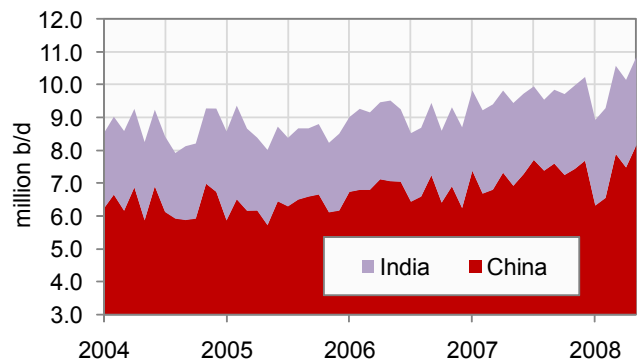
Source: JODI Database

India & China liquids demand developments

Chinese consumption figures have been significantly revised upwards since last month, when surprisingly low consumption figures for 2008 were presented. On the basis of which I concluded that there was likely a significant error in the datasource. This has now been proven correct. The new figure for average Chinese oil consumption in the first five months of 2008 is 7.28 million b/d according to the JODI database. An increase of 257,000 b/d versus average 2007 January to May consumption of 7.02 million b/d. In 2005 China consumed on average 6.27 million b/d, growing to 6.78 million b/d in 2006 and 7.29 million b/d in 2007.

Consumption in India was 2.67 million b/d in the first five months of 2008, versus an average of 2.43 million b/d in 2007 and 2.29 million b/d in 2006.

Chart 21: India & China Liquids Demand Jan. 2002 - May 2008

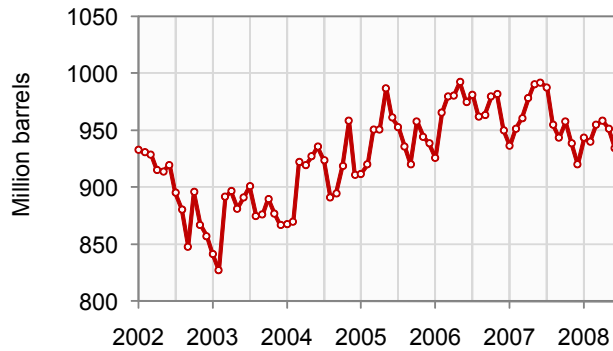


Source: JODI Database

Total OECD crude oil and oil product stocks status

Industrial inventories of crude oil in the OECD decreased in June to a level of 934 million barrels from 952 million barrels in May according to IEA statistics.

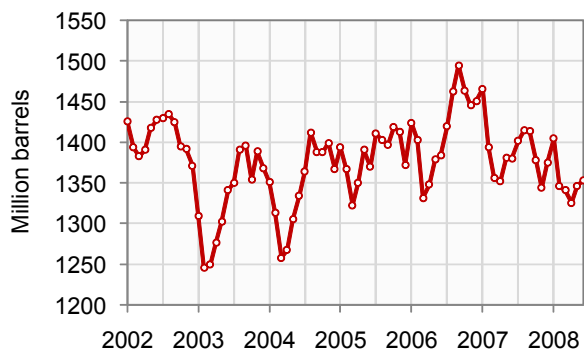
Chart 22: OECD Crude Oil Stocks January 2002 - June 2008



Source: International Energy Agency

Total industrial product stocks in the OECD were 1353 million barrels in June 2008, an increase of 6 million barrels from a stock level of 1347 million barrels in May. Total product stocks still stand slightly lower than the five year average of 1379 million barrels.

Chart 23: OECD Product Stocks Jan. 2002 - June 2008

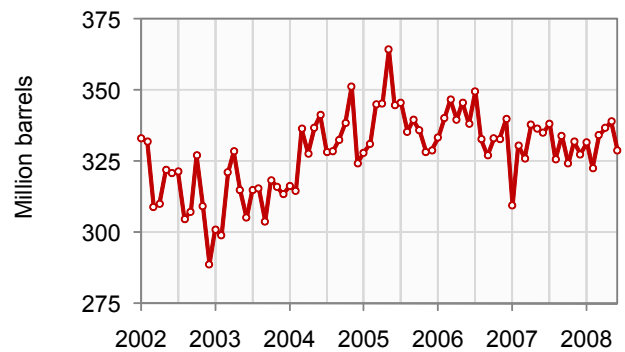


Source: International Energy Agency

OECD Europe crude oil and oil product stocks status

Industrial inventories of crude oil in OECD Europe decreased in June to a level of 329 million barrels from 339 million barrels in May according to IEA statistics.

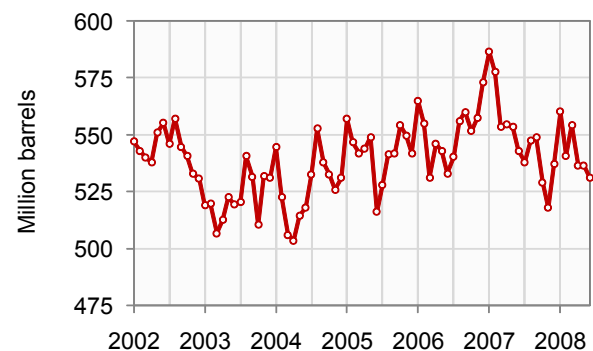
Chart 24: Europe Crude Oil Stocks January 2002 - June 2008



Source: International Energy Agency

Total industrial product stocks in OECD Europe were 531 million barrels in June 2008, a decrease of 6 million barrels from a stock level of 537 million barrels in May. Total product stocks stand slightly lower than the five year average of 541 million barrels.

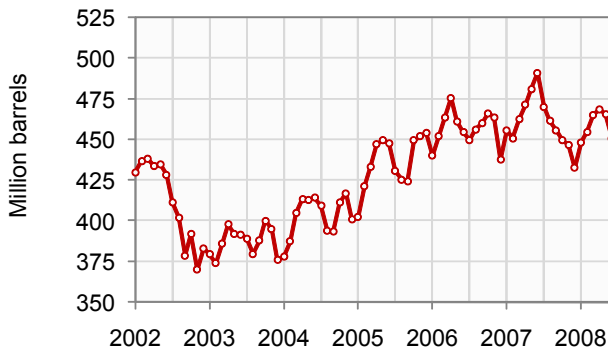
Chart 25: Europe Product Stocks Jan. 2002 - June 2008



Source: International Energy Agency

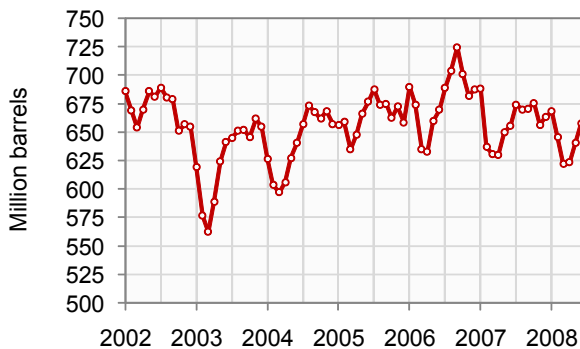
OECD America crude oil and oil product stocks status

Industrial inventories of crude oil in OECD America decreased in June to a level of 451 million barrels from 466 million barrels in May according to IEA statistics.

Chart 26: North America Crude Oil Stocks Jan. 2002 - June 2008


Source: International Energy Agency

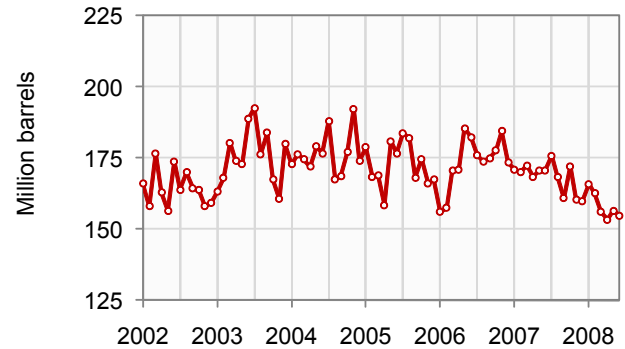
Total industrial product stocks in OECD America were 658 million barrels in June 2008, an increase of 17 million barrels from a stock level of 641 million barrels in May. Total product stocks stand exactly at the five year average of 658 million barrels.

Chart 27: N. America Product Stocks January 2002 - June 2008


Source: International Energy Agency

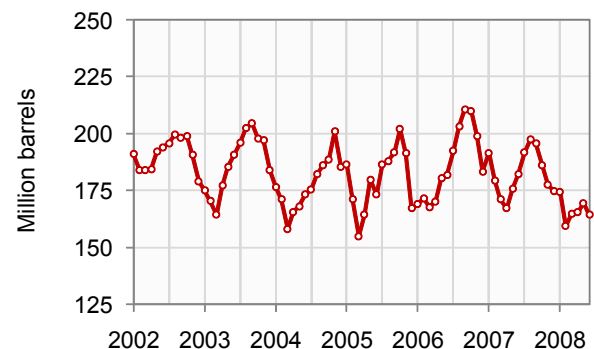
OECD Pacific crude oil and oil product stocks status

Industrial inventories of crude oil in OECD Pacific decreased in June to a level of 155 million barrels from 156 million barrels in May according to IEA statistics. Stock levels are residing at such a low level for four months already months. An event that has not occurred since at least 2002, the first available year of stock data.

Chart 28: Pacific Crude Oil Stocks Jan. 2002 - June 2008


Source: International Energy Agency

Total industrial product stocks in OECD Pacific were 164 million barrels in June 2008, a decrease of 6 million barrels from a stock level of 170 million barrels in May. Total product stocks stand at a low point in comparison to the five year average of 182 million barrels. Close to the low of 155 million barrels reached in May of 2005.

Chart 29: Pacific Product Stocks Jan. 2002 - June 2008


Source: International Energy Agency

World crude oil export status

The 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.

This method gives a crude approximation of the export market because it assumes that all producers refine their own oil products to satisfy internal market needs. In reality not all oil producers have their own refineries to meet internal product demand. Therefore, more crude will be exported to foreign countries where it is refined into usable products. These usable products are then imported back to the country where the crude oil came from. To derive precise export statistics one would need to combine four components for each individual oil producing country: 1) crude oil export flows, 2) crude oil import flows, 3) total product export flows, 4) total product import flows. Statistics that show only crude oil exports or total product imports on an aggregate basis only reveal one component of the equation, and cannot be taken at face value.

Unfortunately, data on all four components is not readily available for countries outside the OECD. At the moment the statistics shown are purely based on the method of subtracting the consumption of oil products, refinery fuel and direct crude oil sales from liquids production in producer countries, unless otherwise noted.

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 according to the IEA. Our proxy-exports database, which uses the methodology outlined above, shows that annual worldwide exports are roughly in the order of 46.3 million b/d, 47.5 million b/d, 47.4 and 47.3 million b/d and in 2004, 2005, 2006 and 2007 respectively. In the first five months of 2008 average world exports amounted to 47.78 million b/d.

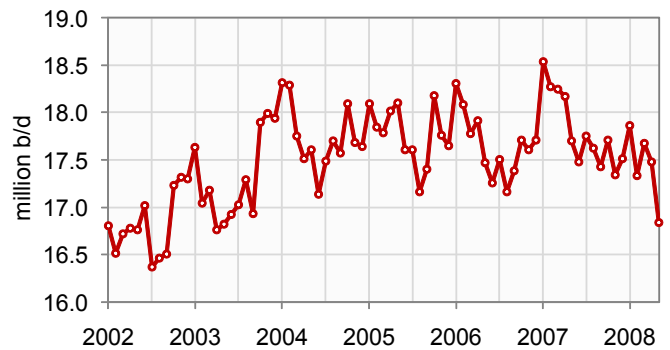
Chart 30: World Liquids Exports Estimate Jan. 2002 - May 2008



Source: derived from the IEA, EIA and JODI Database

In the first five months of 2008 average non-OPEC exports were estimated to be 17.44 million b/d. May saw a significant jump downwards due to a large monthly production outage in Canada. A proxy estimation of exports for 2003 gives a figure of 17.42 million b/d, increasing to 17.93 million b/d in 2004 and subsequently declining to 17.75 million b/d in 2005 and 17.68 million b/d in 2006. In 2007 non-OPEC exports increased to 17.89 million b/d.

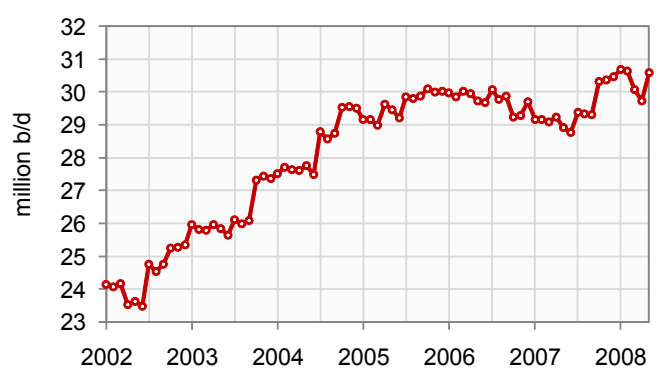
Chart 31: Non-OPEC Liquids Exports January 2002 - May 2008



Source: derived from the IEA, EIA and JODI Database

A proxy estimation of exports for OPEC 13 (including Iraq and Indonesia) for 2004 gives a figure of 28.37 million b/d, increasing to 29.60 million b/d in 2005, 29.76 million b/d in 2006 and declining to 29.46 million b/d in 2007. In the first five months of 2008 OPEC exports amounted to an average level of 30.34 million b/d.

Chart 32: OPEC Liquids Exports January 2002 - May 2008

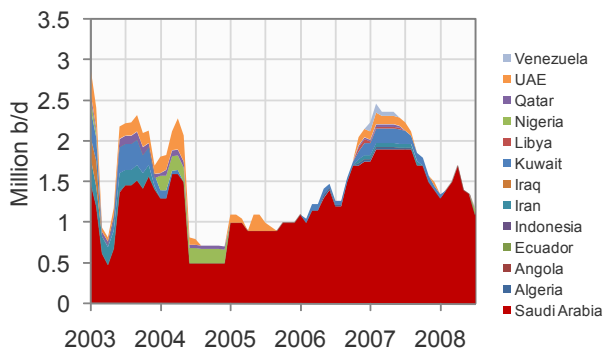


Source: derived from the IEA, EIA and JODI Database

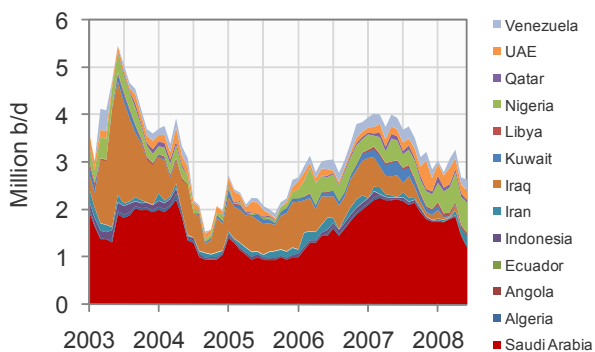
OPEC spare capacity

Total OPEC spare production capacity declined to 1.17 million b/d in July from a level of 1.35 million b/d in June according to the Energy Information Administration. Seeing a decline in Saudi spare capacity from 1.35 million b/d to 1.10 million b/d, and an increase in spare capacity in Nigeria from 0.0 to 0.07 million b/d.

According to the International Energy Agency total effective spare capacity (excluding Indonesia, Iraq, Venezuela and Nigeria) stands at 1.75 million b/d in June from a level of 1.96 million b/d in May. Estimating Saudi Arabia to be capable of producing an additional 1.2 million b/d within 90 days and Algeria, Iran, Libya, Qatar and the United Arab Emirates another 0.55 million b/d.

Chart 33: EIA OPEC Spare Capacity Jan. 2003 - July 2008


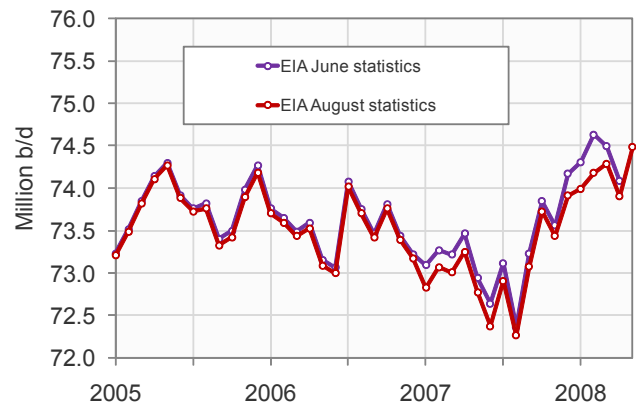
Source: Energy Information Administration

Chart 34: IEA OPEC Spare Capacity Jan. 2003 - May 2008


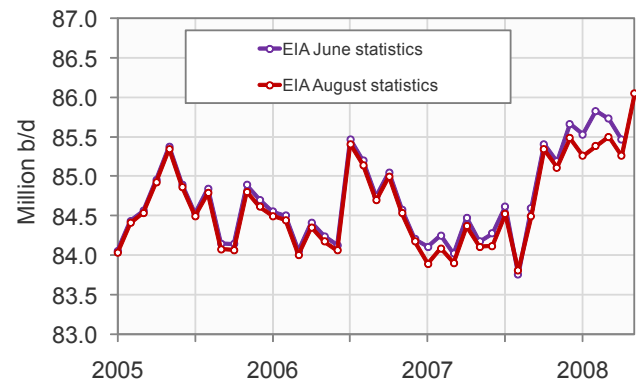
Source: International Energy Agency

EIA production revisions

The Energy information Administration revised historical production estimates for world crude and liquids production downwards for most of 2007 and 2008 in August. The revisions are mainly a result of changes in historic production estimates of the USA and Nigeria.

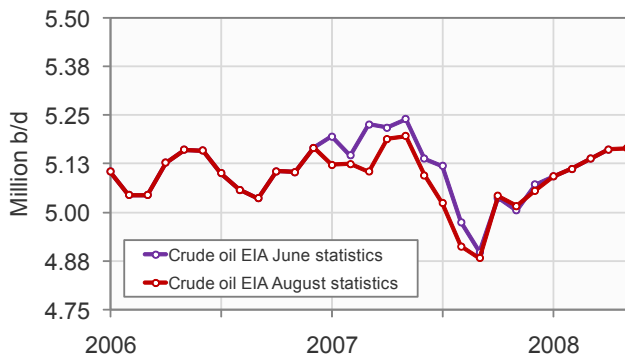
Chart 35: World crude oil production Jan. 2005 - May 2008


Source: Energy Information Administration

Chart 36: World Liquids production Jan. 2005 - May 2008


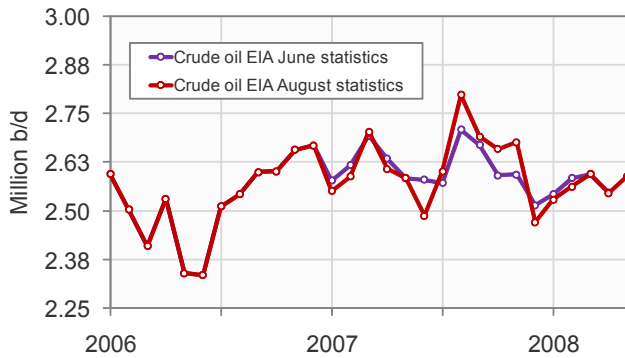
Source: Energy Information Administration

Chart 37: USA crude oil production Jan. 2005 - May 2008



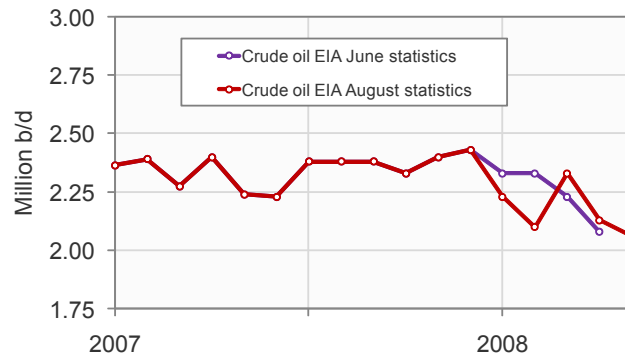
Source: Energy Information Administration

Chart 38: USA crude oil production Jan. 2005 - May 2008



Source: Energy Information Administration

Chart 39: Nigeria crude oil production Jan. 2007 - May 2008

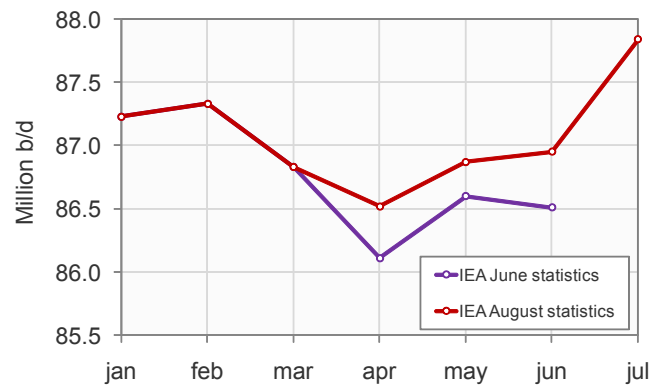


Source: Energy Information Administration

IEA production revisions

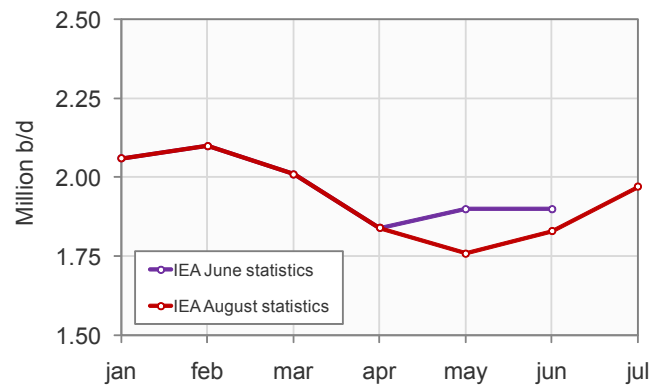
The Energy information Administration revised 2008 April, May and June world liquids production significantly upwards in August by on average 373.000 b/d. The revision was mainly a result of upward estimates in Nigeria, the United States, Norway and the United Kingdom.

Chart 40: World Liquids production Jan. 2008 - July 2008

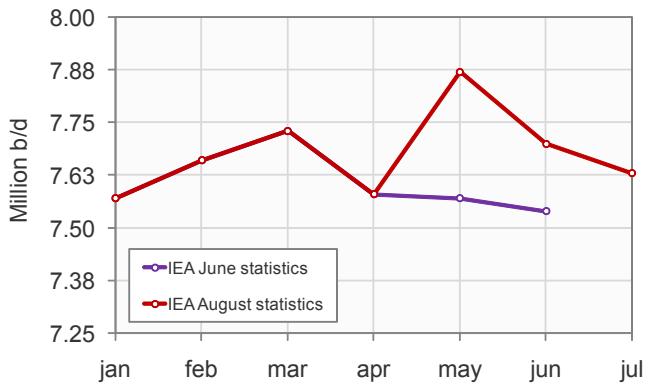


Source: International Energy Agency

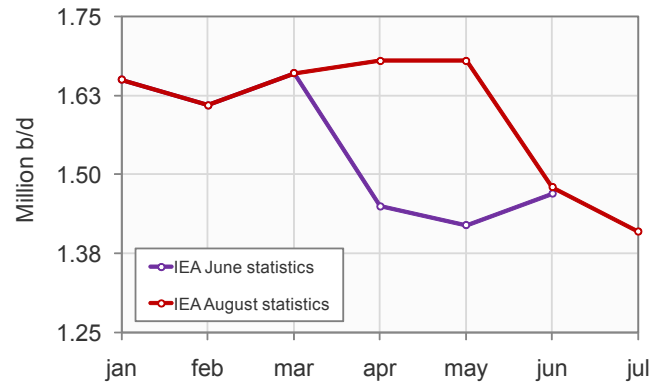
Chart 41: Nigeria Crude Oil production Jan. 2008 - July 2008



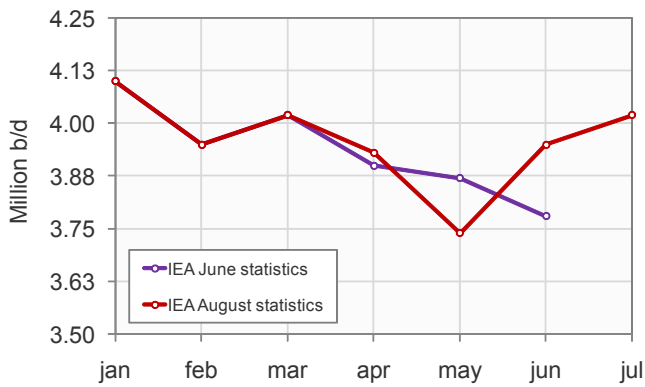
Source: International Energy Agency

Chart 42: US Liquids production Jan. 2008 - July 2008


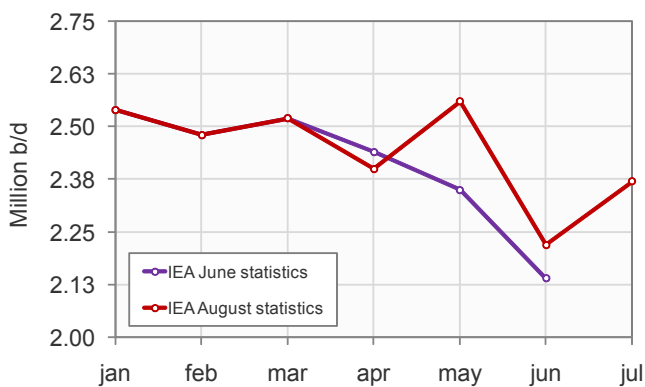
Source: International Energy Agency

Chart 45: United Kingdom Liquids production Jan. 2008 - July 2008


Source: International Energy Agency

Chart 43: Iran Crude Oil production Jan. 2008 - July 2008


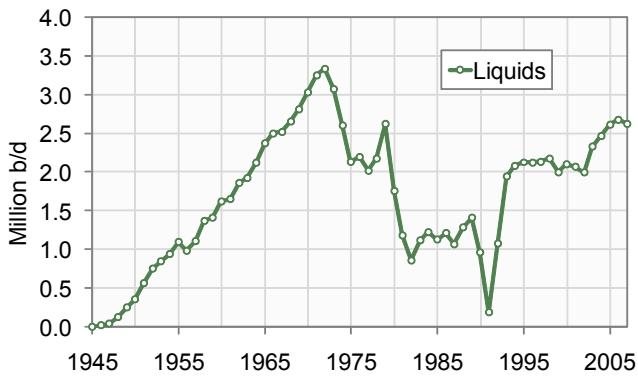
Source: International Energy Agency

Chart 44: Norway Liquids production Jan. 2008 - July 2008


Source: International Energy Agency

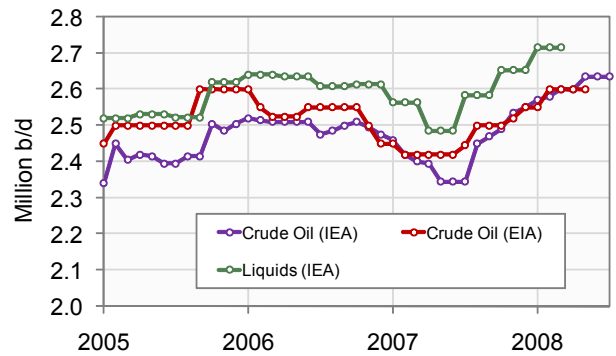
Middle East Production Charts

Chart 46: Kuwait Production 1945 - 2007



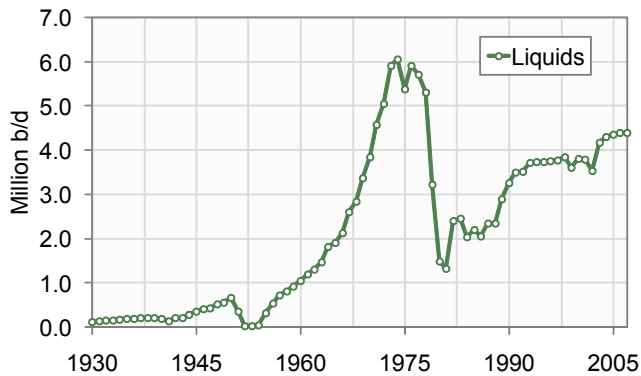
Source: ASPO Ireland & BP Statistical Review

Chart 47: Kuwait Production January 2005 - July 2008



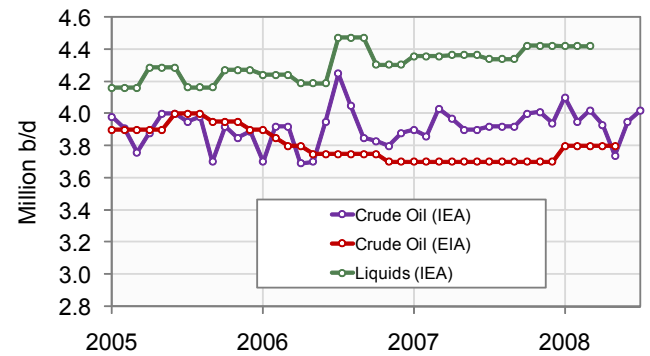
Source: Energy Information Administration & International Energy Agency

Chart 48: Iran Production 1930 - 2007



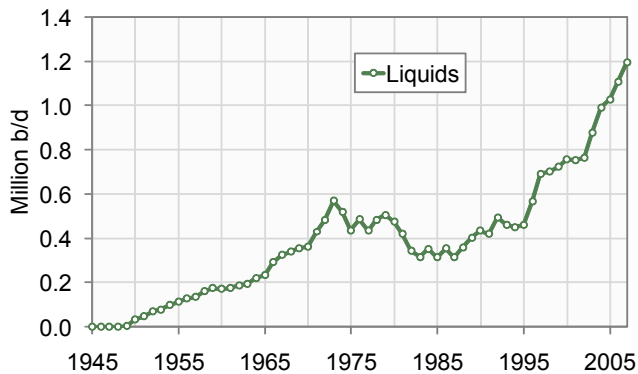
Source: ASPO Ireland & BP Statistical Review

Chart 49: Iran Production January 2005 - July 2008



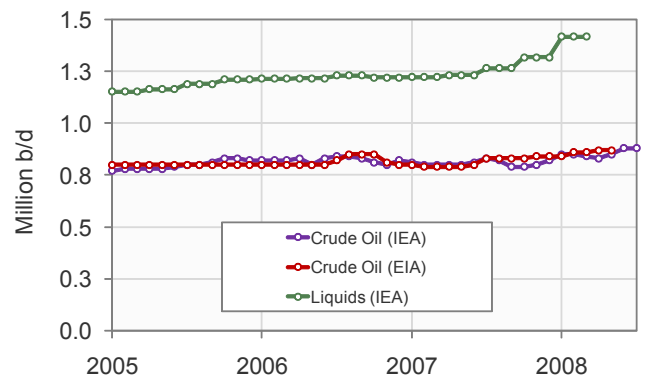
Source: Energy Information Administration & International Energy Agency

Chart 50: Qatar Production 1945 - 2007

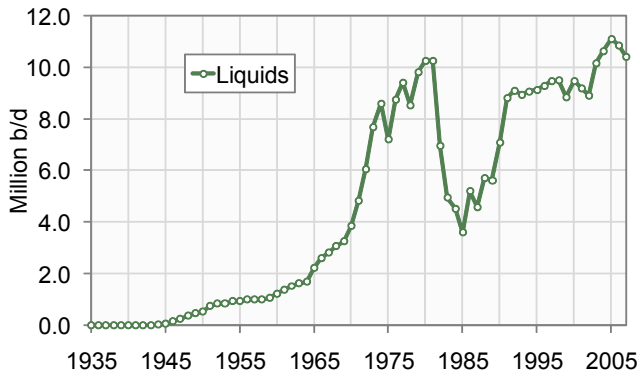


Source: ASPO Ireland & BP Statistical Review

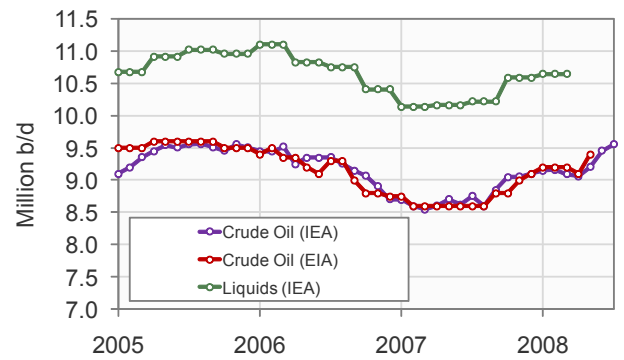
Chart 51: Qatar Production January 2005 - July 2008



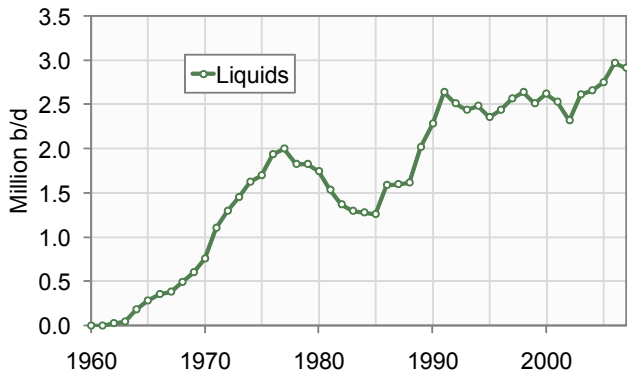
Source: Energy Information Administration & International Energy Agency

Chart 52: Saudi Arabia Production 1935 - 2007


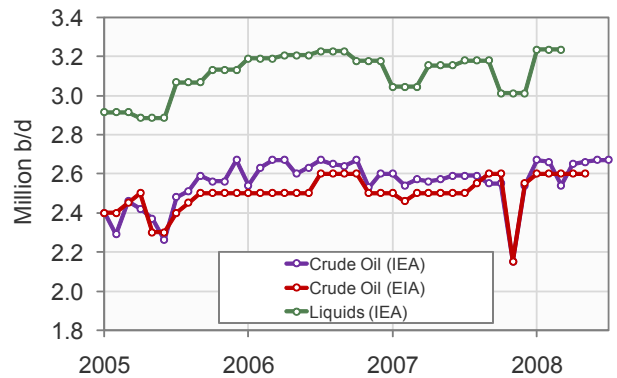
Source: ASPO Ireland & BP Statistical Review

Chart 53: Saudi Arabia Production January 2005 - July 2008


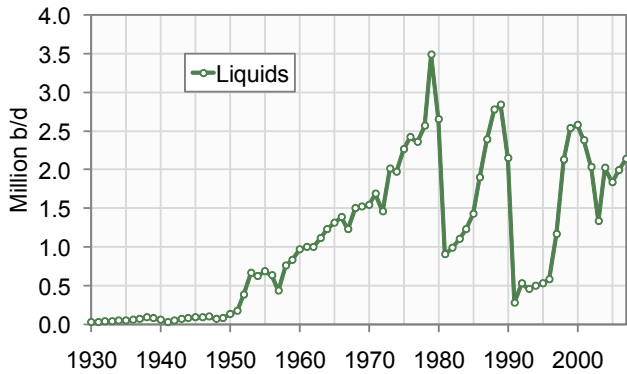
Source: Energy Information Administration & International Energy Agency

Chart 54: UAE Production 1960 - 2007


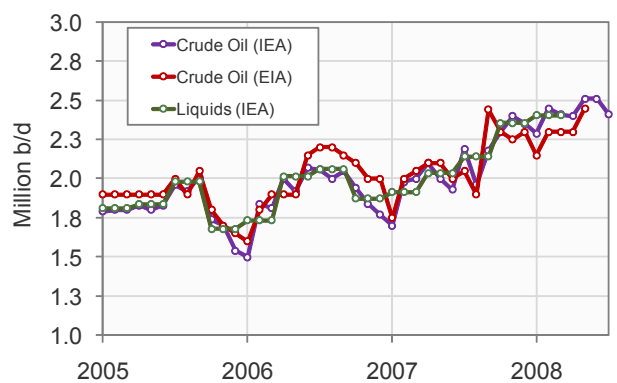
Source: ASPO Ireland & BP Statistical Review

Chart 55: UAE Production January 2005 - July 2008


Source: Energy Information Administration & International Energy Agency

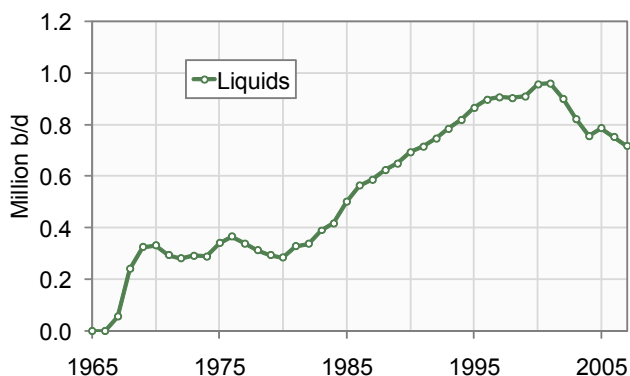
Chart 56: Iraq Production 1930 - 2007


Source: ASPO Ireland & BP Statistical Review

Chart 57: Iraq Production January 2005 - July 2008


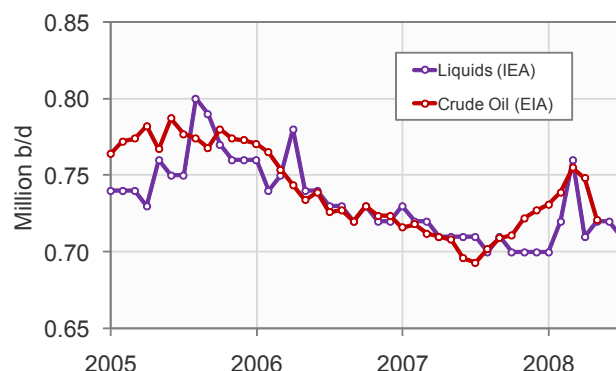
Source: Energy Information Administration & International Energy Agency

Chart 58: Oman Production 1965 - 2007



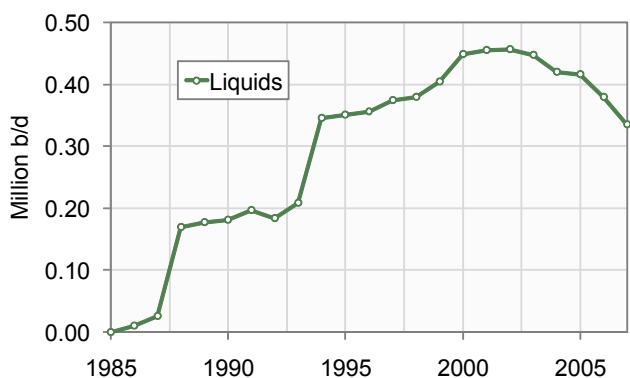
Source: Energy Information Administration & International Energy Agency

Chart 59: Oman Production January 2005 - July 2008



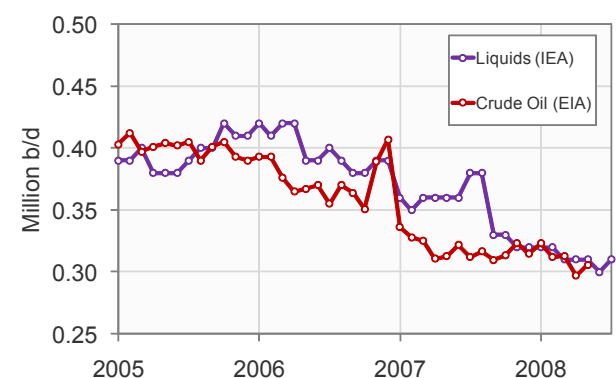
Source: Energy Information Administration & International Energy Agency

Chart 60: Yemen Production 1985 - 2007



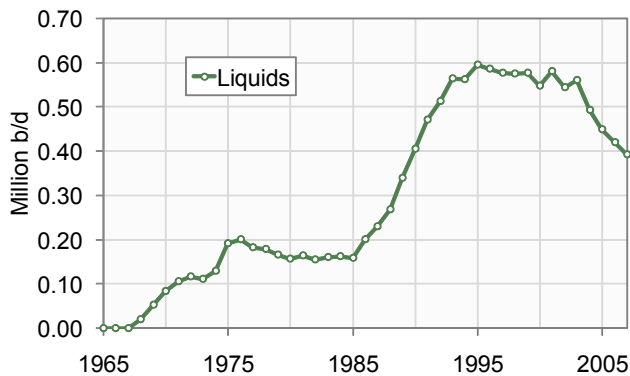
Source: Energy Information Administration & International Energy Agency

Chart 61: Yemen Production January 2005 - July 2008



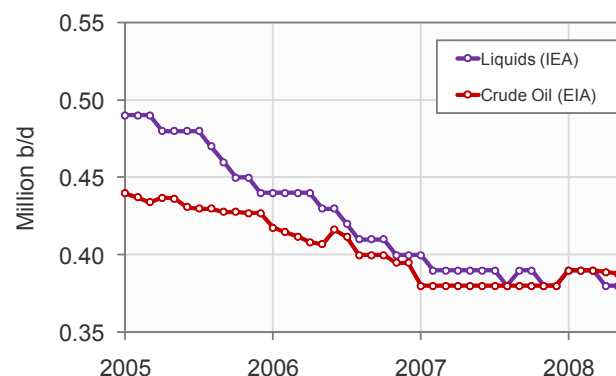
Source: Energy Information Administration & International Energy Agency

Chart 62: Syria Production 1965 - 2007

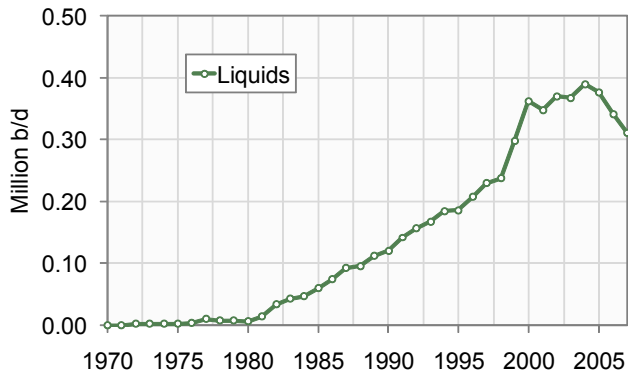


Source: Energy Information Administration & International Energy Agency

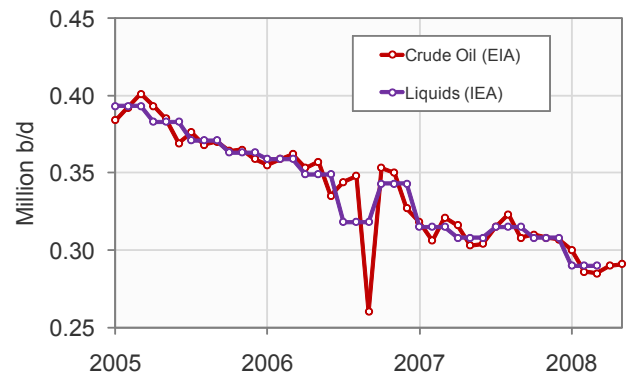
Chart 63: Syria Production January 2005 - July 2008



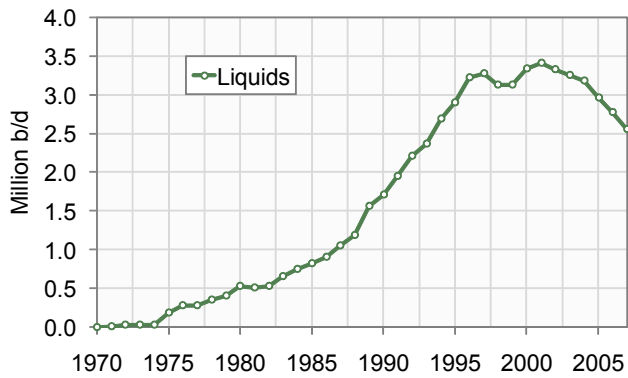
Source: Energy Information Administration & International Energy Agency

Chart 64: Denmark Production 1970 - 2007


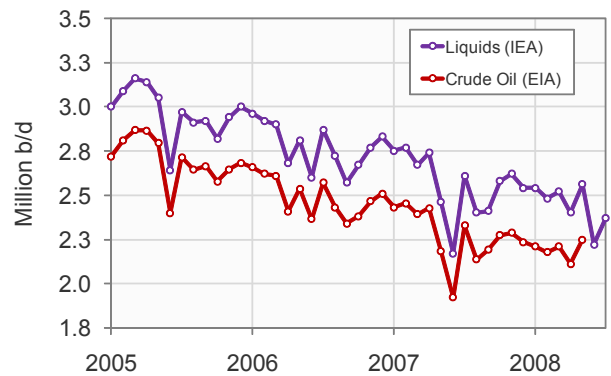
Source: ASPO Ireland & BP Statistical Review

Chart 65: Denmark Production January 2005 - May 2008


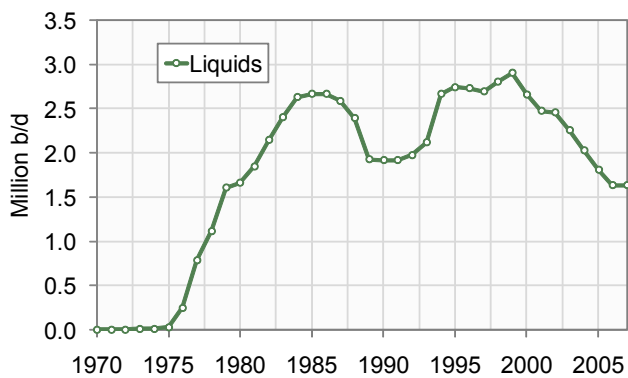
Source: Energy Information Administration & International Energy Agency

Chart 66: Norway Production 1970 - 2007


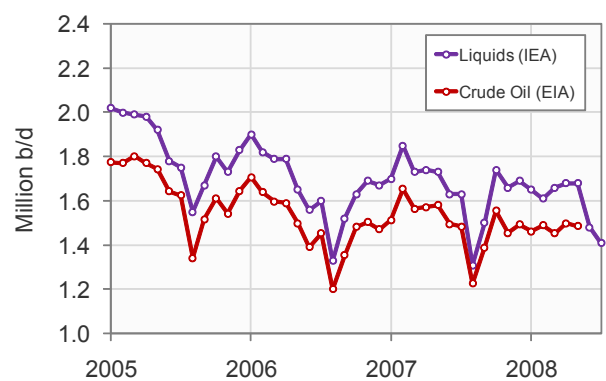
Source: ASPO Ireland & BP Statistical Review

Chart 67: Norway Production January 2005 - July 2008


Source: Energy Information Administration & International Energy Agency

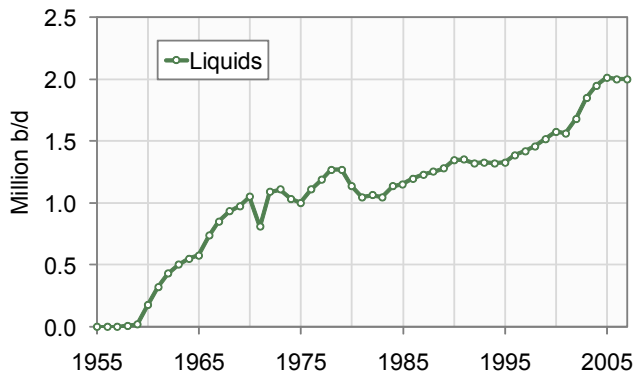
Chart 68: United Kingdom Production 1970 - 2007


Source: ASPO Ireland & BP Statistical Review

Chart 69: United Kingdom Production Jan. 2005 - July 2008


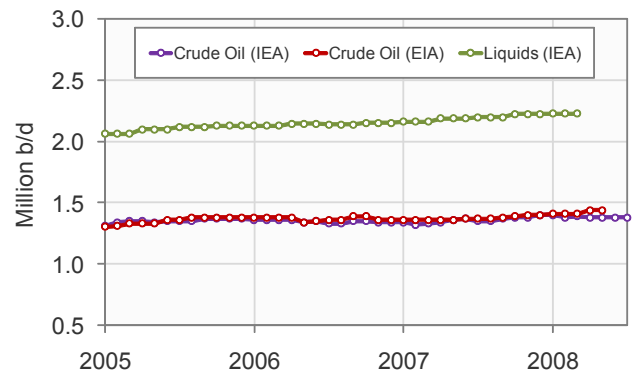
Source: Energy Information Administration & International Energy Agency

Chart 70: Algeria Production 1955 - 2007



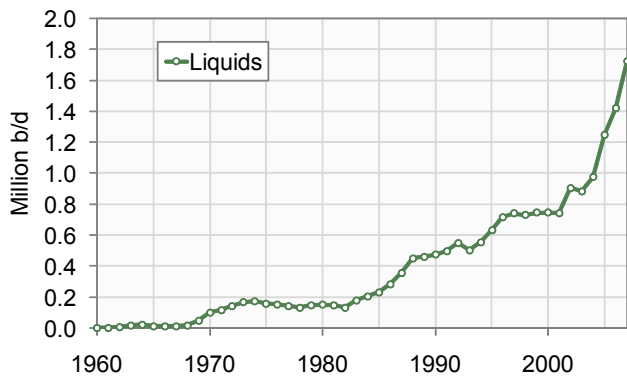
Source: ASPO Ireland & BP Statistical Review

Chart 71: Algeria Production January 2005 - July 2008



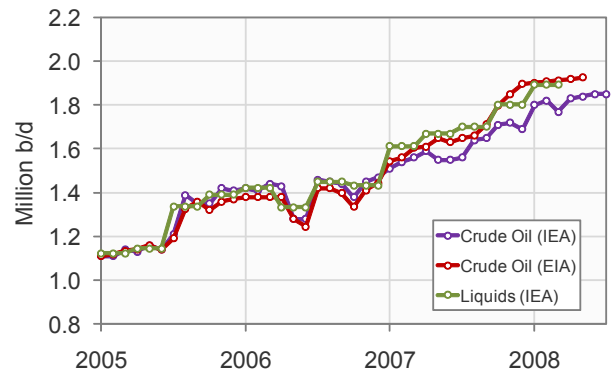
Source: Energy Information Administration & International Energy Agency

Chart 72: Angola Production 1960 - 2007



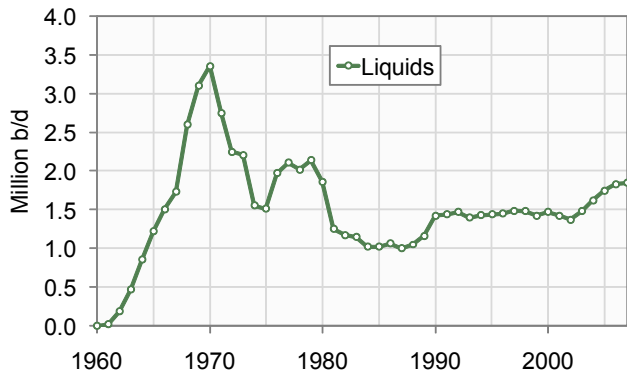
Source: ASPO Ireland & BP Statistical Review

Chart 73: Angola Production January 2005 - July 2008



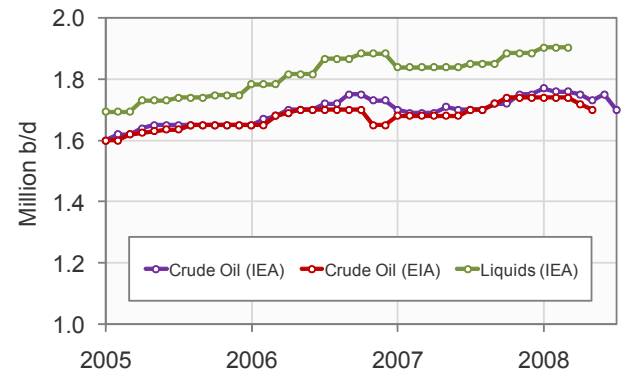
Source: Energy Information Administration & International Energy Agency

Chart 74: Libya Production 1970 - 2007

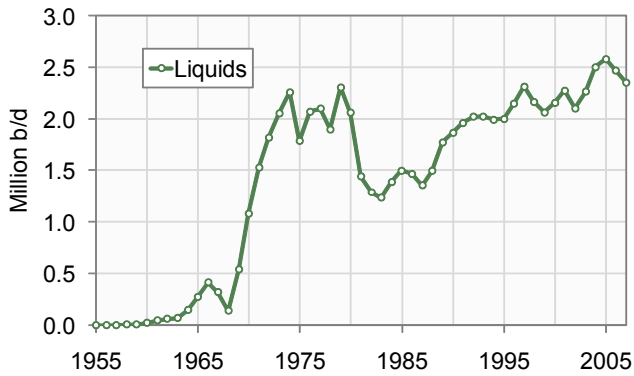


Source: ASPO Ireland & BP Statistical Review

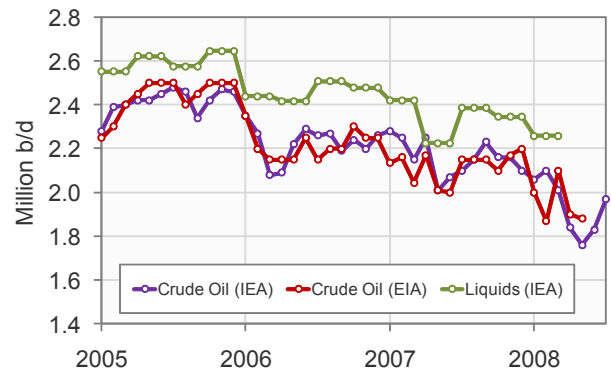
Chart 75: Libya Production January 2005 - July 2008



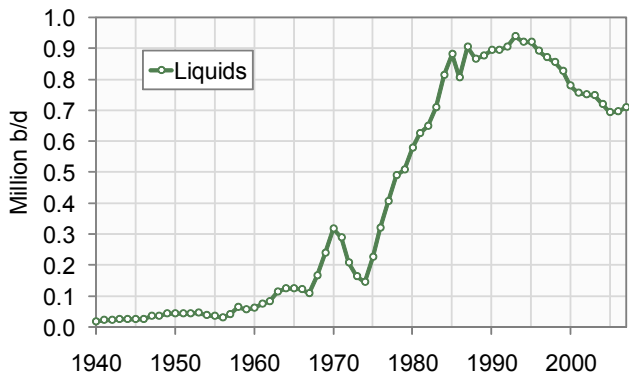
Source: Energy Information Administration & International Energy Agency

Chart 76: Nigeria Production 1955 - 2007


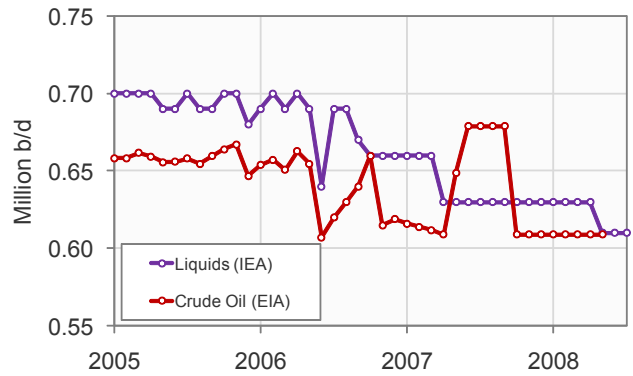
Source: ASPO Ireland & BP Statistical Review

Chart 77: Nigeria Production January 2005 - July 2008


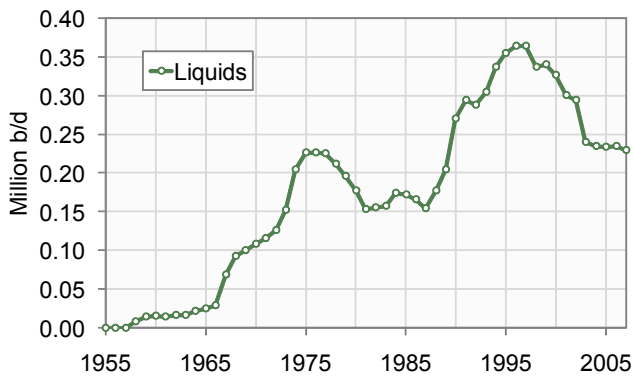
Source: Energy Information Administration & International Energy Agency

Chart 78: Egypt Production 1940 - 2007


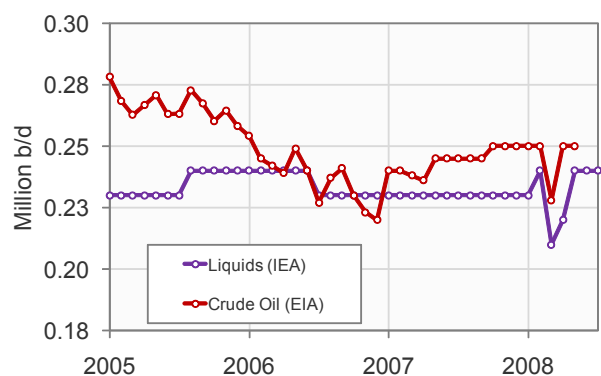
Source: ASPO Ireland & BP Statistical Review

Chart 79: Egypt Production January 2005 - July 2008


Source: Energy Information Administration & International Energy Agency

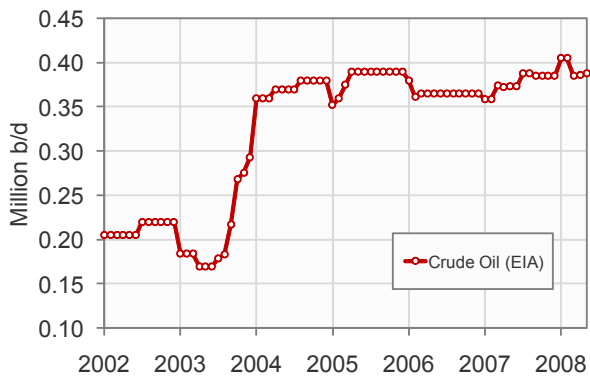
Chart 80: Gabon Production 1955 - 2007


Source: ASPO Ireland & BP Statistical Review

Chart 81: Gabon Production January 2005 - July 2008


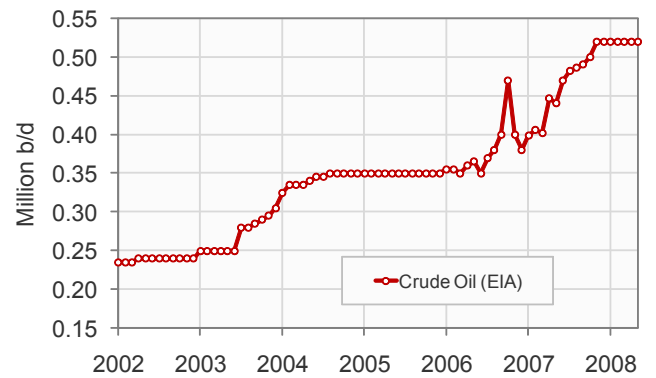
Source: Energy Information Administration & International Energy Agency

Chart 82: Equatorial Guinea Production Jan. 2002 - May 2008



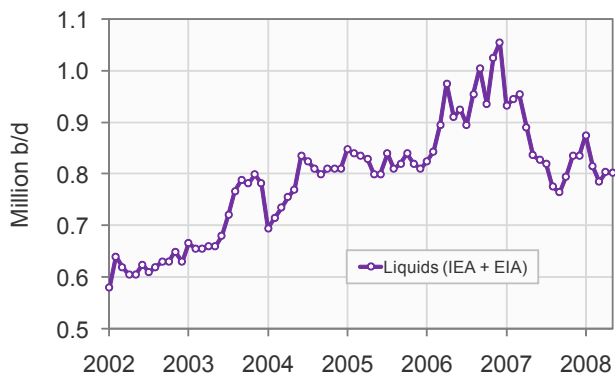
Source: Energy Information Administration

Chart 83: Sudan Production January 2002 - May 2008

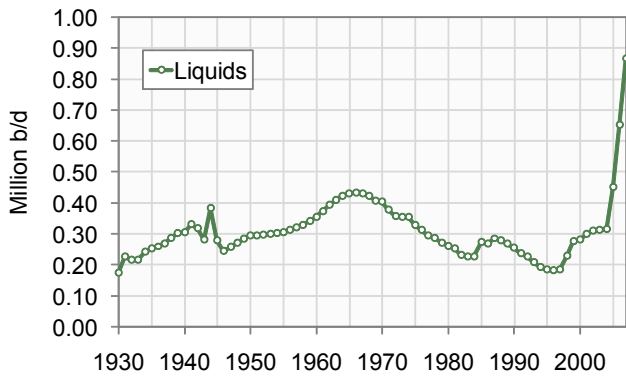


Source: Energy Information Administration

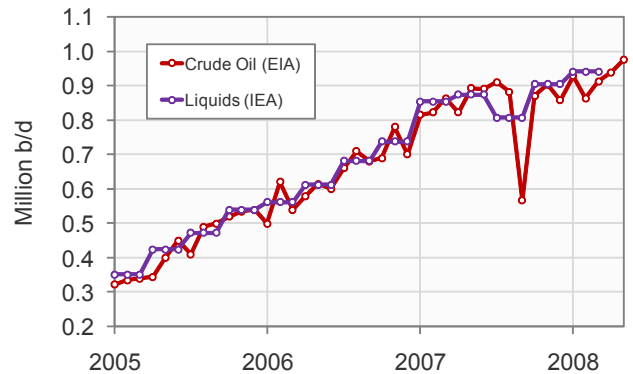
Chart 84: Other Africa Production January 2002 - May 2008



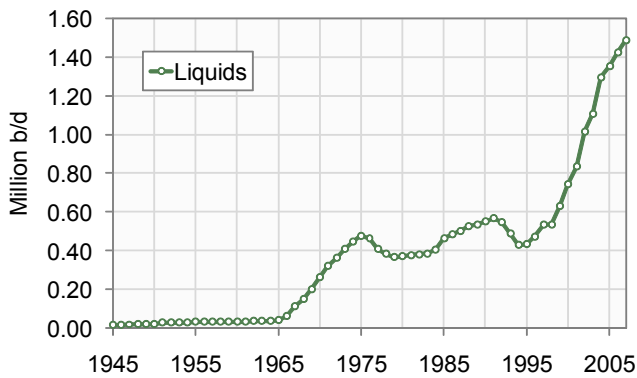
Source: Energy Information Administration & International Energy Agency

Chart 85: Azerbaijan Production 1930 - 2007


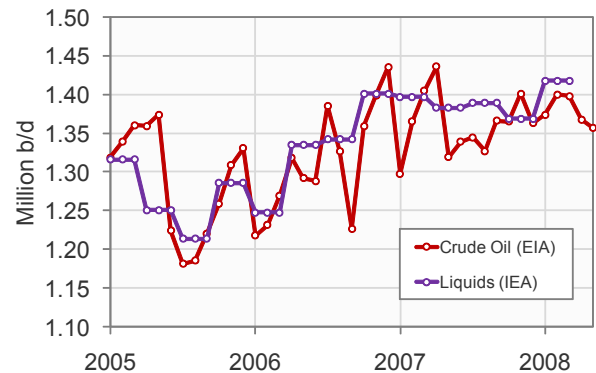
Source: ASPO Ireland & BP Statistical Review

Chart 86: Azerbaijan Production January 2005 - May 2008


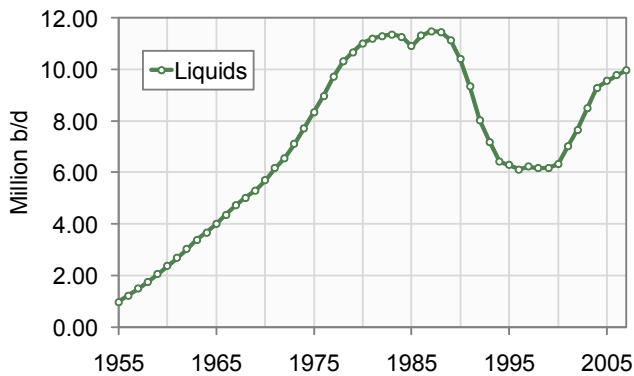
Source: Energy Information Administration & International Energy Agency

Chart 87: Kazakhstan Production 1945 - 2007


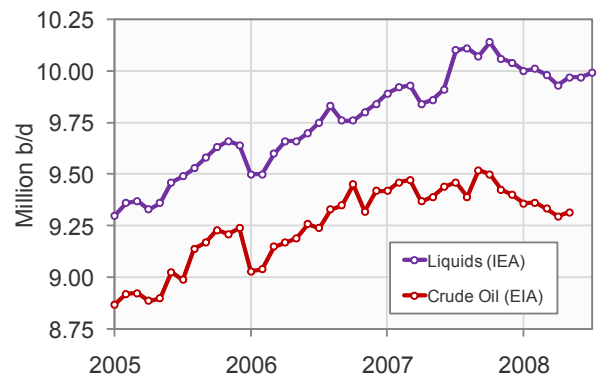
Source: ASPO Ireland & BP Statistical Review

Chart 88: Kazakhstan Production January 2005 - May 2008


Source: Energy Information Administration & International Energy Agency

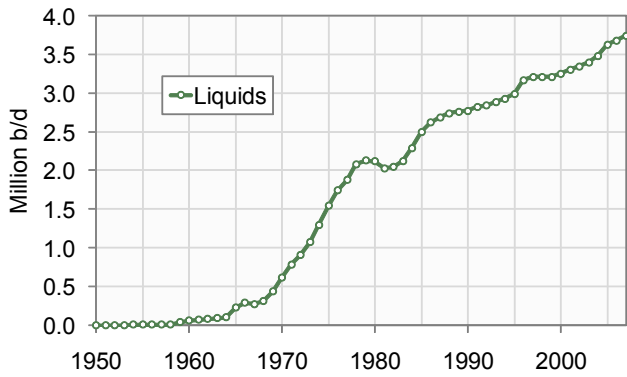
Chart 89: Russia Production 1955 - 2007


Source: ASPO Ireland & BP Statistical Review

Chart 90: Russia Production January 2005 - July 2008


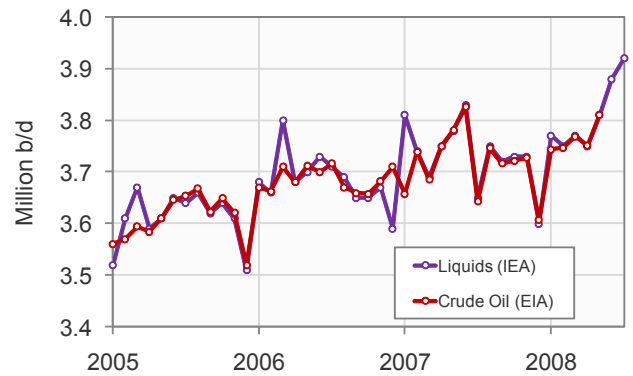
Source: Energy Information Administration & International Energy Agency

Chart 91: China Production 1950 - 2007



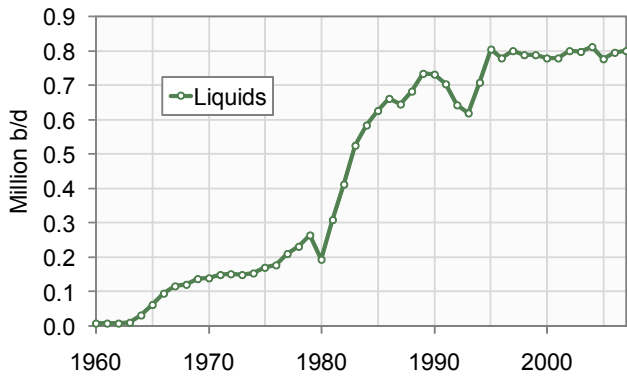
Source: ASPO Ireland & BP Statistical Review

Chart 92: China Production January 2005 - July 2008



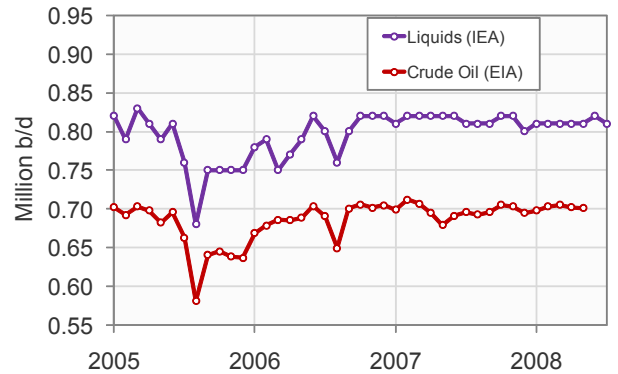
Source: Energy Information Administration & International Energy Agency

Chart 93: India Production 1960 - 2007



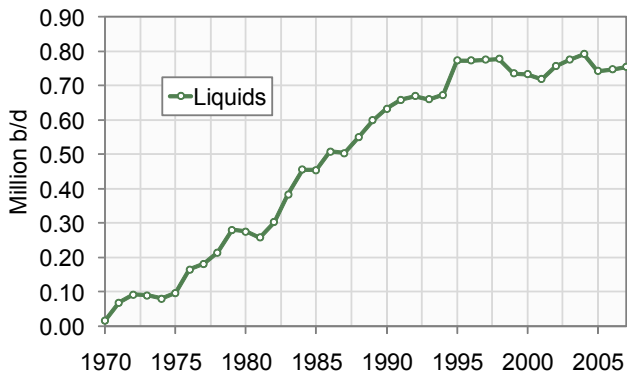
Source: ASPO Ireland & BP Statistical Review

Chart 94: India Production January 2005 - July 2008



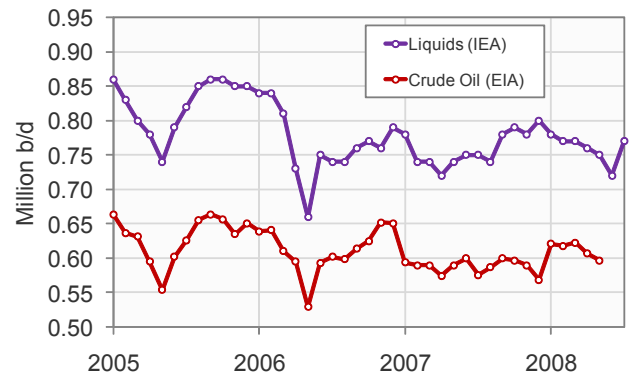
Source: Energy Information Administration & International Energy Agency

Chart 95: Malaysia Production 1955 - 2007

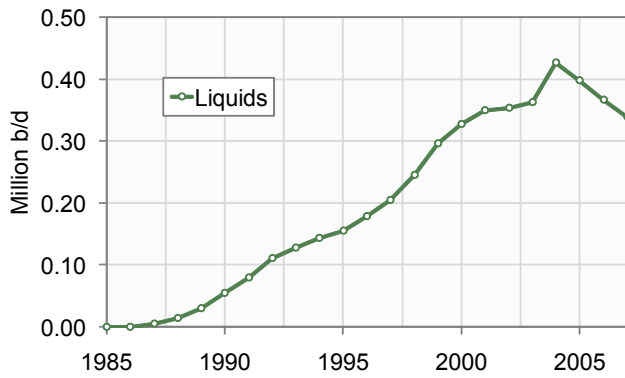


Source: ASPO Ireland & BP Statistical Review

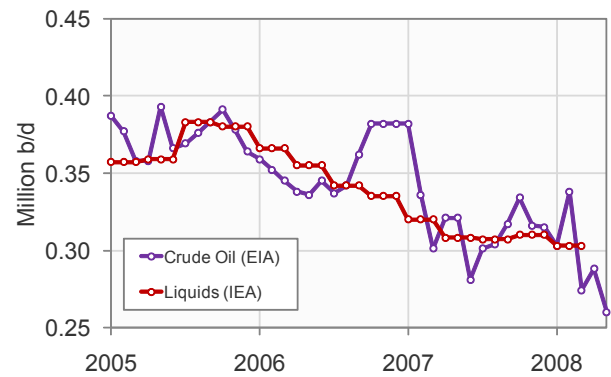
Chart 96: Malaysia Production January 2005 - July 2008



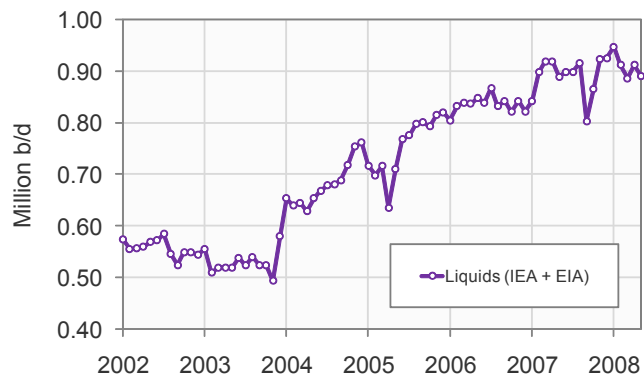
Source: Energy Information Administration & International Energy Agency

Chart 97: Vietnam Production 1955 - 2007


Source: ASPO Ireland & BP Statistical Review

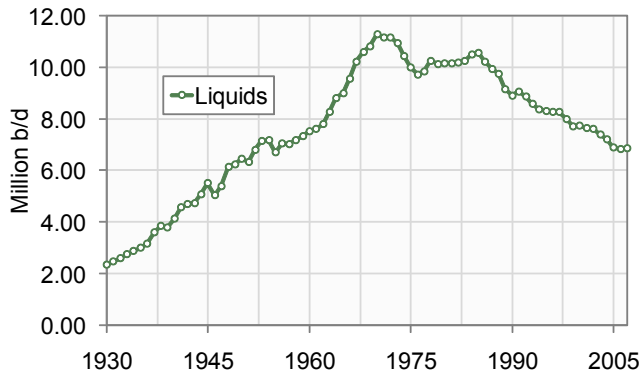
Chart 98: Vietnam Production January 2005 - May 2008


Source: Energy Information Administration & International Energy Agency

Chart 99: Other Asia Production January 2002 - May 2008


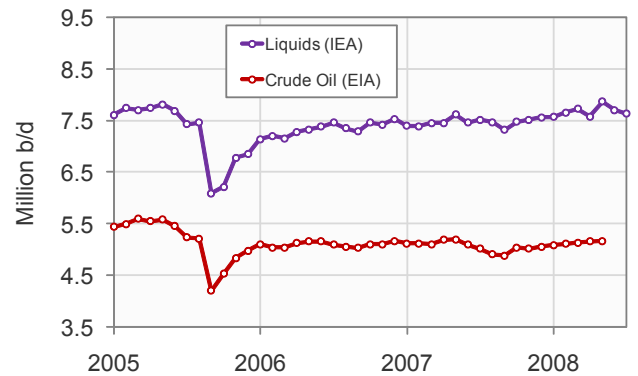
Source: Energy Information Administration & International Energy Agency

Chart 100: United States Production 1930 - 2007



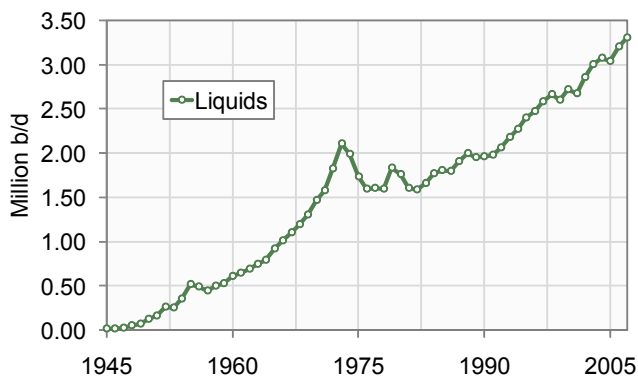
Source: ASPO Ireland & BP Statistical Review

Chart 101: United States Production January 2005 - July 2008



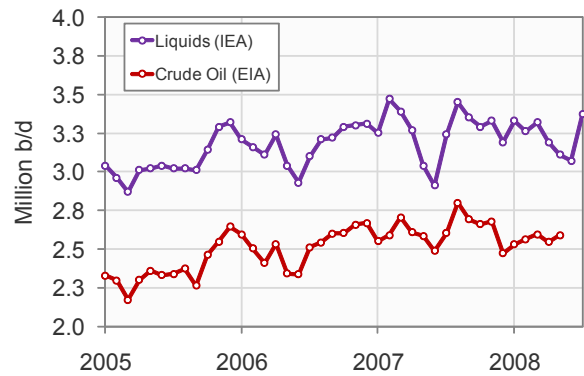
Source: Energy Information Administration & International Energy Agency

Chart 102: Canada Production 1945 - 2007



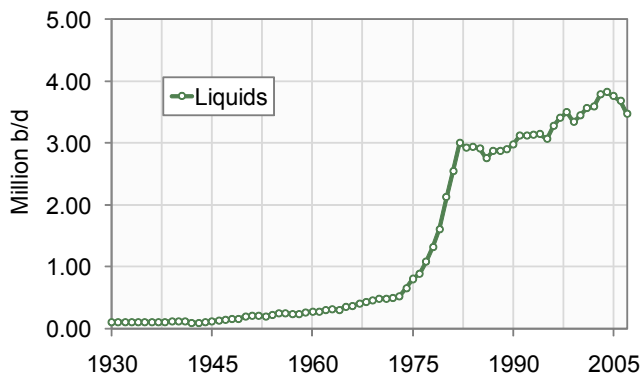
Source: ASPO Ireland & BP Statistical Review

Chart 103: Canada Production January 2005 - July 2008



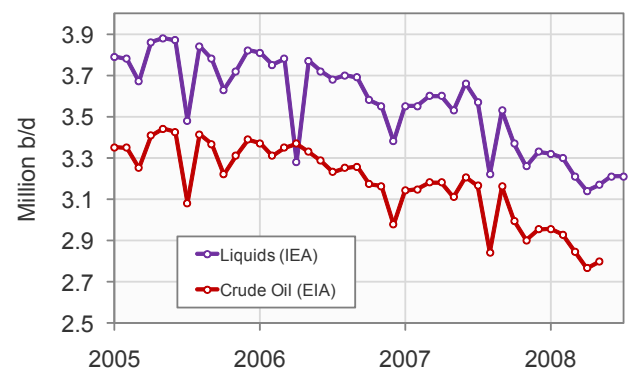
Source: Energy Information Administration & International Energy Agency

Chart 104: Mexico Production 1930 - 2007

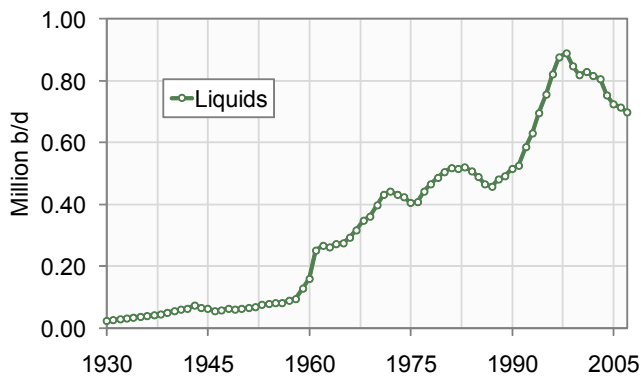


Source: ASPO Ireland & BP Statistical Review

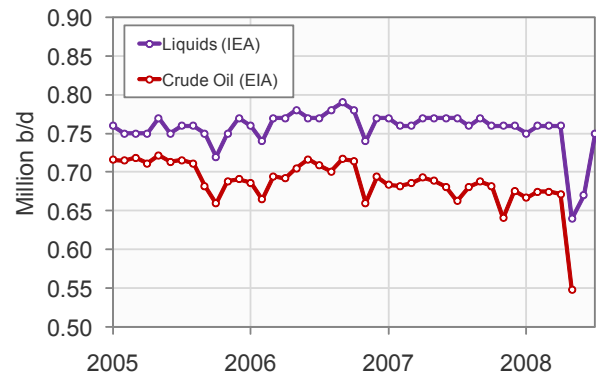
Chart 105: Mexico Production January 2005 - July 2008



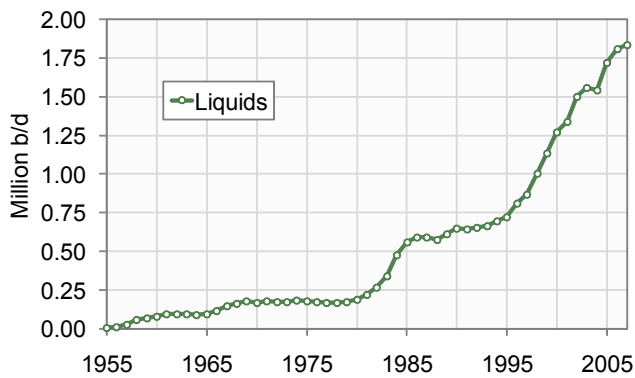
Source: Energy Information Administration & International Energy Agency

Chart 106: Argentina Production 1930 - 2007


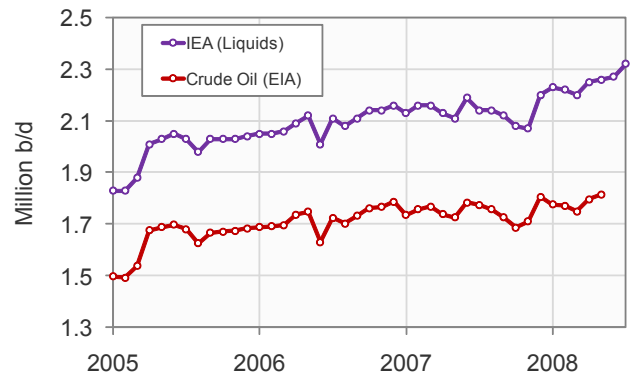
Source: ASPO Ireland & BP Statistical Review

Chart 107: Argentina Production January 2005 - July 2008


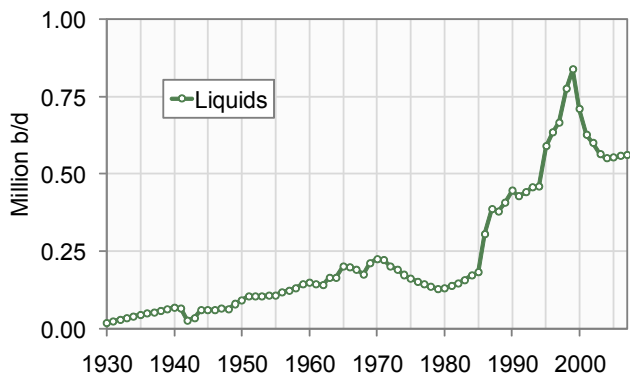
Source: Energy Information Administration & International Energy Agency

Chart 108: Brazil Production 1955 - 2007


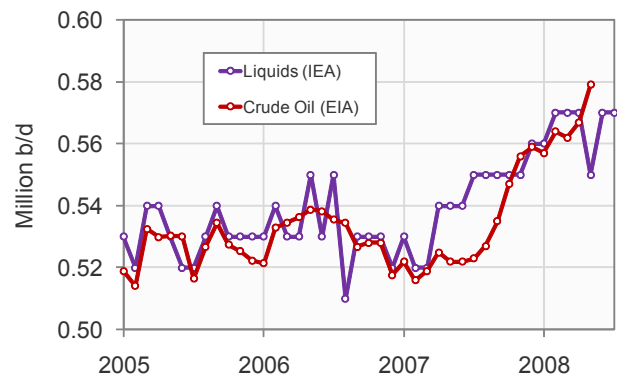
Source: ASPO Ireland & BP Statistical Review

Chart 109: Brazil Production January 2005 - July 2008


Source: Energy Information Administration & International Energy Agency

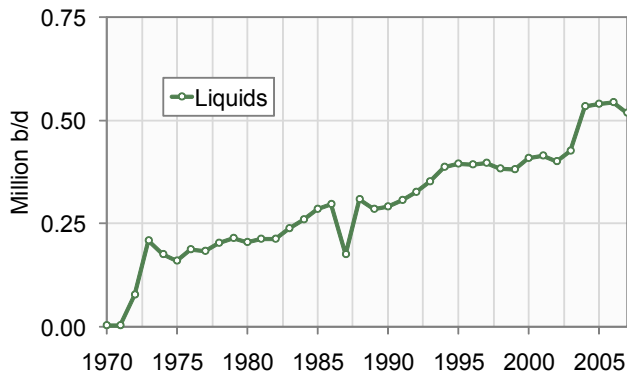
Chart 110: Colombia Production 1930 - 2007


Source: ASPO Ireland & BP Statistical Review

Chart 111: Colombia Production January 2005 - July 2008


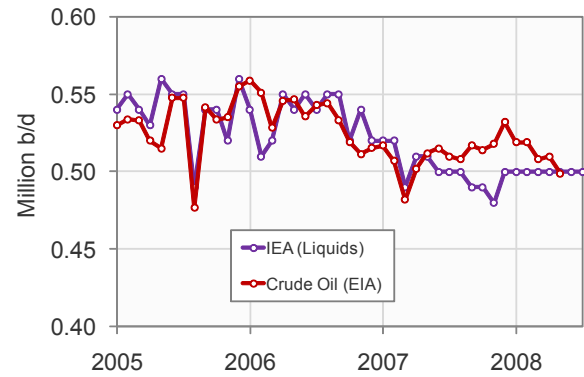
Source: Energy Information Administration & International Energy Agency

Chart 112: Ecuador Production 1970 - 2007



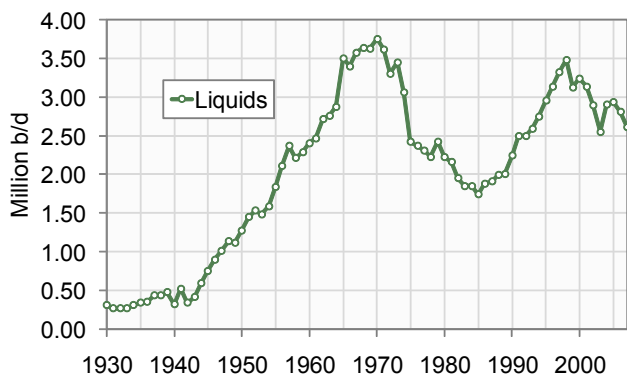
Source: ASPO Ireland & BP Statistical Review

Chart 113: Ecuador Production January 2005 - July 2008



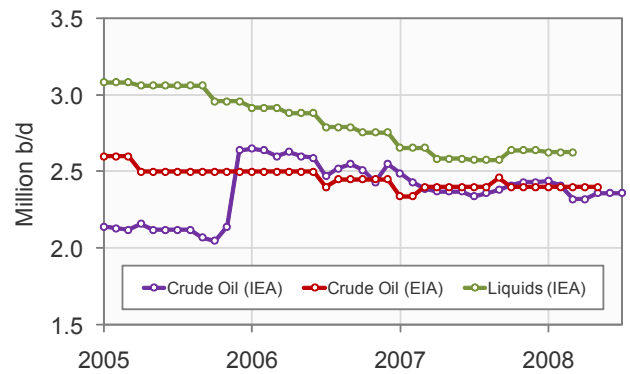
Source: Energy Information Administration & International Energy Agency

Chart 114: Venezuela Production 1930 - 2007



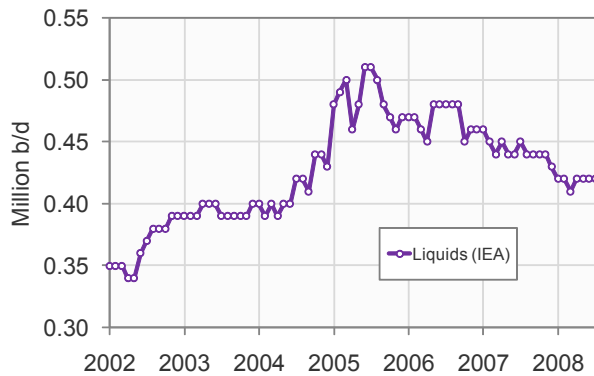
Source: ASPO Ireland & BP Statistical Review

Chart 115: Venezuela Production Jan. 2005 - July 2008

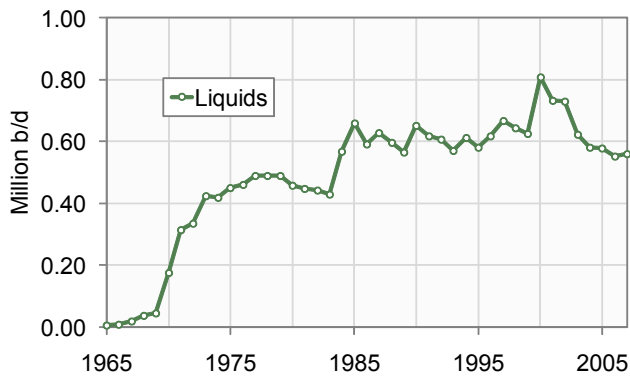


Source: Energy Information Administration & International Energy Agency

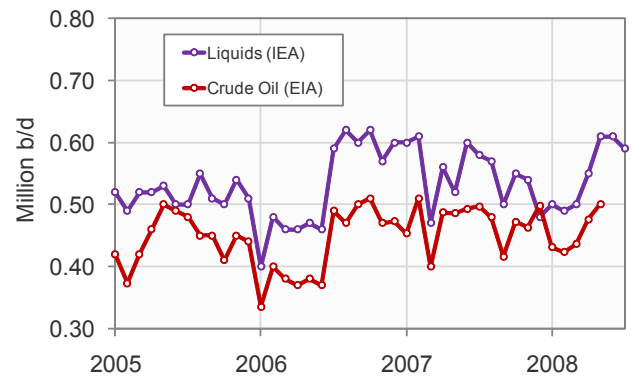
Chart 116: Other S. America Production Jan. 2002 - July 2008



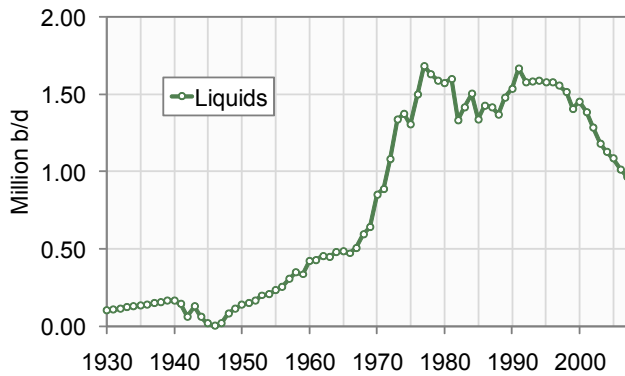
Source: International Energy Agency

Chart 117: Australia Production 1970 - 2007


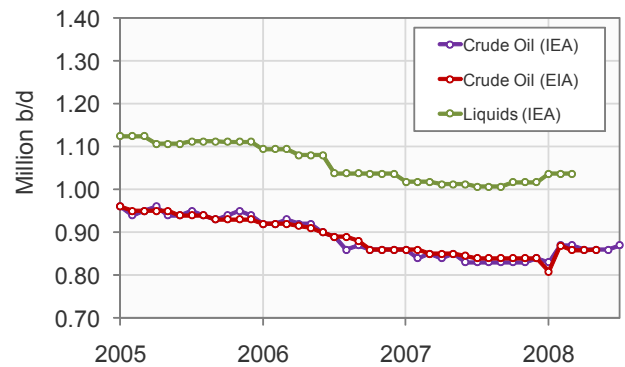
Source: ASPO Ireland & BP Statistical Review

Chart 118: Australia Production January 2005 - July 2008


Source: Energy Information Administration & International Energy Agency

Chart 119: Indonesia Production 1930 - 2007


Source: ASPO Ireland & BP Statistical Review

Chart 120: Indonesia Production January 2005 - July 2008


Source: Energy Information Administration & International Energy Agency