

8 April 1997

HIGHLIGHTS

- With the end of 1Q97, opinions on the near-term direction of the world oil market are sharply divided. Prices declined appreciably in the first two months of the year, but were static in March, reflecting the market's uncertainty as to its future direction. The impact of relatively mild weather on demand and strong supply growth, albeit less than expected, is thought to have resulted in an abnormally small stockdraw in 1Q97. The direction of oil markets from here depends importantly on the relative Northern Hemisphere seasonal demand declines and the impact of maintenance and weather on non-OPEC supply in 2Q97, as discussed at the beginning of this month's Report.
- Global oil demand in 1Q97 has been revised downwards by 0.4 mb/d to 74.2 mb/d, due to a combination of weather-related weakness in OECD demand and lower FSU apparent demand as a result of unexpectedly high net exports. Full year 1997 demand is projected to rise by 1.8 mb/d or 2.5% to 73.7 mb/d.
- OPEC crude oil production is estimated to have risen to 27.09 mb/d, a gain of about 40 kb/d from February, due primarily to higher Iraqi "oil-for-food" exports early in the month. Estimated March non-OPEC supply grew by 400 kb/d on the basis of higher North Sea and Latin American production.
- The milder weather and unexpectedly low apparent FSU demand in 1Q97 was offset by downward revisions in non-OPEC supply, leaving the estimated call on OPEC oil plus stock change unchanged at 26.8 mb/d. The "call" in 2Q97 is also unchanged, at 24.2 mb/d, but 3Q97 and 4Q97 estimates have been revised downwards by 0.1 mb/d and 0.3 mb/d respectively, resulting in a revision in full year 1997 "call" to 25.3 mb/d from 25.4 mb/d.
- OECD trade data for 1996 confirmed the trend toward rising short-haul crude supplies into OECD Europe and North America. In particular, imports into North America increased from Latin America and into Europe from the FSU and West Africa. The significant increase in US gasoline imports in 1996 was largely met by imports from Europe and Latin America.
- A smaller-than-normal February industry stockdraw of 0.5 mb/d resulted in total stocks being appreciably higher than the low levels of last year. In the US, gasoline stocks remained at a low level, and in Europe crude oil stocks decreased, but remained considerably above average end-of-February levels. European middle distillate stocks showed a contraseasonal increase of 0.3 mb/d, and there were unusually small stockdraws of 0.2 mb/d in the other two regions.
- The recent steep decline in benchmark crude oil prices came to a temporary halt during March, despite mounting pressure from unsold cargoes in Atlantic Basin crude markets. In the US, prices gained support from technical strength of the WTI contract on the NYMEX and in Asia from strong regional product markets. European prices continued to decline and Brent markets moved into contango. In early April, technical strength in paper markets finally succumbed to the supply pressure and prices broke through psychological resistance levels.
- The oversupply in European product markets was alleviated by arbitrage possibilities for gasoline to the US and for naphtha, gasoil and fuel oil to Asia. US gasoline prices continued to be supported by a combination of low inventory levels and extensive refinery maintenance. Asian product markets tightened due to refinery outages and firm regional product demand ahead of the peak refinery maintenance season in May/June.
- Average refinery margins in March increased in all major refining centres as a result of average crude prices declining by more than those of products. In February, the aggregate refinery throughputs in OECD countries increased by 0.1 mb/d to 33.6 mb/d. Increases in Europe were partly offset by decreases in the US. Preliminary indications for March suggest that throughputs were higher in the US and lower in Europe and Japan.

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SPECIAL FEATURE: OUTLOOK FOR SECOND QUARTER SUPPLY/DEMAND

A critical factor in the perceptions of the current state of the oil market is the interaction of supply, demand and inventory behaviour in 2Q97. Inventories building would be modest and markets would be tight if a relatively small seasonal decline in demand (as a result of mild 1Q97 weather and persistence of strong Asian demand growth) were to combine with a continuation of supply problems that constrained 1Q97 non-OPEC supply growth, heavy field maintenance and increasing refinery demand due to a light European and Asian spring turnaround schedule in 2Q97. However, if demand weakness combines with accelerating non-OPEC and OPEC supply growth, markets could weaken as they already did in the first two months of the year. As discussed in the *Oil Prices and Refinery Activity* section of this Report, signals in March were mixed.

The table below shows the quarter-on-quarter changes for the second quarter over the last five years compared with the current forecast for 2Q97 demand and supply. The demand change this year is expected to be 0.6 mb/d lower than the five-year average, and 0.9 mb/d less than the 1996's quarterly change, primarily due to a smaller decline in the FSU. However, 2Q97 non-OPEC supply is expected to increase slightly from 1Q97, as new field start-ups, and repairs and upgrades of older fields in the North Sea are expected to more than compensate for the North Sea maintenance outages, and accelerating Latin American production growth is also anticipated. Last year, relatively light North Sea maintenance and increases in non-OECD supply resulted in a flat quarter-to-quarter pattern versus an average of around 0.5 mb/d in the previous four years.

First Quarter to Second Quarter Changes 1992-1997

(2Q-1Q; million barrels per day)

	1992	1993	1994	1995	1996	5-year avg.	1997	diff
Demand	-3.0	-2.6	-3.2	-3.0	-3.3	-3.0	-2.4	0.6
OECD	-2.2	-1.9	-1.9	-1.9	-2.6	-2.1	-1.9	0.1
FSU	-0.9	-0.5	-0.9	-0.6	-0.4	-0.7	-0.2	0.5
Other Non-OECD	0.1	-0.2	-0.3	-0.5	-0.3	-0.2	-0.2	-0.0
Non-OPEC Supply	-0.9	-0.2	-0.3	-0.5	0.0	-0.4	0.1	0.5
OECD	-0.5	-0.2	-0.1	-0.4	-0.1	-0.3	-0.1	0.2
FSU	-0.2	-0.1	-0.1	-0.0	-0.0	-0.1	-0.1	0.0
Other Non-OECD*	-0.2	0.1	-0.1	-0.0	0.2	-0.0	0.3	0.3

* including processing gain

Global demand is currently projected to decrease by 2.4 mb/d from 1Q97 to 2Q97, with more than 80% of the decline taking place in the OECD, reflecting the proportion of global demand located in both the northern hemisphere and in the OECD. The seasonal decline in OECD demand is less than the average experienced in the 1990s, primarily due to significantly milder weather in 1Q97 than a year earlier. The marked swing in Japanese demand between the first and second quarter shown in the table below reflects the high reliance on kerosene as space heating fuel and a driving season that is not as conspicuous (and does not start as early in the year), as in other OECD regions. This year, however, the mild first quarter is likely to moderate the seasonal change. In non-OECD regions, the seasonal swing in demand is less marked, reflecting the larger proportion of demand that is located in regions of the world where heating requirements are a less important factor in the total oil demand mix. The seasonal decline in Other Asian demand reflects the contribution of Korean demand of kerosene for heating while the increase in Chinese demand may reflect the impact of import policies on apparent demand in the first quarter more than an actual swing in consumption.

Not surprisingly, the largest regional non-OPEC supply growth in 2Q97 is in Latin America, where crude oil production growth of over 100 kb/d is anticipated and NGL production (primarily due to completion of repairs to the Mexican Cactus gas processing plant which was damaged by an explosion last July) is seen adding another 54 kb/d. The 10 kb/d decline in "Other" (non-crude, non-NGL) Latin American supply is the result of removal of subsidies for Brazilian alcohol fuels production. Details of the 1997 quarterly production for Latin America and the outlook for 1998 are shown in a table on page 32 of the Supply section. However, the Latin American growth is exactly offset by declining production in the US, due to seasonal factors in Alaska and maintenance in California. Canadian seasonal declines in crude and

NGLs and major maintenance to the Suncor synthetic crude plant are seen causing a 130 kb/d quarterly drop in Canadian oil output in 2Q97. What is surprising is that the Canadian decline is more than offset by a 134 kb/d increase projected for the North Sea. The primary reason is seven new fields in the UK which add a combined 187 kb/d to 2Q97 UK production (see table on page 27) along with Norway's Vigdis field, which contributes the majority of Norway's 74 kb/d new field increment in 2Q97 (see table on page 27).

1997 First Quarter to Second Quarter Changes by Area and Product

(2Q97-1Q97; thousand barrels per day)

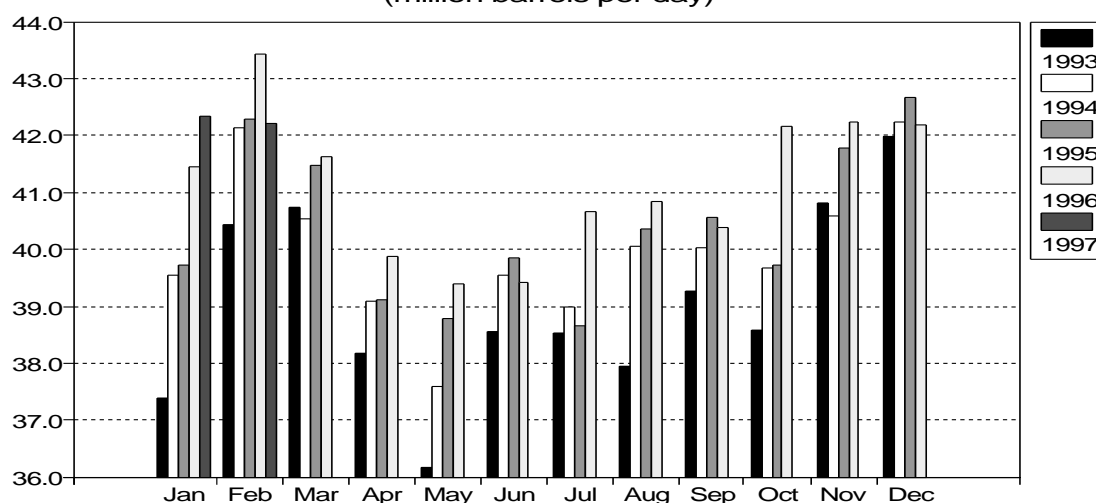
	America	Europe	Pacific	Other		Crude	NGLs	Other	Total
<i>World Demand</i>					<i>Non-OPEC Supply</i>				
OECD America	-272	-	-	-	US	-114	-1	-31	-145
OECD Europe	-	-532	-	-	Canada	-33	-59	-39	-131
Japan	-	-	-1150	-	FSU	-42	-17	-	-59
Other OECD Pacific	-	-	-9	-	Other OECD	-3	-12	1	-14
FSU	-	-	-	-221	Asia	15	2	0	17
Non-OECD Europe	-	-117	-	-	Australia	53	8	-	61
China	47	-	142	-	Africa & Middle East	70	-0	0	70
Other Asia	-	-	-282	-	North Sea	155	-21	-	134
Latin America	47	-	-	-	Latin America	101	54	-10	145
Middle East & Africa	-	-	-	-	Processing Gain	-	-	-16	-16
Total	-178	-649	-1280	-300	Total	203	-46	-95	62

DEMAND

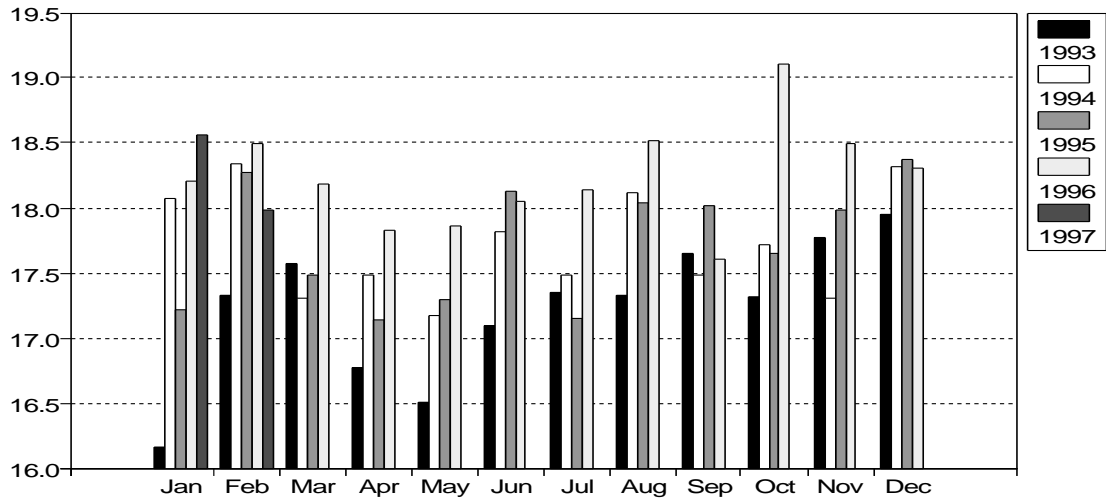
Summary

- In February, total US demand declined by 4.0% or 750 kb/d, with milder weather than a year earlier contributing to declines for all heating fuel products. Demand in the four largest European oil-consuming countries decreased by 640 kb/d or 7.4%, with milder weather than last year contributing to weak demand for heating fuels, most notably in Germany where heating oil deliveries declined by 340 kb/d or 33.8%. In Japan, oil demand decreased by 1.0%, with lower residual fuel oil deliveries to the power generation sector and weak kerosene use sufficient to more than offset strong gasoline and petrochemical feedstock demand.
- OECD demand in 1Q97 is estimated to have increased by 0.2% or some 85 kb/d to 42.2 mb/d, a 270 kb/d downward revision from last month's Report, due to weaker-than-expected demand in February in the G7 countries, particularly in the US and Germany. These changes were partly offset by upward adjustments to G7 demand in January. With indications of milder-than-normal weather in March, the estimate of OECD demand in 1Q97 remains sensitive to further amendment.
- OECD demand in 2Q97 is projected to increase by 0.7 mb/d or 1.8% to 40.3 mb/d, essentially unchanged from last month's Report. European demand in 1996 and 1997 has been revised upwards, consistent with adjustments arising from the restatement of demand in 1995. OECD demand in 1997 is anticipated to rise by 0.6 mb/d or 1.4% to 41.7 mb/d, compared with growth of 1.8% in 1996. The 1997 forecast is a 0.1 mb/d downward adjustment from last month's Report, reflecting the reduction to 1Q97 demand.
- Non-OECD demand in 1997 is projected to increase by 4.0% or 1.2 mb/d to 32.0 mb/d, at a slightly lower rate of growth than stated in last month's Report, primarily reflecting a downward modification to FSU apparent demand in 1Q97. The weakness in FSU demand has been partially offset by minor upward revisions to Other Asian and Latin American demand, consistent with adjustments to demand in 1996.
- Global demand in 1996 and 1997 remains unchanged from last month's Report at 71.9 mb/d and 73.7 mb/d. However, incremental demand in 1997 of 1.8 mb/d or 2.5% is less than estimated in last month's Report, primarily due to the downward revisions made to OECD and FSU demand in 1Q97, which have contributed to a 0.4 mb/d downward adjustment to global demand in 1Q97 to 74.2 mb/d. Global demand in 2Q97 and 3Q97 has been revised upwards by 0.1 mb/d, consistent with upward adjustments made to Latin American and Other Asian demand.

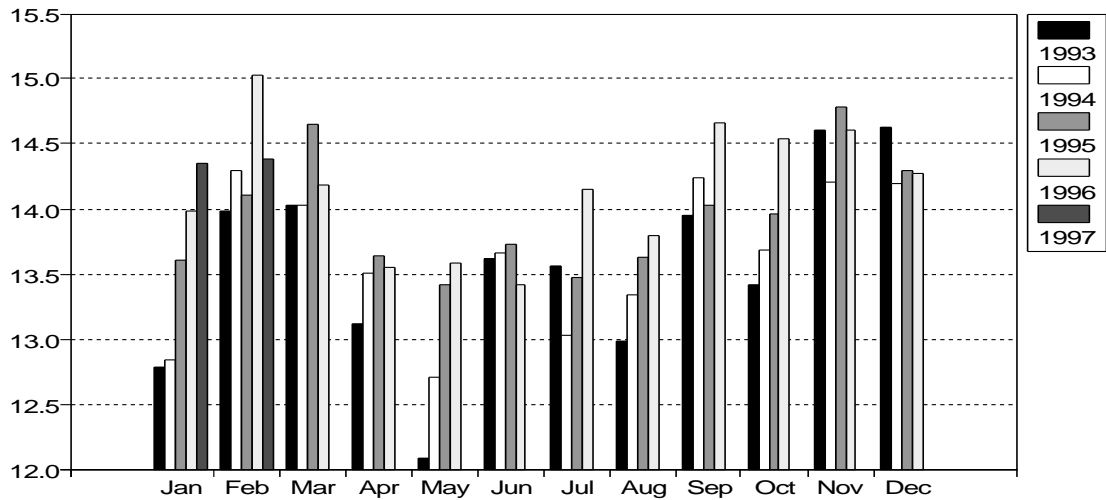
OECD Oil Demand 1993-1997
(million barrels per day)



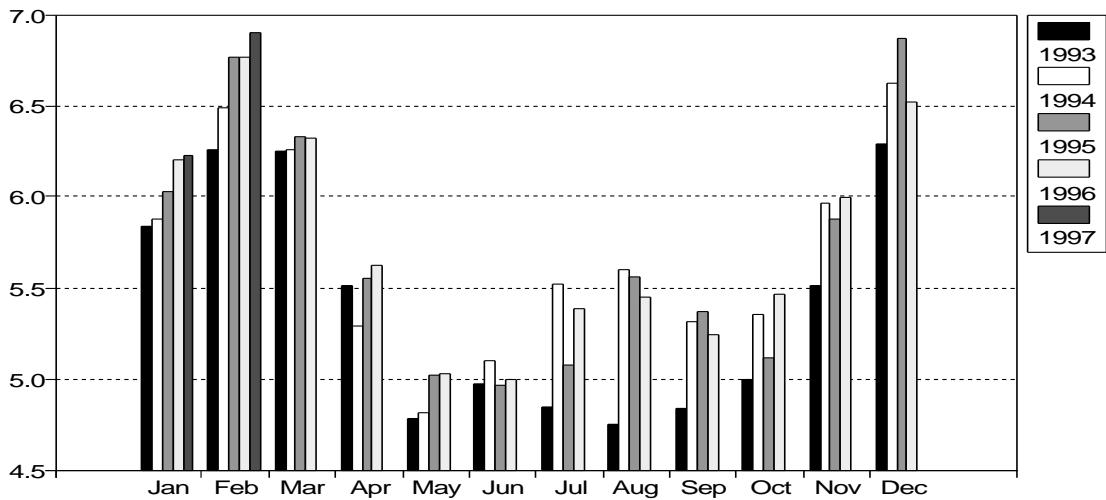
US Oil Demand 1993-1997 (million barrels per day)



European Oil Demand 1993-1997 (million barrels per day)



Japanese Oil Demand 1993-1997 (million barrels per day)



OECD

Demand in February 1997

Table 2 at the back of the Report shows total oil demand in December, while Table 3 gives demand in January for the seven largest OECD countries. The table below provides preliminary estimates for inland deliveries for those countries in February.

Preliminary Inland Deliveries - February 1997¹

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		Residual Fuel Oil		Total Products ²	
	mb/d	% change	mb/d	% change	mb/d	% change	mb/d	% change	mb/d	% change	mb/d	% change
US ³	7.60	+0.6	1.58	-5.6	1.93	-7.3	1.49	-9.6	0.86	-16.8	17.75	-4.0
Canada	0.60	+1.9	0.10	+1.1	0.36	+11.4	0.17	-16.8	0.14	-3.5	1.55	-0.6
Japan	0.90	+4.1	1.07	-1.5	0.81	-1.1	0.67	-2.9	0.71	-16.8	6.33	-1.0
France	0.32	+0.3	0.10	+7.9	0.50	+7.0	0.39	-29.2	0.11	-21.3	1.97	-6.4
Germany	0.65	-0.2	0.12	+7.7	0.49	+5.2	0.67	-33.8	0.12	-5.7	2.50	-12.4
Italy	0.39	+0.9	0.07	+4.5	0.33	-16.8	0.19	+13.3	0.48	-12.1	1.87	-6.0
UK	0.52	+4.7	0.27	+1.5	0.17	-18.0	0.33	+7.0	0.13	-12.9	1.70	-2.1
European Four	1.88	+1.4	0.56	+4.3	1.49	-3.0	1.57	-22.6	0.85	-12.6	8.03	-7.4
Total	10.97	+1.1	3.31	-2.5	4.59	-3.6	3.90	-14.7	2.54	-14.8	33.65	-4.2

Sources: US EIA, Japan MITI, France CPDP, Germany MWV, UK PIA, Italy Ministry of Industry, Canada Statistics Canada

1 Excludes refinery fuel and bunkers (except US)

2 Includes other products not shown and direct use of crude oil

3 Fifty states only. Diesel is estimated from preliminary indications of low sulphur gasoil deliveries

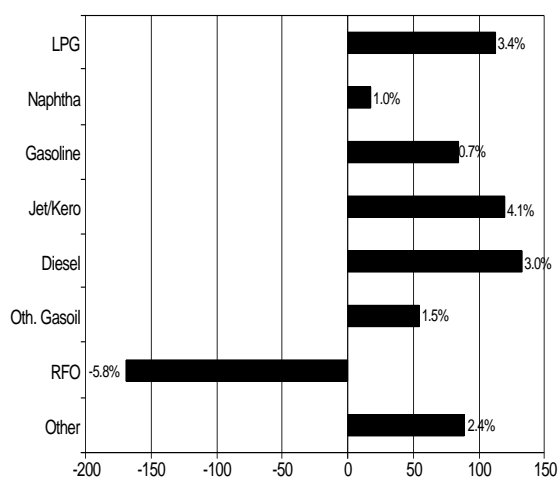
Percentage change is calculated versus February 1996

Annual Change in Oil Demand

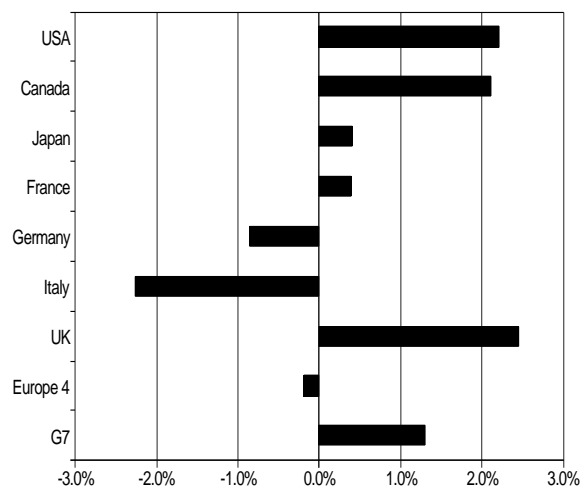
(Twelve-Month Moving Average to February 1997)

	LPG	Naphtha	Gasoline	Jet/Kero	Diesel	Other Gasoil	RFO	Other	Total
USA	5.1%	23.2%	0.7%	3.9%	5.1%	1.0%	-4.9%	2.7%	2.2%
Canada	1.9%	4.2%	1.1%	9.8%	0.4%	5.0%	1.2%	-0.7%	2.1%
Japan	1.6%	0.8%	2.9%	3.3%	5.1%	-4.0%	-8.4%	1.5%	0.4%
France	1.3%	-18.1%	-4.3%	6.8%	2.3%	2.6%	-0.1%	17.1%	0.4%
Germany	-9.3%	0.0%	-0.6%	3.1%	-0.2%	1.2%	-9.9%	-2.6%	-0.9%
Italy	-2.0%	-2.3%	1.0%	1.2%	-10.1%	11.2%	-4.6%	-2.3%	-2.3%
UK	6.3%	-0.9%	1.9%	6.5%	5.7%	5.4%	-8.4%	-0.7%	2.5%
European Four	-0.1%	-5.3%	-0.3%	5.1%	-0.6%	3.1%	-5.5%	3.3%	-0.2%
Total	3.4%	1.0%	0.7%	4.1%	3.0%	1.5%	-5.8%	2.4%	1.3%
kb/d	113	17	84	120	133	54	-169	89	442

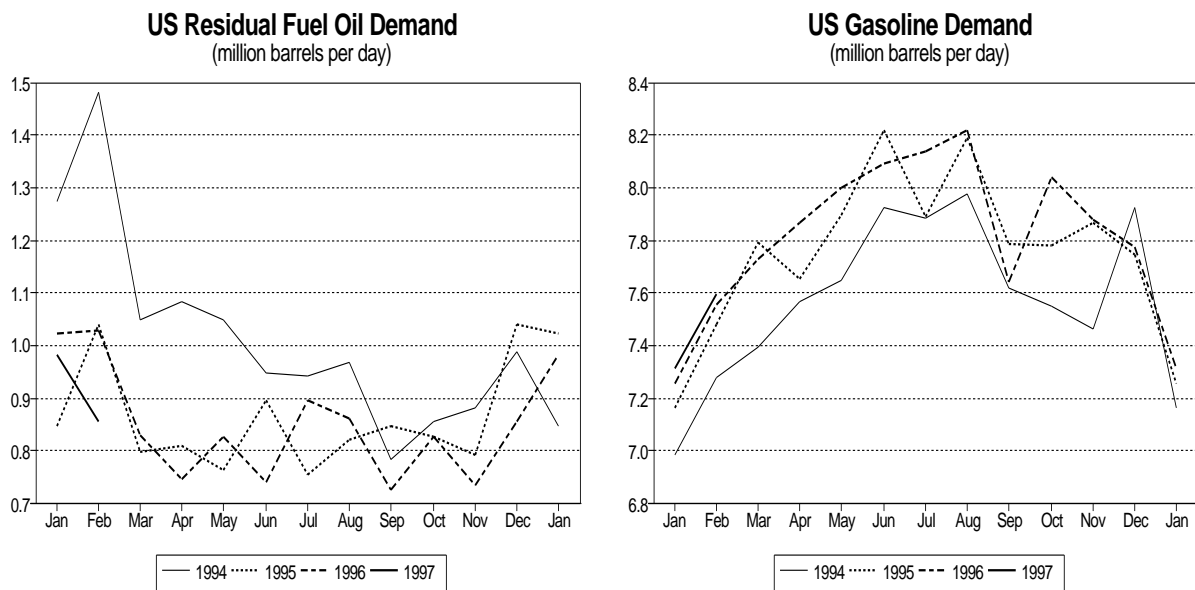
G7 - 12 Month Moving Average
Incremental Demand (kb/d & %)



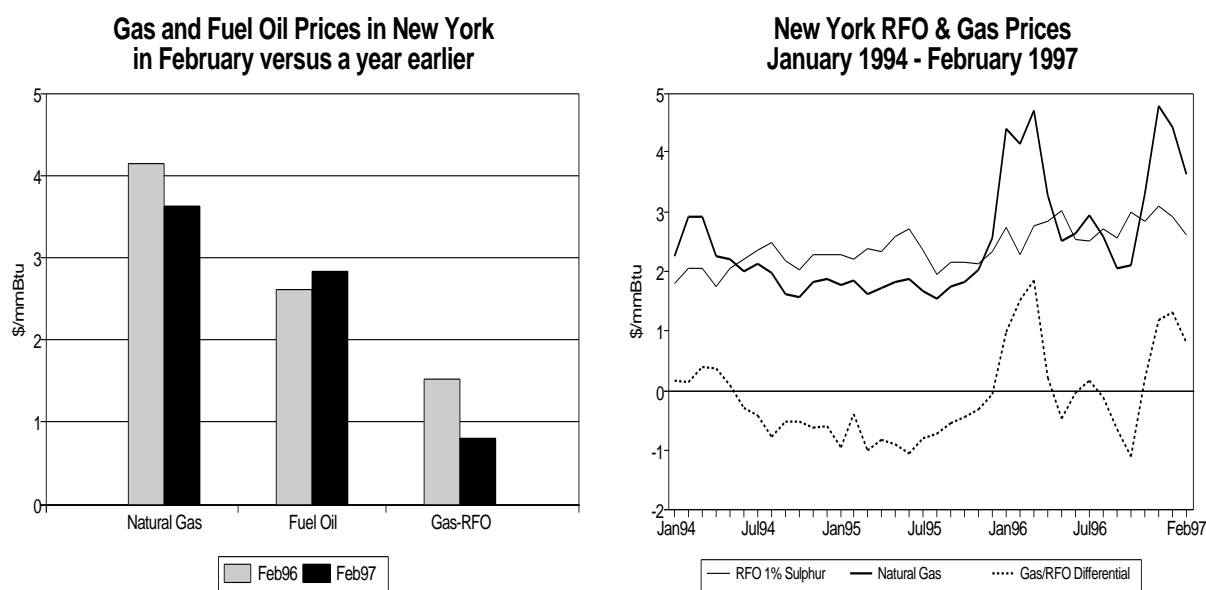
G7 - 12 Month Moving Average
Annual Demand Change (%)



In February, total US deliveries declined by 750 kb/d, with a 46 kb/d increase in gasoline demand more than offset by large declines for all other major products. Gasoline deliveries rose in line with the trend (see twelve-month moving average), despite strong demand in the previous February and retail prices averaging 16.8% higher this February compared with a year earlier. Unusually mild weather, particularly in the heating-oil-prone Northeast, contributed to weaker heating oil deliveries. In addition, the heating season so far has been milder than normal, with 3.4% less heating degree days than last season, reducing overall deliveries. Estimated diesel deliveries declined despite indications of strong manufacturing output that usually contributes to strong demand for diesel in the road and rail haulage sectors. The demand weakness for diesel may indicate that a proportion of low sulphur gasoil (diesel) is being used for heating purposes, demand for which may have declined in line with lower heating oil deliveries. Similarly, despite indications of continuing strong air traffic demand, deliveries of jet/kerosene declined, consistent with less use of the fuel to maintain the fluidity of gasoil at cold temperatures than last year. In addition, weaker heating oil demand may have impacted upon jet/kerosene used as a blendstock in heating oil.



Milder weather and the resulting ample availability of natural gas contributed to a 170 kb/d decline in residual fuel oil deliveries. Although residual fuel oil prices in New York were at a discount to natural gas of some \$0.80/mmBtu in February, the discount was less than a year earlier and was insufficient to encourage significant fuel switching. The remaining proportion oil demand (known as "other") declined by 4.8% or 220 kb/d. Unlike its practice with regard to major oil products, the DOE Energy Information Administration does not calculate "other" product demand on the basis of the replies to its weekly questionnaire. Deliveries are estimated on the basis of the historical relationship between the demand for "other" products and the major product categories. The decline in other product demand appears consistent with the mild weather, which is likely to have significantly dampened LPG demand. (Propane normally represents one half of the "other" product group).



There is a large difference between the preliminary estimate of US oil deliveries in February produced by the Department of Energy's Energy Information Administration contained in its Weekly Petroleum Status Report and that of the American Petroleum Institute's Monthly Statistical Report. The API estimated that deliveries declined by 1.5% or 275 kb/d, compared with the EIA's estimate of a 4.0% or 750 kb/d decline, leading to a discrepancy between the two sources of 475 kb/d. While some difference in the estimates is not unusual, the extent of the difference in February is significant. The EIA's reporting procedures for gasoline have improved in recent months, with a more detailed collection of blending components delivered to the Midwest. The EIA is also thought to have better access to trade data than the API, although the late-reporting of a single cargo can often lead to a major change to the data. However, a significant source of discrepancy in February occurs for "other products". The means of calculating the relationship between "other" products and the major products varies between the organisations and it is thought that the API's approach could discount somewhat the impact of milder weather on the LPG component of "other product" demand. Given that "other product" demand represents one quarter of total US demand, the potential impact of an incorrect estimate of "other" product demand on total demand is great. In this month's Report the contribution of the preliminary EIA US demand estimate in February to US demand in 1Q97 has been modified to partially reflect the difference between the EIA and API data. (see below).

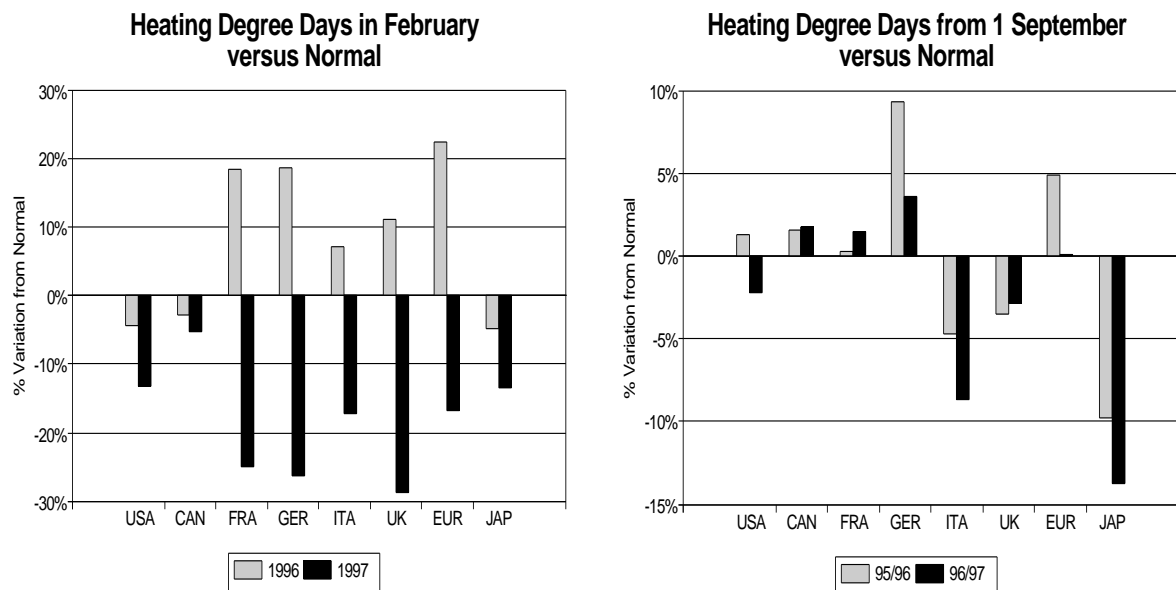
Comparison Between Estimates of US Oil Demand in February 1997

	EIA	API	EIA-API kb/d
Gasoline	0.6%	0.3%	26
Jet/Kerosene	-5.6%	-5.8%	3
Total Gasoil	-8.3%	-5.4%	-108
Diesel	na	-4.4%	na
Other Gasoil	na	-6.7%	na
Residual Fuel Oil	-16.8%	-7.7%	-94
Other	-4.8%	1.8%	-299
Total	-4.0%	-1.5%	-472

EIA = US Department of Energy, Energy Information Administration
API = American Petroleum Institute

Demand in the four largest European oil-consuming countries decreased by 640 kb/d or 7.4%, with total oil demand declining in all four countries. Significantly milder weather and one less working day than last year contributed to weak demand for heating fuels, most notably in Germany where heating oil deliveries declined by 340 kb/d or 33.8%. Residual fuel oil deliveries declined in all four countries by a combined 120 kb/d or 12.6%, reflecting the combination of gas substitution and lower electricity demand.

In **France**, demand decreased by the greatest proportion since November 1993, primarily due to the 29.2% or 160 kb/d decrease in heating oil deliveries. The demand weakness was partly due to significantly milder-than-normal weather compared with particularly cold weather experienced last February when deliveries increased by 37.3%. In addition, following particularly cold weather in January 1997 that contributed to a 41% increase in heating oil deliveries in the month, consumer stocks this February may have been at higher levels than usual. With better driving conditions than a year earlier and the entire winter school holiday period taking place within the month this year, transport fuel demand grew strongly. Consequently, diesel deliveries increased at a significantly greater rate than the twelve-month trend, reflecting greater use by passenger cars, which in France represent 35% of diesel-fuelled vehicles. Gasoline deliveries increased by the greatest proportion since May 1993. Deliveries of residual fuel oil to industry declined by 21.9%, also reflecting the impact of mild weather on the component of fuel oil used for space heating. Deliveries of fuel oil to EDF declined by 18.8%, partly reflecting high stocks at the start of the month.



In **Germany**, oil demand declined by the largest percentage rate since January 1992, due to a 33.8% or 340 kb/d decline in heating oil deliveries. The marked decline has led to an overall 0.9% decline in total oil deliveries on a twelve-month moving average basis, compared with a 0.4% increase reported at the end of January. With Germany experiencing 38% less heating degree days than last year, heating oil consumption is almost certain to have fallen. In addition, waterborne deliveries may have still been affected in the aftermath of the cold weather in January. Consumer stocks are thought to have been drawn down, ending the month some 11 million barrels lower than a year earlier, and there may have been a similar drawdown at the secondary (or wholesaler) level. The significantly higher heating oil prices than a year earlier, which may have dampened purchases in recent months, lessened somewhat in February as shown in the table below with mid-month prices only 3.4% higher than a year ago compared with 24.6% and 38.2% in December and January respectively. Gasoline deliveries fell by 0.2%, declining for the fourth successive month, although by less than the trend, and despite a 3.6% decline in February 1996. LPG deliveries declined by 26.8% or 41 kb/d, consistent with milder weather than last year, when demand for LPG grew by 26.1%. Nevertheless, LPG demand on a twelve-month-moving average has declined by some 12%, reflecting overall weak demand from the petrochemical sector.

Percentage Annual Change in Retail Prices in February 1997¹

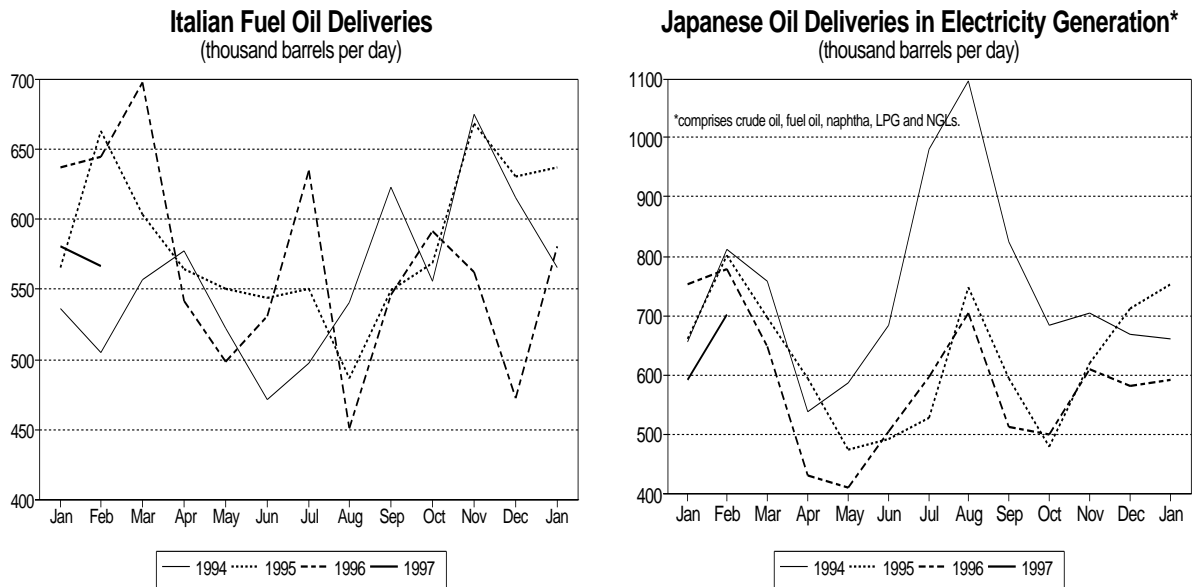
(% per annum change in local currency)

	Gasoline	Diesel	Heating Oil	RFO
USA	16.8%	na	12.6%	na
Canada	10.7%	8.6%	na	na
Japan	1.0%	12.9%	23.3%	20.0%
France	5.3%	11.1%	15.1%	6.3%
Germany	5.1%	5.9%	3.4%	-0.8%
Italy	3.5%	4.6%	6.7%	-4.5%
UK	10.0%	10.4%	17.2%	4.1%
European Four Average	6.0%	8.0%	10.6%	1.3%
G7 Average	7.5%	8.9%	13.1%	5.0%

¹ Mid-month prices
 Countries with missing data are excluded from the average calculation
 Japan heating oil is represented by kerosene

UK oil demand declined by 36 kb/d, with strong demand increases for gasoline and heating oil more than offset by declines in diesel, naphtha and residual fuel oil deliveries. Gasoline deliveries rose by significantly more than the trend, partly due to demand weakness a year earlier. UK demand in February, and over the last year, has been far stronger than in the three other leading European oil-consuming countries, reflecting the combination of higher economic growth and a slower rate of diesel penetration in the passenger car market. In contrast to France and Germany, non-diesel gasoil deliveries increased, consistent with a greater proportion of UK heating oil use taking place in the industrial and commercial sectors, which are less sensitive to ambient temperatures than the residential sector. The mild weather dampened jet/kerosene demand, which increased by an amount far less than the trend, as a marked decline in residential demand for kerosene offset most of the continuing strong demand for aviation fuels. The large decline in diesel deliveries was unexpected, given only 4.0% growth in the previous February and a 5.7% increase in demand on a twelve-month moving average basis. Residual fuel oil deliveries declined (despite a 17.6% decrease a year earlier) and contributed to the fourth successive monthly decline and an 8.4% decrease in deliveries on a twelve-month moving average basis. General demand weakness for residual fuel oil has been due to long-term substitution by gas in the power generation and industrial sectors, but a large part of the specific weakness in February was due to the ample availability of gas to users with interruptible gas contracts who at this time of the year are often forced to switch to alternative fuels. As with diesel, the 35.8% or 25 kb/d decline in naphtha deliveries was unexpected, given a 35.7% decline a year earlier.

Italian oil deliveries declined for the seventh successive month, consistent with weak economic growth and lower power generation sector demand. Residual fuel oil deliveries declined for the fourth successive month, reflecting the combination of lower electricity demand and fuel substitution in the power generation sector, primarily by natural gas and hydroelectric output. On a twelve-month moving average basis, Italian residual fuel oil deliveries have declined by 5.4% and contributed largely to the 2.3% decline in total oil deliveries. Electricity demand decreased by 3.3% and, with hydroelectric output and imports increasing by 5.7% and 3.4% respectively, hydrocarbon consumption by ENEL declined by 6.7%. Partly reflecting milder weather than last year, LPG deliveries declined by 15.0% or 24 kb/d in February. Milder weather also affected total gasoil deliveries, which declined by 8.0% or 45 kb/d. However, the growth rates for diesel and heating oil remain unclear following the introduction of tighter sulphur specifications, which has corrected a historical overstatement of diesel demand and an understatement of heating oil deliveries, largely explaining the weakness in diesel deliveries and the unusual strength in heating oil deliveries.



Mild weather in **Japan** contributed to a decline in jet/kerosene and heating oil deliveries. In addition, a 2.1% decline in electricity demand was partly attributable to the mild conditions. As shown in the right-hand graph above, deliveries of oil products to the power generation sector remained well below last year, with a net decline of 9.8%, as a 28.6% decrease in residual fuel oil deliveries more than offset a 5.1% increase in crude oil deliveries for direct burning. Consumption of oil products declined by the same proportion as deliveries, with nuclear and hydro output increasing by 2.4% and 2.2% respectively. Water levels and nuclear load factor were higher than a year earlier, indicating higher nuclear and hydro output could continue in the near term. LPG and naphtha deliveries grew by 1.2% and 2.5% respectively, partly due to weak demand a year earlier. Gasoline demand increased by more than the trend, consistent with favourable driving conditions and despite gasoline prices increasing year-on-year for the first time since September 1991. The comparative strength in gasoline demand in past year was partly attributable to lower retail prices, so that demand growth in 1997 may be moderated somewhat by the likelihood of higher year-on-year prices during the remainder of the year. Gasoline prices were particularly low in 1996, following deregulation in April.

Revisions to OECD Oil Demand in 1996

This issue of the Report incorporates minor revisions to historical oil demand in OECD countries in the period 1993 to 1995 following the recent submission and review of more complete annual data for 1995 and, in a few countries, for earlier years. Estimates of 1996 and 1997, for which only preliminary monthly data are currently available, have also been calibrated on the basis of the changes to the 1995 data. The revisions have left OECD demand in 1995 and 1996 some 47 kb/d and 11 kb/d higher respectively. In 1996, a 76 kb/d upward adjustment to European demand is almost offset by downward adjustment to North American demand, following receipt of detailed demand data for US Territories that show demand falling unexpectedly for the second successive year. The alterations to aggregate regional demand are summarised in the table below.

Revisions to OECD Demand

	North America			Europe			Pacific			OECD		
	Mar OMR * (mb/d)	revised (mb/d)	change (kb/d)	Mar OMR * (mb/d)	revised (mb/d)	change (kb/d)	Mar OMR * (mb/d)	revised (mb/d)	change (kb/d)	Mar OMR * (mb/d)	revised (mb/d)	change (kb/d)
1993	19.21	19.20	-6	13.55	13.56	8	6.28	6.28	4	39.04	39.04	6
1994	19.76	19.75	-8	13.63	13.64	6	6.61	6.60	-5	40.00	39.99	-6
1995	19.80	19.79	-9	13.87	13.94	69	6.68	6.67	-13	40.35	40.40	47
1Q96	20.41	20.38	-27	14.31	14.38	71	7.39	7.38	-13	42.11	42.15	31
2Q96	19.97	19.90	-73	13.44	13.52	78	6.17	6.16	-13	39.58	39.57	-8
3Q96	20.25	20.17	-89	14.12	14.20	81	6.28	6.27	-11	40.65	40.63	-19
4Q96	20.79	20.77	-22	14.41	14.48	72	6.96	6.95	-9	42.15	42.19	41
1996	20.36	20.30	-53	14.07	14.15	76	6.70	6.69	-12	41.13	41.14	11

* Oil Market Report

OECD demand data presented in the Report are based on both monthly and annual submissions from member governments. Annual data are more comprehensive since they cover all petroleum products, including those, such as petroleum coke, that are excluded from monthly data, and they incorporate resubmission of monthly data. Until definitive data are available from Member Countries, the IEA Secretariat bases its demand estimates on monthly submissions, adjusted to take account of missing products and the observed historical variances between monthly and annual data for each product category in each OECD country. The receipt of comprehensive annual data for 1995 has led to minor changes to the estimates of OECD demand in 1995 and 1996 due to the combination of the changes in the adjustments made to monthly submissions for January 1995 to December 1995 and the resubmission of monthly data for 1996, particularly for the US Territories and Germany.

North American demand has been adjusted downwards by 53 kb/d in 1996, primarily due to the resubmission of US Territories demand, which had been estimated for most months of that year. Unexpectedly, US Territories demand fell for the second successive year, partly due to a reduction in refinery fuel use resulting from a prolonged refinery turnaround at Hess' Virgin Islands refinery. **European** demand has been revised upwards by 69 kb/d in 1995, mainly as a result of significant upward adjustments to Finnish, Italian and Swiss demand data, which more than offset smaller downward adjustments to demand in countries such as Austria, Spain and Sweden. The adjustment to 1995 demand data has been incorporated into the 1996 demand data, contributing to a 76 kb/d upward adjustment in regional demand. **Pacific** demand in 1995 and 1996 has been revised downwards by slightly more than 10 kb/d, due to minor downward revisions to Australian and New Zealand data that more than offset an upward adjustment to Japanese demand.

The two tables below update those shown in last month's Report incorporating the latest modifications to 1996 demand estimates based on the adjustments to 1995 annual data and resubmissions of 1996 demand data.

OECD Oil Demand by Product in 1996

(million barrels per day)

	North America			Europe			Pacific			Total		
	1995	1996	% diff	1995	1996	% diff	1995	1996	% diff	1995	1996	% diff
LPG	2.19	2.31	5.5	0.86	0.88	2.5	0.71	0.72	0.9	3.76	3.91	3.9
Naphtha	0.27	0.32	17.9	1.07	1.02	-4.8	0.77	0.77	-0.7	2.12	2.11	-0.4
Gasoline	8.45	8.51	0.6	2.97	2.97	-0.2	1.23	1.26	2.2	12.66	12.73	0.6
Jet/Kerosene	1.67	1.75	5.3	0.84	0.90	6.1	0.80	0.84	4.5	3.31	3.49	5.3
Gasoil/Diesel	3.68	3.85	4.8	4.86	5.07	4.3	1.51	1.54	2.4	10.05	10.47	4.2
Residual Fuel Oil	1.04	1.02	-2.2	2.17	2.13	-1.8	0.85	0.80	-6.3	4.06	3.95	-2.8
Other Products	2.49	2.54	2.0	1.16	1.18	1.5	0.79	0.77	-2.9	4.44	4.49	1.0
Total Oil	19.79	20.30	2.6	13.94	14.15	1.5	6.67	6.69	0.3	40.40	41.14	1.8

Incremental OECD Demand by Country/Region in 1996

(million barrels per day)

	LPG		Naphtha		Gasoline		Jet/Kerosene		Gas Oil/Diesel		Residual Fuel Oil		Other Products		Total Oil									
	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996								
US	1.90	2.01	6.0	0.19	0.24	23.1	7.79	7.85	0.8	1.55	1.63	5.3	3.21	3.37	5.0	0.85	0.84	-1.3	2.23	2.29	2.6	17.72	18.23	2.9
US Territories	0.01	0.01	-19.8	-	-	-	0.06	0.05	-20.2	0.03	0.02	-18.0	0.04	0.03	-19.7	0.07	0.06	-20.8	0.03	0.02	-21.1	0.24	0.19	-20.1
Canada	0.28	0.29	2.7	0.08	0.08	4.5	0.60	0.61	1.0	0.09	0.10	11.1	0.43	0.45	4.8	0.12	0.12	2.3	0.23	0.23	-0.2	1.83	1.88	2.7
Total North America	2.19	2.31	5.5	0.27	0.32	17.9	8.45	8.51	0.6	1.67	1.75	5.3	3.68	3.85	4.8	1.04	1.02	-2.2	2.49	2.54	2.0	19.79	20.30	2.6
France	0.10	0.11	3.1	0.20	0.16	-19.9	0.36	0.35	-4.4	0.10	0.11	6.8	0.84	0.87	3.3	0.15	0.16	5.1	0.16	0.20	22.4	1.92	1.94	1.4
Germany	0.11	0.10	-3.1	0.33	0.33	0.2	0.70	0.69	-0.7	0.13	0.13	2.0	1.26	1.33	5.5	0.20	0.18	-9.8	0.17	0.17	-3.3	2.88	2.92	1.4
Italy	0.11	0.11	2.1	0.13	0.13	-1.0	0.44	0.44	0.5	0.06	0.07	1.8	0.52	0.50	-2.8	0.58	0.57	-1.9	0.10	0.10	0.0	1.93	1.91	-1.1
UK	0.17	0.18	3.8	0.08	0.08	-0.7	0.51	0.52	1.4	0.23	0.24	8.5	0.46	0.49	6.3	0.18	0.16	-12.6	0.19	0.19	-0.5	1.81	1.85	2.1
Total European Four	0.49	0.50	1.8	0.73	0.69	-5.5	2.01	1.99	-0.6	0.52	0.54	5.8	3.08	3.19	3.7	1.11	1.06	-4.1	0.63	0.66	4.7	8.55	8.63	1.0
Austria	0.01	0.00	-13.0	-	-	-	0.06	0.05	-3.1	0.01	0.01	10.3	0.09	0.10	7.0	0.03	0.03	-7.8	0.03	0.03	4.4	0.23	0.23	1.6
Belgium	0.02	0.02	2.0	0.04	0.06	71.1	0.07	0.06	-3.6	0.02	0.03	18.0	0.21	0.23	9.1	0.10	0.11	12.1	0.04	0.05	15.3	0.50	0.56	13.1
Denmark	0.00	0.00	6.7	-	-	-	0.04	0.04	0.6	0.02	0.02	6.2	0.10	0.10	2.3	0.03	0.03	-0.4	0.03	0.04	31.6	0.22	0.24	5.8
Finland	0.00	0.01	4.3	0.01	0.01	1.7	0.04	0.04	-5.0	0.01	0.01	9.0	0.08	0.08	0.9	0.03	0.04	8.9	0.02	0.01	-77.4	0.20	0.19	-7.5
Greece	0.01	0.01	9.4	0.00	0.00	10.0	0.06	0.07	5.7	0.03	0.03	-1.6	0.12	0.13	8.1	0.10	0.10	-3.4	0.02	0.03	4.9	0.36	0.37	3.4
Iceland	0.00	0.00	-8.8	-	0.00	-	0.00	0.00	-3.5	0.00	0.00	59.0	0.01	0.01	8.2	0.00	0.00	-2.6	0.00	0.00	-2.2	0.02	0.02	21.5
Ireland	0.00	0.00	-26.9	-0.00	-0.00	na	0.02	0.03	5.4	0.02	0.02	14.5	0.04	0.05	5.0	0.02	0.02	-1.6	0.01	0.01	-4.8	0.12	0.13	3.5
Luxembourg	0.00	0.00	13.5	-	-	-	0.01	0.01	-0.3	0.00	0.00	15.2	0.02	0.02	5.3	0.00	0.00	-19.6	0.00	0.00	11.0	0.04	0.04	3.6
Netherlands	0.06	0.06	-7.5	0.08	0.06	-25.8	0.09	0.10	3.1	0.06	0.06	6.7	0.17	0.17	1.9	0.18	0.19	3.2	0.15	0.14	-8.0	0.79	0.77	-2.7
Norway	0.04	0.04	11.8	-	-	-	0.04	0.04	0.3	0.02	0.02	9.4	0.07	0.08	9.6	0.01	0.01	19.8	0.03	0.03	1.9	0.20	0.22	7.6
Portugal	0.03	0.04	9.0	0.03	0.02	-20.2	0.04	0.04	2.5	0.01	0.01	3.7	0.07	0.07	5.4	0.08	0.07	-18.8	0.02	0.02	-5.2	0.29	0.28	-4.9
Spain	0.08	0.08	5.9	0.10	0.09	-9.8	0.20	0.20	-1.3	0.07	0.07	5.9	0.38	0.41	6.4	0.23	0.21	-11.3	0.14	0.13	-7.9	1.19	1.18	-1.4
Sweden	0.03	0.03	-4.4	0.05	0.06	3.5	0.10	0.10	-1.7	0.02	0.02	-5.7	0.11	0.12	7.0	0.06	0.09	42.2	-0.02	-0.01	-47.7	0.36	0.40	12.0
Switzerland	0.01	0.01	16.2	0.00	0.00	-23.7	0.08	0.09	2.3	0.03	0.03	3.1	0.13	0.14	3.9	0.01	0.01	2.7	0.01	0.01	-1.1	0.27	0.27	3.2
Turkey	0.08	0.08	8.1	0.04	0.04	-8.1	0.10	0.10	4.6	0.03	0.03	7.0	0.18	0.18	2.1	0.14	0.15	3.3	0.04	0.04	5.8	0.61	0.63	3.4
Total Europe	0.86	0.88	2.5	1.07	1.02	-4.8	2.97	2.97	-0.2	0.84	0.90	6.1	4.86	5.07	4.3	2.17	2.13	-1.8	1.16	1.18	1.5	13.94	14.15	1.5
Japan	0.63	0.64	2.3	0.77	0.76	-0.7	0.88	0.90	2.8	0.71	0.74	4.3	1.27	1.30	1.9	0.81	0.76	-6.1	0.65	0.65	0.3	5.71	5.75	0.7
Australia	0.08	0.07	-10.4	0.01	0.01	-0.3	0.30	0.31	0.9	0.08	0.08	5.8	0.20	0.21	5.6	0.04	0.03	-14.7	0.10	0.09	-3.4	0.80	0.81	0.2
New Zealand	0.00	0.00	-3.3	-	-	-	0.05	0.05	-1.8	0.02	0.02	4.4	0.03	0.03	-0.3	0.01	0.01	7.1	0.04	0.02	-52.8	0.15	0.13	-14.2
Total Pacific	0.71	0.72	0.9	0.77	0.77	-0.7	1.23	1.26	2.2	0.80	0.84	4.5	1.51	1.54	2.4	0.85	0.80	-6.3	0.79	0.77	-2.9	6.67	6.69	0.3
Total OECD	3.76	3.91	3.9	2.12	2.11	-0.4	12.66	12.73	0.6	3.31	3.49	5.3	10.05	10.47	4.2	4.06	3.95	-2.8	4.44	4.49	1.0	40.40	41.14	1.8

Figures for 1996 are preliminary and are subject to revision.
Demand comprises inland deliveries from refineries and primary stocks (including direct use of crude oil), international bunkers and refinery fuel.
Percentage changes are calculated before rounding.

Demand in 1Q97

OECD demand in 1Q97 is projected to grow by 0.2% or some 85 kb/d to 42.2 mb/d, a 270 kb/d downward revision from last month's Report, due to weaker-than-expected demand in February in the G7 countries, particularly in the US and Germany. These modifications were partly offset by upward adjustments to preliminary demand data in January for all G7 countries except France. Milder-than-normal weather in all seven countries in February contributed to weak demand, but the decline in heating oil deliveries in Germany and France was greater than anticipated. With milder-than-normal weather in the G7 countries through most of March and preliminary indications of weak US demand, the estimate of OECD demand in 1Q97 remains susceptible to further downward revision.

First Quarter OECD Oil Demand by Region

	(million barrels per day)		Change	
	1Q96	1Q97	mb/d	%
North America	20.4	20.4 ^r	-0.0	-0.0
Europe	14.4 ^r	14.4 ^r	0.0	0.1
Pacific	7.4	7.4	0.1	0.9
Total	42.1	42.2 ^r	0.1	0.2

^r revised since last Report

US demand in March is estimated to have declined by 0.6% to 18.1 mb/d, with demand declining for all fuels except gasoil, which grew by 4.2%. An assessed 3.5% decline in residual fuel oil deliveries appears consistent with indications of milder weather than a year earlier. Although gasoil deliveries increased, consumption of heating oil is likely to have decreased due to milder weather in the heating-oil prone regions. On a heating-oil-weighted basis, the US experienced 1.6% fewer heating degree days than normal in March and 12.8% fewer than last year. The decline in residual fuel oil is thought to have been largely due to natural gas being available to interruptible users and prices being at a discount to residual fuel oil at mid-month.

Given the uncertainty of the preliminary March data, and the significant discrepancy between the EIA and API data in February (particularly "other products"), the estimate of North American demand in 1Q97 has been adjusted to incorporate a revised estimate of US demand data in February, based on an average of the two sources of data. The adjustment to the preliminary demand data in February is thought appropriate given the EIA's recent 360 kb/d upward revision to its preliminary US demand estimate for January. US demand in January is now estimated to have increased by 1.9%, compared with the 0.1% decline originally reported. The estimate of North American demand therefore remains highly sensitive to modification, most probably downwards.

The estimate of **European** demand in 1Q97 has been revised downwards by 50 kb/d, in part due to weaker-than-expected demand in the four leading oil-consuming countries in February. This weakness has been somewhat offset by revisions to the historical data series for a number of smaller European countries, including Spain, that have resulted in an increase in European demand in 1Q96 and full year 1996 of over 70 kb/d from last month's Report. Until actual demand data for 1Q97 are received from these countries, the assumed growth rates remain unchanged, leading to an upward adjustment to the demand estimates in these countries in 1Q97. Deliveries in March are expected to have been weak, reflecting fewer working days than a year earlier throughout Europe.

Change in Number of Working Days in 1Q97 and 2Q97 Compared with a Year Earlier

	USA	Canada	Japan	France	Germany	Italy	UK
January	-	-	-	-	-	-1	-
February	-1	-1	-1	-1	-1	-1	-1
March	-	-2	-	-1	-2	-1	-2
1Q97	-1	-3	-1	-2	-3	-3	-3
April	-	2	-	1	2	1	2
May	-1	-1	-	-1	-1	-1	-1
June	1	1	1	1	1	1	1
2Q97	0	2	1	1	2	1	2

Includes Public Holidays.
German public holidays are based on Southern German dates.

Continuing demand weakness for crude oil and oil products in the Japanese power generation sector in February and weaker-than-expected demand in Australia in the first two months of the quarter have led to a minor downward adjustment to the estimate of **Pacific** demand in 1Q97.

Demand in 2Q97 and 1997

OECD demand in 2Q97 is projected to climb by 0.7 mb/d or 1.8% to 40.3 mb/d, essentially unchanged from last month's Report. European demand has been revised upwards in both 2Q96 and 2Q97, consistent with adjustments arising from the restatement of historical demand. The rate of OECD demand growth in 2Q97 compares with the 0.2% increase currently estimated for 1Q97. Demand grew by only 0.8% in 2Q96, with European demand falling by 0.5%, largely due to the absence of a significant stockbuild. This year, with downstream stock levels regarded by consumers as acceptable, a second successive year of demand weakness may occur. However, additional working days in most G7 countries, (amounting to a 3.4% increase in the number of delivery days in Germany and the UK) should support demand levels. As discussed in the lead article, the proportion of the demand weakness in 1Q97 that was due to more sustainable issues that may be repeated in 2Q97 rather than temporary factors such as the impact of the weather, remains uncertain. Longer term factors such as substitution of residual fuel oil by natural gas in Europe and lower use of oil products in the Japanese power generation sector are expected to recur in 1997. However, the rate and timing of these changes remain unclear and the extent to which these weaknesses are offset by greater transport fuel demand is also uncertain. Similarly, the proportions of incremental US gasoline demand in 1Q97 that were due to the weather or to more sustainable factors such as higher disposable income are difficult to assess. Given that a significant proportion of 1Q97 demand data are provisional or have yet to be collected, the preliminary projection of demand of 2Q97 has largely been maintained.

Second Quarter OECD Oil Demand by Region

	(million barrels per day)		Change	
	2Q96	2Q97	mb/d	%
North America	19.9 ^r	20.1	0.2	1.1
Europe	13.5 ^r	13.9 ^r	0.3	2.6
Pacific	6.2	6.3	0.1	2.4
Total	39.6	40.3	0.7	1.8

^r revised since last Report

OECD demand in 1997 is projected to increase by 0.6 mb/d or 1.4% to 41.7 mb/d, compared with growth of 1.8% in 1996. The 1997 projection is a 0.1 mb/d downward adjustment from last month's Report, consistent with reductions to 1Q97 demand.

OECD Oil Demand in 1996 & 1997

	North America		Europe		Pacific		Total	
	mb/d	change*	mb/d	change*	mb/d	change*	mb/d	change*
1Q96	20.4	0.7	14.4 ^f	0.3	7.4	0.1	42.1	1.0
2Q96	19.9 ^r	0.4	13.5 ^r	-0.1	6.2	0.0	39.6	0.3
3Q96	20.2 ^r	0.3	14.2 ^r	0.5	6.3	-0.0	40.6	0.8
4Q96	20.8	0.7	14.5 ^r	0.1	6.9	0.0	42.2 ^r	0.8
1996	20.3	0.5	14.1	0.2	6.7 ^r	0.0	41.1	0.7
1Q97	20.4 ^r	0.0	14.4 ^r	0.0	7.4 ^r	0.1	42.2 ^r	0.1
2Q97	20.1	0.2	13.9 ^r	0.4	6.3	0.1	40.3	0.7
3Q97	20.6 ^r	0.4	14.3 ^r	0.1	6.4	0.1	41.3	0.7
4Q97	21.0 ^r	0.3	14.8 ^r	0.3	7.1	0.2	43.0 ^r	0.8
1997	20.5 ^r	0.2	14.3	0.2	6.8 ^r	0.1	41.7 ^r	0.6

^r revised since last Report
* mb/d year-on-year change

Non-OECD

Former Soviet Union in 1Q97

Apparent demand in the former Soviet Union in 1Q97 has been revised downwards by 107 kb/d to 4.2 mb/d, reflecting higher-than-expected net exports in March. (Demand data for the FSU are derived from production less net oil exports). This adjustment represents the third successive downward revision to 1Q97 demand, primarily reflecting higher-than-anticipated exports, following a government decision not to impose the same level of export taxes as a year earlier. This encouragement to firms to export oil is likely to have contributed to a stock drawdown and hence lower apparent demand but the reduction is also consistent with milder weather than a year earlier and indications of higher retail prices and continuing weak economic activity.

Latin American Demand in 1996

Following receipt of demand data for the remaining months of 1996 for a number of the larger oil-consuming countries of Latin America, total regional demand is estimated to have grown in 1996 by 240 kb/d or 3.9% to 6.4 mb/d, essentially unchanged from last month's Report, although (due to rounding) demand in 3Q96 has been revised upwards by 0.1 mb/d to 6.5 mb/d. Demand growth accelerated in 1996, primarily due to a recovery in Mexican demand from weak levels in 1995, following the financial crisis early in that year. Constraints on personal disposable income have dampened the recovery in gasoline demand, although residual fuel oil deliveries increased strongly following the explosion in August at the Cactus gas gathering plant that disabled part of the country's gas supply. Brazilian demand grew by above the regional trend, largely based on strong gasoline demand with economic growth fuelling greater car purchases and use. There are indications of strong oil demand growth in some of the smaller oil-consuming countries, such as Chile and Bolivia, reflecting economic stability but future oil demand in these and many other countries of the region may be affected by gas substitution, particularly in the power generation sector.

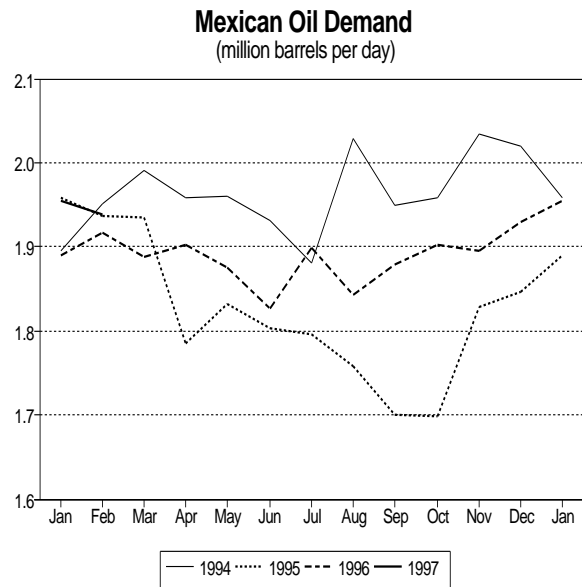
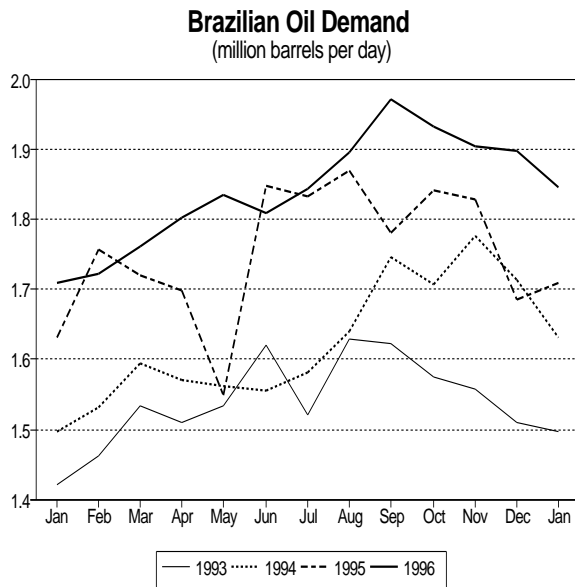
Latin American Demand

(million barrels per day)

	1991	1992	1993	1994	1995	1996	Change	
							mb/d	%
Argentina	427	449	488	516	550	570	21	3.7
Brazil	1446	1474	1542	1623	1753	1831	79	4.5
Colombia	215	246	270	279	299	305	7	2.2
Mexico	1780	1811	1819	1963	1823	1887	64	3.5
Venezuela	416	441	461	473	494	510	16	3.2
Others	1051	1086	1115	1179	1210	1262	53	4.3
Total	5335	5508	5694	6033	6128	6366	239	3.9
% Change	2.5	3.2	3.4	6.0	1.6	3.9		

Mexican Demand in February 1997

Preliminary data published by PEMEX indicate that inland oil deliveries (excluding refinery fuels) grew by 1.4% in February, representing the eleventh successive month of demand increases. Including estimates of bunkers and refinery fuel use and an adjustment to calibrate the monthly data to the historical series, total Mexican demand in February is estimated to have grown slightly more slowly than inland deliveries, increasing by 20 kb/d to 1.94 mb/d. Demand rose for all products except residual fuel oil, which declined by 3.9% or 17 kb/d, despite a 4.7% decrease a year earlier, probably as a result of greater hydropower availability. Gasoil deliveries increased by 20 kb/d or 8.0% and gasoline deliveries grew by 2.4% or 11 kb/d, far greater than the trend, reflecting weak demand a year earlier. Demand in the first two months of the year has been unexpectedly weak, given a 4.0% decline in deliveries in 1Q96. Until demand data for this March have been collected, the estimate of Mexican demand in the quarter is unchanged but remains susceptible to a downward adjustment.

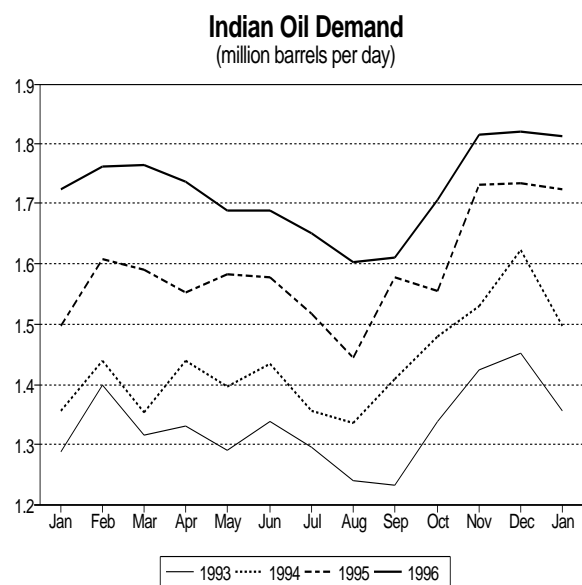


Brazilian Demand in January 1997

Preliminary data published by *Brazil Energy* magazine indicate that inland oil deliveries increased in January by 8.2% raising the twelve-month moving average to 4.7%. Including estimates of bunkers and refinery fuel use, total Brazilian demand in January is estimated to have grown by 135 kb/d to 1.84 mb/d. The above-trend growth was partly due to weak demand in January 1996 when a 18.8% decline in gasoil deliveries contributed to a 4.3% decline in total oil demand. This January, demand grew for all products except jet/kerosene and "other" products. Given the weakness in gasoil demand last year, a 6.8% or 31 kb/d increase in gasoil deliveries this January was less than expected. Gasoline and naphtha deliveries both increased by 40 kb/d, or 15.9% and 23.1% respectively with the increase in gasoline demand more notable, given demand growth of 16.0% in the previous January. The strength in gasoline demand was partly due to weak demand for alcohol for fuel use. Demand for alcohol made from sugar cane as a transport fuel may continue to decline if the price of sugar remains high as government subsidies for alcohol use in transport fuels are being reduced and the trend continues of an increasing proportion of new vehicles fuelled by gasoline alone. Residual fuel oil demand increased by 22 kb/d or 10.5%, in line with the trend and consistent with greater use in the power generation sector. As demand decreased by 2.0% in February 1996 and increased by only 2.4% in March 1996, the projection of Brazilian demand in 1Q97 had assumed an acceleration in the rate of growth compared with 1996. However, given the comparatively strong demand picture emerging from the latest data, the projection of Brazilian demand in 1Q97 has been increased further to 7.0% but the projection of Latin American demand in the quarter remains, due to rounding, at 6.5 mb/d.

Indian Demand in January 1997

Data published by the Indian Ministry of Petroleum and Natural Gas indicate that Indian inland deliveries rose in January by 5.5% compared with 7.6% on a twelve-month moving average basis. Including estimates of bunkers and refinery fuel use, January Indian demand is estimated to have grown by 88 kb/d to 1.81 mb/d. The growth was less than the trend largely due to strong demand in January 1996 when a 21.7% increase in high-speed diesel contributed to a 15.7% increase in total demand. This January, demand grew for all major products except residual fuel oil, (which declined by 1.7% versus 18.9% growth the previous year). High-speed diesel deliveries increased by 8.1% despite strong growth last year, and contributed more than 65% of



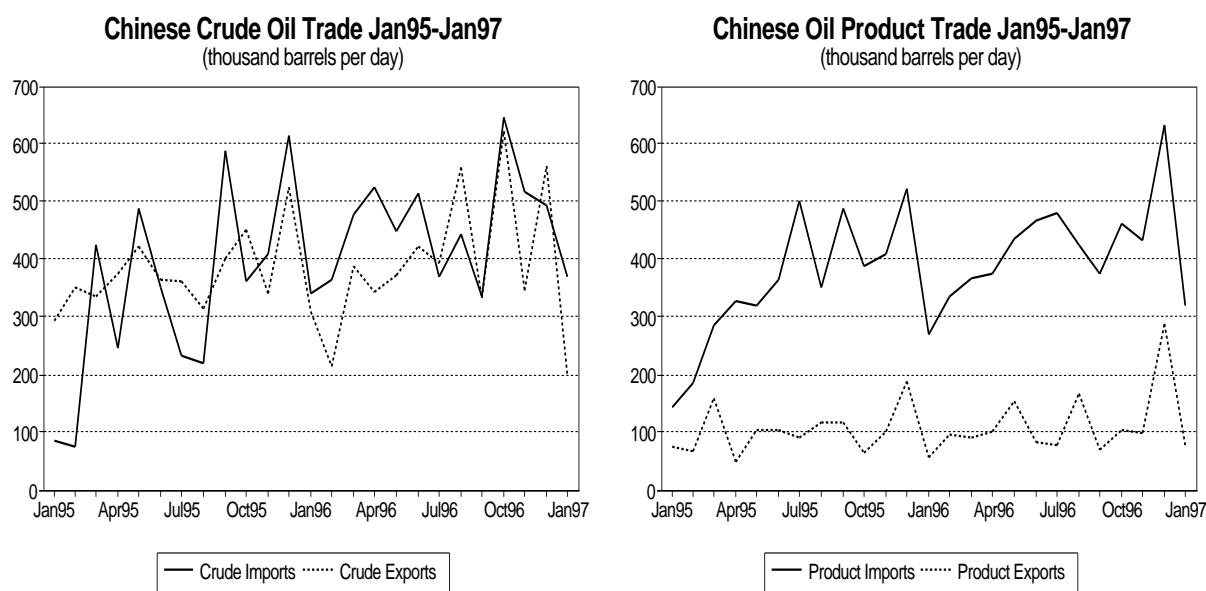
total incremental demand. Demand grew by the greatest rate for naphtha, which increased by 19.1% or 20 kb/d, far greater than the twelve-month moving average of 7.5%. Indian oil demand climbed by 12.5% in 1Q96 with demand in the last two months of the quarter increasing by lower rates than in January 1996. Consequently, the projection of 8.0% demand growth in 1Q97 remains unchanged.

Korean Demand in January and February 1997

Preliminary data indicate that oil demand increased by only 0.4% per annum in January and February combined, consistent with an economic slowdown, high product prices and energy conservation programmes. In addition, demand growth was dampened by a strong increase in the equivalent period last year, primarily caused by the rapid expansion in petrochemical feedstock demand. In the first two months of the year, gasoline demand grew by 4.0%, but diesel deliveries declined by 11.7%, reflecting the slowing economic growth. Kerosene deliveries increased by 9.0% despite weather similar to that of last year. LPG demand was essentially constant and naphtha deliveries increased by 4.1%, reflecting some fuel switching in the petrochemical sector. The weakness in the first two months of the year is likely to have continued this March, especially as oil demand rose by 16% in March 1996. Until data from other Asian countries are collected, the projection of Other Asian demand in 1Q97 is unchanged at 9.3 mb/d, but is increasingly sensitive to downward revision.

Chinese Trade

Chinese oil trade volume decreased in January from December, but total net imports rose to 411 kb/d, a 133 kb/d increase from the previous month and a 168 kb/d increase compared with the same month year earlier. Net imports followed the seasonal pattern of a downturn in the immediate aftermath of the New Year while being higher than a year earlier and therefore maintaining the longer-term upward trend in imports. Net product imports reached 320 kb/d, with diesel oil accounting for the largest proportion, totalling 109 kb/d or 34% of net imports and representing a 23% increase from a year earlier. Due to the continued increase in diesel imports from December (See OMR 7 March 1997, page 18) together with higher refinery production, the perceived shortage of diesel oil at a time of strong demand is now considered to have largely been resolved. For the first time, some 11 kb of diesel imports in January originated from Japan.



Non-OECD Demand in 1996 and 1997

Non-OECD oil demand in 1996 is estimated to have increased by 0.9 mb/d or 3.0% to 30.8 mb/d, an upward revision of 25 kb/d, which (due to rounding) has led to a 0.1 mb/d upward adjustment from last month's Report. The change was primarily due to upward adjustments to Indonesian demand, following receipt of detailed demand data for 1996. A restatement of Latin American demand, although leaving data for 1996 as a whole essentially unchanged, has led to an upward revision to 3Q96 demand and a minor downward revision to deliveries in 4Q96. The net effect on non-OECD demand has been 0.1 mb/d upward adjustments to 2Q96 and 3Q96 demand and a similar-sized reduction in the estimate of 4Q96 demand.

Non-OECD demand in 1997 is projected to increase by 4.0% or 1.2 mb/d to 32.0 mb/d, at a slightly lower rate of growth than that projected in last month's Report, primarily reflecting the downward revision to FSU apparent demand in 1Q97. The weakness in FSU demand has been partially offset by minor upward modifications to Other Asian and Latin American demand, consistent with adjustments to demand in 1996. Preliminary indications of Mexican and Korean demand in the first two months of this year are weaker than expected but until March data have been received, the estimate of the two countries' demand in 1Q97 is being maintained, although susceptible to downward revision.

Non-OECD Demand in 1996 & 1997

	FSU		Europe		China		Other Asia		L. America		M. East		Africa		Non-OECD	
	mb/d	change *	mb/d	change *	mb/d	change *	mb/d	change *	mb/d	change *	mb/d	change *	mb/d	change *	mb/d	change *
1Q96	4.6	-0.5	1.5	0.1	3.4	0.2	8.8	0.6	6.2	0.0	4.1	0.1	2.3	0.1	31.0	0.6
2Q96	4.2	-0.3	1.4	0.1	3.6	0.3	8.4 ^r	0.5	6.3	0.3	4.1	0.1	2.3	0.1	30.3 ^r	1.0
3Q96	4.3	-0.3	1.3	0.1	3.6	0.2	8.2 ^r	0.6	6.5 ^r	0.3	4.3	0.1	2.2	0.1	30.3 ^r	1.2
4Q96	4.2	-0.7	1.4	0.1	3.7	0.3	9.0	0.6	6.5	0.3	4.3	0.1	2.3	0.1	31.4 ^r	0.8
1996	4.3	-0.4	1.4	0.1	3.6	0.3	8.6	0.6	6.4	0.2	4.2	0.1	2.3	0.1	30.8 ^r	0.9
1Q97	4.2 ^r	-0.4	1.6	0.1	3.6	0.2	9.3	0.6	6.5	0.3	4.2	0.1	2.4	0.1	31.9 ^r	0.9
2Q97	4.0	-0.2	1.5	0.1	3.8	0.2	9.0	0.7	6.6	0.2	4.2	0.1	2.4	0.1	31.5 ^r	1.2
3Q97	4.2	-0.1	1.4	0.1	3.8	0.2	8.7	0.6	6.7 ^r	0.2	4.4	0.1	2.3	0.1	31.4 ^r	1.1
4Q97	4.6	0.4	1.5	0.1	3.9	0.2	9.7	0.6	6.7	0.2	4.4	0.1	2.4	0.1	33.1 ^r	1.7
1997	4.2 ^r	-0.1	1.5	0.1	3.8	0.2	9.2	0.6	6.6	0.2	4.3	0.1	2.4	0.1	32.0	1.2

* year-on-year change (mb/d)
r revised since last Report

Global Demand in 1996 and 1997

Global demand in 1996 and 1997 remains unchanged from last month's Report at 71.9 mb/d and 73.7 mb/d. However, incremental demand in 1997 of 1.8 mb/d or 2.5% is less than estimated in last month's Report, primarily due to the downward revisions made to OECD demand in 1Q97, which have contributed to a 0.4 mb/d reduction to global demand in 1Q97 to 74.2 mb/d. Global demand in 2Q97 and 3Q97 has been revised upwards by 0.1 mb/d, consistent with upward adjustments made to Latin American and Other Asian demand, following revisions to historical demand.

SUPPLY

Summary

- World oil supply is estimated to have increased by 480 kb/d in March to 74.9 mb/d but most of the increase was due to downward revisions in February estimates. Non-OPEC supplies are thought to have risen by 400 kb/d, while OPEC production increased by 80 kb/d, half of the increase for crude oil and half for NGLs. Even with the revisions to earlier data, the cumulative rise in world oil supplies over the last six months has been 2.8 mb/d and, atypically, additional increases are expected in 2Q97 as new North Sea fields and repairs and upgrades to older fields more than offset maintenance reductions adding to growth in Latin America and other non-OPEC developing countries.
- OPEC crude oil production has exceeded 27 mb/d for each of the first three months of the year, with the estimated March level reaching 27.09 mb/d versus upwardly-revised 27.05 mb/d in February. The increase was dominated by Iraq, whose exports surged to almost 1 mb/d in the first part of the month to meet the 90-day target of the UN "oil-for-food" programme. The 1.17 mb/d monthly average for Iraq was almost 100 kb/d higher than February's level. The rest of OPEC saw a net decline of about 50 kb/d, with Gulf producers generally lower and non-Gulf countries, except Nigeria, higher.
- The non-OPEC supply increases were centred in the North Sea which, despite bad weather that affected Norwegian production late in the month, was able to raise production by an estimated 370 kb/d, with about 60% of the gain in the UK sector and the rest in Norway and Denmark. About one-third of the North Sea increase was offset by seasonally lower production from the US and Canada and maintenance in Alaska. Elsewhere, Latin American production is believed to have risen by about 50 kb/d, primarily in Mexico and Colombia and in the rest of the non-OPEC developing countries by a similar amount led by India, Angola and Yemen.
- March FSU net exports are estimated to have increased by 110 kb/d to 2.78 mb/d, as the level of product exports continued to be high and crude exports from the Black Sea increased despite weather problems and port and pipeline maintenance affecting Novorossiisk.

Non-OPEC Oil Supply

(million barrels per day)

	1995	1996	1997 ^f	1Q96	2Q96	3Q96	4Q96	1Q97 ^p	2Q97 ^f
CRUDE OIL									
North America	8.07	8.03	7.99	8.08	7.95	7.99	8.09	8.03	7.88
United States	6.54	6.47	6.39	6.54	6.43	6.42	6.48	6.43	6.32
Canada	1.53	1.56	1.60	1.54	1.52	1.57	1.61	1.60	1.56
Europe	5.84	6.20	6.88	6.16	6.12	6.11	6.42	6.50	6.66
North Sea	5.43	5.79	6.43	5.75	5.70	5.69	6.01	6.06	6.23
UK*	2.42	2.45	2.83	2.45	2.38	2.34	2.61	2.57	2.67
Norway	2.77	3.09	3.33	3.07	3.09	3.09	3.13	3.23	3.30
Other North Sea**	0.23	0.25	0.28	0.24	0.23	0.26	0.27	0.27	0.26
Other Europe	0.42	0.42	0.45	0.41	0.43	0.42	0.41	0.44	0.43
Pacific	0.56	0.59	0.68	0.56	0.60	0.61	0.59	0.62	0.68
Australia	0.51	0.54	0.62	0.52	0.55	0.55	0.52	0.55	0.61
Other Pacific	0.04	0.05	0.07	0.04	0.05	0.06	0.07	0.07	0.07
Total OECD	14.47	14.82	15.55	14.80	14.67	14.71	15.09	15.15	15.22
Latin America	5.31	5.76	6.19	5.69	5.74	5.75	5.85	5.99	6.09
Asia (inc. China)	4.92	4.97	5.11	4.97	4.97	4.93	5.00	5.07	5.09
Africa (inc. Gabon)	2.33	2.46	2.65	2.38	2.41	2.49	2.55	2.58	2.64
Other Middle East	1.84	1.89	1.97	1.85	1.86	1.90	1.95	1.95	1.96
Central and Eastern Europe	0.24	0.23	0.25	0.23	0.23	0.24	0.24	0.24	0.25
Total Non-OECD (ex. FSU)	14.63	15.31	16.16	15.12	15.20	15.31	15.59	15.83	16.02
Russia	5.98	5.84	5.71	5.83	5.84	5.88	5.81	5.74	5.63
Other Republics	0.82	0.89	1.02	0.84	0.88	0.90	0.92	0.93	1.00
Total FSU	6.79	6.73	6.73	6.67	6.72	6.78	6.73	6.67	6.63
NGLS & OTHER									
United States	2.07	2.13	2.18	2.03	2.12	2.13	2.22	2.16	2.13
Canada	0.87	0.90	0.94	0.92	0.86	0.90	0.92	0.95	0.85
North Sea	0.42	0.41	0.47	0.43	0.39	0.37	0.45	0.45	0.43
Russia	0.18	0.19	0.19	0.21	0.18	0.17	0.20	0.20	0.19
Other Non-OPEC	1.54	1.54	1.65	1.58	1.58	1.50	1.51	1.58	1.62
Total NGLs and Other	5.08	5.17	5.42	5.17	5.14	5.07	5.29	5.34	5.22
Processing Gains	1.46	1.52	1.57	1.52	1.50	1.50	1.55	1.57	1.56
Total Non-OPEC Supply	42.43	43.54	45.44	43.28	43.23	43.37	44.25	44.57	44.64

^p preliminary

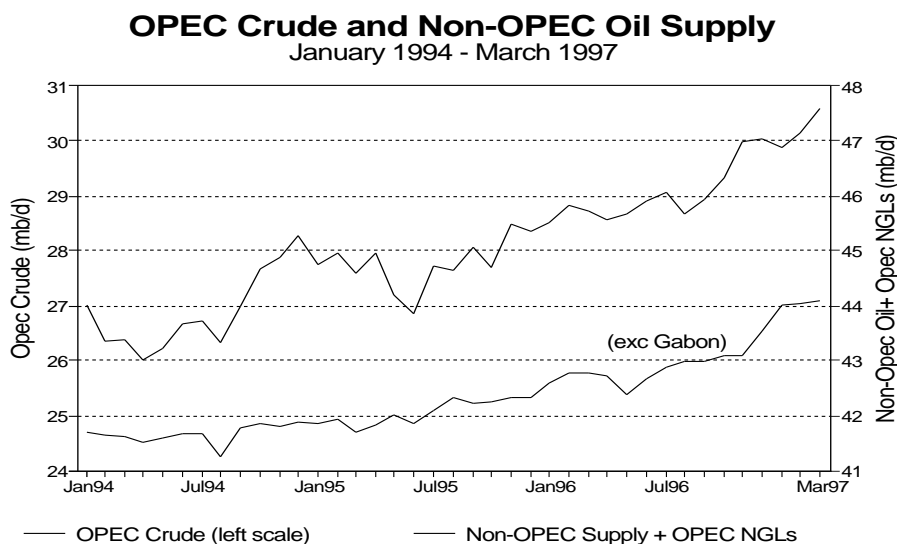
^f forecast

* excluding on-shore production

** Denmark, offshore Netherlands and offshore Germany

Overview of Supply Developments and Revisions

As shown in the graph below, both OPEC and non-OPEC supplies have expanded sharply since last August, with non-OPEC supplies and OPEC NGLs now approaching 48 mb/d and OPEC crude oil production above 27 mb/d. The March OPEC increase was restrained by political problems in Nigeria and lower output from several of the Persian Gulf members, likely responding to weakening markets. Conversely, non-OPEC production growth accelerated with less severe weather effects in the North Sea and higher output from Latin America.



The largest gains for the month are thought to have occurred in the UK and Norwegian sectors of the North Sea with estimated gains of about 215 kb/d and 130 kb/d respectively. Australian production is assumed to have risen by about 45 kb/d following technical and weather problems in February but is expected to decline again in April due the beginning of major maintenance at the offshore Griffin field. Latin American production was higher in March due to 30 kb/d gains each for Mexico and Brazil, the latter resulting from the return of Campos Basin production from February maintenance. Danish and Indian production are each seen rising by about 20 kb/d. Monthly gains of 10 kb/d are assumed for Yemen and Angola.

Some of these increases were offset by declines in the US (-110 kb/d), Russia (-25 kb/d), Ecuador (-15 kb/d) and Canada (-10 kb/d). For the US, Alaskan and Californian output fell due to maintenance and warm weather on the North Slope, which reduced operating efficiencies of gas re-injection equipment, while the Canadian reduction reflected seasonal declines in Alberta and Saskatchewan conventional oil production, while Ecuador's main pipeline across the Andes had a problem with a pump.

Review of 1Q97 and Outlook for 2Q97

Despite the recent strong growth in non-OPEC supply, bad weather and technical problems have led to downward revisions to the 1Q97 supply estimates. January estimates were revised downwards by 330 kb/d, primarily due to revisions in US NGL data (-280 kb/d) and technical problems at offshore fields for Australia (-70 kb/d) and for a pipeline in Ecuador (-50 kb/d). An even larger 480 kb/d downward revision has been made to the February estimate as a result of a series of abnormal events at UK North Sea fields (-290 kb/d), a carry-through of the US NGL adjustment (-140 kb/d), bad weather in Norway (-50 kb/d) and export problems for Kazakhstan and Azerbaijan (-70 kb/d combined). In both months, there were smaller upward revisions to estimates for Yemen, Gabon, Malaysia and Argentina.

The resulting increase in 1Q97 over 4Q96 was only 300 kb/d, reflecting only a portion of the underlying capacity added since last summer and the potential of the existing production capacity. Even with normal maintenance and seasonal declines in 2Q97, fuller utilisation of the capacity base is expected to lead to an atypical quarterly increase in non-OPEC supply, as was discussed in the section at the beginning of this Report. For the preliminary 1Q97 estimates, the largest increases are seen in Latin America (+130 kb/d) and OECD Europe (+100 kb/d), with smaller gains in Asia (+80 kb/d), Africa (+50 kb/d) and Australia

(+30 kb/d). Refinery processing gains are also assumed to have increased by about 20 kb/d. As shown in the table at the beginning of the Report, 2Q97 changes of about the same level are projected for Latin America, OECD Europe, Africa and the FSU but a larger decline is expected for North America (-280 kb/d) and a larger gain for Australia (+70 kb/d). Further details on the North Sea and Latin American increases are shown in tables on pages 26 and 32.

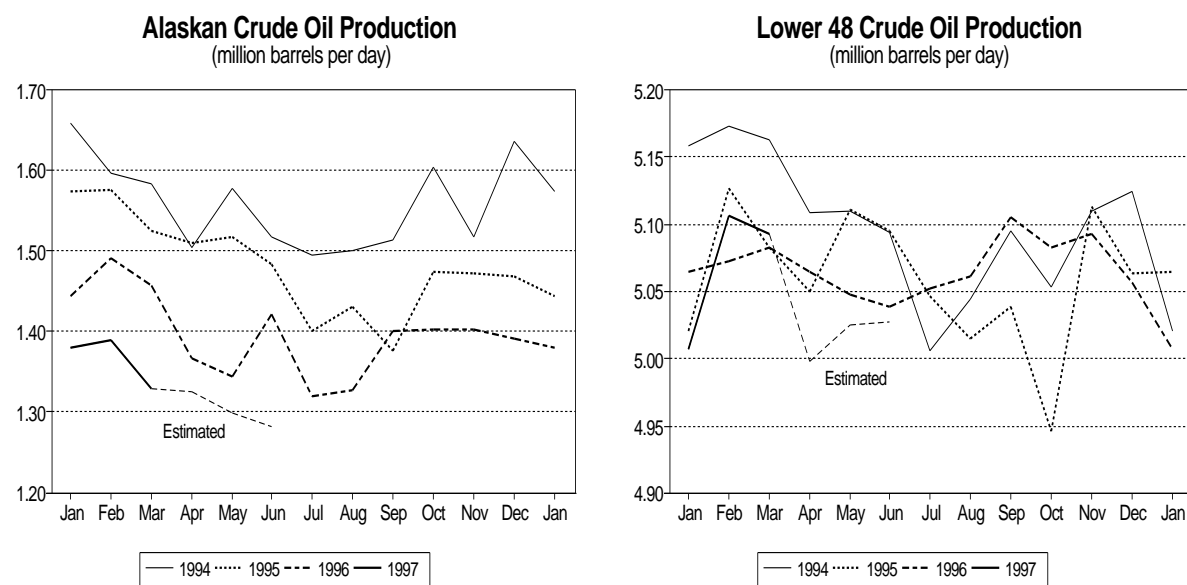
OECD

North America

US oil production declined by 120 kb/d in March to 8.578 mb/d, with half of the decline in Alaskan crude oil and the remainder in Lower 48 crude oil and NGLs. Monthly data from the US Department of Energy for January were substantially below the levels indicated by preliminary weekly data. The January US NGL estimate has been revised downwards by 177 kb/d to 1.835 mb/d and crude oil by 107 kb/d to 6.387 mb/d, while the other hydrocarbons estimate was raised slightly to 286 kb/d. To reflect the January NGL adjustment, the February estimate has been lowered by 146 kb/d, resulting in a change in the 1Q97 average of 1.841 mb/d.

The expected US production decline in 2Q97 is about 140 kb/d, with crude oil accounting for two-thirds of the decline. NGL production in 2Q97 is projected at just 10 kb/d below 1Q97 but other hydrocarbons are seen declining by about 35 kb/d. The crude oil decline is in line with last year's quarterly change but in 1996 there was an abnormal increase in NGL production between 1Q96 and 2Q96 due to the unusually low 1Q96 production discussed in last month's Report.

Alaskan crude oil production dropped by 61 kb/d to 1.329 mb/d for the first 27 days of March due to warm weather and Prudhoe Bay maintenance. The Prudhoe Bay field accounted for 48 kb/d of the decline as six days of maintenance during the third week of the month lowered output to around 600 kb/d. The Lisburne area Niakuk and Point McIntyre fields were down by 7 kb/d and 5 kb/d respectively and NGL production fell by 5 kb/d as temperatures averaged 5° F warmer than normal. As shown in the left-hand graph below, Alaskan production was about 130 kb/d below 1996 levels in March. The seasonal decline between 1Q97 and 2Q97 is expected to be less than normal because of the mild March weather, maintenance on the North Slope and storms in the Gulf of Alaska earlier in the quarter. The anticipated quarter-on-quarter decrease is about 75 kb/d versus almost 100 kb/d last year.



Lower 48 crude oil production is estimated to have declined in March by about 50 kb/d to 5.05 mb/d according to preliminary weekly data from the US Department of Energy for the first three weeks of the month. California offshore production was affected by the beginning of maintenance at the Santa Ynez unit's Harmony and Heritage platforms on the Pescado field in the third week of the month and for three days at the Hondo platform at the end of the month. The maintenance is scheduled to continue through the first half of April. Production from Central California heavy oil fields and from the Rocky Mountain

states are each thought to have declined by about 10 kb/d, while production in the Midwest and onshore Gulf of Mexico are believed to have held near February levels. For February, full month data from the State of Alaska indicate crude oil output 7 kb/d lower than estimated in last month's Report, whereas anecdotal evidence suggests that California and offshore Gulf of Mexico production may have been higher by 15-20 kb/d each.

Offshore Gulf of Mexico production rose by an estimated 12 kb/d in March as rising output from the new Mahogany and Neptune fields offset declines in the Auger field related to upgrading work to take the main field platform capacity from 70 kb/d to over 100 kb/d and tie-in of the Cardamom satellite field. The next new fields expected onstream are the 80-kb/d Ram-Powell field around mid-year and the 40 kb/d Enchilada and 80 kb/d Troika fields later in the year. The rate of new field discoveries in the deep water Gulf of Mexico seems to be accelerating, with new projects being reported almost every month. During March, results were reported for the Alaminos Canyon Hoover, East Breaks Area East Boomvang, Vermillion Area Ozarks and East Cameron Area Davis discoveries. The table below presents an updated list of new fields expected to be brought onstream in the next ten years.

The 37 projects identified in the table below represent an increase of seven from the ones presented in *Global Offshore Prospects to 2000* published just last November and the incremental production has been raised by about 100 kb/d to reflect both the additional projects and upgrades to other projects. At least seven fields are scheduled to begin production next year and four new fields planned for each of the following two years, although the Mars II project may occur slightly after the turn of the century.

Gulf of Mexico New Field Crude & Condensate Production 1995-2005
(thousand barrels per day)

	Field/Block	Area	Type	1995	1996	1997	1998	1999	2000	2005
1995	Auger*	GB	LSr	52	63	85	90	90	90	70
	Pompano I/II*	VK	LSw	18	25	45	50	50	50	45
	Cooper*	GB	LSr	1	5	12	21	35	40	38
	Ewing Bank 873	EB	LSw	18	29	35	35	35	33	26
	Other ⁽¹⁾	(see below)		42	50	53	53	53	51	40
1996	Mars 1*	MC	MSr		16	126	140	140	140	114
	Mahogany	SS	MSr		0	21	33	33	33	26
	Tahoe*	VK	LSw		2	10	10	10	10	8
	Cardamom*	GB	LSr		3	10	10	10	10	8
	Other ⁽²⁾	(see below)			2	6	9	9	9	7
1997	Troika*	GC	LSr			1	53	80	80	72
	Ram-Powell*	VK	LSw			5	58	60	60	54
	Enchilada	GB	MSr			14	30	40	40	34
	Neptune*	VK	LSr			11	19	23	23	20
1998	Genesis*	GC	MSr				3	35	55	52
	Bald Pate*	GB	LSr				15	40	40	40
	Morpeth*	EW	LSr				14	35	35	30
	Sunday Silence*	EW	MSr				3	10	20	20
	Arnold*	EW	LSr				16	20	20	17
	Agate	SS	MSr				5	20	20	17
	West Cameron 498	WC	LSw				8	10	10	8
1999	Ursa*	MC	LSr					40	130	150
	Petronius*	VK	LSr					25	50	60
	Gemini*	MC	LSw					5	10	10
	Marlin*	VK	LSr					15	40	36
2000	Diana*	EB	LSr						40	40
	Mickey*	MC	LSr						30	29
	Allegheny*	GC	MSr						50	48
	Mars II*	MC	MSr						0	100
	Total			131	203	450	691	939	1235	1231

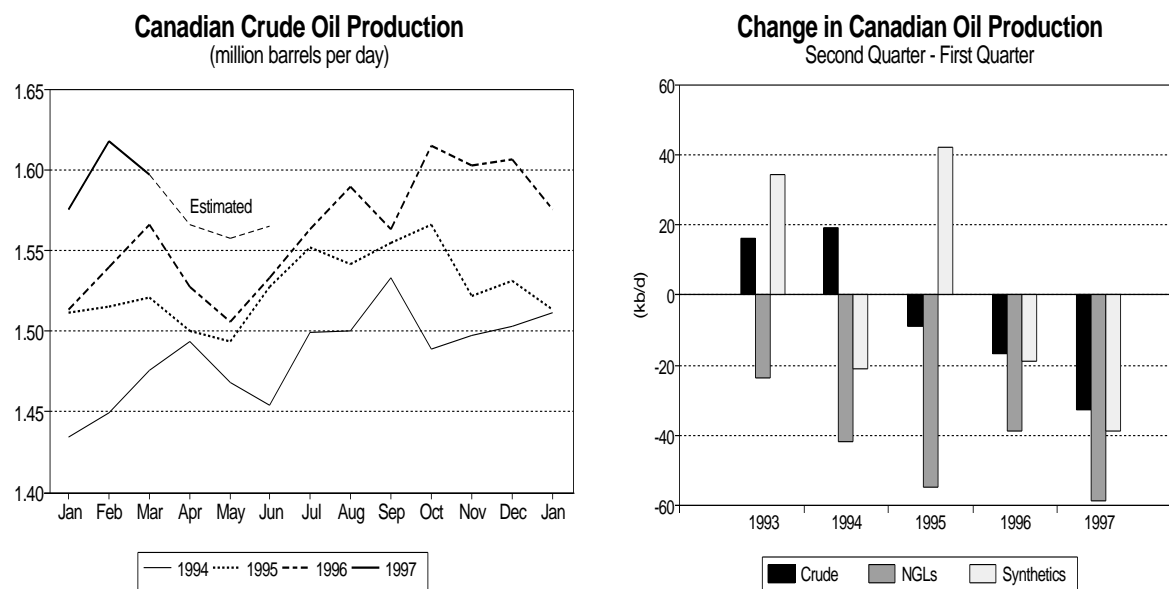
* indicates deep water field; EB = East Breaks, EI = Eugene Island, EW = Ewing Bank, GB = Garden Banks, GC = Green Canyon, HI = High Island, MC = Mississippi Canyon, SS = Ship Shoal, ST = South Timbalier, VK = Vioska Knoll, WC = West Cameron;

LSw = Light Sweet, LSr = Light Sour, MSr = Medium Sour.

⁽¹⁾ High Island 384 (LSr), East Cameron Block 331(LSw), Galveston Block 218 (LSr), South Pass Block 89 (LSw) and Eugene Island 257 (LSr)

⁽²⁾ spectacular Bid (LSr), Spend-a-Buck (MSr), South Timbalier #265 (LSr) and Teal South (LSr)

Canadian oil production increased by 10 kb/d in January to 2.531 mb/d, according to preliminary data from Statistics Canada. December figures were revised downwards slightly, with the Saskatchewan crude production estimate reduced by 9 kb/d and that for Alberta light & medium crude lowered by 2 kb/d. However, upward revisions to earlier months resulted in an 8 kb/d increase in the 4Q96 estimate, primarily for NGLs. The January supply growth was solely the result of 45 kb/d higher NGL production which offset declines of 31 kb/d for conventional crude oil and bitumen and 4 kb/d for synthetic crude oil from tar sands. The largest crude oil production decline was in Alberta, at 14 kb/d, with crude output from the Northwest Territories' Norman Wells area and from Saskatchewan each down by half that amount.



The quarterly declines in Canadian crude oil, NGL and Synthetics production are shown in the bar chart at the right, comparing the 2Q versus 1Q changes over the last several years. The changes in 1997 are generally larger than in past years. Heavy maintenance at the Suncor plant (reportedly the last of this decade) and slightly larger seasonal declines in crude oil and NGL output are projected, as repair work and testing on oil and gas pipelines is expected to be relatively extensive given recent rupture and spills.

North Sea

North Sea production is expected to increase in 2Q97 and 3Q97 despite significant maintenance outages in the UK sector in 2Q97 and in Norway in 3Q97. New field development and "repairs and upgrades" to existing fields are projected to more than offset the combined impact of maintenance work and geological declines experienced by older fields, with a net increase of about 135 kb/d for 2Q97 (including a seasonal decline of just over 20 kb/d in NGL production) and nearly 110 kb/d in 3Q97.

The maintenance impacts on 2Q97 are estimated at about 370 kb/d with 270 kb/d of that in the UK sector, particularly for the Forties system in June. New field start-ups and production escalation from recent fields offset more than 265 kb/d of the maintenance impacts, while another 230 kb/d is added by repairs and absence of the weather effects that reduced 1Q97 production. The impact of the repairs and upgrades are divided between the UK and Norway and are discussed in the relevant sections below.

Norwegian maintenance impacts normally occur later than for the UK, so that for 3Q97 Norway is seen experiencing around 195 kb/d of net maintenance declines (net of the positive effects of fields returning from 2Q97 maintenance). For the UK the return from maintenance more than compensates for the fewer number of fields undergoing work in 3Q97, with a resulting net gain of over 90 kb/d adding to nearly 150 kb/d from new fields and along with 30 kb/d from repairs completed late in 2Q97. The total North Sea net maintenance impact is expected to be around 100 kb/d in 3Q97 versus over 250 kb/d in combined new field additions and repairs and upgrades, resulting in a net increase of almost 110 kb/d, including about 20 kb/d higher NGL production related to expanding non-associated gas supplies.

Relative Effects of North Sea Maintenance, New Fields and Repairs-Upgrades

(Quarter-on-Quarter Changes in thousand barrels per day)

System/Area	Second Quarter					Third Quarter				
	Maint.	New Fields *	Upgrades & Repairs	Other Fields	Total	Maint.	New Fields	Upgrades & Repairs	Other Fields	Total
United Kingdom	-267	200	134	-31	37	92	138	28	-53	206
Norway	-86	72	85	-26	45	-194	40	22	-47	-179
Denmark	-10	5	4	-8	-8	0	7	5	1	14
Netherlands	-5	0	0	0	-5	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Total Crude	-368	278	223	-65	68	-102	186	55	-98	41
NGLs					-30					8
Total Oil	-368	278	223	-65	39	-102	186	55	-98	48

* including extended well tests

UK North Sea crude oil production fell by 70 kb/d in February to 2.475 mb/d. Offshore-loaded fields were 53 kb/d lower but almost half of the decline was due to the expected end of the extended well test on the Banff field, with the remainder thought to be due to weather effects at the Alba, Donan, and Kittiwake fields. Conversely, the offshore-loaded Harding field achieved a new record of 77 kb/d, an increase of 6 kb/d on January's previous record. Brent system output decreased by about 30 kb/d versus an expected gain 35 kb/d. Production at the Brent field was nearly 20 kb/d below January levels due to problems with well performance on the Brent Alpha and Delta platforms and the Brent Charlie platform continued to produce at just over one-third of capacity. Ninian system production was about 10 kb/d lower than in January due to ongoing problems at the Magnus field and Fulmar Area production decreased slightly as increased output from an extended reach well from the Auk platform was more than offset by reduced Gannet, Fulmar and Clyde field production. Production advanced by about 15 kb/d for the Forties system as a result of an unexpectedly large increase at the Thelma field but declines of 5-10 kb/d at the Toni and Scott fields and smaller decreases at a number of other fields offset 5-10 kb/d increases at the Telford, Nelson and Miller fields. Liverpool Bay's Douglas field production rose by about 10 kb/d and the combination of small monthly increases at the Teal area, the M-Block and the Beryl and Flotta systems added a similar amount. In the Flotta system, the Iona (previously Piper South) satellite started up during February, producing from horizontal wells drilled from the Saltire A platform, where completion of the tie-in work appears to have resulted in an 8 kb/d production increase from the main field.

The March UK production estimate of 2.86 mb/d has been adjusted downwards modestly to reflect some of the unexpected February underperformance but an increase in crude oil production of about 180 kb/d is thought to have occurred. About 65 kb/d of the monthly gain is expected to have occurred in the offshore-loaded fields, where the start-up of the Captain field early in the month is estimated to have added 35 kb/d and an extended well test on the Ross field 10 kb/d. A 10 kb/d increase is also assumed for the Alba field with a similar combined increase from the other offshore-loaded fields. Forties system production is believed to have exceeded 1.0 mb/d in March for the first time since November 1995, led by recovering production at the Toni, Nelson and Forties fields. Both Brent and Ninian system output are seen rising but to have remained just below January levels. An increase of about 25 kb/d for the Brent system was concentrated in the Brent field, in advance of the shutdown of the Brent Delta platform on 1 April for extended reconfiguration work. A small maintenance related decline for the North Cormorant field was thought to have been more than offset by small increases elsewhere. New wells in the Teal area and the return of Gannet to near capacity accounted for 10-15 kb/d each of the monthly increase and gains of 5-10 kb/d were assumed for the Ninian system, Liverpool Bay, the Beryl Area.

The table below estimates the composition of the expected UK production increases for 2Q97 and 3Q97, supporting a conclusion that the normal declines due to seasonal maintenance are not likely to occur this year because of more than offsetting increases from new field start-ups and the impact of repairs and new wells at older fields. A small increase of about 20 kb/d is projected for 2Q97 and a larger gain is expected in 3Q97 with the return of many fields from 2Q97 maintenance.

Relative Effects of United Kingdom Maintenance, New Fields and Repairs-Upgrades

(Quarter-on-Quarter Changes in thousand barrels per day)

System/Area	Second Quarter					Third Quarter				
	Maint.	New Fields *	Upgrades & Repairs	Other Fields	Total	Maint.	New Fields *	Upgrades & Repairs	Other Fields	Total
Brent	-83	0	35	-1	-49	15	0	0	-9	5
Ninian	-14	0	14	-3	-2	13	0	9	-2	20
Forties	-80	0	22	-6	-64	63	0	14	-13	64
Flotta	-27	1	0	-7	-34	21	41	0	-9	53
Beryl	-11	0	8	-4	-7	10	7	0	-1	16
Fulmar-Teal	-32	0	15	-2	-19	14	9	0	-9	14
M-Block, Nigg Bay	0	0	0	-0	-0	-3	0	1	-0	-2
J-Block	0	55	0	0	55	0	15	0	0	15
Liverpool Bay	0	0	30	0	30	-12	0	3	-4	-13
West of Shetlands	0	78	0	0	78	0	41	0	0	41
Offshore-Loaded	-20	66	10	-8	48	-29	25	1	-5	-8
Total Crude	-267	200	134	-31	37	92	138	28	-53	206
NGLs					-18					8
Total Oil	-267	200	134	-31	19	92	138	28	-53	214

* New Fields: Captain, Foinaven, Joanne, Judy, Durward-Dauntless, MacCulloch, Gannet E&F, Curlew, Katrina; Extended well tests: Mariner, Ross-Etrick, Schiehallion; note that an EWT on the Banff field ended in 1Q97.

February oil production increased by about 35 kb/d to 3.20 mb/d in the **Norwegian** sector, despite bad weather. High seas significantly reduced production at several offshore platforms due to full storage and inability to load vessels. The recovery of the Ekofisk system and higher Yme and Valhall production raised output from the Ekofisk & Southern Area by 90 kb/d offsetting almost all of the declines in the Statfjord-Gullfaks Area. The Gullfaks and Snorre fields each experienced declines of around 45 kb/d, while the Statfjord complex (including the East and North satellite fields) output fell by about 15 kb/d and Tordis production was down by a little over 10 kb/d. Although restrained by the storage situation, the new Vidis field was able to average 26 kb/d, up 22 kb/d from its initial month. Haltenbanken output rose by more than 30 kb/d; a gain of nearly 40 kb/d at the Heidrun platform, which pipes oil to shore, dominated a small decline at the offshore-loaded Draugen field. Production from the East and West Troll fields rose by slightly more than the decline in the East and West Sleipner condensate fields.

March production is estimated to have increased by an additional 125 kb/d to 3.34 mb/d. Although weather effects were also present during the month, recoveries are thought to have occurred at the Gullfaks (+35 kb/d) and Snorre (+15 kb/d) fields and production from the Vigdis field is seen averaging 45 kb/d for the month on its way to an initial peak of 70 kb/d. Higher production levels at the Ula field, due to the initiation of a WAG (water alternating with gas) programme, and fuller use of the new platform at the Valhall field are seen raising southern area production by nearly 15 kb/d. Veslefikk and West Troll field production are assumed to have advanced by 10 kb/d and 20 kb/d respectively.

The table below analyses the sources of projected quarterly changes in Norwegian production over the next two quarters. As with the UK, new fields and upgrades and repairs (and normal weather) are expected to more than compensate for maintenance outages in 2Q97 but heavy maintenance to the Statfjord-Gullfaks fields is projected to lead to a 200 kb/d quarterly decline in 3Q97.

Relative Effects of Norwegian Maintenance, New Fields and Repairs-Upgrades

(Quarter-on-Quarter Changes in thousand barrels per day)

System/Area	Second Quarter					Third Quarter				
	Maint.	New Fields *	Upgrades & Repairs	Other Fields	Total	Maint.	New Fields *	Upgrades & Repairs	Other Fields	Total
Ekofisk & Southern	0	0	55	-2	53	-35	0	6	-8	-36
Sleipner-Frigg	0	5	0	-2	3	-5	7	2	-8	-5
Statfjord-Gullfaks	-9	56	9	-17	38	-113	8	2	-44	-148
Oseberg-Troll	-44	11	9	-5	-28	-23	-0	2	-30	-52
Haltenbanken	-33	0	13	0	-21	13	26	4	0	43
Total Crude	-86	72	85	-26	45	-163	40	15	-90	-198
NGLs					-12					-0
Total Oil	-86	72	85	-26	33	-163	40	15	-90	-198

* including extended well tests for H-Central (2Q97) and Hermod (2Q97,3Q97)

Data from the Danish Energy Agency show that **Danish** oil production declined unexpectedly again in February, falling by 11 kb/d to 217 kb/d. January production had declined by 4 kb/d versus an expected gain of 15 kb/d. Rather than recovering in February, Danish production experienced an even larger decline. The Svend field, which started up early last year, may have undergone maintenance in February as production dropped by 8 kb/d to 21 kb/d, whereas production had been over 30 kb/d in December. The Gorm and Skjold fields also had slightly lower production in February. March output is thought to have returned to nearly 240 kb/d. **Dutch** production averaged 34 kb/d in February versus 36 kb/d in January. The Horizon, P18 and F3-FB fields were each down slightly, while the other four currently producing fields remained near January levels..

Pacific

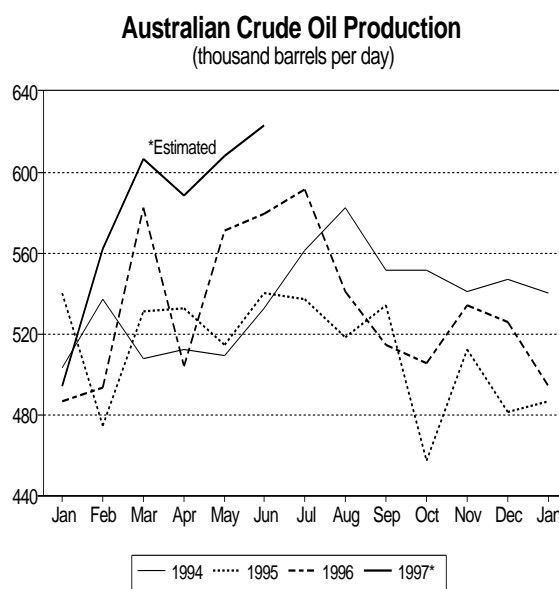
Australian production is reported to have fallen by around 30 kb/d in January by both the Department of Primary Industry and Energy (DPIE) and the Australian Petroleum Production and Exploration Association (APPEA), although the DPIE decrease is somewhat below 30 kb/d and the APPEA reports a drop of 33 kb/d. The majority of the decline occurred at the Wanaea-Cossack complex, where output decreased by 25 kb/d to under 60 kb/d due to technical problems with the gas export system and bad weather. There were also declines at the Harriet field (-7 kb/d) and the offshore Thevenard Island area (-2 kb/d) and the onshore Cooper field (-2 kb/d). A small increase occurred at the Griffin field following maintenance in December but at 33 kb/d the field is producing at less than half its 80 kb/d capacity. Gippsland Basin production rose by 4 kb/d, probably as a result of rising output from the new West Tuna and Bream B platforms. The weather problems off the

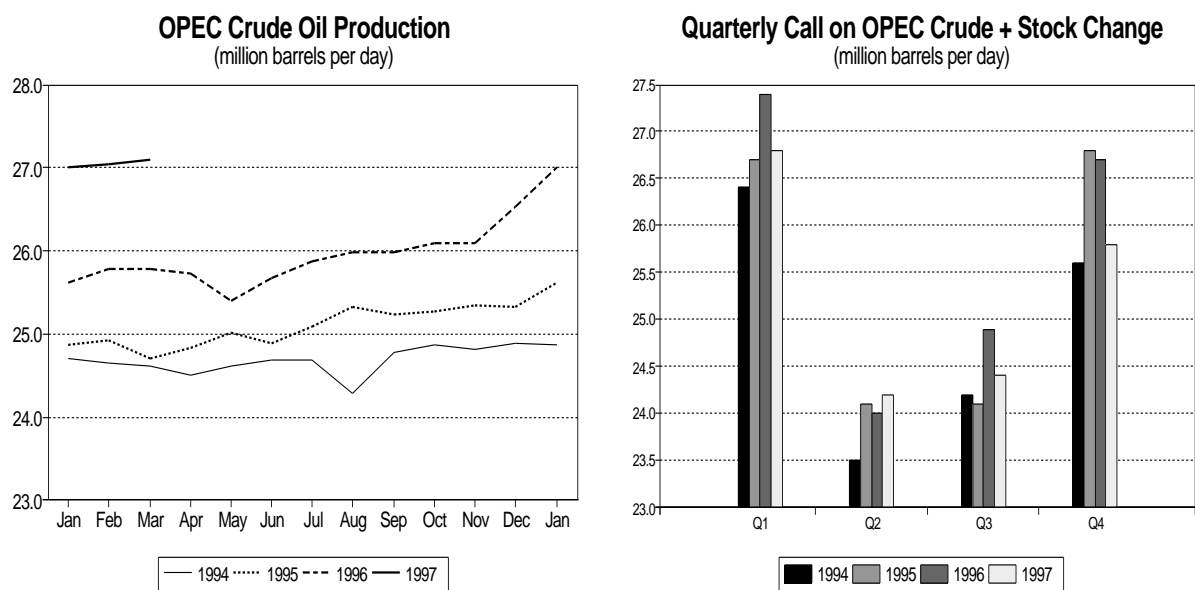
northwest coast of Australia continued in February, with tropical depressions (that did not develop into cyclones) forcing floating production vessels off their fields in each of the last two weeks of the month. Nonetheless, higher Griffin output during the rest of the month is assumed to have permitted the field to average almost 70 kb/d in February, an increase of about 35 kb/d over January levels. Estimated increases from the Jabiru, Wandoo and Harriet fields and a recovery in the Cooper Basin are thought to have added another 35 kb/d, bringing February Australian oil output to 620 kb/d. Wanaea-Cossack production was reduced to 40 kb/d in the early part of the month due to a broken part, again in the gas export system but by mid-month production had been brought back to 65 kb/d or about half full capacity.

A smaller monthly gain of about 45 kb/d is thought to have occurred in March, bringing total oil production to 665 kb/d, including 61 kb/d of NGLs. About half of the increase was attributable to better performance at the Wanaea-Cossack and Griffin fields but output also benefited from the start-up of the Wandoo B platform and higher condensate production from the North Rankin and Goodwyn fields. The beginning of a month-long maintenance outage for the Griffin field in mid-April is expected to lead to a 15 kb/d decline in overall production for the month despite small increases elsewhere, primarily due to expected completion of repairs to the Wanaea-Cossack gas system. Even with the Griffin maintenance, 2Q97 Australian output is projected to increase by about 60 kb/d versus 1Q97, adding to the market imbalance discussed in the opening section of the Report.

OPEC

OPEC crude oil production is estimated to have increased by just over 40 kb/d in March to 27.09 mb/d and NGL production rose by about the same amount to 2.49 mb/d. Production from five of the OPEC countries increased, while five others decreased, with Qatar essentially unchanged. Neutral Zone production increased but not by enough for its respective shares to offset declines in either Saudi Arabia or Kuwait. All of the production declines except for Nigeria were in the Persian Gulf, which more than offset higher Iraqi production. All of the other non-Gulf producers increased production in March by between 5 kb/d and 35 kb/d.





Iraqi production was thought to have been up by almost 100 kb/d, as exports surged to nearly 1 mb/d in the first nine days of the month in an attempt to meet the \$1 billion target for the first 90 days of the UN “oil-for-food” programme. Market resistance had resulted in a fall-off in exports at the end of February. Exports and production levels (which are directly linked to exports) are expected to have fallen off sharply later in the month, resulting in an estimated average Iraqi production for March of 1.17 mb/d versus 1.07 mb/d in February. A little under 500 kb/d of Iraqi production is assumed to be used for direct burning and refined domestically, with an additional 60 kb/d exported by truck to Jordan.

A little more than half of the Iraqi monthly increase was offset by an estimated decline in **Saudi Arabian** production. Production within the Kingdom is thought to have been around 7.8 mb/d in March, if the offshore Abu Safa field is excluded. Since the proceeds from the sale of Abu Safa production are given to Bahrain, some sources include it in Bahraini production, despite the field being located entirely in Saudi waters. Recent reports of a spike in domestic (excluding the Neutral Zone) production would not appear to be consistent with underlying Saudi oil policy and have not been factored into the estimates in this Report, despite tanker loadings reportedly running at very high levels in the first week of February. Recent Saudi pricing policy appears to be realistic but not aggressive, supporting the view of a continuation of a relatively conservative Saudi approach to oil policy.

Elsewhere in the Gulf, difficult sour crude markets are thought to have led to reduction in **Kuwaiti** and **Iranian** production of 40 kb/d and 15 kb/d respectively, while **UAE** production is estimated to have been reduced by just over 20 kb/d as a result of maintenance work at the Umm Shaif field and declining Dubai production. The other OPEC country experiencing declining production in March was **Nigeria**, where a disagreement between the local and Federal Governments disrupted Bonny Medium and Bonny Light production in the Rivers and Delta States during the last two weeks of the month, resulting in a 60 kb/d reduction in Bonny-Forcados for the month as a whole. About one-third of the drop appears to have been offset by a 15 kb/d rise in Escravos production and rising production from the new Ngo offshore field.

All of the other non-Gulf OPEC countries are thought to have increased production in March, with **Libya** (+30 kb/d) and **Algeria** (+5 kb/d) representing partial recoveries from February declines of 45 kb/d and 10 kb/d respectively. Increases of 35 kb/d for **Indonesia** and 30 kb/d for **Venezuela** are in line with recent upward trends in production.

Former Soviet Union (FSU)

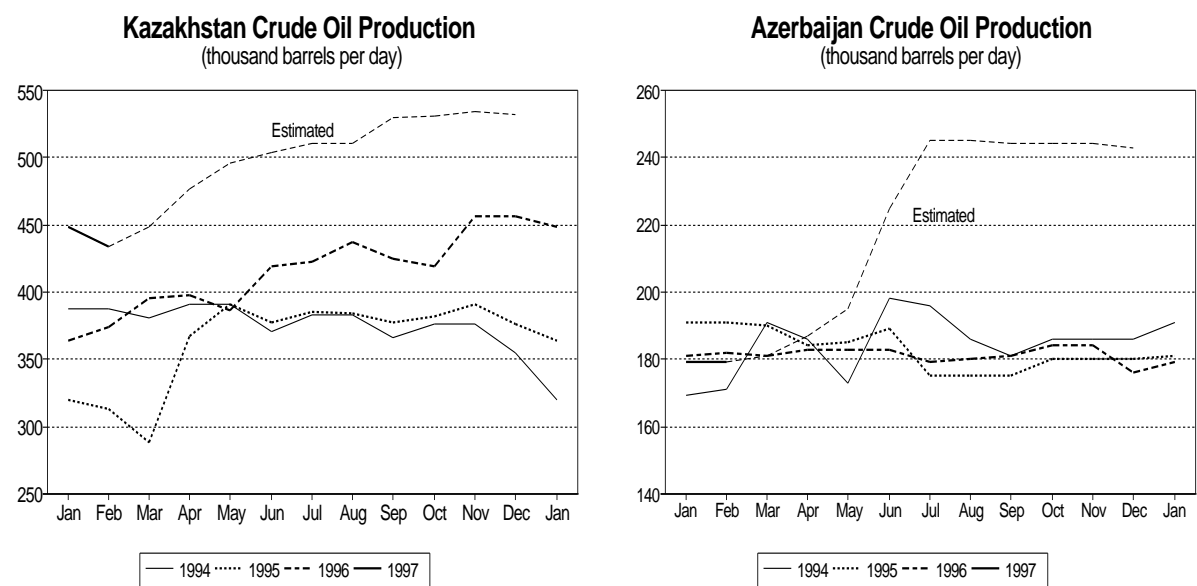
Production

FSU production is estimated to have declined by 50 kb/d in 1Q97 versus 4Q97 and 10 kb/d versus 1Q96. Conversely, shipping data indicate net FSU exports were about 375 kb/d above last year’s level in 1Q97, causing a 385 kb/d fall in 1Q97 FSU apparent demand (see page ?? of the Demand section above). Year-on-year growth in exports was a strong 440 kb/d in January but a downwardly-revised monthly decline

of 180 kb/d in February reduced the year-on-year rise to 290 kb/d. As discussed below, preliminary data suggest a monthly increase of about 110 kb/d in March to 2.78 mb/d, 380 kb/d above March 1996. January FSU oil production was 122 kb/d above January 1996 but a monthly decline of 130 kb/d in February, due to lower Russian and Kazakhstan production, brought the FSU total to nearly 90 kb/d below its year-earlier level. An additional small decline is thought to have occurred in March as lower Russian production offset gains in Kazakhstan and Azerbaijan, resulting in year-on-year decline of about 70 kb/d.

Russian production in February is estimated to have decreased by 120 kb/d to 5.91 mb/d from the revised January level, with most production associations thought to have seen decreases. Lukoil and Yukos, which had increased production in January, are believed to have experienced the largest declines. Lower production levels are also assumed to have occurred for the Tyumen, Sidanco and Surgutneftegas companies, which had all been down in January, with the declines in the first two appearing to accelerate. The only significant increase was an estimated 15 kb/d gain for Tatneft. Production by joint venture fell by about 30 kb/d in February, following a 25 kb/d decline in January. March Russian production is estimated to have fallen by about 35 kb/d, despite assumed recoveries for Lukoil, Sidanco and KomiTek, as joint-venture output fell by an additional 30 kb/d and other production associations were generally lower and NGL production began to decline seasonally.

Kazakhstan's oil production declined again in February to 484 kb/d, 12 kb/d below the January level. In contrast to January when Tengizchevroil production remained at 146 kb/d, lower production from the joint venture accounted for almost all of the February decline. The monthly decline in January had been shared about equally between the Embanefit, Atyubinsk joint stock companies and Karachaganak condensate, all of which are reported to have seen modest recoveries in February. In contrast, Tengizchevroil production was reduced to 135 kb/d in February, as the anticipated oil swap deal with Iran ran into problems. Output was also slightly lower from the Mangistau and Tengiz joint stock companies, which were to provide some of the oil for the blend to be exported to Iran. A small initial cargo in late January was forced to wait to unload at the Iranian Caspian port of Neka, reportedly due to inadequacies at the port and incurred substantial demurrage charges. From the Iranian side, complaints were raised about the high mercaptan content of the crude blend, probably due to the high portion of Tengiz crude. As shown in the left-hand graph below, February is expected to have been the low point for the year in Kazakhstan production. It is considered likely that some accommodation will be reached in terms of a quality adjustment in the exchange agreement with Iran, possibly in conjunction with modifications to the export blend mix, the Iranian refinery processing configuration or both. Better access to the Russian pipeline system is expected now that Lukoil is a partner in the joint venture. Consequently, Kazakhstan production, which is thought to have recovered to 500 kb/d (including just over 50 kb/d of condensates) in March, is projected to rise steadily through the remainder of the year.



February crude oil production from **Azerbaijan** remained at 180 kb/d, whereas a small increase had been expected. An increase of 3 kb/d had been expected, with the shortfall shared about equally between onshore and offshore production, leaving onshore production at 31 kb/d and offshore output at 149 kb/d. As mentioned in the trade discussion below, production is believed to have been aided in March by a modest amount of exports through Russia. But, as can be seen from the right-hand graph above, a definitive upward move in Azerbaijani exports and production is not expected until June when production from the large Chirag offshore field comes onstream, although the onset of the increase could be later. The formal agreement with Transneft does not become fully functional until October when repairs to the Chechnyan portion of the so-called "northern route" are expected to be completed.

Net Exports

Net FSU exports in March are preliminarily estimated at 2.78 mb/d, up 110 kb/d from the revised estimate for the previous month. Seaborne crude exports increased by 130 kb/d despite a pipeline maintenance at the Black Sea port of Novorossiisk early in the month and occasional port closures at other Black Sea ports. Reportedly, small amounts of Azerbaijani crude exports destined for shipment outside the FSU were made in March for the first time since Azerbaijan's independence. According to plans from Azerbaijani state oil company SOCAR, 20 kb/d of crude oil were to be exported between April and December this year. However, disagreements with the Russian Transneft pipeline company are delaying full implementation, probably until mid-summer. With fuel oil exports increasing by 45 kb/d to 270 kb/d and continued high levels of gasoil exports at 370 kb/d, total product exports were over 700 kb/d in March, as they were in February.

1995-1997 Net FSU Exports

(million barrels per day)

	1995	1996 ^f	1997 ^f	3Q96 ^f	4Q96 ^f	1Q97 ^p	Nov	Dec	Jan	Feb ^f	Mar ^p
Black Sea Exports*	0.98	1.14	†	1.18	1.08	1.08	1.16	0.99	1.12	1.02	1.08
Baltic Exports	0.61	0.77	†	0.79	0.80	0.83	0.79	0.70	0.83	0.79	0.87
Total Seaborne	1.59	1.91	†	1.97	1.88	1.91	1.95	1.69	1.95	1.81	1.95
Druzhba Pipeline**	0.83	0.87	†	0.90	1.07	0.93	1.10	1.11	0.97	0.92	0.90
Total Exports	2.42	2.78	†	2.87	2.95	2.84	3.05	2.80	2.92	2.73	2.85
Imports	0.05	0.06	†	0.07	0.08	0.07	0.09	0.07	0.07	0.07	0.07
Net FSU Exports	2.37	2.72	2.82	2.80	2.88	2.77	2.96	2.73	2.85	2.67	2.78
NB: Crude Oil	1.91	2.12	†	2.19	2.25	2.17	2.34	2.16	2.35	2.01	2.15
Oil Products	0.46	0.61	†	0.61	0.62	0.59	0.62	0.57	0.50	0.66	0.63

* Includes a small amount of non-Russian crude oil exports

† Data not available

f Forecast

** Crude oil only

p Preliminary

r Revised

Other Non-OPEC

Latin America

Latin America is expected to add 150 kb/d to 2Q97 non-OPEC oil supply versus 1Q97, assuming normal operating conditions. The quarterly increase for crude oil of 100 kb/d is the result of new fields in Mexico (+30 kb/d), less maintenance in Brazil's Campos Basin (+25 kb/d), repairs to the main Ecuadorean pipeline (+20 kb/d), seasonal increases in Argentina (+15 kb/d) and fewer pipeline bombings in Colombia (+10 kb/d). NGL output is also seen advancing by over 40 kb/d, with completion of repairs to the Mexican Cactus plant and seasonal increases in Argentina. Some of the NGL gain is expected to be offset by lower production of alcohol fuels in Brazil due to phasing out of subsidies. Growth in 3Q97 is projected to be even larger, with the start-up of the 500-kb/d Oceansa Pipeline in Colombia and more new fields offshore Mexico and Brazil leading to a 165 kb/d quarter-on-quarter increase.

As shown in the table below, a year-on-year gain in 1997 of over 460 kb/d is projected with Brazil, Mexico and Colombia accounting for more than 75% of the increase. For the latter two, the 1997 rise only partially represents the capacity added, since the Colombia's Oceansa Pipeline is scheduled for June completion and will be filled slowly over the second half of the year and several Brazilian offshore projects will begin late in the year. Brazil's crude oil production is preliminarily forecast to rise by 255 kb/d in 1998 and Colombia's by 115 kb/d. Ecuador is also expected to show a larger increase next year (31 kb/d versus 10 kb/d in 1997), as a branch line to the main Trans-Andean pipeline is completed. Even with smaller increases in Mexico and Argentina, the 1998 annual growth is expected to be over 450 kb/d in non-OPEC Latin America.

Latin American* Oil Production 1996-1998

(thousand barrels per day)

	1996	1Q97	2Q97	3Q97	4Q97	1997	1998	Changes	
								1997	1998
<i>Crude Oil</i>									
Mexico	2858	2961	2986	2993	3008	2987	3011	129	24
Brazil	776	870	897	915	996	920	1174	143	255
Argentina	784	820	835	857	837	837	847	53	10
Colombia	627	632	647	729	828	710	825	83	115
Ecuador	384	367	385	402	420	394	425	10	31
Peru	121	121	121	117	115	118	122	-3	4
Trinidad	120	125	125	127	122	125	128	4	3
Bolivia	25	26	26	26	26	26	25	1	-1
Cuba	27	27	27	27	27	27	25	0	-2
Chile	11	14	14	15	15	15	16	3	1
Guatemala	13	18	20	22	25	21	22	8	1
Surinam	9	8	8	8	8	8	8	-1	0
Barbados	1	1	1	1	1	1	2	-0	1
Total	5756	5990	6091	6237	6427	6188	6630	432	443
Mexican NGLs	427	408	455	462	500	457	480	29	23
Other NGLs	116	125	138	142	141	137	151	21	14
Brazilian Alcohol Fuels	231	222	212	210	215	215	190	-16	-25
Total Oil Supply	6530	6746	6896	7051	7284	6996	7451	466	456
Memo:									
Venezuela**	2589	3459	NA	NA	NA	NA	NA	NA	NA
Total Oil Supply (inc. Ven.)	9119	10205	NA	NA	NA	NA	NA	NA	NA

* Including Mexico, which joined OECD in 1994 but has not yet been fully integrated into the IEA data system

** including crude oil, NGLs, condensates and hydrocarbon inputs to Orimulsion ©

February **Mexico** crude oil production increased by an unexpectedly large 29 kb/d to 2.968 mb/d, while NGL production rose by a smaller-than-expected 11 kb/d to 377 kb/d, according to data received from the state oil company, PEMEX. As with the January data, the crude oil increase had been expected to be around 10 kb/d, with about 30 kb/d of NGL production growth, a reversal of the actual pattern. Crude oil exports declined by 24 kb/d as the result of sharply lower exports of heavy Maya grade (-108 kb/d) more than offset increases in the Olmecca (+75 kb/d) and Isthmus (+10 kb/d) blends. Most of the reduction in exports occurred for European destinations, as exports to the US and Far East remained near January levels.

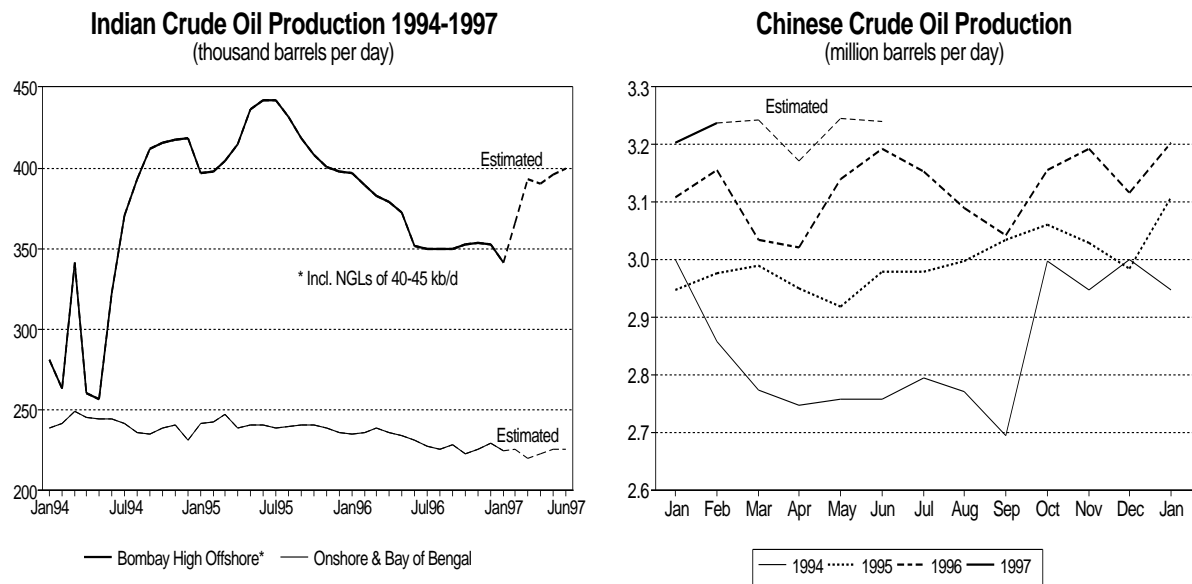
Colombian production is believed to have declined in both February and March as pipeline bombings, labour unrest and attacks on oil facilities restricted output following a recovery to 639 kb/d in January, the fourth highest monthly average, trailing only September 1995 (645 kb/d), October 1996 (644 kb/d) and July 1996 (640 kb/d). Reported February production showed that an 8 kb/d decline to 178 kb/d in Cano Limon output and a 4 kb/d fall in Cusiana-Cupiagua production to 180 kb/d were only partially offset by a 7 kb/d increase in production under other association contracts. Ecopetrol's own production also declined in February, by 4 kb/d to 117 kb/d.

Brazilian oil production was reported to have fallen by 7 kb/d to 857 kb/d in February as a result of maintenance activities in the Campos Basin. The offshore decline was partially offset by higher production levels from the onshore Amazonas Province as production from the Urucu oil and gas project. **Ecuador's** crude oil output rebounded by more than 50 kb/d to 392 kb/d in February following damage to the main pipeline across the Andes in January. However, another problem occurred in early March, when a gear snapped in a pump engine that was apparently overdue for maintenance, which is expected to have resulted in a decrease of about 15 kb/d for the month. Data for the second half of 1996 and January 1997 received from the **Argentine** Energy Secretariat have led to an upward revision of 10-20 kb/d for 3Q96 and 4Q96, with comparable upward revisions for 1997. January oil production was 862 kb/d versus 852 kb/d in December (both numbers are believed to include 45-50 kb/d of NGLs).

Asia

Indian oil production decreased by 16 kb/d in January to 620 kb/d, with three-quarters of the decline in the western offshore areas. Production was down 9% from January 1996 and almost 11% below target, although the Tamil Nadu area substantially exceeded a relatively modest target. A monthly decline of 2 kb/d occurred in Gujarat from already depressed levels as problems with the Ganghar and Ankleshwar fields continued and power outages in Mehsana restricted output further. In Assam, the shutdown of the Digboi refinery and strikes forced the shut-in of a similar amount in Arunachal and sporadic power outages prevented a recovery in Nagaland production.

According to the Chairman of the Oil and Natural Gas Corp., offshore Arabian Sea production has begun to recover, following completion of repair work to a number of wells, which required extensive side-tracking and better handling of high gas and water content in some wells in the Neelam and Bombay High fields. March offshore production was reported to have reached 392 kb/d versus 340 kb/d in January, representing a substantial upward revision from last month's Report.



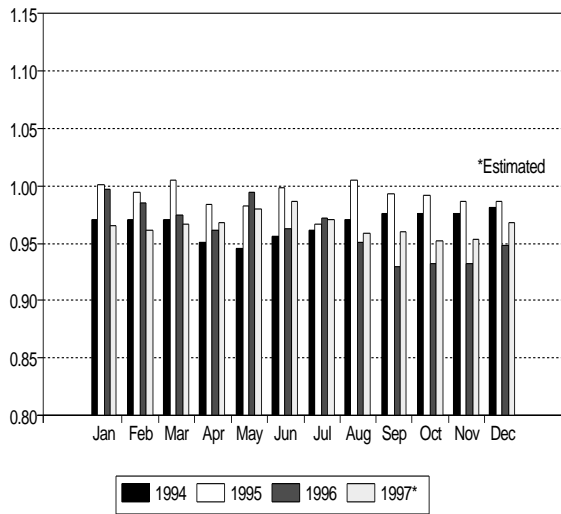
Aggregate **Chinese** crude oil production is reported to have risen by 35 kb/d in February to 3.237 mb/d following an 87 kb/d rise in January. The January increase was split between Eastern China and the offshore, which reported gains of 39 kb/d and 36 kb/d respectively. The largest increases in Eastern China occurred in the Dagang (+13 kb/d) and Shengli (+11 kb/d) areas. An 11 kb/d gain was also recorded in the Tarim Basin with expanding production from the Tazhong #4 field but elsewhere in Western China a small increase from the Turpan-Hami area was offset by a fall in Junggar Basin production. It is thought that about 40% of the February increase resulted from continued expansion of the Tazhong #4 production, with most of the remainder occurring offshore.

Elsewhere in Asia, data from **Malaysia's** Bank Negara indicate crude oil and condensate production averaged 751 kb/d last year from thirteen oil fields, all offshore, about 10 kb/d higher than previous estimates. Production of condensates averaged nearly 70 kb/d and are continuing to grow with the expansion of Malaysia's LNG facilities. Crude oil production declined from 663 kb/d in 1995 to 646 kb/d in 1996 in line with the "National Depletion Policy" that mandates a fixed reserve-production ratio. Malaysian production is expected to increase this summer with the start-up of the PM3 condensate field in the Joint Development Area between Malaysia and **Vietnam**. Riots in some cities in **Papua New Guinea** have not affected oil production since the currently-producing Kutubu field and nearby Gobe fields under development are in very remote southern mountain locations and an earlier dispute with local landowners over equity splits between the companies, the Papua New Guinea Central Government and the local landowners appears to have been resolved.

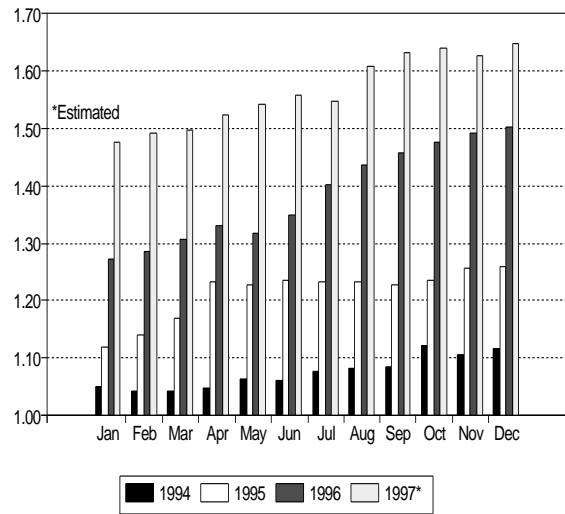
Africa

Growth in non-OPEC African supply is the result almost exclusively of increases from the Sub-Saharan producers which have more than overcome declines in the North African Non-OPEC producers; Egypt, Tunisia, Morocco and the Sudan. The bar charts below show the monthly production estimates for the last three years and the expected production for 1997. The Sub-Saharan production is dominated by offshore output, primarily from **Angola, Gabon** and the **Congo** but smaller producers like the **Cameroons, Equatorial Guinea** and the **Ivory Coast** have all brought significant new offshore fields into production and exploration and development are continuing. **South Africa's** first offshore field, Oribi, is now expected onstream in May with production of around 20 kb/d.

North African Crude Oil Production
(million barrels per day)



Sub-Saharan Crude Oil Production
(million barrels per day)



OECD TRADE

The tables below show net crude oil and product imports as well as intra-regional crude trade in the OECD for 1996 compared with data for 1995. It will be noted that, due to discrepancies as well as the preliminary status in import and export data reported by governments, the trade among OECD regions does not exactly balance and, in some instances, there are significant volumes from unspecified sources. Nonetheless, some major trends both in crude and product trade may be clearly observed.

Crude Trade

As shown in the table below, net crude imports in 1996 by North America and Europe increased by 346 kb/d and 285 kb/d respectively, while the Pacific region imported about the same net volume of crude as in the previous year. Increases in net imports from Latin America to North America and from FSU and Africa to Europe, to a large extent, accounted for the increase in imports to those regions.

Net Crude Oil Imports by OECD Regions

	1Q96		2Q96		3Q96		4Q96		1996	
	kb/d	change*	kb/d	change*	kb/d	change*	kb/d	change*	kb/d	change*
NORTH AMERICA **										
Sources:										
OECD										
Pacific	7	-6	28	8	-2	-15	34	22	16	2
Europe	864	-71	1031	-13	843	-21	710	-196	864	-73
Non-OECD										
Latin America	3095	372	3367	450	3275	84	3343	564	3279	376
Non OECD Europe (excl.FSU)	0	0	0	0	0	0	0	0	0	0
FSU	0	0	26	26	41	-14	11	11	20	6
Middle East	1616	-78	1768	93	1875	180	1751	68	1758	71
Asia (excl. China)	65	-8	95	34	38	-55	-24	-101	44	-33
China	61	14	25	-18	72	7	64	4	56	2
Africa	1537	56	1536	-73	1722	100	1569	-22	1596	20
Non-Specified/Other	0	-39	32	15	63	17	35	24	33	5
Total Imports	7368	228	8052	460	8058	300	7575	313	7785	346
PACIFIC ***										
Sources:										
OECD										
North America	-7	33	-24	0	-11	8	-38	-19	-20	5
Europe	0	7	-6	-6	0	0	0	0	-2	0
Non-OECD										
Latin America	71	-2	77	-22	91	14	105	39	86	8
Non-OECD Europe (excl.FSU)	0	0	0	0	0	0	0	0	0	0
FSU	0	0	0	-0	0	-0	0	0	0	-0
Middle East	3996	-128	3466	54	3523	-60	3858	118	3721	7
Asia (excl. China)	764	36	609	-100	575	-5	593	-72	637	-33
China	242	-9	201	-32	255	25	222	7	231	-2
Africa	78	39	23	-13	28	21	20	-9	37	9
Non-Specified/Other	-7	4	-10	-4	-23	-17	-46	-40	-22	-14
Total Imports	5146	-2	4329	-127	4462	-3	4733	49	4680	-6
EUROPE										
Sources:										
OECD										
North America	-981	41	-1080	-267	-766	253	-820	-17	-913	0
Pacific	0	0	0	0	0	0	0	0	0	0
Non-OECD										
Latin America	303	-39	318	-43	323	-10	303	4	313	-21
Non OECD Europe (excl.FSU)	-76	-8	-56	61	-49	78	-66	82	-66	53
FSU	1147	17	1376	187	1476	240	1337	292	1338	188
Middle East	3550	107	3376	-219	3394	-293	3371	-240	3432	-153
Asia (excl. China)	0	0	-39	-42	2	23	-19	-19	-14	-10
China	0	17	0	0	-8	-8	0	0	-2	2
Africa	2625	268	2428	222	2356	-36	2549	202	2496	170
Non-Specified/Other	46	-49	133	-92	89	-38	267	114	135	-16
Total Imports	6703	586	6360	-284	6716	252	7020	515	6719	285

* kb/d Year-on-year change

** Mexico is not included in North America and Korea is not included in Pacific for historical statistics reasons

The increase in North American crude imports was mainly met by Latin American crude. The US imported 1.43 mb/d of crude oil from Venezuela in 1996, 180 kb/d higher than 1995, which made Venezuela the largest crude oil exporter to the US. Imports from Mexico to the US also increased by more than 170 kb/d from the 1995 level. A total of 13.5 mb of Alaskan North Slope (ANS) crude was exported in 1996 to Asian countries. The exports were enabled by the bill authorising the export of ANS crude signed by the US President in November 1995, with the first shipment reported for July 1996. Korea imported the largest volume of 7.8 mb, followed by Taiwan (2.7 mb) and Japan (2.2 mb). The ANS exports to Asian markets peaked in October at 112 kb/d.

Imports from the FSU to Europe in 1996 increased every quarter compared with the equivalent quarter a year earlier with an annual increase at 190 kb/d. Among 170 kb/d increase in European net imports from Africa, the largest part was a 143 kb/d increase in exports from Nigeria. Production from Nigerian new fields contributed to the increase. In addition to the above, the trend toward shorter haul in North America and Europe is apparent from the evolution of intra-regional trade (see table below). When Mexico is included in North America, the volume becomes bigger as shown in the parentheses.

In the first two months following the resumption of Iraqi crude oil export in mid-December, a total of 7.7 mb was imported by OECD countries, according to the preliminary monthly data. Spain imported 0.9 mb in December and 2.9 mb in January. France and Italy imported 2 mb and 1.5 mb respectively in January. The US imported 0.4 mb in December.

Intra-Regional Crude Trade in 1996

	North America		Pacific		Europe	
	kb/d	change*	kb/d	change*	kb/d	change*
<i>Sources:</i>						
OECD North America	1125 (2399)**	66 (250)**	6	6	0	0
OECD Pacific	22	8	66	2	0	0
OECD Europe	864	-73	0	0	3374	380

* kb/d year-on-year change

** Mexico included

Compiled from gross import data

Product Trade

Net product imports by North America from Europe increased in 1996 mainly due to the recovery of European gasoline exports from the reduced level following the US introduction of reformulated gasoline. US motor gasoline imports from OECD Europe were around 200 kb/d in the middle of 1994, but slipped to under 80 kb/d in 1995. The imports recovered to 142 kb/d in 1Q96, maintained the level towards the end of the year, supported both by a surplus in Europe and robust demand in the US. The US motor gasoline imports from Latin America and the Middle East also increased, by 31 kb/d and 12 kb/d, to 83 kb/d and 22 kb/d respectively.

Imports of gasoil/diesel oil by OECD Europe from outside the region amounted to 440 kb/d in 1996, an increase of 170 kb/d compared with the previous year. Of the increase, 71 kb/d was met by an increase in FSU exports. Gasoil/diesel oil was heavily traded among European countries with the internally-traded volume totalled 940 kb/d, up 85 kb/d from the level a year earlier. European fuel oil imports from the FSU remained at 124 kb/d in 1996 due to imports in the first quarter as low as 48 kb/d which were affected by restrictive export tariffs imposed by the Russian government during the winter. OECD total product imports from the Middle East totalled 878 kb/d. Japanese imports occupied the predominant share, with major products being LPG (386 kb/d) and naphtha (274 kb/d).

Asian product imports (including those by China) from OECD countries decreased by 10% or 41 kb/d in 1996. The low import level relative to the rapid demand growth reflects the recent increase in refining capacity in the region and exports from the Middle East. Japanese kerosene and diesel imports in 1996 increased by 127 % and 41 % respectively, the largest part of the increase having occurred in the first quarter, when demand was strong. Japanese gasoline imports decreased by 13.8 % in 1996, while the demand increased by 3.5 %, implying a significant lowering of stocks.

Product Imports and Exports by OECD Regions in 1996

	North America		Pacific		Europe		Total	
	imports	exports	imports	exports	imports	exports	imports	exports
<i>Sources/Destinations:</i>								
<i>OECD</i>								
North America *	358	369	108	4	133	270	599	643
Pacific	11	93	45	61	1	1	57	155
Europe	196	199	2	1	2671	2958	2868	3158
<i>Non-OECD</i>								
Latin America	377	274	5	0	57	72	439	346
Non-OECD Europe (excl. FSU)	3	2	1	0	77	202	82	204
FSU	11	6	9	5	463	45	483	56
Middle East	43	17	723	0	112	41	878	58
Asia (excl. China) *	29	102	525	151	35	52	589	306
China	0	3	9	41	0	0	9	44
Africa	178	15	12	0	389	152	579	167
Non-Specified/Other	1	1	14	4	323	211	338	216
Total Imports	1208	1082	1452	267	4262	4005	6922	5353

* Mexico is not included in North America and Korea is not included in Pacific for historical statistics reasons.

OECD STOCKS

Industry Stock Changes in February

Preliminary estimates indicate that OECD industry stocks decreased by 0.5 mb/d in February. As shown in the table below, crude oil stocks were drawn by 0.4 mb/d, all of which occurred in the European region. Crude oil stocks in North America increased marginally and were unchanged in the Pacific. Middle distillate stocks were drawn at the same rate (0.2 mb/d) in North America and in the Pacific, while they increased contraseasonally in Europe.

	North America	Europe	Pacific	Total
Crude Oil	0.1	-0.5	0.0	-0.4
Gasoline	-0.1	0.0	0.0	-0.1
Distillates	-0.2	0.3	-0.2	-0.2
Fuel Oil	-0.1	0.1	0.0	0.1
Other Oil*	0.2	0.0	-0.1	0.1
Total Oil	-0.1	-0.1	-0.2	-0.5

* includes other products, feedstocks, NGLs and other hydrocarbons

Industry Stock Levels at the End of February

As a result of a major upward revision to the European stock levels in January 1997, the stock change during the month of January was revised from a small stockdraw to a stockbuild of 0.7 mb/d. This resulted in total OECD stocks being well above 1996 levels for the first two months of the year. The year-on-year difference increased in February and reached more than 100 mb, spread over all three regions, with Europe accounting for more than half of the difference. Middle distillates showed the largest positive year-on-year difference, although stocks were also higher than last year for crude oil and fuel oil. However, gasoline stocks in North America and in Europe were well below previous year's levels. At the end of February, industry stocks covered 58 days in terms of forward demand, or one day more than at the same time last year.

Regional Stock Developments in February

For the first time since June 1995, total oil stocks in **North America** were above previous year levels; this was mainly due to the smaller-than-normal stockdraw of 0.1 mb/d during the month of February. While crude oil stocks increased as a result of higher imports and lower refinery throughputs, product stocks declined seasonally by 9 mb. The largest decrease was in middle distillate stocks, although stocks ended the month 8% above the level of February 1996. As a result of the extensive spring refinery turnaround schedule in the US and despite sizeable gasoline imports, stocks were drawn during the month, widening the year-on-year shortfall to 13 mb and reached the lowest end-of-February level since 1985. Residual fuel oil stocks continued the decline started in January, although they remained well above last year's level (22.4%).

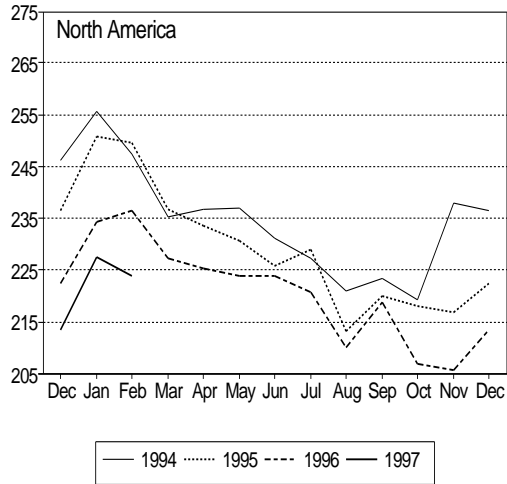
Weekly US DOE data indicate that, during the first four weeks of March, total US stock levels increased contraseasonally by 0.3 mb/d. Crude oil stocks were being built while gasoline and middle distillate stocks continued to decline, at rates of respectively 0.2 and 0.3 mb/d. While middle distillate stocks were 10% above February 1996 levels, gasoline stocks were 4% below the previous year's level.

In **Europe**, total industry stocks showed a small decline of 0.1 mb/d in February, albeit from upwardly-revised January levels. The largest January revision was for crude oil stock levels, which reached their highest level since July 1996. Crude oil stocks in February were drawn by 0.5 mb/d as refinery runs increased but they remained well above the average end-of-February level for the last five years. Despite gasoline stocks remaining almost unchanged in February, they ended the month 5 mb below last year's level. Mainly due to mild weather, middle distillate stocks showed an contraseasonal increase of 0.3 mb/d, with large increases in France, Germany and the Netherlands.

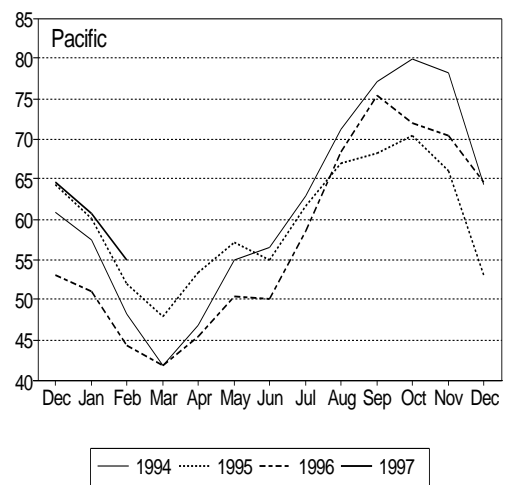
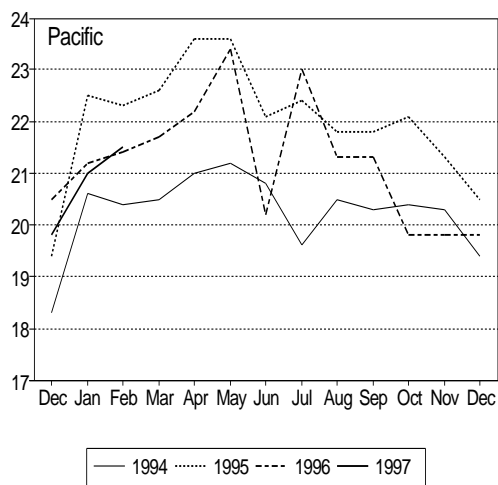
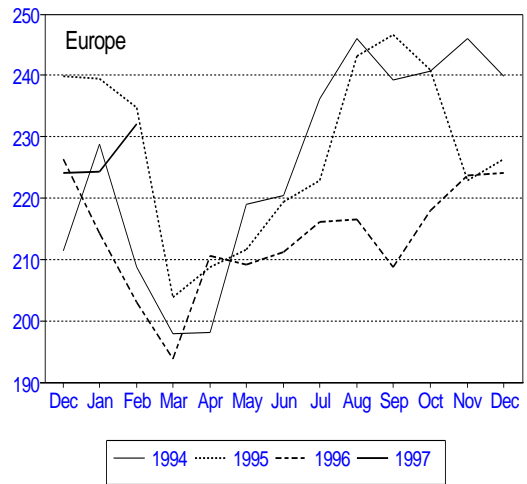
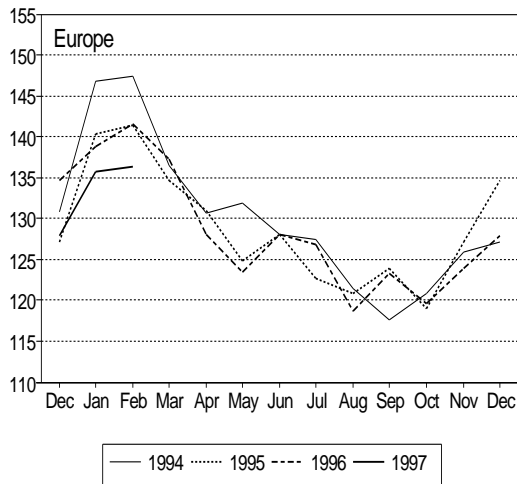
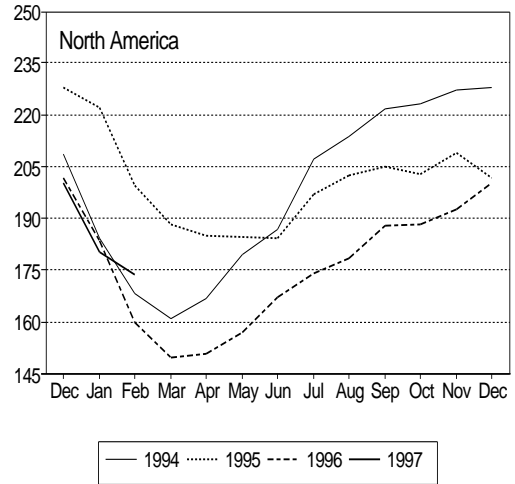
In the **Pacific** region, total oil stocks were drawn by 0.2 mb/d, a decline much smaller than the average over the last five years. Crude oil stocks remained almost unchanged from their end-of-January level. Gasoline stocks and fuel oil stocks increased slightly and both ended the month at typical levels for the time of the year, while middle distillate inventories continued their seasonal decline but remained 10 mb above last year's level (see graph on page 39).

Regional OECD Industry End-Month Stocks: Gasoline and Middle Distillates (million barrels)

Gasoline



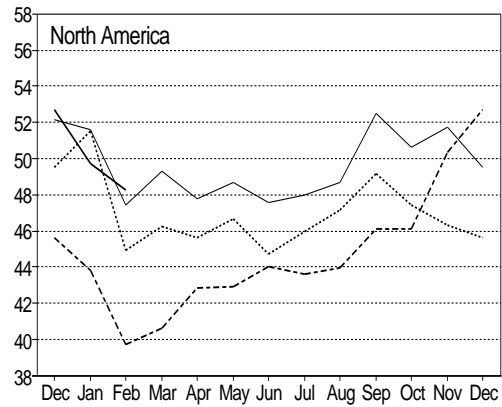
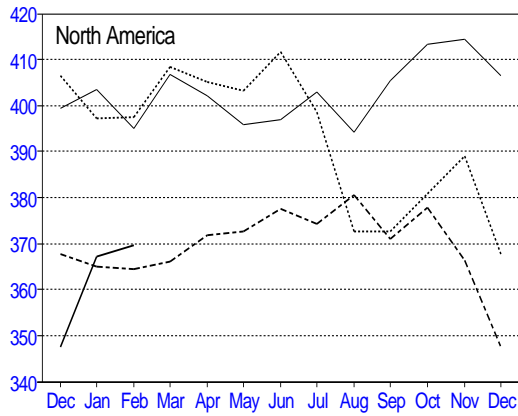
Middle Distillates



Regional OECD Industry End-Month Stocks: Crude Oil and Fuel Oil (million barrels)

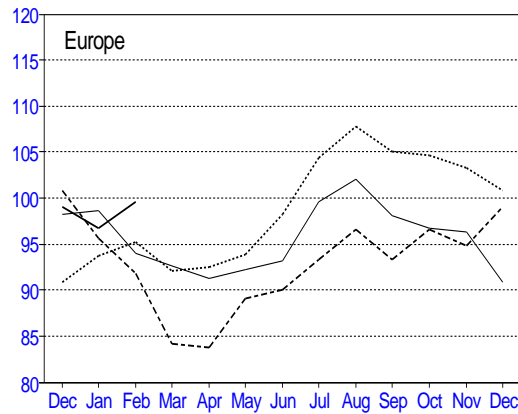
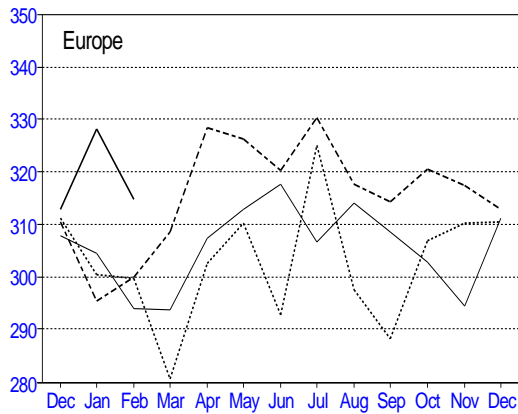
Crude Oil

Fuel Oil



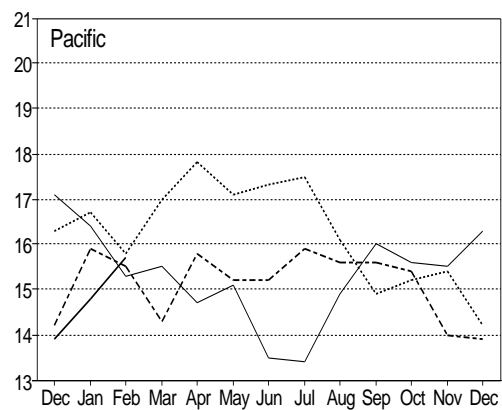
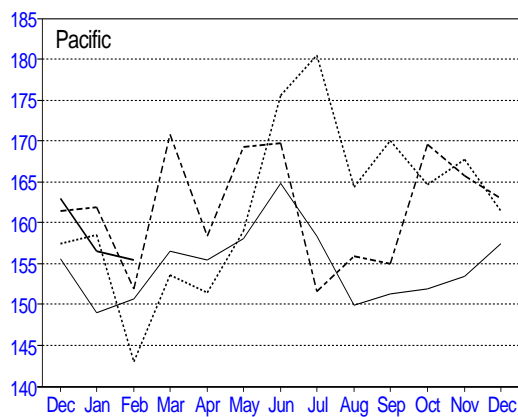
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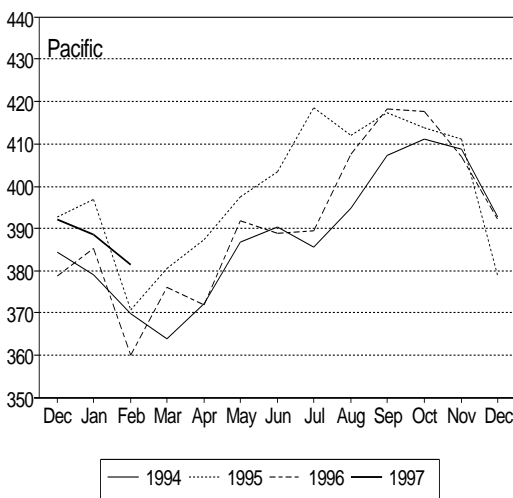
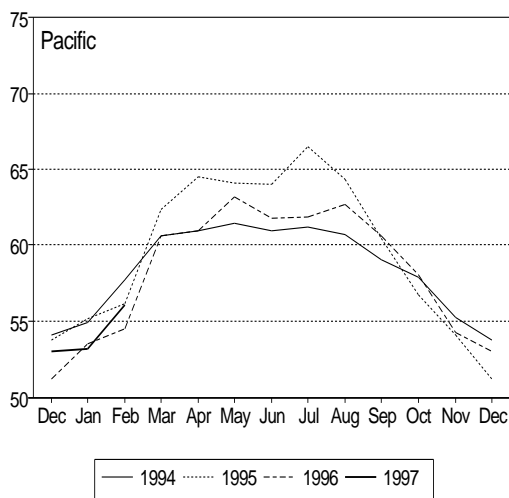
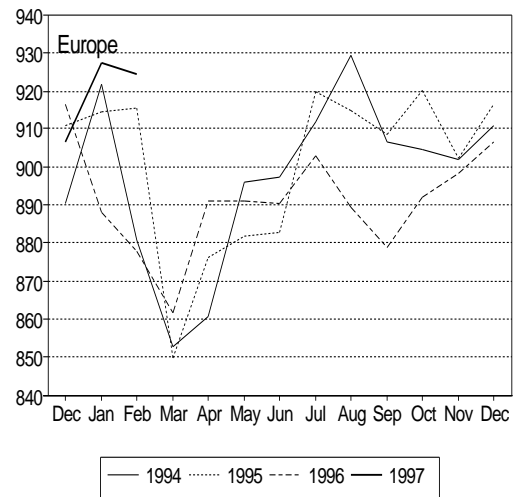
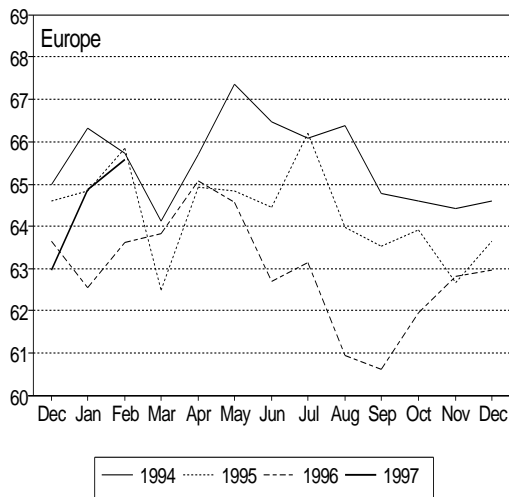
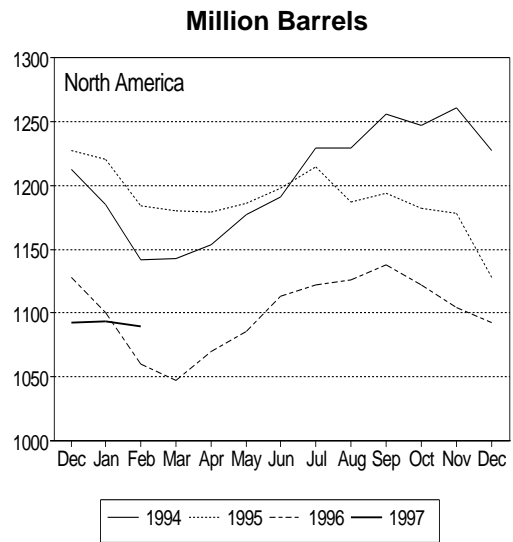
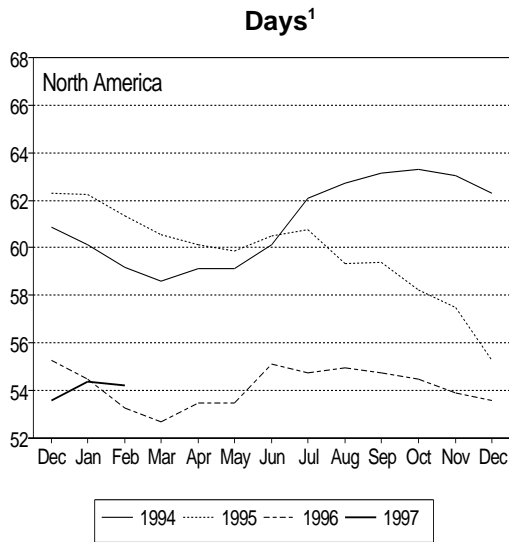
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— 1994 1995 - - - 1996 - · - 1997

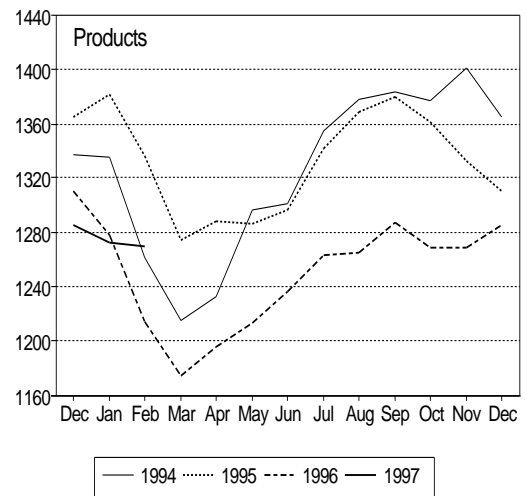
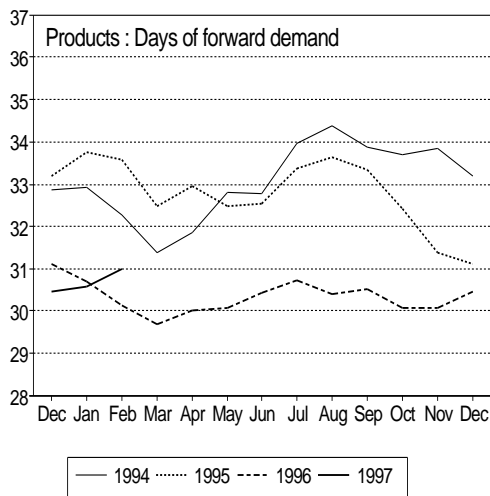
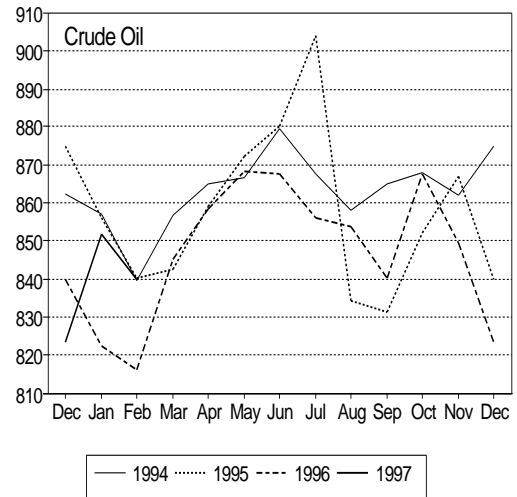
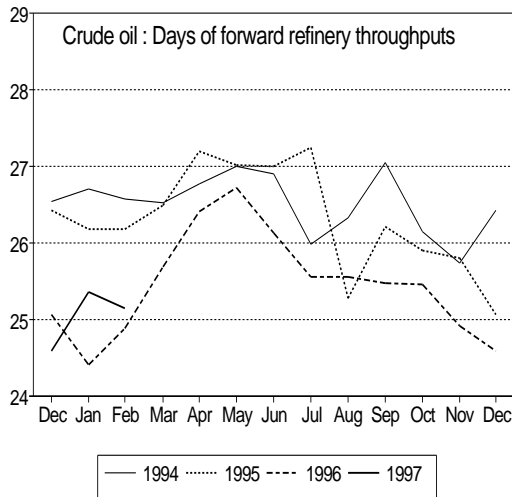
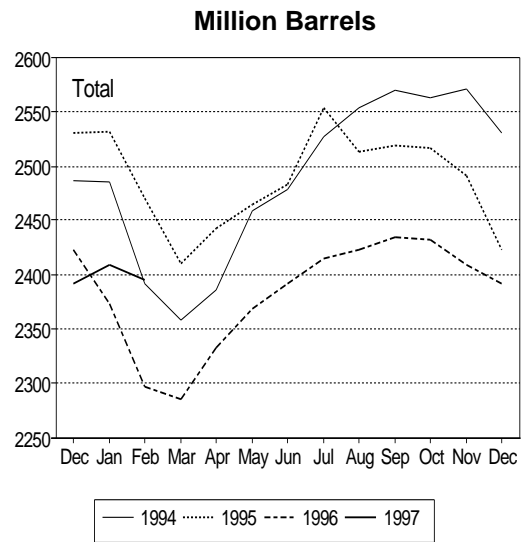
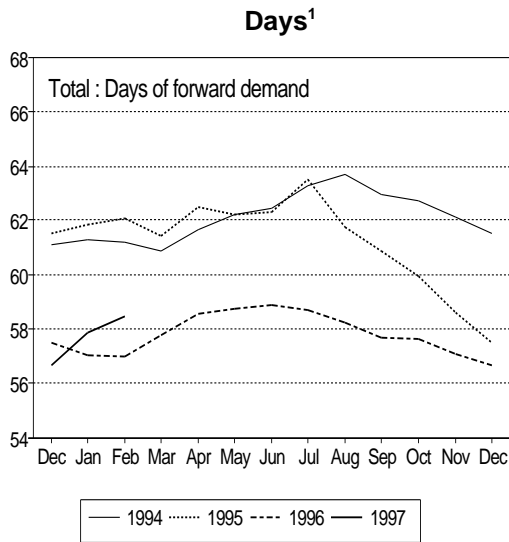
— 1994 1995 - - - 1996 - · - 1997

Regional OECD End-Month Industry Stocks (in days of forward demand and million barrels)



¹ Days of total stocks are based on demand for the next three months.

Total OECD End-Month Industry Stocks (in days and million barrels)



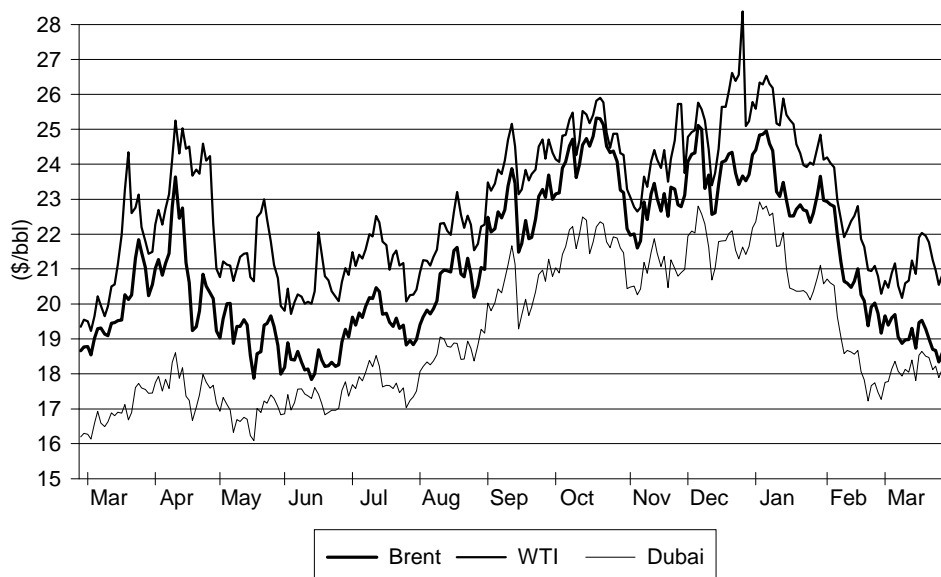
¹ Days of total and product stocks are based on demand for the next three months. Days of crude oil stocks are based on refinery throughputs for the next month.

OIL PRICES AND REFINERY ACTIVITY

Summary

- The steep decline in benchmark crude oil prices during the second half of January and in February came to a temporary halt during March. Prices were supported in the West mainly by the technical strength of the WTI contract on the NYMEX, while they gained support in the East from strong Asian product markets. However, prices in sweet North Sea crude markets in Northwest Europe, sour crude markets in the Mediterranean and West African crude markets continued to decrease during March under the burden of increasing pressure from unsold supplies, albeit at a lower rate than in January and February. As a consequence, Brent prices moved into contango in the physical and futures markets. In early April, the WTI futures market on the NYMEX finally succumbed to the mounting physical supply pressure in Atlantic Basin crude markets and, as a result, prices for WTI and Brent fell below significant, long-term psychological resistance levels of \$20.00/bbl and \$18.00/bbl respectively.
- Asian product markets gained strength during March, as planned refinery and conversion unit turnarounds and unplanned refinery outages combined with firm regional product demand ahead of the forthcoming peak in the Asian spring turnaround season. This led to tightening regional naphtha, gasoil and fuel oil markets and, as a consequence, to the opening of arbitrage possibilities, in particular, from Europe. The resulting export of large volumes of gasoil from Northwest Europe and the Mediterranean to Asia helped to alleviate the growing regional supply overhang for gasoil in Europe, which in the previous two months had led the steep price decline in oil markets. Low US gasoline stocks and a larger-than-normal US spring refinery turnaround schedule supported US gasoline prices and provided a floor to the decline of European gasoline prices.
- In March, average refinery margins increased in all major refining centres, as product prices declined, on average, by less than those of crude. The steepest increase in margins during the month occurred in the Mediterranean in line with the relative weakness in regional sour crude markets. WTI-related margins on the US Gulf Coast increased by less than those in Europe as a result of the relative strength in WTI prices during the month. In Singapore, margins remained little changed at high end-February levels as the effect of declining gasoline prices was offset by an increase in gasoil prices.
- In February, the aggregate refinery throughputs in OECD countries are estimated to have increased by 0.1 mb/d to 33.6 mb/d from January's upwardly revised figures, reaching the highest February throughput level in more than eight years. Increases in Europe were partly offset by decreases in the US. Throughput levels in March are assessed to have increased in the US and decreased in Europe and Japan.
- While US refinery maintenance shutdowns are thought to have peaked in February, planned refinery maintenance is expected to peak in Europe in April with at least 1 mb/d of capacity in turnaround, and in Asia in May/June with at least 1.7 mb/d of capacity shut down. European and Asian spring maintenance turnarounds are on average expected to be lighter than in the previous three years.

Spot Crude Oil Prices



Spot Crude Oil Prices

The recent steep decline in benchmark crude oil prices came to a halt in March despite a gradually widening gap between worldwide crude supplies and refiner demand for crude oil. Crude markets were supported by the technical strength of the WTI contract on the NYMEX in the US and strong product markets in Asia. In addition, short-lived strength was gained in the second half of the month from political developments in the Middle East and a brief cold snap in the US and Europe. WTI prices remained within a relatively narrow band in the first half of the month and spiked briefly in the third week of March (as has become a familiar pattern with the expiry of the WTI front month contract), before retreating to early March levels towards the end of the month. Asian benchmark crudes Tapis, Minas and Dubai remained within a comparatively narrow \$1.00/bbl band throughout the month. Conversely, European and West African crude markets took the main burden of the growing supply/demand imbalance and continued to follow a downward path during the month, albeit declining at a slower rate than during January and February. Brent prices moved into contango early in March in the physical market and towards the end of the month in the IPE futures market.

In early April, WTI futures markets on the NYMEX finally succumbed to the mounting physical supply pressure in Atlantic Basin crude markets and, as a result, prices for WTI and Brent fell below strong, long-term psychological resistance levels of \$20.00/bbl and \$18.00/bbl respectively. On 3 April WTI closed at 19.49/bbl and dated Brent at \$17.19/bbl.

The downward pressure on crude markets was intensified during the month by the increase in permissible Iraqi crude export volumes in a declining market. The "oil-for-food" deal with the UN sets a monetary ceiling for oil sales as opposed to a fixed crude export volume, permitting progressively higher export volumes necessary to meet the monetary targets as prices decline.

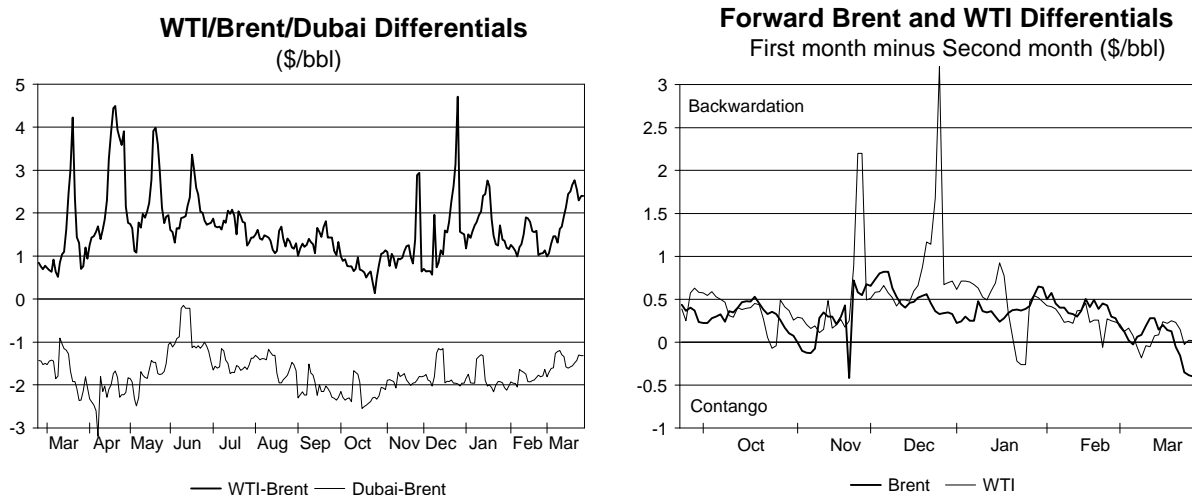
Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	Jan	Feb	Mar	Change	Week Ending:					
					21 Feb	28 Feb	07 Mar	14 Mar	21 Mar	28 Mar
Brent Dated	23.40	20.81	19.10	-1.70	20.50	19.64	19.59	19.04	19.20	18.58
WTI	25.06	22.17	21.03	-1.14	22.20	20.82	20.79	20.64	21.70	20.91
Dubai	21.31	18.64	18.17	-0.48	18.28	17.47	18.01	18.12	18.39	18.10
Tapis	25.80	23.10	21.98	-1.13	22.98	22.22	21.83	21.76	22.25	22.05
Brent over Dubai	2.09	2.16	0.94		2.22	2.17	1.58	0.92	0.81	0.48
WTI over Brent	1.66	1.36	1.92		1.70	1.17	1.20	1.61	2.50	2.32
Brent 1st month minus 2nd month	0.37	0.41	0.03		0.44	0.37	0.08	0.18	0.11	-0.32
WTI 1st month minus 2nd month	0.43	0.29	0.08		0.33	0.19	0.14	-0.05	0.21	0.04

Brent prices remained under persistent downward pressure during the month and, as shown in the table above, decreased on average by more than those of benchmark crudes in US and Asian markets. Rising supplies of North Sea crude were met by weakening local demand (some refiners reportedly reduced refinery throughputs in late February as a result of low refining margins and the start of the refinery turnaround season in the Mediterranean) and had to compete with West African and sweet Latin American grades backed out of US markets and offered into European markets. The weight of the growing supply surplus in the Atlantic Basin caused physical Brent prices to move into contango (see right-hand graph below) and in the last week of the month the Brent futures contract on the IPE also moved into contango. Nonetheless, prices for outer months continued to move within an unusually wide range (about \$1.00/bbl for the 12-month-out contract), reflecting the market's uncertainty about future crude price levels. The premia of North Sea and West African crudes over dated Brent narrowed appreciably, with those of gasoil-rich grades affected most.

The anticipated spring-maintenance-related decline in North Sea crude availability beginning in April (see Special Feature and Supply section above) had little impact on North Sea crude prices as it largely coincides with the peak in European refinery turnarounds. An estimated 1.0 mb/d and 0.8 mb/d of refining capacity will be out of operation in April and May respectively. The transatlantic arbitrage possibility for North Sea crudes remained open during March (see left-hand graph below) and provided resistance to the decline of Brent prices.



As in Europe, **WTI** prices remained under downward pressure from a combination of ample crude availability and weak local crude demand, mainly affected by the ongoing refinery turnaround season in the US. Nonetheless, and unlike the situation in Europe, US crude prices remained supported throughout the month by firm gasoline prices and lingering concerns about the future direction of gasoline prices in the face of record low gasoline stocks ahead of the start of the peak summer driving season.

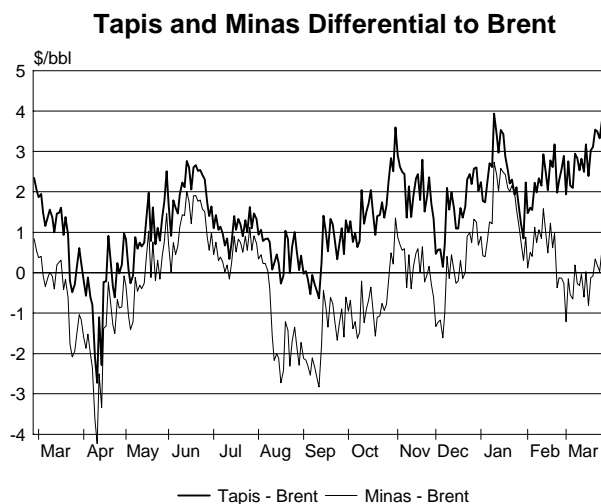
In the second week of the month, gradually weakening fundamentals caused WTI prices to briefly move into contango for the first time since May 1995 (see right-hand graph above). However, in the third week of March WTI prices briefly peaked, increasing by almost \$1.50/bbl. The rise was mainly led by the futures market, where some traders had to cover short positions ahead of the expiry of the front month contract on the NYMEX. The coincidence of a brief cold spell in the US and Europe, rising tensions in the Middle East and Nigeria and potential strikes at US West Coast refineries reinforced the short-lived strength. Nonetheless, WTI prices retreated again in the last week of March and closed the month at early March levels. The backwardation of the WTI contract on the NYMEX eased appreciably with the WTI contract briefly changing into contango in the second week of the month, and, like IPE Brent futures, outer month levels moved within a comparatively wide range (some \$1.00/bbl for the 12-month-out contract).

Sour crude markets in the US remained under downward pressure in line with abundant offers, in particular from Latin America. The differential between sour grades and WTI remained generally wide, but narrowed gradually during the month. The WTI/WTS differential decreased from \$2.77/bbl at the start of the month to \$2.38/bbl by the end of March. Sour crudes gained some limited support from the return of coking units from turnaround on the US Gulf Coast and, due to the attractive price differential, from increased demand of refiners, which normally only run sweet crude grades.

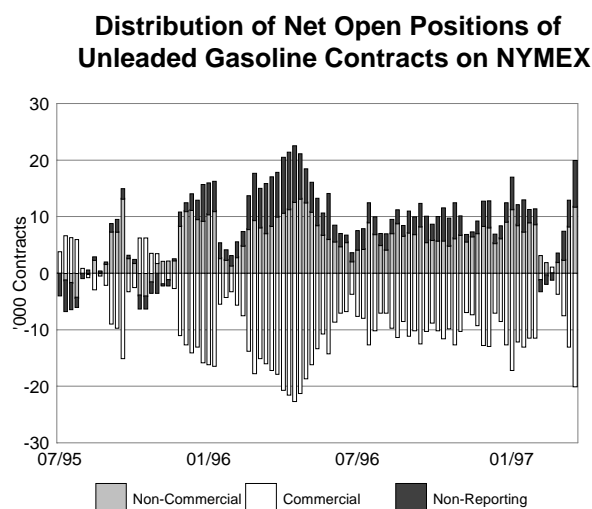
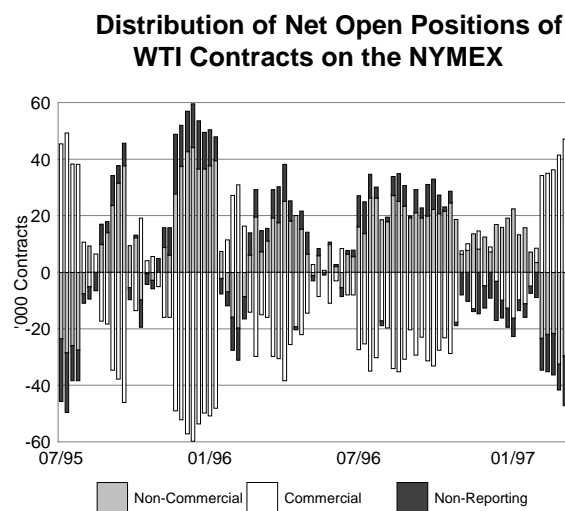
Sour crude prices in the Mediterranean came under increasing pressure during the month as improving **Urals** availability combined with ample, competitively-priced Iraqi crude supplies in the Mediterranean. The downward pressure in an amply-supplied regional sour crude market was aggravated by weakening crude demand from regional refineries, which headed into their peak spring turnaround season, and competitive offers of sweet West African and Latin American grades into the region. The Brent/Urals differential widened from \$0.90/bbl in early March to \$1.38/bbl by the end of the month. The Brent/Iranian Heavy spread moved in line with that of Urals, widening to \$2.30/bbl by the end of March.

In contrast, the Brent/**Dubai** differential narrowed during March (see left-hand graph above), with the differential contracting from the \$1.80/bbl level in early March to \$1.32/bbl by the end of the month. Dubai prices mainly gained support from strong Asian markets. The volume of Brent-related **West African** crudes traded to Asia declined in March from the high levels seen in January and February, as refiners started to reduce crude purchases ahead of the peak Asian refinery turnaround season in May and June. An increasingly over-supplied crude market in the Atlantic Basin and waning crude demand from Asian refiners gradually restricted remaining outlet possibilities both to the East and the West. As a consequence, the premium of (in particular gasoil-rich) West African grades to Brent narrowed appreciably during the month.

Production problems and planned maintenance reduced current and near-term availability of sweet, offshore Australian crudes (see Supply section) and supported the wider Asian light, sweet crude market. Prices for regional sweet benchmark **Tapis** increased relative to those in the Atlantic Basin (see graph to the right), supported by strong regional demand for light, sweet crude coupled with tightening local supplies. The exception was the price for **Minas**, which decreased appreciably relative to both Brent and Tapis in February, when Minas availability increased as a result of a return from field maintenance during February combined with the planned maintenance shutdown at Indonesia's Dumai refinery and the unplanned outage at Indonesia's Balongan refinery, which both usually consume sizeable volumes of Minas.



The new distribution of net open positions in WTI contracts taken during February on the NYMEX (see left-hand graph below) continued for all but the last week of March. During most of the last 12 months, non-commercial traders (funds and financial institutions) held net long positions, generally offset by net short positions held by commercial traders, but this distribution reversed in February and continued well into March. The most widespread explanation for this change assumes that refiners were locking in favourable future refining margins (in particular the gasoline crack spread) by buying forward crude and selling forward product. This explanation is supported by the rise in net short open positions held by commercials in the unleaded gasoline contract on the NYMEX, as shown in the right hand graph below.



In March, freight rates for crude from the North Sea to Northwest Europe and from the Arabian Gulf to the Far East have increased on average by \$0.18/bbl and \$0.12/bbl or 24% and 15% respectively. Transatlantic freight rates for 130 kMT vessels have increased on average by \$0.10/bbl or 10%. The impact of higher freight rates is directly reflected in a corresponding decrease in related refining margins.

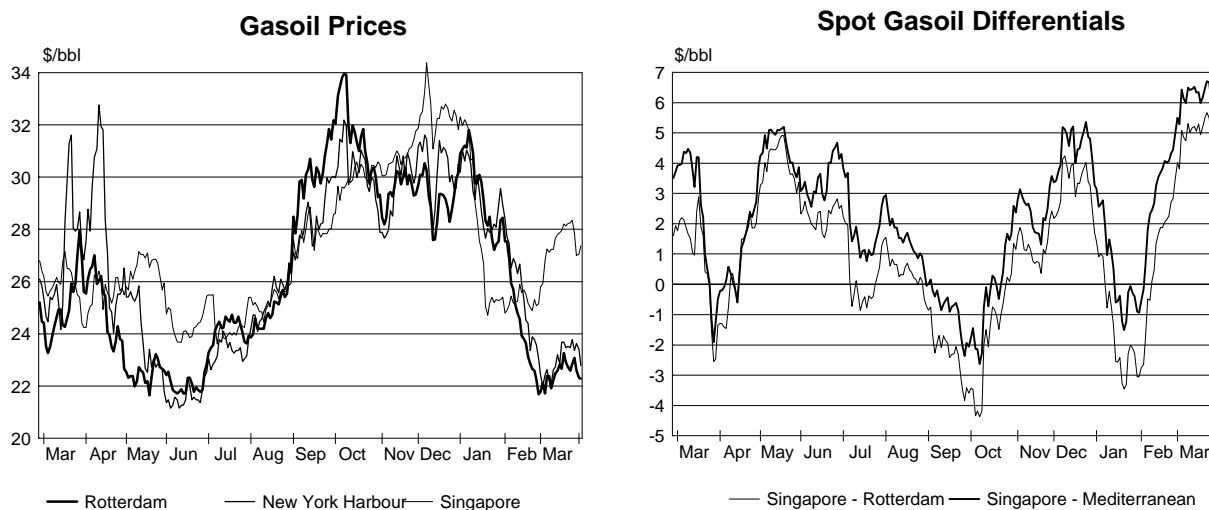
CIF Crude Import Costs

Table 8 shows that the preliminary weighted average CIF cost for crude imported into IEA countries in January was \$23.41/bbl, \$0.09/bbl higher than in December. The corresponding estimates for February and March are \$21.65/bbl and \$19.65/bbl respectively.

Spot Product Prices in March

The steep decline in European **gasoil** prices since mid-January came to a sudden halt in early March. Prices rebounded gradually in the first half of the month, increasing by about \$1.50/bbl, and stabilised for the remainder of the month (see left-hand graph below). Gasoil markets derived their main support from the widening of the arbitrage possibility for gasoil exports to Asia, as shown in the right hand graph below. The outflow of large volumes of Russian gasoil from Northwest Europe, mainly to China and Indonesia, and from the Mediterranean, mainly to India, contributed significantly to alleviating the recent gasoil surplus in Europe. In addition, the supply/demand balance for gasoil was affected by reduced gasoil production levels (due to the onset of spring refinery maintenance in the Mediterranean and some throughput reductions in line with weak refining margins) and improving regional demand. The brief cold spell in the second half of the month, and buying interest as a result of the persistent contango in the gasoil contract on the IPE (encouraging stockbuild), contributed to a tightening of regional gasoil markets. The gasoil/Brent differential in Rotterdam gradually increased from a low of \$2.50/bbl at the end of February to an average of \$4.20/bbl for the last week of March, but still remained well below the average of \$5.11/bbl for the same month last year.

In addition, the IPE gasoil futures contract remained in contango throughout the month. This reflected the markets's perception of an appreciable weakness in well-supplied European gasoil markets, despite the recent rebound in prices, which is seen mainly relying on temporary tightness in other markets.



US gasoil prices largely moved in line with those in Europe, albeit remaining under downward pressure from low demand caused by milder-than-normal weather. Limited support for prices was derived from the export possibility to Latin America and a brief cold spell in the US Northeast in the second half of the month. On the US West Coast, gasoil prices strengthened by more than those on the East Coast or on the US Gulf Coast, as unplanned extensions to local refinery turnarounds contributed to tightening supplies. The gasoil/WTI spread in New York Harbour averaged \$1.96/bbl in March, also appreciably lower than the \$5.67/bbl for the same month last year. The gasoil contract on the NYMEX moved into contango in early March, but moved again into backwardation in the near-months in the second half of March.

Unlike in the US and Europe, average gasoil prices in Singapore increased appreciably in March (see table below). In the first three weeks of the month, spot prices increased by more than \$3.00/bbl from the narrow price band prevalent during February (see left-hand graph above), before retreating in the last week of March. The price increase was to a large extent due to a tightening in the Asian supply/demand balance. Regional gasoil production was affected by planned and unplanned regional refinery outages, in particular in Indonesia, and planned, large scale conversion unit maintenance in Singapore. This combined with firm trader demand for gasoil in Singapore to support prices. The arbitrage possibility for imports, especially from Europe, opened as shown in the right hand-graph above, and large volumes of gasoil are expected to arrive in the region during April. The gasoil/Dubai differential in Singapore increased steeply, rising to more than \$10.00/bbl towards the end of March from an end-of-February level of \$8.00/bbl.

European spot **gasoline** prices increased in the first three weeks of the month, supported by a workable, albeit gradually narrowing, transatlantic arbitrage possibility and a tightening supply/demand balance, in particular in the Mediterranean, where the onset of seasonal refinery maintenance reduced local supplies amid firm regional demand. Strong gasoline demand in the Northwest European barge market, the arbitrage possibility from Northwest Europe to the Mediterranean and throughput cuts by some European refiners contributed to tightening supplies and lent further support to gasoline prices in Rotterdam. However, in the last week of March, European gasoline prices decreased, mainly as a result of the decline in the gasoline contract on the NYMEX, the narrowing to marginal attractiveness of the transatlantic arbitrage possibility (see graph below) and increasing signs of a developing regional gasoline oversupply. The need to clear winter grade material out of the supply chain ahead of the phase-in of summer grade gasoline on 1 April added to the downward pressure on European gasoline prices towards the end of March. The regular gasoline/Brent differential in Rotterdam continued to increase for the third successive month, rising from \$3.50/bbl in late February to more than \$5.00/bbl during the last week of the month, averaging \$3.19/bbl wider than during the same month last year.

The US gasoline complex moved to the centre of attention during March in anticipation of the approaching US driving season and concerns about a potential gasoline supply shortage ahead. Prices remained subject to competing pressures throughout the month: upward pressure on prices derived from record low stock levels for this time of the year and lower production rates than a year ago (due to extensive refinery maintenance), and downward pressure emanating from unusually high gasoline import levels (632 kb/d for the four-week average up to 28 March) and the approaching end of the spring refinery turnaround season in the US. Prices remained roughly balanced between those pressures and mainly followed the path of WTI prices, increasing towards the third week of the month and declining towards the end of March. The price decline in late March was reinforced by a combination of gradually rising US gasoline production rates and the arrival of increasing quantities of gasoline imports. On the US West Coast, gasoline prices increased as supplies tightened in line with the unplanned extension of turnarounds at two regional refineries.

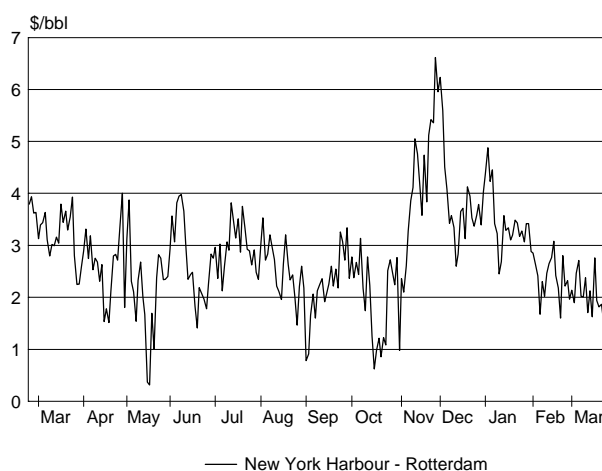
The regular gasoline/WTI differential in New York Harbour trended downwards during the month, declining from an average level of \$5.00/bbl in the first week of the month to an average of \$4.30/bbl in the last week of March. However, the resulting average of \$4.71/bbl for the month was \$1.41/bbl higher than during last March. Regular gasoline prices in New York Harbour traded at a premium to those of heating oil during all of March, unusually early in the year for such a premium to occur.

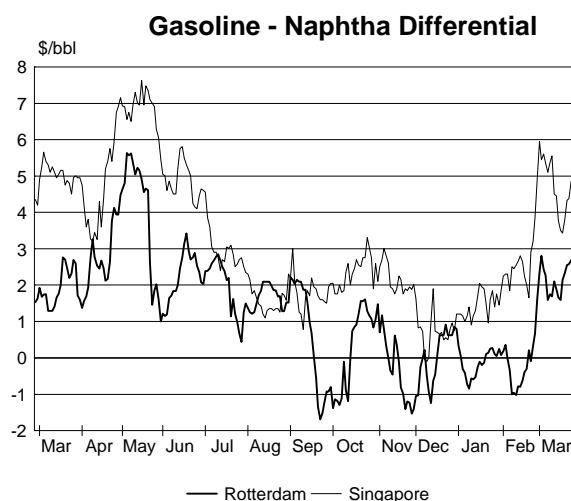
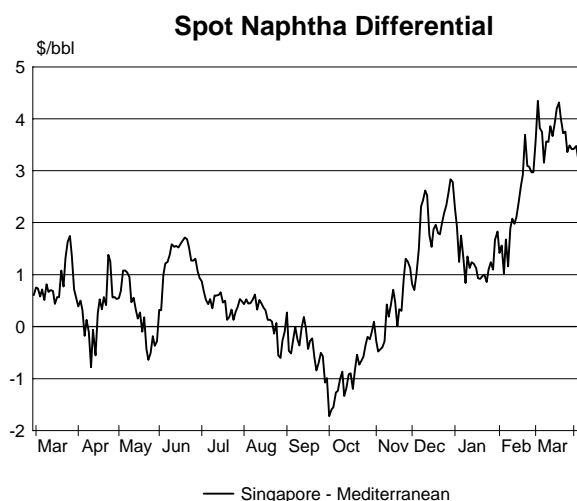
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Unlike for the Atlantic Basin, Singapore gasoline prices decreased during the month, however from the relatively high level reached at the end of February. Prices remained supported by strong regional demand (in particular from Chinese Taipei) and tightening supplies as a result of regional refinery turnarounds, mainly in Indonesia, refinery problems in Australia and Indonesia and the extensive conversion unit turnarounds in Singapore mentioned above. The gasoline/Dubai differential continued to increase in the first half of March, surpassing the \$11.00/bbl level and retreated in the second half of the month to close at a still relatively wide \$9.93/bbl at the end of March. The differential averaged \$10.64/bbl, a remarkable \$3.78/bbl higher than during the same month last year.

Spot **naphtha** prices in Singapore increased in the first half of the month, supported by a combination of tightening supplies (due to the planned regional refinery and conversion unit turnarounds and unplanned refinery outages) and firm regional demand from petrochemical plants. Demand from new petrochemical capacity starting up in the region more than offset the effect of ongoing and planned seasonal cracker turnarounds in Asia, which mainly use naphtha as a feedstock. The widening differential to European naphtha markets (see left-hand graph below) attracted imports, in particular from the Mediterranean. Prices consequently came under downward pressure in the last decade of the month and prices started to

Spot Gasoline Differential





decline. The average naphtha/Dubai differential in Singapore decreased slightly to \$5.92/bbl in March from \$6.35/bbl in February, which was the widest spread since the Gulf war. By comparison, the naphtha/Dubai differential for the same month last year averaged at \$1.81/bbl.

Spot naphtha prices in Europe largely followed the pattern of those in Singapore and were to a large extent supported by the wide arbitrage possibility for exports to Asia (see left-hand graph above). An estimated 2.2 mb of naphtha were reportedly traded to the East. In the last decade of the month, European naphtha prices declined under the mounting downward pressure of receding Asian naphtha demand and the growing local competition from competitively-priced alternative petrochemical feedstocks (LPG). While average gasoline prices remained little changed in Northwest Europe and the Mediterranean (see table below), average naphtha prices declined by \$2.44/bbl in Rotterdam and \$2.27/bbl in the Mediterranean.

Because of these relative price moves, the **reforming margin** in Northwest Europe increased steeply in early March and remained within a relatively narrow band for the remainder of the month (see right-hand graph above). The increase was mainly the result of the strength in gasoline prices and the gasoline/naphtha differential averaged \$2.15/bbl, the highest level since last June. In Singapore, the gasoline/naphtha differential also increased appreciably in late February and early March and remained above the threshold for reforming profitability during March for the first time in seven months. As in Europe, the Singapore reforming margin was mainly supported by the relative strength in regional gasoline markets. The differential in Singapore averaged \$4.72/bbl, the highest average seen since last June.

Spot **kerosene** prices in Europe generally moved in line with those of gasoil, with the kerosene/gasoil differential remaining little changed during the month. In the US, the kerosene/gasoil differential widened in the first half of the month. Prices were supported by a tightening of the kerosene supply/demand balance in line with exports to South America, and declining kerosene yields from refining in favour of increased gasoline yields. However, prices retreated in the second half of the month, both in absolute terms and relative to those of gasoil, when the prevailing tightness eased as refineries emerging from seasonal turnaround contributed to rising kerosene production rates.

Kerosene prices in Singapore were supported in early March by firm regional demand, in particular from China and Indonesia, and a tightness in the spot market due to the planned and unplanned refinery outages in the region. However, waning regional demand, improving supplies and the arrival of import cargoes (in particular from the Middle East) started to exert strong downward pressure on Singapore kerosene prices. In the last three weeks of the month kerosene prices decreased to levels below those of gasoil. The kerosene premium of about \$3.00/bbl over gasoil at the start of the month turned to an average discount of \$1.60/bbl for the last week of the month. This represents an unusually wide discount in general, and particularly for this time of the year.

During March, spot **LSFO** prices remained almost unchanged in Northwest Europe and within a narrow band in the Mediterranean. With the exception of a brief supply tightness early in the month (when a refiner heading into turnaround had to cover supply commitments from the spot market), prices remained under downward pressure from weak regional demand in a well supplied market. Arbitrage possibilities,

both into and out of European markets, were restricted by the lack of suitable vessels. A combination of improved availability of hydroelectric power in Iberia and Italy and the increasing availability of North African natural gas in southern Europe continued to contribute to the weakness in LSFO demand in Europe. The average Brent/LSFO differential in Rotterdam increased slightly during the month, mainly as a result of declining crude prices, but remained at appreciably wider levels than during March 1996.

During the first half of the month, US LSFO prices remained at the low level to which they had decreased at the end of February, as mild weather continued to dampen local utility and industrial end-user demand. The rise in fuel oil inventories to levels well above those of a year earlier and growing competition from cheaper natural gas as a utility fuel continued to exert downward pressure on prices. However, in the second half of the month, LSFO prices increased by about \$1.25/bbl in New York Harbour and \$1.60/bbl on the US Gulf Coast when a cold snap led to increasing marginal demand, in particular, from local utilities. The average WTI/LSFO differential remained almost unchanged in March, with LSFO trading in New York Harbour at a discount of \$5.15/bbl to WTI, compared to a discount of only \$2.65/bbl during the same month last year.

Asian LSWR prices remained almost unchanged during March in an amply-supplied market facing thin regional demand. Towards the end of the month some limited price support was derived in anticipation of tighter supplies and increased demand in 2Q97.

Spot Product Prices
(monthly and weekly averages, \$/bbl)

	Gasoline				Gas Oil				Low Sulphur Residual Fuel Oil			
	Rotterdam	Med	NY Harbour	Singapore	Rotterdam	Med	NY Harbour	Singapore	Rotterdam	Med	NY Harbour	Singapore
Jan	24.86	25.70	28.30	26.04	29.46	27.56	29.25	27.97	18.19	17.19	18.42	21.86
Feb	23.90	25.33	26.27	27.35	24.39	22.35	25.56	25.25	15.77	15.34	16.99	19.40
Mar	23.78	25.49	25.74	28.62	22.51	21.29	22.98	27.48	14.67	15.19	15.87	17.58
Mar-Feb	-0.11	0.16	-0.53	1.27	-1.88	-1.06	-2.57	2.23	-1.09	-0.15	-1.12	-1.82
Week ending:												
21 Feb	23.51	25.15	26.12	27.30	23.63	21.72	25.04	25.49	15.15	15.15	16.91	20.49
28 Feb	23.24	25.20	25.42	27.44	22.41	20.72	23.53	25.09	14.60	14.72	16.23	17.78
07 Mar	23.52	25.48	25.82	28.83	22.00	20.61	22.37	26.44	14.65	15.26	15.19	17.39
14 Mar	23.61	25.49	25.65	28.98	22.32	21.04	22.56	27.40	14.61	14.92	15.46	17.51
21 Mar	24.18	25.78	26.19	28.51	22.88	21.82	23.44	28.08	14.67	15.20	16.20	17.84
28 Mar	23.77	25.13	25.20	28.10	22.79	21.62	23.56	27.86	14.79	15.45	16.68	17.54

The two-month decline in European HSFO prices came to a halt in early March and HSFO prices in Northwest Europe and in the Mediterranean remained within a narrow, slightly upward-drifting band during the last three weeks of the month. Plentiful supplies, in particular from Russia, kept prices soft although they gained some limited support from the increasing use of fuel oil as a crude substitute, particularly in the Mediterranean. This, and the emerging arbitrage possibility for exports into Asia, started to alleviate regional oversupply in the second half of the month and contributed to the slight rebound in regional HSFO prices. The HSFO/Brent differential in Rotterdam and the HSFO/Ural differential in the Mediterranean contracted during the month, mainly as a result of declining crude prices, with both remaining at unusually wide levels. The average LSFO/HSFO spread was little changed in Rotterdam but increased appreciably in the Mediterranean.

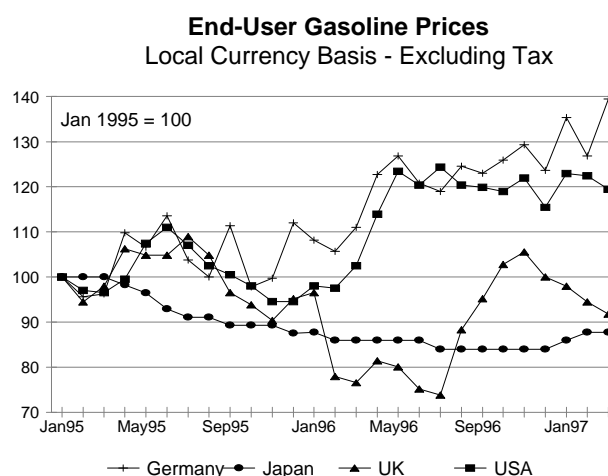
While HSFO prices remained almost unchanged during March in New York Harbour (averaging \$13.42/bbl), they gradually increased on the US Gulf Coast from an early March low of \$11.88/bbl to an average of \$14.25/bbl for the last week of March. This appreciable increase in HSFO prices was the result of the start up of conversion capacity (mainly coking units) that emerged from spring turnarounds and firm regional bunker demand, which contributed to a tightening in the region's supply balance. To a large extent, this alleviated the considerable regional supply overhang that had been responsible for the earlier decline in prices.

Spot HSFO prices in Singapore remained little changed during the month in a balanced market, where ample supplies were met by firm regional demand, primarily from China and India. The comparatively high price level for HSFO in Singapore (HSFO averaged at \$15.58/bbl for March) attracted arbitrage cargoes from the Mediterranean. Additional support for prices was gained in anticipation of the regional spring refinery maintenance season ahead.

End-User Product Prices

Because of the continuing strength of the US Dollar relative to most of the national currencies of countries covered in Table 9, local currency mid-month end-user product prices were prevented from falling to the same extent as international spot product quotations.

In March, mid-month end-user prices for **gasoline** showed an inconsistent pattern, with prices higher than a month earlier in Germany, France and Italy and lower in Canada, the UK, the US and Spain. In Japan, gasoline prices remained unchanged in local currency terms, while rising when converted into current US dollars. The steepest increase in gasoline prices on a pre-tax basis, both in local currency and in US dollar terms occurred in Germany, while the steepest decline occurred in Canada. In the UK, gasoline prices remained under firm downward pressure from an intensifying competition between branded and unbranded retailers.



Automotive diesel and **heating oil** prices for domestic consumers decreased in all countries shown in Table 9, mainly as a result of the steep decline in Atlantic Basin spot gasoil markets. The exception was Germany, where automotive diesel prices increased slightly, and Japan, where automotive diesel and kerosene prices remained unchanged. The steepest decline in middle distillate prices occurred in the UK, where heating oil prices decreased by 14% on a pre-tax basis.

Mid-month **heavy fuel oil** prices for industry decreased in all countries shown in Table 9 in line with the weakness in spot fuel oil markets on both sides of the Atlantic. The exceptions were Italy, where prices increased slightly (though in local currency terms only), and Japan, where prices remained unchanged. The steepest decline in prices occurred in the UK and France.

Refining Margins in March

Average refining margins increased in all major refining centres in March. The steepest increases occurred in Singapore and the Mediterranean. The rebound in margins, which followed a steep decline during January and early February, was mainly due to firm product markets in Asia and the US, while European margins gained from average crude prices declining by more than those of products. In general, refining margins continued to be very volatile as a result of the changes in relative crude and product prices.

Refining Margins in Major Refining Centres

(monthly and weekly averages, \$/bbl)

	Jan	Feb	Mar	Change	Week Ending:					
					21 Feb	28 Feb	07 Mar	14 Mar	21 Mar	28 Mar
NW Europe										
Brent (Hydroskimming)	-0.23	-0.68	-0.18	0.50	-0.82	-0.86	-0.91	-0.33	-0.12	0.38
Brent (Cracking)	1.08	0.71	1.17	0.46	0.54	0.52	0.35	1.02	1.31	1.73
Mediterranean										
Urals (Hydroskimming)	-0.06	-0.40	0.54	0.95	-0.26	-0.20	-0.29	0.28	0.59	1.32
Urals (Cracking)	1.22	1.00	2.07	1.06	1.10	1.22	1.15	1.82	2.19	2.79
US Gulf Coast										
Brent (Cracking)	0.27	0.36	1.34	0.98	0.07	0.29	0.22	0.97	1.58	2.23
WTI (Cracking)	0.32	0.76	1.23	0.47	0.18	0.83	0.91	1.28	1.05	1.61
Singapore										
Dubai (Hydroskimming)	-0.70	0.77	1.73	0.96	1.51	1.68	1.86	1.73	1.64	1.68
Dubai (Cracking)	1.71	3.42	4.91	1.49	4.07	4.38	4.69	4.98	4.91	4.89

In the Mediterranean and in Rotterdam, average refining margins increased appreciably, as average crude prices declined by more than those of main products. This was particularly true in the Mediterranean,

where Urals-based margins increased by about \$1.00/bbl compared to an increase of only half of that amount in Northwest Europe (see table above). The strength in Mediterranean margins was to a large extent a result of the weakness of regional sour crude markets, relative to those of Brent. Common to both European regions, however, was the support for margins gained by the opening of arbitrage possibilities for regional product oversupply to go to the US (mainly gasoline) and to Asia (mainly naphtha and gasoil). The differential between the cracking margin and the hydroskimming narrowed slightly in Rotterdam (to \$1.35/bbl) and widened further in the Mediterranean (to \$1.52/bbl), reflecting the weakness in European fuel oil markets.

On the US Gulf Coast, average cracking margins increased by almost \$1.00/bbl for Brent, albeit by only half of the amount for WTI. The Brent margin increased gradually during the month, in line with the decline in Brent prices, and the WTI margin largely tracked the movement of WTI prices, decreasing when WTI prices increased in the third week of the month, and rising when WTI prices declined in the last week of March. The slight decline in gasoline prices relative to those of crude was more than offset by the increase in heating oil and fuel oil prices compared to those of crude in the second half of the month.

The Singapore refining margins, which staged an exceptionally strong recovery during February rising by more than \$4.00/bbl during that month, stabilised at the end-February level and remained within relatively narrow band throughout March. Support for margins was mainly derived from strong product markets. As discussed above, the strength in product prices resulted from tightening supplies due to planned and unplanned refinery and conversion unit turnarounds, relatively firm product demand ahead of regional spring refinery maintenance shutdowns in the months ahead and, to a lesser extent, earlier temporary refinery throughput reductions in Singapore. The differential between Dubai cracking and hydroskimming margins in Singapore increased further, to reach an unusually wide \$3.18/bbl.

Refining Margins in 1996 and 1Q97

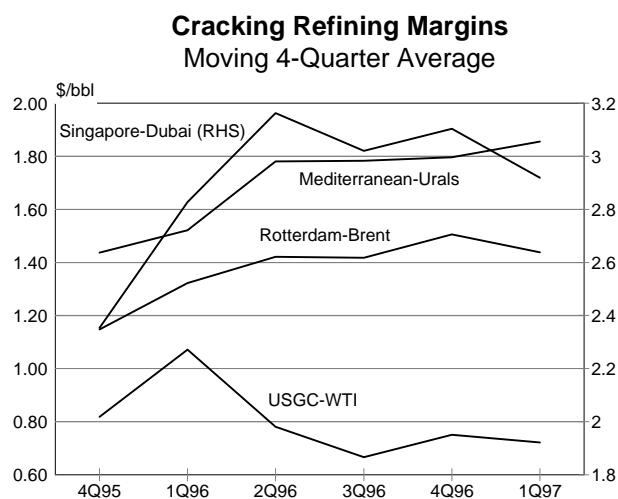
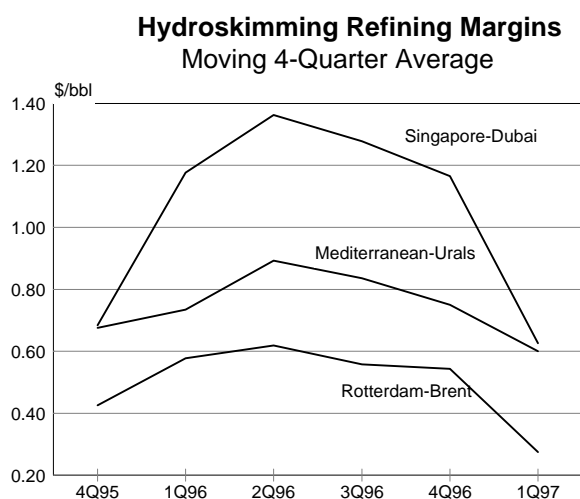
Yearly average refining margins in major refining centres increased in 1996 after having decreased in both in 1994 and 1995. The exception was the US Gulf Coast, where yearly average margins decreased slightly (see table below).

Yearly and Quarterly Average Refining Margins

	(\$/bbl)							
	Rotterdam Brent		Mediterranean Urals		USGC WTI	Singapore Dubai		
	Hydroskimming	Cracking	Hydroskimming	Cracking	Cracking	Hydroskimming	Cracking	
1993	0.91	2.03	1.67	3.14	1.07	1.56	4.13	
1994	0.70	1.49	0.95	1.89	1.24	1.03	2.97	
1995	0.43	1.15	0.68	1.44	0.82	0.68	2.35	
1996	0.54	1.51	0.75	1.80	0.75	1.16	3.10	
1Q95	0.10	0.56	0.39	0.85	-0.13	0.79	2.19	
2Q95	0.27	1.11	0.33	1.22	2.15	0.67	2.45	
3Q95	0.49	1.43	0.80	1.80	0.87	0.08	2.15	
4Q95	0.85	1.49	1.18	1.87	0.38	1.20	2.62	
1Q96	0.71	1.26	0.63	1.19	0.89	2.76	4.09	
2Q96	0.43	1.51	0.97	2.26	0.99	1.41	3.79	
3Q96	0.25	1.41	0.57	1.81	0.41	-0.26	1.58	
4Q96	0.79	1.84	0.83	1.93	0.72	0.75	2.96	
1Q97	-0.37	0.99	0.03	1.43	0.77	0.60	3.34	

To highlight potential future trends, four-quarter moving averages for hydroskimming and cracking margins have been plotted in the two graphs below. As shown in the left-hand graph, hydroskimming margins in Europe and in Singapore have eroded progressively during the last four quarters. This has to a large extent been due to the widening of the light-heavy product differential, in particular in Asia. In both 1995 and 1996, more than 1 mb/d of refining capacity was added in Asia. This new capacity contributed to a large increase in fuel oil supplies and exerted downward pressure on regional fuel oil markets, which in turn affected hydroskimming margins. The downward pressure on Asian fuel oil markets had a knock-on effect on European fuel oil markets and explains some of the decline in hydroskimming margins in these centres.

During 1996, European cracking margins have increased steadily on a four-quarter moving average (see right-hand graph below). In the Mediterranean, the trend continued upwards in 1Q97, while in Rotterdam the average declined slightly. In Singapore, margins increased appreciably up to 2Q96 and remained relatively little changed at that level, showing however a high degree of volatility in absolute terms on a quarter-to-quarter basis as indicated in the table above. On the US Gulf Coast cracking margins for WTI eroded from an improved 1Q96 four-quarter average during most of the remainder of 1996 and into 1Q97.



Refinery Crude Throughputs in February

The aggregate of refinery crude throughputs for February in OECD countries increased (from January's upwardly-revised figures) by 0.1 mb/d to 33.6 mb/d, reaching the highest February level in more than eight years. An increase of 0.4 mb/d in Europe was partly offset by a decrease of 0.3 mb/d in the US, while throughputs remained almost unchanged in Canada, Japan and Australasia. Total February throughputs were almost 0.37 mb/d or 1.1% higher than a year earlier.

Refinery Crude Throughput in OECD Countries

	million barrels per day					% change from previous year		
	Oct	Nov	Dec	Jan	Feb*	Jan-Feb 1997*	Feb	Jan-Feb
OECD Europe	12.75	13.15	13.07	13.04	13.41	13.23	3.4	3.0
France	1.76	1.81	1.64	1.88	1.90	1.89	9.9	8.2
Germany	2.19	2.14	2.15	2.09	2.22	2.15	5.9	3.0
Italy	1.76	1.74	1.80	1.75	1.84	1.80	2.4	2.4
Netherlands	1.04	1.17	1.20	1.19	1.21	1.20	-1.8	-3.2
UK	1.85	1.87	1.83	1.70	1.79	1.74	6.0	2.7
US	14.28	14.28	14.19	13.63	13.36	13.50	-1.3	-0.9
Canada	1.31	1.35	1.45	1.34	1.36	1.35	-3.4	-1.3
Japan	3.72	4.33	4.48	4.71	4.75	4.73	1.7	1.3
Australia/New Zealand	0.68	0.74	0.76	0.78	0.77	0.77	11.0	10.2
OECD Total	32.74	33.84	33.94	33.50	33.63	33.57	1.1	1.1

* estimate

Preliminary data suggest that, despite low refining margins, total crude throughputs in Europe increased by 0.37 mb/d to just over 13.4 mb/d, also the highest monthly February throughput level in more than eight years. This increase mainly reflected the European refining system's preparation for the spring turnaround season starting in March. The steepest increase in throughputs occurred in Germany (130 kb/d), followed by the UK and Italy (80 kb/d each). Although some refiners, both in the Mediterranean and in Northwest Europe, reportedly claimed to have maintained reduced throughput levels due to low refining margins in early February, European throughputs were 3.4% or 0.44 mb/d higher than a year earlier.

Crude throughputs in the US decreased for the third month in February, declining by 0.27 mb/d to 13.36 mb/d. February marked the peak month of extensive spring refinery turnarounds in the US, with throughputs 1.3% or 0.17 mb/d lower than a year earlier. Refinery utilisation, based on operating refinery capacity, is estimated to have decreased by 1.7% from January levels to 89.8%, about 2.4% lower than the rate a year earlier.

Japanese crude throughputs increased slightly (by 40 kb/d) to 4.75 mb/d, the highest level in two years, consistent with the absence of refinery maintenance. Japanese throughputs were 1.7% or 0.07 mb/d higher than a year earlier.

In March, refinery throughputs are thought to have decreased appreciably in Europe, with the onset of seasonal refinery turnarounds, and to have decreased slightly in Japan. Weekly US statistics up to 28 March suggest that throughput levels increased by almost 0.6 mb/d in March, reflecting the gradually approaching end to the spring maintenance season in the US.

Refinery Maintenance Shutdowns

As shown in the table below, the spring refinery turnaround season is expected to follow its normal sequence eastwards, having started in the US in January. After peaking in March in the US, planned refinery maintenance is expected to peak in Europe in April, in May in Asian countries (particularly in Korea) and in June in Japan. While US refinery maintenance continues to take a larger-than-usual volume of refining capacity out of operation in April, European and Asian spring refinery maintenance is, on average, expected to be lighter than in the previous three years. However, there is some flexibility on the timing of turnarounds and the extent of maintenance shutdowns may well be influenced by the US gasoline inventory situation and by weather conditions.

Refinery Maintenance Shutdowns (Primary Distillation)

(million barrels per day of nameplate capacity)

	April	May	June
Europe	1.00	0.80	0.70
US	0.60	0.17	0.19
Japan	0.50	1.00	1.40
Other Asia/Pacific	0.45	0.70	0.35

IEA estimates (except for US: PIRA Energy Group, New York)
Other Asia consists of: Australia, Chinese Taipei, India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand.

Industry Developments

US Shell Oil and Texaco announced the signing of a memorandum of understanding that provides for the setting up of a "limited liability company" incorporating their US refining and marketing activities in the Western and Midwestern US, as well as their entire lubricants and transportation business throughout the country. Shell will hold 56% of the new company and Texaco 44%. The exploration, production and chemical businesses of the two companies are not part of the partnership. The two companies also intend to link up with Star Enterprise, a refining/distribution partnership owned 50/50 by Aramco subsidiary Saudi Refining Inc. and Texaco.

US refiner Tosco is reportedly planning to restart its Trainer, Pennsylvania, refinery by 1 May. The plant was shut down in January 1996 after a labour dispute over Tosco's contract offer. Tosco bought the refinery in November 1995 as part of its acquisition of BP's downstream assets on the US East Coast. A \$50-million modernization plan carried out at the refinery entails cutting primary distillation capacity to 150 kb/d from 190 kb/d previously.

Unocal has reportedly completed the sale of its West Coast refining, marketing and transportation assets to Tosco. The assets sold to Tosco were operated by Unocal's 76 Products Co. business unit and include the following: Unocal's San Francisco, Santa Maria and Los Angeles refineries in California, which have a combined capacity of 250 kb/d; various terminals, bulk plants and pipelines; a worldwide lubricants business; a retail marketing business, including 1350 sites in six western states; commercial and industrial petroleum products businesses; three ocean-going tankers; inventories of hydrocarbon products; credit card systems; and other various assets. Unocal will receive approximately \$1.4 billion in cash (includes nearly

\$400 million for inventories of crude oil and petroleum products) and shares of Tosco common stock valued at approximately \$400 million.

Murphy Oil withdrew from the proposed merger of the UK refining and marketing interests of its Murco Petroleum unit with those of Elf Oil and Gulf Oil, a unit of Chevron. Murphy Oil reportedly stated that the proposed transaction would not significantly improve its existing downstream system. The company plans to continue to rationalise its existing retail marketing network and refining assets in the UK. Elf and Chevron jointly reaffirmed their commitment to complete the merger of their refining and marketing interests without Murco's participation.

Lyondell Petrochemical Company and CITGO Petroleum Corporation announced that the upgrade project at Lyondell-Citgo Refining Company (LCR) has been successfully completed and is in service as of 1 March 1997, one month ahead of schedule. The \$1.1 billion project, which began in 1994, upgraded the refinery's ability to process very heavy crude oil from Venezuela. With the completion of the upgrade project, LCR is now one of the most sophisticated refineries in the US, able to process more than 215 kb/d of very heavy crude oil (17 degree API gravity) in a full conversion mode. Major components of the upgrade project included new crude oil distillation, delayed coking, hydrotreating and sulfur recovery units.

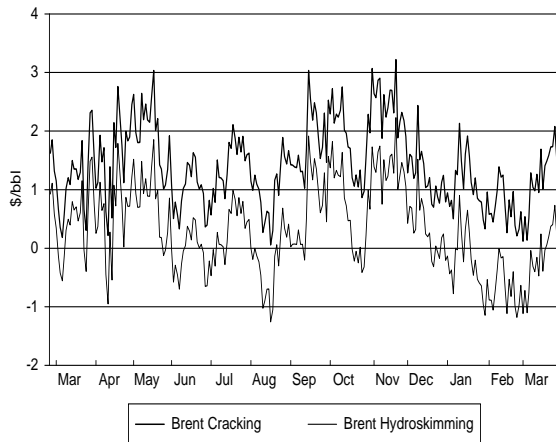
China's Fujian Refinery, which on 1 April was shut down for maintenance for 45 days, announced that it plans to carry out some debottlenecking work during that period. The resulting expansion will bring the refinery's capacity to 80 kb/d from 60 kb/d currently. Fujian Refinery is one of the coastal refineries in China which mainly process imported crudes.

China's Zhenhai Refining Company announced the completion of its upgrading program, expanding the refinery's crude processing capacity to 160 kb/d from 110 kb/d. Of that 160 kb/d, Zhenhai Refining is now able to process 80 kb/d of high-sulfur Middle East crude. According to a company press release, the upgrade was completed in December. Zhenhai Refining is China's third-largest refiner.

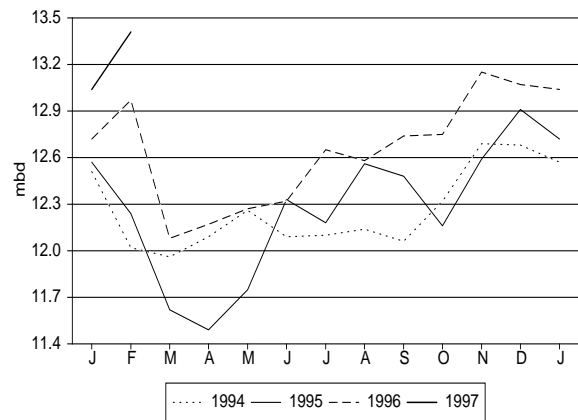
Construction of a \$400 million condensate refinery planned by Dubai's state-owned Emirates National Oil Company is due to start by July. The \$200 million first phase will bring 60 kb/d of capacity on stream in early 1998. It will produce jet fuel, diesel and naphtha for the local market. A second phase will come on stream in 2000, bringing capacity up to 100 kb/d and adding gasoline and LPG to the product slate. The condensate feedstock will be imported, probably from Abu Dhabi.

As an extension to Esso's 230 kb/d Pulau Ayer Chawan refinery in Singapore, Exxon Chemical Co., a division of Exxon Corp., announced plans to build a \$2 billion petrochemical complex in Singapore, centred around a steam cracker that will produce 800,000 metric tons of petrochemicals a year when it starts operations in 2000.

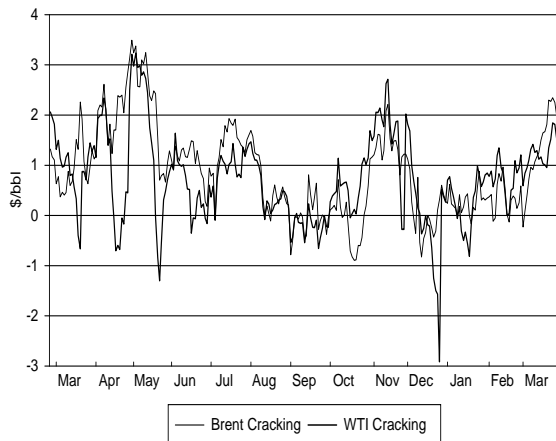
Rotterdam Refining Margins



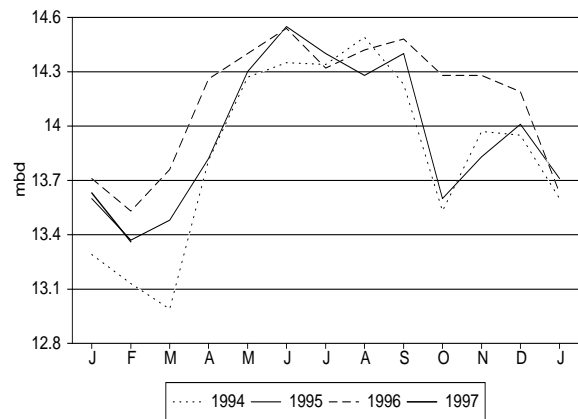
OECD Europe Crude Throughputs



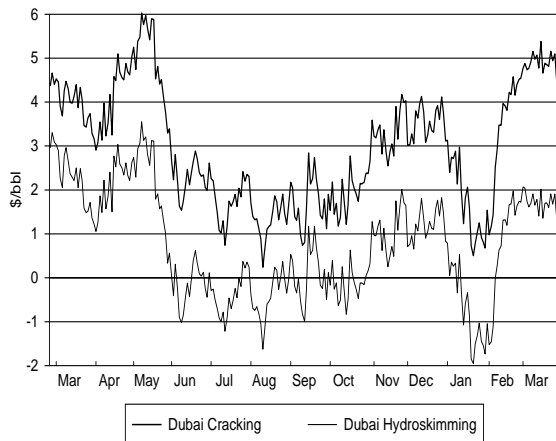
US Gulf Refining Margins



US Crude Throughputs



Singapore Refining Margins



Japan Crude Throughputs

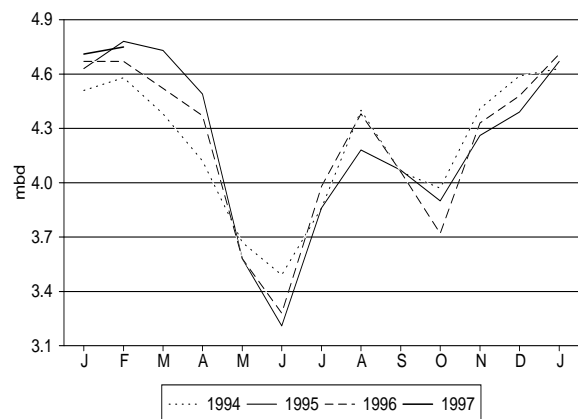


Table 1
WORLD OIL SUPPLY AND DEMAND

(million barrels per day)

	1993	1994	1Q95	2Q95	3Q95	4Q95	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997
DEMAND																	
OECD																	
North America	19.2	19.8	19.7	19.5	19.8	20.1	19.8	20.4	19.9	20.2	20.8	20.3	20.4	20.1	20.6	21.0	20.5
Europe	13.6	13.6	14.1	13.6	13.7	14.3	13.9	14.4	13.5	14.2	14.5	14.1	14.4	13.9	14.3	14.8	14.3
Pacific	6.3	6.6	7.3	6.1	6.3	6.9	6.7	7.4	6.2	6.3	6.9	6.7	7.4	6.3	6.4	7.1	6.8
TOTAL OECD	39.0	40.0	41.1	39.2	39.9	41.4	40.4	42.1	39.6	40.6	42.2	41.1	42.2	40.3	41.3	43.0	41.7
NON-OECD																	
FSU ¹	5.7	4.9	5.1	4.5	4.5	4.9	4.7	4.6	4.2	4.3	4.2	4.3	4.2	4.0	4.2	4.6	4.2
Europe	1.3	1.3	1.4	1.3	1.3	1.4	1.4	1.5	1.4	1.3	1.4	1.4	1.6	1.5	1.4	1.5	1.5
China ²	3.0	3.1	3.2	3.3	3.4	3.4	3.3	3.4	3.6	3.6	3.7	3.6	3.6	3.8	3.8	3.9	3.8
Other Asia	6.9	7.4	8.1	7.9	7.6	8.4	8.0	8.8	8.4	8.2	9.0	8.6	9.3	9.0	8.7	9.7	9.2
Latin America	5.7	6.0	6.2	6.0	6.1	6.2	6.1	6.2	6.3	6.5	6.5	6.4	6.5	6.6	6.7	6.7	6.6
Middle East	3.9	4.0	4.1	4.0	4.2	4.2	4.1	4.1	4.1	4.3	4.3	4.2	4.2	4.2	4.4	4.4	4.3
Africa	2.1	2.1	2.3	2.3	2.2	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.4	2.4	2.3	2.4	2.4
TOTAL NON-OECD	28.5	28.9	30.4	29.3	29.2	30.7	29.9	31.0	30.3	30.3	31.4	30.8	31.9	31.5	31.4	33.1	32.0
TOTAL DEMAND³	67.5	68.9	71.5	68.5	69.0	72.1	70.3	73.1	69.9	71.0	73.6	71.9	74.2	71.8	72.7	76.1	73.7
SUPPLY																	
OECD																	
North America	11.0	10.9	11.1	11.0	10.9	11.0	11.0	11.0	10.9	11.0	11.2	11.1	11.1	10.9	11.0	11.4	11.1
Europe	5.1	6.0	6.4	6.0	6.2	6.7	6.3	6.6	6.6	6.5	6.9	6.7	7.0	7.1	7.2	8.2	7.4
Pacific	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
TOTAL OECD	16.8	17.6	18.1	17.7	17.8	18.4	18.0	18.3	18.2	18.2	18.8	18.4	18.9	18.8	19.1	20.4	19.3
NON-OECD																	
FSU	7.9	7.3	7.1	7.1	7.1	7.1	7.1	7.0	7.0	7.1	7.1	7.0	7.0	7.0	7.1	7.3	7.1
Europe	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
China	2.9	2.8	3.0	2.9	3.0	3.0	3.0	3.1	3.1	3.1	3.2	3.1	3.2	3.2	3.2	3.2	3.2
Other Asia	1.8	1.9	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1
Latin America	5.8	5.9	6.1	6.0	6.3	5.9	6.1	6.5	6.6	6.5	6.6	6.5	6.7	6.9	7.0	7.3	7.0
Middle East	1.6	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0
Africa	2.3	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.7	2.8	2.8	2.7	2.8	2.9	2.9	3.0	2.9
Processing Gains ⁴	1.4	1.4	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6
TOTAL NON-OPEC	40.8	41.6	42.5	42.0	42.5	42.8	42.4	43.3	43.2	43.4	44.3	43.5	44.6	44.6	45.3	47.2	45.4
OPEC																	
Crude	24.4	24.7	24.8	24.9	25.2	25.3	25.1	25.7	25.6	25.9	26.2	25.9	27.0				
NGLs	2.3	2.4	2.4	2.4	2.4	2.5	2.4	2.5	2.6	2.7	2.7	2.6	2.8	2.9	3.0	3.1	3.0
TOTAL OPEC	26.6	27.0	27.2	27.3	27.6	27.8	27.5	28.2	28.2	28.6	28.9	28.5	29.9				
TOTAL SUPPLY⁵	67.5	68.6	69.7	69.3	70.1	70.6	69.9	71.5	71.4	72.0	73.2	72.0	74.4				
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	0.1	0.1	-1.3	0.7	0.4	-1.1	-0.3	-1.5	1.2	0.5	-0.5	-0.1	-0.1				
Government	0.1	0.1	0.1	-0.1	0.1	-0.1	0.0	0.2	-0.1	-0.1	-0.1	0.0	0.0				
TOTAL OECD	0.2	0.2	-1.2	0.7	0.5	-1.2	-0.3	-1.3	1.1	0.4	-0.5	-0.1	-0.1				
Floating Storage/Oil in Transit	0.1	-0.1	-0.3	0.1	0.2	0.3	0.1	-0.3	0.1	0.0	-0.1	-0.1	0.2				
Miscellaneous to balance ⁶	-0.4	-0.3	-0.3	0.0	0.4	-0.7	-0.2	-0.1	0.3	0.6	0.2	0.3	0.2				
TOTAL STOCK CH. & MISC.	-0.1	-0.2	-1.8	0.8	1.1	-1.5	-0.4	-1.6	1.5	1.0	-0.5	0.1	0.3				
Memo items:																	
FSU Net Exports	2.2	2.4	2.0	2.7	2.6	2.2	2.4	2.4	2.8	2.8	2.9	2.7	2.8	2.9	2.9	2.7	2.8
Call on OPEC crude + Stock ch. ⁷	24.5	24.9	26.7	24.1	24.1	26.8	25.4	27.4	24.0	24.9	26.7	25.8	26.8	24.2	24.4	25.8	25.3
Total Demand ex. FSU	61.8	64.0	66.4	64.1	64.5	67.2	65.5	68.5	65.7	66.7	69.5	67.6	69.9	67.7	68.6	71.5	69.4
Total demand exc. FSU (% ch) ⁸	2.7	3.5	2.9	2.8	1.8	2.3	2.4	3.2	2.5	3.4	3.4	3.1	2.0	3.1	2.8	3.0	2.7

1 Figures for FSU are apparent demand derived from official production figures and quarterly trade data.

2 Annual Chinese demand is estimated from production and (adjusted) trade; quarterly figures represent estimates of domestic oil deliveries and are not derived from trade data.

3 Measured as deliveries from refineries and primary stocks, comprises inland deliveries, international marine bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply.

4 Net of volumetric gains and losses in refining process (excludes net gain/loss in former USSR, China and non-OECD Europe) and marine transportation losses.

5 Comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply.

6 Includes changes in non-reported stocks in OECD and non-OECD areas.

7 Equals total demand minus total non-OPEC supply minus OPEC NGLs. Thus includes "Miscellaneous to balance" for historical time periods.

8 Year on year % growth in global oil demand excluding FSU.

Table 1A
WORLD OIL SUPPLY AND DEMAND: CHANGES FROM LAST MONTH'S TABLE 1
(million barrels per day)

	1993	1994	1Q95	2Q95	3Q95	4Q95	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997
DEMAND																	
OECD																	
North America	-	-	-	-	-0.1	-	-	-	-0.1	-0.1	-	-0.1	-0.1	-	-0.1	-0.1	-0.1
Europe	-	-	-	0.1	0.1	-	-	0.1	0.1	0.1	0.1	-	-0.1	0.1	0.1	0.1	-
Pacific	-	-	-	-0.1	-	-	-	-	-	-	-0.1	-	-0.1	-	-	-	-0.1
TOTAL OECD	-	-	-	-	0.1	0.1	-	-	-	-0.1	-	-	-0.3	-	-	0.1	-0.1
NON-OECD																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-	-	-	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.1	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL NON-OECD	-	-	-	-	-	-	-	-	0.1	0.1	-0.1	0.1	-0.2	0.1	0.1	-0.1	-
TOTAL DEMAND	-0.1	-	-	-	-	0.1	0.1	-	0.1	0.1	-	-	-0.4	0.1	0.1	-	-
SUPPLY																	
OECD																	
North America	-	-	-	-	-	-	-	-	-	-	-	0.1	-0.2	-	-	-	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-0.2	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL OECD	-	-	-	-	-	-	-	-	-	-	-	-	-0.4	-0.1	-	0.1	-0.1
NON-OECD																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	0.1	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL NON-OPEC	-	-	-	-	-	-	-	-	-0.1	-	-	-0.1	-0.3	-	0.1	0.2	-
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1
TOTAL OPEC	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
TOTAL SUPPLY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	0.1	-	-0.2	-	-	-	-0.1	-	-	-	-	-
Government	-	-	-	-	-	-0.2	-	0.2	-	-	-	0.1	-	-	-	-	-
TOTAL OECD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous to balance	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1	-	-	-	-	-	-	-
TOTAL STOCK CH. & MISC.	-	0.1	-	-	-	-	-0.1	-	-0.1	-0.1	-0.1	-0.1	-	-	-	-	-
Memo items:																	
FSU Net Exports	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Call on OPEC crude + Stock ch.	-	-	0.1	-	-	-	-	0.1	-	-	-	0.1	-	-	-0.1	-0.3	-0.1
Total Demand ex. FSU	-	-	-	0.1	0.1	0.1	-	-	0.1	0.1	-	0.1	-0.3	-	0.1	-	-0.1

When submitting their monthly oil statistics, IEA Member countries periodically update data for earlier years. Similar updates to non-OECD data can occur. While the changes are generally small, due to rounding they can lead to changes to historical data of 0.1 mb/d.

Table 2
OECD REGIONAL OIL DEMAND
(million barrels per day)

	Third Quarter			October			November			December			Fourth Quarter		
	1995	1996	%	1995	1996	%	1995	1996	%	1995	1996	%	1995	1996	%
North America															
LPG	2.00	2.11	5.2	2.20	2.34	6.1	2.49	2.70	8.3	2.55	2.49	-2.0	2.41	2.51	3.9
Naphtha	0.28	0.32	15.7	0.22	0.36	65.9	0.25	0.32	25.9	0.30	0.36	21.8	0.26	0.35	35.8
Motor Gasoline	8.66	8.69	0.4	8.44	8.70	3.1	8.50	8.52	0.2	8.40	8.43	0.3	8.45	8.55	1.2
Jet/Kerosene	1.64	1.74	6.0	1.68	1.76	5.0	1.77	1.84	4.2	1.82	1.81	-0.2	1.75	1.80	2.9
Gasoil	3.46	3.58	3.4	3.57	4.10	14.7	3.72	3.98	6.9	3.99	3.93	-1.5	3.76	4.00	6.4
Residual Fuel Oil	0.99	0.99	-0.5	1.01	1.01	0.9	0.97	0.90	-7.0	1.28	1.10	-14.7	1.09	1.01	-7.6
Other Products	2.81	2.74	-2.6	2.57	2.91	13.2	2.41	2.44	1.2	2.20	2.31	5.0	2.39	2.56	6.7
Total	19.85	20.17	1.6	19.69	21.19	7.6	20.12	20.69	2.9	20.53	20.43	-0.5	20.11	20.77	3.3
Europe															
LPG	0.75	0.79	4.8	0.79	0.83	5.5	0.89	0.89	0.6	0.96	1.01	5.9	0.88	0.91	4.0
Naphtha	1.02	0.98	-4.3	1.01	1.10	8.5	1.11	1.08	-2.6	1.06	1.05	-0.6	1.06	1.08	1.6
Motor Gasoline	3.10	3.12	0.6	2.97	3.06	3.0	2.95	2.93	-0.5	2.89	2.88	-0.4	2.94	2.96	0.8
Jet/Kerosene	0.93	0.98	4.8	0.89	0.90	0.5	0.82	0.87	5.7	0.80	0.87	8.7	0.84	0.88	4.8
Gasoil	4.58	4.97	8.7	4.80	5.12	6.8	5.38	5.45	1.3	5.23	5.34	2.1	5.13	5.30	3.3
Residual Fuel Oil	2.06	2.02	-2.1	2.19	2.23	2.1	2.43	2.22	-8.5	2.32	2.12	-8.8	2.31	2.19	-5.2
Other Products	1.27	1.35	6.4	1.32	1.30	-1.6	1.21	1.17	-3.4	1.04	0.99	-4.1	1.19	1.16	-2.9
Total	13.71	14.20	3.6	13.97	14.54	4.1	14.78	14.61	-1.1	14.30	14.27	-0.2	14.34	14.47	0.9
Pacific															
LPG	0.62	0.62	1.0	0.66	0.69	4.2	0.70	0.73	4.6	0.84	0.83	-1.3	0.74	0.75	2.2
Naphtha	0.74	0.77	3.9	0.71	0.72	1.5	0.80	0.78	-3.0	0.86	0.88	2.5	0.79	0.79	0.4
Motor Gasoline	1.31	1.32	0.7	1.19	1.27	7.3	1.25	1.27	1.7	1.33	1.33	0.1	1.25	1.29	2.9
Jet/Kerosene	0.54	0.56	2.6	0.61	0.74	21.4	0.92	0.92	0.2	1.32	1.20	-9.6	0.95	0.95	0.2
Gasoil	1.44	1.46	1.4	1.44	1.54	7.4	1.60	1.60	0.0	1.72	1.67	-2.8	1.58	1.60	1.3
Residual Fuel Oil	0.87	0.78	-10.3	0.75	0.73	-3.1	0.81	0.81	-0.3	0.90	0.82	-8.1	0.82	0.79	-4.0
Other Products	0.78	0.76	-2.2	0.71	0.71	0.8	0.82	0.83	1.2	0.87	0.75	-13.0	0.80	0.77	-4.1
Total	6.30	6.27	-0.4	6.07	6.42	5.7	6.90	6.94	0.6	7.83	7.48	-4.4	6.93	6.95	0.2
OECD															
LPG	3.37	3.52	4.3	3.65	3.86	5.7	4.08	4.32	6.0	4.34	4.34	-0.1	4.03	4.17	3.7
Naphtha	2.04	2.06	1.4	1.94	2.18	12.4	2.16	2.17	0.6	2.22	2.30	3.6	2.11	2.22	5.3
Motor Gasoline	13.07	13.13	0.5	12.60	13.04	3.5	12.70	12.72	0.2	12.62	12.64	0.1	12.64	12.80	1.3
Jet/Kerosene	3.12	3.28	5.0	3.18	3.40	6.9	3.50	3.63	3.5	3.94	3.88	-1.6	3.54	3.63	2.6
Gasoil	9.47	10.01	5.7	9.81	10.77	9.7	10.70	11.03	3.1	10.93	10.94	0.0	10.48	10.91	4.1
Residual Fuel Oil	3.92	3.78	-3.5	3.94	3.97	0.8	4.21	3.93	-6.6	4.50	4.03	-10.3	4.22	3.98	-5.6
Other Products	4.86	4.86	-0.2	4.60	4.93	7.1	4.44	4.44	0.0	4.11	4.06	-1.1	4.38	4.48	2.1
Total	39.85	40.63	2.0	39.73	42.15	6.1	41.79	42.24	1.1	42.66	42.18	-1.1	41.39	42.19	1.9

Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply.

Jet/kerosene comprises jet kerosene and non-aviation kerosene grades. Gasoil comprises diesel, light heating oil and other gasoils.

North America comprises US 50 States, territories and Canada.

Table 3
OIL DEMAND IN SELECTED OECD COUNTRIES
(million barrels per day)

	October			November			December			Fourth Quarter			January		
	1995	1996	%	1995	1996	%	1995	1996	%	1995	1996	%	1996	1997	%
United States															
LPG	1.92	2.07	7.8	2.09	2.28	9.2	2.22	2.18	-2.1	2.08	2.17	4.7	2.32	2.34	0.8
Naphtha	0.14	0.29	98.6	0.18	0.23	27.7	0.23	0.28	24.2	0.18	0.27	45.0	0.20	0.29	41.1
Motor Gasoline	7.78	8.04	3.3	7.87	7.88	0.1	7.74	7.78	0.4	7.80	7.90	1.3	7.25	7.31	0.8
Jet/Kerosene	1.56	1.64	5.0	1.65	1.73	4.3	1.69	1.68	-0.9	1.64	1.68	2.7	1.70	1.78	5.1
Gasoil	3.10	3.57	15.2	3.23	3.46	7.0	3.45	3.43	-0.4	3.26	3.49	7.0	3.68	3.78	2.7
Residual Fuel Oil	0.83	0.83	0.2	0.79	0.74	-7.2	1.04	0.86	-17.8	0.89	0.81	-9.1	1.02	0.98	-3.7
Other Products	2.31	2.67	15.2	2.16	2.19	1.1	1.99	2.10	5.4	2.16	2.32	7.5	2.03	2.07	2.0
Total	17.65	19.10	8.2	17.98	18.50	2.9	18.37	18.30	-0.4	18.00	18.63	3.5	18.21	18.56	1.9
Japan															
LPG	0.58	0.62	6.9	0.62	0.66	6.8	0.76	0.76	-0.3	0.65	0.68	4.1	0.72	0.70	-1.6
Naphtha	0.71	0.72	1.6	0.79	0.77	-3.0	0.85	0.88	2.5	0.78	0.79	0.4	0.78	0.84	7.1
Motor Gasoline	0.84	0.91	7.7	0.88	0.91	3.4	0.97	0.96	-1.1	0.90	0.92	3.1	0.79	0.84	5.8
Jet/Kerosene	0.51	0.64	23.7	0.81	0.81	0.1	1.23	1.09	-10.8	0.85	0.85	-0.4	1.10	1.17	5.8
Diesel*	0.75	0.81	8.2	0.78	0.79	0.8	0.79	0.77	-2.3	0.77	0.79	2.1	0.64	0.66	3.2
Other Gasoil*	0.45	0.48	7.6	0.56	0.56	0.2	0.69	0.65	-6.3	0.57	0.56	-0.5	0.63	0.65	3.2
Residual Fuel Oil	0.72	0.69	-4.7	0.77	0.77	0.4	0.86	0.79	-7.2	0.78	0.75	-4.0	0.85	0.76	-10.8
Direct use of Crude Oil	0.23	0.27	17.5	0.32	0.31	-3.5	0.34	0.27	-20.3	0.30	0.28	-4.6	0.37	0.31	-14.5
Other Products	0.34	0.35	1.2	0.35	0.42	18.7	0.38	0.36	-4.5	0.36	0.37	4.8	0.33	0.39	18.0
Total	5.13	5.47	6.7	5.89	6.00	2.0	6.87	6.54	-4.9	5.96	6.00	0.7	6.21	6.32	1.7
Germany															
LPG	0.09	0.09	-3.8	0.09	0.09	-8.0	0.11	0.10	-12.7	0.10	0.09	-8.4	0.15	0.15	4.9
Naphtha	0.31	0.32	1.5	0.31	0.36	15.4	0.34	0.34	1.3	0.32	0.34	5.8	0.35	0.33	-6.7
Motor Gasoline	0.71	0.74	4.1	0.69	0.69	-0.2	0.66	0.65	-0.7	0.69	0.69	1.1	0.62	0.62	-0.4
Jet/Kerosene	0.13	0.14	1.9	0.11	0.12	6.9	0.11	0.12	8.8	0.12	0.13	5.6	0.11	0.12	5.3
Diesel	0.45	0.47	5.7	0.48	0.47	-1.9	0.37	0.38	3.1	0.43	0.44	2.2	0.35	0.35	0.0
Other Gasoil	0.67	0.75	12.2	0.84	0.92	8.8	0.86	0.91	5.9	0.79	0.86	8.7	1.02	1.06	4.5
Residual Fuel Oil	0.20	0.18	-7.8	0.20	0.17	-15.5	0.19	0.17	-9.5	0.20	0.17	-10.9	0.19	0.16	-13.3
Other Products	0.22	0.20	-9.9	0.19	0.18	-8.4	0.11	0.14	20.6	0.17	0.17	-2.7	0.13	0.12	-8.1
Total	2.77	2.87	3.7	2.92	2.99	2.2	2.75	2.81	2.3	2.81	2.89	2.7	2.91	2.91	-0.1
Italy															
LPG	0.10	0.11	12.6	0.13	0.11	-17.3	0.14	0.14	-0.3	0.13	0.12	-2.7	0.15	0.15	-1.8
Naphtha	0.13	0.12	-5.0	0.13	0.12	-5.3	0.13	0.13	-4.8	0.13	0.12	-5.0	0.13	0.12	-8.6
Motor Gasoline	0.44	0.46	5.8	0.42	0.42	-1.6	0.44	0.45	3.3	0.43	0.44	2.6	0.39	0.39	-0.8
Jet/Kerosene	0.09	0.06	-28.1	0.06	0.06	-11.7	0.06	0.06	11.9	0.07	0.06	-11.9	0.06	0.06	-3.8
Diesel	0.37	0.32	-13.0	0.40	0.31	-22.3	0.36	0.30	-17.0	0.38	0.31	-17.5	0.34	0.28	-17.4
Other Gasoil	0.22	0.24	8.4	0.23	0.24	8.6	0.24	0.29	24.6	0.23	0.26	14.2	0.18	0.25	37.4
Residual Fuel Oil	0.57	0.59	4.1	0.67	0.56	-15.7	0.63	0.47	-25.1	0.62	0.54	-12.8	0.64	0.58	-8.8
Other Products	0.13	0.12	-5.6	0.13	0.10	-23.0	0.09	0.09	3.3	0.11	0.10	-9.6	0.09	0.08	-9.9
Total	2.03	2.02	-0.3	2.17	1.92	-11.5	2.09	1.95	-6.9	2.10	1.96	-6.3	1.98	1.90	-3.9
France															
LPG	0.10	0.11	8.5	0.11	0.12	12.9	0.13	0.14	12.5	0.11	0.12	11.4	0.14	0.17	22.5
Naphtha	0.19	0.16	-14.2	0.24	0.16	-34.0	0.13	0.14	5.2	0.19	0.15	-17.7	0.21	0.18	-14.6
Motor Gasoline	0.35	0.35	0.1	0.34	0.32	-5.6	0.35	0.32	-9.7	0.35	0.33	-5.0	0.32	0.30	-6.6
Jet/Kerosene	0.10	0.10	2.3	0.09	0.10	6.4	0.09	0.10	12.3	0.09	0.10	6.8	0.09	0.10	7.6
Diesel	0.47	0.52	8.9	0.47	0.46	-2.7	0.46	0.46	0.3	0.47	0.48	2.3	0.44	0.44	0.4
Other Gasoil	0.33	0.36	8.3	0.39	0.43	11.0	0.54	0.53	-2.0	0.42	0.44	4.7	0.46	0.64	39.3
Residual Fuel Oil	0.15	0.16	6.4	0.18	0.15	-15.5	0.21	0.21	-1.5	0.18	0.17	-3.7	0.19	0.20	9.2
Other Products	0.19	0.23	19.2	0.17	0.15	-12.2	0.15	0.13	-11.2	0.17	0.17	0.0	0.14	0.13	-8.5
Total	1.89	1.99	5.3	1.98	1.88	-5.0	2.05	2.02	-1.4	1.97	1.97	-0.4	1.99	2.17	8.7
United Kingdom															
LPG	0.17	0.17	-0.5	0.17	0.18	6.9	0.17	0.19	13.5	0.17	0.18	6.5	0.16	0.19	21.2
Naphtha	0.06	0.11	63.3	0.10	0.07	-32.8	0.07	0.10	31.1	0.08	0.09	13.0	0.07	0.05	-30.1
Motor Gasoline	0.52	0.54	3.1	0.56	0.56	-1.1	0.48	0.49	2.5	0.52	0.53	1.4	0.46	0.47	2.6
Jet/Kerosene	0.23	0.24	7.5	0.23	0.26	10.0	0.25	0.27	6.4	0.24	0.25	7.9	0.25	0.26	7.7
Diesel	0.28	0.31	8.8	0.33	0.34	2.9	0.24	0.26	7.8	0.28	0.30	6.3	0.27	0.28	5.8
Other Gasoil	0.18	0.19	4.3	0.18	0.22	16.6	0.18	0.20	11.8	0.18	0.20	10.8	0.20	0.24	16.4
Residual Fuel Oil	0.17	0.17	0.9	0.20	0.16	-19.9	0.18	0.17	-3.4	0.18	0.17	-8.1	0.14	0.16	12.7
Other Products	0.21	0.20	-1.9	0.20	0.19	-2.5	0.18	0.18	1.4	0.19	0.19	-1.0	0.18	0.19	1.1
Total	1.82	1.92	5.7	1.99	1.98	-0.5	1.74	1.85	6.3	1.85	1.92	3.7	1.73	1.84	6.5
Canada															
LPG	0.27	0.26	-4.9	0.40	0.41	3.9	0.31	0.31	-1.8	0.33	0.33	-0.4	0.33	0.32	-1.5
Naphtha	0.07	0.08	1.9	0.07	0.08	21.2	0.07	0.08	13.7	0.07	0.08	11.9	0.07	0.08	4.4
Motor Gasoline	0.60	0.62	2.0	0.60	0.61	1.5	0.59	0.59	-1.2	0.60	0.60	0.8	0.56	0.58	2.5
Jet/Kerosene	0.09	0.10	7.7	0.09	0.10	5.1	0.09	0.10	10.9	0.09	0.10	7.9	0.10	0.11	6.1
Diesel	0.17	0.16	-7.1	0.16	0.16	0.0	0.16	0.16	0.0	0.16	0.16	-2.5	0.14	0.16	13.3
Other Gasoil	0.26	0.33	26.0	0.30	0.34	11.1	0.34	0.30	-12.9	0.30	0.32	6.3	0.37	0.38	3.7
Residual Fuel Oil	0.12	0.13	11.5	0.13	0.13	-2.9	0.17	0.17	-2.1	0.14	0.14	1.5	0.14	0.16	12.9
Other Products	0.23	0.22	-3.1	0.22	0.23	3.8	0.18	0.19	2.2	0.21	0.21	0.8	0.18	0.17	-3.6
Total	1.83	1.90	3.8	1.98	2.07	4.2	1.92	1.88	-1.9	1.91	1.95	2.0	1.90	1.96	3.3

Demand, measured as deliveries from refineries and primary stocks, comprises inland deliveries, international bunkers and refinery fuel. It includes crude for direct burning, oil from non-conventional sources and other sources of supply.

Jet/kerosene comprises jet kerosene and non-aviation kerosene grades. Gasoil comprises diesel, light heating oil and other gasoils.

US figures do not include territories.

* In Japan, the breakdown between Diesel and Other Gasoil in the latest month is estimated using the same split between the two products as last year.

Table 4
WORLD OIL PRODUCTION
(million barrels per day)

	1995	1996	1997 ^f	2Q96	3Q96	4Q96	1Q97 ^p	2Q97 ^f	Jan97	Feb97	Mar97
OPEC¹											
Crude Oil											
Saudi Arabia	7.94	7.91		7.84	7.93	7.90	7.98		8.00	8.00	7.95
Iran	3.65	3.67		3.62	3.71	3.66	3.70		3.71	3.70	3.69
Iraq	0.55	0.58		0.55	0.55	0.65	1.11		1.08	1.07	1.17
UAE	2.20	2.23		2.18	2.22	2.27	2.28		2.29	2.29	2.27
Kuwait	1.84	1.81		1.79	1.80	1.81	1.83		1.84	1.84	1.80
Neutral Zone	0.43	0.48		0.47	0.48	0.52	0.53		0.52	0.53	0.54
Qatar	0.45	0.49		0.48	0.49	0.51	0.56		0.56	0.56	0.56
Nigeria	1.93	2.15		2.12	2.15	2.23	2.27		2.26	2.30	2.26
Libya	1.41	1.39		1.39	1.40	1.40	1.41		1.43	1.38	1.41
Algeria	0.76	0.82		0.81	0.83	0.85	0.86		0.86	0.85	0.86
Venezuela	2.58	2.97		2.94	3.02	3.03	3.12		3.09	3.12	3.15
Indonesia	1.34	1.39		1.41	1.38	1.40	1.42		1.39	1.42	1.45
Total Crude Oil	25.07	25.87		25.59	25.94	26.24	27.05		27.01	27.05	27.09
NGLs ²	2.42	2.60	2.96	2.59	2.66	2.66	2.83	2.91	2.79	2.83	2.87
TOTAL OPEC	27.48	28.47		28.18	28.60	28.90	29.88		29.80	29.88	29.96
NON-OPEC^{1,3}											
OECD											
North America	11.01	11.05	11.10	10.93	11.02	11.23	11.14	10.86	11.04	11.26	11.14
United States	8.61	8.59	8.57	8.55	8.55	8.70	8.59	8.45	8.51	8.70	8.59
Canada	2.40	2.46	2.54	2.38	2.47	2.53	2.55	2.42	2.53	2.56	2.55
Europe	6.31	6.66	7.41	6.55	6.51	6.91	7.02	7.14	6.93	6.86	7.24
UK	2.79	2.81	3.25	2.73	2.68	3.00	2.97	3.06	2.95	2.87	3.08
Norway	2.91	3.23	3.47	3.22	3.23	3.28	3.37	3.43	3.31	3.34	3.47
Others	0.61	0.61	0.68	0.60	0.61	0.63	0.67	0.65	0.67	0.66	0.69
Pacific	0.67	0.67	0.77	0.69	0.70	0.67	0.71	0.77	0.64	0.71	0.76
Australia	0.58	0.60	0.68	0.62	0.62	0.58	0.61	0.67	0.55	0.62	0.67
Others	0.10	0.07	0.09	0.07	0.08	0.09	0.09	0.09	0.09	0.09	0.09
Total OECD	17.99	18.38	19.28	18.18	18.23	18.80	18.86	18.77	18.62	18.83	19.13
Non-OECD											
Former USSR	7.12	7.05	7.08	7.02	7.07	7.06	7.01	6.95	7.10	6.97	6.96
Russia	6.16	6.03	5.91	6.03	6.06	6.01	5.94	5.81	6.03	5.91	5.88
Others	0.97	1.01	1.18	0.99	1.02	1.05	1.07	1.14	1.07	1.06	1.08
Asia	5.06	5.15	5.32	5.14	5.12	5.19	5.27	5.29	5.25	5.27	5.30
China	2.99	3.12	3.22	3.12	3.10	3.15	3.23	3.22	3.20	3.24	3.24
Malaysia	0.76	0.73	0.75	0.72	0.73	0.75	0.75	0.75	0.75	0.75	0.75
India	0.70	0.65	0.68	0.65	0.63	0.63	0.66	0.67	0.65	0.65	0.67
Others	0.61	0.65	0.67	0.65	0.66	0.66	0.64	0.65	0.64	0.64	0.64
Europe	0.27	0.27	0.28	0.26	0.27	0.28	0.28	0.28	0.27	0.28	0.28
Latin America	6.08	6.53	6.99	6.57	6.48	6.57	6.75	6.89	6.68	6.75	6.81
Mexico	3.07	3.29	3.44	3.35	3.24	3.25	3.37	3.44	3.33	3.37	3.40
Brazil	0.93	1.04	1.17	1.03	1.02	1.09	1.13	1.15	1.13	1.11	1.14
Argentina	0.76	0.83	0.89	0.82	0.85	0.85	0.87	0.89	0.86	0.87	0.88
Colombia	0.59	0.64	0.72	0.63	0.64	0.65	0.64	0.66	0.65	0.64	0.64
Ecuador	0.38	0.39	0.40	0.39	0.38	0.38	0.37	0.39	0.34	0.40	0.38
Others	0.35	0.35	0.36	0.35	0.36	0.37	0.37	0.37	0.37	0.36	0.37
Middle East ⁴	1.87	1.92	2.00	1.89	1.93	1.99	1.98	1.99	1.96	1.98	2.00
Oman	0.86	0.89	0.91	0.88	0.90	0.91	0.91	0.92	0.89	0.91	0.92
Syria	0.59	0.61	0.62	0.61	0.61	0.62	0.62	0.62	0.62	0.62	0.62
Yemen	0.37	0.37	0.42	0.35	0.37	0.40	0.41	0.41	0.41	0.40	0.42
Africa	2.58	2.73	2.91	2.67	2.76	2.82	2.84	2.90	2.83	2.84	2.85
Egypt	0.95	0.92	0.92	0.93	0.91	0.90	0.92	0.92	0.92	0.91	0.92
Angola	0.64	0.72	0.80	0.72	0.73	0.74	0.76	0.80	0.75	0.76	0.77
Gabon	0.35	0.36	0.37	0.36	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Others	0.65	0.72	0.83	0.66	0.76	0.82	0.80	0.81	0.80	0.80	0.80
Total Non-OECD	22.98	23.64	24.59	23.55	23.64	23.91	24.13	24.31	24.09	24.10	24.20
Processing Gains ⁵	1.46	1.52	1.57	1.50	1.50	1.55	1.57	1.56	1.57	1.57	1.57
TOTAL NON-OPEC	42.43	43.54	45.44	43.23	43.37	44.25	44.57	44.64	44.27	44.51	44.91
TOTAL SUPPLY	69.91	72.01		71.41	71.97	73.15	74.45		74.07	74.39	74.87

1 Gabon is identified separately as a non-OPEC producer country throughout the period covered by this table for the purposes of comparison.

2 Includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Orimulsion, and non oil inputs to Saudi Arabian MTBE.

3 Comprises crude oil, condensates, NGLs and oil from non-conventional sources.

4 Includes small amounts of production from Israel, Jordan and Bahrain.

5 Net of volumetric gains and losses in refining (excludes net gain/loss in FSU, China and non-OECD Europe) and marine transportation losses.

p preliminary

f forecast

Table 4A
OIL SUPPLY IN OECD COUNTRIES¹
(thousand barrels per day)

	1996		February		March		1st Quarter 97p		2nd Quarter 97f		1997f	
	Level	Change ²	Level	Change	Level	Change	Level	Change	Level	Change	Level	Change
United States												
Alaska	1397	-87	1390	10	1329	-61	1366	-34	1302	-63	1328	-69
California (inc. offshore)	947	-13	940	17	906	-34	922	-15	888	-35	889	-58
Texas	1474	-56	1400	-6	1395	-5	1400	-50	1368	-32	1371	-103
Offshore Gulf of Mexico	1091	98	1224	41	1248	24	1218	80	1262	44	1315	223
Other US Lower 48	1555	-20	1542	47	1544	2	1527	-25	1499	-28	1490	-65
NGLs ³	1825	63	1860	25	1802	-58	1832	-68	1831	-1	1865	39
Other Hydrocarbons	301	-5	340	54	363	23	329	5	298	-31	311	10
Total	8592	-19	8696	188	8587	-109	8594	-107	8448	-145	8569	-23
Canada												
Alberta Light & Medium	678	-31	685	35	660	-25	664	-7	642	-23	653	-25
Alberta Heavy	262	20	247	-15	265	18	258	-8	277	18	273	11
Alberta Bitumen	163	14	210	1	207	-3	209	16	192	-17	197	34
Saskatchewan	356	33	378	17	370	-8	369	-4	357	-12	373	17
Other Conventional	102	0	98	5	95	-3	96	-8	96	1	103	1
NGLs	620	29	644	-39	647	3	658	31	599	-59	636	17
Syncrudes	279	-2	302	29	308	6	294	4	255	-39	300	21
Total	2459	62	2564	33	2552	-12	2548	23	2417	-131	2536	77
United Kingdom⁴												
Brent Fields	479	-0	457	-31	484	27	477	-7	452	-25	480	1
Forties Fields	908	39	969	16	1007	39	976	11	901	-76	976	68
Ninian Fields	307	15	277	-11	285	8	283	-17	285	2	300	-7
Flotta Fields	222	-31	211	3	212	1	210	-1	180	-30	215	-6
Other Offshore Fields	530	-7	562	-49	681	119	620	-32	849	229	855	326
NGLs	256	-16	278	-15	299	21	290	8	281	-9	310	54
Total	2701	-1	2753	-86	2969	216	2857	-38	2948	91	3136	435
Norway⁴												
Ekofisk/Ula Area	503	3	503	89	517	15	477	-38	529	53	511	8
Oseberg Area	909	176	945	12	975	30	951	35	923	-28	930	21
Staffjord-Gullfaks-Snorre	1202	-109	1177	-93	1238	62	1230	75	1291	61	1247	46
Haltenbanken	356	220	433	32	431	-2	421	23	401	-21	471	114
Sleipner/Frigg	122	27	145	-5	151	6	149	8	152	3	170	48
Plant Condensate (as NGLs)	8	-1	7	-1	9	2	8	0	7	-1	8	1
Lighter NGLs	134	5	133	-0	148	15	138	-2	127	-11	136	2
Total	3234	323	3342	33	3469	128	3374	100	3431	57	3474	240
Other OECD Europe												
Other North Sea	260	27	267	-13	295	27	281	-3	276	-5	291	31
Onshore U.K.	107	5	112	-1	113	1	113	7	111	-2	116	8
Italy	100	7	117	-3	119	2	119	16	120	2	133	33
Turkey	68	-0	66	0	66	0	66	-1	65	-1	64	-3
Other	140	-15	135	-5	141	6	139	8	136	-2	136	-4
NGLs	22	-14	43	4	36	-7	39	14	27	-12	33	11
Non-Conventional Oils	21	1	28	0	28	0	28	7	27	-1	27	6
Total	717	9	768	-19	798	29	785	48	764	-21	800	82
Australia												
Gippsland Basin	198	-30	195	1	194	-1	194	5	195	0	188	-10
Cooper/Eromanga	35	-3	37	5	37	0	35	-1	34	-1	34	-1
Carnarvon Basin	276	60	298	46	343	45	298	17	349	51	366	90
Bonaparte Basin	20	-6	27	16	26	-0	21	10	23	3	21	1
Other Fields	6	0	6	1	6	-0	5	-0	6	0	5	-0
NGLs	64	2	59	2	61	2	59	0	67	8	61	-3
Total	600	23	620	70	666	46	612	32	673	61	675	76
Other OECD Pacific												
New Zealand	43	10	55	-7	56	1	58	-1	58	-0	54	11
Japan	10	-0	11	1	11	0	11	0	11	0	11	0
NGLs	12	0	15	2	14	-1	14	3	14	-0	14	2
Synthetic Fuels	8	-34	7	-1	10	3	8	3	10	2	10	1
Total	74	-23	88	-5	91	3	91	5	92	2	89	15
OECD												
Crude Oil	14817	334	15102	156	15393	291	15149	59	15216	68	15554	737
NGLs	2952	81	3052	-23	3030	-22	3053	-14	2967	-86	3076	124
Non-Conventional Oils	609	-40	677	82	709	32	659	19	590	-69	649	39
Total	18378	374	18831	215	19132	301	18861	64	18774	-87	19279	901

¹ Subcategories refer to crude oil only unless otherwise noted.

² All changes are period to period not year-on-year.

³ To the extent possible, condensates derived from natural gas processing plants are included with NGLs, whereas field condensates are counted as crude oil.

⁴ North Sea production is grouped by area including all fields being processed through the named facility, i.e. not just the field of that name.

Table 5
OECD INDUSTRY STOCKS¹ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Oct96	Nov96	Dec96*	Jan97*	Feb97*	Feb94	Feb95	Feb96	Q196	Q296	Q396	Q496
North America												
Crude	378	366	348	367	369	395	397	364	-0.02	0.13	-0.07	-0.25
Gasoline	207	206	213	228	224	247	250	236	0.05	-0.04	-0.06	-0.06
Middle Distillate	188	193	200	180	173	168	200	160	-0.57	0.19	0.23	0.14
Residual Fuel Oil	46	50	53	50	48	47	45	40	-0.05	0.04	0.02	0.07
Total Products ³	591	588	602	585	576	599	632	561	-0.80	0.43	0.29	-0.09
Total ⁴	1122	1104	1092	1093	1089	1141	1184	1060	-0.88	0.72	0.27	-0.49
Europe												
Crude	320	317	313	328	315	294	300	300	-0.02	0.13	-0.06	-0.02
Gasoline	120	124	128	136	136	147	141	142	0.05	-0.10	-0.05	0.05
Middle Distillate	218	224	224	224	232	209	235	203	-0.34	0.19	-0.03	0.16
Residual Fuel Oil	97	95	99	97	100	94	95	92	-0.19	0.06	0.04	0.06
Total Products ³	512	523	533	540	551	530	561	522	-0.54	0.11	-0.07	0.31
Total ⁴	892	898	907	928	924	881	915	878	-0.59	0.32	-0.12	0.30
Pacific												
Crude	170	166	163	157	155	151	143	152	0.10	-0.01	-0.16	0.09
Gasoline	20	20	20	21	21	20	22	21	0.01	-0.02	0.01	-0.02
Middle Distillate	72	70	65	61	55	48	52	44	-0.12	0.09	0.27	-0.12
Residual Fuel Oil	15	14	14	15	16	15	16	16	0.00	0.01	0.00	-0.02
Total Products ³	165	158	150	148	142	132	142	131	-0.16	0.14	0.34	-0.23
Total ⁴	418	407	392	388	381	370	371	360	-0.03	0.14	0.32	-0.28
Total												
Crude	868	849	823	852	840	840	840	816	0.06	0.25	-0.30	-0.18
Gasoline	346	349	361	384	382	415	413	399	0.11	-0.15	-0.10	-0.02
Middle Distillate	478	487	489	465	460	425	486	407	-1.04	0.47	0.47	0.18
Residual Fuel Oil	158	159	166	161	163	157	156	147	-0.25	0.11	0.06	0.12
Total Products ³	1269	1269	1285	1273	1269	1261	1336	1214	-1.51	0.68	0.56	-0.02
Total ⁴	2432	2409	2391	2409	2395	2392	2470	2297	-1.50	1.18	0.46	-0.47

OECD GOVERNMENT-CONTROLLED STOCKS⁵ AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS ²					PRIOR YEARS' STOCKS ²			STOCK CHANGES ³			
	in Million Barrels					in Million Barrels			in mb/d			
	Oct96	Nov96	Dec96*	Jan97*	Feb97*	Feb94	Feb95	Feb96	Q196	Q296	Q396	Q496
North America												
Crude	574	570	566	563	563	587	592	592	-0.03	-0.05	-0.12	-0.09
Europe												
Crude	134	134	132	132	132	134	134	135	0.03	-0.01	0.01	-0.02
Products	186	186	188	187	187	188	187	181	0.20	-0.02	0.01	0.02
Pacific												
Crude	300	302	303	305	305	265	284	299	0.01	0.00	0.00	0.03
Total												
Crude	1007	1006	1001	1001	1001	986	1009	1026	0.01	-0.06	-0.11	-0.07
Products	186	186	188	187	187	188	187	181	0.20	-0.02	0.01	0.02
Total ⁴	1194	1192	1189	1188	1188	1173	1196	1208	0.21	-0.08	-0.10	-0.05

* Estimated

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known).

They include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

2 Closing Stock levels.

3 Total products includes gasoline, middle distillates, fuel oil and other products.

4 Total includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

5 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

Table 6
INDUSTRY STOCKS¹ ON LAND IN SELECTED COUNTRIES

(million barrels)

	September			October			November			December			January		
	1995	1996	%	1995	1996	%	1995	1996	%	1995	1996	%	1996	1997	%
United States															
Crude	305.8	304.3	-0.5	311.1	310.0	-0.3	319.0	300.7	-5.7	303.3	284.7	-6.2	303.0	302.4	-0.2
Motor Gasoline	198.5	200.4	1.0	196.6	188.8	-4.0	196.2	188.4	-4.0	202.3	195.5	-3.4	212.2	208.5	-1.8
Middle Distillate	178.5	162.9	-8.8	177.2	163.9	-7.5	183.3	168.3	-8.2	176.9	173.6	-1.8	158.7	153.3	-3.4
Residual Fuel Oil	39.6	37.6	-5.1	37.9	38.3	0.9	37.4	42.5	13.6	37.2	45.7	22.9	35.5	41.9	17.8
Other Products	159.9	140.5	-12.1	150.9	132.3	-12.3	141.3	122.8	-13.1	128.4	119.6	-6.8	116.2	110.2	-5.2
Total Products	576.5	541.4	-6.1	562.7	523.2	-7.0	558.2	522.1	-6.5	544.8	534.4	-1.9	522.7	513.8	-1.7
Other ²	145.6	134.3	-7.8	141.3	132.7	-6.0	135.2	131.2	-3.0	123.1	124.6	1.2	123.9	123.0	-0.8
Total	1028.0	980.0	-4.7	1015.0	966.0	-4.8	1012.4	953.9	-5.8	971.2	943.7	-2.8	949.6	939.2	-1.1
Japan															
Crude	150.7	138.1	-8.4	151.7	154.4	1.8	153.4	151.0	-1.6	147.5	148.8	0.9	147.3	142.4	-3.3
Motor Gasoline	12.8	11.9	-6.8	13.5	11.9	-12.0	13.4	12.1	-9.3	12.5	11.9	-5.2	13.8	13.2	-4.0
Middle Distillate	58.3	63.3	8.5	60.9	62.4	2.5	57.1	61.2	7.3	43.3	55.8	28.8	41.7	51.7	24.2
Residual Fuel Oil	12.2	12.5	2.3	12.3	13.3	7.9	12.4	12.0	-3.3	11.5	11.9	3.5	13.4	12.6	-5.8
Other Products	53.1	54.7	3.0	53.7	54.2	0.8	52.6	50.1	-4.9	49.1	47.8	-2.6	51.2	47.2	-7.9
Total Products	136.3	142.3	4.4	140.5	141.7	0.9	135.5	135.4	-0.1	116.4	127.3	9.4	120.0	124.7	3.9
Other ²	78.2	84.3	7.8	75.9	76.6	0.9	75.7	76.6	1.1	67.9	72.4	6.6	71.8	77.8	8.3
Total	365.2	364.7	-0.1	368.1	372.7	1.3	364.7	363.0	-0.5	331.8	348.6	5.0	339.1	344.9	1.7
Germany															
Crude	18.8	22.1	17.5	23.1	18.7	-19.2	21.6	21.2	-2.2	23.2	23.6	1.5	20.8	25.5	22.7
Motor Gasoline	12.1	9.5	-21.1	9.7	9.8	1.1	9.3	9.9	7.2	15.8	10.8	-31.6	13.0	11.0	-14.8
Middle Distillate	19.0	14.0	-26.0	20.8	19.3	-7.6	15.2	17.2	12.5	24.7	16.8	-31.9	15.9	18.4	16.1
Residual Fuel Oil	9.7	9.1	-5.6	9.4	9.0	-4.5	9.3	8.9	-4.8	10.9	9.7	-10.5	9.8	10.7	8.7
Other Products	12.0	11.1	-7.4	11.6	11.3	-2.4	11.3	11.4	0.8	12.2	11.9	-2.3	12.6	11.8	-6.4
Total Products	52.8	43.8	-16.9	51.6	49.4	-4.2	45.2	47.4	4.9	63.6	49.3	-22.5	51.3	52.0	1.3
Other ²	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	71.6	65.9	-7.9	74.7	68.0	-8.9	66.8	68.5	2.6	86.8	72.8	-16.1	72.1	77.5	7.5
Italy															
Crude	39.7	36.2	-8.9	45.4	34.9	-23.2	43.9	34.9	-20.4	41.0	30.4	-25.7	33.0	37.0	12.1
Motor Gasoline	19.6	23.0	17.4	19.5	21.5	10.7	20.9	22.1	5.8	21.3	22.9	7.5	22.8	22.5	-1.4
Middle Distillate	36.9	39.2	6.5	34.5	36.6	6.1	31.5	36.6	16.5	34.9	35.7	2.4	36.0	37.6	4.5
Residual Fuel Oil	23.4	27.0	15.5	23.5	27.9	18.9	22.2	26.8	20.4	22.6	29.9	32.4	23.1	24.5	5.9
Other Products	9.4	7.4	-21.0	9.5	6.1	-35.7	7.7	5.4	-29.0	9.3	6.4	-30.8	10.3	6.4	-37.2
Total Products	89.2	96.7	8.3	86.9	92.1	6.0	82.2	90.9	10.6	88.0	94.9	7.8	92.2	91.0	-1.3
Other ²	4.6	5.7	22.3	5.3	5.4	1.7	5.0	5.0	0.0	6.6	5.3	-19.4	5.4	5.3	-1.4
Total	133.5	138.5	3.7	137.6	132.4	-3.8	131.1	130.8	-0.2	135.6	130.7	-3.7	130.6	133.3	2.1
France															
Crude	39.1	38.1	-2.6	39.5	39.9	1.0	41.6	40.3	-3.2	38.2	39.7	4.1	34.9	38.0	9.1
Motor Gasoline	17.1	17.3	0.9	16.0	17.4	8.7	17.2	18.1	5.2	19.0	19.1	0.7	20.3	21.5	6.2
Middle Distillate	41.9	32.9	-21.5	40.7	35.5	-12.6	39.2	35.9	-8.4	39.5	35.5	-10.3	37.0	32.6	-11.7
Residual Fuel Oil	8.6	8.4	-2.9	8.6	7.8	-9.5	7.7	8.3	6.7	7.9	7.1	-10.5	8.0	7.2	-10.0
Other Products	9.4	8.7	-7.3	11.0	8.0	-27.5	9.8	9.7	-1.3	9.7	9.6	-1.2	9.2	8.5	-7.0
Total Products	77.1	67.3	-12.7	76.3	68.7	-10.0	73.9	71.9	-2.7	76.2	71.3	-6.4	74.4	69.8	-6.1
Other ²	13.2	12.5	-5.9	13.3	13.2	-0.9	12.4	14.0	13.1	12.9	13.1	1.1	13.5	14.1	3.9
Total	129.5	117.9	-9.0	129.1	121.8	-5.7	128.0	126.2	-1.3	127.3	124.1	-2.5	122.8	121.9	-0.7
United Kingdom															
Crude	32.3	35.4	9.8	32.3	30.7	-4.8	32.9	31.9	-3.1	30.2	32.9	9.0	31.7	34.6	9.1
Motor Gasoline	15.8	15.4	-2.4	16.2	15.7	-3.0	18.3	17.6	-4.3	16.9	16.9	-0.5	17.7	17.7	0.0
Middle Distillate	19.1	17.4	-9.0	19.6	19.8	1.1	19.6	19.4	-1.3	18.8	20.8	10.6	17.8	17.5	-1.7
Residual Fuel Oil	8.4	7.1	-14.9	7.7	6.5	-15.8	7.5	5.8	-22.5	7.2	7.0	-3.6	7.4	6.9	-6.9
Other Products	12.8	10.8	-15.7	13.7	11.7	-15.0	11.3	11.8	4.2	13.1	11.4	-12.8	12.4	11.1	-10.6
Total Products	56.1	50.8	-9.6	57.2	53.7	-6.2	56.8	54.6	-4.0	56.1	56.0	-0.1	55.3	53.2	-3.9
Other ²	16.0	15.5	-3.1	16.0	15.2	-5.2	14.9	15.0	0.6	14.9	14.9	-0.3	15.8	15.6	-1.4
Total	104.4	101.7	-2.6	105.6	99.6	-5.6	104.7	101.5	-3.1	101.1	103.8	2.6	102.8	103.4	0.5
Canada															
Crude	58.5	58.2	-0.5	61.2	59.2	-3.2	61.6	57.2	-7.1	56.0	54.5	-2.6	53.7	56.2	4.7
Motor Gasoline	19.9	16.7	-16.3	20.1	16.5	-17.9	19.3	15.7	-18.5	18.6	16.5	-11.5	20.6	17.6	-14.8
Middle Distillate	23.1	21.4	-7.5	22.0	21.1	-4.5	22.3	20.8	-7.0	21.4	23.1	7.9	21.2	23.6	11.5
Residual Fuel Oil	5.5	4.5	-17.1	5.5	3.8	-30.1	4.8	3.8	-20.7	4.4	3.0	-31.1	4.3	3.8	-11.1
Other Products	16.9	16.1	-4.3	17.5	15.9	-9.2	18.1	15.0	-17.2	17.6	14.4	-18.2	15.4	15.8	2.1
Total Products	65.4	58.8	-10.1	65.0	57.2	-12.0	64.5	55.3	-14.3	62.1	57.1	-8.1	61.5	60.8	-1.2
Other ²	17.9	16.9	-5.5	17.3	16.2	-6.8	15.3	14.0	-8.4	14.3	13.3	-6.5	11.8	13.3	13.1
Total	141.8	133.9	-5.6	143.5	132.5	-7.6	141.4	126.4	-10.6	132.3	124.9	-5.6	127.0	130.3	2.6

¹ Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known). They include stocks held by industry to meet IEA, EU and national emergency reserve commitments and are subject to government control in emergencies.

² Other includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons.

Table 7
TOTAL STOCKS ON LAND IN OECD COUNTRIES

(millions of barrels¹ and 'days')²

	End December 1995		End March 1996		End June 1996		End September 1996		End December 1996 ³	
	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
Canada	132.3	70	131.0	73	128.4	68	133.9	69	124.9	-
United States	1562.9	85	1481.9	83	1545.5	85	1553.7	83	1509.5	-
NORTH AMERICA	1718.9	84	1636.7	82	1697.7	84	1711.3	82	1658.2	81
Australia	39.1	48	40.1	49	39.0	50	43.0	53	35.1	-
Japan	630.5	98	626.5	120	640.2	119	664.5	111	651.1	-
New Zealand	7.8	54	8.6	71	9.0	73	10.6	81	8.4	-
PACIFIC	677.3	92	675.3	110	688.2	110	718.1	103	694.7	93
Austria	16.9	73	15.7	74	17.9	73	18.2	75	18.2	-
Belgium	28.5	46	24.9	49	26.9	48	27.4	48	29.3	-
Denmark	26.2	109	19.4	84	19.2	87	19.1	77	19.2	-
Finland	28.5	150	24.0	144	22.7	126	23.8	109	26.2	-
France	155.3	76	153.0	83	156.2	82	147.6	75	154.4	-
Germany	302.3	103	299.1	106	298.6	98	297.0	103	303.0	-
Greece	21.8	56	20.3	58	20.9	58	19.7	52	21.8	-
Ireland	7.3	57	6.2	51	7.2	58	8.2	63	8.6	-
Italy	141.5	69	135.7	76	140.1	75	144.3	73	136.2	-
Luxembourg	0.7	18	0.7	19	0.8	23	0.8	20	0.8	-
Netherlands	107.0	138	97.1	124	105.2	138	97.4	126	106.5	-
Norway	47.6	220	52.6	249	54.8	248	57.7	253	59.7	-
Portugal	18.8	74	19.3	72	18.2	60	18.8	67	18.2	-
Spain	94.2	83	89.7	78	95.4	80	94.1	77	94.4	-
Sweden	31.9	74	32.2	92	31.3	85	29.7	67	32.5	-
Switzerland	45.0	173	44.4	172	45.1	156	44.5	153	45.3	-
Turkey	42.9	72	46.7	79	47.8	70	48.9	76	49.0	-
United Kingdom	101.1	55	101.9	56	100.7	55	101.7	53	103.8	-
EUROPE⁵	1217.4	85	1182.8	88	1209.0	85	1198.8	83	1226.9	85
Total	3613.6	86	3494.8	88	3594.9	89	3628.2	86	3579.7	85
DAYS OF IEA NET IMPORTS⁶	-	127	-	123	-	127	-	127	-	122

1 Stocks are primary national territory stocks on land (excluding utility stocks and including pipeline and entrepot stocks where known).

They include stocks held by industry to meet IEA, EU and national emergency reserves commitments and are subject to government control in emergencies.

2 Note that days of forward demand represent the stock level divided by the forward quarter average daily demand and is very different from the days of net imports used in the IEA's Emergency Sharing System.

3 End December 1996 stock level based on preliminary data.

4 End December 1996 forward demand figures are IEA Secretariat forecasts.

5 Data not available for Iceland.

6 Reflects stock levels and prior calendar year's net imports adjusted according to IEA emergency reserve definitions. Net exporting IEA countries are excluded.

TOTAL OECD STOCKS

CLOSING STOCKS	Total	Government ¹ controlled		Industry	Total	Government ¹ controlled	
		Millions of Barrels				Days of Fwd. Demand ²	
Q493	3649	1162	2486	90	29	61	
Q194	3534	1175	2359	91	30	61	
Q294	3655	1177	2478	92	30	62	
Q394	3750	1180	2570	92	29	63	
Q494	3720	1190	2530	91	29	62	
Q195	3608	1198	2410	92	31	61	
Q295	3676	1192	2484	92	30	62	
Q395	3721	1202	2519	90	29	61	
Q495	3614	1191	2423	86	28	58	
Q196	3495	1210	2285	88	31	58	
Q296	3595	1203	2392	89	30	59	
Q396	3628	1194	2435	86	28	58	
Q496	3580	1189	2391	85	28	57	

1 Includes government-owned stocks and stock holding organisation stocks held for emergency purposes.

2 Days of forward demand calculated using actual demand except in December 1996 (when latest forecasts are used).

Table 8
AVERAGE IEA CIF CRUDE COST AND SPOT CRUDE AND PRODUCT PRICES
 (\$/bbl)

	1994	1995	1996	4Q95	1Q96	2Q96	3Q96	4Q96	Oct96	Nov96	Dec96	Jan97	Feb97	Mar97
Crude Oil Prices														
IEA CIF Average Import	15.65	17.19	20.52	16.91	18.59	19.78	20.45	23.19	23.37	22.88	23.32	23.41	21.65*	19.65*
FOB Spot														
Brent (Dated)	15.80	17.02	20.65	16.92	18.54	19.51	20.96	23.58	24.15	22.71	23.87	23.40	20.81	19.10
WTI (1st month)	17.19	18.41	22.15	18.12	19.64	21.80	22.43	24.75	24.89	23.92	25.43	25.06	22.17	21.03
Urals (Del. Med.)	15.23	16.62	20.06	16.50	18.52	18.66	20.10	22.96	23.44	22.05	23.38	22.54	19.92	17.92
Dubai (1st month)	14.75	16.10	18.54	15.83	16.43	17.26	18.96	21.51	21.75	20.97	21.81	21.31	18.64	18.17
OPEC Basket	15.53	16.88	20.23	16.70	18.44	19.18	20.30	23.01	23.28	22.23	23.51	23.23	20.49	18.69*
Product Prices¹														
Rotterdam, Barges FOB														
Premium 0.15 g/l	20.18	21.25	24.62	20.50	21.18	25.52	24.83	26.93	27.26	26.65	26.87	26.66	25.46	25.64
Regular Unleaded	18.65	19.75	22.99	19.14	19.76	23.86	23.31	25.02	25.50	24.67	24.87	24.86	23.90	23.78
Naphtha	17.30	18.15	21.70	17.14	19.02	20.85	21.90	25.01	25.18	25.00	24.85	25.00	24.07	21.63
Jet/Kerosene	20.95	21.60	27.05	22.38	25.07	23.78	27.48	31.88	33.53	31.26	30.85	31.09	25.94	23.75
Gasoil	19.80	20.47	25.91	21.04	23.97	23.16	26.41	30.08	31.52	29.50	29.23	29.46	24.39	22.51
Fuel Oil 1.0%S	14.00	15.76	17.52	15.39	17.20	16.90	16.35	19.62	19.15	19.51	20.20	18.19	15.77	14.67
Fuel Oil 3.5%S	13.01	14.82	16.30	14.16	15.66	15.41	15.57	18.56	19.10	17.96	18.63	16.61	14.74	13.75
Gross Product Worth ²	18.45	19.55	23.19	18.99	20.49	22.67	23.35	26.26	26.53	26.19	26.07	25.56	21.24	23.35
Brent Cracking Margin	1.60	1.42	1.36	0.98	0.65	1.97	1.30	1.53	1.15	2.38	1.07	0.96	0.71	1.17
Mediterranean - Basis Italy, Cargoes FOB														
Premium 0.15 g/l	20.23	20.99	24.56	20.71	21.09	25.86	24.80	26.49	26.97	26.51	25.99	25.70	25.33	25.49
Naphtha	15.71	16.35	19.81	15.20	17.07	18.91	20.13	23.14	23.30	23.06	23.07	23.30	22.42	20.15
Jet/Kerosene	19.26	19.94	25.39	21.17	23.48	22.38	26.00	29.70	30.86	29.00	29.24	28.91	23.51	21.69
Gasoil	18.71	19.39	24.64	20.53	22.27	22.42	25.06	28.81	30.12	28.33	28.00	27.56	22.35	21.29
Fuel Oil 1.0%S	13.93	15.48	18.10	15.65	17.32	17.33	18.02	19.72	19.27	19.72	20.18	17.19	15.34	15.19
Fuel Oil 3.5%S	11.98	13.95	18.00	14.03	15.14	13.70	25.65	17.51	18.02	17.16	17.34	16.23	13.93	11.93
Gross Product Worth ³	17.46	18.39	22.17	18.70	20.04	21.24	22.23	25.19	25.89	24.93	24.75	24.06	21.24	20.31
Urals Cracking Margin	1.89	1.44	1.80	1.87	1.19	2.26	1.81	1.93	2.15	2.57	1.06	1.22	1.00	2.07
NY Harbour, Barges														
Premium Unleaded 93	23.65	24.81	27.77	23.78	24.35	28.17	28.00	30.59	29.87	31.22	30.67	29.33	27.67	27.57
Regular Unleaded 87	20.54	22.57	25.81	21.29	22.65	26.34	25.88	28.37	27.47	28.95	28.69	28.31	26.27	25.74
Jet/Kerosene	22.20	21.76	27.57	23.37	26.27	26.01	27.13	30.86	30.67	30.62	31.29	30.31	26.95	24.36
No.2 (Heating Oil)	20.68	20.72	26.35	22.08	25.21	24.45	25.69	30.06	30.28	29.57	30.34	29.26	25.56	22.98
Fuel Oil 1.0%S (Cargo)	15.05	16.06	19.21	16.24	19.36	18.23	17.93	21.34	21.07	21.01	21.93	18.42	16.99	15.87
Fuel Oil 3.0%S (Cargo)	12.25	14.47	16.03	13.85	14.94	15.17	15.49	18.52	19.44	18.98	17.13	16.01	15.07	13.42
Gross Product Worth ⁴	19.54	20.33	23.06	19.60	21.96	22.39	22.03	25.88	25.11	25.74	26.78	24.46	23.39	24.51
WTI Cracking Margin	1.24	0.82	0.75	0.38	0.89	0.99	0.41	0.72	0.65	1.62	-0.10	0.32	0.76	1.23
Singapore, Cargoes														
Gasoline ⁵	21.10	22.11	23.58	21.47	21.61	25.01	22.32	25.38	24.80	25.56	25.78	26.04	27.35	28.62
Naphtha	16.34	17.54	20.22	16.26	17.51	19.53	20.22	23.62	22.44	23.39	25.04	24.57	24.60	23.90
Jet/Kerosene	21.74	22.72	28.36	25.10	28.68	25.32	27.75	31.70	30.23	31.26	33.61	30.86	28.69	27.36
Gasoil	20.87	21.60	27.07	22.08	25.87	25.47	25.86	31.07	29.99	30.75	32.49	27.97	25.25	27.48
LSWR (0.3%) ⁷	13.58	14.74	18.04	15.64	16.21	17.86	17.57	20.54	19.75	19.19	22.69	21.86	19.40	17.58
HSFO (3.5%S 180cst)	13.17	14.98	16.83	15.18	17.15	15.63	15.89	18.67	18.47	18.55	18.99	16.72	15.43	15.58
HSFO (3.5%S 380cst)	12.37	14.30	15.90	14.50	15.93	14.64	15.21	17.85	17.75	17.79	18.00	15.72	14.40	14.55
Gross Product Worth ⁶	18.76	19.74	23.06	19.79	21.96	22.39	22.03	25.88	25.11	25.74	26.78	24.46	23.39	24.51
Dubai Cracking Margin	2.97	2.35	3.10	2.62	4.09	3.79	1.58	2.96	2.02	3.33	3.53	1.71	3.42	4.91

* = Estimated.

1 Product prices are mean values and are converted to \$/bbl using following conversion factors.

Rotterdam: 8.35 bbl/MT for premium leaded gasoline, 8.46 bbl/MT for regular unleaded gasoline, 8.82 bbl/MT for naphtha, 7.88 bbl/MT for jet fuel, 7.46 bbl/MT for gasoil, 6.49 bbl/MT for 1.0%S LSFO and 6.31 bbl/MT for 3.5%S HSFO.

Singapore: 6.46 bbl/MT for 3.5%S HSFO.

2 Calculated using Brent cracking yield of a typical refinery in Rotterdam.

3 Calculated using Urals cracking yield of a typical refinery in the Mediterranean.

4 Calculated using WTI cracking yield of a typical refinery in US Gulf Coast.

5 Changed from regular 0.15 g/l to unleaded 95 as of 2 February 1995.

6 Calculated using Dubai cracking yield of a typical refinery in Singapore.

7 As from 1 April 1996 mixed/cracked LSWR fob Indonesia.

Table 9
END USER PRICES FOR PETROLEUM PRODUCTS¹
March 1997

	National Currency						US Dollars					
	Price	Tax	% ch Prev. Month		% ch Year Ago		Price	Excl. Tax	% ch Prev. Month		% ch Year Ago	
			Price	Excl. Tax	Price	Excl. Tax			Price	Excl. Tax	Price	Excl. Tax
GASOLINE² Price per Litre												
France	6.430	5.157	1.1	-0.8	5.4	18.7	1.122	0.222	-0.3	-2.1	-7.0	4.8
Germany	1.635	1.193	2.9	10.0	6.7	25.6	0.962	0.260	1.4	8.4	-7.2	9.2
Italy	1920	1418	0.3	1.0	2.5	8.5	1.133	0.296	-2.0	-1.3	-5.4	0.2
Spain	120.4	81.4	-0.1	-0.2	4.7	13.5	0.836	0.271	-1.6	-1.8	-9.6	-2.0
UK	0.646	0.513	-0.8	-2.9	9.5	19.8	1.035	0.213	-2.2	-4.3	14.9	25.8
Japan	106	57	0.0	0.0	1.0	2.1	0.868	0.401	0.7	0.7	-12.6	-11.6
Canada	0.570	0.286	-3.7	-6.3	3.4	6.8	0.416	0.207	-4.4	-7.0	3.1	6.5
USA ³	0.341	0.101	-1.7	-2.4	11.1	16.5	0.341	0.240	-1.7	-2.4	11.1	16.5
AUTOMOTIVE DIESEL⁴ Price per Litre												
France	3.721	2.351	-1.8	-4.9	6.9	15.1	0.649	0.239	-3.2	-6.2	-5.7	1.6
Germany	1.103	0.620	0.3	0.6	4.5	10.8	0.649	0.284	-1.1	-0.8	-9.2	-3.7
Italy	1215.13	747.47	-1.4	-3.5	2.0	5.3	0.717	0.276	-3.6	-5.7	-5.8	-2.8
Spain	79.27	43.20	-1.2	-2.5	5.0	11.7	0.550	0.250	-2.7	-4.0	-9.3	-3.5
UK	0.515	0.369	-1.0	-3.9	10.0	16.8	0.825	0.234	-2.4	-5.3	15.5	22.6
Japan	80	34	0.0	0.0	12.9	24.9	0.657	0.378	0.7	0.7	-2.2	8.1
Canada	0.550	0.216	-0.9	-1.5	7.6	11.7	0.401	0.244	-1.6	-2.2	7.3	11.4
USA	..	..	..	..	..	..	..	..	..	..	..	..
DOMESTIC HEATING OIL Price per 1000 Litres												
France	2333.4	913.4	-3.5	-4.7	10.9	14.5	407.0	247.7	-4.8	-6.0	-2.1	1.1
Germany	488.0	143.7	-3.7	-4.5	5.2	6.5	287.1	202.5	-5.0	-5.8	-8.5	-7.4
Italy	1410000	972600	-1.4	-3.7	4.4	13.0	831.9	258.1	-3.7	-5.9	-3.6	4.4
Spain	46959	19077	-6.6	-9.3	10.7	16.3	325.9	193.5	-8.0	-10.7	-4.5	0.4
UK	155.80	36.54	-11.8	-14.0	-4.3	-6.4	249.7	191.1	-13.1	-15.2	0.5	-1.8
Japan ⁵	49646	1446	0.0	0.0	23.3	23.3	405.9	394.1	0.7	0.7	6.7	6.7
Canada	..	..	..	..	..	..	..	..	..	..	..	..
USA ⁶	297.7	..	-0.8	..	12.6	..	297.7	..	-0.8	..	12.6	..
HFO FOR INDUSTRY^{4,7} Price per Metric Ton												
France	713.0	159.9	-9.6	-12.1	-9.4	-12.2	124.4	96.5	-10.86	-13.3	-20.0	-22.5
Germany	210.0	30.0	-6.3	-7.2	-2.2	-2.6	123.5	105.9	-7.57	-8.5	-15.0	-15.3
Italy	275000	45000	0.7	0.9	-3.8	-4.6	162.2	135.7	-1.59	-1.4	-11.2	-11.9
Spain	21554	2150	-3.0	-3.3	3.0	3.3	149.6	134.7	-4.50	-4.8	-11.1	-10.8
UK	84.91	19.52	-11.8	-14.8	-11.3	-15.6	136.1	104.8	-13.11	-16.1	-6.9	-11.4
Japan	19516	568	0.0	0.0	5.9	5.9	159.6	154.9	0.65	0.7	-8.3	-8.3
Canada	..	..	..	..	..	..	..	..	..	..	..	..
USA	..	..	..	..	..	..	..	..	..	..	..	..

1 Mid Month Prices

2 Premium leaded gasoline for France, Italy, Spain, UK; regular unleaded gasoline for Canada, Germany, Japan and USA

3 Estimated

4 VAT excluded where it is refundable: HFO for Industry, Automotive Diesel for Industry

5 Kerosene

6 Previous month data

7 High sulphur fuel oil price for France, Spain, UK and Japan; low sulphur fuel oil price for Germany and Italy

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Users' Guide to the IEA Oil Market Report

Readers are referred to the Users' Guide, that was published in conjunction with the Annual Statistical Supplement on 6 September 1996, for information on the data sources, definitions, technical terms and general approach used in preparing the Report. It should be noted that the spot crude and product price assessments are based on daily Platt's prices, converted when appropriate to \$US per barrel according to the Platt's specification of products (© 1996 Platt's a division of McGraw-Hill Inc.).

Pending submission of the detailed historical data needed to incorporate them into the OECD, the following OECD countries continue to be shown in the relevant non-OECD regions: the Czech Republic, Hungary and Poland in Non-OECD Europe, Korea in Other Asia and Mexico in Latin America.

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