Oilwatch monthly

Your coverage on the latest worldwide oil market developments

15 June 2009 - *(next update: 15 July 2009)*

ASPO Netherlands

Rembrandt Koppelaar +31 (0)6 44082419
contact@peakoil.nl
www.peakoil.nl

Powered by **www.theoildrum.com**

The Oil Drum
DISCUSSIONS ABOUT ENERGY AND OUR FUTURE

Non-OPEC oil production is about to decline

The group of countries outside the OPEC cartel currently still produces 60% of world oil production. But this situation will not last much longer as non-OPEC production is to fall off its plateau in 2010. A plateau that began at the end of 2003 between a production level of 49 to 51 million barrels per day. Caused by declining production in most of the producing countries in non-OPEC including Norway, the United Kingdom, Denmark, Australia, Mexico, the United States and Indonesia. Their decline has until now been compensated by increasing production mainly in Russia, Kazakhstan, Azerbaijan, China, Brazil and Canada. But Russian production has been on a plateau since end 2007 and is expected to begin declining soon.

Of even more importance is the overall decline in investments due to the economic crisis. There was a surge in investment in peaked non-OPEC countries as the oil price rose since 2006 which turned around into a large suspension of projects and an even bigger postponement. Ranging from projects such as an extension to the Forties field in the UK that would start producing in 2009 adding 25.000 b/d of capacity but has now been cancelled, to the production of 300.000 b/d from the offshore field of Jidong Kanpu in China, which has been postponed from early 2010 to the end of 2011. The extent of cancellation and postponement of project has been presented to the G8 by the International Energy Agency last May, and sums up to several million barrels in non-OPEC countries that will not come onto the market in the 2009-2011 period. This end to the investment boom is going to lead to deeper declines in already peaked countries, and hence declining production in overall non-OPEC. More light on the extent of the decline in non-OPEC is going to come forth from the medium term oil market outlook from the IEA to be published on 29 June. A report which could prove to be a shocker to many. As its conclusion will undoubtedly be that OPEC countries will be the main producers left to prevent an oil crisis from happening in the next five years. The spare capacity that OPEC currently has, is far from sufficient to provide the world with the oil it needs for sustained economic growth on the midterm.

The consequence of this market change will be large as OPEC gains increasing control and considerable influence on the world's economy, because it will be the main block left that can increase oil exports in a couple of years. It could very well mean beginning of the end of the free oil market, as large consuming countries such as the USA and China increasingly seek to gain influence over OPEC her oil flows. Be it through political or military channels. Hopefully, the countries of the OPEC cartel will be able to significantly increase their production in the next five to ten years, giving the world some breathing room to build large scale alternatives to oil. But this remains a dim prospect given the difficulties that the cartel is already facing with expanding production due to mainly political problems.

Rembrandt Koppelaar

President ASPO Netherlands

Definitions

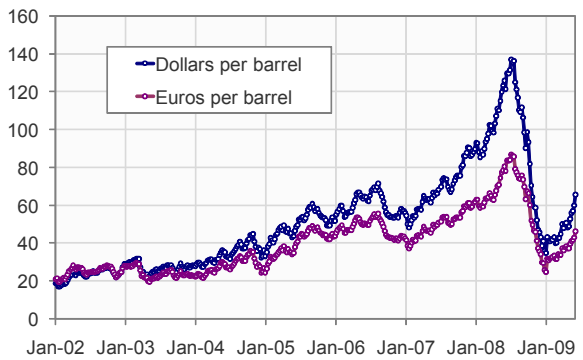
Crude Oil, petroleum found in liquid and semi liquid form including deepsea and lease condensates.

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

Newsletter Index

Chart 1: Oil Price Weighed Average of Blends

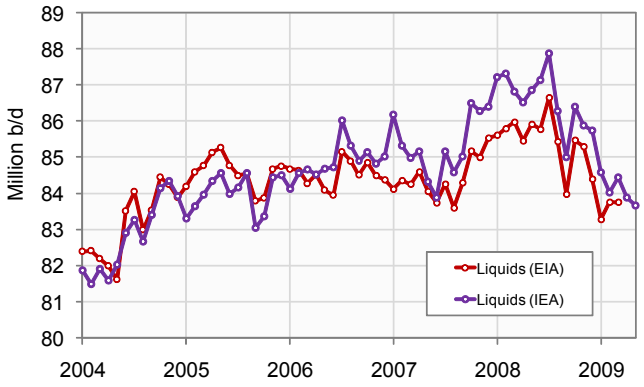


Source: Energy Information Admistration

World liquids production status
In May 2009 world production of total liquids decreased by 220,000 barrels per day from April according to the latest figures of the International Energy Agency (IEA). Resulting in total world liquids production of 83.67 million b/d.

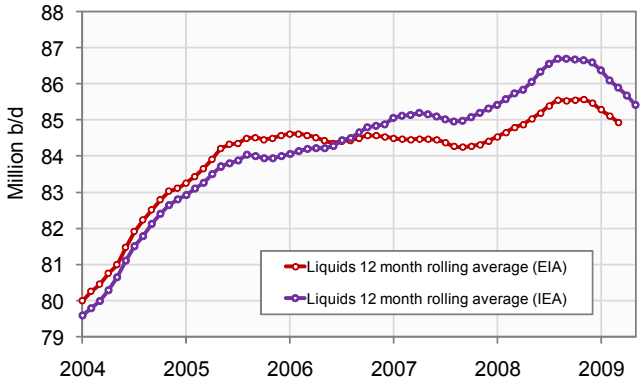
Average global production in 2009 up to May was 84.13 million b/d. In 2008 and 2007 an average of respectively 86.59 and 85.41 million b/d was produced. The US Energy Information Administration (EIA) in their International Petroleum Monthly puts average global 2008 production at 85.46 million b/d and average 2007 production at 84.43 million b/d.

Chart 2: World Liquids Production Jan. 2004 - May 2009



Source: Energy Information Admistration, International Energy Agency

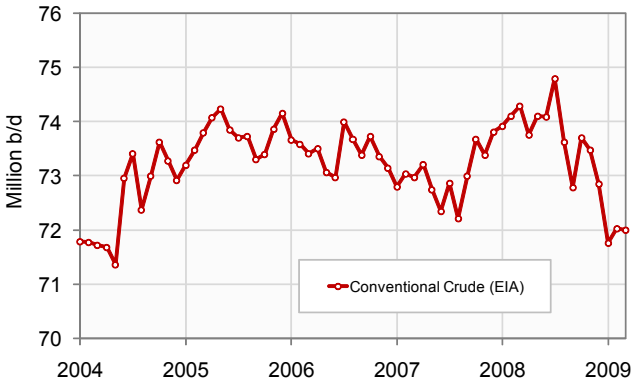
Chart 3: World Liquids 12m rolling average Jan. 2004 - May 2009



Source: Energy Information Administration, International Energy Agency

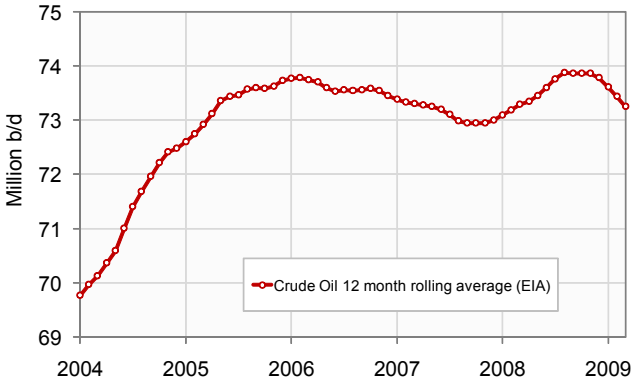
World crude oil production status
Latest available figures from the Energy Information Administration (EIA) show that crude oil production including lease condensates decreased by 34,000 b/d from February to March 2009. Resulting in a total production of crude oil including lease condensates of 72.00 million barrels per day. The all time high production record of crude oil stands at 74.80 million b/d reached in July 2008.

Chart 4: World Crude Oil Production January 2004 - March 2009



Source: Energy Information Administration

Chart 5: World Crude 12m rolling average Jan. 2004 - March 2009

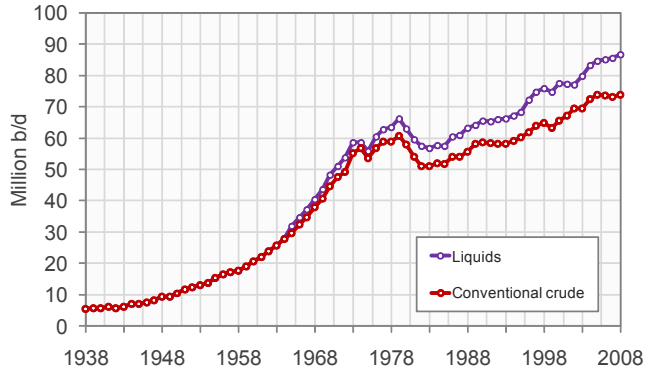


Source: Energy Information Administration

World conventional crude versus liquids production ratio

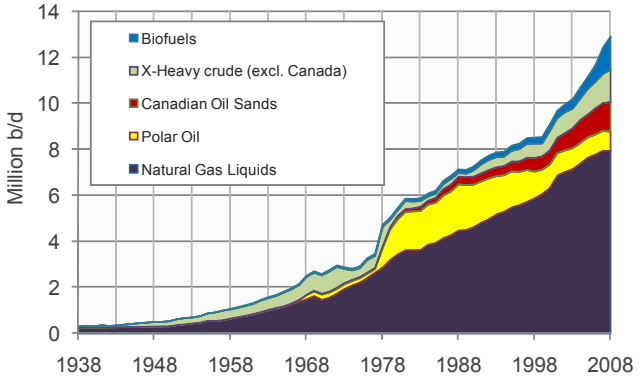
Approximately 85% of world liquids production in 2008 came from conventional crude oil including lease condensates. The remaining share of 15% was produced by other unconventional sources including Biofuels, Extra Heavy Oil, Tar Sands, Polar Oil and Natural Gas Liquids. In absolute amounts unconventional production has increased steadily, from 4 million b/d at the end of the 1970s, to approximately 12.9 mb/d in 2008 excluding lease condensates.

Chart 6: World Crude and Liquids production 1937 - 2008



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

Chart 7: World Unconventional Production 1937 - 2008

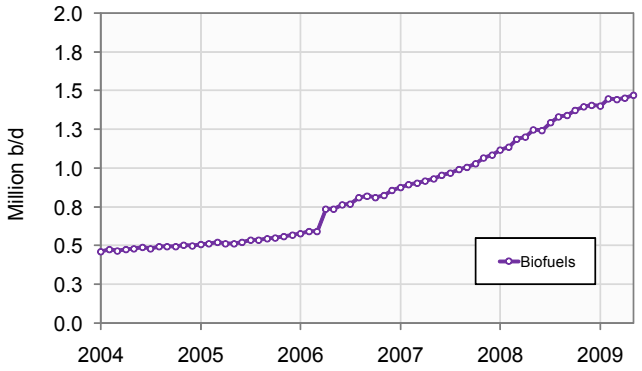


Source: Energy Information Administration, IHS Energy, International Energy Agency, Canadian Association of Petroleum Producers

World biofuel production status

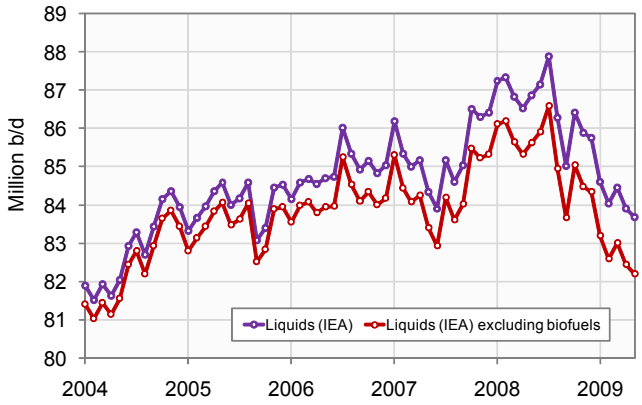
Total world biofuel in May 2009 is estimated to be 1.47 million b/d , an increase of 20,000 b/d from April according to statistics compiled from the Energy Information Administration, the International Energy Agency and the Brazilian ministry of Energy. With an estimated 640,000 b/d from the United States, 500,000 b/d from Brazil and 330,000 b/d from other countries.

Chart 8: World biofuels production Jan. 2004 - April 2009



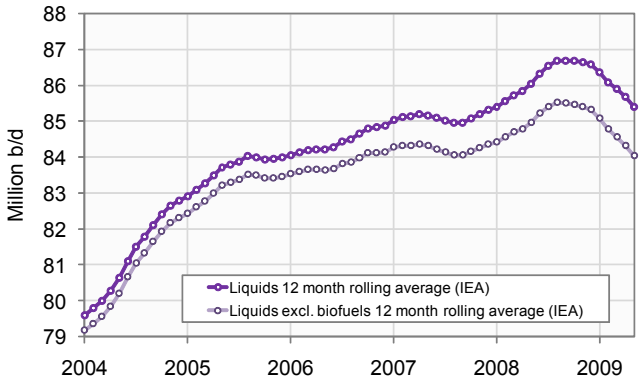
Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

Chart 9: IEA Liquids vs liquids excl. biofuels Jan. 2004 - May 2009



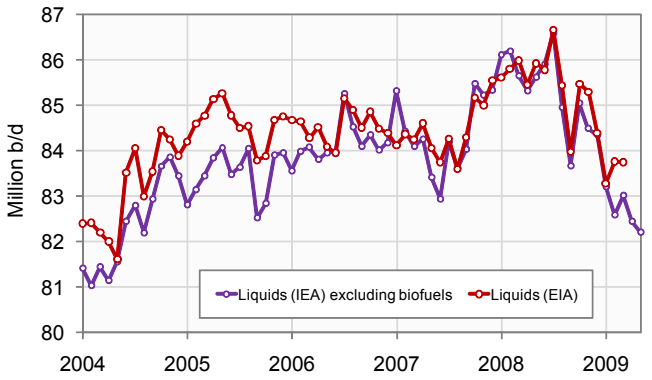
Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

Chart 10: 12m rolling average of chart 9 Jan. 2004 - April 2009



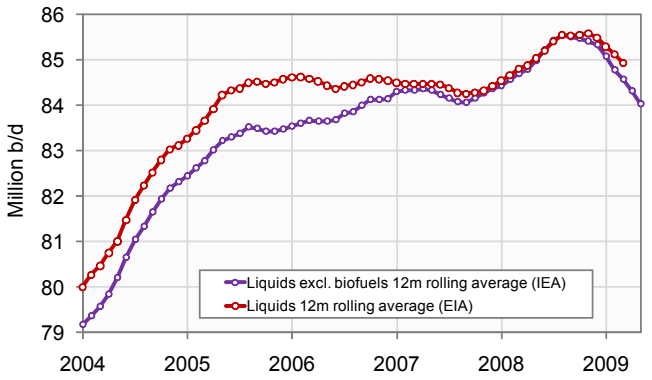
Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

Chart 11: EIA liquids vs IEA excl. biofuels Jan. 2004 - April 2009



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

Chart 12: 12m rolling average of chart 11 Jan. 2004 - May 2009

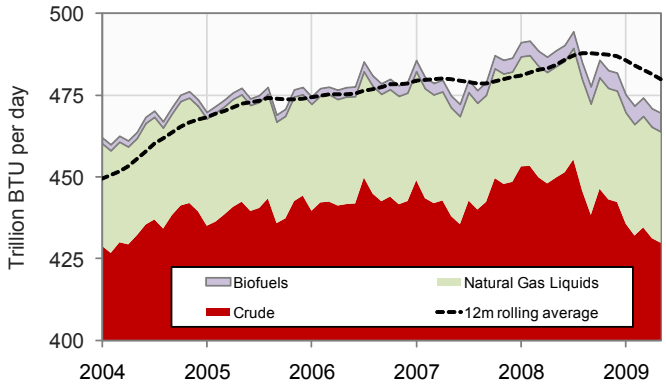


Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

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 a different amount 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 came from natural gas liquids and biofuels. When converting this number 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 13: Gross energy available from liquids Jan. 2004 - May 2009



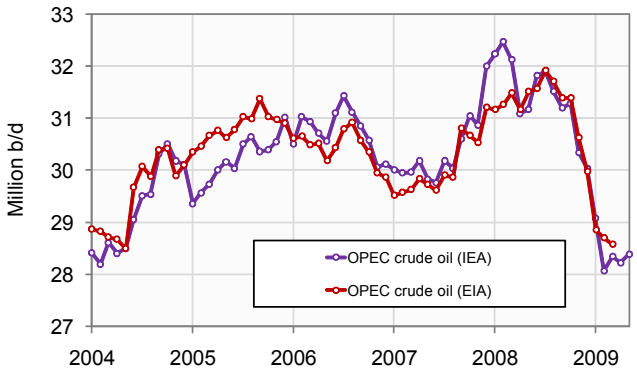
Source: Energy Information Admistration, International Energy Agency

The actual energy available for society to consume is lower than shown in chart 13, however, because an incremental amount is needed to bring the oil out of the ground. The oil industry has to drill deeper at more extreme locations which costs more energy. Additional energy is thus needed to reach the oil. Also more energy is needed to process it to a useful product due to a decline in quality from conventional to increasingly unconventional oil. Studies by Professor Charles Hall and his science group at State University New York show that the energy 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 unknown how much of this energy input comes from oil, gas or coal, the main energy inputs to the oil and gas industry.

OPEC production status

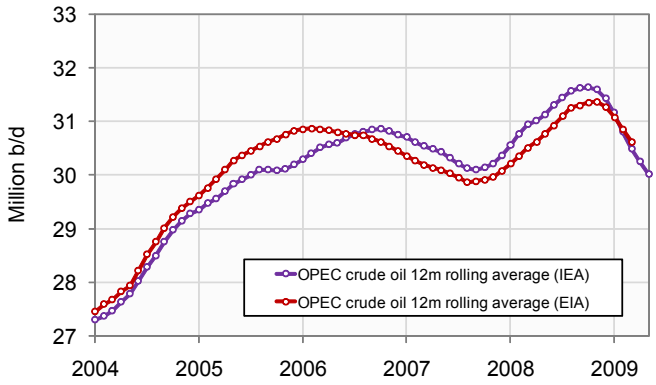
Total crude oil production excluding lease condensates of the OPEC cartel increased by 170,000 b/d to a level of 28.39 million b/d, from April to May 2009, according to the latest available estimate of the IEA. OPEC natural gas liquids production remained stable from April to May at a level of 4.99 million b/d. Average total liquids production in OPEC countries in 2009 up to May was 33.25 million b/d, versus 36.09 million b/d in 2008, and 35.02 million b/d in 2007.

Chart 14: OPEC Crude Oil Production January 2004 - May 2009



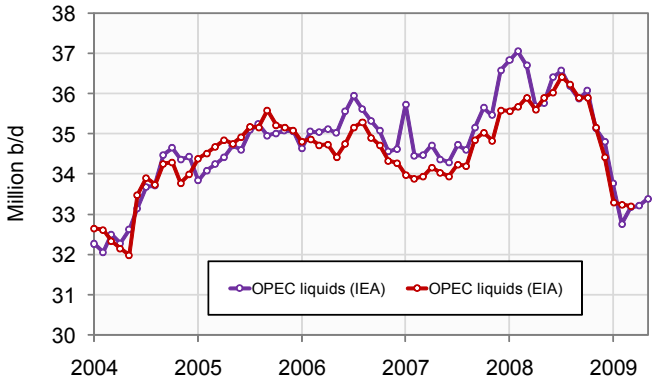
Source: Energy Information Admistration & International Energy Agency

Chart 15: OPEC Crude 12m rolling average Jan. 2004 - May 2009



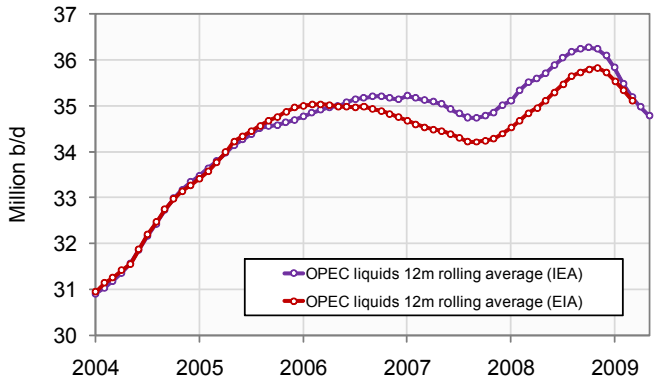
Source: Energy Information Admistration & International Energy Agency

Chart 16: OPEC Liquids Production January 2004 - May 2009



Source: Energy Information Admistration & International Energy Agency

Chart 17: OPEC Liquids 12m rolling average Jan. 2004 - May 2009

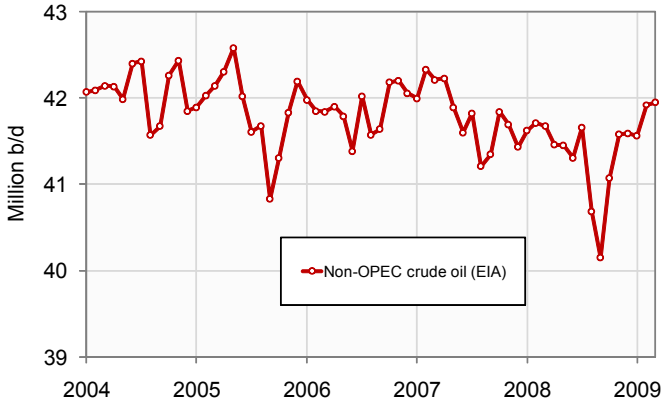


Source: Energy Information Admistration & International Energy Agency

Non-OPEC crude oil production status

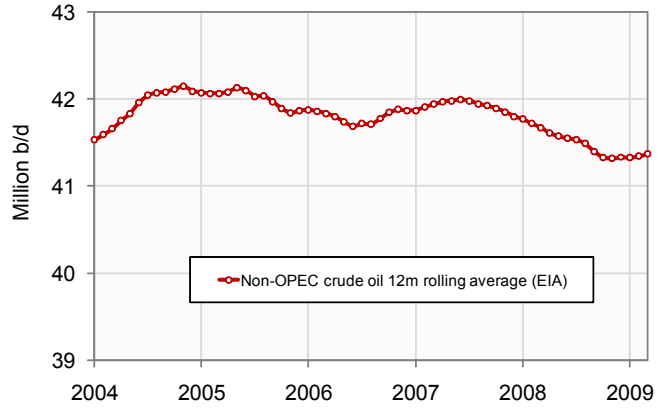
Total crude oil production including lease condensates of non-OPEC increased by 26,000 b/d from Februaryto March 2009 to a level of 41.95 million b/d, according to the latest available estimate of the EIA. Average crude oil production of non-OPEC in 2008 was 41.31 million b/d, versus 41.80 million b/d in 2007 and 41.87 million b/d in 2006.

Chart 18: Non-OPEC Crude Oil Production Jan. 2004 - March 2009



Source: Energy Information Admistration

Chart 19: 12m rolling average of chart 18 Jan. 2004 - March 2009

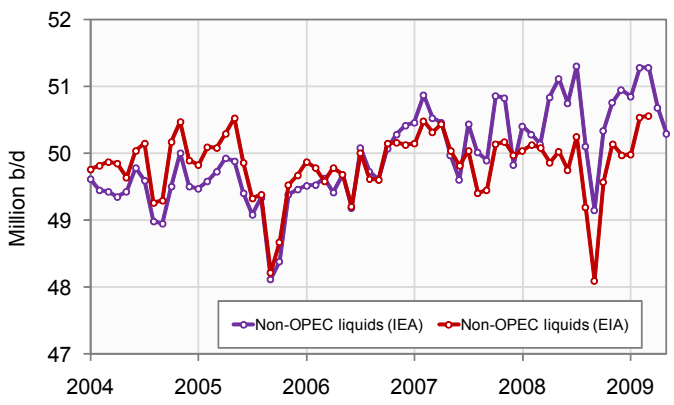


Source: International Energy Agency & Energy Information Administration

Non-OPEC liquids production status

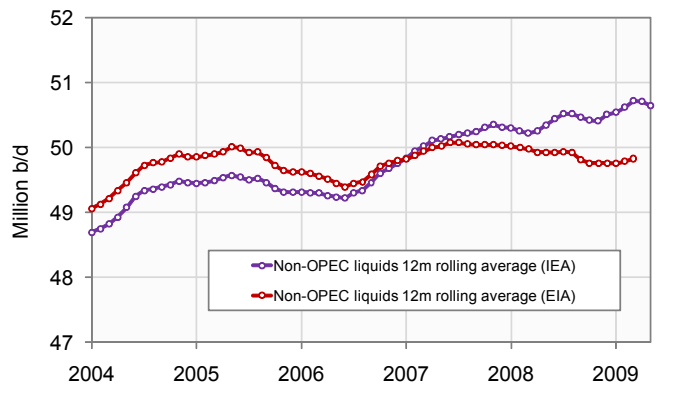
Total non-OPEC liquids production decreased by 390,000 b/d to a level of 50.29 million b/d from April to May 2009, according to the latest figures of the IEA. Average total liquids production of non-OPEC up to May 2009 was 50.87 million b/d, versus 50.5 million b/d in 2008, and 50.41 million b/d in 2007.

Chart 20: Non-OPEC Liquids Production Jan. 2004 - May 2009



Source: International Energy Agency & Energy Information Administration

Chart 21: 12m rolling average of chart 20 Jan. 2004 - May 2009



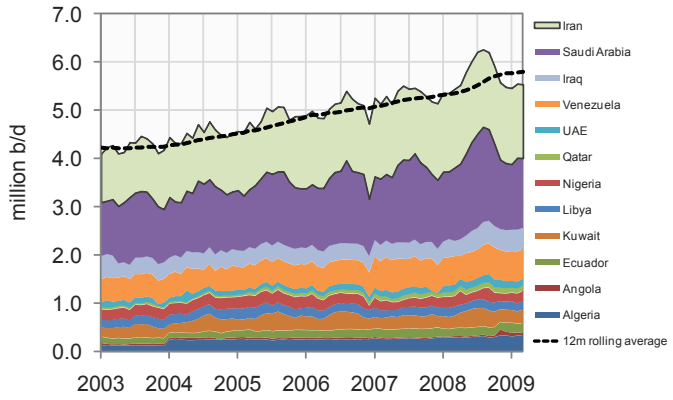
Source: International Energy Agency & Energy Information Administration

OPEC liquids demand developments

Oil consumption in OPEC oil producers has been growing until July 2008. Between then until December 2008, liquids consumption in OPEC has declined by a total of 733,000 b/d. Mainly due to declines in Saudi Arabia, Kuwait and Iran of respectively 567,000 b/d, 123,000 b/d and 131,000 b/d according to the JODI database. Most other OPEC members consumption remained stable or increased slightly in the same period.

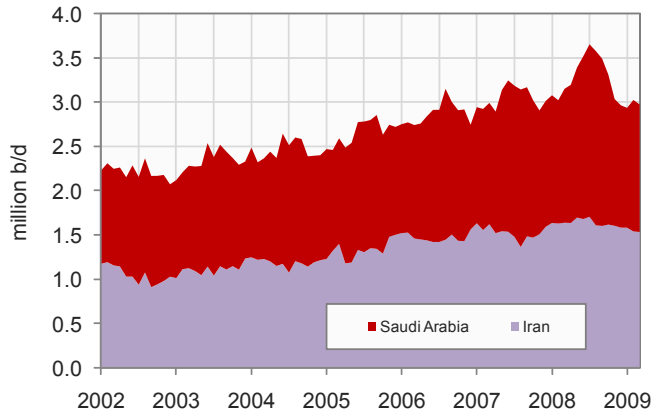
The decline appears to have halted in the latest months. From December 2008 to March 2009 OPEC oil consumption has remained stable around 5.1 million b/d.

Chart 22: OPEC-12 Liquids Demand January 2002 - March 2009



Source: JODI Database

Chart 23: Iran & S. Arabia Liquids Demand Jan. 2002 - March 2009



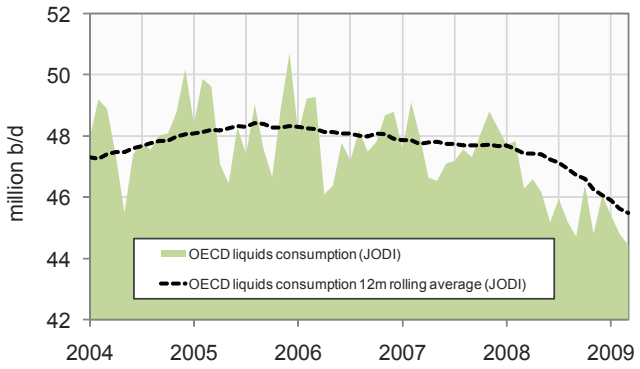
Source: JODI Database

OECD 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 OECD liquids 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.

In March 2009 OECD oil consumption declined by 368,000 b/d from February 2009 according to the latest estimate from JODI. Resulting in a total consumption level of 44.44 million b/d. Representing a year on year decline of 1.85 million b/d. Average consumption in 2009 up to March 2009 was 44.89 million b/d, versus 46.16 million b/d in 2008.

Chart 24: OECD Liquids Demand January 2004 - March 2009

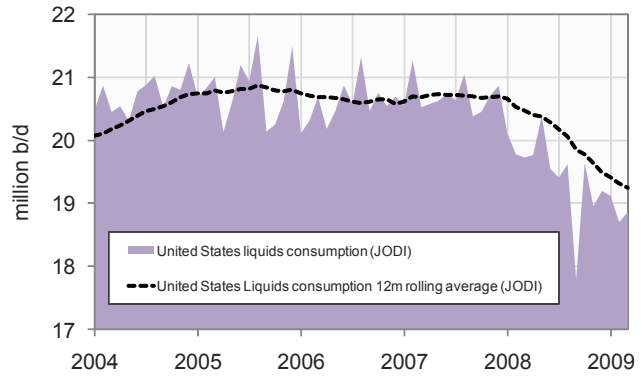


Source: Energy Information Administration

North America liquids demand developments

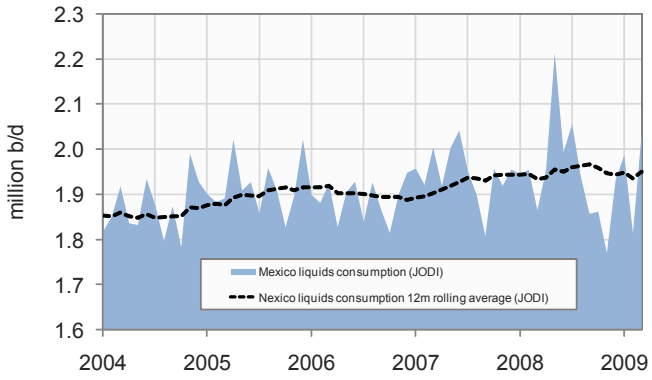
In March 2009 North American oil consumption increased by 307,000 b/d from February 2009 according to the latest estimate from JODI. Resulting in a total consumption level of 22.92 million b/d. This increase was the result of a 157,000 b/d increase in US consumptionand a 219,000 b/d in Mexcian consumption versus a decrease in Canadian consumption of 69,000 b/d.

Chart 25: United States liquids demand Jan. 2004 - March 2009



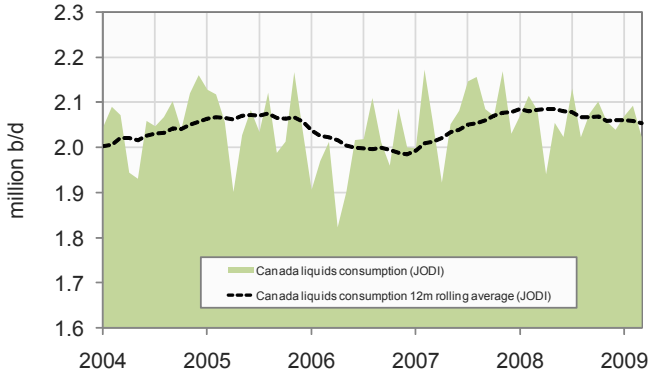
Source: JODI Database

Chart 26: Mexico liquids demand January 2004 - March 2009



Source: JODI Database

Chart 27: Canada liquids demand January 2004 - March 2009

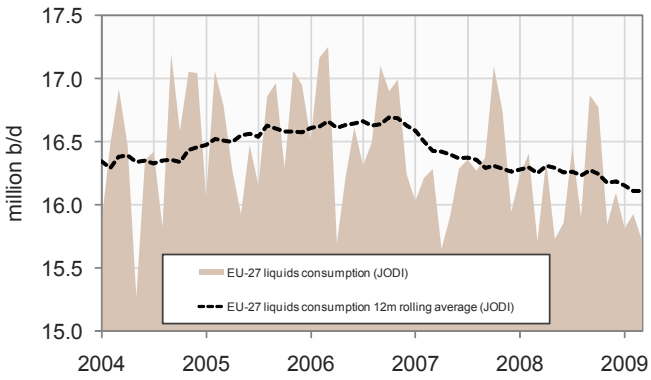


Source: JODI Database

Europe liquids demand developments

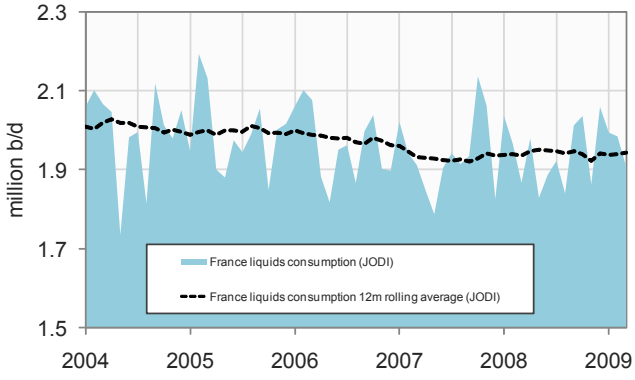
In March 2009 EU-27 oil consumption declined by 215,000 b/d from February 2009 levels according to the latest estimate from JODI. Resulting in a total consumption level of 15.71 million b/d. Average consumption in 2008 was 16.16 million b/d, versus 16.26 million b/d in 2007.

Chart 28: EU-27 liquids demand January 2004 - March 2009



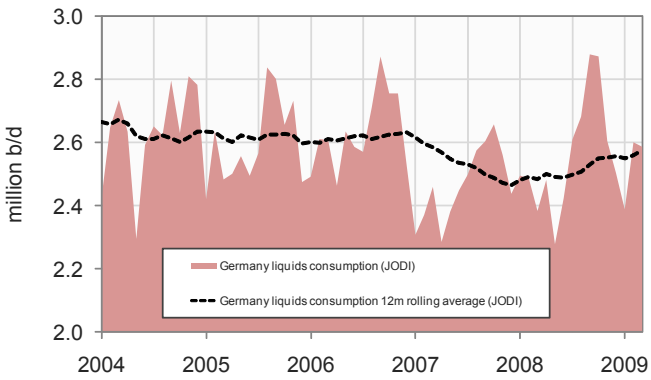
Source: JODI Database

Chart 29: France liquids demand January 2004 - March 2009



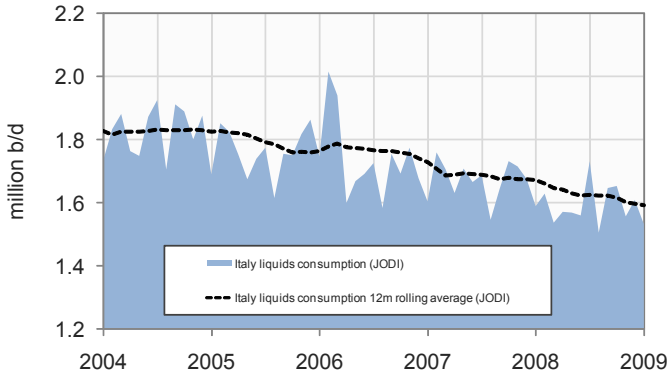
Source: JODI Database

Chart 30: Germany liquids demand January 2004 - March 2009



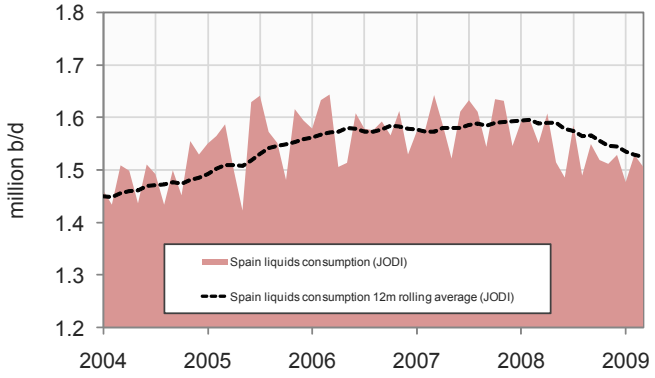
Source: JODI Database

Chart 31: Italy liquids demand January 2004 - March 2009



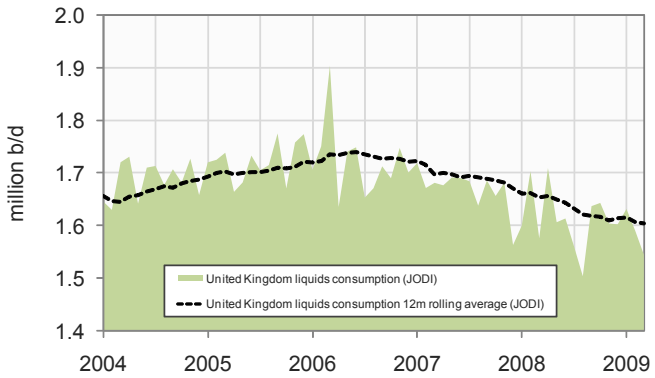
Source: JODI Database

Chart 32: Spain liquids demand January 2004 - March 2009



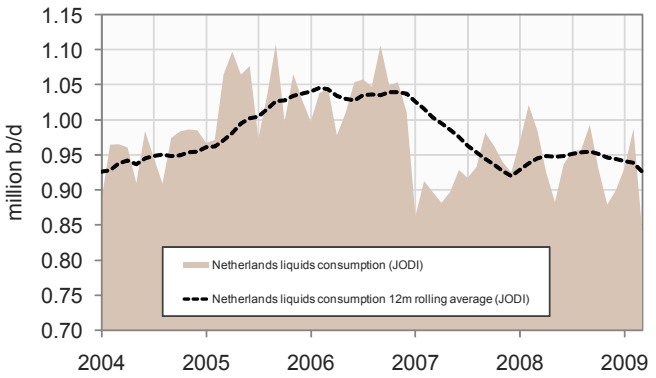
Source: JODI Database

Chart 33: UK liquids demand January 2004 - March 2009



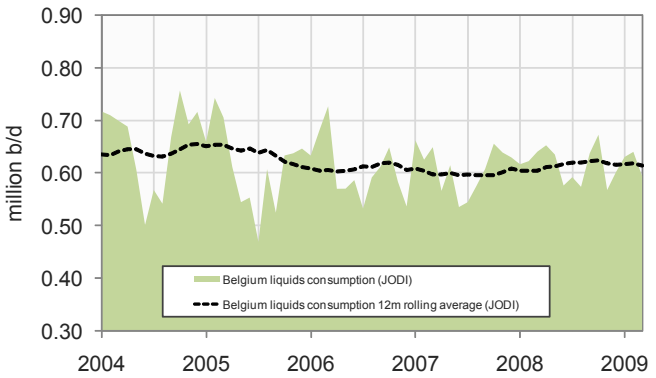
Source: JODI Database

Chart 34: Netherlands liquids demand Jan. 2004 - March 2009



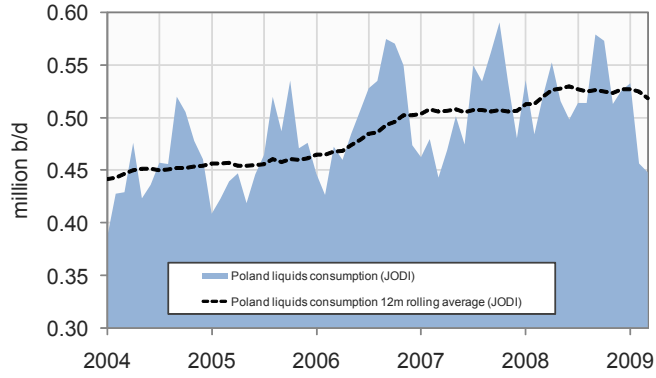
Source: JODI Database

Chart 35: Belgium liquids demand January 2004 - March 2009



Source: JODI Database

Chart 36: Poland liquids demand January 2004 - March 2009



Source: JODI Database

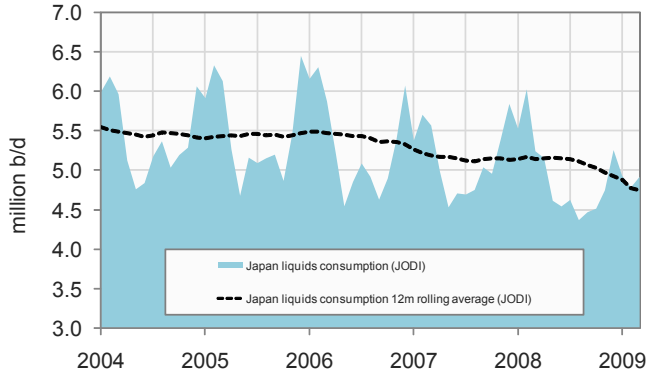
South Korea & Japan liquids demand developments
In March 2009 Japanese oil consumption increased by 135,000 b/d from February 2009 levels according to the latest estimate from JODI. Resulting in a total consumption level of 4.92 million b/d. Japanese liquids consumption averaged 4.93 million b/d in 2008 according to the JODI database. A decrease of 199,000 b/d versus average 2007 consumption of 5.13 million b/d.

Consumption in South Korea was 2.26 million b/d in March 2009, a decrease of 276,000 b/d from the February 2009 level of 2.38 million b/d. South Korean liquids consumption averaged 2.21 million b/d in 2008, versus an average of 2.29 million b/d in 2007, and 2.25 million b/d in 2006.

India & China liquids demand developments
Chinese liquids consumption declined by 78,000 b/d from February to March 2009 to a level of 6.85 million b/d according to the latest estimate from the JODI database. Average consumption in 2008 was 6.92 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. But growth was impacted since July 2008.

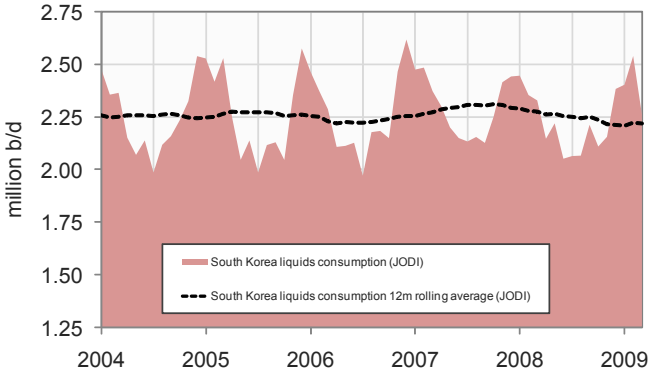
Consumption in India in March 2009 remained stable versus February levels around 2.67 million b/d. Indian oil consumption was 2.6 million b/d in 2008, versus an average of 2.43 million b/d in 2007 and 2.29 million b/d in 2006.

Chart 37: Japan liquids demand Jan. 2002 - March 2009



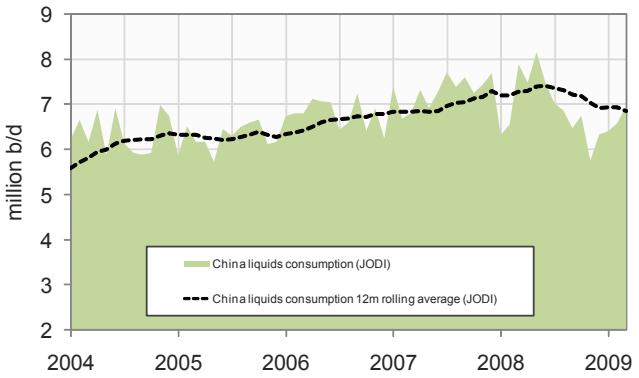
Source: JODI Database

Chart 38: South Korea liquids demand Jan. 2002 - March 2009



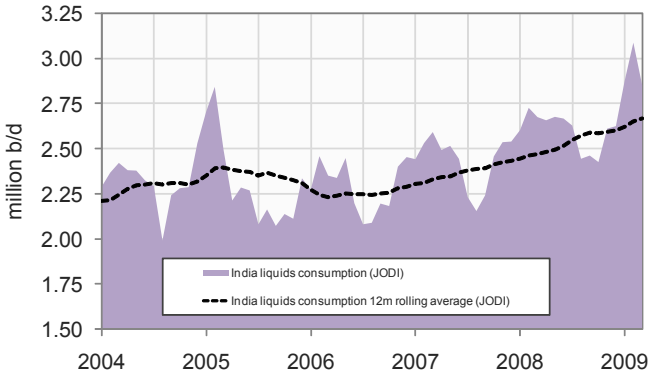
Source: JODI Database

Chart 39: China liquids demand Jan. 2002 - March 2009



Source: JODI Database

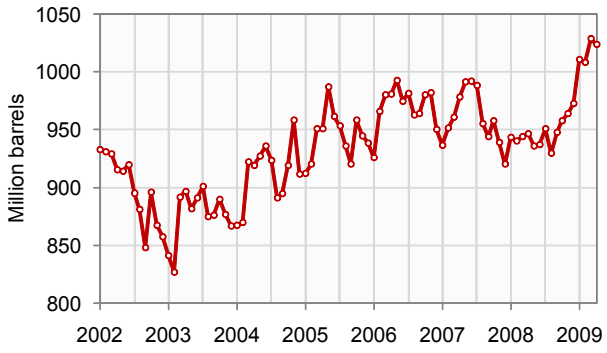
Chart 40: India liquids demand Jan. 2002 - March 2009



Source: JODI Database

Total OECD crude oil and oil product stocks status
Industrial inventories of crude oil in the OECD in April 2009 decreased to a level of 1024 million barrels from 1029 million barrels in March 2009 according to latest IEA statistics.

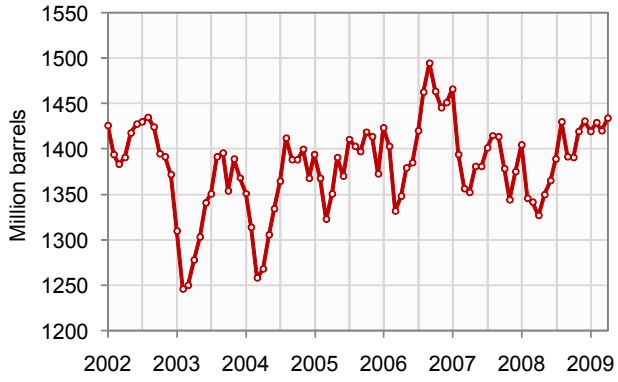
Chart 41: OECD Crude Oil Stocks January 2002 - April 2009



Source: International Energy Agency

Total industrial product stocks in the OECD were 1434 million barrels in April 2009, an increase of 13 million barrels from March. Total product stocks are slightly higher than the five year average of 1390 million barrels.

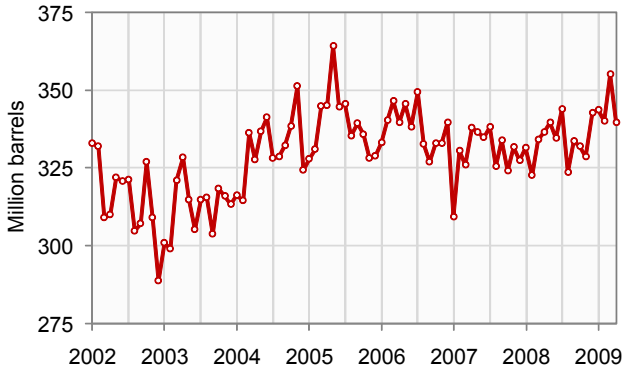
Chart 42: OECD Product Stocks Jan. 2002 - April 2009



Source: International Energy Agency

OECD Europe crude oil and oil product stocks status
Industrial inventories of crude oil in OECD Europe decreased in April to a level of 340 million barrels versus 355 million barrels in March according to IEA statistics.

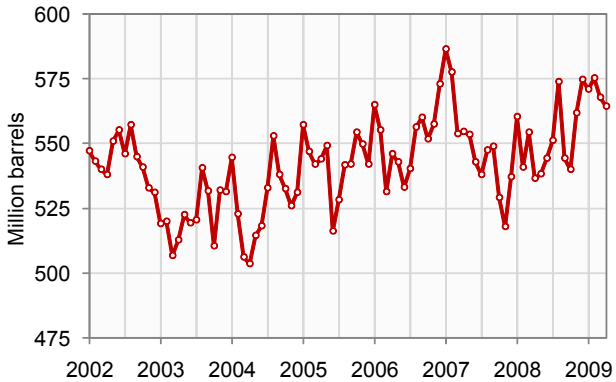
Chart 43: Europe Crude Oil Stocks January 2002 - April 2009



Source: International Energy Agency

Total industrial product stocks in OECD Europe declined by 4 million barrels in April 2009 to 564 million barrels versus 568 million barrels in March according to IEA statistics. Total product stocks are slightly higher than the five year average of 547 million barrels.

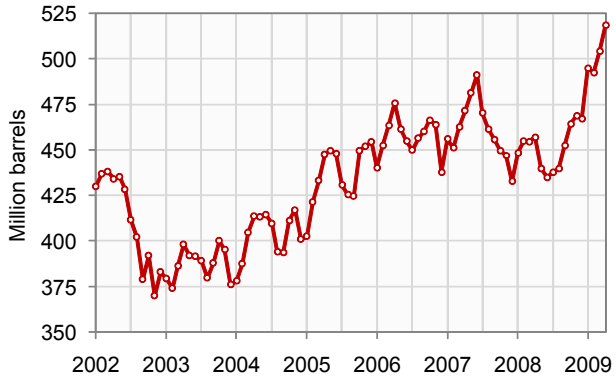
Chart 44: Europe Product Stocks January 2002 - April 2009



Source: International Energy Agency

OECD America crude oil and oil product stocks status
Industrial inventories of crude oil in OECD America increased by 14 million barrels in April 2009 at a level of 518 million barrels versus March levels according to IEA statistics.

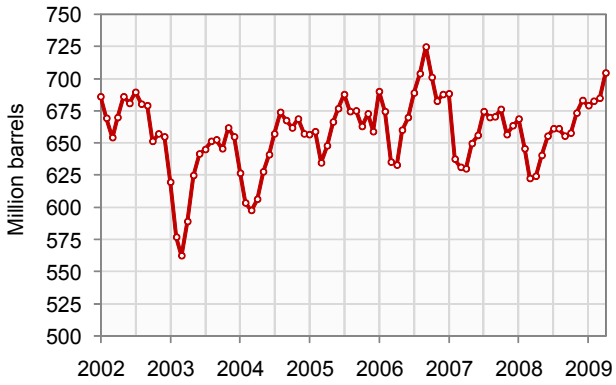
Chart 45: North America Crude Oil Stocks Jan. 2002 - April 2009



Source: International Energy Agency

Total industrial product stocks in OECD America increased to 704 million barrels in April 2009 from 685 million barrels in March. Total product stocks stand significantly highter than the five year average of 664 million barrels.

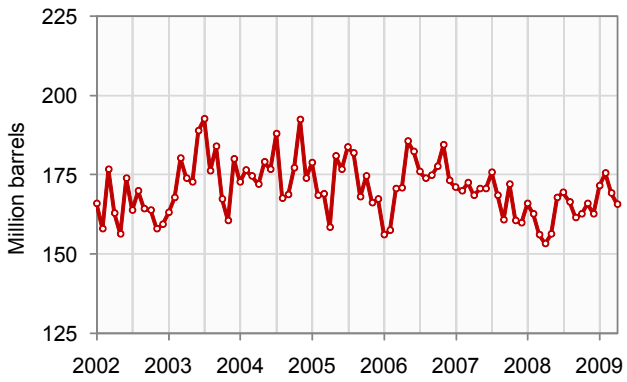
Chart 46: N. America Product Stocks January 2002 - April 2009



Source: International Energy Agency

OECD Pacific crude oil and oil product stocks status
Industrial inventories of crude oil in OECD Pacific decreased in April 2009 to 166 million barrels from 169 million barrels in March according to IEA statistics.

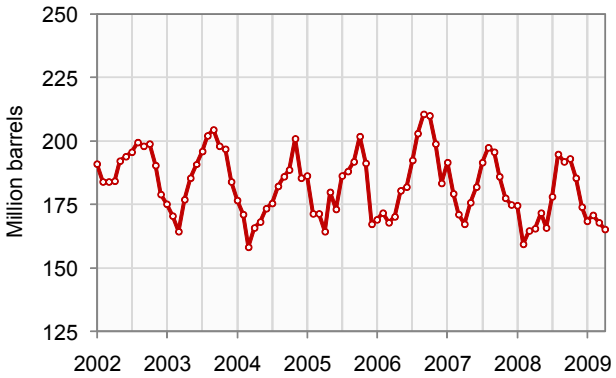
Chart 47: Pacific Crude Oil Stocks January 2002 - April 2009



Source: International Energy Agency

Total industrial product stocks in OECD Pacific declined to 165 million barrels in April 2009, versus a March level of 168 million barrels. Total product stocks stand slightly lower than the five year average of 181 million barrels.

Chart 48: Pacific Product Stocks January 2002 - April 2009



Source: International Energy Agency

World crude oil export status

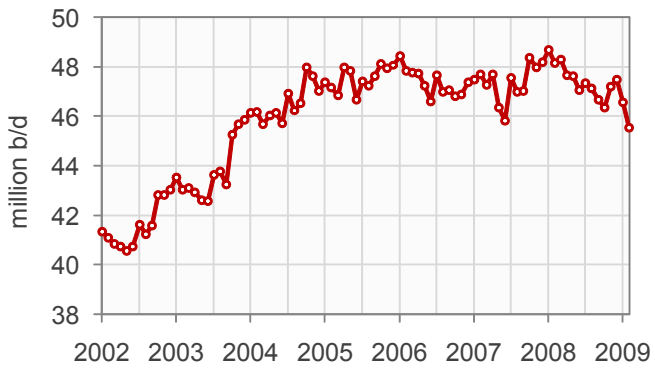
The series was derived by subtracting the consumption of oil products, refinery fuel and direct crude oil sales from liquids production in producer countries. Data comes from the Joint Oil Data Initiative (JODI) for demand and the International Energy Agency (IEA) and Energy Information Agency (EIA) 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 were it is refined into usable products. These usable products are then imported back to the country were 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. The 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, 47.4 million b/d, and 47.64 in 2004, 2005, 2006, 2007 and 2008 respectively. The most recent estimate suggests average world exports in March 2009 amounted to 44.62 million b/d.

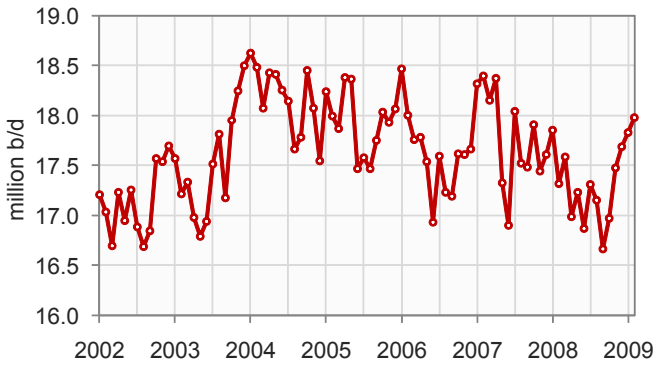
Chart 49: World Liquids Exports Estimate Jan. 2002 - March 2009



Source: derived from the IEA, EIA and JODI Database

In March 2009 non-OPEC exports were estimated to be 18.26 million b/d. An estimate of exports for 2003 gives a figure of 17.62 million b/d, increasing to 17.16 million b/d in 2004 and subsequently declining to 17.98 million b/d in 2005 and 17.69 million b/d in 2006. In 2007 non-OPEC exports increased to 17.86 million b/d after which they declined to 17.34 million b/d in 2008.

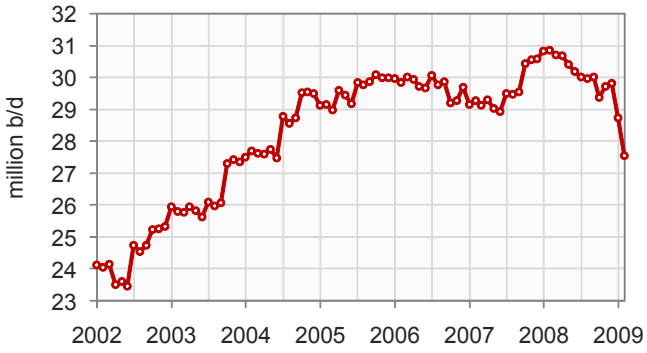
Chart 50: Non-OPEC Liquids Exports January 2002 - March 2009



Source: derived from the IEA, EIA and JODI Database

In March 2009 OPEC exports were estimated to be 27.04 million b/d. An estimate of exports for OPEC 12 (including Iraq) 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 decling to 29.66 million b/d in 2007. Increasing again in 2008 to an average level of 30.37 million b/d.

Chart 51: OPEC Liquids Exports January 2002 - March 2009



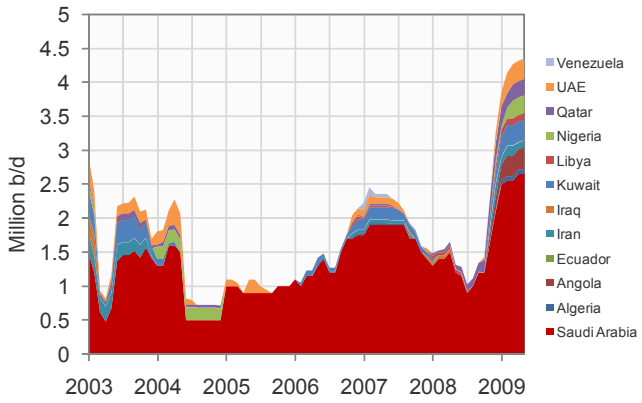
Source: derived from the IEA, EIA and JODI Database

OPEC spare capacity

Total OPEC spare production capacity increased to 4.34 million b/d in May 2009 from a level of 4.32 million b/d in April according to the Energy Information Administration. Of total spare capacity 2.65 million b/d is estimated to come from Saudi Arabia, 0.24 million b/d from Qatar, 0.33 million b/d from Angola, 0.30 million b/d from Kuwait, 0.30 million b/d from the United Arabic Emirates, 0.10 million b/d from Iran, and 0.42 million b/d from other countries.

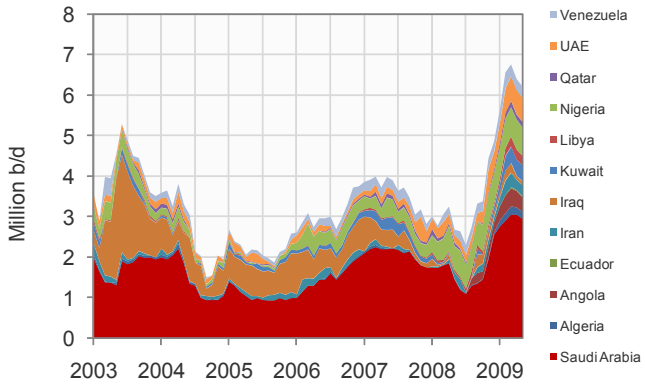
According to the International Energy Agency total effective spare capacity (excluding Iraq, Venezuela and Nigeria) decreased to 4.96 million b/d in May 2009 from a level of 5.13 million b/d in April. The IEA estimates Saudi Arabia to be capable of producing an additional 2.95 million b/d within 90 days, the United Arab Emirates 0.60 million b/d, Angola 0.36 million b/d, Iran 0.28 million b/d, Libya 0.23 million b/d, Qatar 0.14 million b/d, and the other remaining countries 0.40 million b/d.

Chart 52: EIA OPEC spare capacity Jan. 2003 - May 2009



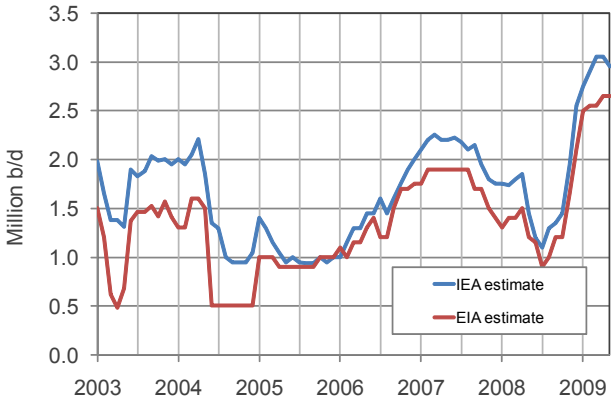
Source: Energy Information Administration

Chart 53: IEA OPEC spare capacity Jan. 2003 - May 2009



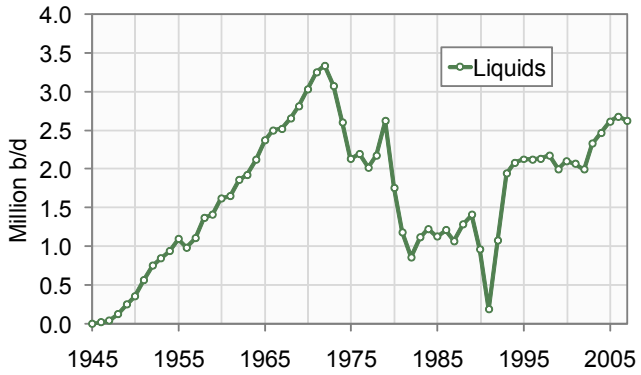
Source: International Energy Agency

Chart 54: Saudi Arabia spare capacity Jan. 2003 - May 2009



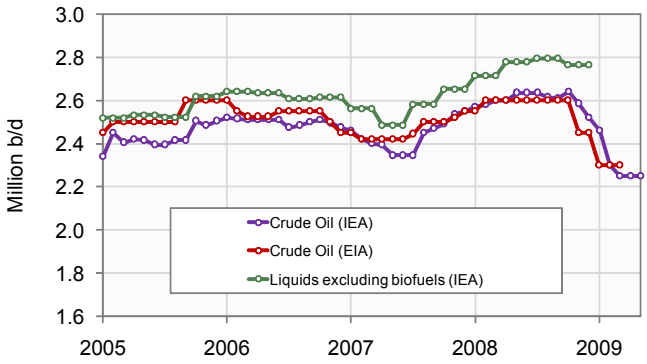
Source: Energy Information Administration, International Energy Agency

Chart 55: Kuwait production 1945 - 2007



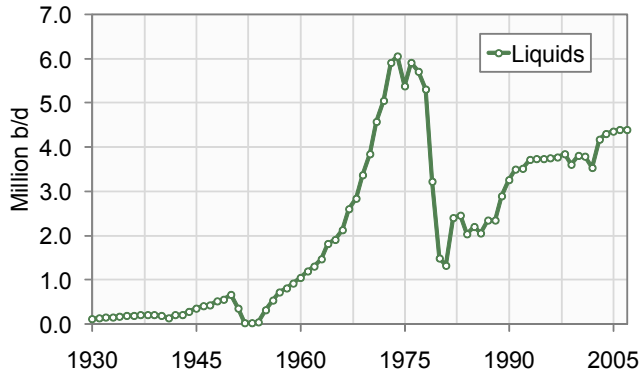
Source: ASPO Ireland & BP Statistical Review

Chart 56: Kuwait production January 2005 - May 2009



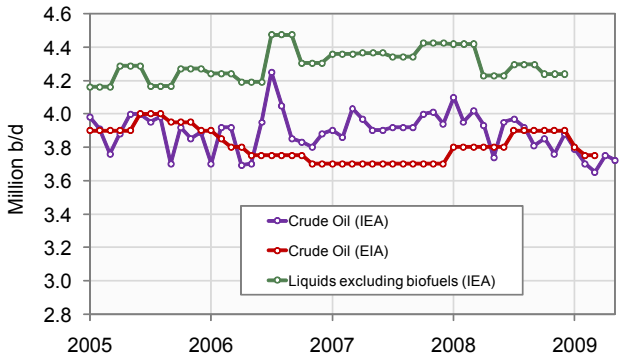
Source: Energy Information Admistration & International Energy Agency

Chart 57: Iran production 1930 - 2007



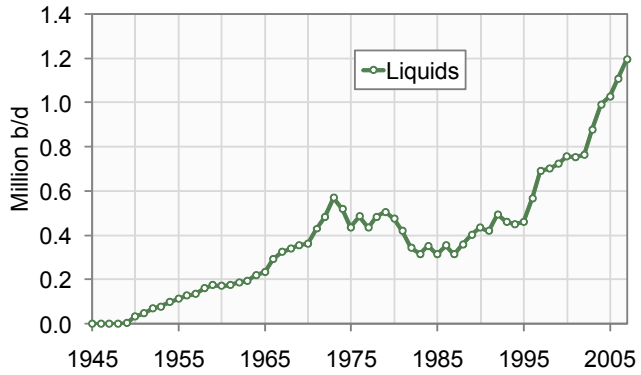
Source: ASPO Ireland & BP Statistical Review

Chart 58: Iran production January 2005 - May 2009



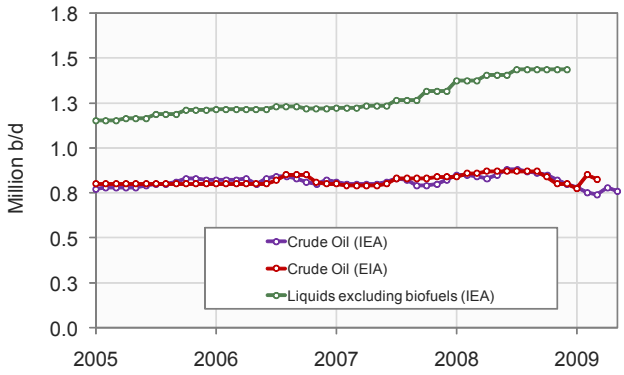
Source: Energy Information Admistration & International Energy Agency

Chart 59: Qatar production 1945 - 2007



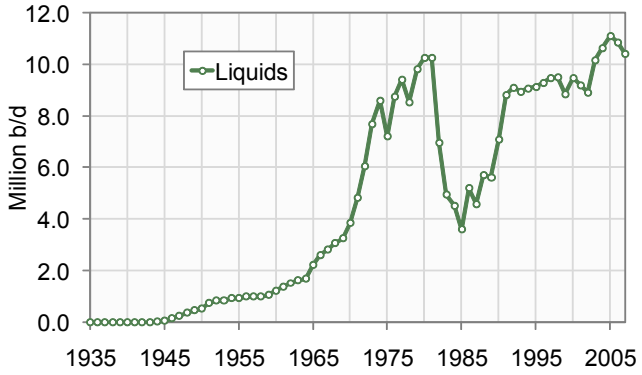
Source: ASPO Ireland & BP Statistical Review

Chart 60: Qatar production January 2005 - May 2009



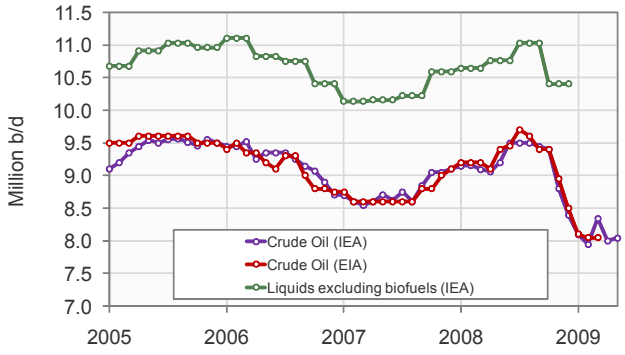
Source: Energy Information Admistration & International Energy Agency

Chart 61: Saudi Arabia production 1935 - 2007



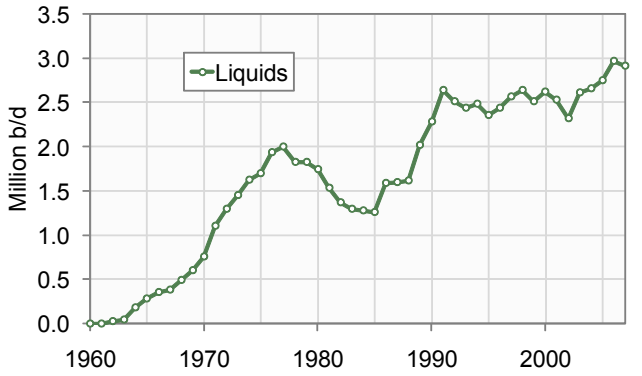
Source: ASPO Ireland & BP Statistical Review

Chart 62: Saudi Arabia production January 2005 - May 2009



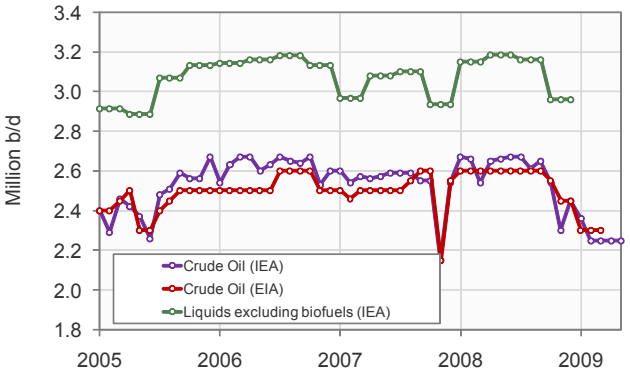
Source: Energy Information Admistration & International Energy Agency

Chart 63: UAE production 1960 - 2007



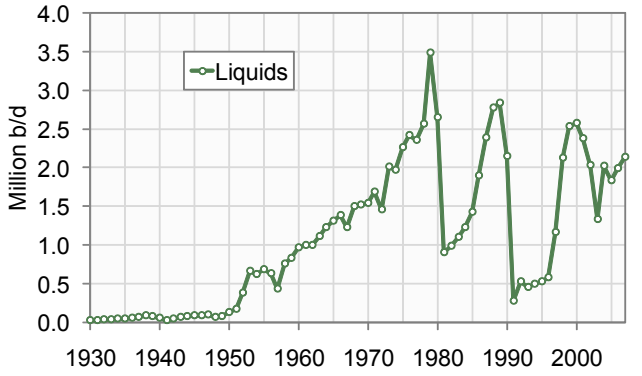
Source: ASPO Ireland & BP Statistical Review

Chart 64: UAE production January 2005 - May 2009



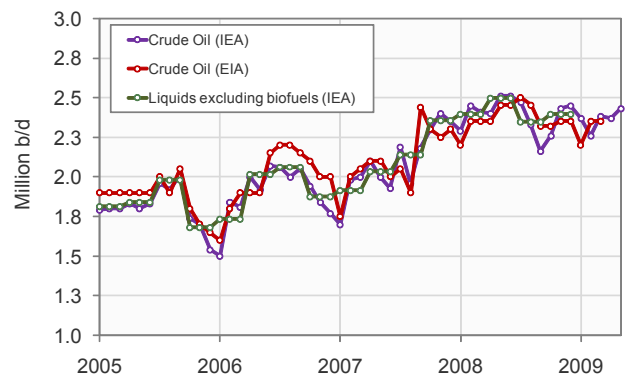
Source: Energy Information Admistration & International Energy Agency

Chart 65: Iraq production 1930 - 2007



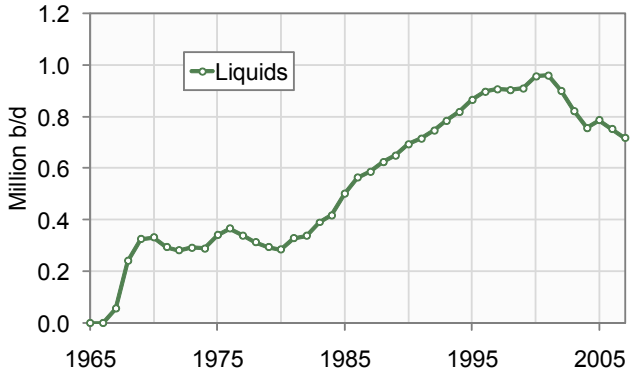
Source: ASPO Ireland & BP Statistical Review

Chart 66: Iraq production January 2005 - May 2009



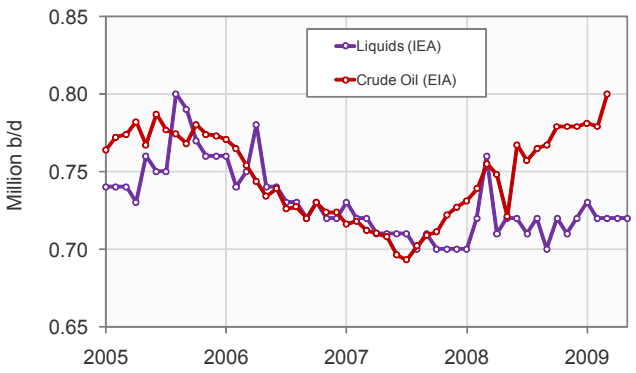
Source: Energy Information Admistration & International Energy Agency

Chart 67: Oman production 1965 - 2007



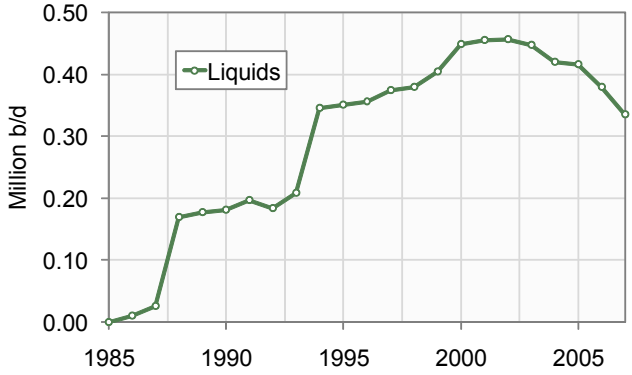
Source: Energy Information Admistration & International Energy Agency

Chart 68: Oman Production January 2005 - May 2009



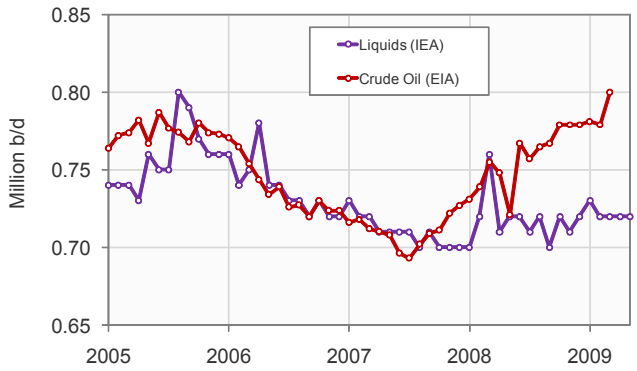
Source: Energy Information Admistration & International Energy Agency

Chart 69: Yemen Production 1985 - 2007



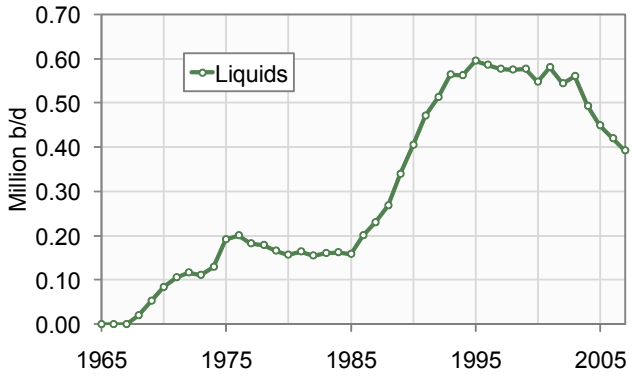
Source: Energy Information Admistration & International Energy Agency

Chart 70: Yemen Production January 2005 - May 2009



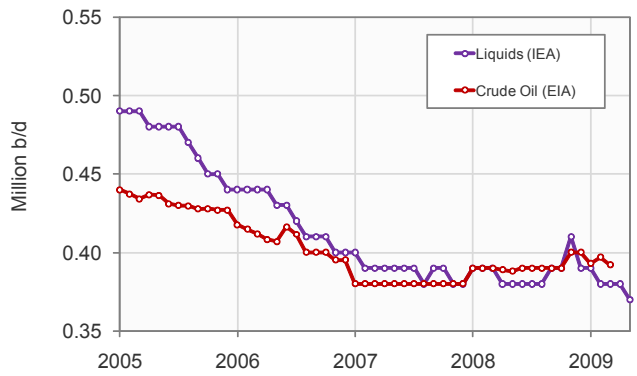
Source: Energy Information Admistration & International Energy Agency

Chart 71: Syria Production 1965 - 2007



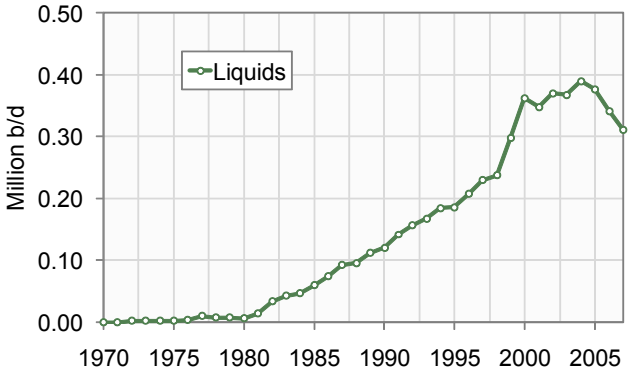
Source: Energy Information Admistration & International Energy Agency

Chart 72: Syria production January 2005 - May 2009



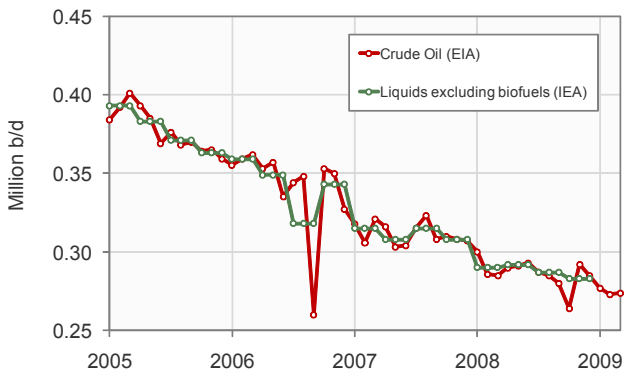
Source: Energy Information Admistration & International Energy Agency

Chart 73: Denmark production 1970 - 2007



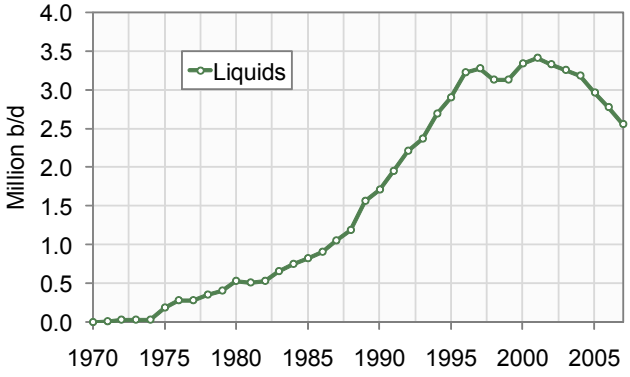
Source: ASPO Ireland & BP Statistical Review

Chart 74: Denmark production January 2005 - March 2009



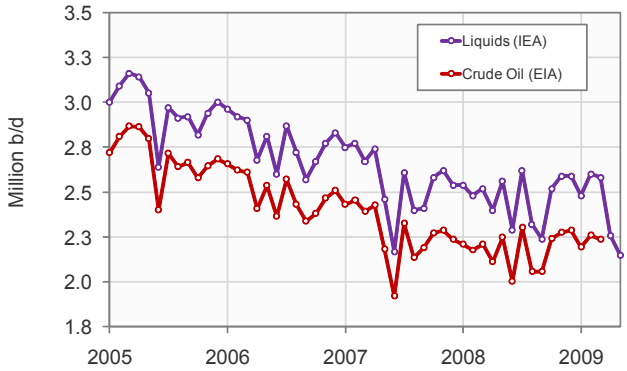
Source: Energy Information Admistration & International Energy Agency

Chart 75: Norway production 1970 - 2007



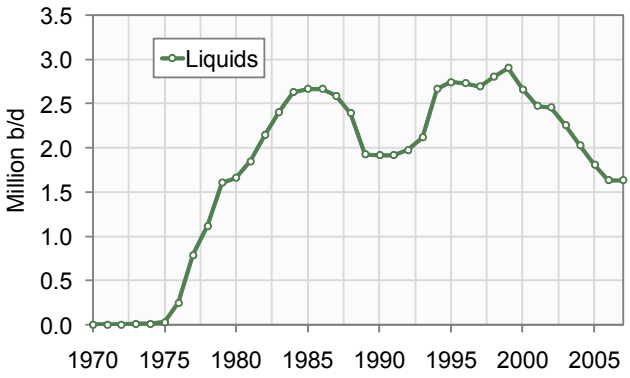
Source: ASPO Ireland & BP Statistical Review

Chart 76: Norway production January 2005 - May 2009



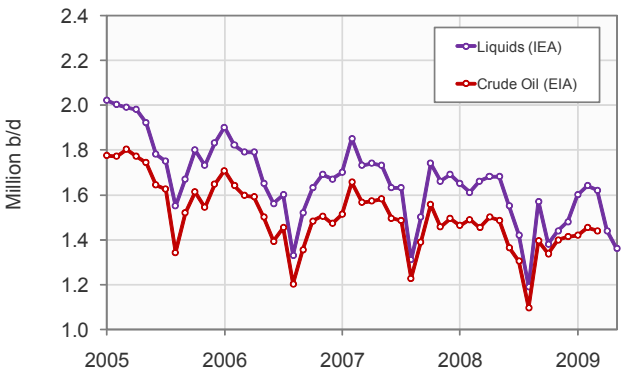
Source: Energy Information Admistration & International Energy Agency

Chart 77: United Kingdom production 1970 - 2007



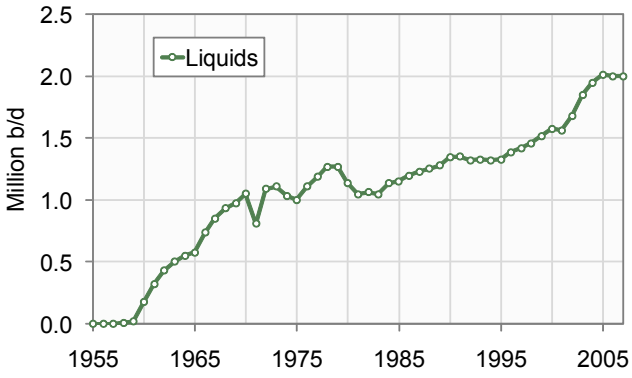
Source: ASPO Ireland & BP Statistical Review

Chart 78: United Kingdom production Jan. 2005 - May 2009



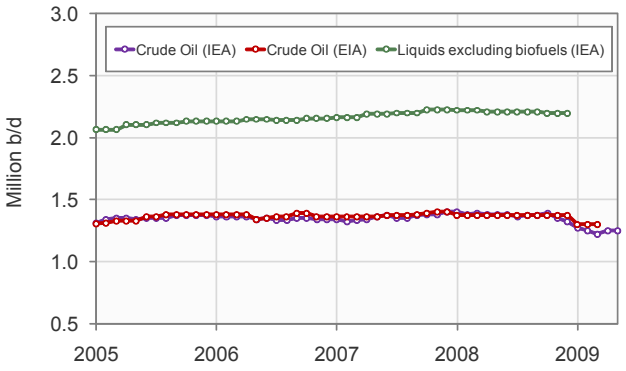
Source: Energy Information Admistration & International Energy Agency

Chart 79: Algeria production 1955 - 2007



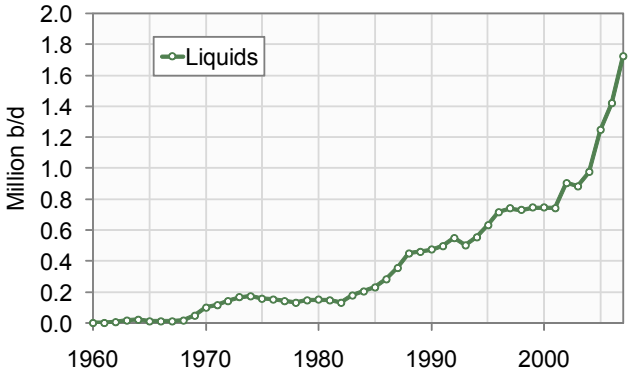
Source: ASPO Ireland & BP Statistical Review

Chart 80: Algeria production January 2005 - May 2009



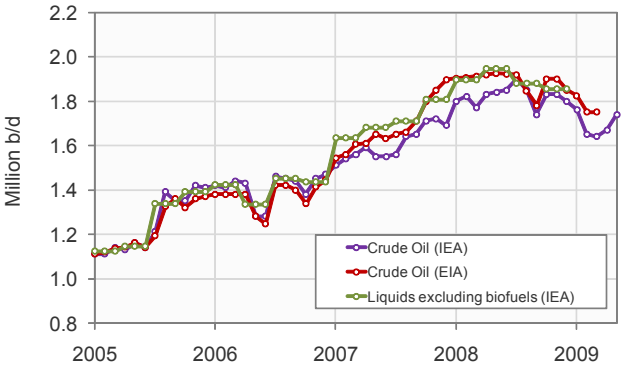
Source: Energy Information Admistration & International Energy Agency

Chart 81: Angola production 1960 - 2007



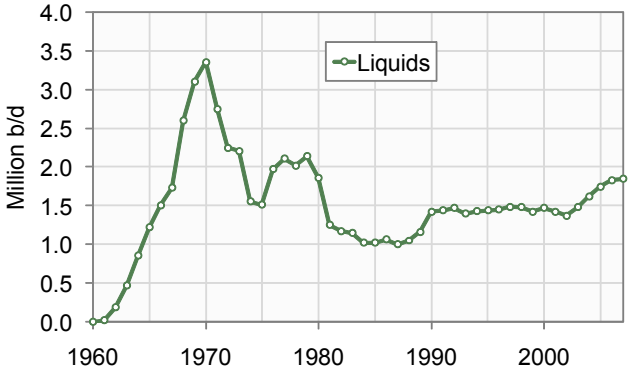
Source: ASPO Ireland & BP Statistical Review

Chart 82: Angola production January 2005 - May 2009



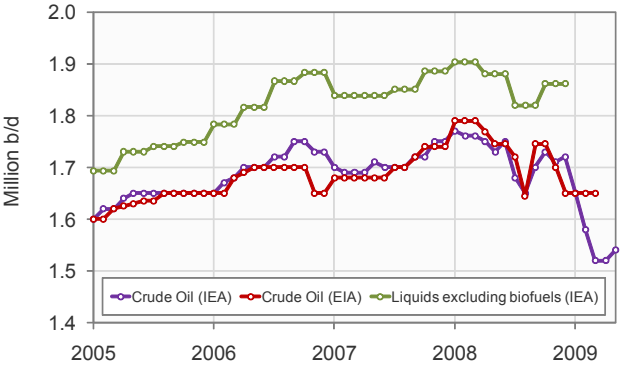
Source: Energy Information Admistration & International Energy Agency

Chart 83: Libya production 1970 - 2007



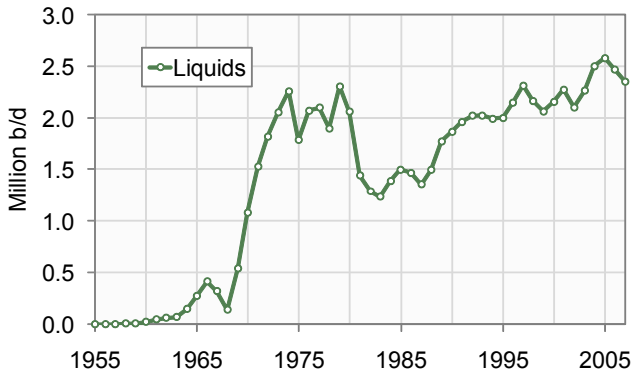
Source: ASPO Ireland & BP Statistical Review

Chart 84: Libya production January 2005 - May 2009



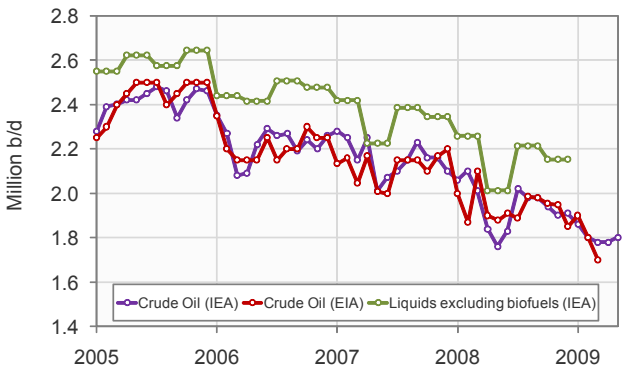
Source: Energy Information Admistration & International Energy Agency

Chart 85: Nigeria production 1955 - 2007



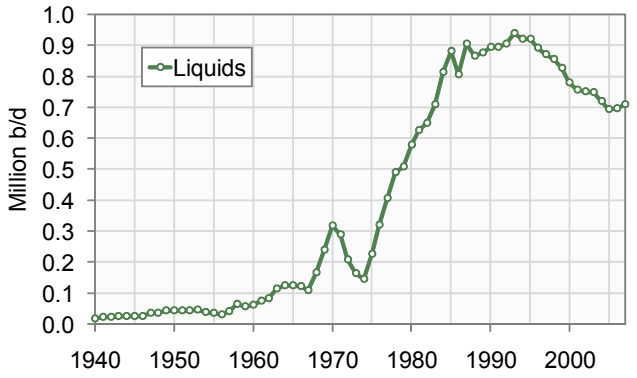
Source: ASPO Ireland & BP Statistical Review

Chart 86: Nigeria Production January 2005 - May 2009



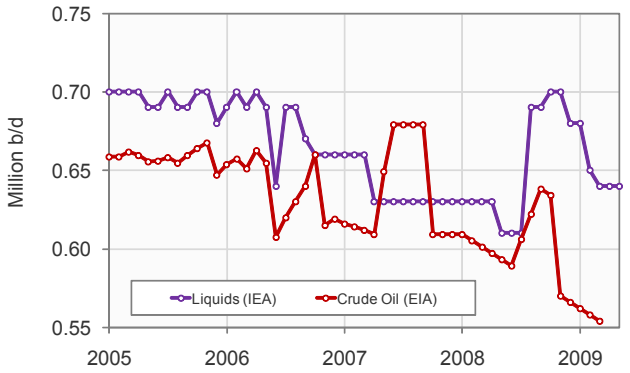
Source: Energy Information Admistration & International Energy Agency

Chart 87: Egypt production 1940 - 2007



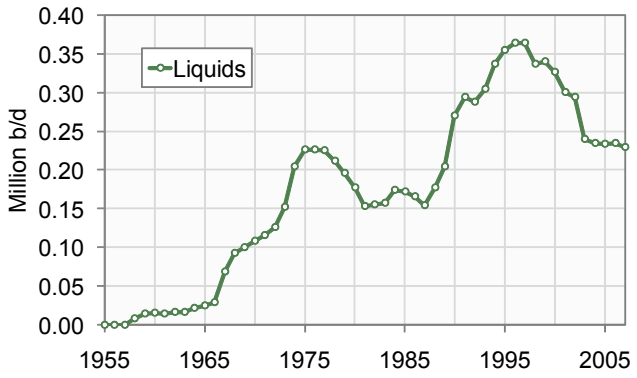
Source: ASPO Ireland & BP Statistical Review

Chart 88: Egypt production January 2005 - May 2009



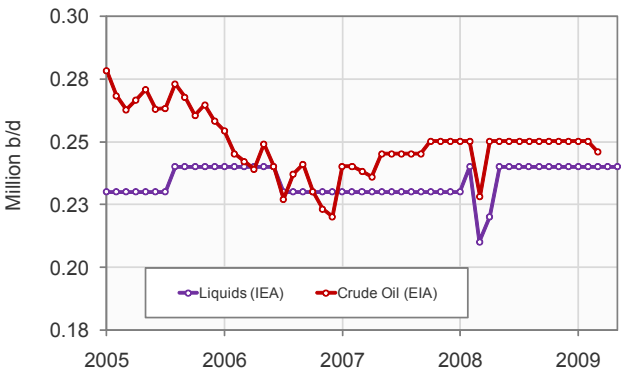
Source: Energy Information Administration & International Energy Agency

Chart 89: Gabon production 1955 - 2007



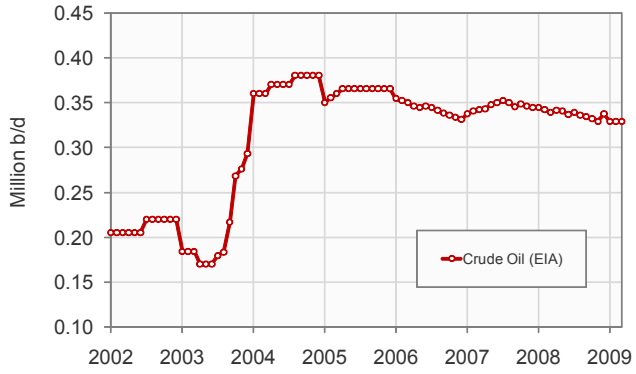
Source: ASPO Ireland & BP Statistical Review

Chart 90: Gabon production January 2005 - May 2009



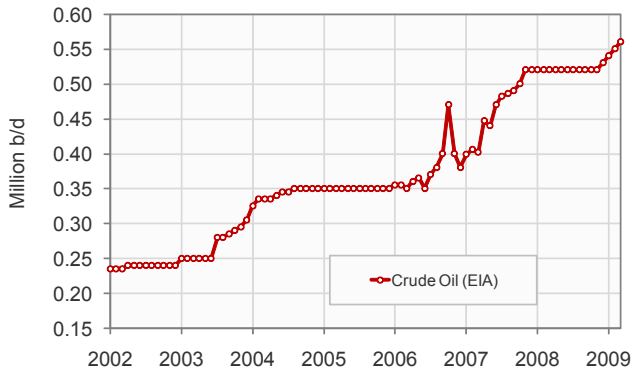
Source: Energy Information Administration & International Energy Agency

Chart 91: Equatorial Guinea production Jan. 2002 - March 2009



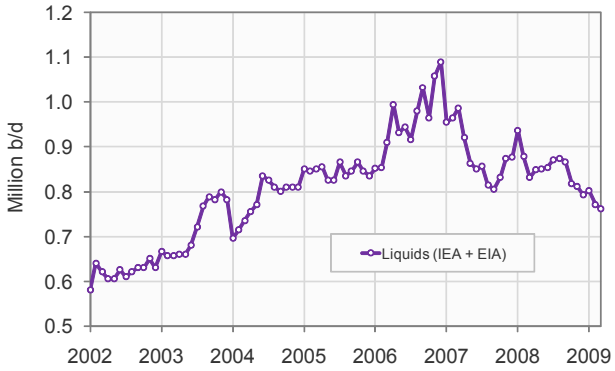
Source: Energy Information Admistration

Chart 92: Sudan Production January 2002 - March 2009



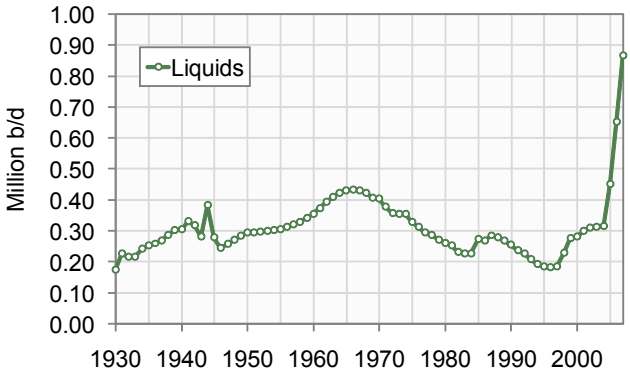
Source: Energy Information Admistration

Chart 93: Other Africa Production January 2002 - March 2009



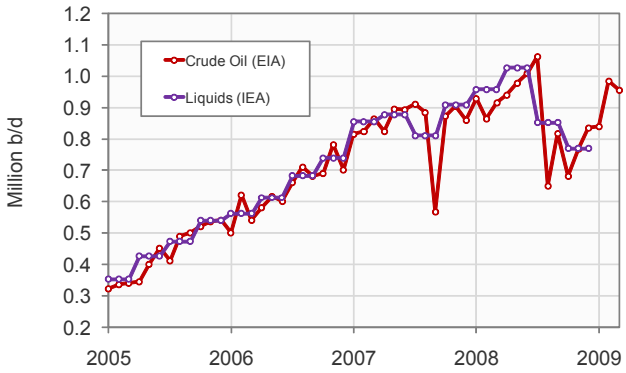
Source: Energy Information Admistration & International Energy Agency

Chart 94: Azerbaijan production 1930 - 2007



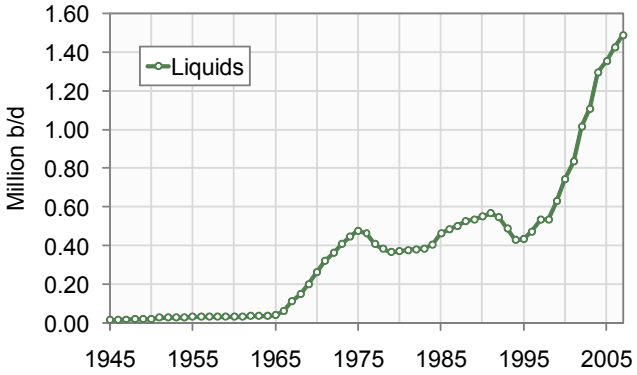
Source: ASPO Ireland & BP Statistical Review

Chart 95: Azerbaijan production January 2005 - March 2009



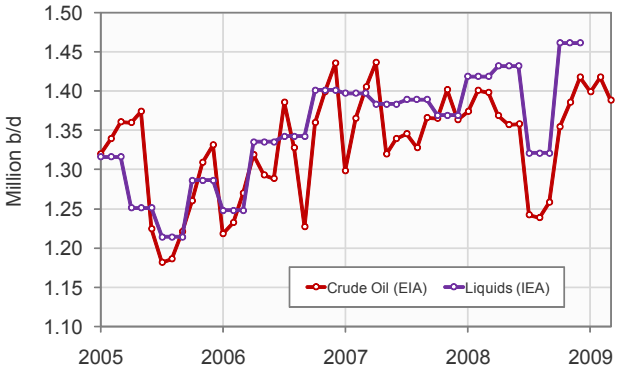
Source: Energy Information Administration & International Energy Agency

Chart 96: Kazakhstan production 1945 - 2007



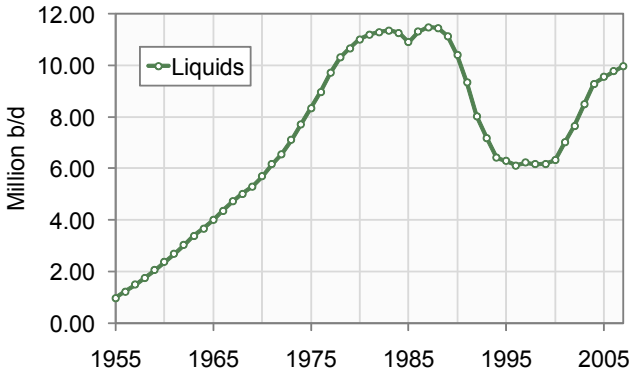
Source: ASPO Ireland & BP Statistical Review

Chart 97: Kazakhstan production January 2005 - March 2009



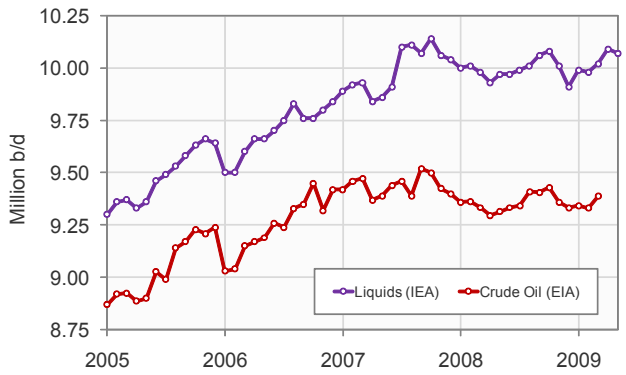
Source: Energy Information Administration & International Energy Agency

Chart 98: Russia production 1955 - 2007



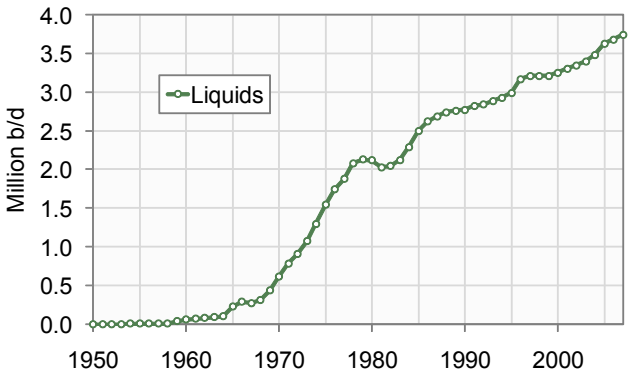
Source: ASPO Ireland & BP Statistical Review

Chart 99: Russia production January 2005 - May 2009



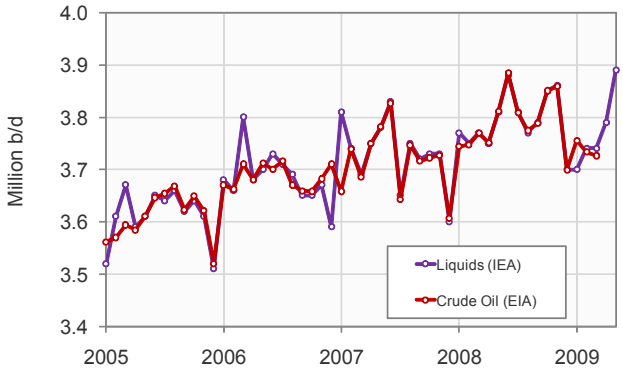
Source: Energy Information Administration & International Energy Agency

Chart 100: China production 1950 - 2007



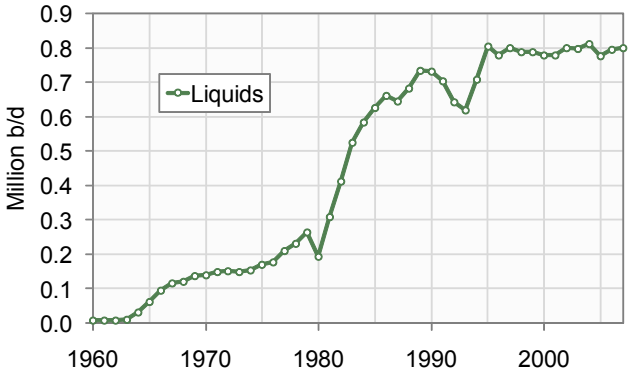
Source: ASPO Ireland & BP Statistical Review

Chart 101: China production January 2005 - May 2009



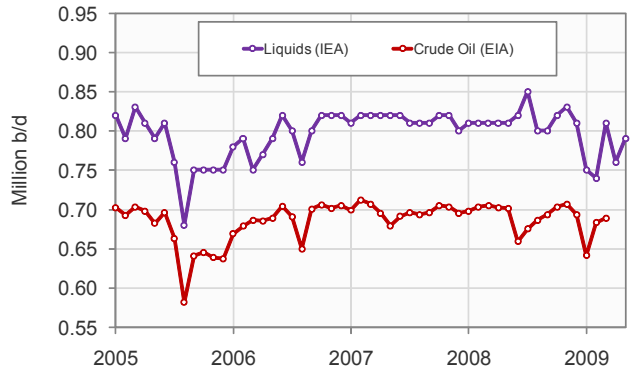
Source: Energy Information Administration & International Energy Agency

Chart 102: India production 1960 - 2007



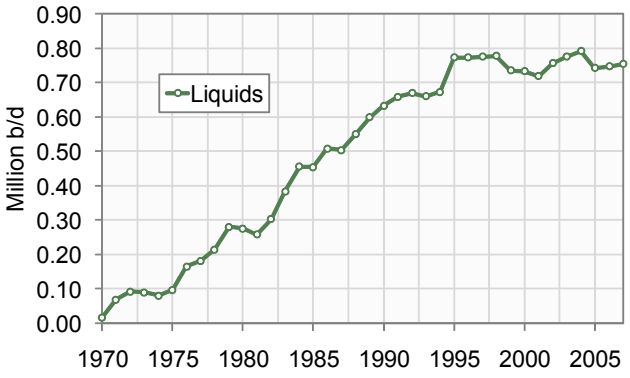
Source: ASPO Ireland & BP Statistical Review

Chart 103: India Production January 2005 - May 2009



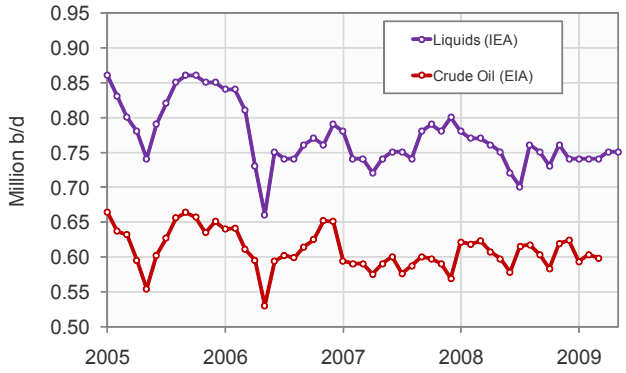
Source: Energy Information Administration & International Energy Agency

Chart 104: Malaysia production 1955 - 2007



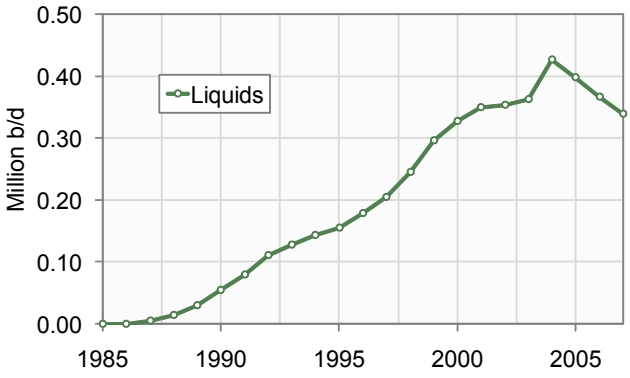
Source: ASPO Ireland & BP Statistical Review

Chart 105: Malaysia production January 2005 - May 2009



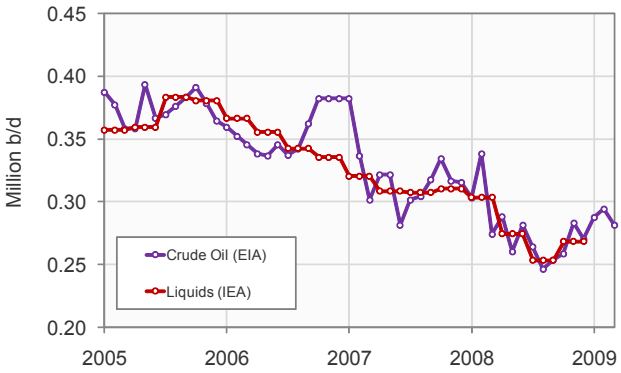
Source: Energy Information Administration & International Energy Agency

Chart 106: Vietnam production 1985 - 2007



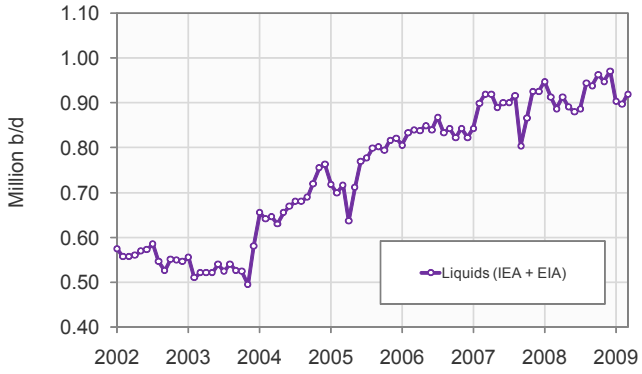
Source: ASPO Ireland & BP Statistical Review

Chart 107: Vietnam production January 2005 - March 2009



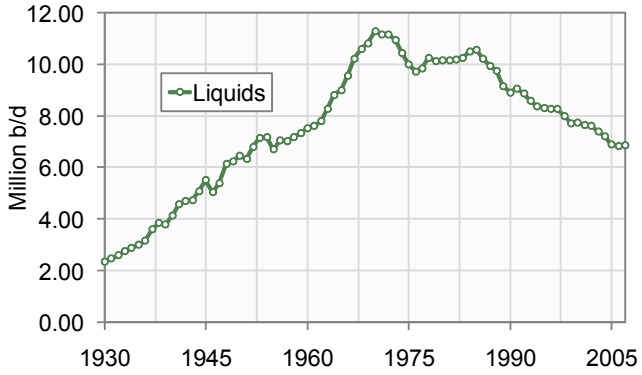
Source: Energy Information Administration & International Energy Agency

Chart 108: Other Asia production January 2002 - March 2009



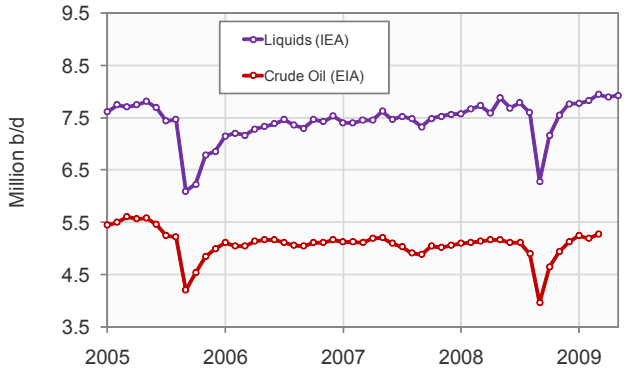
Source: Energy Information Admistration & International Energy Agency

Chart 109: United States production 1930 - 2007



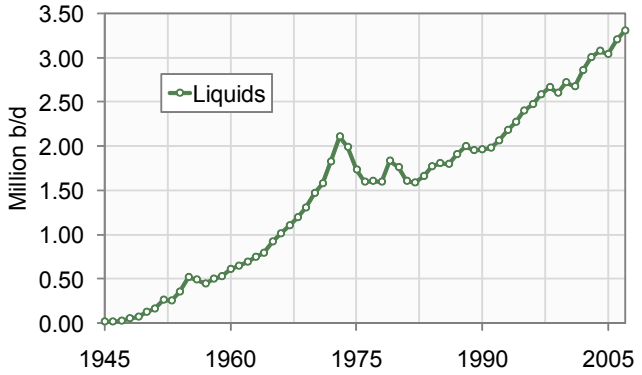
Source: ASPO Ireland & BP Statistical Review

Chart 110: United States production January 2005 - May 2009



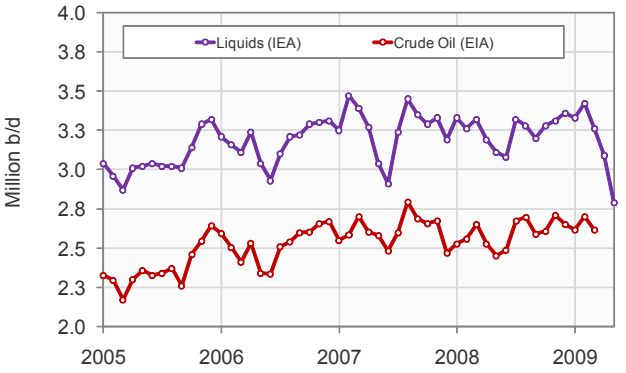
Source: Energy Information Administration & International Energy Agency

Chart 111: Canada production 1945 - 2007



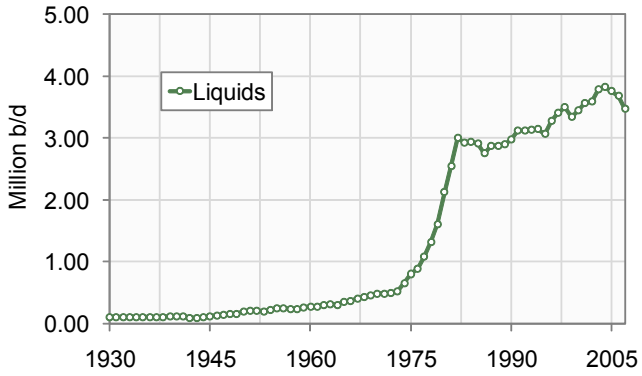
Source: ASPO Ireland & BP Statistical Review

Chart 112: Canada production January 2005 - May 2009



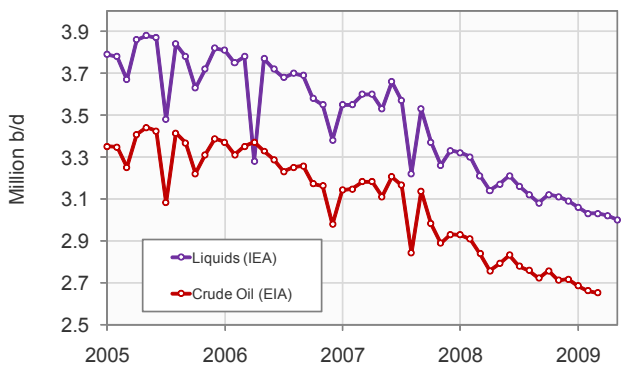
Source: Energy Information Administration & International Energy Agency

Chart 113: Mexico production 1930 - 2007



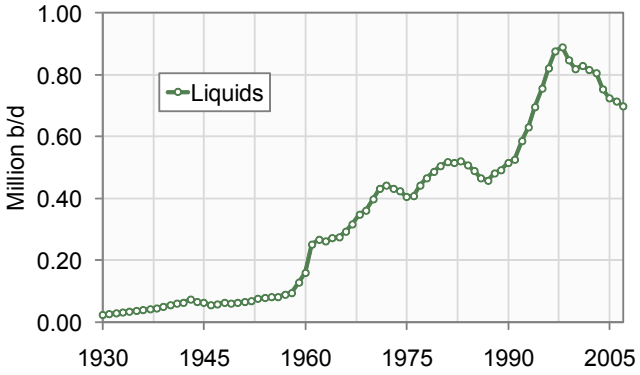
Source: ASPO Ireland & BP Statistical Review

Chart 114: Mexico production January 2005 - May 2009



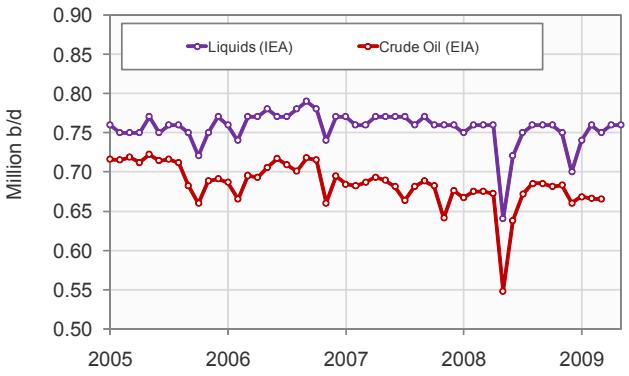
Source: Energy Information Administration & International Energy Agency

Chart 115: Argentina production 1930 - 2007



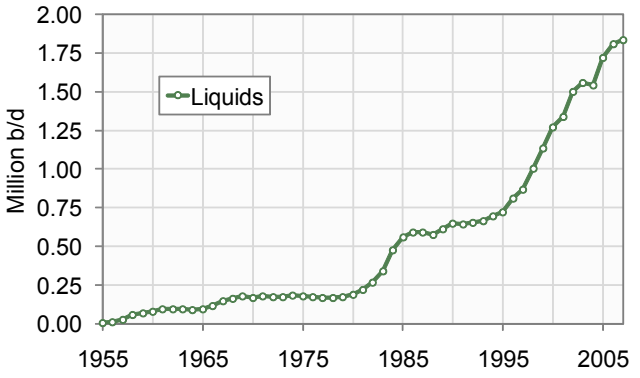
Source: ASPO Ireland & BP Statistical Review

Chart 116: Argentina production January 2005 - May 2009



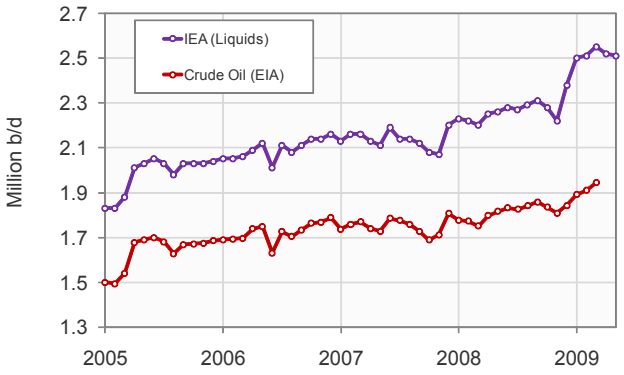
Source: Energy Information Administration & International Energy Agency

Chart 117: Brazil production 1955 - 2007



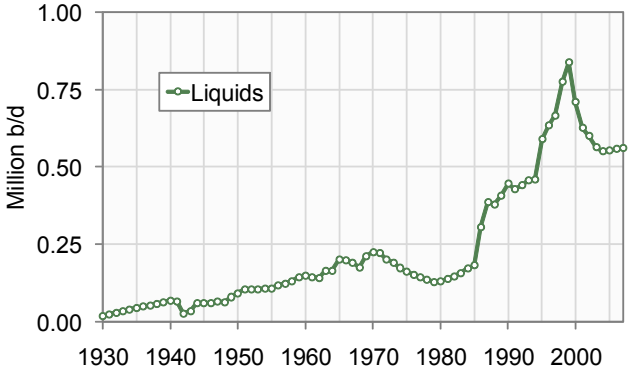
Source: ASPO Ireland & BP Statistical Review

Chart 118: Brazil production January 2005 - May 2009



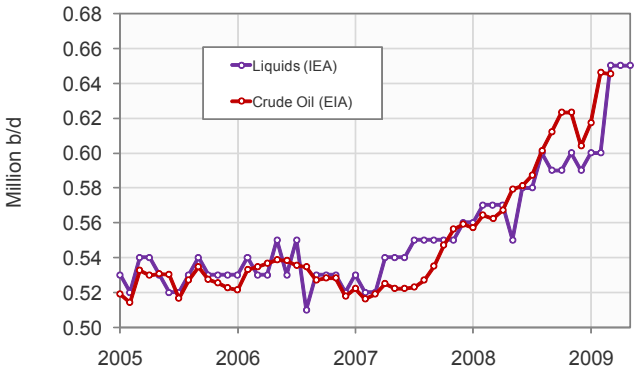
Source: Energy Information Administration & International Energy Agency

Chart 119: Colombia production 1930 - 2007



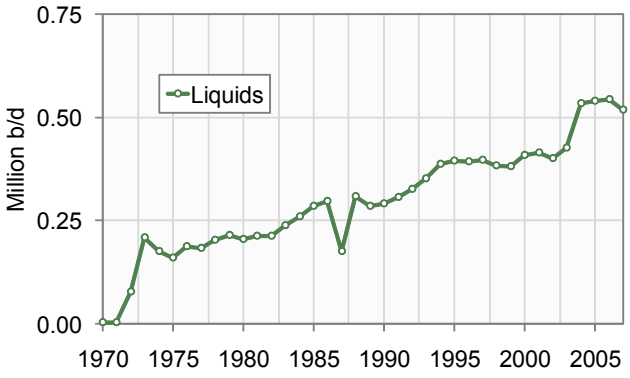
Source: ASPO Ireland & BP Statistical Review

Chart 120: Colombia production January 2005 - May 2009



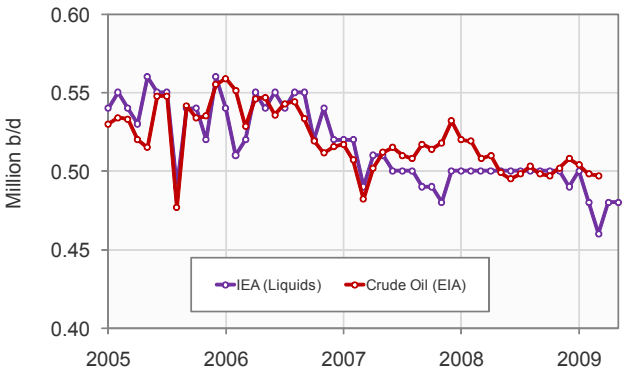
Source: Energy Information Administration & International Energy Agency

Chart 121: Ecuador production 1970 - 2007



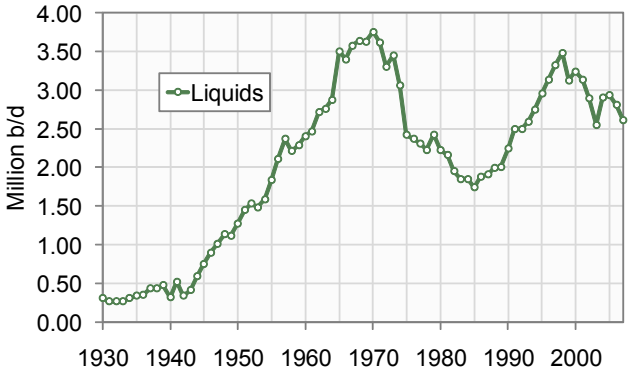
Source: ASPO Ireland & BP Statistical Review

Chart 122: Ecuador production January 2005 - May 2009



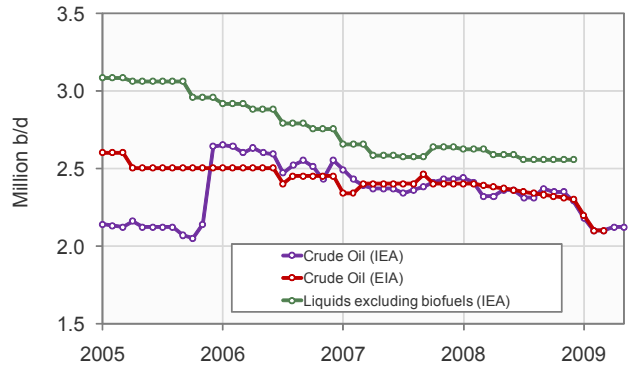
Source: Energy Information Administration & International Energy Agency

Chart 123: Venezuela production 1930 - 2007



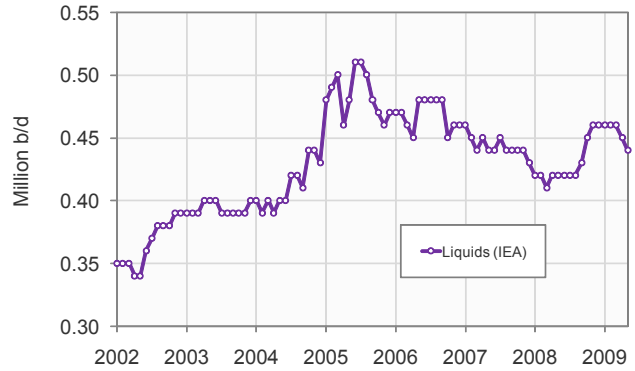
Source: ASPO Ireland & BP Statistical Review

Chart 124: Venezuela production January 2005 - May 2009



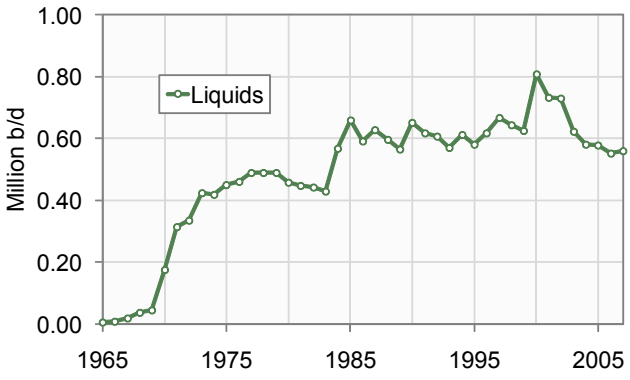
Source: Energy Information Admistration & International Energy Agency

Chart 125: Other S. America production Jan. 2002 - May 2009



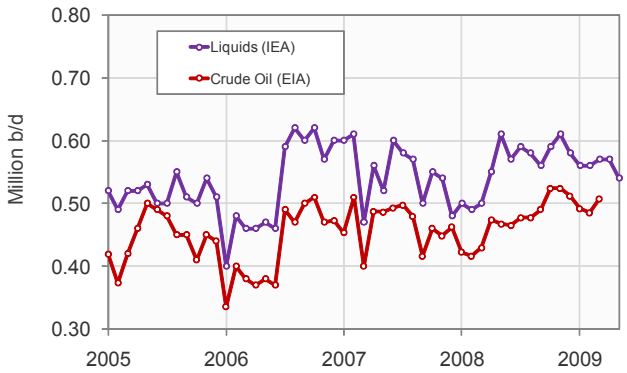
Source: International Energy Agency

Chart 126: Australia production 1970 - 2007



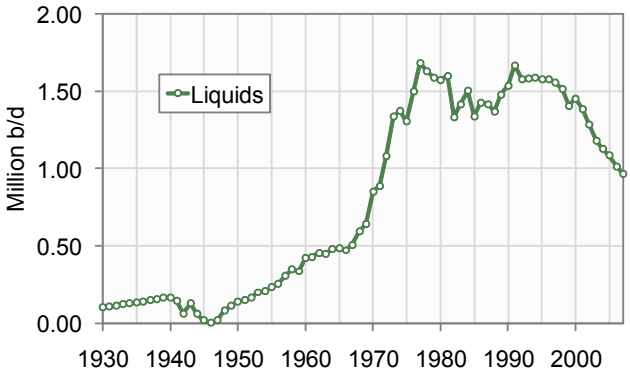
Source: ASPO Ireland & BP Statistical Review

Chart 127: Australia production January 2005 - May 2009



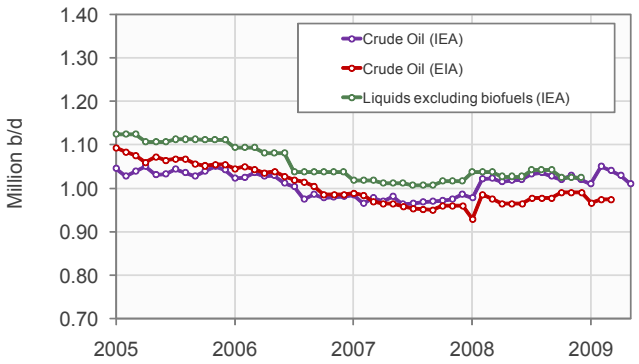
Source: Energy Information Administration & International Energy Agency

Chart 128: Indonesia production 1930 - 2007



Source: ASPO Ireland & BP Statistical Review

Chart 129: Indonesia production January 2005 - May 2009



Source: Energy Information Administration & International Energy Agency