

# OPEC

Organization of the Petroleum Exporting Countries



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## Monthly Oil Market Report

### OPEC Basket average price

*US \$ per barrel*

Down 1.99 in November

|                 |              |
|-----------------|--------------|
| <b>November</b> | <b>17.65</b> |
| October         | 19.64        |
| Year-to-date    | 23.59        |

### November OPEC production

*million barrels per day, according to secondary sources*

|           |      |              |      |              |      |
|-----------|------|--------------|------|--------------|------|
| Algeria   | 0.81 | Kuwait       | 1.94 | Saudi Arabia | 7.59 |
| Indonesia | 1.18 | SP Libyan AJ | 1.31 | UAE          | 2.02 |
| IR Iran   | 3.50 | Nigeria      | 2.13 | Venezuela    | 2.69 |
| Iraq      | 2.73 | Qatar        | 0.63 |              |      |

### Supply and demand

*million barrels per day*

#### **2001**

|                   |             |
|-------------------|-------------|
| World demand      | 75.7        |
| Non-OPEC supply   | 49.5        |
| <b>Difference</b> | <b>26.2</b> |

#### **2002**

|                   |             |
|-------------------|-------------|
| World demand      | 76.2        |
| Non-OPEC supply   | 50.6        |
| <b>Difference</b> | <b>25.6</b> |

### Stocks

Small contra-seasonal stock-build in USA in November

### World economy

World GDP growth estimate revised down to 2.8% for 2002

## December 2001

**Coordination  
meeting to discuss  
output cuts, Cairo,  
28 December**

*(Press release — page i)*

**Opening address  
to 118th  
(Extraordinary)  
OPEC Conference**

*(Press release — pp. ii–iv)*

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For immediate release  
December 20, 2001

OPEC welcomes the positive decision announced by Norway on the 18th of December 2001 to cut its oil output by 150,000 barrels per day from January 1 to June 30, 2002, as well as other similar decisions announced earlier by a number of major oil producers. In order to coordinate the Organization's decision and to review the current oil market situation, OPEC Oil & Energy Ministers will meet in Cairo, Egypt, on December 28, 2001.

OPEC, in reiterating its firm commitment to stabilizing the market and realizing its objective of restoring crude oil prices to fair and equitable levels, maintains its call on all oil producing countries to support these goals for the future welfare of the market and the good of producers and consumers alike.

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Vienna, Austria

For immediate release  
14 November 2001

## **Opening address**

*to the*

### **118th Extraordinary Meeting of the OPEC Conference**

*by*

**His Excellency Dr Chakib Khelil  
President of the Conference**

*and*

**Minister of Energy and Mines, Algeria**

Excellencies, ladies and gentlemen,

Welcome to the 118th Meeting of the OPEC Conference.

It is with much sadness that I must begin this address with an expression of the deepest condolences from OPEC to the people of Algeria — my own country — for the terrible loss they have suffered in the worst flash floods to hit the country for nearly 40 years. Well over 500 people have been killed and tens of thousands left homeless in the capital city, Algiers, parts of which now lie devastated under a thick layer of mud and grime. At the same time, however, on behalf of Algeria, I should like to thank all those countries and international agencies that have promised to provide swift humanitarian aid, in our time of need.

Let us now turn our attention to this Meeting. The specific purpose of this Extraordinary Meeting is to review the current state of the international oil market and to decide, according to our observations, on the type of action that may be required by oil-producing nations to achieve order and stability in the months ahead. At our last Conference, on 26–27 September, we decided to leave OPEC's existing output levels unchanged, with a total ceiling of 23.2 million barrels a day, excluding Iraq. We did this at a time when the deteriorating global economic outlook, exacerbated by the tragic events of 11 September in the USA, was expected to have a dampening effect on world oil demand. Our decision once again demonstrated OPEC's commitment to its longstanding role as a responsive and responsible member of the world community, by saving the global economy hundreds of billions of US dollars as a result of the Organization's determination to ensure stability in the international oil market. It also showed that, if OPEC did not exist, the world would have had to create it, in order to bring about this much-needed stability.

As you may recall, the price of OPEC's spot Reference Basket, at our last Meeting, had just fallen heavily to little more than US \$20 per barrel, after averaging around \$25/b during the first three quarters of this year. Since then, it has been fluctuating in a range of around \$17.5–20.5/b, well below our price band level of \$22–28/b and our target price of \$25/b, which lies in the middle of that range. The current situation is especially discouraging to those producers — OPEC and non-OPEC — who have worked so hard in recent years to achieve stability in the market, with prices that constitute what has been widely regarded as a reasonable balance between the needs of producers and consumers. Much of the credit for that success must go to the efforts of OPEC, which has sacrificed 3.5 mb/d of its production this year, together with the resulting revenue, partly to the benefit of non-OPEC producers.

As we set about our deliberations at today's Meeting, there is underlying concern about the near-term prospects for the oil market. The events of 1997–98 are still fresh in our minds and recall the dangers of letting matters get out of hand through failure to act soon enough and in the appropriate manner. In our deliberations at this Conference, we will, therefore, be faced with a threefold task.

First, we will seek to ascertain the best measures to adopt in the face of the global economic downturn, with its depressing effect on the oil market, which, as the winter months approach, is already in a state of over-supply with high stock levels. At the same time, we are conscious of the need to avoid adopting any measures that will add to the current weakness facing many developed economies or impede the economic development of the long-suffering poorer nations. Let me say at this point, however, that the longer-term outlook is more favourable, with upturns already being forecast for leading sectors of the global economy in the second half of 2002, notably the USA, Japan and Europe. Therefore, we must ensure that any actions we take now will be consistent with the provision of a viable and stable oil market, which will be essential for when the economic upturns manifest themselves.

Secondly, we will endeavour to build upon the considerable progress that has been made in the international oil market over the past couple of years through the commitment and the resolution of responsible producers and other principal players. The fact that the recent sustained period of order and stability was underpinned by the establishment and successful operation of a transparent, realistic and widely accepted pricing mechanism will be uppermost in our minds. It is important, however, that, during this period of tightness in the market, we strengthen our resolve to stick to the letter of our agreements and ensure that our production policies are in strict accordance with them. Our credibility is only as good as the continuation of the effort among our Member Countries to maintain cohesion, solidarity and cooperation.

Also, we look forward to the continued cooperation of fellow oil producers from outside our Organization, whose support for our agreements have done so much to ensure their success in recent years. Non-OPEC producers and the governments of consuming countries have a clear role to play in the process of achieving and maintaining a healthy global oil sector; this will, in turn, provide a sound base for world economic growth. These governments could help their domestic economies by reviewing the excessive levels of taxation they impose on oil products, thereby allowing consumers to more productively allocate their own resources and enhance economic growth.

The final part of our threefold task is to ensure that any decision emanating from the Meeting will be sensitive to the feelings of peace-loving, virtuous members of the world community, whose principal concern at the present time is — understandably — greater international understanding and the cessation of hostilities. The importance of this was brought home to us immediately after our last Meeting of the Conference, at the two-day energy seminar we held in Vienna. The general message that emerged from the eminent group of energy experts gathered there was that oil supply is part of a much grander matrix affecting mankind as a whole — sustainable development.

During the present period of international conflict, despite all the fears, the stresses and the distractions that this involves, we must never lose sight of the fact that sound, secure energy supply is a vital ingredient in the process of developing the economies of the poorer nations of the world. Security of supply must, in turn, be matched by security of demand. When the present crisis is over — soon, hopefully — it is up to the richer nations of the world to restore the issue of sustainable development to its proper place at the top of the international agenda, in a united effort to eradicate poverty and hardship in developing nations and stimulate their economies. OPEC will continue to play a progressive role in such an environment, with the OPEC Fund for International Development, in particular, being an important source of assistance to the poorer developing countries.

Finally, as you already know, this is likely to be the final Meeting of the Conference during which I am bestowed with the honour of being President. I have found this to be a challenging and stimulating assignment, from which I have learned many valuable lessons during the course of the year. OPEC communicates and anticipates situations better, undertakes more coherent and coordinated discourse and engages in more open and constructive dialogue with non-OPEC producers and consumers. Overall, the Organization has become a force to be reckoned with, in the crucial area of oil market stability, and this is highly beneficial for a globalised economy, where sustainable development is taking on more and more importance.

Throughout this year, I have endeavoured to serve OPEC to the best of my ability in this post; as a result, I hope that this has helped the Organization move forward as it settles into the 21st century. I should like to thank the many generous, committed and accomplished individuals and groups who have assisted me in carrying out my duties. My successor, HE Dr Rilwanu Lukman, is already well-known to you and has unparalleled experience in the senior hierarchy of our Organization, having previously served with distinction for many years as both President and Secretary General. I am sure you will all join me in wishing him every success when he takes up the post of President again in the New Year.

Thank you.

\* \* \*

## HIGHLIGHTS OF THE WORLD ECONOMY

### Economic growth rates 2002\*

%

| World | G-7 | USA | Japan | Euro-zone |
|-------|-----|-----|-------|-----------|
| 2.8   | 1.3 | 1.5 | -0.5  | 1.9       |

**Japan back in recession, but possible good news from USA and Europe**

**Downward revision to third-quarter GDP and expectations of negative fourth quarter undiminished in USA; but sharp fall in inventories may augur end of contraction**

**Recent GDP data confirms Japan has fallen back into recession**

*\*The figures for world economic growth reflect our base scenario. Given current global uncertainties, the situation may be worse than envisaged in the present reports. Specifically, the persisting doubts about the US recovery path, depending on the effectiveness of monetary easing and fiscal stimuli, the mounting risk of a deeper recession in Japan and the fears of a more extensive slowdown in other parts of the world, render a lower scenario possible*

#### *Industrialised countries*

In the USA, the contraction in third-quarter GDP was larger than initially thought. Japan is officially in recession for the fourth time in a decade, while, in the euro-zone and perhaps also in the USA, a possible end to the contraction in manufacturing may be in sight.

#### *United States of America*

Manufacturing activity shrank for the 14th straight month in November, but the rate was a little better than Wall Street analysts had expected. Industrial production dipped 0.3% in November, after falling by a revised 0.9% in October. Excluding automobiles and auto parts, industrial production fell by 0.7% and factories worked at just 74.7% of capacity in November, the lowest level since 1983, from a revised 75.0% in October. But companies may be close to shedding their inventories of unsold goods, which would free them to increase production again. Inventories fell by 1.4% in November, the ninth straight monthly decline. The stock-to-sales ratio fell to 1.39 months' worth from 1.45 months in September, the lowest level since June 2000. Manufacturing inventories were down 0.4%, after a 0.9% decline in September. Inventories at wholesalers fell by 1.0% in October, after dropping 0.4% the previous month. GDP was more negative in the third quarter than initially expected and is likely to shrink again in the fourth quarter, which would meet the standard definition of recession. To try to avoid a recession or, at least, soften the blow by reducing the cost of borrowing, the Federal Reserve Board (Fed) has cut its target for short-term interest rates 11 times this year. The consumer price index was flat in October. Excluding the often volatile food and energy prices, the core CPI rose by 0.4%, the biggest increase since January 1996. That was above analysts' forecasts of a 0.2% rise, and followed a 0.2% gain in October — signalling that inflationary pressures are building up and increasing the likelihood of a stagflation scenario, if the recovery fails to materialize in the second half of 2002.

#### *Japan*

As strongly suspected for some time, Japan is now officially in recession, the fourth within a decade. Real GDP in the third quarter fell by 0.5% from the previous period, or at a 2.2% annualized rate, following a quarterly decline of 1.2% in April–June, or 4.8% in annual terms. The fact that nominal GDP fell by 0.8% on the quarter, or an annualized 3.1%, highlights the extent of the deflationary pressures. The GDP figures will increase pressure on the government to do more to help the economy. However, although the government is already compiling a second extra budget, after recently passing a three trillion yen extra budget for this fiscal year, it is also committed to limiting deficit spending in the next fiscal year. Similarly, the Bank of Japan (BoJ) is being pressed to adopt more aggressive measures to reflate the economy. However, despite easing monetary conditions, bank lending dropped by 4.3% in November, the 47th straight month of decline. Personal consumption, which accounts for more than half of economic activity, fell by 1.7% in the third quarter, following a revised drop of 1.1% in the second. The unemployment rate, which hit a new record of 5.4% in October, continues to dampen consumer spending and is increasing the danger of the economy slipping into a deflationary spiral. Surprisingly, the GDP data showed that corporate capital investment rose by 1.1% in the third quarter and a revised 2.6% in the second, instead of falling by 2.4%, as previously announced. However, there is evidence that this trend will not continue, as seen from the BoJ's latest quarterly "Tankan" survey of corporate sentiment. Companies plan to cut capital expenditure by 6.5% on average this fiscal year. The business condition diffusion index for large manufacturers worsened to -38, the lowest level since March 1999.

**End of contraction in manufacturing sector in sight in euro-zone***Euro-zone*

In Germany, new orders and industrial production for October turned out weaker than expected. However, the Purchasing Managers' Index (PMI) survey provided what could well be the first signs of the German economy bottoming out. New orders improved significantly in the survey for November. Export orders continued to improve, but it is not clear whether this strength in external demand can be sustained. The data is noisy and the PMI could have been a blip. Germany's unadjusted unemployment rate rose to 9.2% from 9.0% percent in October. The unadjusted jobless total was 3.789 million, up 143,732 from November 2000. On the other hand, an improvement in the Euroland PMI for manufacturing and services in November was reported. Manufacturing rose to 43.6 from 42.9 in October, and this has been interpreted as a sign that the end of the contraction phase in manufacturing is in sight. However, these results should be viewed with care. The indices are both below the no-change value of 50, which means that manufacturing and services continues to contract. The European Commission's Economic Survey Index fell to 98.6 from 99.1 in October. Both industrial and consumer confidence were down, in line with expectations. These results appear at odds with the sentiment recorded in the PMI. However, past data has shown that the PMI generally picks up turning points two-to-three months before the Economic Survey Index. A composite of the survey results is consistent with an economy reaching a trough in its cycle. Price data has also confirmed the downward trend in inflation. The Euroland producer price index fell by 0.6% year-on-year (y-o-y), largely due to a 6.8% decline in energy prices.

**Russian economy continues to grow at brisk pace***Former Soviet Union*

The Russian economy continues to expand briskly, with the index of output for basic goods and services in five major sectors of the economy registering 5.7% growth in the first ten months of 2001, from the same period last year. While exports are faltering, domestic demand is buoyant. Russia's credit ratings have improved and foreign investment is increasing. The trade surplus fell to \$3.5 billion in October, down 17.7% from the previous month and the lowest monthly surplus for two years. Exports dropped by 10% y-o-y, mainly as a result of lower oil prices, while merchandise imports rose by 15%. The Duma approved the government's 2002 budget draft, with revenue set at \$70.2 bn and expenditure at \$63.5 bn, the first planned surplus budget in the post-Soviet era. The original crude oil price assumption of \$22 per barrel was revised down to a range of \$14.5–18.5/b. The government forecasts optimistic 5.5% GDP growth and an inflation rate not exceeding 18% for 2002. Russia also expects to be able to honour its debt service obligations. Public finances are at present in a healthy state, with the federal budget surplus expected to reach 2% this year. Separately, foreign investment to September totalled US \$9.7 bn, which was 23.2% higher than a year ago, of which 30% were foreign direct investment flows. According to preliminary estimates, Russian oil production may reach 6.96 mb/d in 2001, an increase of 8% from 2000. For the first quarter of 2002, the government's commission on pipeline access has approved an oil production schedule of 7.08 mb/d, an increase of 7.4% y-o-y, but 2.2% lower than initially envisaged and 10.4% below the fourth quarter of 2001. The planned drop may be partly dictated by bottlenecks in the oil pipeline system, as well as seasonal factors. Over the period 1997–2000, an average 1.8% decline was observed in the first quarter of each year versus the last quarter of the year.

**Moderate growth in third quarter in Hungary and Czech Republic; more marked slowdown in Poland***Eastern Europe*

Third-quarter GDP figures for Hungary reveal an economy growing close to expectations at 3.7% y-o-y, or 4% in the first three quarters of the year. Manufacturing growth was low, but services and agriculture growth was above average. However, the economic sentiment index declined to -12.5 in November from -11.1 in October, its second lowest level since 1996. In line with the trend in the European Union, sentiment among manufacturing firms continued to worsen and expectations for export orders deteriorated. In the Czech Republic, GDP grew at an annualized 3.2% in the third quarter, down from 3.8% in the second and 4.0% in the first, confirming the picture of an expanding economy that is under pressure from a downturn in exports and the persistent strength of the koruna, which has appreciated by around 6% against the euro in the past six months. The central bank cut rates by 50 basis points on 29 November, bringing the key two-week repo-rate to a record low of 4.75%. Rates fell in Poland on 28 November for the sixth time this year, by 150 basis points, as inflation hit a record low in November and GDP growth slowed to an annual 0.8% from 0.9% in the second quarter.

**Developing countries gain some concessions and promises from developed nations at WTO conference**

***Developing countries***

Developing countries have gained some concessions from developed nations in the World Trade Organization's fourth ministerial conference in Doha in November. They have won recognition of the rights of poor countries to override patents, if necessary, to produce or buy less-expensive generic drugs when dealing with pandemics such as AIDS and Malaria. Furthermore, all WTO members are committed to phasing-out farm subsidies — which is considered, if implemented, a victory for Africa over Europe — in addition to Western concessions in textiles, particularly in terms of tariffs and quotas. Developed countries also promised to speed up the implementation of past trade agreements, with the USA agreeing to review its anti-dumping rules. The concluding declaration announced the launch of a new framework for international commerce for the next 15 years that will boost world GDP by \$2.8 trillion by 2015, with some \$1.5 trillion going to DCs, according to World Bank estimates. China and Taiwan were formally admitted to WTO membership.

**As economic prospects worsen, OPEC Member Countries strive to enhance their non-oil sectors**

***OPEC Member Countries***

OPEC Member Countries' prospects for the remainder of 2001 and for early 2002 have probably worsened as a result of the accelerating global economic slowdown and decline in oil prices. These countries continue efforts to diversify their economics to generate non-oil income. The United Arab Emirates is attempting to accelerate its growing non-oil trade, tourism and financial services. Dubai has awarded \$540m contracts to start building two huge palm-tree shaped islands, to be used as resorts and commercial and financial centres off the Emirates' coast. Their land reclamation and infrastructure will cost around \$3 bn. Saudi Arabia's non-oil private sector is set to enjoy growth of 3.5%, as consumer confidence and domestic demand benefit from recent government spending and economic liberalization. Furthermore, by the end of 2002, foreign investment in gas development should begin contributing to economic growth more strongly. Considering these factors, overall GDP growth is expected to reach 3.8% in 2002 and 4.1% in 2003. In the Islamic Republic of Iran, growth in the non-oil industrial and manufacturing sector will be supported by the increased availability of imported capital and intermediate goods to both the private and public sectors. Agriculture is also expected to recover. Since its agricultural sector will continue to grow strongly, as well as its expenditure remaining high, Nigeria's real GDP is forecast to rise to 3.6% in 2002 and to 4.1% in 2003.

**Dollar appreciation partly cushions second month of strong fall in nominal oil prices**

***Oil price, US dollar and inflation***

The US dollar rose against all the currencies in the Geneva I + US basket\* in November. The yen fell by 0.81% to ¥122.30/\$ from ¥121.32/\$ in October, while the German mark depreciated by 1.94% to average DM2.202/\$ from DM 2.160/\$ in October.

For the second month in a row, the dollar appreciated, despite mixed economic signals and persistent political uncertainty. November was also marked by further monetary easing. The tenth cut so far this year by the Fed on 6 November, which lowered rates by another 50 basis points to 2%, was followed by the European Central Bank on 8 November, with a similarly-sized move, the second since 11 September. The euro failed again to bolster its position against the dollar, dropping mid-month to three-month lows of \$0.8778, on news of an unexpectedly strong rise in US retail sales in October, in contrast to a drop in Germany, and other negative euro-zone developments in the form of a lower-than expected Ifo survey of German business confidence. The yen remained under pressure, falling to 124.3¥/\$ in the last week of November, on further evidence of weakness in the Japanese economy, as the unemployment rate rose to record levels in October and the BoJ was rumoured to be considering buying foreign bonds in an attempt to weaken the yen.

The OPEC spot Reference Basket fell by almost \$2/b, or 10.13%, in November to average \$17.65/b, from \$19.64/b in October. In real terms (base July 1990=100), after accounting for inflation and currency fluctuations, the Basket price fell by 8.97% to \$16.36/b, from \$17.97/b, as the dollar appreciation once more cushioned the loss from the fall in the nominal oil price. The dollar rose by 1.27%, as measured by the import-weighted currency basket, while inflation was estimated at -0.03%.

\* The 'Geneva I + US dollar' basket includes eight leading European currencies and the Japanese yen and the US dollar, weighted according to the merchandise imports of OPEC MCs from the countries in the basket.

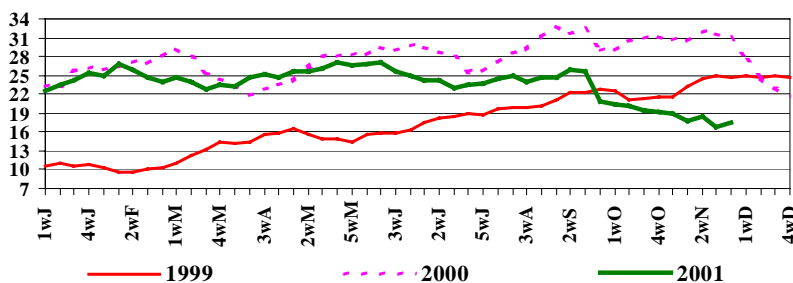
## CRUDE OIL PRICE MOVEMENTS

**OPEC Basket fell by \$1.99/b to \$17.65/b in November**

The monthly price of the OPEC spot Reference Basket continued its descending trend in November, losing \$ 1.99/b, or more than 10% of its value, during the month, to register \$17.65/b. Compared with November last year, the Basket lost almost 44% of its value. Naturally, all the Basket's components experienced large losses. Leading the decline were Tia Juana Light and Arabian Light, which fell by \$2.38/b and \$2.34/b, followed by Isthmus and Dubai, which dropped by \$2.33/b and \$2.31/b. The Brent-related crudes, Bonny Light and Saharan Blend, were \$1.68/b and \$1.65/b lower than in October. Minas posted the smallest loss, decreasing by \$1.24/b.

On a weekly basis, the Basket behaved erratically, falling sharply in the first week and then reversing the trend during the second week to post a recovery; it fell again in the third week, to its lowest level for the year. Finally, it regained some ground to close higher in the last week. The Basket started the month by posting solid losses, amid concern over persistent weakening in oil demand, fuelled by bearish economic signals, especially US unemployment data, which showed a 0.5% rise to 5.4 %, the highest level for five years. The Basket price strengthened during the second week, on bullish comments by Saudi Arabia's Minister of Petroleum and Mineral Resources, Ali I. Naimi, that OPEC could cut production by 1.5 million barrels per day to balance market fundamentals. Meanwhile, markets reacted well to the US Administration's order to increase the Strategic Petroleum Reserve (SPR) to full capacity. However, prices plummeted after OPEC, at its 118th Extraordinary Meeting of the Conference, announced that any output cut would be subject to a firm commitment from non-OPEC oil producers to implement production cuts of 500,000 b/d simultaneously. In the third week, the Basket fell by more than 8% to reach \$16.86/b, the lowest level for the year. This decline could be attributed both to remarks by some OPEC Ministers expressing their firm position not to implement any production cuts unless major non-OPEC producers cooperated with concrete, proportional cuts and to Russia's reluctance to cooperate with any significant production cut. Nevertheless, prices recovered substantially later in the week, on positive signals that an OPEC/non-OPEC agreement to curb production and stabilize the market might be reached. The price recovery was consolidated on news that Norway's parliament had agreed to a 100,000–200,000 b/d output cut, subject to other non-OPEC producers also implementing cuts. Earlier comments by Russia's Deputy Prime Minister, Ilya Klebanov, who said that his country was ready to take further action to help OPEC's efforts to support prices, underpinned crude prices. Towards the month's end, prices firmed further on comments by the Deputy Prime Minister that Russia might consider a large production cut in January. Meanwhile, the price rise was capped by expectations that Iraq could sign a memorandum of understanding with the United Nations, dissipating concern over disruptions to oil exports.

**Graph 1**  
**OPEC Reference Basket — weekly spot crude prices**  
*US \$/b*



**In USA, high stocks and weak refiners' margins kept demand under pressure in November**

**US and European markets**

The US market turned difficult in November as an outlet for North Sea grades and West African grades, amid weak refiners' margins and comfortable availability; however, low freight rates helped underpin demand. Sellers of West African crudes took advantage of low rates to move cargoes to the USA. Grades such as Brass River and Qua Iboe were

**Demand for sour crudes  
firmed, on improving  
refiners' margins in  
November**

offered at premiums to West Texas International (WTI); nonetheless, refiners requested discounts to get the oil moved. Towards the latter part of the month, the transatlantic arbitrage closed firmly, with January Brent moving near to parity with WTI. Refiners turned to domestic crudes, especially sweet grades, like Louisiana light sweet, with premiums soaring by more than \$0.40/b against WTI. The European crude market was strong, with good end-user demand for North Sea grades. The Brent curve remained in contango for most of the month, flipping into backwardation towards the last week, placing prompt prices at a premium to future ones and discouraging any stock-builds. In the physical market, dated Brent prices weakened towards the month-end, as the trader Vitol completed its play, buying 11 cargoes with loading dated for the first half of December. Other North Sea grade prices weakened on low demand, amid poor refiners' margins, which, in turn, gave a respite to suffering refiners.

**Far Eastern markets**

Asian refiners started buying December cargoes in the first week of November, halting a price slide that had taken Oman into a deep discount of as much as \$0.20/b to the OSP (official selling price). Lower spot prices for regional grades strengthened refiners' margins, attracting refiners into the crude market. The market for Oman remained well supported, until the trading for December volumes came to an end; then, expectations that China could turn around and become a seller of its term supply moved the grade into discount territory. Meanwhile, demand for light sour grades (Abu Dhabi Murban) firmed, amid sustained buying of distillate-rich crudes by regional refiners. Later in the month, as usual, traders' attention started to focus on January loading, especially for light sweet grades. Naphtha-rich Australian Cossack's differential strengthened, as refiners sought to produce gasoline for the Australian high-demand season. Demand for Malaysian distillate-rich grades also firmed; however, buying interest for the remaining December volumes of heavy sweet grades dwindled. Towards the end of the month, and despite uncertainty about the OPEC/non-OPEC negotiations, buyers started acquiring Middle East crudes, raising differentials for January lifting to as much as \$0.25/b above their respective OSPs. Demand was particularly strong for distillate-rich Abu Dhabi and some Asian grades.

**Table 1**  
**Monthly average spot quotations for OPEC's Reference Basket**  
**and selected crudes**  
*US \$/b*

|                         | <b>Year-to-date average</b> |               |             |              |
|-------------------------|-----------------------------|---------------|-------------|--------------|
|                         | <u>Oct.01</u>               | <u>Nov.01</u> | <u>2000</u> | <u>2001</u>  |
| <b>Reference Basket</b> | 19.64                       | <b>17.65</b>  | 27.88       | <b>23.59</b> |
| Arabian Light           | 20.16                       | <b>17.82</b>  | 27.15       | 23.48        |
| Dubai                   | 19.93                       | <b>17.62</b>  | 26.58       | 23.27        |
| Bonny Light             | 20.60                       | <b>18.92</b>  | 28.74       | 24.98        |
| Saharan Blend           | 20.65                       | <b>19.00</b>  | 28.99       | 25.21        |
| Minas                   | 19.53                       | <b>18.29</b>  | 29.07       | 24.65        |
| Tia Juana Light         | 17.66                       | <b>15.28</b>  | 26.57       | 20.81        |
| Isthmus                 | 18.94                       | <b>16.61</b>  | 28.08       | 22.67        |
| <b>Other crudes</b>     |                             |               |             |              |
| Brent                   | 20.54                       | <b>18.80</b>  | 28.72       | 24.95        |
| WTI                     | 22.20                       | <b>19.49</b>  | 30.54       | 26.54        |
| <b>Differentials</b>    |                             |               |             |              |
| WTI/Brent               | 1.66                        | 0.69          | 1.82        | 1.59         |
| Brent/Dubai             | 0.61                        | 1.18          | 2.14        | 1.68         |

## PRODUCT MARKETS AND REFINERY OPERATIONS

**Product prices plunged in US Gulf in November amid rising inventories, refiners' margins remained flat in negative territory and refinery utilization ended at 91.3%**

Product prices fell further in November, tracking the decline in crude prices. The combination of a slow-down in demand for distillates across all regions and, importantly, heating oil in the Northern hemisphere, amid unseasonably warm weather, and rising stocks exacerbated the price falls. With product prices dropping more steeply than crude values, refiners' margins were negative, spurring further cuts in refinery runs.

### *US Gulf market*

Product prices experienced further losses in November. Tumbling crude markets were the underlying factor. Both the middle and the heavy ends of the barrel experienced considerable losses, falling by 13%, compared with October's average prices; this was due essentially to sagging utility demand, because of unseasonably mild weather, amid substantial increases in both distillate and natural gas inventories. This, in turn, weakened natural gas prices, making this resource the primary choice for utility consumption, instead of both heating oil and low-sulphur fuel oil, if the weather turned cold. High-sulphur fuel oil, however, strengthened later in the month, on tight supply led by a couple of supporting factors. One was the shift of Latin American cargoes from their usual destination (i.e. US harbours) to European markets, due to the price difference. This premium on fuel oil prices induced a high level of arbitrage from the USA to Europe. And secondly, there was an increasing magnitude of processed fuel oil, due to the start-up of a number of cokers. These factors consequently averted further losses in fuel oil prices in the US Gulf Coast. The gasoline price dropped the least, despite rising stocks, and declined by 11%, or \$2.64/b; this was mitigated by a marginal recovery in gasoline demand, which seemed to be encouraged by lower retail prices. Preliminary government data on the weekly moving average showed demand to be 4.4% higher than last year's level, but the monthly growth in demand was barely less than one percentage point.

Refiners' margins in the US Gulf stood almost flat in negative territory, as the relative weakness of the WTI price was offset by an enormous fall in light product prices.

US refinery throughput declined by a further 0.23 mb/d to register 15.10 mb/d, in tandem with poor refiners' margins. The corresponding utilization rate was 91.3%

**Light product prices declined significantly, while fuel oil fundamentals were supportive in Rotterdam in November; refiners' margins turned negative and refinery utilization reached 90.2%**

### *Rotterdam market*

Product prices decreased significantly in November, with particular severity for light products, as crude prices plunged, demand slumped and inventories rose. Gasoil was hit the hardest, losing \$4.38/b, or 16%, on a monthly basis. This reflected abundant supply, after a published survey showed that Germany's heating oil tertiary household stocks, estimated at 612 mb, reached 72% of their capacity at the start of the month, the highest level for 12 years. Gasoline fell by a substantial \$3.12/b, down 13% less on the previous month, as the surplus rose in Europe, due to less transatlantic activity and a sustained ebbing of regional demand. Firm fundamentals supported the European fuel oil market, which did not experience enormous falls, like the other products, declining by only \$1.39/b, or 9%. Tight Russian supply, to cover increased domestic demand and healthy bunker demand, constituted the main reasons for the less affected fuel oil markets.

A combination of relative weakness in light product prices and relative strength in the marker crude (Brent), compared with their US counterparts, led to refiners' margins turning negative.

Refinery throughput in Eur-16 (EU + Norway) rose by 0.15 mb to 12.31 mb/d, on a spate of refinery restarts after a period of heavy autumn maintenance. Thus, the utilization rate increased by 1.5 percentage points to 90.2%.

**Product prices plummeted in Singapore in November, turning refiners' margins into negative territory and spurring slashed refinery runs in November**

**Singapore market**

For the second consecutive month, product markets plunged in November, driven essentially by the continually falling crude prices and well-supplied markets, gasoil and fuel oil in particular; hence, their prices plummeted by \$3.66/b and \$3.26/b respectively. The fuel oil market, however, was firm during early December, as China, the main regional buyer of fuel oil, started to buy from the spot market, after two top South Korean refineries had scaled back their fuel oil exports as a result of slashing runs, in response to poor refiners' margins. Unlike the middle and the heavy ends of the barrel, the gasoline market nonetheless was less well supplied, on a combination of curbing exports from China, due to poor refiners' profits, and healthy Indonesian demand. This restricted the gasoline price fall to \$1.48/b.

The refiners' margins on the marker crude (Dubai) weakened in November, fluctuating from break-even point to negative values and reflecting the steep declines in product markets.

Refinery throughput in Japan fell by a significant 0.25 mb/d to 3.79 mb/d in October, caused by weak product demand and, therefore, poor refiners' margins. The equivalent utilization rate was 76.4%, which was 5.2 and 2.1 percentage points lower than the previous month's and year's levels, respectively.

**Table 2**  
**Refined product prices**

*US \$/b*

|                  |                   | <u>Sept.01</u> | <u>Oct.01</u>      | <u>Nov.01</u> | <u>Change Nov./Oct.</u> |
|------------------|-------------------|----------------|--------------------|---------------|-------------------------|
| <b>US Gulf</b>   |                   |                |                    |               |                         |
| Regular gasoline | <i>(unleaded)</i> | 31.01          | 23.63              | <b>20.99</b>  | -2.64                   |
| Gasoil           | <i>(0.2%S)</i>    | 30.14          | 25.42              | <b>22.13</b>  | -3.29                   |
| Fuel oil         | <i>(3.0%S)</i>    | 19.79          | 15.59              | <b>13.62</b>  | -1.97                   |
| <b>Rotterdam</b> |                   |                |                    |               |                         |
| Premium gasoline | <i>(unleaded)</i> | 29.54          | 23.50 <sup>R</sup> | <b>20.38</b>  | -3.12                   |
| Gasoil           | <i>(0.2%S)</i>    | 30.87          | 27.41              | <b>23.03</b>  | -4.38                   |
| Fuel oil         | <i>(3.5%S)</i>    | 19.23          | 16.07              | <b>14.67</b>  | -1.39                   |
| <b>Singapore</b> |                   |                |                    |               |                         |
| Premium gasoline | <i>(unleaded)</i> | 29.47          | 22.23              | <b>20.75</b>  | -1.48                   |
| Gasoil           | <i>(0.5%S)</i>    | 29.44          | 25.53              | <b>21.87</b>  | -3.66                   |
| Fuel oil         | <i>(380 cst)</i>  | 21.85          | 18.72              | <b>15.46</b>  | -3.26                   |

**Table 3**  
**Refinery operations in selected OECD countries**

|          | Refinery throughput |                    |              | Refinery utilization* |                   |                |
|----------|---------------------|--------------------|--------------|-----------------------|-------------------|----------------|
|          | <i>mb/d</i>         |                    |              | <i>%</i>              |                   |                |
|          | <u>Sept.01</u>      | <u>Oct.01</u>      | <u>Nov.</u>  | <u>Sept.01</u>        | <u>Oct. 01</u>    | <u>Nov. 01</u> |
| USA      | 15.36               | 15.33              | <b>15.10</b> | 92.8                  | 92.7              | <b>91.3</b>    |
| France   | 1.80                | 1.77               | <b>1.81</b>  | 95.0                  | 93.2              | <b>95.6</b>    |
| Germany  | 2.00 <sup>R</sup>   | 2.01 <sup>R</sup>  | <b>2.21</b>  | 88.6 <sup>R</sup>     | 89.1 <sup>R</sup> | <b>98.0</b>    |
| Italy    | 1.75 <sup>R</sup>   | 1.81 <sup>R</sup>  | <b>1.85</b>  | 74.3 <sup>R</sup>     | 76.9 <sup>R</sup> | <b>78.4</b>    |
| UK       | 1.67 <sup>R</sup>   | 1.60               | <b>1.58</b>  | 94.5 <sup>R</sup>     | 90.4              | <b>89.3</b>    |
| Eur-16** | 11.87 <sup>R</sup>  | 12.16 <sup>R</sup> | <b>12.31</b> | 87.0 <sup>R</sup>     | 88.7 <sup>R</sup> | <b>90.2</b>    |
| Japan    | 4.05                | 3.79               | <b>n.a.</b>  | 81.7                  | 76.4              | <b>n.a.</b>    |

*n.a.* Not available.

\* Refinery capacities used are in barrels per calendar day.

\*\* Fifteen European Union members plus Norway.

R Revised since last issue.

Sources: OPEC Statistics, Argus, Euroilstock Inventory Report/IEA.

# THE OIL FUTURES MARKET

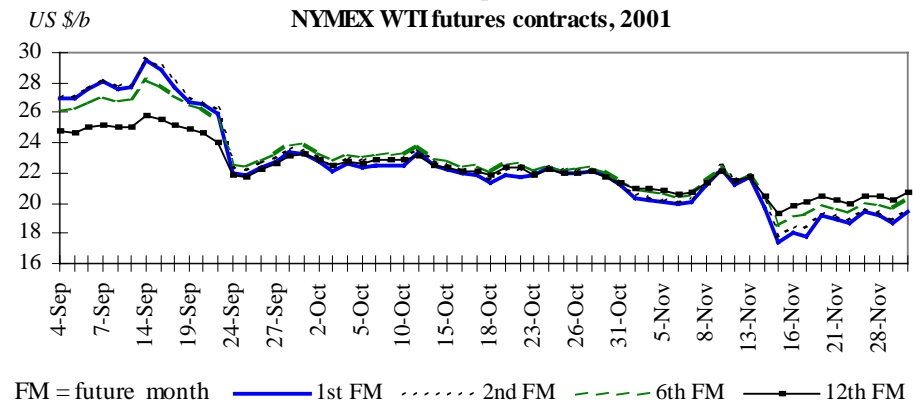
**WTI ended November at \$19.44/b, down \$0.95/b**

NYMEX WTI started November on a weak note, under pressure from the deteriorating economic situation in the USA and technical selling, as the market settled below the bottom of the weekly moving average envelope. A build in US crude oil stocks, according to the American Petroleum Institute, and a report showing that OPEC was over-producing by 0.8 mb/d caused prices to deteriorate further. However, since the market was oversold, with a very high number of short positions, a rally started which was based on improved demand figures in the USA. This rally received extra impetus from gains based on OPEC's determination to cut exports by 1.5 mb/d, spearheaded by Saudi Arabia. Crude prices rose by more than \$1/b in response to that.

The second week of November, in which the OPEC Conference took place, started high, as the Russian Prime Minister, Mikhail Kasyanov, expressed a readiness to cut crude production. However, on the following day, prices retreated, as Russian companies expressed surprise at the Prime Minister's comments. Another crash of an airliner in New York also harmed sentiment. US President George W. Bush's announcement of his intention to fill the SPR to 700 mb caused a \$0.5/b rally just before the OPEC Conference. The decision of the Conference to tie its proposed cuts to cooperation from non-OPEC producers caused prices to decrease by \$4.22/b in two days, to a low of \$17.45/b.

**Graph 2**

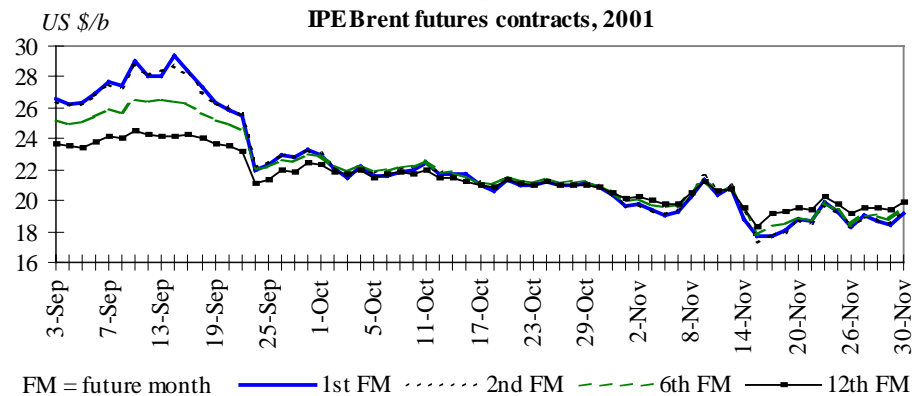
**NYMEX WTI futures contracts, 2001**



During the third week, prices were volatile, with statements from OPEC Ministers and non-OPEC producers taking centre stage. The agreement of the Norwegian parliament to reduce exports by 100,000–200,000 b/d and comments from Russian officials that the country would cooperate and cut production caused prices to rise to and stay around \$19/b.

**Graph 3**

**IPE Brent futures contracts, 2001**



In the last week of November, NYMEX WTI displayed strong volatility, but traded within a limited range. The unclear position of Russia regarding the volume of its proposed production cut and the continued build in US product stocks increased uncertainty about the fundamental outlook.

## THE TANKER MARKET

**OPEC area spot-chartering declined by further 1.89 mb/d in November**

OPEC area spot-chartering continued to decline in November, moving down by a further 1.89 mb/d to a monthly average of 9.76 mb/d. This was with an improved OPEC compliance level, especially after the disappointment of non-OPEC cooperation in cutting back production, which led to OPEC's decision of 14 November to implement a production cut of 1.5 mb/d, effective 1 January 2002, subject to non-OPEC producers cutting their total supply by 0.5 mb/d. Therefore, current OPEC fixtures are now running 2.16 mb/d below the year-ago level. However, non-OPEC chartering continued to rise and partially compensated for OPEC's cutback, increasing by a further 1.35 mb/d to 9.18 mb/d. Consequently, global spot-chartering moved just 0.64 mb/d lower to a monthly average of 18.85 mb/d; however, this volume was 2.45 mb/d below last year's level, reflecting the current global economic slowdown. OPEC area's share of global spot-chartering declined by 8.03 percentage points to 51.79%, and this level was 4.18 percentage points below the previous year's share. Spot fixtures from the Middle East on the eastbound long-haul route improved by a slight 0.03 mb/d to 3.13 mb/d, while, on the westbound route, fixtures declined by 0.99 mb/d to 1.00 mb/d. Therefore, the share of the Middle East's eastbound fixtures of OPEC total fixtures improved by 5.51 percentage points to 32.06%, while the westbound share worsened by 6.80 percentage points to 10.24%; together, they accounted for 42.31% of total chartering in the OPEC area, which was 1.29 percentage points lower than in the previous month. Preliminary estimates of sailings from the OPEC area declined by 0.56 mb/d to a monthly average of 22.30 mb/d, which was 2.45 percentage points below the previous month's level. Sailings from the Middle East decreased by 0.31 mb/d to a monthly average of 15.50 mb/d, which was about 70% of total OPEC sailings. Arrivals in the US Gulf Coast, East Coast and the Caribbean declined in November by 0.51 mb/d to a monthly average 7.37 mb/d. Arrivals in North-West Europe and Euromed also decreased, by 0.38 mb/d to 5.96 mb/d and 0.74 mb/d to 4.75 mb/d respectively. The estimated oil-at-sea on 12 November was 447 mb, which was 6 mb above the level observed at the end of last month.

**Crude tanker freight rates fell on all routes in November**

Crude oil tanker markets experienced a downward trend in November across all the major trading routes. The VLCC tanker market in the Middle East remained bearish amid reduced loading volumes and over-supply of tonnage, which weighed on freight rates and tanker activity. Consequently, VLCC freight rates on the Middle East eastbound and westbound long-haul routes continued their descents, reaching the lowest levels since September 1999, as they hit monthly averages of WS37 and WS35 respectively; these were 25 points and 19 points below the respective levels of the previous month. The Suezmax markets in West Africa and North-West Europe weakened, after the improvements observed during the previous month, undermined by thin fixtures and weaker VLCC rates. Thus, freight rates for cargoes from West Africa and North-West Europe to the US Gulf Coast dropped by 35 points to WS68 and 27 points to WS75 respectively. Aframax trading on the short-haul route from the Caribbean to the US Gulf Coast witnessed the biggest drop in rates, which plummeted by 81 points to WS130, while the rates on the routes across the Mediterranean and to North-West Europe decreased by 27 points to WS109 and 25 points to WS68 respectively. Freight rates for 70-100,000 dwt tankers on the route from Indonesia to the US West Coast remained weak, moving down by a further eight points to WS99.

**Clean tanker freight rates displayed weaker trend in November**

Product tanker markets also displayed a weaker trend in November, as freight rates were depressed along the main routes, affected by fewer cargo movements on adequate product stock levels and weaker-than-expected demand. Rates from the Middle East and Singapore to the Far East reversed the previous month's trend and plunged by 53 points to WS183 and 45 points to WS187 respectively, on the back of rising East-West product prices which limited arbitrage movements. On the route across the Mediterranean, clean tanker freight rates were driven down by 51 points to WS185, while, on the route from the Mediterranean to North-West Europe, they plummeted by 59 points to WS171, amid a build-up of product inventories in Europe, especially heating oil. Rates also declined on the route from North-West Europe to the US Gulf Coast, due to less activity, dropping by 34 points to WS193. In the Caribbean, rates for cargoes to the US Gulf Coast softened by five points to WS217.

## WORLD OIL DEMAND

**World demand forecast for 2001 revised down to 75.73 mb/d**

### *Projections for 2001*

#### *World*

Due to significant adjustments to the second, third and fourth quarter figures, the projection for 2001 world oil demand has undergone a major downward revision, compared with what was presented in the last *MOMR*. Consumption is now estimated to average 75.73 mb/d, which is nearly the same as in 2000. On a regional basis, demand is projected to decrease by 0.21 mb/d in the OECD, but to increase by 0.09 mb/d in developing countries and by 0.15 mb/d in the "other regions" (former CPEs). Table 4 provides more details.

On a quarterly basis, compared with the year-earlier figure, world demand grew by 0.80%, or 0.61 mb/d, to average 76.28 mb/d in the first quarter. It is estimated to have grown by 1.16%, or 0.86 mb/d, to average 74.84 mb/d in the second quarter. The third and fourth quarters, however, are expected to experience negative growth. The reasons are the decelerating economic growth in both these quarters and the declining jet fuel consumption in the fourth. Third-quarter demand is now estimated at 75.54 mb/d, which is about 0.61 mb/d, or 0.80%, less than that of the third quarter of 2000. Likewise, fourth-quarter demand is expected to be 76.27 mb/d, nearly 0.71 mb/d, or 0.93%, less than that of 2000. Please see Table 5 for details.

**Table 4**  
**World oil demand in 2001**  
*mb/d*

|                              | <b>2000</b>  | <b>1Q01</b>  | <b>2Q01</b>  | <b>3Q01</b>  | <b>4Q01</b>  | <b>2001</b>  | <b>Change 2001/00</b> |             |
|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------------|-------------|
|                              |              |              |              |              |              |              | <b>Volume</b>         | <b>%</b>    |
| North America                | 24.10        | 24.22        | 23.74        | 24.02        | 24.01        | 24.00        | -0.10                 | -0.4        |
| Western Europe               | 15.09        | 15.18        | 14.76        | 15.38        | 15.10        | 15.10        | 0.02                  | 0.1         |
| OECD Pacific                 | 8.65         | 9.44         | 8.00         | 8.06         | 8.62         | 8.52         | -0.13                 | -1.5        |
| <b>Total OECD</b>            | <b>47.84</b> | <b>48.84</b> | <b>46.50</b> | <b>47.46</b> | <b>47.73</b> | <b>47.63</b> | <b>-0.21</b>          | <b>-0.4</b> |
| Other Asia                   | 7.30         | 7.14         | 7.40         | 7.32         | 7.34         | 7.30         | 0.00                  | -0.1        |
| Latin America                | 4.71         | 4.55         | 4.70         | 4.80         | 4.75         | 4.70         | 0.00                  | -0.1        |
| Middle East                  | 4.35         | 4.31         | 4.40         | 4.50         | 4.41         | 4.40         | 0.06                  | 1.3         |
| Africa                       | 2.29         | 2.34         | 2.35         | 2.31         | 2.33         | 2.33         | 0.04                  | 1.9         |
| <b>Total DCs</b>             | <b>18.65</b> | <b>18.33</b> | <b>18.85</b> | <b>18.93</b> | <b>18.83</b> | <b>18.74</b> | <b>0.09</b>           | <b>0.5</b>  |
| FSU                          | 3.77         | 3.97         | 3.77         | 3.74         | 3.96         | 3.86         | 0.09                  | 2.5         |
| Other Europe                 | 0.78         | 0.79         | 0.73         | 0.71         | 0.81         | 0.76         | -0.02                 | -2.6        |
| China                        | 4.68         | 4.35         | 5.00         | 4.70         | 4.95         | 4.75         | 0.08                  | 1.6         |
| <b>Total "Other regions"</b> | <b>9.22</b>  | <b>9.11</b>  | <b>9.50</b>  | <b>9.15</b>  | <b>9.72</b>  | <b>9.37</b>  | <b>0.15</b>           | <b>1.6</b>  |
| <b>Total world</b>           | <b>75.70</b> | <b>76.28</b> | <b>74.84</b> | <b>75.54</b> | <b>76.27</b> | <b>75.73</b> | <b>0.03</b>           | <b>0.0</b>  |
| Previous estimate            | 75.72        | 76.24        | 74.99        | 75.94        | 76.59        | 75.94        | 0.23                  | 0.3         |
| Revision                     | -0.01        | 0.03         | -0.14        | -0.40        | -0.32        | -0.21        | -0.20                 | -0.26       |

#### *OECD*

Having grown by as little as 0.3% last year, OECD product deliveries are projected to post a decline of 0.21 mb/d, or 0.4%, to average 47.63 mb/d in 2001. This drop would be the sum of a 0.10 mb/d decline, a 0.02 mb/d rise and a 0.13 mb/d decline in North America, Western Europe and the OECD Pacific respectively. Table 5 demonstrates how the declines in the third and, especially, in the fourth quarters have contributed to the yearly drop in 2001 demand in the OECD. In addition to the weakening GDP growth rate prospects in OECD Europe and, especially, the OECD Pacific, the estimated reduced jet fuel consumption, particularly in the USA, will be responsible for the overall lower demand in the region. Our estimated 2001 GDP growth rates for Western Europe and the OECD Pacific were revised down by 0.08% and 0.33% respectively last month; they now stand at 1.6% and -0.5% respectively.

The total OECD oil requirement in September witnessed a 1.38 mb/d, or 2.86%, decline, compared with the same period last year. Significant drops of 4.79% and 4.07% in North America and the OECD Pacific respectively were only partly offset by a 0.86% rise in Western Europe. However, the total OECD oil requirement during the first nine months of the year was nearly the same as that of the comparable period last year. On a sub-regional basis, the less than 1% growth in North America and OECD Europe was totally offset by drops in OECD Pacific oil demand during January–September.

#### *DCs*

Oil demand in developing countries has again been revised down slightly for 2001. It is now expected to rise by 0.09 mb/d, or 0.5%, to average 18.74 mb/d for the year. The estimated growth rate in consumption has been lowered for the Asian group of countries, from the previous 0.2% to –0.1%. The fundamental factor behind the lower demand outlook is that Asian regional GDP is projected to grow at a substantially lower-than-anticipated rate. These economies are highly export-dependent and are extremely reliant upon the health of their trading partners. The demand growth rates for Latin America, the Middle East and Africa have also been revised down.

#### *Other regions*

Apparent demand in the former CPEs is projected to grow by 0.15 mb/d, or 1.6%, to average 9.37 mb/d for 2001; this is slightly less than the previous projection of 9.42 mb/d. Revisions to the trade and production data for the first quarter show that apparent FSU demand grew by 7.4%, or 0.27 mb/d, compared with the year-earlier figure. The latest assessments indicate that there has been growth of 3.4%, or 0.124 mb/d, in the second quarter. We anticipate a significant rise of 6.21%, or 0.219 mb/d, in apparent consumption in the third quarter, coupled with a substantial decline of 5.65%, or 0.237 mb/d, in the fourth, due to a rise in the level of exports that will outpace any gain in production. During the first and second quarters, net exports were 0.319 mb/d and 0.514 mb/d higher than in the corresponding quarters of 2000. The third and fourth quarters could register substantial gains, of 0.337 mb/d and 0.583 mb/d respectively. High international oil prices, the need for more revenue, in order to service international loans, and the switch to natural gas are expected to undermine fourth-quarter internal consumption. Indigenous production and trade data for the first three months of the year show a considerable drop in Chinese apparent consumption. According to the latest figures, apparent demand declined by 7.5% during the first quarter. Even though the decline seems huge, one should not forget that this comparison is made with the first quarter of 2000, when demand surged by 17% to reach a first-quarter record level. Second-quarter apparent demand, however, demonstrated a significant rise of 14.42%. This is in line with the considerable recovery in total imports, which registered an impressive 44.4% rise in the second quarter. Third-quarter consumption is expected to register a 3.85% decline, to be countered by a healthy 4.54% gain in the fourth. Due to the size and the importance of China in the overall demand picture, we shall continue to monitor closely further developments.

**Table 5**  
**World oil demand comparison for 2001**  
*mb/d*

|                              |              |              | Change 2001/00 |              |              |              | Change 2001/00 |              |
|------------------------------|--------------|--------------|----------------|--------------|--------------|--------------|----------------|--------------|
|                              | <u>3Q00</u>  | <u>3Q01</u>  | <u>Volume</u>  | <u>%</u>     | <u>4Q00</u>  | <u>4Q01</u>  | <u>Volume</u>  | <u>%</u>     |
| North America                | 24.45        | 24.02        | -0.44          | -1.79        | 24.43        | 24.01        | -0.42          | -1.73        |
| Western Europe               | 15.16        | 15.38        | 0.22           | 1.46         | 15.40        | 15.10        | -0.30          | -1.92        |
| OECD Pacific                 | 8.35         | 8.06         | -0.29          | -3.45        | 8.81         | 8.62         | -0.20          | -2.23        |
| <b>Total OECD</b>            | <b>47.96</b> | <b>47.46</b> | <b>-0.51</b>   | <b>-1.05</b> | <b>48.64</b> | <b>47.73</b> | <b>-0.92</b>   | <b>-1.88</b> |
| Other Asia                   | 7.46         | 7.32         | -0.14          | -1.86        | 7.39         | 7.34         | -0.05          | -0.72        |
| Latin America                | 4.79         | 4.80         | 0.01           | 0.26         | 4.72         | 4.75         | 0.04           | 0.74         |
| Middle East                  | 4.46         | 4.50         | 0.04           | 0.85         | 4.21         | 4.41         | 0.20           | 4.74         |
| Africa                       | 2.29         | 2.31         | 0.02           | 0.90         | 2.30         | 2.33         | 0.03           | 1.21         |
| <b>Total DCs</b>             | <b>19.00</b> | <b>18.93</b> | <b>-0.07</b>   | <b>-0.36</b> | <b>18.62</b> | <b>18.83</b> | <b>0.21</b>    | <b>1.13</b>  |
| FSU                          | 3.53         | 3.74         | 0.22           | 6.19         | 4.20         | 3.96         | -0.24          | -5.65        |
| Other Europe                 | 0.78         | 0.71         | -0.07          | -8.86        | 0.79         | 0.81         | 0.01           | 1.70         |
| China                        | 4.89         | 4.70         | -0.19          | -3.84        | 4.74         | 4.95         | 0.21           | 4.54         |
| <b>Total "Other regions"</b> | <b>9.19</b>  | <b>9.15</b>  | <b>-0.04</b>   | <b>-0.42</b> | <b>9.73</b>  | <b>9.72</b>  | <b>-0.01</b>   | <b>-0.09</b> |
| <b>Total world</b>           | <b>76.15</b> | <b>75.54</b> | <b>-0.61</b>   | <b>-0.80</b> | <b>76.99</b> | <b>76.27</b> | <b>-0.71</b>   | <b>-0.93</b> |

**World demand forecast for 2002 revised down to 76.23 mb/d**

*In view of market uncertainties and the possibility of a further downward revision of world economic growth rates, the demand figures might also be adjusted down again*

**Forecasts for 2002**

Due to a further downward revision to the world economic growth rate, all quarterly oil demand forecasts have been revised down. As a result, the average 2002 world demand forecast has also been revised down to 76.23 mb/d, compared with the previous forecast of 76.45 mb/d. However, the average yearly increment stands at 0.50 mb/d, or 0.7%, which is nearly the same as the 0.51 mb/d, equivalent to 0.7%, mentioned in the previous *MOMR*. This is due to a simultaneous similar downward revision to the 2001 average.

The estimated 2002 growth level is comparable to the 0.60 mb/d, equivalent to 0.8%, experienced in 2000, but it is significantly higher than that of 2001. However, this assessment would be subject to further adjustment as more information becomes available on major factors, such as the economic growth outlook, the trend in air travel and jet fuel consumption, prices and the weather. The regional and quarterly breakdowns in the demand forecast are given in Table 6. Comparisons between the first- and second-quarter figures for 2001 and 2002 are presented in Table 7.

**Table 6**  
**World oil demand forecast for 2002**  
*mb/d*

|                              | <u>2001</u>  | <u>1Q02</u>  | <u>2Q02</u>  | <u>3Q02</u>  | <u>4Q02</u>  | <u>2002</u>  | Change 2002/01 |            |
|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|------------|
|                              |              |              |              |              |              |              | Volume         | %          |
| North America                | 24.00        | 23.99        | 23.95        | 24.37        | 24.28        | 24.15        | 0.15           | 0.6        |
| Western Europe               | 15.10        | 15.17        | 14.59        | 14.80        | 15.31        | 14.97        | -0.14          | -0.9       |
| OECD Pacific                 | 8.52         | 9.44         | 7.88         | 8.23         | 8.91         | 8.61         | 0.09           | 1.0        |
| <b>Total OECD</b>            | <b>47.63</b> | <b>48.60</b> | <b>46.42</b> | <b>47.40</b> | <b>48.50</b> | <b>47.73</b> | <b>0.10</b>    | <b>0.2</b> |
| Other Asia                   | 7.30         | 7.22         | 7.49         | 7.29         | 7.51         | 7.38         | 0.08           | 1.1        |
| Latin America                | 4.70         | 4.53         | 4.77         | 4.88         | 4.80         | 4.74         | 0.04           | 0.9        |
| Middle East                  | 4.40         | 4.35         | 4.55         | 4.65         | 4.47         | 4.51         | 0.10           | 2.3        |
| Africa                       | 2.33         | 2.37         | 2.40         | 2.32         | 2.40         | 2.37         | 0.04           | 1.8        |
| <b>Total DCs</b>             | <b>18.74</b> | <b>18.48</b> | <b>19.20</b> | <b>19.14</b> | <b>19.17</b> | <b>19.00</b> | <b>0.26</b>    | <b>1.4</b> |
| FSU                          | 3.86         | 3.88         | 3.71         | 3.92         | 4.16         | 3.92         | 0.06           | 1.5        |
| Other Europe                 | 0.76         | 0.83         | 0.78         | 0.73         | 0.81         | 0.79         | 0.03           | 3.7        |
| China                        | 4.75         | 4.48         | 4.91         | 4.92         | 4.89         | 4.80         | 0.05           | 1.1        |
| <b>Total "Other regions"</b> | <b>9.37</b>  | <b>9.19</b>  | <b>9.40</b>  | <b>9.57</b>  | <b>9.86</b>  | <b>9.51</b>  | <b>0.14</b>    | <b>1.4</b> |
| <b>Total world</b>           | <b>75.73</b> | <b>76.27</b> | <b>75.02</b> | <b>76.11</b> | <b>77.53</b> | <b>76.23</b> | <b>0.50</b>    | <b>0.7</b> |
| Previous estimate            | 75.94        | 76.48        | 75.24        | 76.32        | 77.74        | 76.45        | 0.51           | 0.7        |
| Revision                     | -0.21        | -0.21        | -0.21        | -0.21        | -0.21        | -0.21        | -0.01          | 0.0        |

**Table 7**  
**World oil demand comparison for 2002**  
*mb/d*

|                              | <u>1Q01</u>  | <u>1Q02</u>  | Change 2002/01 |              | <u>2Q01</u>  | <u>2Q02</u>  | Change 2002/01 |              |
|------------------------------|--------------|--------------|----------------|--------------|--------------|--------------|----------------|--------------|
|                              |              |              | Volume         | %            |              |              | Volume         | %            |
| North America                | 24.22        | 23.99        | -0.23          | -0.95        | 23.74        | 23.95        | 0.21           | 0.87         |
| Western Europe               | 15.18        | 15.17        | 0.00           | -0.03        | 14.76        | 14.59        | -0.17          | -1.13        |
| OECD Pacific                 | 9.44         | 9.44         | 0.00           | -0.02        | 8.00         | 7.88         | -0.12          | -1.46        |
| <b>Total OECD</b>            | <b>48.84</b> | <b>48.60</b> | <b>-0.24</b>   | <b>-0.48</b> | <b>46.50</b> | <b>46.42</b> | <b>-0.08</b>   | <b>-0.17</b> |
| Other Asia                   | 7.14         | 7.22         | 0.08           | 1.18         | 7.40         | 7.49         | 0.09           | 1.24         |
| Latin America                | 4.55         | 4.53         | -0.01          | -0.30        | 4.70         | 4.77         | 0.07           | 1.39         |
| Middle East                  | 4.31         | 4.35         | 0.04           | 0.93         | 4.40         | 4.55         | 0.15           | 3.35         |
| Africa                       | 2.34         | 2.37         | 0.04           | 1.58         | 2.35         | 2.40         | 0.05           | 2.07         |
| <b>Total DCs</b>             | <b>18.33</b> | <b>18.48</b> | <b>0.15</b>    | <b>0.80</b>  | <b>18.85</b> | <b>19.20</b> | <b>0.35</b>    | <b>1.87</b>  |
| FSU                          | 3.97         | 3.88         | -0.08          | -2.12        | 3.77         | 3.71         | -0.06          | -1.55        |
| Other Europe                 | 0.79         | 0.83         | 0.03           | 4.17         | 0.73         | 0.78         | 0.05           | 6.75         |
| China                        | 4.35         | 4.48         | 0.13           | 2.97         | 5.00         | 4.91         | -0.09          | -1.73        |
| <b>Total "Other regions"</b> | <b>9.11</b>  | <b>9.19</b>  | <b>0.08</b>    | <b>0.86</b>  | <b>9.50</b>  | <b>9.40</b>  | <b>-0.10</b>   | <b>-1.01</b> |
| <b>Total world</b>           | <b>76.28</b> | <b>76.27</b> | <b>-0.01</b>   | <b>-0.01</b> | <b>74.84</b> | <b>75.02</b> | <b>0.18</b>    | <b>0.24</b>  |

Totals may not add, due to independent rounding. \* Not all sources available

## WORLD OIL SUPPLY

**2001 non-OPEC supply figure revised up to 46.51 mb/d**

### *Non-OPEC*

#### *Figures for 2001*

The 2001 non-OPEC supply figure has been revised up by 0.11 mb/d to 46.51 mb/d. The quarterly distribution figure for the first quarter remains unchanged at 46.28 mb/d, while those for the second, third and fourth quarters have been revised up by 0.02 mb/d, 0.25 mb/d and 0.17 mb/d to 46.04 mb/d, 46.67 mb/d and 47.05 mb/d respectively, compared with the last *MOMR's* figures. The yearly average increase is estimated at 0.73 mb/d, compared with the 2000 figure.

**Table 8**  
**Non-OPEC oil supply in 2001**  
*mb/d*

|                                  | <u>2000</u>  | <u>1Q01</u>  | <u>2Q01</u>  | <u>3Q01</u>  | <u>4Q01</u>  | <u>2001</u>  | <u>Change</u><br><u>01/00</u> |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------------------|
| North America                    | 14.29        | 14.22        | 14.35        | 14.47        | 14.57        | 14.40        | 0.12                          |
| Western Europe                   | 6.74         | 6.77         | 6.54         | 6.62         | 6.83         | 6.69         | -0.05                         |
| OECD Pacific                     | 0.83         | 0.80         | 0.76         | 0.79         | 0.77         | 0.78         | -0.05                         |
| <b>Total OECD</b>                | <b>21.86</b> | <b>21.80</b> | <b>21.65</b> | <b>21.87</b> | <b>22.17</b> | <b>21.87</b> | <b>0.02</b>                   |
| Other Asia                       | 2.23         | 2.30         | 2.25         | 2.33         | 2.32         | 2.30         | 0.07                          |
| Latin America                    | 3.74         | 3.78         | 3.66         | 3.79         | 3.82         | 3.76         | 0.02                          |
| Middle East                      | 2.14         | 2.16         | 2.18         | 2.16         | 2.18         | 2.17         | 0.03                          |
| Africa                           | 2.85         | 2.82         | 2.79         | 2.80         | 2.84         | 2.81         | -0.03                         |
| <b>Total DCs</b>                 | <b>10.96</b> | <b>11.06</b> | <b>10.87</b> | <b>11.08</b> | <b>11.16</b> | <b>11.04</b> | <b>0.09</b>                   |
| FSU                              | 7.91         | 8.25         | 8.41         | 8.55         | 8.55         | 8.44         | 0.53                          |
| Other Europe                     | 0.18         | 0.18         | 0.18         | 0.18         | 0.19         | 0.18         | 0.00                          |
| China                            | 3.23         | 3.29         | 3.25         | 3.31         | 3.30         | 3.29         | 0.06                          |
| <b>Total "Other regions"</b>     | <b>11.32</b> | <b>11.73</b> | <b>11.84</b> | <b>12.04</b> | <b>12.04</b> | <b>11.91</b> | <b>0.59</b>                   |
| <b>Total non-OPEC production</b> | <b>44.13</b> | <b>44.59</b> | <b>44.35</b> | <b>44.98</b> | <b>45.36</b> | <b>44.82</b> | <b>0.69</b>                   |
| Processing gains                 | 1.65         | 1.69         | 1.69         | 1.69         | 1.69         | 1.69         | 0.04                          |
| <b>Total non-OPEC supply</b>     | <b>45.78</b> | <b>46.28</b> | <b>46.04</b> | <b>46.67</b> | <b>47.05</b> | <b>46.51</b> | <b>0.73</b>                   |
| Previous estimate                | 45.78        | 46.28        | 46.02        | 46.43        | 46.89        | 46.40        | 0.62                          |
| <b>Revision</b>                  | <b>0.00</b>  | <b>0.00</b>  | <b>0.02</b>  | <b>0.25</b>  | <b>0.17</b>  | <b>0.11</b>  | <b>0.11</b>                   |

*Totals may not add, due to independent rounding.*

**2002 non-OPEC supply forecast revised up by 0.14 mb/d to 47.55 mb/d**

### Expectations for 2002

Our 2002 non-OPEC supply forecast has been revised up by 0.14 mb/d and shows an increase of around 1.03 mb/d, compared with the estimated figure for 2001. The expected 2002 quarterly distribution is 47.30 mb/d, 47.07 mb/d, 47.72 mb/d and 48.10 mb/d, resulting in a yearly average of around 47.55 mb/d.

**Table 9**  
**Non-OPEC oil supply in 2002**  
*mb/d*

|                                  | <u>2001</u>  | <u>1Q02</u>  | <u>2Q02</u>  | <u>3Q02</u>  | <u>4Q02</u>  | <u>2002</u>  | <b>Change<br/>02/01</b> |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------------|
| North America                    | 14.40        | 14.44        | 14.57        | 14.69        | 14.79        | 14.63        | 0.22                    |
| Western Europe                   | 6.69         | 6.80         | 6.57         | 6.65         | 6.86         | 6.72         | 0.03                    |
| OECD Pacific                     | 0.78         | 0.78         | 0.74         | 0.77         | 0.75         | 0.76         | -0.02                   |
| <b>Total OECD</b>                | <b>21.87</b> | <b>22.03</b> | <b>21.88</b> | <b>22.10</b> | <b>22.40</b> | <b>22.10</b> | <b>0.23</b>             |
| Other Asia                       | 2.30         | 2.32         | 2.27         | 2.35         | 2.34         | 2.32         | 0.02                    |
| Latin America                    | 3.76         | 3.85         | 3.73         | 3.87         | 3.90         | 3.84         | 0.08                    |
| Middle East                      | 2.17         | 2.19         | 2.21         | 2.19         | 2.21         | 2.20         | 0.03                    |
| Africa                           | 2.81         | 2.95         | 2.91         | 2.92         | 2.97         | 2.94         | 0.13                    |
| <b>Total DCs</b>                 | <b>11.04</b> | <b>11.31</b> | <b>11.11</b> | <b>11.33</b> | <b>11.42</b> | <b>11.29</b> | <b>0.25</b>             |
| FSU                              | 8.44         | 8.73         | 8.90         | 9.05         | 9.04         | 8.93         | 0.49                    |
| Other Europe                     | 0.18         | 0.18         | 0.18         | 0.18         | 0.19         | 0.18         | 0.00                    |
| China                            | 3.29         | 3.32         | 3.28         | 3.34         | 3.33         | 3.32         | 0.03                    |
| <b>Total "Other regions"</b>     | <b>11.91</b> | <b>12.23</b> | <b>12.36</b> | <b>12.56</b> | <b>12.56</b> | <b>12.43</b> | <b>0.52</b>             |
| <b>Total non-OPEC production</b> | <b>44.82</b> | <b>45.58</b> | <b>45.35</b> | <b>46.00</b> | <b>46.38</b> | <b>45.83</b> | <b>1.00</b>             |
| Processing gains                 | 1.69         | 1.72         | 1.72         | 1.72         | 1.72         | 1.72         | 0.03                    |
| <b>Total non-OPEC supply</b>     | <b>46.51</b> | <b>47.30</b> | <b>47.07</b> | <b>47.72</b> | <b>48.10</b> | <b>47.55</b> | <b>1.03</b>             |
| Previous estimate                | 46.40        | 47.27        | 47.02        | 47.43        | 47.90        | 47.41        | 1.00                    |
| <b>Revision</b>                  | <b>0.11</b>  | <b>0.03</b>  | <b>0.05</b>  | <b>0.28</b>  | <b>0.20</b>  | <b>0.14</b>  | <b>0.03</b>             |

*Totals may not add, due to independent rounding.*

**FSU export figure revised up to 4.58 mb/d for 2001 and to 5.01 mb/d for 2002**

The FSU's net oil export forecast for 2001 has been revised up by 0.03 mb/d to 4.58 mb/d, compared with the last *MOMR*. That for 2002 has also been revised up by 0.04 mb/d to 5.01 mb/d.

**Table 10**  
**FSU net oil exports**  
*mb/d*

|                        | <u>1Q</u> | <u>2Q</u> | <u>3Q</u> | <u>4Q</u> | <b>Year</b> |
|------------------------|-----------|-----------|-----------|-----------|-------------|
| <b>1998</b>            | 2.77      | 3.02      | 3.18      | 3.20      | <b>3.04</b> |
| <b>1999</b>            | 3.12      | 3.62      | 3.52      | 3.49      | <b>3.44</b> |
| <b>2000</b>            | 3.97      | 4.13      | 4.47      | 4.01      | <b>4.14</b> |
| <b>2001 (estimate)</b> | 4.29      | 4.64      | 4.81      | 4.59      | <b>4.58</b> |
| <b>2002 (forecast)</b> | 4.85      | 5.19      | 5.13      | 4.89      | <b>5.01</b> |

### OPEC natural gas liquids

OPEC NGL figures for 1998–2001 remain unchanged at 2.78 mb/d, 2.86 mb/d, 2.98 mb/d and 3.01 mb/d respectively, compared with the last *MOMR*'s figures. Also, the forecast level for 2002 remains at 3.04 mb/d.

**OPEC NGL production — 1998–2002**  
*mb/d*

| <u>1998</u> | <u>1999</u> | <u>2000</u> | <u>1Q01</u> | <u>2Q01</u> | <u>3Q01</u> | <u>4Q01</u> | <u>2001</u> | <b>Change<br/>01/00</b> | <u>2002</u> | <b>Change<br/>02/01</b> |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------|-------------|-------------------------|
| 2.78        | 2.86        | 2.98        | 3.01        | 3.01        | 3.01        | 3.01        | 3.01        | 0.03                    | 3.04        | 0.03                    |

**No revisions made to OPEC NGL data**

Available secondary sources put OPEC's November production at 26.53 mb/d

**OPEC crude oil production**

Available secondary sources indicate that, in November, OPEC output was 26.53 mb/d, which was 0.21 mb/d lower than the revised October level of 26.74 mb/d. Table 9 shows OPEC production, as reported by selected secondary sources.

**Table 9**  
OPEC crude oil production, based on secondary sources  
1,000 b/d

|                   | 1999          | 2000          | 2Q01          | 3Q01*         | Oct.01*       | Nov.01*       | Nov.01–<br>Oct.01 |
|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|
| Algeria           | 766           | 808           | 815           | 831           | 812           | 813           | 2                 |
| Indonesia         | 1,310         | 1,279         | 1,220         | 1,209         | 1,211         | 1,183         | -27               |
| IR Iran           | 3,509         | 3,671         | 3,674         | 3,705         | 3,507         | 3,497         | -10               |
| Iraq              | 2,507         | 2,551         | 2,281         | 2,493         | 2,844         | 2,730         | -114              |
| Kuwait            | 1,907         | 2,101         | 2,024         | 2,014         | 1,947         | 1,939         | -8                |
| SP Libyan AJ      | 1,337         | 1,405         | 1,364         | 1,363         | 1,317         | 1,305         | -12               |
| Nigeria           | 1,983         | 2,031         | 2,056         | 2,087         | 2,170         | 2,129         | -41               |
| Qatar             | 641           | 698           | 693           | 693           | 635           | 628           | -7                |
| Saudi Arabia      | 7,655         | 8,247         | 7,931         | 7,898         | 7,582         | 7,592         | 11                |
| UAE               | 2,077         | 2,252         | 2,179         | 2,122         | 2,027         | 2,024         | -3                |
| Venezuela         | 2,808         | 2,897         | 2,847         | 2,801         | 2,688         | 2,690         | 3                 |
| <b>Total OPEC</b> | <b>26,499</b> | <b>27,942</b> | <b>27,082</b> | <b>27,214</b> | <b>26,737</b> | <b>26,530</b> | <b>-206</b>       |

Totals may not add, due to independent rounding.

\* Not all sources available.

**STOCK MOVEMENTS**

Contra-seasonal stock-build of 0.20 mb/d in USA in November

**USA**

US commercial onland oil stocks registered a contra-seasonal build of 5.7 mb, or 0.20 mb/d, to 1,029.2 mb during 2–30 November. This was the result of an increase in total major product inventories, led by distillates, which rose by 9.8 mb to 138.0 mb; this was about 15% higher than the year-ago level. The persistent build in distillates was attributed to weakening demand, due to the mild weather. Gasoline also showed a significant increase, of 5.2 mb to 212.1 mb, which was about 7% above last year's level. Higher gasoline production, as well as poor demand, were behind this build. A draw on "other oils" of 9.7 mb to 196.3 mb put a cap on the overall product build. Crude oil stocks remained mostly unchanged from the previous month's level, with increasing imports being nearly offset by higher refinery throughput. Total stocks were 71.8 mb, or about 7%, above last year's figure.

**Table 12**  
US onland commercial petroleum stocks\*  
mb

|                              | 29 Jun.01      | 5 Oct.01       | 2 Nov.01       | 30 Nov.01      | Change<br>Nov./Oct. | 30 Nov.00    |
|------------------------------|----------------|----------------|----------------|----------------|---------------------|--------------|
| <b>Crude oil (excl. SPR)</b> | 310.7          | 307.4          | 311.9          | 311.5          | -0.4                | 286.2        |
| Gasoline                     | 221.6          | 206.1          | 206.9          | 212.1          | 5.2                 | 198.0        |
| Distillate fuel              | 112.8          | 124.6          | 128.2          | 138.0          | 9.8                 | 119.9        |
| Residual fuel oil            | 42.5           | 36.7           | 38.8           | 40.0           | 1.2                 | 38.9         |
| Jet fuel                     | 43.0           | 44.0           | 40.5           | 40.6           | 0.1                 | 42.3         |
| Unfinished oils              | 90.4           | 88.9           | 91.1           | 90.6           | -0.5                | 87.7         |
| Other oils                   | 191.4          | 219.7          | 206.0          | 196.3          | -9.7                | 184.4        |
| <b>Total</b>                 | <b>1,012.4</b> | <b>1,027.4</b> | <b>1,023.5</b> | <b>1,029.2</b> | <b>5.7</b>          | <b>957.4</b> |
| SPR                          | 543.3          | 544.8          | 545.2          | 547.3          | 2.1                 | 548.1        |

\* At end of month, unless otherwise stated.

Source: US/DOE-EIA.

**Minor seasonal stock-draw of 0.15 mb/d in Eur-16 in November**

During the same period, the US Strategic Petroleum Reserve (SPR) moved up by 2.1 mb to 547.3 mb.

**Western Europe**

Commercial onland oil stocks in Eur-16 in November showed a slight seasonal draw of 4.4 mb, or 0.15 mb/d, to stand at 1,052.0 mb. A draw of 5.6 mb on crude oil stocks was the main contributor to this decrease, with increasing refinery runs of 0.20 mb/d on completed autumn shut-downs behind the decline. Total major oil stocks increased by 1.2 mb, which slightly diminished the impact of the draw on crude oil stocks. This rise was largely attributed to a build of 5.1 mb in gasoline, due to lower demand, as well as closed Atlantic arbitrage and, to a lesser degree, a minor build of 0.4 mb in naphtha. Fuel oil and middle distillates witnessed a draw of 2.7 mb, due to reduced Russian exports to Europe on increasing utility demand in Russia. Continued healthy demand for distillates in Germany pushed stocks down by 1.7 mb. The overall level was 14.6 mb, or about 1%, below the year-earlier figure.

**Table 13**  
Western Europe commercial oil stocks\*

|                       | <i>mb</i>      |                |                |                |                                   |                |
|-----------------------|----------------|----------------|----------------|----------------|-----------------------------------|----------------|
|                       | <u>Jun.01</u>  | <u>Sept.01</u> | <u>Oct.01</u>  | <u>Nov.01</u>  | <u>Change</u><br><u>Nov./Oct.</u> | <u>Nov.00</u>  |
| <b>Crude oil</b>      | 438.5          | 436.6          | 438.2          | <b>432.5</b>   | <b>-5.6</b>                       | 424.2          |
| Mogas                 | 155.6          | 144.6          | 141.4          | 146.5          | 5.1                               | 153.7          |
| Naphtha               | 25.1           | 26.0           | 26.4           | 26.8           | 0.4                               | 25.0           |
| Middle distillates    | 331.4          | 323.4          | 329.6          | 327.9          | -1.7                              | 339.8          |
| Fuel oils             | 122.2          | 121.0          | 121.0          | 118.3          | -2.7                              | 123.9          |
| <b>Total products</b> | 634.3          | 615.0          | 618.3          | <b>619.5</b>   | <b>1.2</b>                        | 642.4          |
| <b>Overall total</b>  | <b>1,072.8</b> | <b>1,051.6</b> | <b>1,056.4</b> | <b>1,052.0</b> | <b>-4.4</b>                       | <b>1,066.6</b> |

\* At end of month, and region consists of Eur-16.

Source: Argus Euroilstock

**Continued stock-build of 0.46 mb/d in Japan in October****Japan**

In October, commercial onland oil stocks in Japan witnessed a build for the third consecutive month, when they rose by 14.2 mb, or 0.46 mb/d, to 211.7 mb. This rise was largely confined to a build in crude oil stocks of 11.3 mb, due to a significant reduction of 0.25 mb/d in refinery throughput, amid weak product demand, which put further pressure on refiners' margins. Product stocks showed some marginal builds, except for gasoline, which declined by 0.2 mb, on relatively healthy demand and lower output. Total oil stocks were 22.6 mb, or about 12%, above last year's level.

**Table 14**  
Japan's commercial oil stocks\*

|                         | <i>mb</i>     |               |                |               |                                   |               |
|-------------------------|---------------|---------------|----------------|---------------|-----------------------------------|---------------|
|                         | <u>Mar.01</u> | <u>Jun.01</u> | <u>Sept.01</u> | <u>Oct.01</u> | <u>Change</u><br><u>Nov./Oct.</u> | <u>Oct.00</u> |
| <b>Crude oil</b>        | 118.7         | 127.3         | 118.0          | <b>129.3</b>  | <b>11.3</b>                       | 107.6         |
| Gasoline                | 14.6          | 14.3          | 13.8           | 13.6          | -0.2                              | 13.8          |
| Middle distillates      | 31.4          | 33.6          | 45.7           | 48.3          | 2.6                               | 47.4          |
| Residual fuel oil       | 20.2          | 19.8          | 19.9           | 20.5          | 0.6                               | 20.3          |
| <b>Total products</b>   | 66.3          | 67.7          | 79.5           | <b>82.4</b>   | <b>2.9</b>                        | 81.5          |
| <b>Overall total **</b> | <b>185.0</b>  | <b>195.1</b>  | <b>197.5</b>   | <b>211.7</b>  | <b>14.2</b>                       | <b>189.1</b>  |

\* At end of month;

\*\* Includes crude oil and main products only. Source: MITI, Japan

## BALANCE OF SUPPLY AND DEMAND

**2001 supply/demand difference revised down to 26.2 mb/d**

World oil demand has been revised down by around 0.2 mb/d since the last *MOMR*, while non-OPEC oil supply has been revised up by 0.1 mb/d, to estimates of 75.7 mb/d and 49.5 mb/d respectively. The yearly average difference has been adjusted down by around 0.3 mb/d to 26.2 mb/d, with quarterly distributions of 27.0 mb/d, 25.8 mb/d, 25.9 mb/d and 26.2 mb/d respectively. The balance for the first quarter remains unchanged at 1.1 mb/d, while that for the second quarter has been revised up by around 0.2 mb/d to 1.3 mb/d. The balance for the third quarter is 1.4 mb/d. The 2000 balance remains unchanged at 1.0 mb/d, compared with last month's *MOMR*.

**Table 15**  
**Summarized supply/demand balance for 2001**  
*mb/d*

|  | <u>2000</u> | <u>1Q01</u> | <u>2Q01</u> | <u>3Q01</u> | <u>4Q01</u> | <u>2001</u> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| (a) World oil demand                     | 75.7        | 76.3        | 74.8        | 75.5        | 76.3        | 75.7        |
| (b) Non-OPEC supply <sup>(1)</sup>       | 48.8        | 49.3        | 49.1        | 49.7        | 50.1        | 49.5        |
| <b>Difference (a – b)</b>                | <b>26.9</b> | <b>27.0</b> | <b>25.8</b> | <b>25.9</b> | <b>26.2</b> | <b>26.2</b> |
| OPEC crude oil production <sup>(2)</sup> | 27.9        | 28.1        | 27.1        | 27.2        |             |             |
| <b>Balance</b>                           | <b>1.0</b>  | <b>1.1</b>  | <b>1.3</b>  | <b>1.4</b>  |             |             |

(1) Including OPEC NGLs.

(2) Selected secondary sources.

Totals may not add, due to independent rounding.

**2002 supply/demand revised down significantly to 25.6 mb/d**

The summarized supply/demand balance table for 2002 shows a downward revision to the world oil demand forecast of around 0.2 mb/d to 76.2 mb/d, while total non-OPEC supply has been revised up by around 0.2 mb/d to 50.6 mb/d. This has resulted in an expected annual difference of around 25.6 mb/d, down by around 0.4 mb/d, compared with the last *MOMR*, with a quarterly distribution of 25.9 mb/d, 24.9 mb/d, 25.4 mb/d and 26.4 mb/d respectively.

**Table 16**  
**Summarized supply/demand balance for 2002**  
*mb/d*

|                                    | <u>2001</u> | <u>1Q02</u> | <u>2Q02</u> | <u>3Q02</u> | <u>4Q02</u> | <u>2002</u> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| (a) World oil demand               | 75.7        | 76.3        | 75.0        | 76.1        | 77.5        | 76.2        |
| (b) Non-OPEC supply <sup>(1)</sup> | 49.5        | 50.3        | 50.1        | 50.8        | 51.1        | 50.6        |
| <b>Difference (a – b)</b>          | <b>26.2</b> | <b>25.9</b> | <b>24.9</b> | <b>25.4</b> | <b>26.4</b> | <b>25.6</b> |

(1) Including OPEC NGLs.

Totals may not add, due to independent rounding.

**Table 17**  
**World oil demand/supply balance**  
*mb/d*

|  | 1998        | 1999        | 2000        | 1Q01        | 2Q01        | 3Q01        | 4Q01        | 2001        | 1Q02        | 2Q02        | 3Q02        | 4Q02        | 2002        |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>World demand</b>                                  |             |             |             |             |             |             |             |             |             |             |             |             |             |
| <b>OECD</b>  | 46.8        | 47.7        | 47.8        | 48.8        | 46.5        | 47.5        | 47.7        | 47.6        | 48.6        | 46.4        | 47.4        | 48.5        | 47.7        |
| North America  | 23.1        | 23.8        | 24.1        | 24.2        | 23.7        | 24.0        | 24.0        | 24.0        | 24.0        | 23.9        | 24.4        | 24.3        | 24.1        |
| Western Europe                                       | 15.3        | 15.2        | 15.1        | 15.2        | 14.8        | 15.4        | 15.1        | 15.1        | 15.2        | 14.6        | 14.8        | 15.3        | 15.0        |
| Pacific  | 8.4         | 8.7         | 8.7         | 9.4         | 8.0         | 8.1         | 8.6         | 8.5         | 9.4         | 7.9         | 8.2         | 8.9         | 8.6         |
| <b>DCs</b>   | 18.2        | 18.5        | 18.6        | 18.3        | 18.9        | 18.9        | 18.8        | 18.7        | 18.5        | 19.2        | 19.1        | 19.2        | 19.0        |
| <b>FSU</b>   | 4.3         | 4.0         | 3.8         | 4.0         | 3.8         | 3.7         | 4.0         | 3.9         | 3.9         | 3.7         | 3.9         | 4.2         | 3.9         |
| <b>Other Europe</b>                                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.7         | 0.7         | 0.8         | 0.8         | 0.8         | 0.8         | 0.7         | 0.8         | 0.8         |
| <b>China</b>   | 3.8         | 4.2         | 4.7         | 4.4         | 5.0         | 4.7         | 5.0         | 4.8         | 4.5         | 4.9         | 4.9         | 4.9         | 4.8         |
| <b>(a) Total world demand</b>                        | <b>73.8</b> | <b>75.1</b> | <b>75.7</b> | <b>76.3</b> | <b>74.8</b> | <b>75.5</b> | <b>76.3</b> | <b>75.7</b> | <b>76.3</b> | <b>75.0</b> | <b>76.1</b> | <b>77.5</b> | <b>76.2</b> |
| <b>Non-OPEC supply</b>                               |             |             |             |             |             |             |             |             |             |             |             |             |             |
| <b>OECD</b>  | 21.8        | 21.3        | 21.9        | 21.8        | 21.6        | 21.9        | 22.2        | 21.9        | 22.0        | 21.9        | 22.1        | 22.4        | 22.1        |
| North America  | 14.5        | 14.1        | 14.3        | 14.2        | 14.4        | 14.5        | 14.6        | 14.4        | 14.4        | 14.6        | 14.7        | 14.8        | 14.6        |
| Western Europe                                       | 6.6         | 6.6         | 6.7         | 6.8         | 6.5         | 6.6         | 6.8         | 6.7         | 6.8         | 6.6         | 6.6         | 6.9         | 6.7         |
| Pacific  | 0.7         | 0.7         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.7         | 0.8         | 0.7         | 0.8         |
| <b>DCs</b>   | 10.5        | 10.8        | 11.0        | 11.1        | 10.9        | 11.1        | 11.2        | 11.0        | 11.3        | 11.1        | 11.3        | 11.4        | 11.3        |
| <b>FSU</b>   | 7.3         | 7.5         | 7.9         | 8.2         | 8.4         | 8.6         | 8.5         | 8.4         | 8.7         | 8.9         | 9.0         | 9.0         | 8.9         |
| <b>Other Europe</b>                                  | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         | 0.2         |
| <b>China</b>   | 3.2         | 3.2         | 3.2         | 3.3         | 3.2         | 3.3         | 3.3         | 3.3         | 3.3         | 3.3         | 3.3         | 3.3         | 3.3         |
| <b>Processing gains</b>                              | 1.6         | 1.6         | 1.7         | 1.7         | 1.7         | 1.7         | 1.7         | 1.7         | 1.7         | 1.7         | 1.7         | 1.7         | 1.7         |
| <b>Total non-OPEC supply</b>                         | <b>44.5</b> | <b>44.6</b> | <b>45.8</b> | <b>46.3</b> | <b>46.0</b> | <b>46.7</b> | <b>47.1</b> | <b>46.5</b> | <b>47.3</b> | <b>47.1</b> | <b>47.7</b> | <b>48.1</b> | <b>47.5</b> |
| <b>OPEC NGLs</b>                                     | 2.8         | 2.9         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         | 3.0         |
| <b>(b) Total non-OPEC supply and OPEC NGLs</b>       | <b>47.3</b> | <b>47.4</b> | <b>48.8</b> | <b>49.3</b> | <b>49.1</b> | <b>49.7</b> | <b>50.1</b> | <b>49.5</b> | <b>50.3</b> | <b>50.1</b> | <b>50.8</b> | <b>51.1</b> | <b>50.6</b> |
| <b>OPEC crude oil production (secondary sources)</b> | <b>27.8</b> | <b>26.5</b> | <b>27.9</b> | <b>28.1</b> | <b>27.1</b> | <b>27.2</b> |             |             |             |             |             |             |             |
| <b>Total supply</b>                                  | <b>75.0</b> | <b>73.9</b> | <b>76.7</b> | <b>77.4</b> | <b>76.1</b> | <b>76.9</b> |             |             |             |             |             |             |             |
| <b>Balance (stock change and miscellaneous)</b>      | 1.2         | -1.2        | 1.0         | 1.1         | 1.3         | 1.4         |             |             |             |             |             |             |             |
| <b>Closing stock level (outside FCPEs) mb</b>        |             |             |             |             |             |             |             |             |             |             |             |             |             |
| OECD onland commercial                               | 2698        | 2446        | 2527        | 2523        | 2598        | 2647        |             |             |             |             |             |             |             |
| OECD SPR   | 1249        | 1228        | 1210        | 1210        | 1207        | 1203        |             |             |             |             |             |             |             |
| OECD total   | 3947        | 3675        | 3737        | 3733        | 3806        | 3851        |             |             |             |             |             |             |             |
| Other onland   | 1056        | 983         | 999         | 998         | 1018        | 1030        |             |             |             |             |             |             |             |
| Oil-on-water   | 859         | 808         | 869         | 906         | 829         | 856         |             |             |             |             |             |             |             |
| <b>Total stock</b>                                   | <b>5861</b> | <b>5466</b> | <b>5605</b> | <b>5637</b> | <b>5653</b> | <b>5736</b> |             |             |             |             |             |             |             |
| <b>Days of forward consumption in OECD</b>           |             |             |             |             |             |             |             |             |             |             |             |             |             |
| Commercial onland stocks                             | 57          | 51          | 53          | 54          | 55          | 55          |             |             |             |             |             |             |             |
| SPR  | 26          | 26          | 25          | 26          | 25          | 25          |             |             |             |             |             |             |             |
| Total  | 83          | 77          | 78          | 80          | 80          | 81          |             |             |             |             |             |             |             |
| <b>Memo items</b>                                    |             |             |             |             |             |             |             |             |             |             |             |             |             |
| FSU net exports                                      | 3.0         | 3.4         | 4.1         | 4.3         | 4.6         | 4.8         | 4.6         | 4.6         | 4.8         | 5.2         | 5.1         | 4.9         | 5.0         |
| <b>(a) - (b)</b>                                     | <b>26.5</b> | <b>27.7</b> | <b>26.9</b> | <b>27.0</b> | <b>25.8</b> | <b>25.9</b> | <b>26.2</b> | <b>26.2</b> | <b>25.9</b> | <b>24.9</b> | <b>25.4</b> | <b>26.4</b> | <b>25.6</b> |

Note: Totals may not add up due to independent rounding.

**Table 18**  
**World oil demand/supply balance: changes from last month's table †**  
*mb/d*

|  | 1998 | 1999 | 2000 | 1Q01 | 2Q01 | 3Q01 | 4Q01 | 2001 | 1Q02 | 2Q02 | 3Q02 | 4Q02 | 2002 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>World demand</b>                                  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>OECD</b>  | -    | -    | -    | 0.1  | -    | -0.2 | -0.1 | -    | -    | -    | -    | -    | -    |
| North America  | -    | -    | -    | 0.1  | -    | -0.3 | -    | -0.1 | -    | -    | -    | -    | -    |
| Western Europe                                       | -    | -    | -    | -    | -    | 0.4  | -    | 0.1  | -    | -    | -    | -    | -    |
| Pacific  | -    | -    | -    | -    | -    | -0.3 | -0.1 | -0.1 | -    | -    | -    | -    | -    |
| <b>DCs</b>   | -    | -    | -    | -    | -0.2 | -0.1 | -    | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| <b>FSU</b>   | -    | -    | -    | -    | -    | 0.2  | -0.2 | -    | -    | -    | -    | -    | -    |
| <b>Other Europe</b>                                  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>China</b>   | -    | -    | -    | -    | 0.1  | -0.3 | -    | -    | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| <b>(a) Total world demand</b>                        | -    | -    | -    | -    | -0.1 | -0.4 | -0.3 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 |
| <b>Non-OPEC supply</b>                               |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>OECD</b>  | -    | -    | -    | -    | -    | 0.1  | 0.1  | -    | -    | -    | 0.1  | 0.1  | -    |
| North America  | -    | -    | -    | -    | -    | 0.1  | -    | -    | -    | -    | 0.1  | -    | -    |
| Western Europe                                       | -    | -    | -    | -    | -    | -    | 0.1  | -    | -    | -    | -    | 0.1  | -    |
| Pacific  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>DCs</b>   | -    | -    | -    | -    | -    | 0.1  | -    | -    | -    | -    | 0.1  | -    | -    |
| <b>FSU</b>   | -    | -    | -    | -    | -    | 0.1  | 0.1  | -    | -    | -    | 0.1  | 0.1  | -    |
| <b>Other Europe</b>                                  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>China</b>   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Processing gains</b>                              | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Total non-OPEC supply</b>                         | -    | -    | -    | -    | -    | 0.2  | 0.2  | 0.1  | -    | -    | 0.3  | 0.2  | 0.1  |
| <b>OPEC NGLs</b>                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>(b) Total non-OPEC supply and OPEC NGLs</b>       | -    | -    | -    | -    | -    | 0.2  | 0.2  | 0.1  | -    | -    | 0.3  | 0.2  | 0.1  |
| <b>OPEC crude oil production (secondary sources)</b> | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Total supply</b>                                  | -    | -    | -    | -    | -    | 0.2  | 0.2  | 0.1  | -    | -    | 0.3  | 0.2  | 0.1  |
| <b>Balance (stock change and miscellaneous)</b>      | -    | -    | -    | -    | 0.2  | 0.7  | -    | -    | -    | -    | -    | -    | -    |
| <b>Closing stock level (outside FCPEs) mb</b>        |      |      |      |      |      |      |      |      |      |      |      |      |      |
| OECD onland commercial                               | -    | -    | -    | -    | -2   | -    | -    | -    | -    | -    | -    | -    | -    |
| OECD SPR   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| OECD total   | -    | -    | -    | -    | -2   | -    | -    | -    | -    | -    | -    | -    | -    |
| Other onland   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Oil on water   | -    | -    | 5    | -    | -5   | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Total stock</b>                                   | -    | -    | 4    | -1   | -8   | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Days of forward consumption in OECD</b>           |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Commercial onland stocks                             | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| SPR  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Total  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Memo items</b>                                    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| FSU net exports                                      | -    | -    | -    | -    | -    | -0.1 | 0.3  | -    | -    | -    | 0.1  | 0.1  | -    |
| <b>(a) - (b)</b>                                     | -    | -    | -    | -    | -0.2 | -0.7 | -0.5 | -0.3 | -0.2 | -0.3 | -0.5 | -0.4 | -0.4 |

† This compares Table 17 in this issue of the *MOMR* with Table 18 in the November 2001 issue.  
This table shows only where changes have occurred.

**Table 19**  
**World oil stocks (excluding former CPEs) at end of period**

|  | 1995         | 1996         | 1997         | 1998         | 1999         | 1Q00         | 2Q00         | 3Q00         | 4Q00         | 1Q01         | 2Q01         | 3Q01         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Closing stock level <i>mb</i></b>       |              |              |              |              |              |              |              |              |              |              |              |              |
| OECD onland commercial                     | 2,536        | 2,515        | 2,616        | 2,698        | 2,446        | 2,415        | 2,507        | 2,541        | 2,527        | 2,523        | 2,598        | 2,647        |
| North America                              | 1,168        | 1,138        | 1,211        | 1,283        | 1,127        | 1,108        | 1,165        | 1,180        | 1,145        | 1,157        | 1,227        | 1,255        |
| Western Europe                             | 938          | 899          | 912          | 962          | 881          | 898          | 898          | 909          | 927          | 919          | 914          | 919          |
| OECD Pacific                               | 430          | 477          | 493          | 454          | 438          | 409          | 445          | 452          | 454          | 447          | 457          | 473          |
| OECD SPR                                   | 1,198        | 1,199        | 1,207        | 1,249        | 1,228        | 1,234        | 1,232        | 1,237        | 1,210        | 1,210        | 1,207        | 1,203        |
| North America                              | 592          | 566          | 563          | 571          | 567          | 569          | 569          | 572          | 543          | 544          | 545          | 547          |
| Western Europe                             | 307          | 330          | 329          | 362          | 346          | 349          | 349          | 353          | 354          | 351          | 348          | 344          |
| OECD Pacific                               | 299          | 303          | 315          | 315          | 315          | 315          | 315          | 312          | 313          | 314          | 314          | 313          |
| <b>OECD total</b>                          | <b>3,733</b> | <b>3,714</b> | <b>3,823</b> | <b>3,947</b> | <b>3,675</b> | <b>3,649</b> | <b>3,740</b> | <b>3,777</b> | <b>3,737</b> | <b>3,733</b> | <b>3,806</b> | <b>3,851</b> |
| Other onland                               | 998          | 993          | 1,022        | 1,056        | 983          | 976          | 1,000        | 1,010        | 999          | 998          | 1,018        | 1,030        |
| Oil-on-water                               | 784          | 798          | 812          | 859          | 808          | 833          | 858          | 842          | 869          | 906          | 829          | 856          |
| <b>Total stock</b>                         | <b>5,516</b> | <b>5,505</b> | <b>5,658</b> | <b>5,861</b> | <b>5,466</b> | <b>5,457</b> | <b>5,598</b> | <b>5,629</b> | <b>5,605</b> | <b>5,637</b> | <b>5,653</b> | <b>5,736</b> |
| <b>Days of forward consumption in OECD</b> |              |              |              |              |              |              |              |              |              |              |              |              |
| OECD onland commercial                     | 55           | 54           | 56           | 57           | 51           | 52           | 52           | 52           | 52           | 54           | 55           | 55           |
| North America                              | 53           | 50           | 52           | 54           | 47           | 46           | 48           | 48           | 47           | 49           | 51           | 52           |
| Western Europe                             | 63           | 60           | 60           | 63           | 58           | 61           | 59           | 59           | 61           | 62           | 59           | 61           |
| OECD Pacific                               | 49           | 53           | 59           | 52           | 51           | 51           | 53           | 51           | 48           | 56           | 57           | 55           |
| OECD SPR                                   | 26           | 26           | 26           | 26           | 26           | 27           | 26           | 25           | 25           | 26           | 25           | 25           |
| North America                              | 27           | 25           | 24           | 24           | 24           | 24           | 23           | 23           | 22           | 23           | 23           | 23           |
| Western Europe                             | 21           | 22           | 22           | 24           | 23           | 24           | 23           | 23           | 23           | 24           | 23           | 23           |
| OECD Pacific                               | 34           | 34           | 37           | 36           | 36           | 39           | 38           | 35           | 33           | 39           | 39           | 36           |
| <b>OECD total</b>                          | <b>81</b>    | <b>80</b>    | <b>82</b>    | <b>83</b>    | <b>77</b>    | <b>78</b>    | <b>78</b>    | <b>78</b>    | <b>77</b>    | <b>80</b>    | <b>80</b>    | <b>81</b>    |
| <b>Days of global forward consumption</b>  | <b>88</b>    | <b>85</b>    | <b>87</b>    | <b>89</b>    | <b>82</b>    | <b>84</b>    | <b>84</b>    | <b>84</b>    | <b>83</b>    | <b>86</b>    | <b>85</b>    | <b>86</b>    |

**Table 20**  
**Non-OPEC supply and OPEC natural gas liquids**  
*mb/d*

|                            | 1998         | 1999         | 2000         | 1Q01         | 2Q01         | 3Q01         | 4Q01         | 2001         | Change<br>01/00 | 1Q02         | 2Q02         | 3Q02         | 4Q02         | 2002         | Change<br>02/01 |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|-----------------|
| USA                        | 8.39         | 8.11         | 8.11         | 7.87         | 8.10         | 8.11         | 8.15         | 8.06         | -0.05           | 7.91         | 8.15         | 8.16         | 8.20         | 8.11         | 0.05            |
| Canada                     | 2.61         | 2.60         | 2.72         | 2.79         | 2.75         | 2.73         | 2.80         | 2.77         | 0.04            | 2.84         | 2.80         | 2.77         | 2.84         | 2.81         | 0.04            |
| Mexico                     | 3.51         | 3.35         | 3.45         | 3.56         | 3.50         | 3.63         | 3.63         | 3.58         | 0.13            | 3.69         | 3.62         | 3.75         | 3.75         | 3.71         | 0.13            |
| <b>North America</b>       | <b>14.51</b> | <b>14.05</b> | <b>14.29</b> | <b>14.22</b> | <b>14.35</b> | <b>14.47</b> | <b>14.57</b> | <b>14.40</b> | <b>0.12</b>     | <b>14.44</b> | <b>14.57</b> | <b>14.69</b> | <b>14.79</b> | <b>14.63</b> | <b>0.22</b>     |
| Norway                     | 3.08         | 3.06         | 3.32         | 3.47         | 3.35         | 3.39         | 3.50         | 3.43         | 0.10            | 3.47         | 3.35         | 3.39         | 3.50         | 3.43         | 0.00            |
| UK                         | 2.77         | 2.84         | 2.64         | 2.53         | 2.48         | 2.51         | 2.61         | 2.53         | -0.10           | 2.58         | 2.53         | 2.56         | 2.67         | 2.58         | 0.05            |
| Denmark                    | 0.24         | 0.30         | 0.36         | 0.37         | 0.31         | 0.32         | 0.33         | 0.33         | -0.03           | 0.34         | 0.29         | 0.30         | 0.31         | 0.31         | -0.02           |
| Other Western Europe       | 0.48         | 0.43         | 0.41         | 0.40         | 0.40         | 0.39         | 0.39         | 0.40         | -0.02           | 0.40         | 0.40         | 0.39         | 0.39         | 0.40         | 0.00            |
| <b>Western Europe</b>      | <b>6.56</b>  | <b>6.63</b>  | <b>6.74</b>  | <b>6.77</b>  | <b>6.54</b>  | <b>6.62</b>  | <b>6.83</b>  | <b>6.69</b>  | <b>-0.05</b>    | <b>6.80</b>  | <b>6.57</b>  | <b>6.65</b>  | <b>6.86</b>  | <b>6.72</b>  | <b>0.03</b>     |
| Australia                  | 0.61         | 0.59         | 0.77         | 0.74         | 0.70         | 0.73         | 0.70         | 0.72         | -0.05           | 0.72         | 0.68         | 0.71         | 0.68         | 0.70         | -0.02           |
| Other Pacific              | 0.08         | 0.07         | 0.06         | 0.06         | 0.06         | 0.06         | 0.06         | 0.06         | 0.00            | 0.06         | 0.06         | 0.06         | 0.06         | 0.06         | 0.00            |
| <b>OECD Pacific</b>        | <b>0.69</b>  | <b>0.66</b>  | <b>0.83</b>  | <b>0.80</b>  | <b>0.76</b>  | <b>0.79</b>  | <b>0.77</b>  | <b>0.78</b>  | <b>-0.05</b>    | <b>0.78</b>  | <b>0.74</b>  | <b>0.77</b>  | <b>0.75</b>  | <b>0.76</b>  | <b>-0.02</b>    |
| <b>Total OECD*</b>         | <b>21.75</b> | <b>21.34</b> | <b>21.86</b> | <b>21.80</b> | <b>21.65</b> | <b>21.87</b> | <b>22.17</b> | <b>21.87</b> | <b>0.02</b>     | <b>22.03</b> | <b>21.88</b> | <b>22.10</b> | <b>22.40</b> | <b>22.10</b> | <b>0.23</b>     |
| Brunei                     | 0.16         | 0.18         | 0.19         | 0.20         | 0.19         | 0.20         | 0.19         | 0.20         | 0.00            | 0.20         | 0.19         | 0.20         | 0.19         | 0.20         | 0.00            |
| India                      | 0.75         | 0.75         | 0.74         | 0.74         | 0.71         | 0.73         | 0.73         | 0.73         | -0.01           | 0.76         | 0.73         | 0.75         | 0.75         | 0.75         | 0.02            |
| Malaysia                   | 0.72         | 0.70         | 0.68         | 0.70         | 0.71         | 0.72         | 0.72         | 0.71         | 0.03            | 0.70         | 0.71         | 0.72         | 0.72         | 0.71         | 0.00            |
| Papua New Guinea           | 0.08         | 0.09         | 0.07         | 0.06         | 0.06         | 0.06         | 0.06         | 0.06         | -0.01           | 0.06         | 0.06         | 0.06         | 0.06         | 0.06         | 0.00            |
| Vietnam                    | 0.23         | 0.26         | 0.31         | 0.35         | 0.34         | 0.36         | 0.36         | 0.35         | 0.04            | 0.35         | 0.34         | 0.36         | 0.36         | 0.35         | 0.00            |
| Asia others                | 0.20         | 0.20         | 0.24         | 0.25         | 0.25         | 0.26         | 0.26         | 0.25         | 0.02            | 0.25         | 0.25         | 0.26         | 0.26         | 0.25         | 0.00            |
| <b>Other Asia</b>          | <b>2.14</b>  | <b>2.18</b>  | <b>2.23</b>  | <b>2.30</b>  | <b>2.25</b>  | <b>2.33</b>  | <b>2.32</b>  | <b>2.30</b>  | <b>0.07</b>     | <b>2.32</b>  | <b>2.27</b>  | <b>2.35</b>  | <b>2.34</b>  | <b>2.32</b>  | <b>0.02</b>     |
| Argentina                  | 0.88         | 0.84         | 0.79         | 0.80         | 0.80         | 0.80         | 0.79         | 0.80         | 0.00            | 0.81         | 0.81         | 0.81         | 0.80         | 0.81         | 0.01            |
| Brazil                     | 1.23         | 1.36         | 1.49         | 1.57         | 1.50         | 1.58         | 1.62         | 1.57         | 0.07            | 1.60         | 1.53         | 1.62         | 1.66         | 1.60         | 0.04            |
| Colombia                   | 0.75         | 0.82         | 0.70         | 0.64         | 0.57         | 0.63         | 0.62         | 0.62         | -0.08           | 0.66         | 0.59         | 0.65         | 0.64         | 0.64         | 0.02            |
| Ecuador                    | 0.38         | 0.38         | 0.40         | 0.42         | 0.42         | 0.42         | 0.42         | 0.42         | 0.02            | 0.43         | 0.43         | 0.43         | 0.43         | 0.43         | 0.01            |
| Peru                       | 0.12         | 0.11         | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | 0.00            | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | 0.00            |
| Trinidad & Tobago          | 0.13         | 0.14         | 0.14         | 0.13         | 0.13         | 0.13         | 0.13         | 0.13         | -0.01           | 0.13         | 0.13         | 0.13         | 0.13         | 0.13         | 0.00            |
| L. America others          | 0.11         | 0.11         | 0.12         | 0.13         | 0.13         | 0.13         | 0.14         | 0.13         | 0.02            | 0.13         | 0.13         | 0.13         | 0.14         | 0.13         | 0.00            |
| <b>Latin America</b>       | <b>3.62</b>  | <b>3.76</b>  | <b>3.74</b>  | <b>3.78</b>  | <b>3.66</b>  | <b>3.79</b>  | <b>3.82</b>  | <b>3.76</b>  | <b>0.02</b>     | <b>3.85</b>  | <b>3.73</b>  | <b>3.87</b>  | <b>3.90</b>  | <b>3.84</b>  | <b>0.08</b>     |
| Bahrain                    | 0.20         | 0.19         | 0.19         | 0.19         | 0.19         | 0.19         | 0.18         | 0.19         | 0.00            | 0.19         | 0.19         | 0.19         | 0.18         | 0.19         | 0.00            |
| Oman                       | 0.90         | 0.91         | 0.95         | 0.96         | 0.99         | 0.97         | 0.97         | 0.97         | 0.02            | 0.96         | 0.99         | 0.97         | 0.97         | 0.97         | 0.00            |
| Syria                      | 0.56         | 0.55         | 0.54         | 0.54         | 0.53         | 0.53         | 0.54         | 0.53         | 0.00            | 0.54         | 0.53         | 0.53         | 0.54         | 0.53         | 0.00            |
| Yemen                      | 0.39         | 0.42         | 0.45         | 0.47         | 0.47         | 0.47         | 0.48         | 0.47         | 0.02            | 0.50         | 0.50         | 0.50         | 0.52         | 0.50         | 0.03            |
| <b>Middle East</b>         | <b>2.05</b>  | <b>2.06</b>  | <b>2.14</b>  | <b>2.16</b>  | <b>2.18</b>  | <b>2.16</b>  | <b>2.18</b>  | <b>2.17</b>  | <b>0.03</b>     | <b>2.19</b>  | <b>2.21</b>  | <b>2.19</b>  | <b>2.21</b>  | <b>2.20</b>  | <b>0.03</b>     |
| Angola                     | 0.73         | 0.76         | 0.74         | 0.72         | 0.69         | 0.69         | 0.71         | 0.70         | -0.04           | 0.79         | 0.76         | 0.76         | 0.78         | 0.77         | 0.07            |
| Cameroon                   | 0.10         | 0.10         | 0.10         | 0.08         | 0.08         | 0.08         | 0.08         | 0.08         | -0.02           | 0.08         | 0.08         | 0.08         | 0.08         | 0.08         | 0.00            |
| Congo                      | 0.27         | 0.27         | 0.27         | 0.27         | 0.27         | 0.27         | 0.27         | 0.27         | 0.00            | 0.30         | 0.30         | 0.30         | 0.30         | 0.30         | 0.03            |
| Egypt                      | 0.86         | 0.83         | 0.80         | 0.78         | 0.74         | 0.75         | 0.75         | 0.76         | -0.04           | 0.78         | 0.74         | 0.75         | 0.75         | 0.76         | 0.00            |
| Gabon                      | 0.38         | 0.36         | 0.34         | 0.31         | 0.31         | 0.31         | 0.32         | 0.31         | -0.03           | 0.31         | 0.31         | 0.31         | 0.32         | 0.31         | 0.00            |
| South Africa               | 0.16         | 0.17         | 0.19         | 0.20         | 0.19         | 0.19         | 0.20         | 0.19         | 0.01            | 0.20         | 0.19         | 0.19         | 0.20         | 0.19         | 0.00            |
| Africa other               | 0.22         | 0.28         | 0.41         | 0.48         | 0.51         | 0.51         | 0.51         | 0.50         | 0.09            | 0.51         | 0.54         | 0.54         | 0.54         | 0.53         | 0.03            |
| <b>Africa</b>              | <b>2.72</b>  | <b>2.78</b>  | <b>2.85</b>  | <b>2.82</b>  | <b>2.79</b>  | <b>2.80</b>  | <b>2.84</b>  | <b>2.81</b>  | <b>-0.03</b>    | <b>2.95</b>  | <b>2.91</b>  | <b>2.92</b>  | <b>2.97</b>  | <b>2.94</b>  | <b>0.13</b>     |
| <b>Total DCs</b>           | <b>10.54</b> | <b>10.78</b> | <b>10.96</b> | <b>11.06</b> | <b>10.87</b> | <b>11.08</b> | <b>11.16</b> | <b>11.04</b> | <b>0.09</b>     | <b>11.31</b> | <b>11.11</b> | <b>11.33</b> | <b>11.42</b> | <b>11.29</b> | <b>0.25</b>     |
| FSU                        | 7.29         | 7.47         | 7.91         | 8.25         | 8.41         | 8.55         | 8.55         | 8.44         | 0.53            | 8.73         | 8.90         | 9.05         | 9.04         | 8.93         | 0.49            |
| <b>Other Europe</b>        | <b>0.19</b>  | <b>0.18</b>  | <b>0.18</b>  | <b>0.18</b>  | <b>0.18</b>  | <b>0.18</b>  | <b>0.19</b>  | <b>0.18</b>  | <b>0.00</b>     | <b>0.18</b>  | <b>0.18</b>  | <b>0.18</b>  | <b>0.19</b>  | <b>0.18</b>  | <b>0.00</b>     |
| <b>China</b>               | <b>3.15</b>  | <b>3.21</b>  | <b>3.23</b>  | <b>3.29</b>  | <b>3.25</b>  | <b>3.31</b>  | <b>3.30</b>  | <b>3.29</b>  | <b>0.06</b>     | <b>3.32</b>  | <b>3.28</b>  | <b>3.34</b>  | <b>3.33</b>  | <b>3.32</b>  | <b>0.03</b>     |
| <b>Non-OPEC production</b> | <b>42.93</b> | <b>42.98</b> | <b>44.13</b> | <b>44.59</b> | <b>44.35</b> | <b>44.98</b> | <b>45.36</b> | <b>44.82</b> | <b>0.69</b>     | <b>45.58</b> | <b>45.35</b> | <b>46.00</b> | <b>46.38</b> | <b>45.83</b> | <b>1.00</b>     |
| Processing gains           | 1.55         | 1.58         | 1.65         | 1.69         | 1.69         | 1.69         | 1.69         | 1.69         | 0.04            | 1.72         | 1.72         | 1.72         | 1.72         | 1.72         | 0.03            |
| <b>Non-OPEC supply</b>     | <b>44.48</b> | <b>44.56</b> | <b>45.78</b> | <b>46.28</b> | <b>46.04</b> | <b>46.67</b> | <b>47.05</b> | <b>46.51</b> | <b>0.73</b>     | <b>47.30</b> | <b>47.07</b> | <b>47.72</b> | <b>48.10</b> | <b>47.55</b> | <b>1.03</b>     |
| <b>OPEC NGLs</b>           | <b>2.78</b>  | <b>2.86</b>  | <b>2.98</b>  | <b>3.01</b>  | <b>3.01</b>  | <b>3.01</b>  | <b>3.01</b>  | <b>3.01</b>  | <b>0.03</b>     | <b>3.04</b>  | <b>3.04</b>  | <b>3.04</b>  | <b>3.04</b>  | <b>3.04</b>  | <b>0.03</b>     |

Note: Totals may not add up due to independent rounding.

\* Former East Germany is included in the OECD.

Dec 19, 2001