

## SUPPLY

20. OPEC production appears to have stayed in the same narrow range of 24.6-24.8 mb/d that has characterised the last six months. Total non-OPEC production is estimated to have declined slightly from November to December, but is nonetheless expected to show a quarterly increase of over 0.9 mb/d for the fourth quarter. The major portion of the production increase came from the North Sea, but quarterly increases were registered in all other major regions except for the FSU, where it is estimated that production declined by a relatively modest 0.2 mb/d. North Sea output in December would have been even higher if it had not been for a series of weather related difficulties affecting offshore loadings, primarily in the Norwegian sector. Non-OPEC production was also constrained by guerilla attacks in Colombia and Angola, and weak light crude oil markets in the Asia/Pacific region limiting output from Malaysia.

### Non-OPEC Oil Supply (million barrels per day)

|                                 | 1990         | 1991         | 1992         | 1Q93         | 2Q93         | 3Q93         | 4Q93*        | 1993*        |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <i>Non-OPEC Crude Oil</i>       |              |              |              |              |              |              |              |              |
| United States                   | 7.36         | 7.42         | 7.17         | 6.98         | 6.83         | 6.70         | 6.86         | 6.85         |
| Canada                          | 1.34         | 1.32         | 1.36         | 1.39         | 1.40         | 1.47         | 1.45         | 1.43         |
| North Sea                       | 3.59         | 3.78         | 4.08         | 4.10         | 4.04         | 4.36         | 4.93         | 4.36         |
| Other OECD                      | 1.02         | 1.04         | 1.03         | 0.96         | 1.00         | 0.97         | 0.99         | 0.98         |
| <b>Total OECD</b>               | <b>13.31</b> | <b>13.56</b> | <b>13.64</b> | <b>13.43</b> | <b>13.27</b> | <b>13.50</b> | <b>14.23</b> | <b>13.62</b> |
| Latin America                   | 4.73         | 4.84         | 4.92         | 4.91         | 5.00         | 4.98         | 5.11         | 5.00         |
| Asia (inc. China)               | 4.38         | 4.43         | 4.54         | 4.65         | 4.64         | 4.63         | 4.66         | 4.64         |
| Other Non-OECD                  | 3.40         | 3.49         | 3.60         | 3.66         | 3.65         | 3.72         | 3.81         | 3.70         |
| <b>Total Non-OECD (ex. FSU)</b> | <b>12.51</b> | <b>12.76</b> | <b>13.06</b> | <b>13.22</b> | <b>13.28</b> | <b>13.33</b> | <b>13.58</b> | <b>13.35</b> |
| Russia                          | 10.12        | 9.02         | 7.70         | 7.00         | 6.80         | 6.48         | 6.29         | 6.64         |
| Other Republics                 | 0.93         | 0.92         | 0.88         | 0.81         | 0.81         | 0.80         | 0.80         | 0.80         |
| <b>Total FSU</b>                | <b>11.05</b> | <b>9.94</b>  | <b>8.58</b>  | <b>7.81</b>  | <b>7.61</b>  | <b>7.28</b>  | <b>7.09</b>  | <b>7.44</b>  |
| <i>NGLs &amp; Other</i>         |              |              |              |              |              |              |              |              |
| United States                   | 1.64         | 1.75         | 1.83         | 1.99         | 1.96         | 1.95         | 2.04         | 1.98         |
| Canada                          | 0.62         | 0.66         | 0.70         | 0.70         | 0.72         | 0.77         | 0.78         | 0.75         |
| North Sea                       | 0.22         | 0.24         | 0.26         | 0.30         | 0.26         | 0.27         | 0.31         | 0.29         |
| Russia                          | 0.24         | 0.24         | 0.22         | 0.22         | 0.21         | 0.20         | 0.20         | 0.21         |
| Other Non-OPEC                  | 1.30         | 1.35         | 1.33         | 1.38         | 1.39         | 1.39         | 1.40         | 1.39         |
| <b>Total NGLs &amp; Other</b>   | <b>4.02</b>  | <b>4.24</b>  | <b>4.34</b>  | <b>4.59</b>  | <b>4.55</b>  | <b>4.58</b>  | <b>4.72</b>  | <b>4.62</b>  |
| <i>Processing Gains</i>         | 1.35         | 1.35         | 1.45         | 1.45         | 1.45         | 1.45         | 1.45         | 1.45         |
| <b>Total Non-OPEC Supply</b>    | <b>42.24</b> | <b>41.85</b> | <b>41.07</b> | <b>40.46</b> | <b>40.17</b> | <b>40.11</b> | <b>41.06</b> | <b>40.46</b> |

\* estimated

## OECD

### United States

21. US production is estimated to have increased sharply in November and then remained essentially unchanged in December as Alaskan and California offshore gains offset declines in the rest of the US. However, there are signs that low oil prices may be beginning to cause some shut-ins and abandonments of certain marginal wells. These reductions seem to have been affecting only small producers on the West Coast, and the total volume is quite small. In particular, production of heavy crude oils in Central California using a gas-fired steam flood process is not expected to be shut down, because of the cost of reheating the reservoirs if production is restored. California production is sensitive because of the local excess supply and US Federal government restrictions on the export of Alaskan crude oil and the relative separation of the West Coast oil market from the rest of the US. It should be noted that the primary impact of sustained lower oil prices would be on future rather than existing US production. There already have been a few announcements of cuts in overall capital expenditure and additional redistribution away from domestic oil projects toward US natural gas and foreign oil activities.

22. The surge in Alaskan production has centred on the Point McIntyre field, which came on stream in mid-October and contributed 40 kb/d to that month's production. Prudhoe Bay, which bounced back from

990 kb/d in September to 1072 kb/d in October, maintained production at about that level during November and December. Full month production from Point McIntyre was 90 k/d in November and appears to have exceeded that in December. Exxon's Santa Ynez unit offshore California started up in December, augmenting production from the 12-year old Hondo platform. The two new platforms, Harmony and Heritage, have drilling slots on the platforms to allow sufficient future drilling to raise total output from the unit to nearly 100 kb/d in the longer term.

### Canada

23. Total Canadian oil output for September dropped by a revised 15 kb/d as reductions in output from Alberta's two synthetic crude plants and from conventional wells of 14 kb/d each offset a 13 kb/d gain in gas liquids production. Improved demand for Canadian heavy crudes in the US Midwest allowed October production to increase by about 20 kb/d. There have not been any statements regarding production cutbacks in Canada. Crude oil production in November and December is estimated to have been at about the same level as in October of 1450 kb/d. NGLs and synthetics are assumed to have risen slightly.

24. The level of drilling effort in Canada will be likely to make a significant contribution to crude oil production. According to trade sources, oil and gas drilling license applications more than doubled in 1993 and about 90 per cent of the wells have been completed. Although there is a strong bias toward natural gas drilling throughout North America, significant Canadian effort was directed toward directional drilling of conventional oil reserves as well.

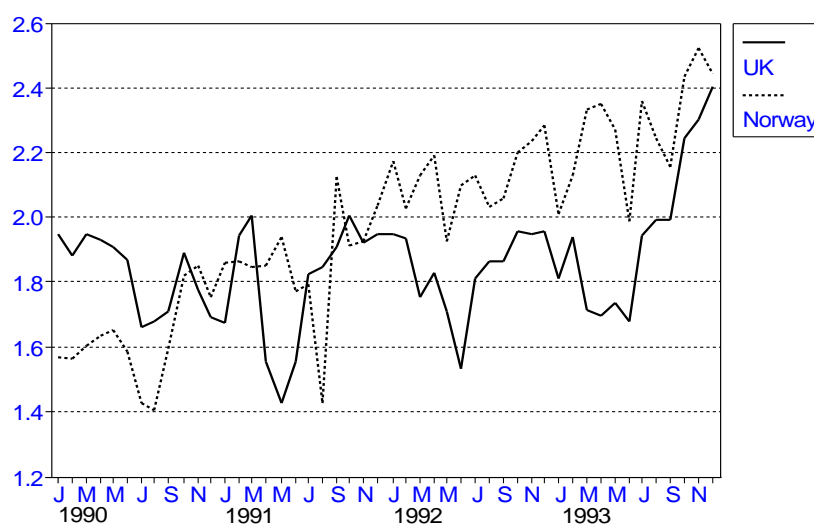
25. Similarly, technological and operating advances have improved the prospects for Canadian synthetic crude production as well. Both Suncor Inc. and Syncrude Canada have recently announced a combined 10 per cent planned production increase for 1994 and Syncrude has an application pending for major long-term production enhancement.

### North Sea

26. North Sea oil output surpassed 5 mb/d in November and December despite a series of storms that inhibited offshore liftings. The weather disruptions were sufficient to cause brief periods of significant production reductions at the Norwegian Gullfaks field. Smaller disruptions occurred at the Snorre field (which uses the Gullfaks platform) and at Statfjord. Mechanical difficulties with the gas flaring system on the Forties Delta platform early in the month resulted in a brief disruption to UK production as well.

27. Two new **UK** fields started up in the North Sea during December (East Brae on 24 December at 20 kb/d and Strathspey on 26 December at 15 kb/d), and brief test production from the Alba field added another 2 kb/d to last month's UK output. Start-up of the 15 kb/d Toni field, which was expected in late December, is now planned to begin producing this month. Conversely, the much larger 120 kb/d Nelson field could come on as early as late January rather than its recent March target date. UK offshore crude oil output, which averaged 2218 kb/d in November, is estimated to have increased to over 2300 kb/d in December and, with normal weather, could exceed 2400 kb/d for 1Q94.

**UK/Norwegian Crude Oil Production 1990-1993**  
(million barrels per day)



28. The production problems in **Norway** occurred when a sequence of storms caused Gullfaks storage to reach its limit. Larger storage capacities at Statfjord and some of the UK fields generally allow them to produce into storage even when tankers cannot load. Similarly, the four on-shore terminals in the UK have sufficient storage capacity to accommodate normal production flows even when storms prevent tankers from loading, as happened in late December at Sullom Voe. About 80 per cent of UK production is loaded at terminals, whereas more than half of Norwegian production is loaded offshore.

29. Oil stored at Gullfaks during the storms early in December could not be shipped out in time to accommodate continued production when a major storm occurred in the third week in December. The combined impact of weather on monthly average production from Gullfaks, Snorre and Statfjord's three platforms amounted to about 55 kb/d and contributed to the drop in December Norwegian output of about 80 kb/d preliminarily estimated by the Norwegian Petroleum Directorate. November output had increased by 44 kb/d to 2529 kb/d (excluding an estimated 125 kb/d of NGLs). The November gain resulted entirely from increased production at three new fields - Brage (+36 kb/d), Sleipner East (+17 kb/d), and the Haltenbanken area Draugen field (+12 kb/d) -with production at older fields down by 21 kb/d.

30. **Denmark** and the **Netherlands** experienced impressive oil production gains in November. Denmark achieved record production of 185 kb/d on the strength of the build up of the new Valdemar field and a record production from the Gorm field. Provisional data indicate production rose further to 193 kb/d in December. Dutch crude oil production rose by more than 20 per cent to 39 kb/d as two new fields, Horizon and F3-FB, both doubled production from October average levels.

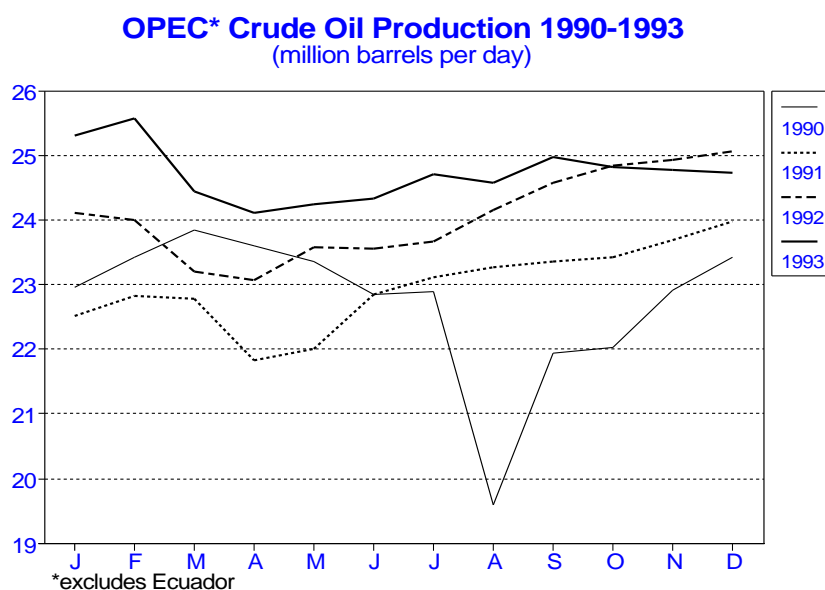
#### Australasia

31. Australian production declined by about 80 kb/d in October to 416 kb/d as production difficulties and maintenance activities in the Bass Straits Gippsland Basin reduced output by roughly 20 per cent. The Bonaparte Basin of North Australia declined by about 33 per cent as well.

#### OPEC

32. As depicted in the graph below, OPEC production has typically increased seasonally during the second half of the year. In 1993, however, the monthly production profile was surprisingly flat as high levels of oil inventory inhibited stockbuilding, despite the contango in the third quarter, and seasonal demand increases in the fourth quarter were apparently met by a combination of higher non-OPEC production and a greater drawdown from those oil inventories. Estimated OPEC production numbers for December indicate a level of 24.72 mb/d, about equal to 24.77 mb/d recorded in November.

Revised budgets have recently been released by Saudi Arabia and Indonesia with significantly lower expenditures, primarily reflecting lower price expectations.



33. **Saudi Arabia** has kept production in the neighbourhood of 8 mb/d for much of the year. Estimated output for December is 7.99 mb/d including the Saudi share of the Neutral Zone. The production from the **Neutral Zone** appeared to have recovered to around 0.4 mb/d in December but is reported to be

dropping back to November's levels in January. As had been anticipated, Saudi Arabia has moved to pricing all sales to North American customers entirely on West Texas Intermediate rather than the prior multi-crude formulas, which included highly volatile and thinly-traded Gulf Coast Alaskan North Slope crude prices.

34. There have been some small revisions to estimated production level for other OPEC producers. November production from the **UAE** now appears to have been down by about 0.05 mb/d from October to around 2.16 mb/d. That level held through December and is expected to stay constant in January. **Kuwaiti** production (including its Neutral Zone share) has remained in the vicinity of 2 mb/d for the last two months. Meanwhile, implied **Iranian** production has been quite volatile, with high levels of export in mid-December indicating oil supply levels (including stock draw) of over 4 mb/d, while much lower exports were observed in the beginning and end of the month. Much of the difference among various estimates of recent OPEC production are likely to be attributable to uncertainty over Iran's output. The other source of disagreement among market observers continues to be the extent of unauthorised **Iraqi** exports and local use.

35. Among the six non-Persian Gulf OPEC members, there have been few oil developments over the last month. **Venezuelan** output may be down slightly due to loading problems and difficult heavy oil markets in the Caribbean, but **Indonesia** has been able to maintain production levels as output from the new Belida and Serang fields has compensated for declines in demand for Minas and Cinta crudes. Political difficulties in **Algeria**, **Libya** and **Nigeria** do not appear to have affected their current production.

### Former Soviet Union (FSU)

#### *Production*

36. November oil production in Russia averaged a reported 6.25 mb/d (26.4 mt), a drop of 0.1 mb/d from the previous month. Output in the first eleven months of the year declined 13.5 per cent, indicating that average production in 1993 will be approximately 6.84 mb/d (340 million tons). Russian crude and condensate production is projected to fall a further 10 per cent or 0.7 mb/d in 1994 to average 6.15 mb/d (307 million tons).

37. Internal Russian accounts of the continuing decline in output have moved away from emphasis given at the beginning of 1993 to the number of idle wells (some of which have since been restored to production) to the financial "crisis" facing Russian producer associations. The rise in domestic crude prices in 1993 and government concessions to producers over access to hard-currency export earnings appear to have been largely negated by the rapid growth in payments arrears by refiners and consumers in Russia and other CIS republics. Government figures released in early January indicate that Russian refiners alone owe 1.9 trillion roubles (\$1.5 billion) to Russia producers for crude already delivered. At least two of the larger Siberian associations announced in December their intention to shut in part of their production and to lay off workers as a consequence of reduced cash flow and distribution problems associated with uncreditworthy customers.

#### *Exports*

38. Exports of crude and products from the former Soviet Union are now believed to have fallen from 2.3 mb/d in October to about 1.9 mb/d in November as a result of the severe storms which effectively closed the main Russian export port of Novorossiysk for more than three weeks from 10 November. Crude liftings from the port averaged only 250 kb/d over the month, well down on the level of about 600 kb/d in preceding months. According to figures from the Russian Ministry of Fuel and Energy, total crude exports outside the FSU in November, including pipeline deliveries, averaged 1.46 mb/d (5.99 mt) down from 1.71 mb/d (7.26 mt) in October. FSU product exports, transported almost entirely by vessel from Baltic and Black Sea ports, are estimated to have fallen sharply to about 0.4 mb/d in November, reflecting not only the weather-related disruption at Black Sea ports but also the normal seasonal reduction in gasoil and fuel oil availabilities.

39. Seaborne exports rebounded at the end of the first week of December as Novorossiysk re-opened, albeit amid crude quality problems and a temporary restriction on maximum vessel size. However, subsequent reports indicate a slower rate of exports in the second half of the month. On the assumption that December oil exports average 1.9-2.0 mb/d, FSU *net* exports have been revised down 0.1 mb/d to 2.0 mb/d in 4Q93. This marks the only calendar quarter of 1993 in which FSU exports have been lower than in the corresponding quarter of 1992.

40. The consequence of the lower Urals exports since mid-November has been increased demand from Mediterranean refiners for Iranian crude and, more recently, for North Sea grades such as Forties, Oseberg

and Brent for late December/early January arrival and a continued firming of spot sour crude prices in Europe through the month of December. By the end of the year, Urals CIF basis Augusta had risen to dated Brent - 80 cents/barrel, the narrowest differential for several years.

### Other Non-OPEC

41. Production is estimated to have increased in each of the four major non-OPEC producing regions between the third and fourth quarters of 1993. The largest increase estimated outside of the North Sea was in the non-OPEC Middle East, where production expanded in **Oman** and **Yemen** by 40 kb/d and 30 kb/d, respectively, and Syria added about 10 kb/d. The Oman increase would be almost exactly reversed by production cuts assumed to have been initiated on the first of the year. Lower output from **Malaysia** and **Egypt** is likely to be the result of weak markets for their crude and **Angola** continues to see its production threatened by guerrilla attacks. Private interests in **Yemen** and **Syria** appear to be maximising output.

42. **Latin American** production levels advanced as well, as new production from **Brazil's** offshore Campos Basin and expanded output of Mexico's Olmeca crude stream helped offset the impact of a Christmas offensive by Colombian guerillas. The impact on **Colombia's** output would have been larger if not for the initial production test flows from the prodigious Cusiana field in Central Colombia, which helped keep production around the 470 kb/d level. According to the Colombian state oil company, Ecopetrol, average production for the first 11 months of the year was just under 460 kb/d.

43. Official figures for **Mexico** showed a 31 kb/d monthly increase in October to 2731 kb/d. Natural gas liquids production also increased by 19 kb/d to 469 kb/d. Following the relative demand trends, Mexican crude exports to the US were up by 125 kb/d, while exports to Europe dropped by nearly 100 kb/d. Exports of both heavy Maya and lighter Isthmus crudes declined slightly as a greater share of exports were accounted for by Olmeca. In October, monthly exports of Olmeca surpassed Isthmus for the first time. November production is estimated to have remained at the October level, while preliminary estimates indicate a 10 kb/d increase in December.

44. Production increases from **Vietnam** and **Papua New Guinea** contributed to the 20 kb/d gain in Asian oil output in the fourth quarter. Vietnamese output, which was earlier reported to have averaged 117 kb/d in the first 8 months of the year, is estimated by the same source to have averaged 126 kb/d for the year, implying production in excess of 140 kb/d for the last 4 months of the year. Papua New Guinea output has recovered from a mid-year low of around 100 kb/d to over 135 kb/d for October and November, nearly reaching the production record set last March.