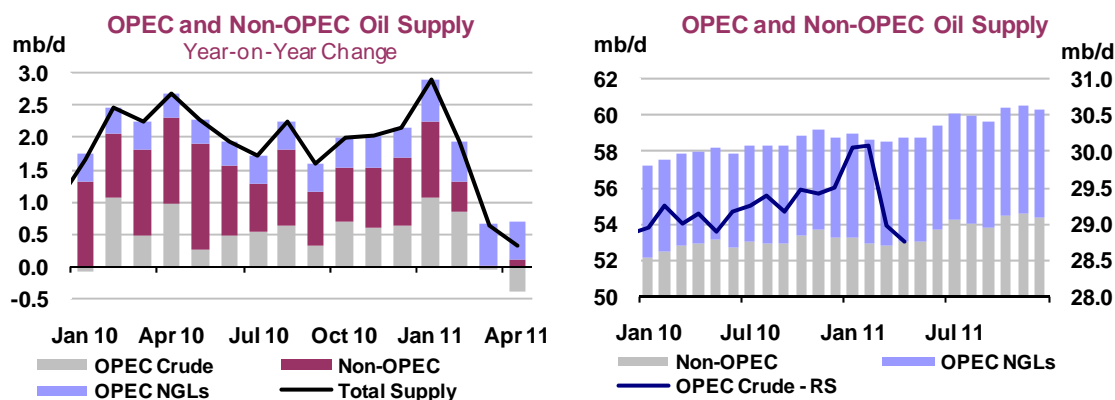


# SUPPLY

## Summary

- **Global oil supply dipped by 50 kb/d to 87.5 mb/d in April**, as sharply curtailed Libyan output reduced OPEC crude and NGL supply by 0.26 mb/d, only partly offset by a 0.2 mb/d rise in non-OPEC oil production. Year-on-year, global oil production was 0.3 mb/d higher, with a 0.6 mb/d increase from OPEC NGL and 0.1 mb/d from non-OPEC offset by a 0.4 mb/d reduction in OPEC crude.
- **Non-OPEC total oil supply rose by 0.2 mb/d in April, to 53.0 mb/d**, on higher production in the North Sea, the FSU, China and Brazil. Shut-ins for technical and political reasons in Argentina, Canada, China, Norway, Sudan and Yemen only partly offset these increases. Baseline changes to NGL production and preliminary 2009 annual data for non-OECD countries raise 2010 estimates by 0.1 mb/d to 52.9 mb/d. The 2011 projection is adjusted down by 0.1 mb/d to 53.7 mb/d on revised Canadian prospects, implying lower annual growth of +0.8 mb/d compared to +0.9 mb/d in last month's report.
- **OPEC crude oil supply continued its downward spiral in April as Libyan output slowed to a trickle** in the wake of the worsening civil war. April OPEC output was pegged at 28.75 mb/d, off by 235 kb/d from a downward-revised 28.99 mb/d for March. Despite expectations that fellow OPEC producers would increase output to replace lost Libyan supplies, the group's production remained an estimated 1.3 mb/d below the pre-crisis level of around 30.04 mb/d posted in January.
- **The 'call on OPEC crude and stock change' rises by 800 kb/d from an average of 29.3 mb/d in 2Q11 to 30.1 mb/d in 3Q11.** For full-year 2011, the call has been revised down by 100 kb/d to 29.7 mb/d due to lower expected demand. OPEC's effective spare capacity is estimated at 4.14 mb/d in April. Libyan crude output is now assumed to remain constrained at around 200 kb/d through the end of the year, and, as a result, OPEC's installed capacity by end-2011 is forecast at 33.83 mb/d, down 740 kb/d from 1Q11 estimates of 34.57 mb/d.



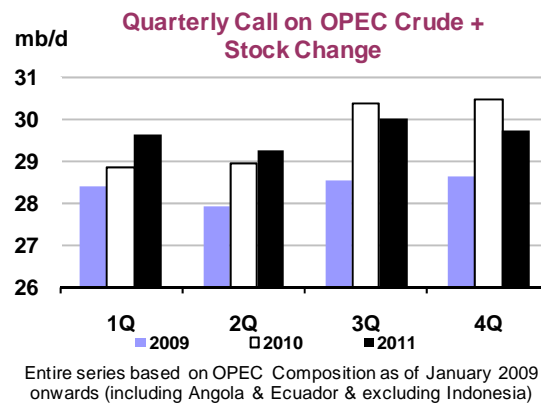
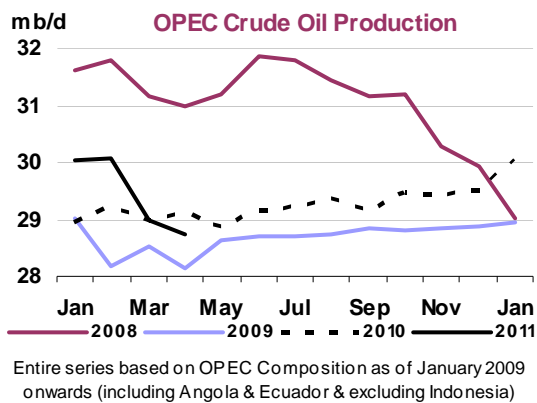
All world oil supply data for April discussed in this report are IEA estimates. Estimates for OPEC countries, Alaska, Colombia, Peru and Russia are supported by preliminary April supply data.

**Note:** Random events present downside risk to the non-OPEC production forecast contained in this report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars and weather-related supply losses. Specific allowance has been made in the forecast for scheduled maintenance in all regions and for typical seasonal supply outages (including hurricane-related stoppages) in North America. In addition, from May 2011, a revised national (but not field-specific) reliability adjustment has also been applied for the non-OPEC forecast to reflect a historical tendency for unexpected events to reduce actual supply compared with the initial forecast. This totals -200 kb/d for non-OPEC as a whole, with downward adjustments focused in the OECD.

## OPEC Crude Oil Supply

OPEC crude oil production continued its downward spiral in April as Libyan output slowed to a trickle in the wake of the worsening civil war. April OPEC supply was pegged at 28.75 mb/d, off by 235 kb/d from a revised 28.99 mb/d the prior month. March supply was revised down by 210 kb/d, largely reflecting lower Iranian output for the month. OPEC-11 supply, which excludes Iraq, fell by 215 kb/d to 26.16 mb/d in April. Significantly higher production from Nigeria, coupled with smaller increases from several other countries, failed to offset reduced output from Libya, Angola, Saudi Arabia and Iraq.

Despite expectations that OPEC would increase output to replace lost Libyan supplies, the group's production is now running 1.3 mb/d below the pre-Libya crisis level of 30.1 mb/d posted in January. Libyan supplies in April averaged 200 kb/d compared to a more normal 1.5-1.6 mb/d and the opposition group said production in the eastern region had fallen to around 70-80 kb/d by early May. Nonetheless, judging by recent public statements, there appears a near-unanimous consensus among OPEC members that supplies to the market are adequate.



While the loss of Libyan supplies in March and April was partially mitigated by the spring seasonal drop in refinery throughputs, forecast product demand for the second half of the year suggests a much tighter market balance. Global oil demand is forecast to jump by a steep 2.0 mb/d between 2Q11 and 4Q11, from 88.2 mb/d to 90.2 mb/d. In addition, we envisage global refinery crude throughputs could potentially rise by more than 3.5 mb/d, from April lows to August.

Indeed, the 'call on OPEC crude and stock change' is expected to rise from a 2Q11 average of 29.3 mb/d to 30.1 mb/d in 3Q11. Given expectations of a protracted civil war in Libya, and likely increases in demand of this order, the market will be seeking incremental supplies through the summer. While a formal agreement to increase output targets at OPEC Ministers' 8 June meeting currently looks unlikely, an informal pact to ramp up production, most likely by OPEC's Gulf members as well as Nigeria, may emerge.

OPEC effective spare capacity is estimated at 4.14 mb/d in April. Libyan crude output is now forecast to remain constrained at around 200 kb/d through the end of the year, and, as a result, OPEC's available capacity by end 2011 is estimated at 33.83 mb/d, down 740 kb/d from 1Q11 estimates of 34.57 mb/d.

**Saudi Arabia's** output was down marginally in April, to 8.8 mb/d compared with estimates of 8.9 mb/d in March and February. The market was taken aback in mid-April when Saudi Oil Minister Naimi reported that the country had slashed March output by a sharp 800 kb/d to 8.29 mb/d, well below industry estimates of 8.8-9.1 mb/d for the month. The reported 8.29 mb/d also conflicts with official data for March of 8.66 mb/d submitted by the Kingdom to the Joint Organisations Data Initiative (JODI). The 370 kb/d discrepancy between the two sets of Saudi data could be explained by several factors. It

appears that the lower of the two estimates reflect only sales to the market in March, and not actual wellhead production. Shipping data also suggest that a relatively high level of output was either placed in storage in Europe and at Sidi Kerir or was held offshore as floating storage. The JODI figures also likely exclude the country's shared production with Kuwait of Partitioned Neutral Zone output. The wide discrepancy in production estimates underscores the need for harmonised definitions of monthly production and more transparent data reporting.

Saudi Arabia continues to offer extra barrels to the market to make up the Libyan shortfall but refiners argue that June crude prices are too expensive. Saudi Aramco raised June prices for Arab Light to near-record levels and close to the highest since June 2007. Weaker refining margins and reduced refinery throughputs in 2Q11 have also combined to limit buying interest in Saudi Arabia's new Libyan look-alike crude blends. Apparently three extra cargoes were sold in April and early May in addition to the three cargoes in March.

### OPEC Crude Production

(million barrels per day)

	Feb 2011 Supply	Mar 2011 Supply	Apr 2011 Supply	Sustainable Production Capacity <sup>1</sup>	Spare Capacity vs April 2011 Supply	End-2011 Sustainable Production Capacity	Production Capacity Chg 1Q11 vs 4Q11
Algeria	1.28	1.26	1.28	1.34	0.06	1.34	0.02
Angola	1.60	1.67	1.58	1.80	0.22	2.00	0.19
Ecuador	0.50	0.51	0.50	0.51	0.01	0.51	0.00
Iran	3.68	3.55	3.60	3.70	0.10	3.68	-0.02
Kuwait <sup>2</sup>	2.35	2.42	2.41	2.54	0.13	2.54	0.00
Libya	1.39	0.45	0.20	0.20	0.00	0.20	-0.95
Nigeria <sup>3</sup>	2.16	2.01	2.22	2.50	0.28	2.66	-0.06
Qatar	0.82	0.82	0.81	1.00	0.20	1.04	0.02
Saudi Arabia <sup>2</sup>	8.90	8.90	8.80	12.04	3.24	12.04	0.00
UAE	2.48	2.52	2.51	2.69	0.18	2.74	0.05
Venezuela <sup>4</sup>	2.20	2.26	2.25	2.35	0.10	2.29	-0.07
<b>OPEC-11</b>	<b>27.35</b>	<b>26.37</b>	<b>26.15</b>	<b>30.68</b>	<b>4.52</b>	<b>31.05</b>	<b>-0.81</b>
Iraq	2.73	2.62	2.60	2.75	0.16	2.78	0.07
<b>Total OPEC</b>	<b>30.08</b>	<b>28.99</b>	<b>28.75</b>	<b>33.43</b>	<b>4.68</b>	<b>33.83</b>	<b>-0.74</b>

(excluding Iraq, Nigeria, Venezuela

4.14)

<sup>1</sup> Capacity levels can be reached within 30 days and sustained for 90 days.

<sup>2</sup> Includes half of Neutral Zone production.

<sup>3</sup> Nigeria's current capacity estimate excludes some 200 kb/d of shut-in capacity.

<sup>4</sup> Includes upgraded Orinoco extra-heavy oil assumed at 470 kb/d in April.

Output from the **UAE** edged lower in April by 10 kb/d to 2.51 mb/d and volumes may be reduced further in May following the unexpected shut down of the Upper Zakum field at end April. As much as 50% of the field's 550 kb/d capacity will be shut-in for the next several months. The field's operators, a joint venture with state-owned Abu Dhabi National Oil Co.(ADNOC), ExxonMobil and Japan Oil Development Co., were forced to cut output after a depleted field used for storage of water and other contaminants breached the maximum capacity levels. The spillover also caused leakage and build-up of residue in the pipeline from the field to the storage area. The company plans to drill a new well to be used as storage and implement repairs to a key export pipeline, which could take two months or more to complete. It is unclear if ADNOC will increase output at the large Murban field and the smaller Lower Zakum to compensate.

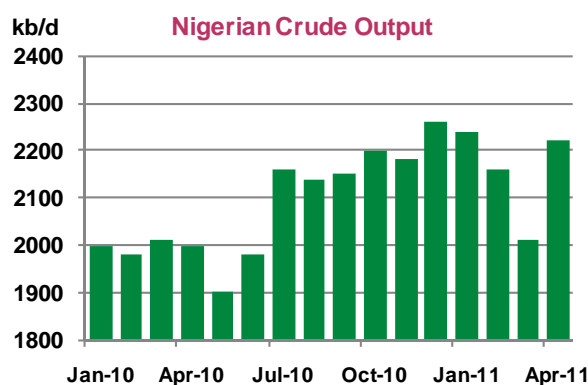
**Qatar's** output edged lower in April, down by 15 kb/d to 805 kb/d, due to maintenance work at the offshore al-Shaheen fields. A late-April fire at a platform, which was already shut down for scheduled maintenance, affected 60 kb/d of production for around 10 days.

**Iraqi** supply in April was off by just under 20 kb/d to 2.6 mb/d. Total exports fell 18 kb/d to 2.14 mb/d last month, with higher northern exports offset by lower southern shipments. Exports of Basrah Light crude were down by 31 kb/d to 1.66 mb/d. Plans to have new single-point moorings operational to handle increased southern field joint-venture production have now been delayed until the first quarter of 2012.

Exports of Kirkuk crude from the northern port of Ceyhan on the Mediterranean were up around 15 kb/d, to 475 kb/d, thanks in part to rising production from the Kurdish region. An additional 10 kb/d of Kirkuk was trucked from Iraq to Jordan. Production of Tawke and Taq Taq crudes from the northern Kurdish region hit a peak 135 kb/d in April.

**Nigerian** crude output rebounded following the completion of maintenance work at the deepwater Bonga field in April—up by 210 kb/d to 2.22 mb/d. Nigeria's crude oil production has steadily recovered to a 2.1-2.2 mb/d range over the past 10 months and output is expected to rise further in May and June, judging by export schedules.

Moreover, the country's operating environment is expected to improve further in coming months following the largely orderly conclusion to Nigeria's elections in April. As expected, incumbent president Goodluck Jonathan was elected to serve for the next four years. With the time-consuming election cycle now at an end, a number of challenging and controversial problems affecting the oil sector will need to be addressed. Newly-elected government officials have the difficult task of finalising the controversial 'Petroleum Industry Bill' if the country is to see higher upstream investment. In addition, the government will have to move quickly to implement promises made as part of its ceasefire agreement with Niger Delta rebels or risk a renewed wave of violence.



**Angolan** April output fell 90 kb/d to 1.58 mb/d as a result of scheduled maintenance work at the Total-operated Dalia field. Maintenance and repair work at the troublesome Greater Plutonio complex scheduled for the month of April was postponed until mid-May due to technical issues. The BP-operated field, which has been running at just 50% of capacity this year, needs repair work on its faulty water injection system. The loss of Plutonio production and temporary cut in Dalia output has pushed Angolan output down to its lowest level in more than four years. After averaging 1.77 mb/d in 2010, Angolan production has tumbled to 1.64 mb/d in early-2011 and looks set to edge lower in coming months.

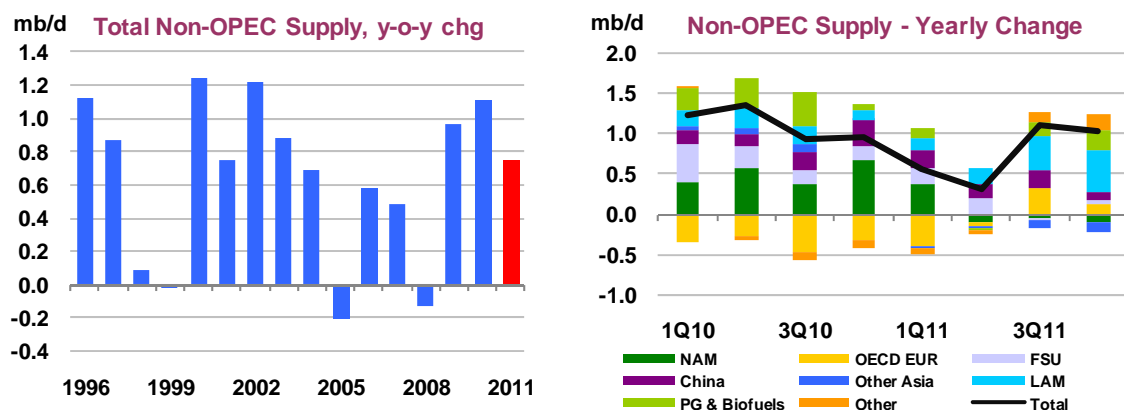
**Libyan** oil supply plummeted in April to an estimated 200 kb/d. The opposition group sold one cargo in April but exports had to be suspended following attacks on oil infrastructure by government forces. Early-May production in the eastern region fell to 70-80 kb/d, according to a spokesman for the opposition group. Output from the eastern fields is reportedly going into storage tanks, with the next exports at least a month away while security measures are implemented to protect the workers and the fields. Colonel Gaddafi's forces attacked several oil installations in the eastern region in late March, which included Sarir and Messla, but damage was reportedly minimal. In early May an opposition spokesman said repairs were being made to oil infrastructure damaged in recent weeks, but refused to identify the specific areas hit for security reasons.

Amid apparent political and military stalemate, it increasingly looks as if Libyan crude output could remain constrained at around 200 kb/d through the end of the year.

## Non-OPEC Overview

Non-OPEC oil supply rose by 0.2 mb/d to 53.0 mb/d in April, on higher estimated North Sea, FSU, Chinese and Brazilian output, even while production dipped in Argentina, Canada, Sudan and Yemen due to technical and other outages. This followed a -250 kb/d downward revision to 1Q11 output on sharply lower preliminary UK output and weaker-than-expected US NGL production.

Estimates of non-OPEC supply for 2007-2010 are revised up by an average +75 kb/d (and around +40 kb/d for 2000-2006) on the inclusion of new annual data for 2000-2009 for many non-OECD countries and a full reappraisal of NGL production and outlook for all non-OPEC countries. As a result, 2010 non-OPEC production is now estimated to have averaged 52.9 mb/d.



Meanwhile, estimated 2011 non-OPEC supply is adjusted down by 0.1 mb/d, to 53.7 mb/d, as lower North American, FSU and African supplies are only partly offset by the carry-through of a higher Thai baseline and a more robust outlook for Norway. Annual growth in 2011 is therefore slightly reduced to +750 kb/d compared to an increment of +870 kb/d in last month's report.

### Non-OPEC Supply

(million barrels per day)

	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10	2010	1Q11	2Q11	3Q11	4Q11	2011
North America	13.5	13.5	13.7	13.8	13.6	13.9	14.0	14.1	14.4	14.1	14.3	13.9	14.0	14.3	14.1
Europe	4.9	4.5	4.3	4.5	4.6	4.5	4.2	3.8	4.2	4.2	4.1	4.2	4.1	4.3	4.2
Pacific	0.7	0.6	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.7	0.7	0.6
<b>Total OECD</b>	<b>19.1</b>	<b>18.6</b>	<b>18.6</b>	<b>19.0</b>	<b>18.8</b>	<b>19.1</b>	<b>18.8</b>	<b>18.5</b>	<b>19.2</b>	<b>18.9</b>	<b>19.0</b>	<b>18.7</b>	<b>18.8</b>	<b>19.4</b>	<b>19.0</b>
Former USSR	13.0	13.3	13.4	13.5	13.3	13.5	13.5	13.5	13.7	13.6	13.7	13.7	13.5	13.7	13.7
Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	3.8	3.9	3.9	3.9	3.9	4.0	4.1	4.1	4.2	4.1	4.2	4.2	4.4	4.3	4.3
Other Asia	3.7	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.7	3.7	3.7	3.7	3.6	3.6	3.7
Latin America	3.8	3.9	3.9	4.0	3.9	4.0	4.1	4.1	4.1	4.1	4.2	4.3	4.5	4.6	4.4
Middle East	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.8	1.7
Africa	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
<b>Total Non-OECD</b>	<b>28.8</b>	<b>29.1</b>	<b>29.3</b>	<b>29.5</b>	<b>29.2</b>	<b>29.7</b>	<b>29.8</b>	<b>30.0</b>	<b>30.1</b>	<b>29.9</b>	<b>30.2</b>	<b>30.3</b>	<b>30.5</b>	<b>30.7</b>	<b>30.4</b>
Processing Gains	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3
Global Biofuels	1.2	1.6	1.8	1.8	1.6	1.4	2.0	2.1	1.8	1.8	1.5	1.9	2.3	2.0	1.9
<b>Total Non-OPEC</b>	<b>51.2</b>	<b>51.6</b>	<b>52.0</b>	<b>52.5</b>	<b>51.8</b>	<b>52.4</b>	<b>52.9</b>	<b>52.9</b>	<b>53.4</b>	<b>52.9</b>	<b>53.0</b>	<b>53.2</b>	<b>54.0</b>	<b>54.4</b>	<b>53.7</b>
Annual Chg (mb/d)	0.3	0.6	1.4	1.4	1.0	1.2	1.3	0.9	0.9	1.1	0.5	0.3	1.1	1.0	0.8
Changes from last OMR (mb/d)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.2	-0.3	0.1	0.2	-0.1

As highlighted in recent reports, the spectre of further shortfalls in oil production due to ongoing unrest in the wider Middle East and North Africa (MENA) region is still haunting oil markets. Despite the situation in Syria and Yemen deteriorating, and problems in Bahrain still simmering, the only sizeable production curbs are to Yemeni production, where around 100 kb/d has been offline following sabotage on a key crude pipeline in mid-March. In addition, at the time of writing, an oil workers' strike had shut-in a further 70 kb/d, though this is not yet captured in our outlook.

Elsewhere, production has recovered in Gabon, but has been hit in Sudan, due to north-south fighting. In Argentina, an oil workers' strike cut an estimated 50 kb/d and 100 kb/d off crude production in March and April respectively, while early May saw protesting teachers block roads, cutting oil output by an estimated 25 kb/d. Norway's oil production was hit by a series of gas leaks and other problems at a string of fields, while in China, late April saw the shut-in of 40 kb/d due to the malfunction of a floating production, storage and offloading vessel (FPSO).

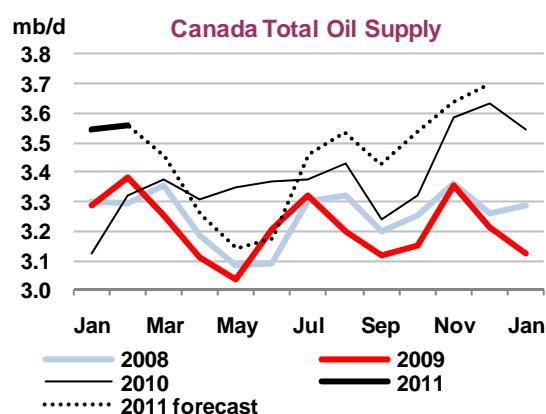
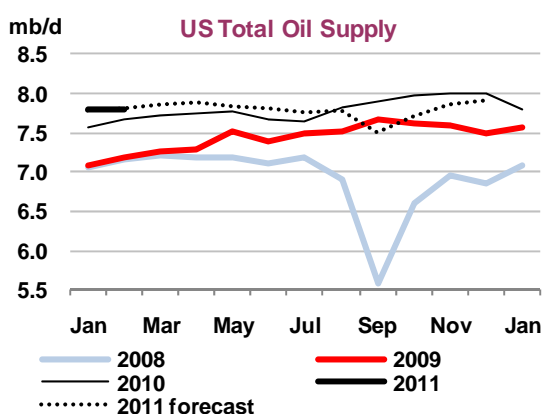
Perennial supply outages aside, 2011 growth in non-OPEC supply is focused in 2H11 and remains centred on Brazil (+200 kb/d), where April saw the start-up of the Peregrino field, as well as China (+175 kb/d), Colombia (+130 kb/d), Ghana (+95 kb/d), global biofuels (+90 kb/d), Canada (+80 kb/d) and Russia (+70 kb/d). These increments are partly offset by decline in Mexico, Indonesia, Malaysia and Yemen (each around -50 kb/d). In contrast with previous years' sharp annual decline, and despite current problems at a string of fields, North Sea producers Norway and the UK are expected to see production remain steady in 2011 compared to 2010.

## OECD

### North America

**US – April Alaska actual, others estimated:** US total oil production stayed flat at 7.8 mb/d in February from January, following a 140 kb/d downward revision to February NGL output. Higher Texan production was offset by lower 'other' supply. Based on preliminary weekly data, March and April likely saw average US production at a slightly higher 7.9 mb/d. May is expected to see a dip to 7.8 mb/d again, with news reports of some North Dakotan output shut-in due to late snow storms and power failures.

North Dakota is a source of light tight oil (sometimes called 'shale oil', as distinct from 'oil shale') from the Bakken formation, a key source of growth in US oil production. Sustained high oil prices and the application of techniques used to produce natural gas from unconventional formations – notably horizontal drilling and hydraulic fracturing – are proving equally successful in boosting liquids output. As a result, North Dakotan oil production (light tight oil is reported as conventional crude in both EIA and IEA analysis) has tripled to 300 kb/d during 2006-2010 and is currently forecast to average 385 kb/d in 2011. A detailed look at supply growth in the Bakken and similar formations, will be included in the forthcoming *MTOGM 2011*, published in mid-June.



**Canada – Newfoundland March actual, others February actual:** Total Canadian oil production averaged 3.6 mb/d in February, up slightly from January. Preliminary data indicate a dip again to 3.5 mb/d in March. CNRL, the operator of the Horizon oil sands production facility, has indicated that repairs to the fire-stricken plant will take longer than expected. Latest plans see half of the facility's 110 kb/d capacity return in mid-June and the rest in the middle of 3Q11. Meanwhile, Syncrude indicated it plans 45 days of scheduled maintenance at one of its upgraders in 3Q11. While estimated oil supply for 2010 was



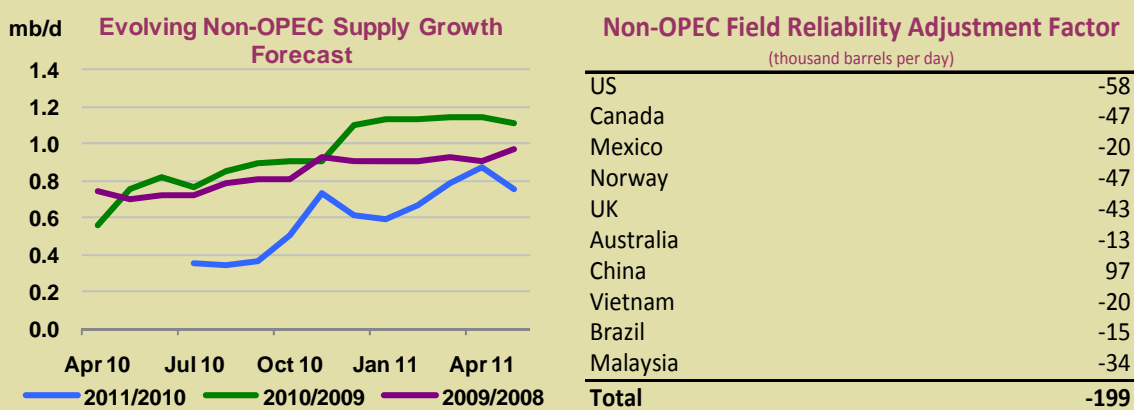
unchanged at 3.37 mb/d, average 2011 production is adjusted down by 75 kb/d to 3.45 mb/d on lower synthetic crude supply as well as a downward-adjusted NGL outlook on a lower gas supply forecast.

### Non-OPEC Oil Production Seen as More Reliable

Recent OMRs have seen successive upward revisions to estimated non-OPEC supply growth in the near-term. When initially forecast in July 2010, incremental production in 2011 was put at 0.4 mb/d, while the current forecast implies growth of 0.8 mb/d. A similar pattern can be seen for the evolving 2010/2009 and 2009/2008 growth outlooks respectively (see graph). Projections always evolve, as consolidated data becomes available with a time lag. But there may also be a cyclical factor at work.

Four years ago, following a period of apparent under-performance by non-OPEC supply, this report adopted a country-specific field reliability adjustment, in order to take into account a pattern of frequent unscheduled outages due to technical problems at mature fields (see *Methodology Change Accounts for Bulk of Non-OPEC Forecast Adjustment This Month* in report of 13 July 2007). This adjustment aimed to account for the fact that not only does a maturing field's geology impact upon output levels, but so too does ageing equipment and spending to maintain such facilities.

Volumetric adjustments were calculated on the basis of a five-year historical average, largely in OECD countries, and in sum amounted to -410 kb/d for non-OPEC as a whole. The adjustment was not designed to cover regular field maintenance, extreme weather or project slippage, all of which are already taken into account in our methodology. At the same time, positive adjustments were added for a limited number of countries where output had regularly exceeded expectations. The negative net adjustment reflected a degree of ongoing underinvestment in mature upstream infrastructure and chronically tight drilling and service sectors at the time.



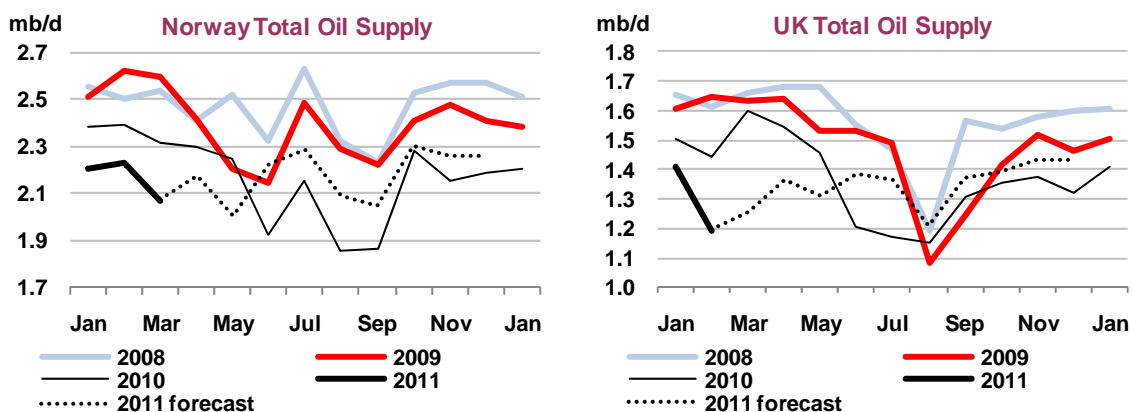
Today, the picture appears to have changed, prompting a reappraisal of the adjustment. A recalculation of unscheduled technical outages for 2007-2010 suggests a lower net adjustment of -200 kb/d on average. For the forthcoming *Medium-Term Oil & Gas Markets Report 2011*, a similar proportional adjustment will also be applied for the 2012-2016 period.

Better-than-expected performance in mature OECD producing areas such as the US and North Sea can also be seen to reflect sustained higher investment in the upstream sector in recent years, in response to rising oil prices and less tight markets for rigs and equipment. Upstream spending was at double-digit growth in 2010, with a similar trend expected for 2011, while upstream cost inflation has at least temporarily flattened off. Arguably, these investments are now bearing fruit, not only in terms of new projects sanctioned, and in less pronounced project slippage, but also in terms of fewer outages affecting mature infrastructure.

## North Sea

**Norway – February actual, March provisional:** In February, Norwegian total oil supply held steady at an upward-revised 2.2 mb/d, but fell to 2.1 mb/d in March, based on preliminary data. April saw problems reported at the Oseberg East, Ormen Lange, Njord and Visund fields, though outages at the first two were only brief. Gas leaks at Njord and Visund reportedly shut down production for most of April.

Despite the outages in April, possibly leading into early May, 2Q11 supply is nudged up marginally, while 2011 production estimates are hiked by 35 kb/d, in part stemming from a revised field reliability adjustment (see *Non-OPEC Oil Production Seen as More Reliable*). 2011 is thus forecast to see the first (marginal) rise in Norwegian oil production in a decade, increasing from 2.17 mb/d in 2010 to 2.18 mb/d in 2011. Looking further ahead, the Oil Ministry awarded 24 offshore licences in the Barents Sea, a so far virtually undeveloped northern area, which also saw the recent discovery of the largest field found in a decade, Skrugard.



**UK – February actual:** February UK oil production has been revised down by a sharp 315 kb/d, which is partly carried through into March. Output is thus seen to have fallen from 1.4 mb/d in January to 1.2 mb/d in February. January field-specific data confirmed the return of the Schiehallion field, long plagued by problems, but March-May production may remain constrained at an average 1.3 mb/d as problems continue at Gryphon and as maintenance scheduled for March/April at the UK's largest field, Buzzard, may have dragged into May. The overall annual forecast is unchanged though, with UK production estimated to slide from 1.37 mb/d in 2010 to 1.35 mb/d in 2011.

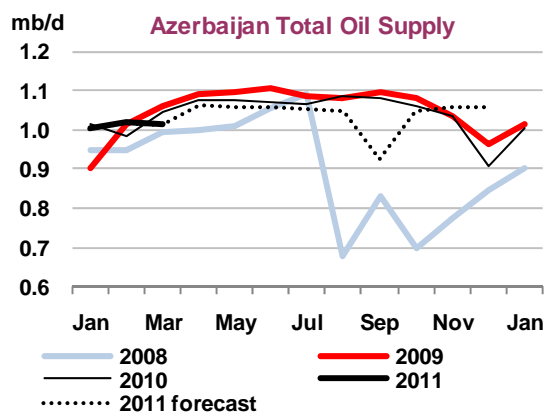
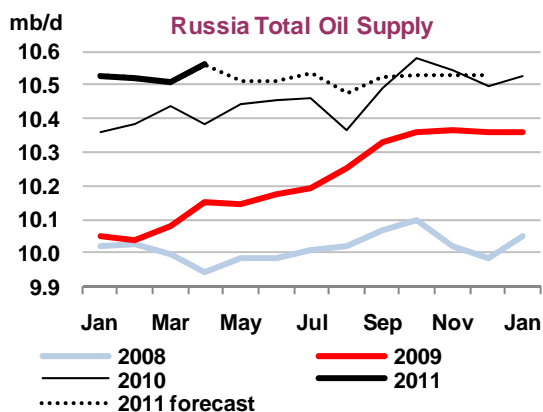
## Former Soviet Union (FSU)

**Russia – March actual, April provisional:** According to preliminary data, Russian total oil production rose by 50 kb/d in April, to 10.56 mb/d, the highest monthly output level since October 2010, its post-Soviet record high. Russia's total oil supply averaged 10.45 mb/d in 2010 and is expected to rise to 10.52 mb/d in 2011.

From 1 May, after much deliberation by officials, export duty tax breaks for key Eastern Siberian fields Vankor, Verkhnechonsk and Talakan will expire. The latter two fields were originally intended to retain tax free status until January 2012 and January 2013 respectively. The Ministry of Finance has long argued that higher oil prices allow operators to make a decent return on these relatively new fields – and there is no indication by oil companies that production at existing fields will in any way be constrained. Nonetheless, oil companies planning to develop new fields in the region have warned that they will now take a closer look at project profitability. Rosneft in particular, is still arguing that it needs the promise of tax relief before giving the final go-ahead for its large Yurubcheno-Tokhomskeye field ('Y-T'), which was pencilled in to start up in 2015. The seemingly arbitrary nature of application and removal of tax breaks at short notice continues to cause much uncertainty for upstream investors.

An arbitration court in London has ruled that BP may go ahead with its proposed share swap with Rosneft, provided the UK major allows its Russian joint venture TNK-BP to join a related deal to access Arctic acreage held by Rosneft. BP had already indicated its willingness to do so, but it is far from certain that Rosneft will concur. Rosneft has declared that its clear preference is to partner with BP in exploring and developing the blocks in question offshore Russia's northern coast, as BP has significant offshore experience, in contrast to TNK-BP, which has only worked onshore Russia.

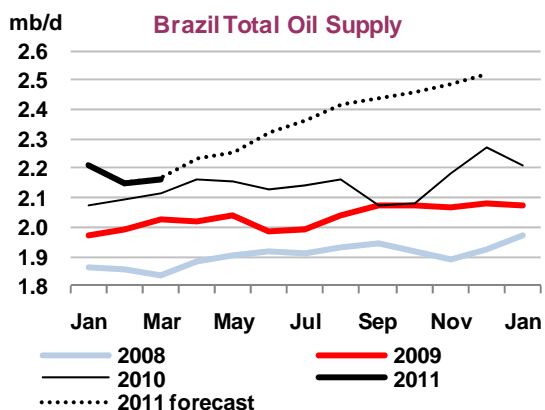
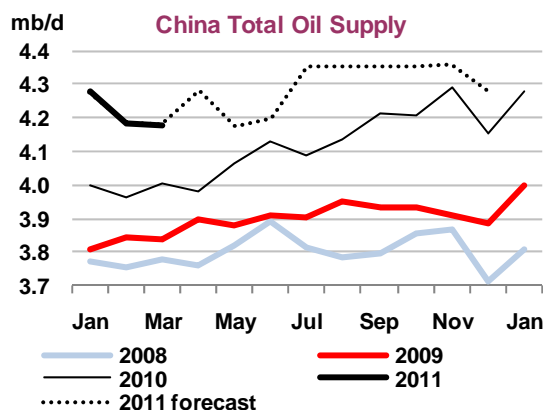




**Azerbaijan – February actual; March preliminary:** Azerbaijan’s total oil production remained constrained at just over 1.0 mb/d in February and March, following a sharp 80 kb/d downward revision for March, based on preliminary data. Problems apparently continue to dog the Azeri-Chirag-Guneshli (ACG) complex, responsible for nearly 85% of Azerbaijani crude supply. On the basis of company guidance, the lower output is partially carried through to trim the 2011 forecast by 25 kb/d. Azerbaijan’s total oil production is thus estimated to stay flat at around 1.04 mb/d in 2010-2011.

## Other Non-OPEC

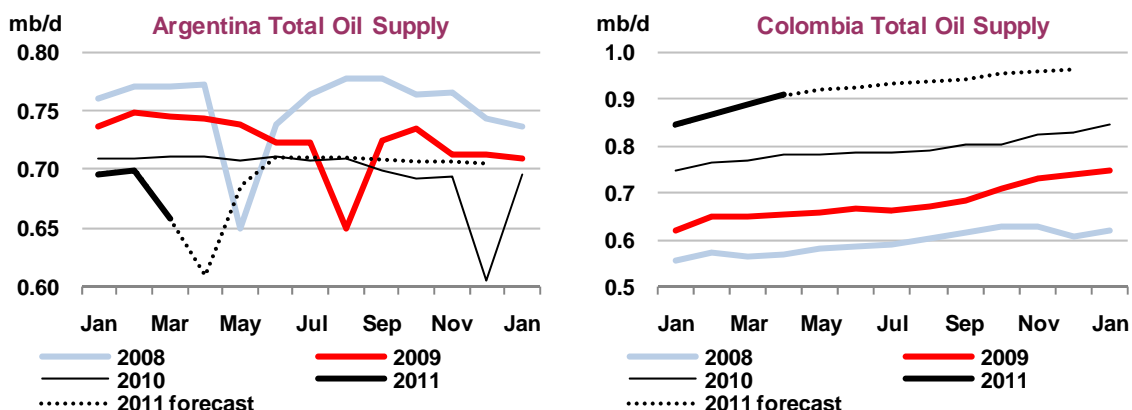
**China – March actual:** Total oil production in China stayed flat at 4.2 mb/d in March from February, as offshore output remains constrained. March production was revised down by 85 kb/d. 2Q2011 output estimates are also revised down by 45 kb/d on average after reports of problems at a floating production, storage and offloading vessel (FPSO) in Bohai Bay. Thereafter, production is expected to pick up, resulting in growth from 2010’s average 4.1 mb/d to 4.28 mb/d in 2011.



**Brazil – March actual:** Brazil’s total oil production rose marginally to 2.17 mb/d in March from February. In April, the Statoil-operated Peregrino oil field started production, with a peak capacity of 100 kb/d. Its ramp-up, as well as increased production from a swathe of other fields, is estimated to hike Brazil’s supply from 2.14 mb/d in 2010 to 2.34 mb/d in 2011. Meanwhile, the government announced a 1H11 auction of oil blocks in northern Brazil. Setting a date for the much anticipated offshore pre-salt auction has been delayed due to disagreement over revenue sharing between producing states and the federal government.

**Argentina – March actual:** Striking oil workers cut April production by an estimated 100 kb/d, to 610 kb/d, after March estimates were also curbed to 660 kb/d. The workers’ strike reportedly ended in late April, but in early May, news reports indicated that teachers’ protests had halted a smaller volume (estimated at 25 kb/d) of crude output in the same Santa Cruz region, putting average monthly output at

685 kb/d. Thereafter oil production is expected to recover. In 2010, total oil supply averaged just under 700 kb/d, and is expected to hold steady in 2011.



**Colombia – March actual; April preliminary:** Colombia’s oil production continues to rise, topping 900 kb/d in April for the first time. At the time of writing, it was uncertain whether oil workers would follow up on threats to halt production at the 40 kb/d Caño Limon field. The country’s oil production is expected to keep on growing, jumping from an average 790 kb/d in 2010 to 920 kb/d in 2011 as output ramp-up continues at fields such as Rubiales, Castilla and others.

**Yemen:** Amid ongoing unrest and violence in Yemen, a deal brokered by the regional Gulf Cooperation Council (GCC), in mid-April, was set to lead to the departure of incumbent President Saleh and a peaceful transition to a new regime. However, after initially indicating that he would accept this deal, the president has subsequently wavered, and political violence continues. At least 100 kb/d of the country’s 270 kb/d oil production remained shut-in in April, and is expected to stay curtailed for some time (we cautiously assume recovery from July). At the time of writing, striking workers were reported to have shut-in a further 70 kb/d of crude production. The situation remains volatile.

**Syria:** The political situation in Syria has deteriorated in April and early May, with reports of a flare-up in violence. Nonetheless, according to company statements, no oil production has so far been affected. The country produced 385 kb/d in 2010, currently expected to dip slightly to an average 370 kb/d in 2011.

**Sudan:** In Sudan too, the situation remains tense amid a stand-off between the northern and southern halves of the country. A January referendum resulted in overwhelming support for the south’s secession, which is due to take effect in July. However, disputes over oil fields near the border continue to dog the transition. In mid-April, reports indicated that around 85 kb/d of southern oil production was shuttered. Sudan’s total oil production averaged 470 kb/d in 2010 and – assuming no further outages – is expected to dip to 445 kb/d in 2011.