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Energy Information Administration

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Short-Term Energy Outlook Supplement:
Outlook for Non-OPEC Supply in 2010-2011[1]

Summary

Two large categories define the world's producing countries of crude oil and other liquid fuels[2] (hereafter "liquids"): those that are members of the Organization of the Petroleum Exporting Countries (OPEC) and those that are outside that group (non-OPEC). This article takes a closer look at the latter category. After growing by 630,000 barrels per day (bbl/d) in 2009, EIA expects non-OPEC liquids supply growth of 420,000 bbl/d in 2010, followed by decline in non-OPEC liquids supply of 140,000 bbl/d in 2011 (the end of the current forecast period). In contrast, EIA expects world liquids demand to grow by 2.55 million bbl/d between 2009 and 2011. Based on past experience, the forecast slowdown in non-OPEC production growth in 2010 and the projected decline in 2011 could have important implications for world oil markets.

Overview of Non-OPEC Supply in 2009

Non-OPEC liquids supply averaged 50.29 million bb/d in 2009, representing about 60 percent of total world supply. Non-OPEC production is concentrated in a relatively small number of countries; just ten non-OPEC producers represent about three-quarters of total non-OPEC supply. The largest non-OPEC producer is Russia, which produced about 9.93 million bbl/d in 2009. Due to production cuts in Saudi Arabia, Russia was the largest liquids producer in the world in 2009. Other large non-OPEC liquids producers include the United States, China, Canada, and Mexico (see Figure 1).

Non-OPEC liquids supply grew by 630,000 bbl/d in 2009, after declining by 350,000 bbl/d in 2008. U.S. total liquids production grew by 490,000 bbl/d in

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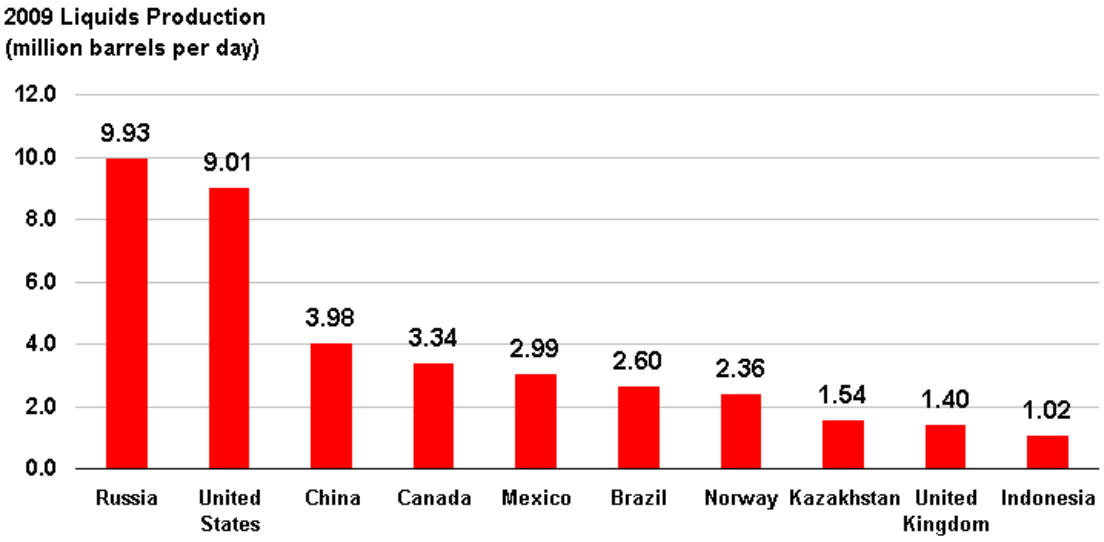
[2] "Crude oil and other liquids fuels" includes crude oil, lease condensates, natural gas liquids, biofuels, other non-crude liquids, and refinery processing gain. See http://www.eia.doe.gov/ipm/appc.html for complete definitions.

2009, or about three-quarters of the overall growth. The growth in 2009 reflects, in part, a large increase from a depressed baseline: hurricanes and pipeline outages in 2008 reduced crude oil production in the United States and Central Asia, respectively, exaggerating the year-over-year change.

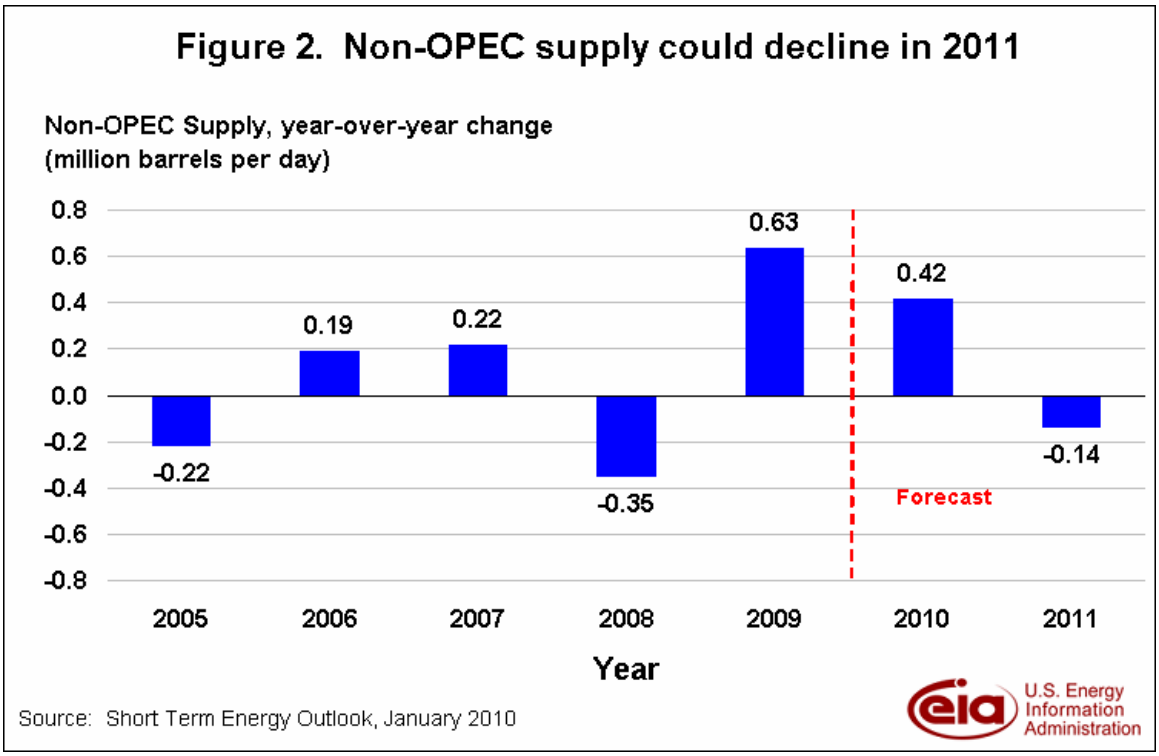
Figure 1. The largest producers constitute three-quarters of non-OPEC supply



Source: Short Term Energy Outlook, January 2010

Outlook for 2010-2011

EIA does not expect non-OPEC supply to sustain the level of growth seen in 2009. Non-OPEC supply should grow by 420,000 bbl/d in 2010, with growth from new projects offsetting declining production from mature fields. However, non-OPEC supply should decline by 140,000 bbl/d in 2011, as these declines overtake the growth from new fields. The expected decline in 2011 is similar to the experience of non-OPEC supply growth over the 2005-2008 period (see Figure 2).



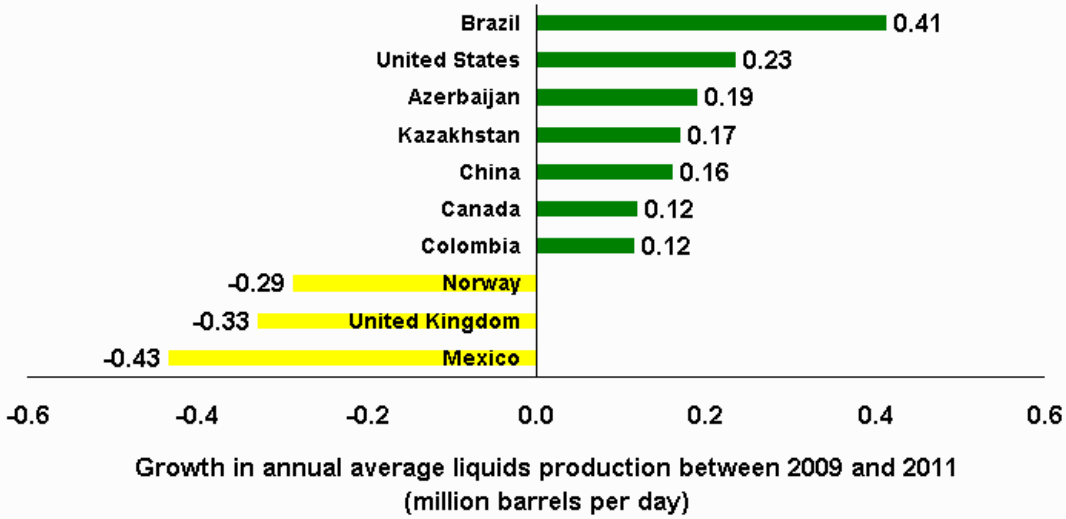
EIA develops its outlook of non-OPEC supply using a bottom-up analysis that looks at oil supply at the field and basin level. This outlook considers the timing and viability of proposed liquids projects in each country and assesses the likely rate of decline at mature fields. Any unexpected changes to these underlying factors can greatly influence the outlook, and the history of non-OPEC liquids supply is replete with examples of surprise disruptions and production outages.

Brazil could be the largest source of non-OPEC supply growth during the forecast period, with annual production expected to increase by 410,000 bbl/d between 2009 and 2011. Numerous new production units should come online over the next 2 years, including several small-scale test and pilot projects in the pre-salt area. Three large new projects could each add an additional 100,000 bbl/d of total nameplate capacity: pilot production at the Tupi field, the relocation of a production unit to the Cachalote field, and the start of production at the Peregrino field by StatoilHydro. In addition, several new projects that came online in 2009 will continue to ramp up production rates. Finally, rising ethanol production, which is expected to grow by about 10 percent per year, should contribute additional volumes to Brazil's liquids production.

Liquids production in the **United States** in 2011 is expected to average 230,000 bbl/d above its 2009 level. Most of this increase, about 200,000 bbl/d, should

occur in 2010, with increasing crude oil production from onshore fields in the Lower-48 and offshore fields in the Federal waters of the Gulf of Mexico (GOM) offsetting declining crude oil production in Alaska. Other liquids, largely biofuels, are expected to increase by about 150,000 bbl/d between 2009 and 2011, whereas production of natural gas liquids should remain largely unchanged.

Figure 3. Brazil should lead non-OPEC supply growth



Source: Short Term Energy Outlook, January 2010

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Rising liquids production in **Azerbaijan** and **Kazakhstan** should represent an important source of non-OPEC supply growth. Production in the two countries is expected to grow by combined 230,000 bbl/d in 2010, but growth should then slow to 120,000 bbl/d in 2011. Much of the growth in 2010 is the result of the ramping up of several new projects that came online in 2009, and there is a lack of sufficient new projects in the 2010-2011 period to fully offset declines at mature fields by 2011.

EIA expects liquids production in **China** to grow on the back of rising production from the Peng Lai and Nanpu projects, as well as efforts to mitigate decline rates at the Daqing field. The completion of several oil sands projects in **Canada**, including some delayed from last year, should lead to increased liquids production there. **Colombia** has seen a sharp rebound in its liquids production in the last 2 years; by 2011, annual production could approach the peak last seen in 1999.

Offsetting these new sources of non-OPEC supply are several countries that should see sizable declines in their liquids production. The largest decline is expected to occur in **Mexico**, where production could fall by 430,000 bbl/d between 2009 and 2011. Once ranked as one of the largest in the world, production at the Cantarell field is now about one-quarter of the level seen at its peak in 2004. Increasing production from other fields, such as the Ku-Maloob-Zaap (KMZ) complex, have helped to mitigate some of this decline. However, it is unclear how much higher production at KMZ and other fields can go. As a result, Mexico's net liquids exports could fall from 950,000 bbl/d in 2009 to 520,000 bbl/d in 2011.

Production in the **North Sea** peaked in 1999 and has fallen by near 50 percent since then. EIA expects North Sea liquids production to fall by 670,000 bbl/d between 2009 and 2011, the result of declining production in both the **United Kingdom** and **Norway**. The decline in offshore U.K. production could accelerate during the forecast period, as there is a lack of new projects on the horizon to fully offset falling production at older fields. In Norway, mature oil fields continue to decline, but this is partially offset by rising production of natural gas liquids.

While these three countries represent the largest share of the decline in non-OPEC liquids supply, many additional non-OPEC producers should also experience falling production during the forecast period. Such countries include **Egypt**, **Malaysia**, **Yemen**, **Australia**, **Argentina**, **Gabon**, and **Syria**. While individually somewhat small, the cumulative effect of declining production in these producers is quite important in the aggregate.

Implications for the Global Oil Market

The EIA forecast for non-OPEC supply growth has important implication for the world oil market. The expected decline in non-OPEC supply in 2011 returns to a trend in non-OPEC supply seen prior to 2009. Non-OPEC supply grew by an average of 90,000 bbl/d per year between 2005 and 2009, versus average annual growth of 860,000 bbl/d during the preceding 5-year period. A slowdown in growth of Russian liquids production was the most important cause of this shift. After growing by 2.55 million bbl/d between 2000 and 2004, Russian production only grew by 0.42 million bbl/d between 2005 and 2009. Mexico also saw a dramatic reversal: after growing by 390,000 bbl/d between 2000 and 2004, Mexico's liquids production fell by 790,000 bbl/d between 2005 and 2009.

Relatively new sources of non-OPEC supply growth (especially Brazil and Central Asia) will represent the bulk of new production between 2009 and 2011. Meanwhile, production in "traditional" non-OPEC suppliers (Mexico, the North Sea, etc) will continue to decline. Over the long term, these divergent trends force a shift in the geography and economics of the world oil market. Declining liquids production from traditional sources of non-OPEC supply raises the importance of new centers of supply growth and strains long-established relationships between producers and consumers. Falling production in Mexico has led to a large decline in oil exports to the United States, forcing some U.S. refiners to locate new sources of supplies. The friction caused by these dislocations can contribute to elevated oil prices, as new relationships form and liquids flow from different sources.

The immediate impact of the slow growth in non-OPEC liquids production in the forecast period is an increased role for OPEC in the world oil market. EIA forecasts world liquids consumption will be 2.55 million bbl/d higher in 2011 than in 2009, and since non-OPEC supply is expected to grow by much less during this time period, the importance of OPEC to the world oil market should increase. OPEC should also see a large increase in production of condensates, natural gas liquids, and other non-crude oil liquids by 2011, which are outside the OPEC quota regime. As a result, the OPEC share of the world liquids market could increase to 42 percent in 2011, up from 40 percent in 2009 and only 38 percent in 2003. Combined with its maintenance of high levels of surplus production capacity, the lack of sizable growth in non-OPEC liquids supply gives OPEC greater influence over the world oil market.