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## An oil price takeoff in the third quarter of 2009

Oil prices have hovered around 40 dollars per barrel since December 2008. A consequence of oversupply on the market in the previous quarter due to collapsing demand for oil across the globe. The biggest impact on prices is coming from the United States. When the largest oil consuming country in the world experiences a consumption decline of six percent in the last quarter of 2008 in comparison to the last quarter of 2007, the impact on oil markets is huge. However, this situation may already be in reversal. Last week the US saw oil imports reach 6.1 million barrels per day according to the department of energy. Low gasoline prices appear to be causing a small oil consumption rebound.

At the same time, OPEC continues to decrease its production and exports each month. From July to December 2008 crude oil production in OPEC countries declined by 1.86 million b/d from 32.77 to 30.91 million b/d. In line with the production cut from October 2008 of 1.5 million b/d. As production continues to decline due to OPEC interventions, at least another 2 million b/d will be cut, total world supply will be at least 1 million b/d less than demand in the first quarter of 2009 according to the U.S. department of energy.

Will this glut be sufficient to cause a price rebound? Perhaps a small temporary spike in the coming months can occur. Since in addition to commercial stocks, a total of 80 million barrels of crude oil are stored in tankers on the world's seas, according to Frontline, the biggest owner of crude oil supertankers. When oil prices increase more than 15 dollars per barrel, the oil in these tankers is likely to be sold, as the cost of hiring such a tanker works out to only 1 dollar per barrel of oil a month.

Even if these market distortions temporarily lead to higher prices, downward pressure will return when the second quarter of 2009 begins. Oil demand is seasonally much lower in the months of spring, then in winter, summer and autumn due to less driving, heating and holiday oil usage. So oil prices are at the earliest expected to rebound significantly in the third quarter of 2009. As to what oil price level the rebound to higher prices will lead, one can only guess.

**Rembrandt Koppelaar**

**President ASPO Netherlands**

## Definitions

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

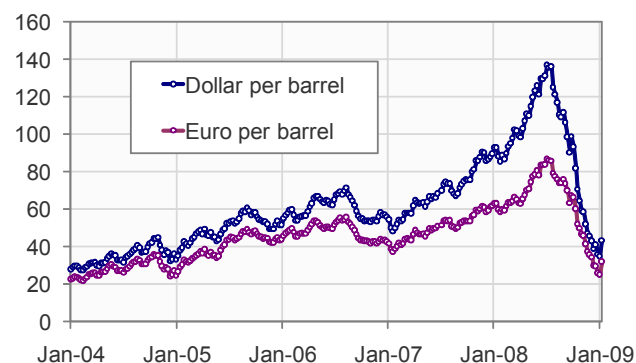
Liquids, all forms of liquid fuels including conventional, heavy, and extra heavy oil, oil shale, oil sands, natural gas liquids, lease condensates, gas-to-liquids, coal-to-liquids, and biofuels.

One Barrel of oil is equivalent to 159 litres

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**Chart 1: Oil Price Weighed Average of Blends**

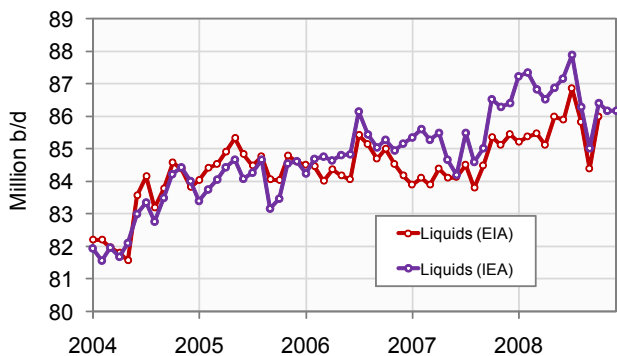


Source: Energy Information Administration

**World liquids production status**

In December 2008 world production of total liquids increased by 10,000 barrels per day from November according to the latest figures of the International Energy Agency (IEA). Resulting in total world liquids production of 86.17 million b/d.

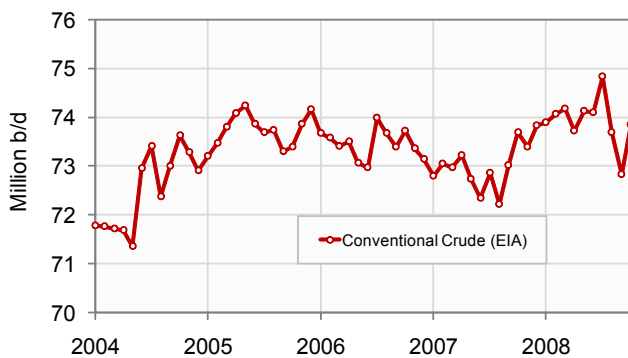
Average global production in 2008 was 86.65 million b/d according to the IEA. In 2007 an average of 85.41 million b/d was produced. The US Energy Information Administration (EIA) in their International Petroleum Monthly puts average global 2007 production at 84.43 million b/d and average liquids production from January to October 2008 at 85.60 million b/d.

**Chart 2:** World Liquids Production Jan. 2004 - December 2008


Source: Energy Information Administration, International Energy Agency

**World crude oil production status**

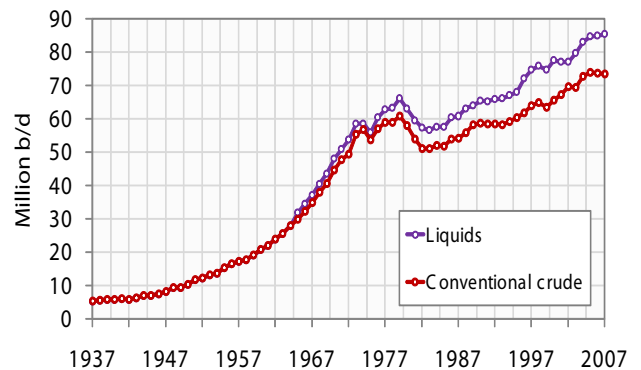
Latest available figures from the Energy Information Administration (EIA) show that crude oil production including lease condensates increased by 1.03 b/d from September to October. Resulting in a total production of crude oil including lease condensates of 73.86 million barrels per day. The all time high production record of crude oil now stands at 74.84 million b/d reached in July 2008.

**Chart 3:** World Crude Oil Production January 2004 - Dec. 2008


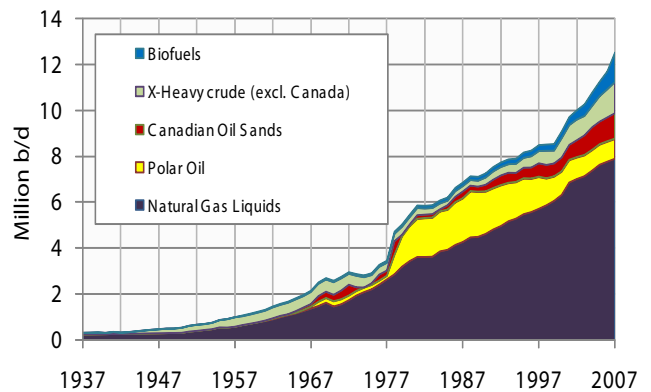
Source: Energy Information Administration

**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 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 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

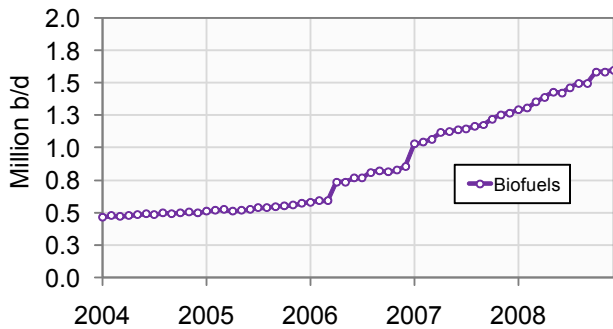
**Chart 5:** World Unconventional Production 1937 - 2007


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

**World biofuel production status**

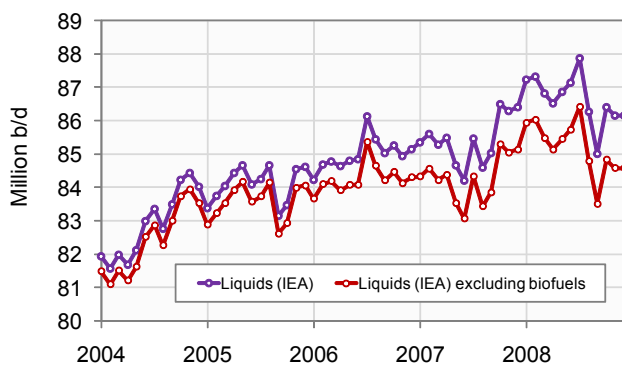
In December 2008 total world biofuel production was 1.6 million barrels per day according to statistics compiled from the Energy Information Administration, the International Energy Agency and the Brazilian ministry of Energy. With an estimated 647,000 b/d from the United States, 430,000 b/d from Brazil and 520,000 b/d from other countries.

**Chart 6:** World biofuels production Jan. 2004 - December 2008



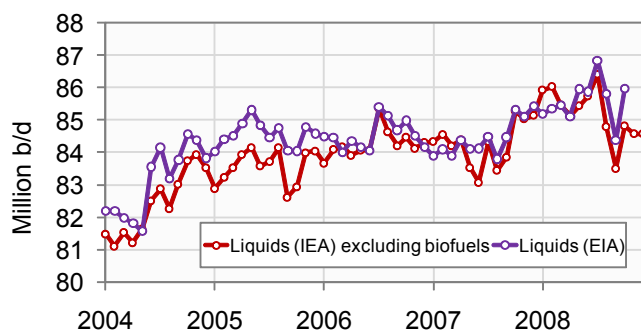
Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

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



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

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

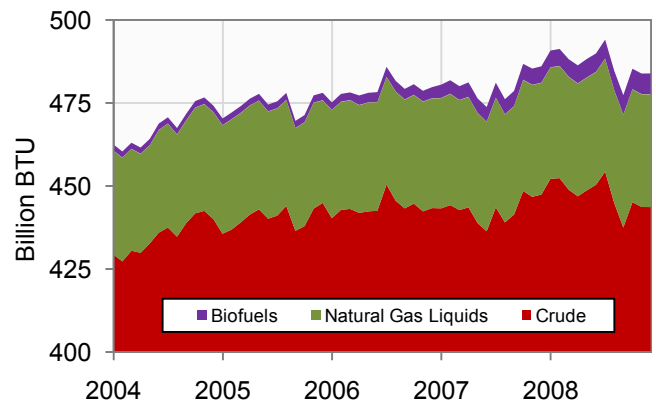


Source: Energy Information Administration, International Energy Agency, Brazilian Ministry of Energy

**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 comes from 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 - Dec. 2008

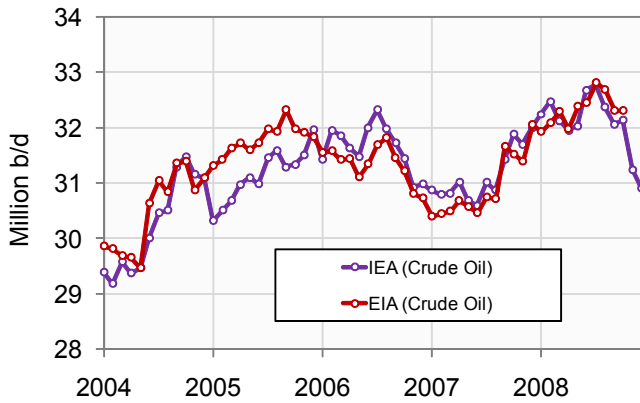


Source: Energy Information Administration, International Energy Agency

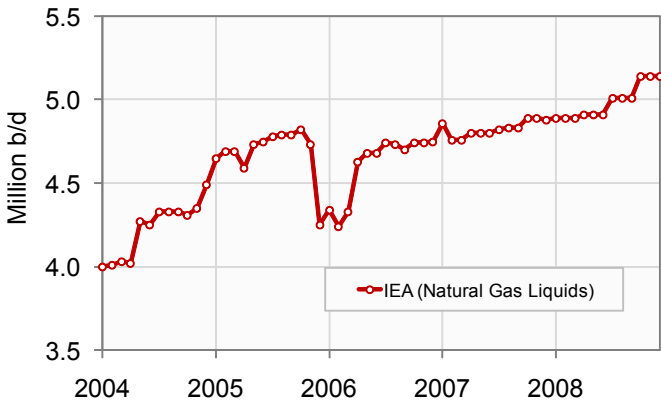
The actual energy available for society to consume is lower than shown in chart 9, however, because an incremental amount is needed to bring the oil out of the ground as the oil industry has to drill deeper at more extreme locations which costs more energy. Next to the additional energy needed in processing 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 excluding lease condensates of the OPEC cartel decreased by 330,000 b/d to a level of 30.91 million b/d, from November to December 2008, according to the latest available estimate of the IEA. Natural Gas Liquids production remained stable at 5.14 million b/d from November to December 2008. Average total liquids production in OPEC countries in 2008 was 37.07 million b/d, versus 36.25 million b/d in 2007 and 35.83 million b/d in 2006.

**Chart 10: OPEC Crude Oil Production January 2004 - Dec. 2008**


Source: Energy Information Administration & International Energy Agency

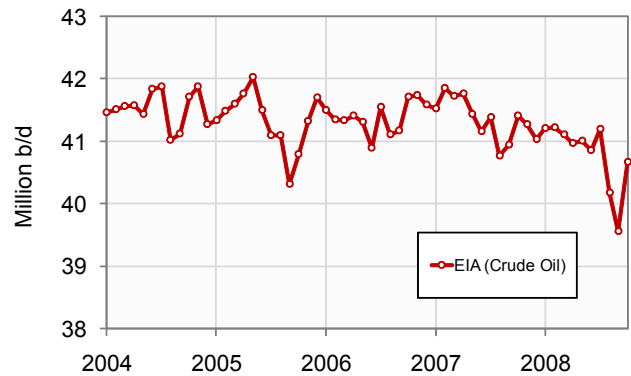
**Chart 11: OPEC Natural Gas Liquids Prod. Jan. 2004 - Dec. 2008**


Source: International Energy Agency

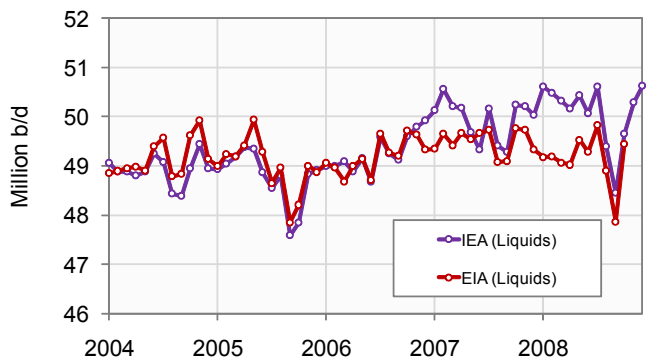
**Non-OPEC production status**

Total crude oil production including lease condensates of non-OPEC increased by 1.14 million b/d from September to October 2008 to a level of 40.67 million b/d, according to the latest available estimate of the EIA. Average crude oil production of Non-OPEC from January to October 2008 was 40.79 million b/d, versus 41.35 million b/d in 2007 and 41.39 million b/d in 2006.

Total non-OPEC liquids production increased by 340,000 b/d to a level of 50.12 million b/d from November to December 2008, according to the latest figures of the IEA. Average total liquids production of non-OPEC in 2008 was 49.58 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 - Oct. 2008**


Source: Energy Information Administration

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


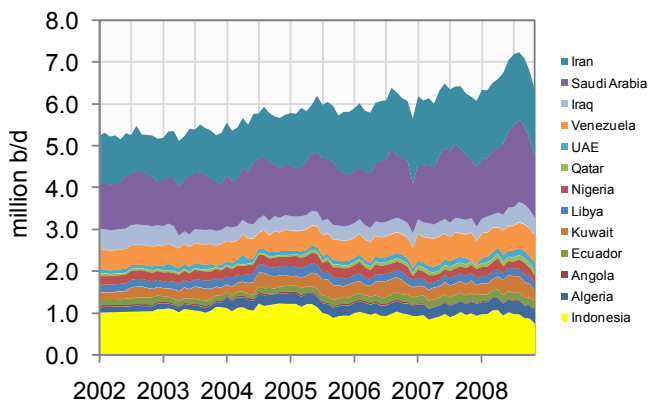
Source: International Energy Agency & Energy Information Administration

**OPEC liquids demand developments**

In 2002 OPEC-13 (including Iraq and Indonesia) consumed 5.26 million b/d according to the JODI database. OPEC-13 demand has increased by 1.2 million b/d to 6.46 million b/d from 2002 to 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.

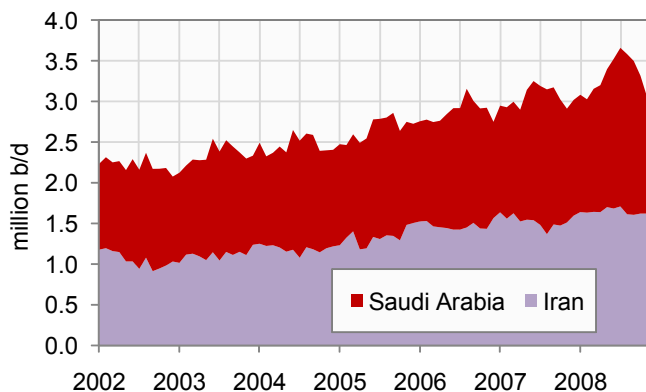
In 2008 this pace of growth has continued until July. Since then until November 2008 liquids consumption in Saudi Arabia and Iran has declined by respectively 517,000 b/d and 88,000 b/d according to the JODI database. Average consumption in Saudi-Arabia from January to November 2008 was 1.67 million b/d and in Iran 1.64 million b/d. Average consumption in the same period of 2007 in Saudi Arabia was 1.53 million b/d and in Iran 1.52 million b/d.

**Chart 14:** OPEC-13 Liquids Demand January 2002 - Nov. 2008



Source: JODI Database

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



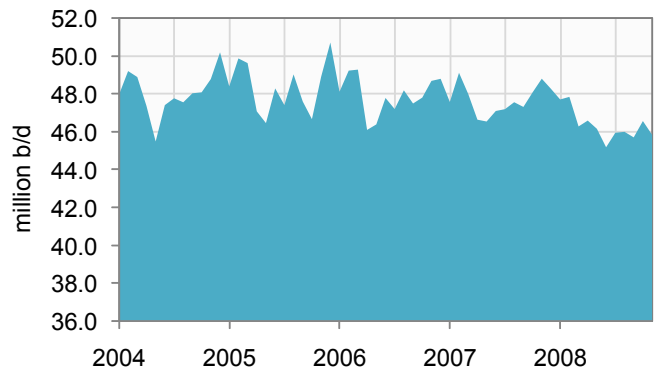
Source: JODI Database

**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 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.

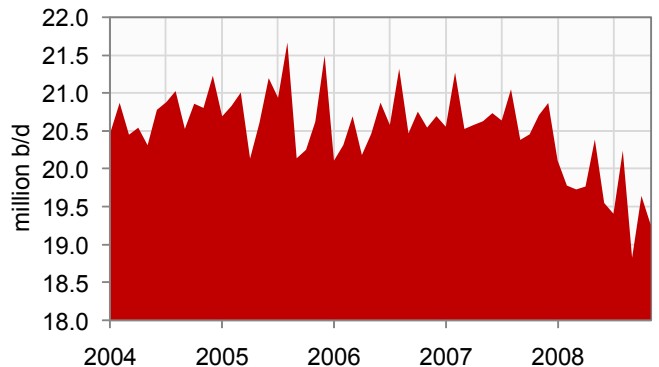
The decline in OECD consumption has accelerated in 2008. Consumption in November 2008 was 45.84 million b/d, a decline of 2.95 million b/d year on year. Average consumption from January to November 2008 was 46.35 million b/d, which is 1.28 million b/d lower than consumption in the same period in 2007. The decline is mainly a result of a decrease in oil consumption in the United States. Consumption is 986,000 b/d lower on average in the US from January to November 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 - Dec. 2008



Source: Energy Information Administration

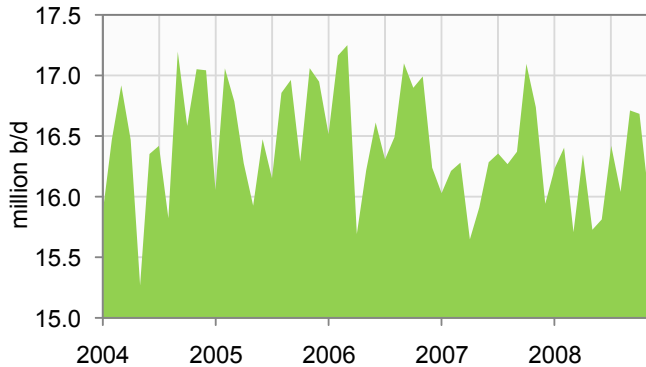
**Chart 17:** United States Liquids Demand Jan. 2004 - Dec. 2008



Source: JODI Database

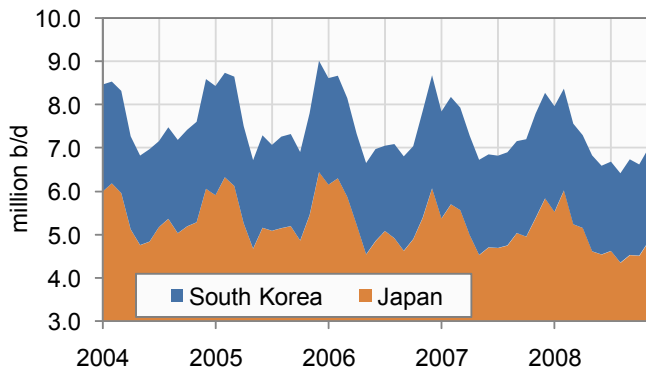
In the 27 countries of the European Union oil consumption declined significantly from 16.68 million b/d in October to 15.96 million b/d in November 2008. Average consumption from January to November 2008 was 16.19 million b/d were consumed, relative to 16.29 million b/d in the same period in 2007.

**Chart 18:** EU-27 Liquids Demand January 2004 - Nov. 2008



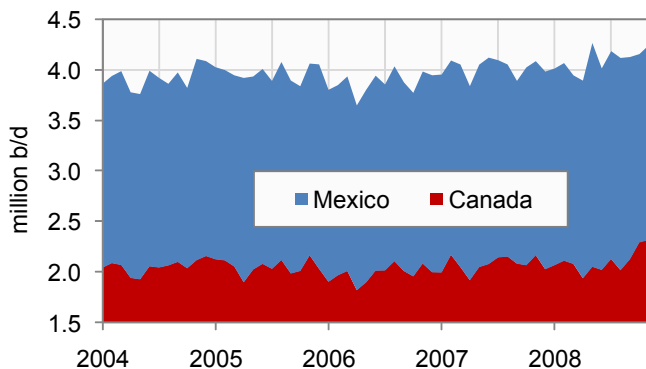
Source: JODI Database

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



Source: JODI Database

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



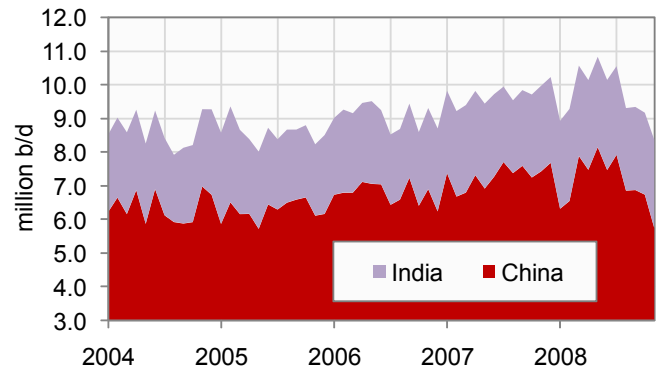
Source: JODI Database

**India & China liquids demand developments**

Chinese liquids consumption averaged 7.09 million b/d from January to November 2008 according to the JODI database. A decrease of 110,000 b/d versus average 2007 January to November consumption of 7.25 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. Liquids consumption in November was 986,000 b/d lower than in October

Consumption in India was 2.6 million b/d from January to November 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 - Nov. 2008

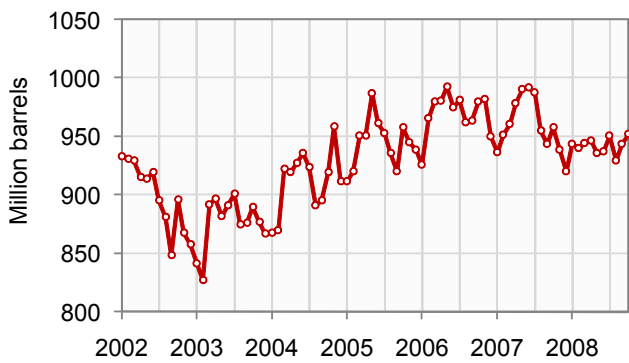


Source: JODI Database

**Total OECD crude oil and oil product stocks status**

Industrial inventories of crude oil in the OECD in November 2008 increased to a level of 954 million barrels from 953 million barrels in October according to IEA statistics.

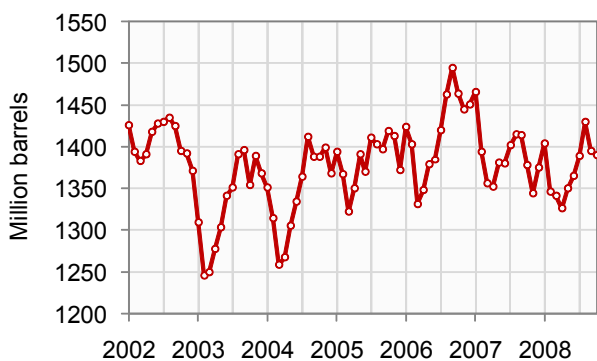
**Chart 22:** OECD Crude Oil Stocks January 2002 - Nov. 2008



Source: International Energy Agency

Total industrial product stocks in the OECD were 1393 million barrels in November 2008, an increase of 3 million barrels from a stock level of 1390 million barrels in October. Total product stocks stand slightly higher than the five year average of 1382 million barrels.

**Chart 23:** OECD Product Stocks Jan. 2002 - November 2008

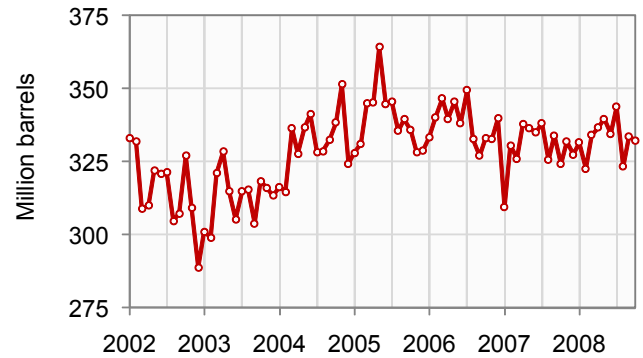


Source: International Energy Agency

**OECD Europe crude oil and oil product stocks status**

Industrial inventories of crude oil in OECD Europe decreased in November 2008 to a level of 328 million barrels from 332 million barrels in October according to IEA statistics.

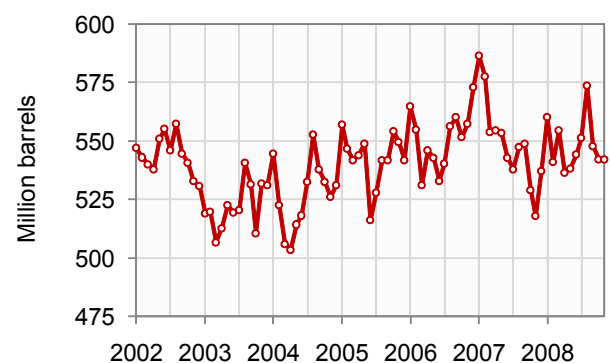
**Chart 24:** Europe Crude Oil Stocks January 2002 - Nov. 2008



Source: International Energy Agency

Total industrial product stocks in OECD Europe were 542 million barrels in November 2008, stable from October levels. Total product stocks are at the same height as the five year average of 543 million barrels.

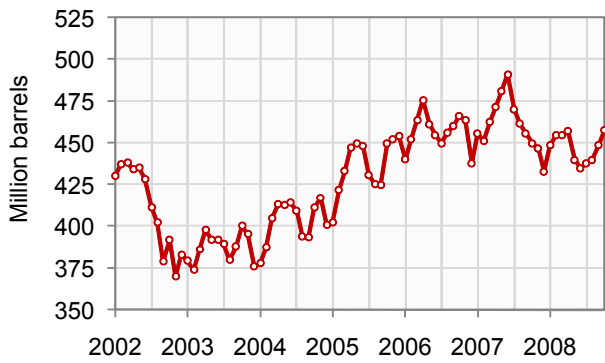
**Chart 25:** Europe Product Stocks January 2002 - October 2008



Source: International Energy Agency

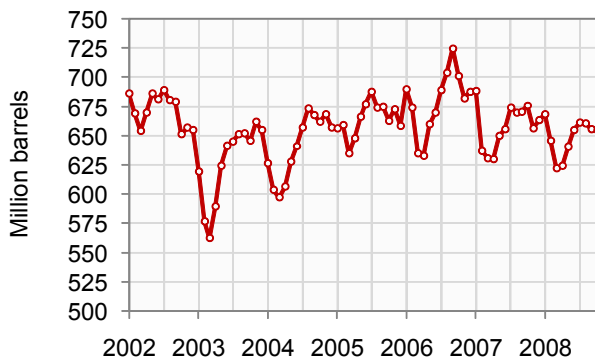
**OECD America crude oil and oil product stocks status**

Industrial inventories of crude oil in OECD America increased in November 2008 to a level of 464 million barrels from 458 million barrels in October according to IEA statistics.

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


Source: International Energy Agency

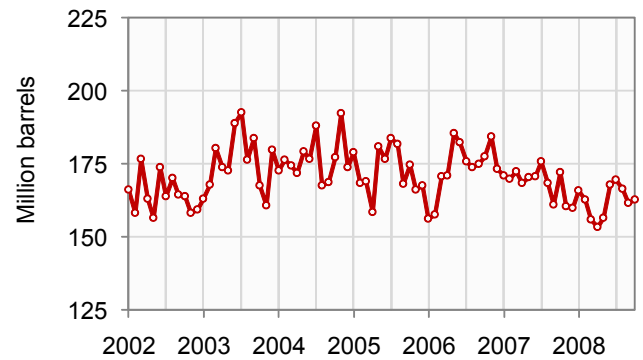
Total industrial product stocks in OECD America were 665 million barrels in November 2008, an increase of 10 million barrels from a stock level of 655 million barrels in October. Total product stocks stand slightly higher than the five year average of 659 million barrels.

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


Source: International Energy Agency

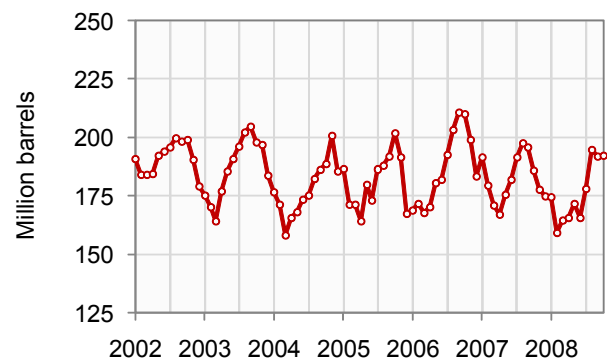
**OECD Pacific crude oil and oil product stocks status**

Industrial inventories of crude oil in OECD Pacific increased in November 2008 to a level of 162 million barrels from 163 million barrels in October according to IEA statistics.

**Chart 28: Pacific Crude Oil Stocks January 2002 - Nov. 2008**


Source: International Energy Agency

Total industrial product stocks in OECD Pacific were 186 million barrels in November 2008, a decrease of 6 million barrels over a stock level of 192 million barrels in October. Total product stocks stand slightly higher than the five year average of 181 million barrels.

**Chart 29: Pacific Product Stocks January 2002 - Nov. 2008**


Source: International Energy Agency

**World crude oil export status**

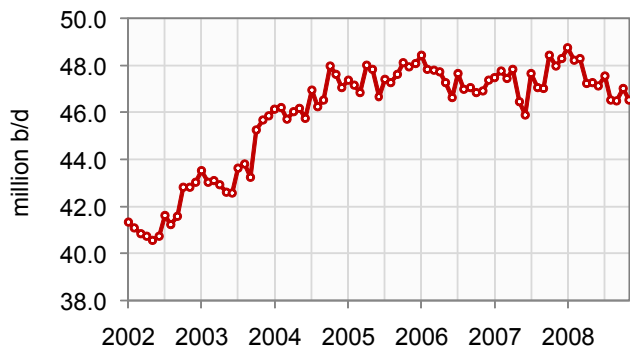
The series was derived by subtracting the consumption of oil products, refinery fuel and direct crude oil sales from liquids production in producer countries. Data comes from the Joint Oil Data Initiative (JODI) for demand and the International Energy Agency (IEA) and Energy Information Agency (EIA) 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. 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 and 47.3 million b/d in 2004, 2005, 2006 and 2007 respectively. From January to November 2008 the estimate suggests average world exports amounted to 47.37 million b/d.

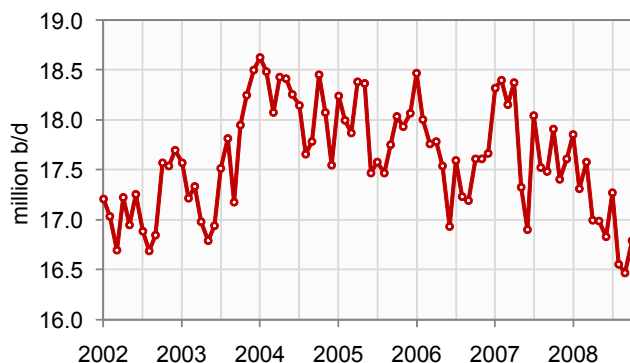
**Chart 30:** World Liquids Exports Estimate Jan. 2002 - Nov. 2008



Source: derived from the IEA, EIA and JODI Database

From January to November 2008 average non-OPEC exports were estimated to be 17.05 million b/d. An estimate 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.

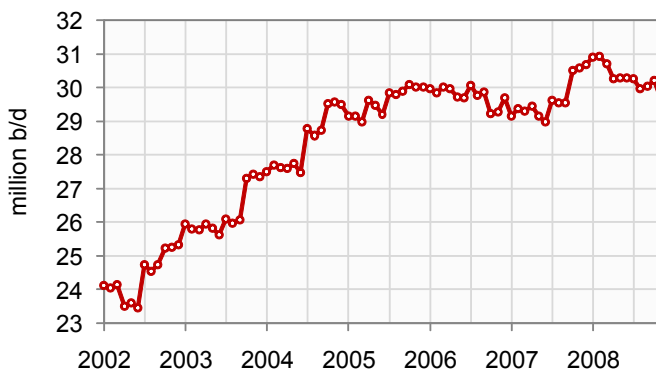
**Chart 31:** Non-OPEC Liquids Exports January 2002 - Nov. 2008



Source: derived from the IEA, EIA and JODI Database

An estimate 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. From January to November 2008 OPEC exports amounted to an average level of 30.32 million b/d.

**Chart 32:** OPEC Liquids Exports January 2002 - Nov. 2008

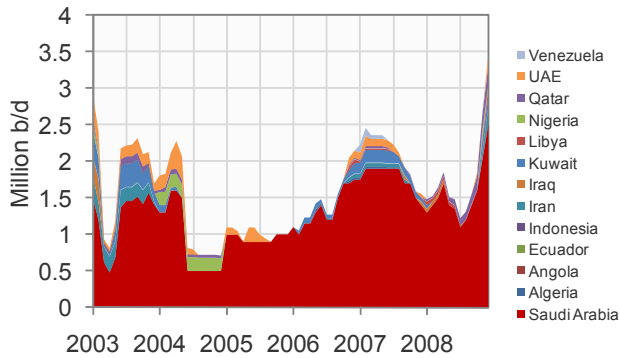


Source: derived from the IEA, EIA and JODI Database

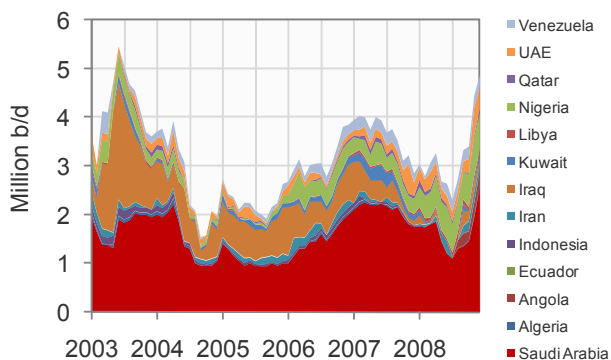
**OPEC spare capacity**

Total OPEC spare production capacity increased to 3.42 million b/d in December 2008 from a level of 2.66 million b/d in November according to the Energy Information Administration. Of total spare capacity 2.5 million b/d comes from Saudi Arabia, 0.25 million b/d from Qatar. 0.2 million b/d from Iran, and 0.47 million b/d from other countries.

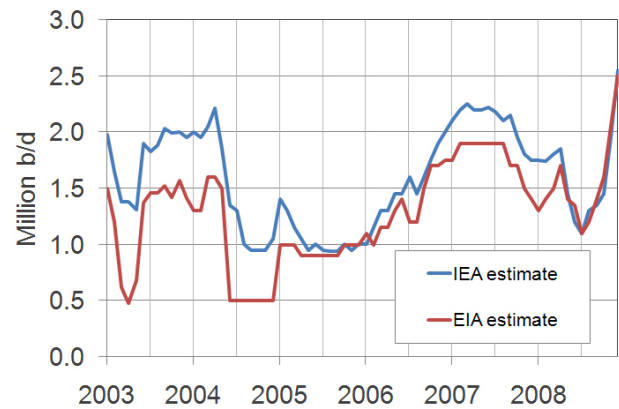
According to the International Energy Agency total effective spare capacity (excluding Indonesia, Iraq, Venezuela and Nigeria) increased to 3.74 million b/d in December 2008 from a level of 3.24 million b/d in November. The IEA estimates Saudi Arabia to be capable of producing an additional 2.55 million b/d within 90 days, the United Arab Emirates 0.44 million b/d, Angola 0.26 million b/d, Iran 0.12 million b/d, Libya 0.08 million b/d, Qatar 0.09 million b/d, and the other remaining countries 0.20 million b/d.

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


Source: Energy Information Administration

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


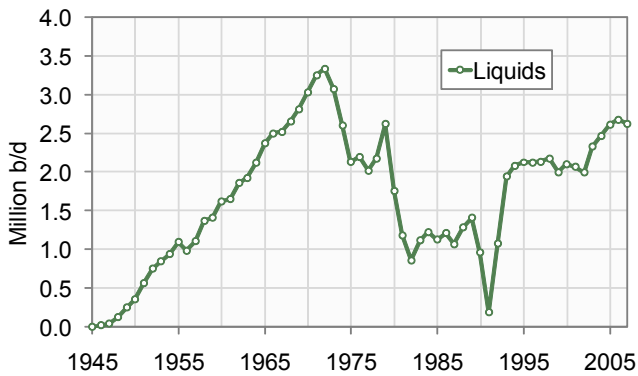
Source: International Energy Agency

**Chart 35: Saudi Arabia Spare Capacity Jan. 2003 - Dec. 2008**


Source: Energy Information Administration, International Energy Agency

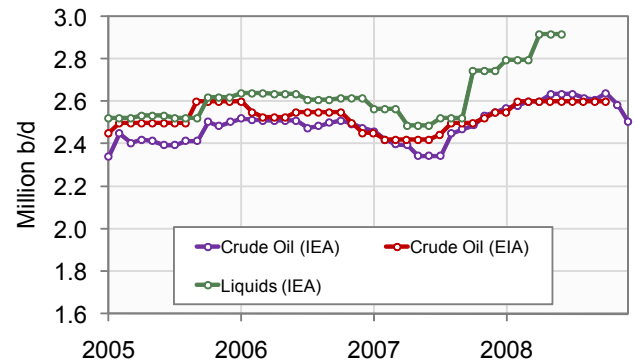
## Middle East Production Charts

**Chart 36:** Kuwait Production 1945 - 2007



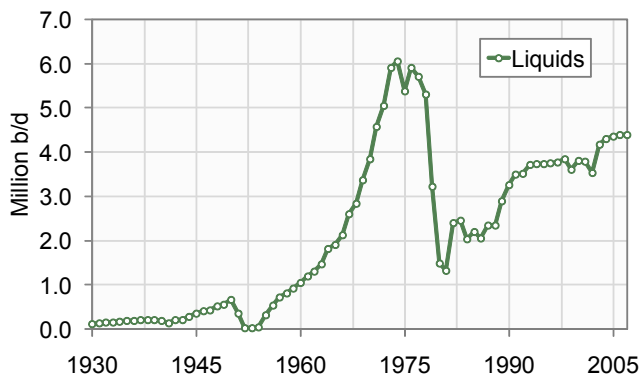
Source: ASPO Ireland & BP Statistical Review

**Chart 37:** Kuwait Production January 2005 - December 2008



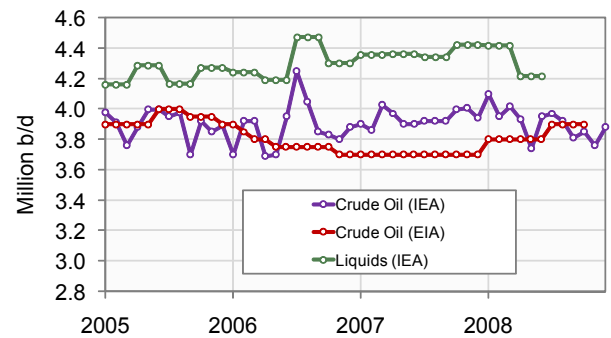
Source: Energy Information Administration & International Energy Agency

**Chart 38:** Iran Production 1930 - 2007



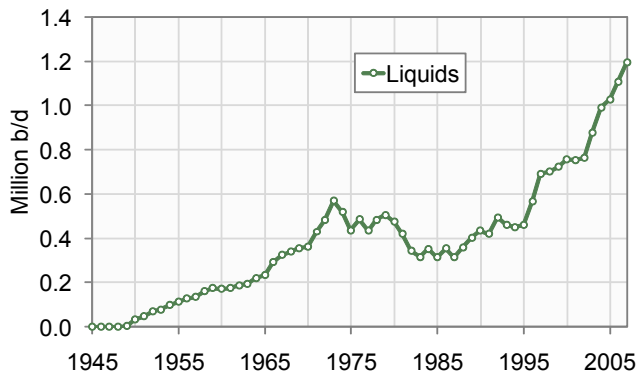
Source: ASPO Ireland & BP Statistical Review

**Chart 39:** Iran Production January 2005 - December 2008



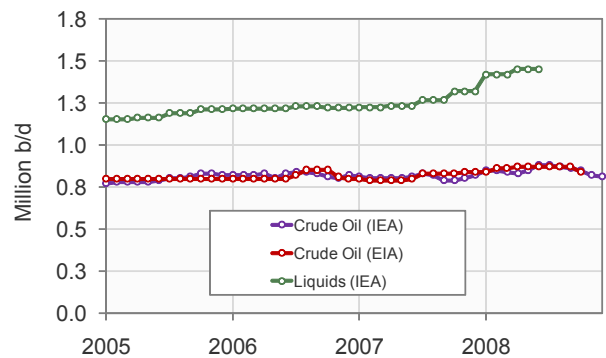
Source: Energy Information Administration & International Energy Agency

**Chart 40:** Qatar Production 1945 - 2007

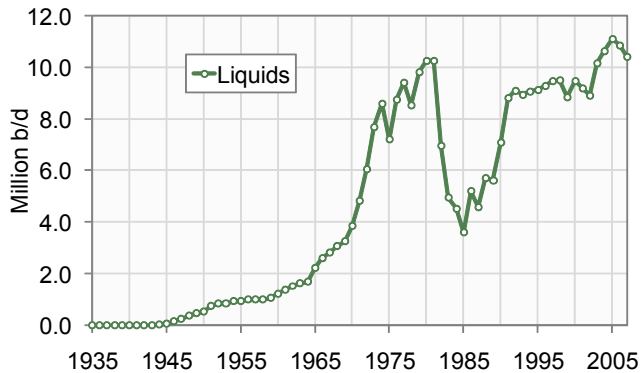


Source: ASPO Ireland & BP Statistical Review

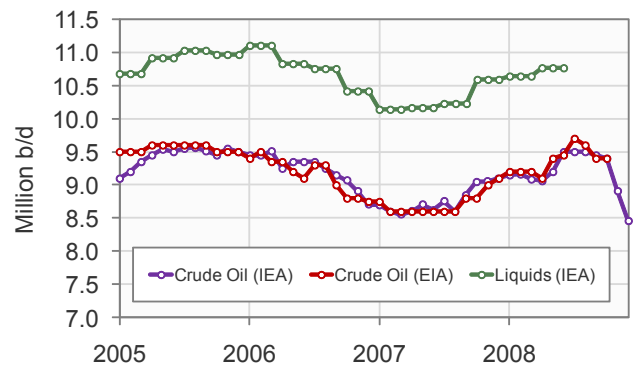
**Chart 41:** Qatar Production January 2005 - December 2008



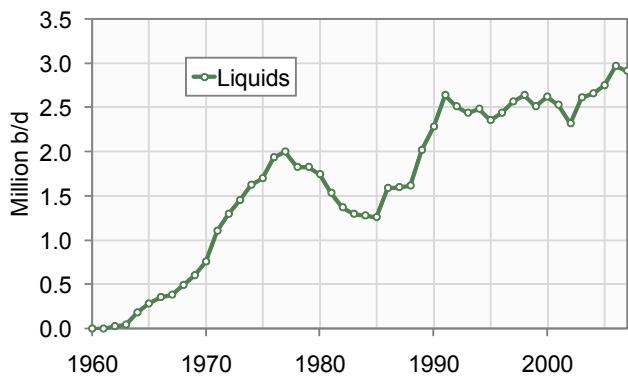
Source: Energy Information Administration & International Energy Agency

**Chart 42: Saudi Arabia Production 1935 - 2007**


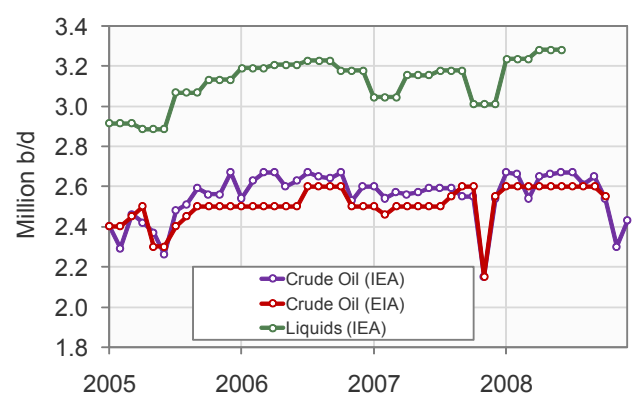
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 43: Saudi Arabia Production January 2005 - Dec. 2008**


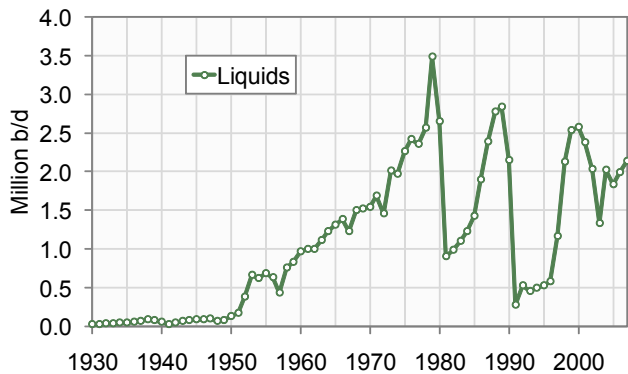
Source: Energy Information Administration &amp; International Energy Agency

**Chart 44: UAE Production 1960 - 2007**


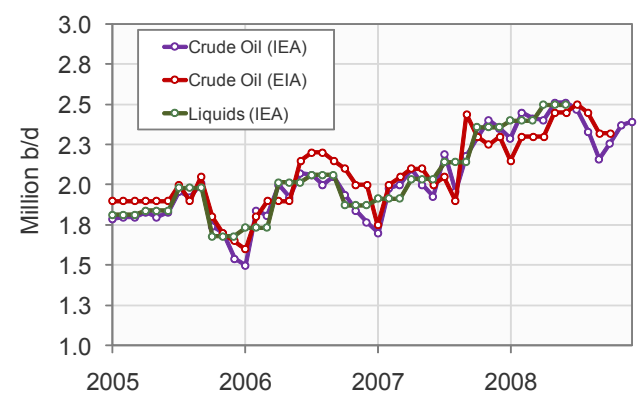
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 45: UAE Production January 2005 - December 2008**


Source: Energy Information Administration &amp; International Energy Agency

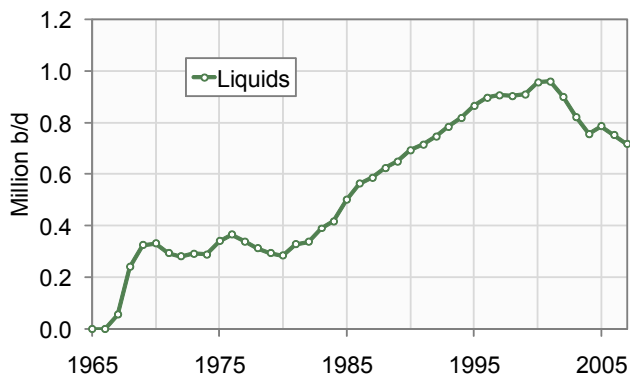
**Chart 46: Iraq Production 1930 - 2007**


Source: ASPO Ireland &amp; BP Statistical Review

**Chart 47: Iraq Production January 2005 - December 2008**


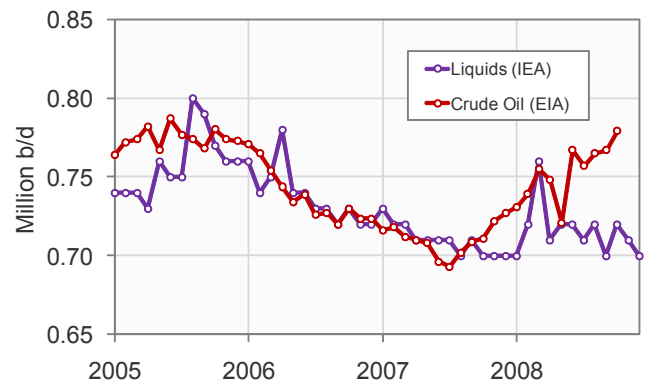
Source: Energy Information Administration &amp; International Energy Agency

**Chart 48:** Oman Production 1965 - 2007



Source: Energy Information Administration & International Energy Agency

**Chart 49:** Oman Production January 2005 - December 2008



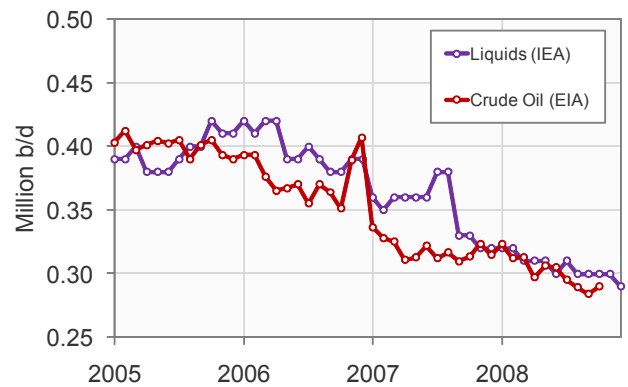
Source: Energy Information Administration & International Energy Agency

**Chart 50:** Yemen Production 1985 - 2007



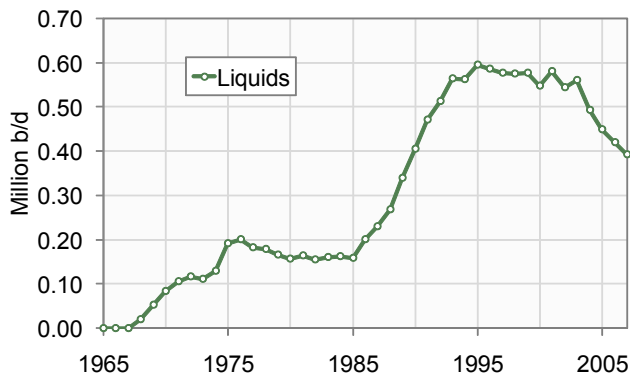
Source: Energy Information Administration & International Energy Agency

**Chart 51:** Yemen Production January 2005 - December 2008



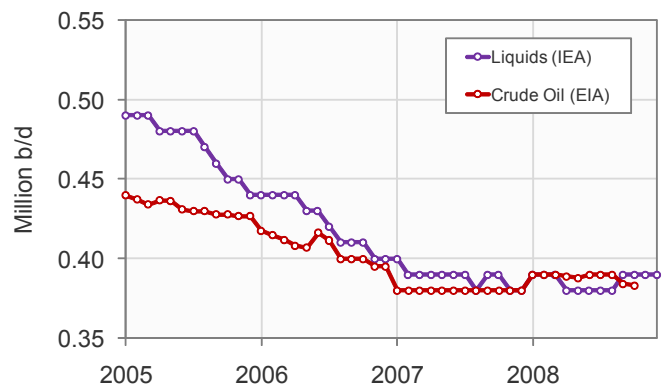
Source: Energy Information Administration & International Energy Agency

**Chart 52:** Syria Production 1965 - 2007

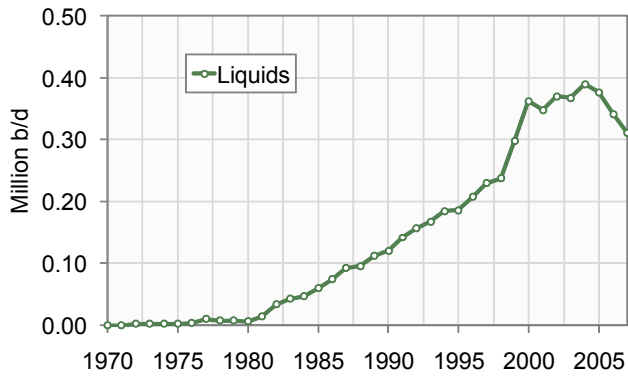


Source: Energy Information Administration & International Energy Agency

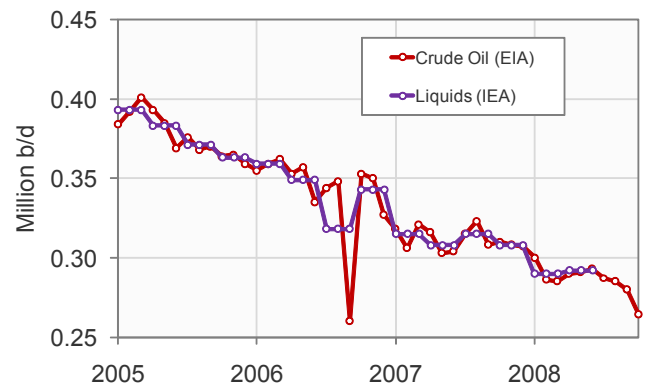
**Chart 53:** Syria Production January 2005 - December 2008



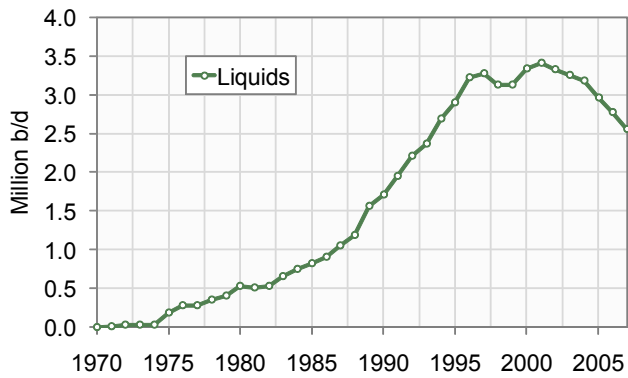
Source: Energy Information Administration & International Energy Agency

**Chart 54: Denmark Production 1970 - 2007**


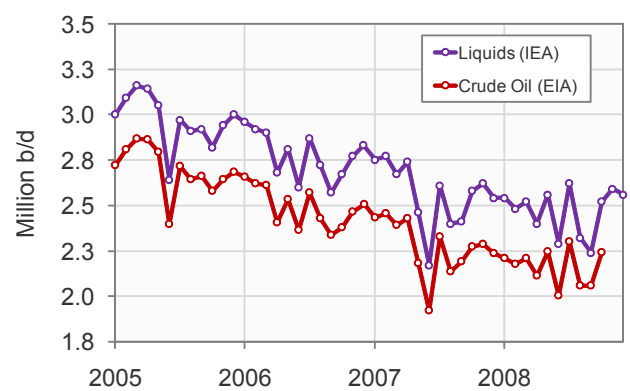
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 55: Denmark Production January 2005 - October 2008**


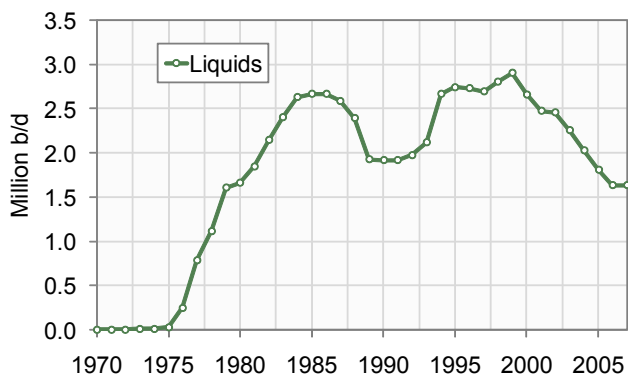
Source: Energy Information Administration &amp; International Energy Agency

**Chart 56: Norway Production 1970 - 2007**


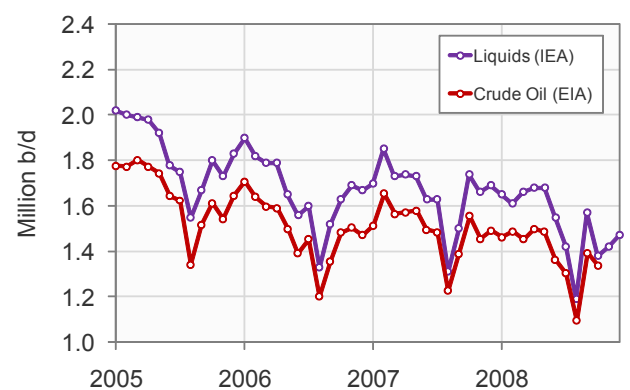
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 57: Norway Production January 2005 - December 2008**


Source: Energy Information Administration &amp; International Energy Agency

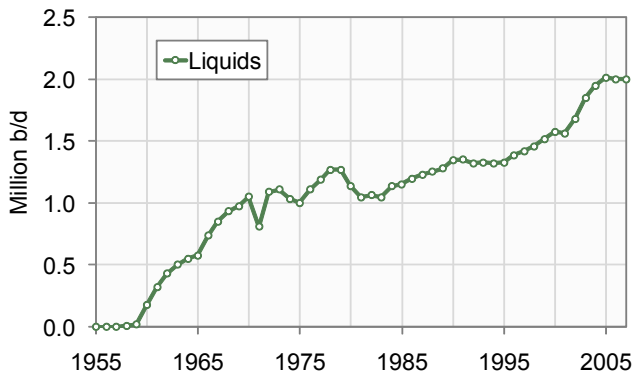
**Chart 58: United Kingdom Production 1970 - 2007**


Source: ASPO Ireland &amp; BP Statistical Review

**Chart 59: United Kingdom Production Jan. 2005 - Dec. 2008**


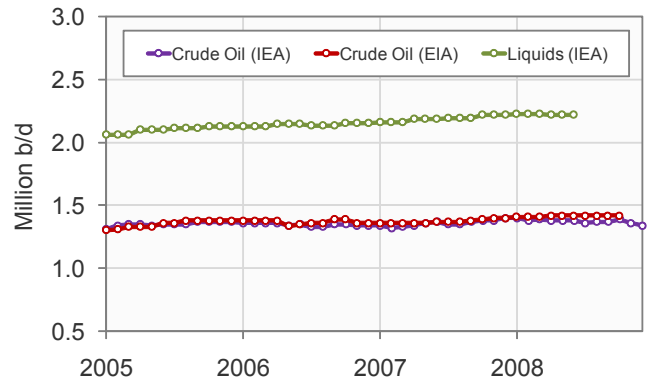
Source: Energy Information Administration &amp; International Energy Agency

**Chart 60:** Algeria Production 1955 - 2007



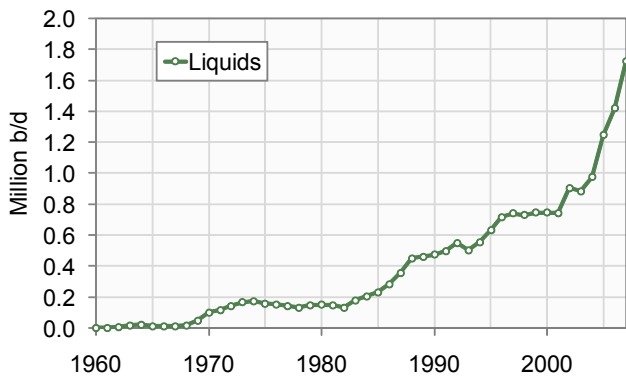
Source: ASPO Ireland & BP Statistical Review

**Chart 61:** Algeria Production January 2005 - December 2008



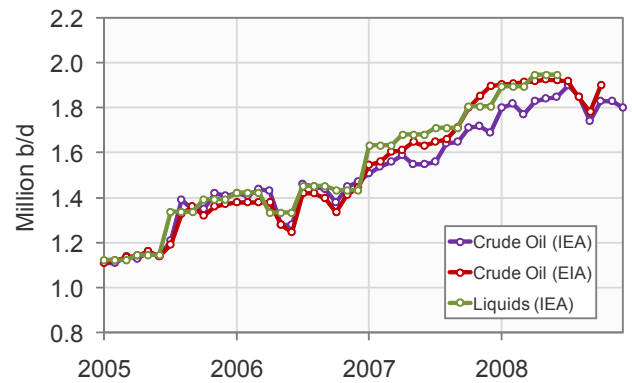
Source: Energy Information Administration & International Energy Agency

**Chart 62:** Angola Production 1960 - 2007



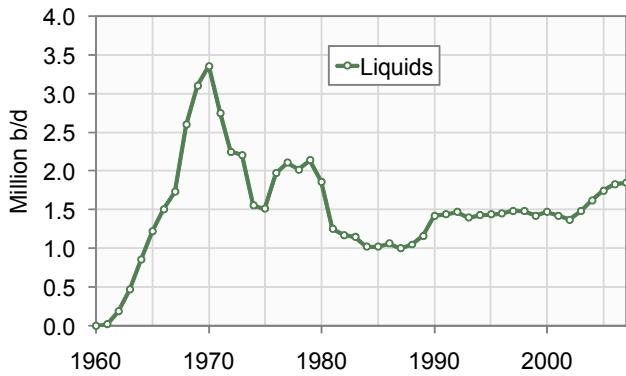
Source: ASPO Ireland & BP Statistical Review

**Chart 63:** Angola Production January 2005 - December 2008



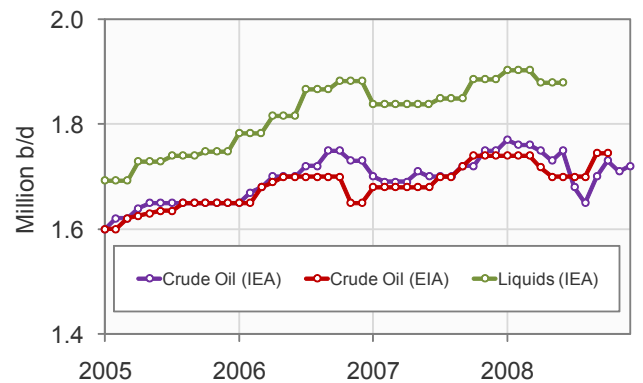
Source: Energy Information Administration & International Energy Agency

**Chart 64:** Libya Production 1970 - 2007

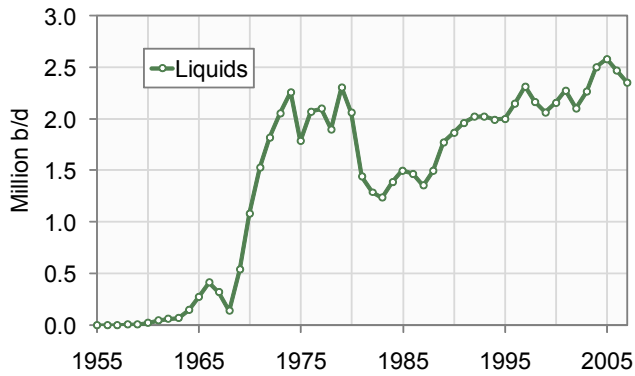


Source: ASPO Ireland & BP Statistical Review

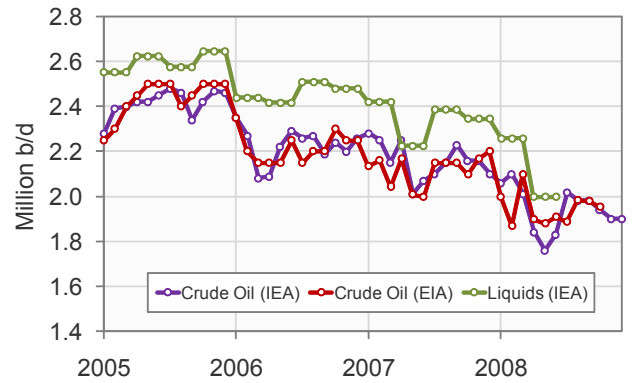
**Chart 65:** Libya Production January 2005 - December 2008



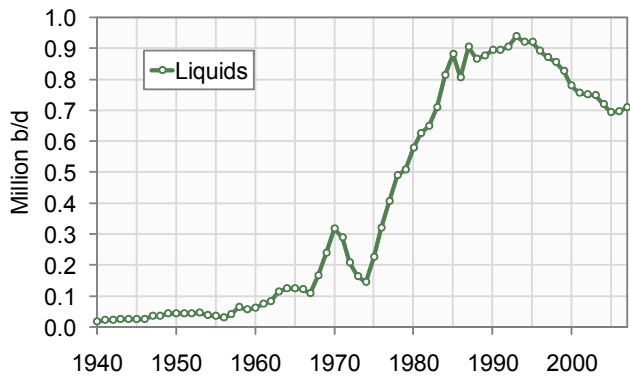
Source: Energy Information Administration & International Energy Agency

**Chart 66:** Nigeria Production 1955 - 2007


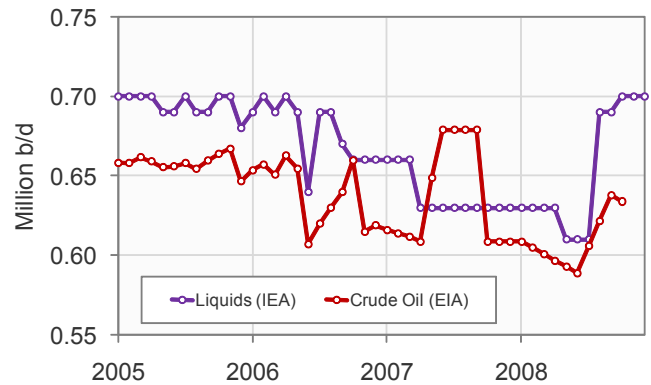
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 67:** Nigeria Production January 2005 - December 2008


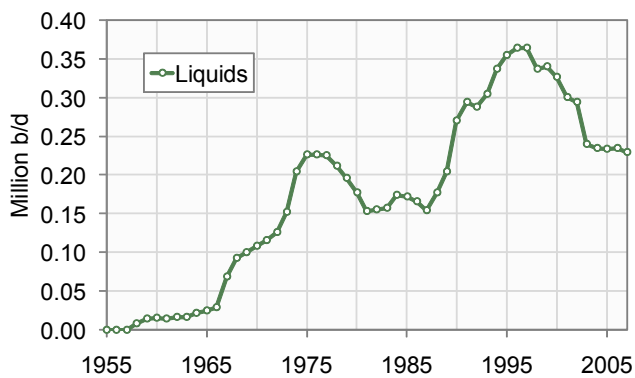
Source: Energy Information Administration &amp; International Energy Agency

**Chart 68:** Egypt Production 1940 - 2007


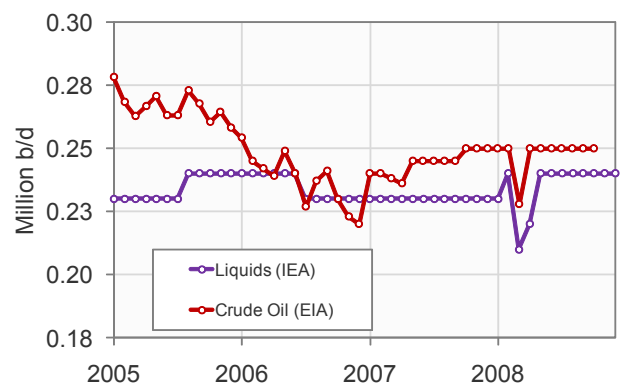
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 69:** Egypt Production January 2005 - December 2008


Source: Energy Information Administration &amp; International Energy Agency

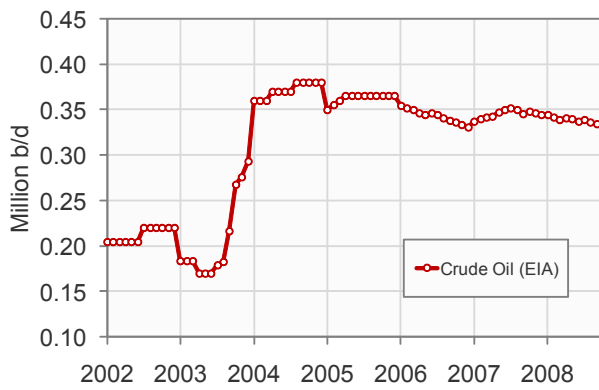
**Chart 70:** Gabon Production 1955 - 2007


Source: ASPO Ireland &amp; BP Statistical Review

**Chart 71:** Gabon Production January 2005 - December 2008


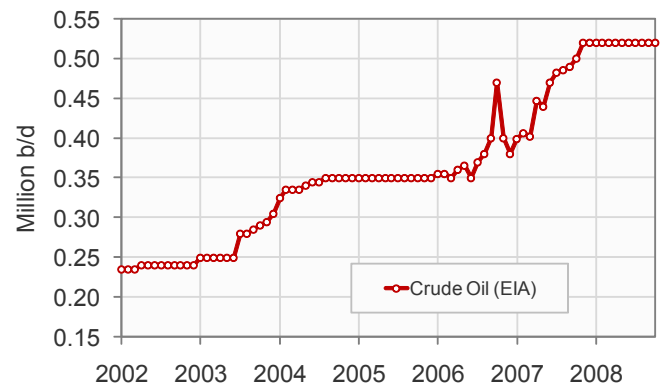
Source: Energy Information Administration &amp; International Energy Agency

**Chart 72:** Equatorial Guinea Production Jan. 2002 - Oct. 2008



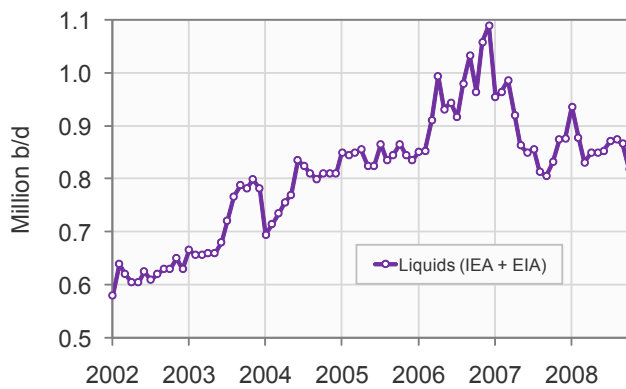
Source: Energy Information Administration

**Chart 73:** Sudan Production January 2002 - October 2008

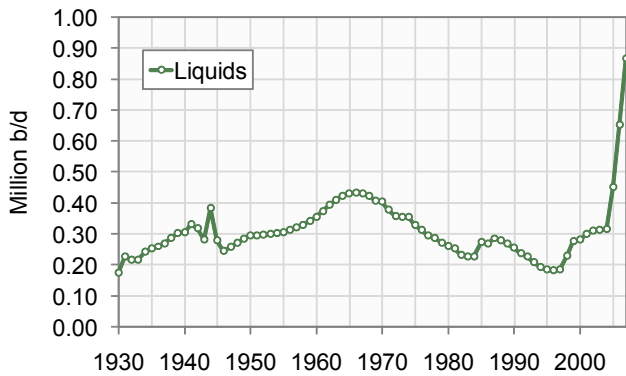


Source: Energy Information Administration

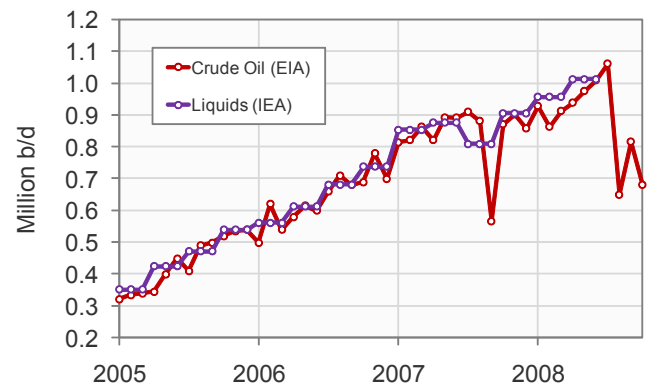
**Chart 74:** Other Africa Production January 2002 - Oct. 2008



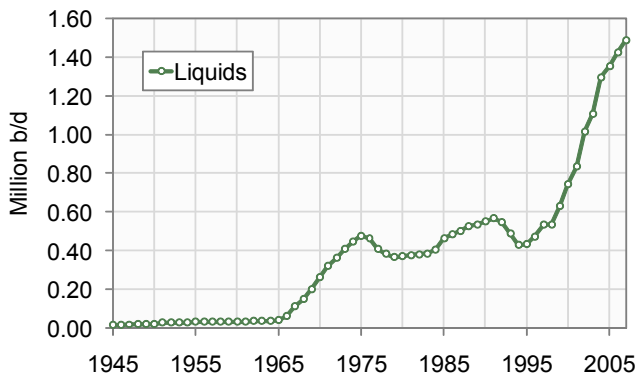
Source: Energy Information Administration & International Energy Agency

**Chart 75: Azerbaijan Production 1930 - 2007**


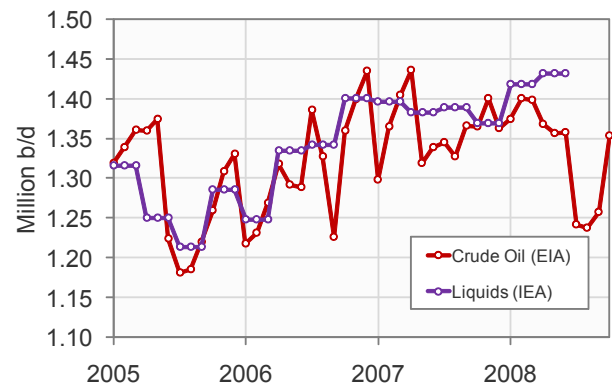
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 76: Azerbaijan Production January 2005 - Oct. 2008**


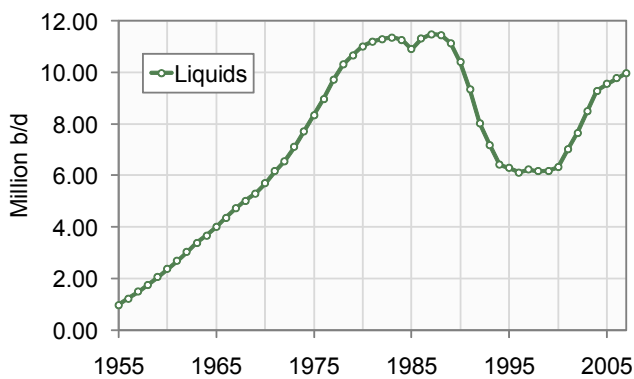
Source: Energy Information Administration &amp; International Energy Agency

**Chart 77: Kazakhstan Production 1945 - 2007**


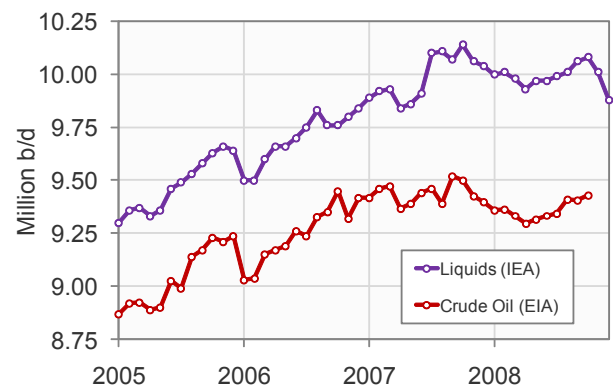
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 78: Kazakhstan Production January 2005 - Oct. 2008**


Source: Energy Information Administration &amp; International Energy Agency

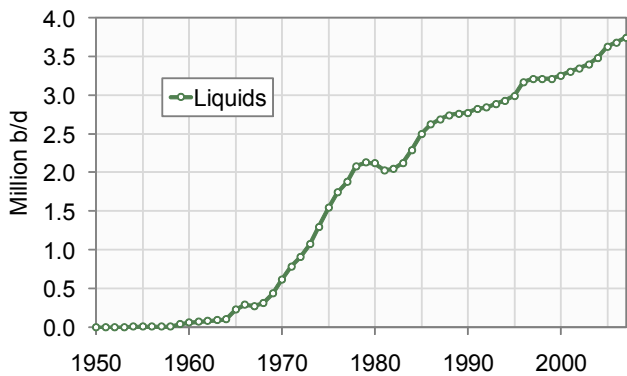
**Chart 79: Russia Production 1955 - 2007**


Source: ASPO Ireland &amp; BP Statistical Review

**Chart 80: Russia Production January 2005 - December 2008**


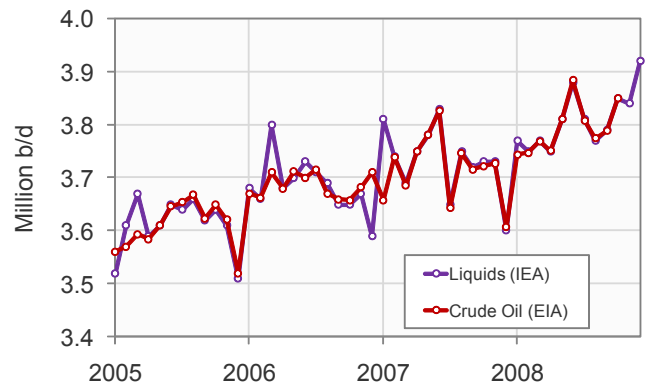
Source: Energy Information Administration &amp; International Energy Agency

**Chart 81:** China Production 1950 - 2007



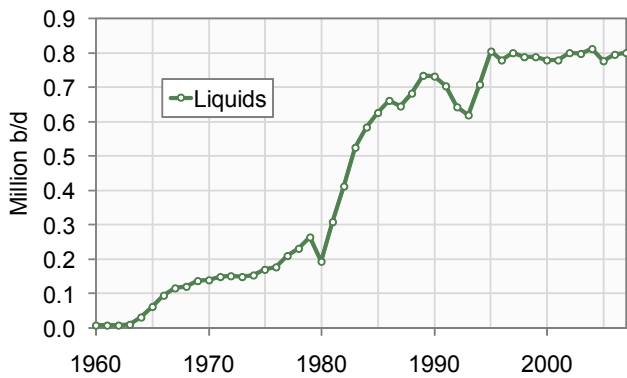
Source: ASPO Ireland & BP Statistical Review

**Chart 82:** China Production January 2005 - December 2008



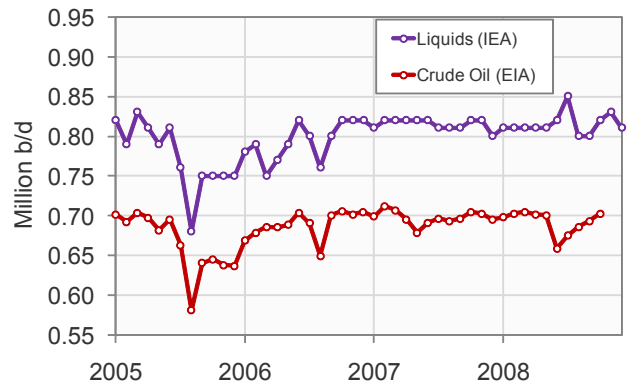
Source: Energy Information Administration & International Energy Agency

**Chart 83:** India Production 1960 - 2007



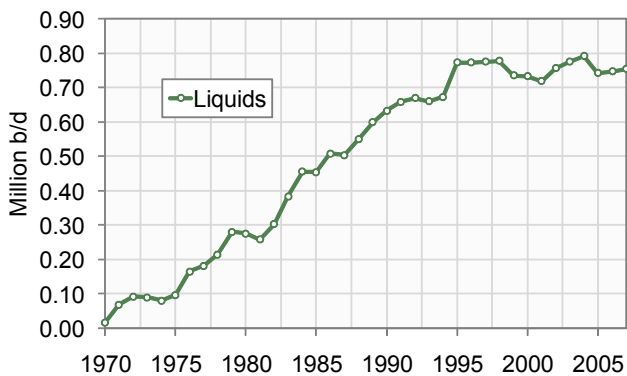
Source: ASPO Ireland & BP Statistical Review

**Chart 84:** India Production January 2005 - December 2008



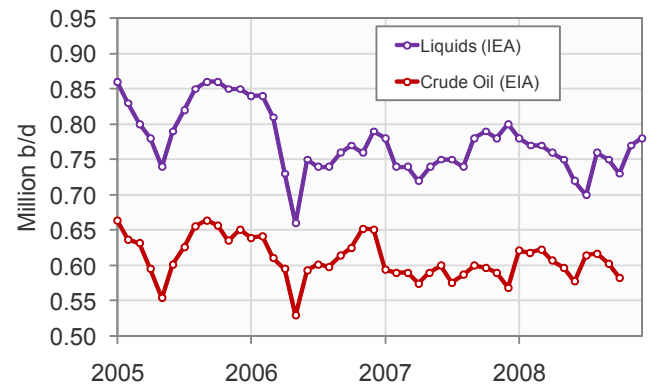
Source: Energy Information Administration & International Energy Agency

**Chart 85:** Malaysia Production 1955 - 2007

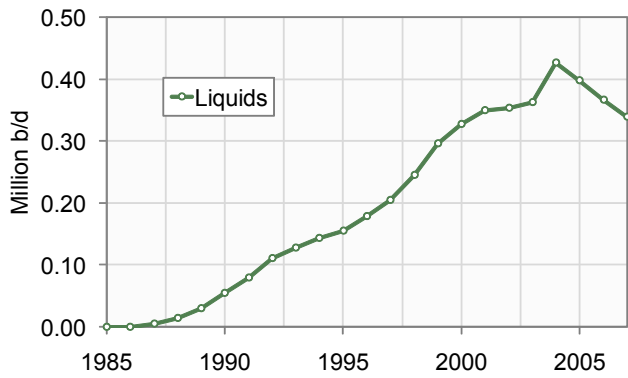


Source: ASPO Ireland & BP Statistical Review

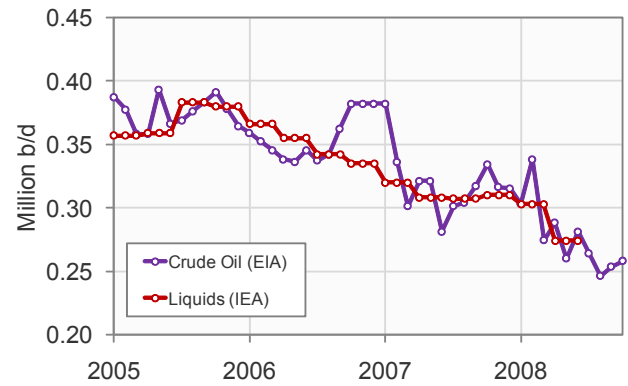
**Chart 86:** Malaysia Production January 2005 - December 2008



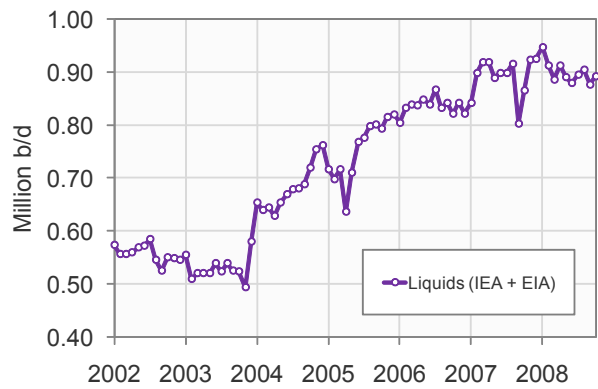
Source: Energy Information Administration & International Energy Agency

**Chart 87: Vietnam Production 1985 - 2007**


Source: ASPO Ireland & BP Statistical Review

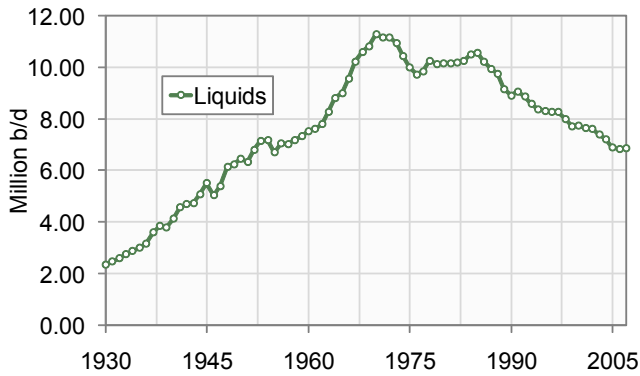
**Chart 88: Vietnam Production January 2005 - October 2008**


Source: Energy Information Administration & International Energy Agency

**Chart 89: Other Asia Production January 2002 - Oct. 2008**


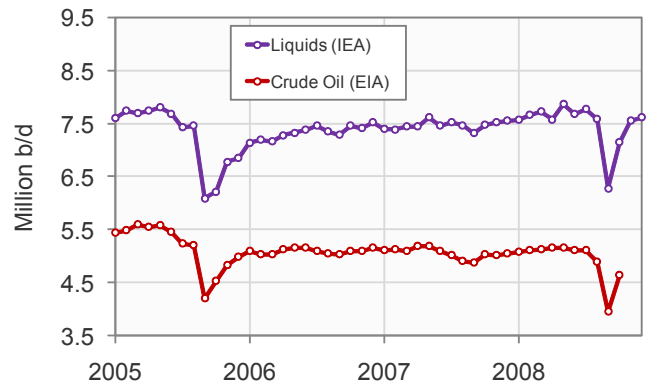
Source: Energy Information Administration & International Energy Agency

**Chart 90:** United States Production 1930 - 2007



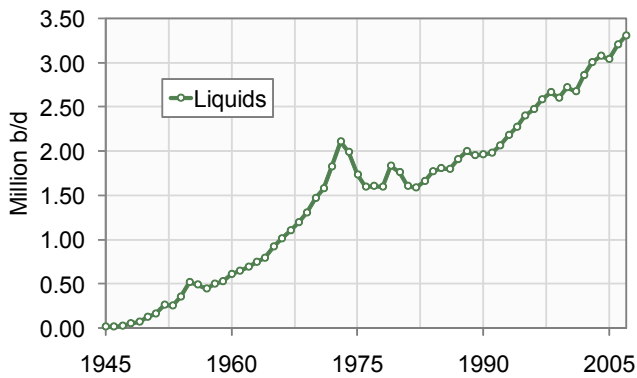
Source: ASPO Ireland & BP Statistical Review

**Chart 91:** United States Production January 2005 - Dec. 2008



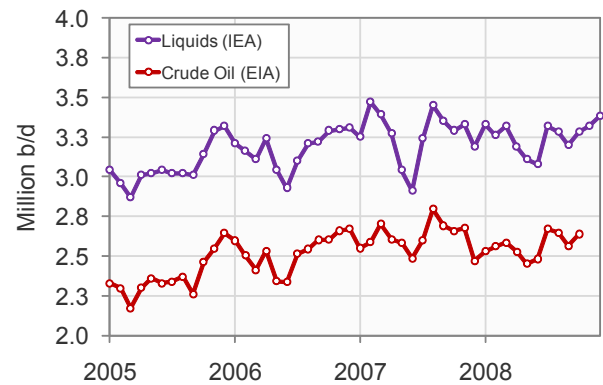
Source: Energy Information Administration & International Energy Agency

**Chart 92:** Canada Production 1945 - 2007



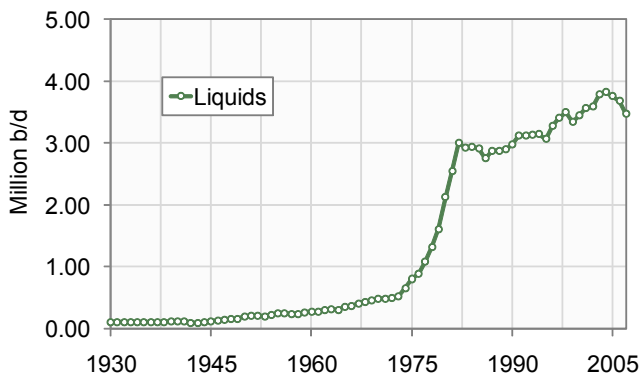
Source: ASPO Ireland & BP Statistical Review

**Chart 93:** Canada Production January 2005 - December 2008



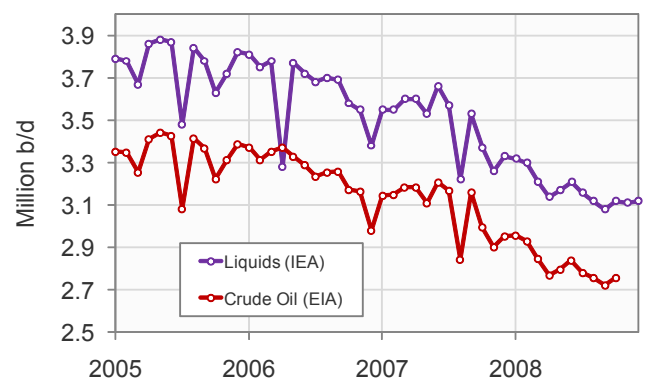
Source: Energy Information Administration & International Energy Agency

**Chart 94:** Mexico Production 1930 - 2007

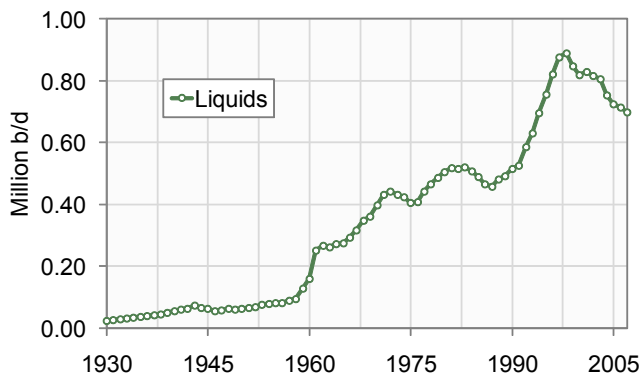


Source: ASPO Ireland & BP Statistical Review

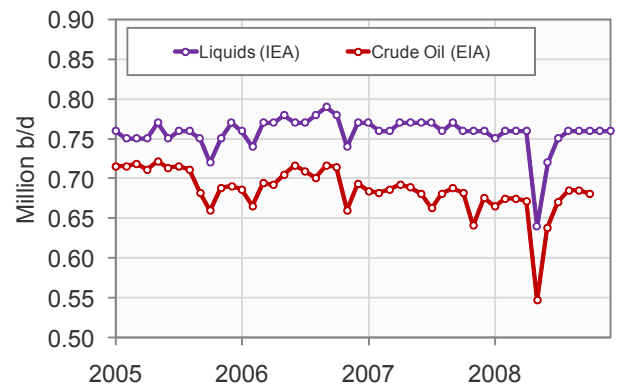
**Chart 95:** Mexico Production January 2005 - December 2008



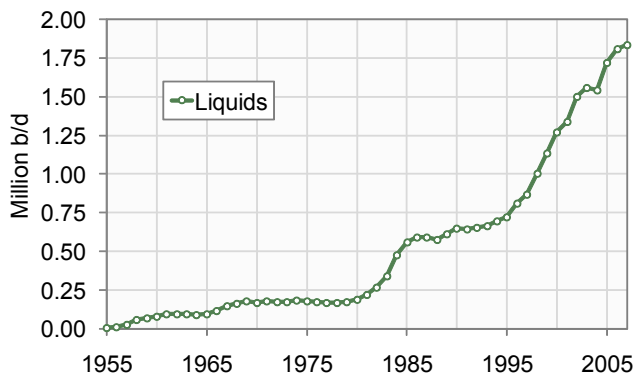
Source: Energy Information Administration & International Energy Agency

**Chart 96: Argentina Production 1930 - 2007**


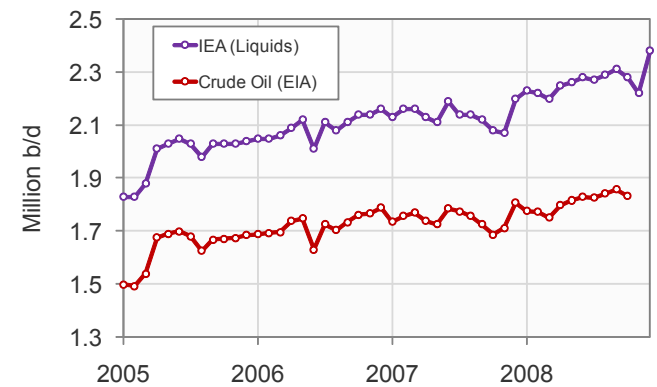
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 97: Argentina Production January 2005 - December 2008**


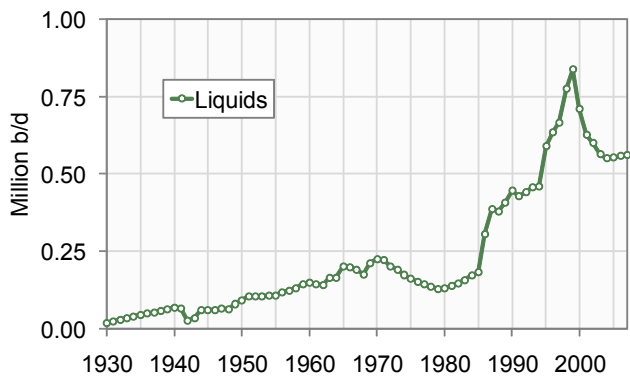
Source: Energy Information Administration &amp; International Energy Agency

**Chart 98: Brazil Production 1955 - 2007**


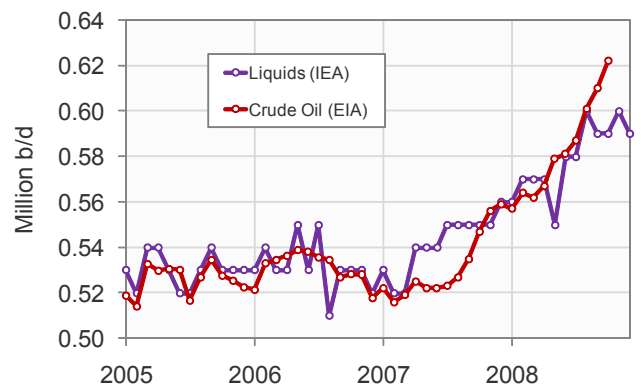
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 99: Brazil Production January 2005 - December 2008**


Source: Energy Information Administration &amp; International Energy Agency

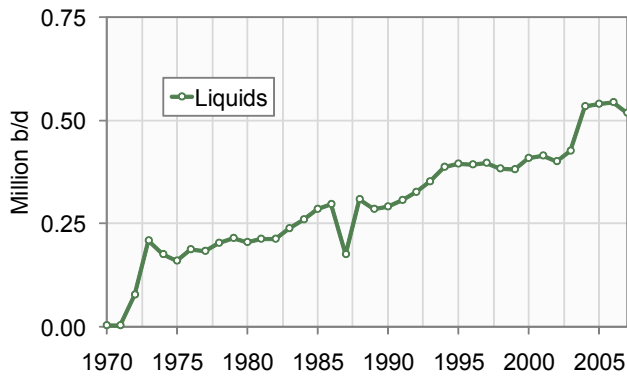
**Chart 100: Colombia Production 1930 - 2007**


Source: ASPO Ireland &amp; BP Statistical Review

**Chart 101: Colombia Production January 2005 - Dec 2008**


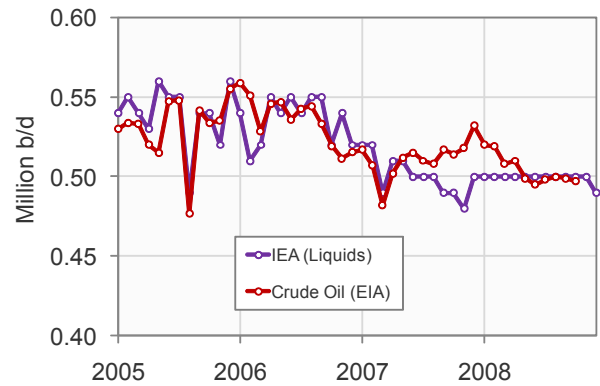
Source: Energy Information Administration &amp; International Energy Agency

**Chart 102:** Ecuador Production 1970 - 2007



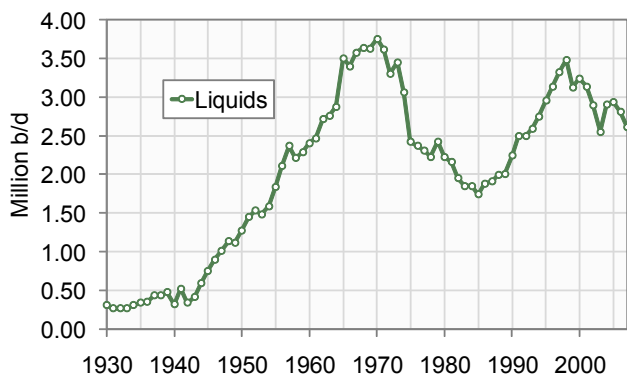
Source: ASPO Ireland & BP Statistical Review

**Chart 103:** Ecuador Production January 2005 - December 2008



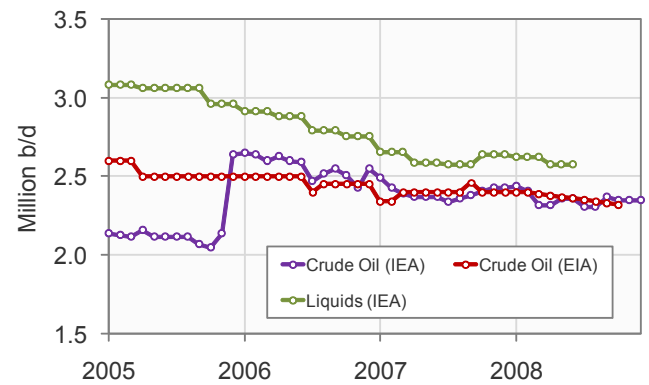
Source: Energy Information Administration & International Energy Agency

**Chart 104:** Venezuela Production 1930 - 2007



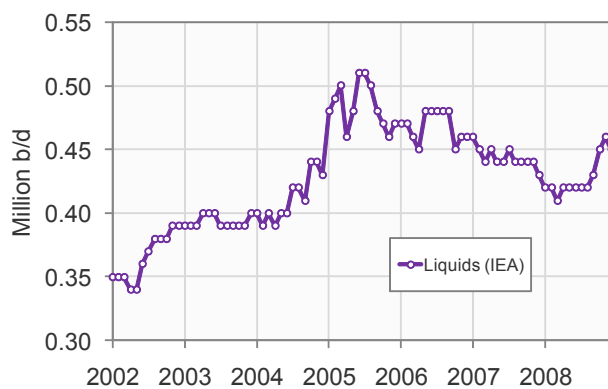
Source: ASPO Ireland & BP Statistical Review

**Chart 105:** Venezuela Production Jan. 2005 - December 2008

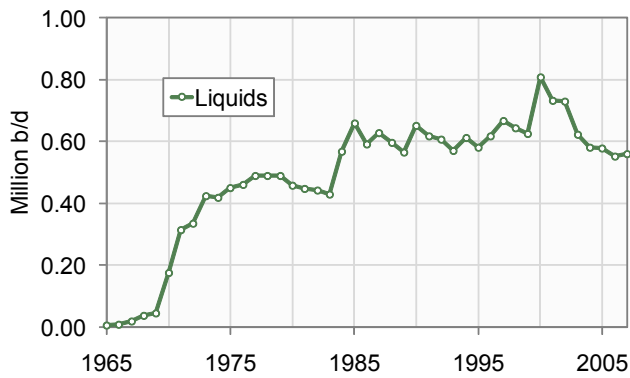


Source: Energy Information Administration & International Energy Agency

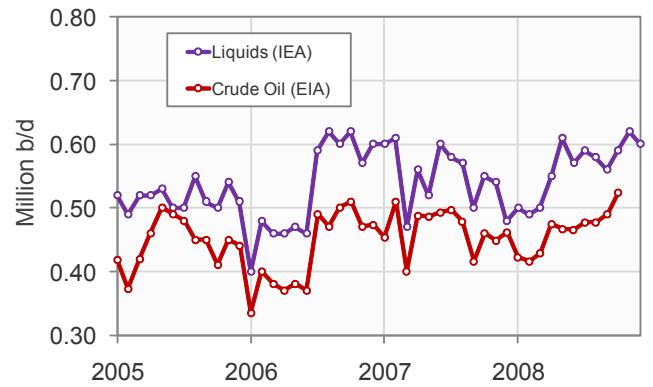
**Chart 106:** Other S. America Production Jan. 2002 - Dec. 2008



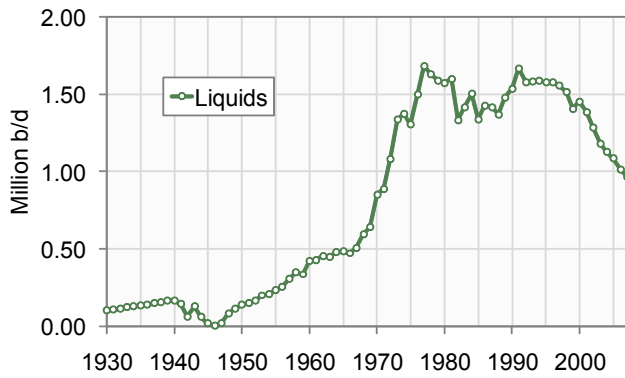
Source: International Energy Agency

**Chart 107: Australia Production 1970 - 2007**


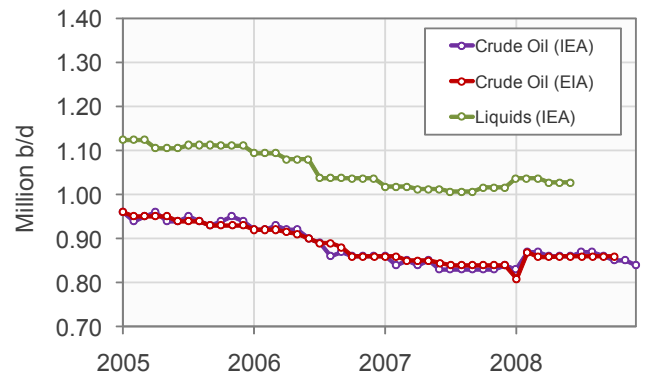
Source: ASPO Ireland &amp; BP Statistical Review

**Chart 108: Australia Production January 2005 - November 2008**


Source: Energy Information Administration &amp; International Energy Agency

**Chart 109: Indonesia Production 1930 - 2007**


Source: ASPO Ireland &amp; BP Statistical Review

**Chart 110: Indonesia Production January 2005 - Nov. 2008**


Source: Energy Information Administration &amp; International Energy Agency