8 December 1997

HIGHLIGHTS

- Fundamentals and market psychology appear to have moved differently toward the end of November. Concerns about Iraq eased and OPEC raised quotas, suggesting a softer oil market. However, oil supply growth paused after strong gains in October and demand is thought to have continued its seasonal growth. Declines in OPEC production were sufficient to offset modest growth in non-OPEC supplies in November. Nonetheless, as discussed in this month's Special Feature, the focus has shifted to the situation in the first half of 1998, where fundamentals look weaker.

- The "call on OPEC crude plus stock change" for 4Q97 has been revised upwards by 0.2 mb/d, to 27.4 mb/d compared to estimated November OPEC crude output of 27.7 mb/d. The average "call" in 1998 has been adjusted upwards by a similar amount, to 26.3 mb/d.

- A large downward revision to estimated end-September OECD industry stocks and limited stockbuilding in October suggest markets have not eased as much as was thought last month. Product stocks generally declined and inventories of crude and "other oils" rose due to increased seasonal product demand and less refining activity.

- In a special Trade section in this month's Report, it is noted that OECD net oil imports increased marginally in 1H97, averaging 21.3 mb/d. North American and Pacific net imports grew while European net imports declined due to higher North Sea output and a surplus of local products.

- Benchmark crude oil prices were supported in the first half of November by the UN/Iraqi standoff, but prices declined as tensions eased. The exceptions were North Sea grades, which remained firm for most of the month, but then declined in the first week of December. Strong Atlantic Basin fuel oil prices tailed off in the second half of the month, while gasoil markets showed modest signs of a seasonal recovery. Gasoline prices remained well supported in the Atlantic Basin by low inventory levels.

- In October, OECD aggregate crude throughputs were an impressive 1.4 mb/d or 4.3% higher than a year earlier, the highest October level in nine years. November throughput levels appear to have risen in Europe and Japan, as did average refining margins in all three OECD regions.

CONTENTS

MORE OIL, NOT LESS

In the last few weeks, the tone of world oil markets has shifted to concerns about a potentially glutted market. Market expectations are now for 0.5 mb/d to 1.1 mb/d of additional production from OPEC in the aftermath of its meeting in Jakarta. In addition, chances have increased that Iraq's "oil-for-food" exports will be extended with only limited procedural delays and the expansion of the programme from $2 billion every six months to some $3 billion is being openly considered. As discussed in last month's Report, there is a developing perception of downside sensitivities to demand, and there is less concern about supply shortfalls, both of which represent an important changes in market sentiment. The three dominant elements of the outlook for the first half of 1998 are: (1) the fundamental background set by interaction between demand growth, non-OPEC supply increases and inventory levels; (2) the amount of oil exported by Iraq; and (3) the level of OPEC production.

Fundamentals

The "call on OPEC crude + stock change" in 1Q98 is estimated at 27.1 mb/d, 0.3 mb/d less than the 4Q97 "call" and 0.7 mb/d below OPEC's 27.8 mb/d production level in November. Expected seasonal demand declines in 2Q98 are projected to reduce the "call" by over 2 mb/d to just over 25 mb/d. Although uncertainties remain, seasonal supply decreases in the North Sea and North America could be moderated by increasing production from new fields, resulting in a supply decrease only one-tenth as large as the demand decline,. For 1Q98, demand growth of 3.3% is seen as being driven by continued strong growth in the non-OECD developing countries, with OECD growth projected at under 2%, despite an assumption of normal weather versus very mild weather in 1Q97. Compared to 4Q97, global demand is expected to increase by just 0.32 mb/d or about half of the projected combined quarterly increase in non-OPEC supply and OPEC NGLs. Non-OPEC supply is anticipated to exceed year-earlier levels by around 4.5% or 1.9 mb/d in each or the next two quarters, with about 60% of the increase coming from non-OECD areas.

World Oil Supply/Demand Outlook for the First Half of 1998
(million barrels per day)

	First Quarter 1998				*Second Quarter 1998*			
	Level	Quarterly Change	Annual Change	*Annual % Change*	Level	Quarterly Change	Annual Change	*Annual % Change*
World Demand	**76.06**	**+0.32**	**+2.46**	***3.3%***	**73.84**	**-2.23**	**+1.64**	***2.3%***
OECD	42.81	-0.20	+0.81	*1.9%*	41.09	-1.72	+0.14	*0.3%*
Non-OECD	33.25	+0.52	+1.66	5.2%	32.75	-0.51	+1.50	*4.8%*
Non-OPEC Supply	**46.08**	**+0.61**	**+1.94**	***4.4%***	**45.88**	**-0.20**	**+1.96**	***4.5%***
OECD	19.30	+0.24	+0.71	*3.8%*	18.91	-0.39	+0.75	*4.1%*
Non-OECD	25.14	+0.33	+1.16	*4.8%*	25.33	+0.19	+1.12	*4.6%*
Processing Gains	1.64	+0.04	+0.07	*4.4%*	1.64	+0.00	+0.08	*5.5%*
OPEC NGLs	**2.88**	**+0.02**	**+0.16**	***5.7%***	**2.92**	**+0.03**	**+0.15**	***5.3%***
Call on OPEC Crude + Stk Chg	**27.10**	**-0.30**	**+0.37**	***1.4%***	**25.04**	**-2.06**	**-0.46**	***-1.8%***

Iraq

The uncertainty surrounding the level of future Iraqi exports ranges from near zero to 1-2 mb/d. Proponents of the lower levels assume a repeat of the situation last summer when, despite UN permission, no Iraqi oil was exported for two and a half months. It was not until the last weekend of the month the Iraqi government indicated it would agree to a continuation of the oil-for-food export programme. Some procedural delays are likely to reduce exports in December, but by 1Q98 about 700 kb/d would be needed to meet the present target of $1 billion per quarter at current prices. Under the UN programme, there are now two sources of potential export increases. First, if prices were to fall, the amount would increase proportionally. Second, there appears to be increasing support for an upward revision of the revenue target by some 50%, possibly in the first half of 1998.

OPEC

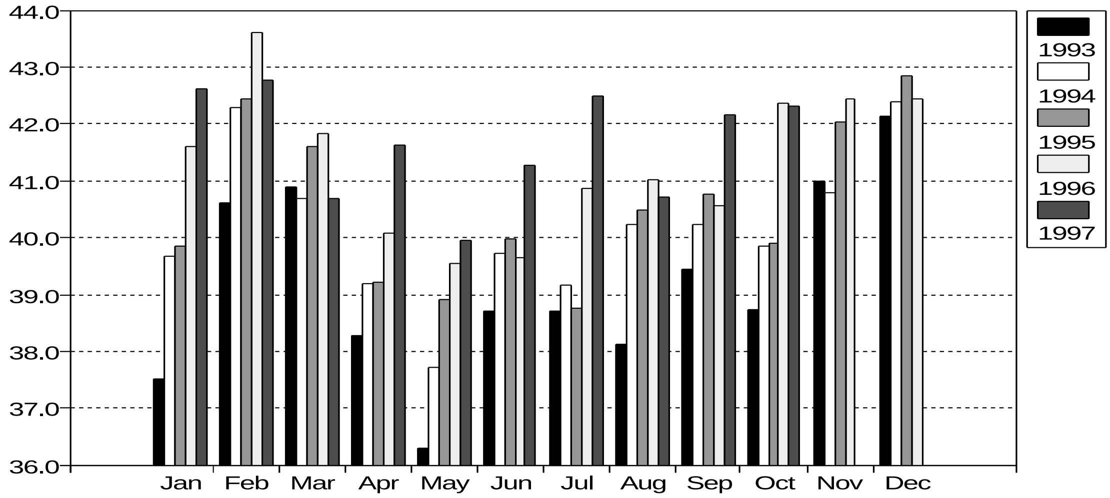
The third element of the market is the amount of oil that members of OPEC other than Iraq will put on the market. The practice in this Report is to not make forecasts of OPEC crude production. Instead, the residual demand to be satisfied by either stock draw or OPEC crude output is presented as a guide for market tightness or softness. However, in qualitative terms the signs are for more oil not less from OPEC.

DEMAND

Summary

- **October** oil deliveries in the G7 countries decreased by a combined 0.24 mb/d or 0.7%. US oil deliveries were 1.6% lower, with an increase in gasoline and diesel deliveries insufficient to offset declines for all other major products. German and UK deliveries also declined due to weak gasoline and residual fuel oil deliveries but, in contrast, French deliveries increased by 10.9%, primarily due to purchases ahead of a pre-announced truckers' strike. Japanese oil deliveries declined by 1.1%, as robust transport and petrochemical demand was insufficient to compensate for weak crude oil deliveries for direct use in the power generation sector, where other power sources were substituted for oil.
- Strong Chinese apparent demand growth continued in September, causing the estimate of global demand in **3Q97** to be revised upwards by 0.1 mb/d from last month's Report, to 73.6 mb/d, representing an annual increase in global demand of 3.9% or 2.8 mb/d. Although Mexican deliveries were lower than expected, this was counterbalanced by upward revisions to Indian and Korean demand. OECD demand increased by 1.0 mb/d in the quarter, led by particularly strong North American demand growth, which partly reflected increased Canadian fuel oil use in the power generation sector.
- The projection of global demand in **4Q97** remains at 75.7 mb/d, as a 0.3 mb/d upward adjustment to FSU apparent demand has been counterbalanced by minor downwards revisions in a number of other regions. Firstly, G7 demand in October was lower than expected and indications of mild weather in November in Europe and Japan suggest demand growth below expectations. Secondly, it is assumed that the rate of Chinese apparent demand growth achieved in 3Q97 is unsustainable and apparent demand may weaken in 4Q97 as Chinese stocks are drawn down. Global demand in **1997** is also unchanged at 73.8 mb/d, representing an annual increase of 2.0 mb/d or 2.9%.
- Global demand in **1998** is projected to increase by 1.9 mb/d or 2.5%, to 75.6 mb/d. The slight slowdown reflects an expectation of a moderation in US and Chinese demand growth. However, the projection remains sensitive to downward revision to "Other Asian" demand, given the most recent Korean financial difficulties. Nonetheless, until stronger evidence of the impact of recent developments on demand has been observed, no further revision, over and above those made in last month's Report, has been made.

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



Summary of Global Oil Demand

	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997	1Q98	2Q98	3Q98	4Q98	1998
Demand (mb/d)																
North America	19.79	20.40	19.94	20.16	20.78	20.32	20.41	20.64	20.95	21.00	20.75	20.87	20.73	21.05	21.34	21.00
Europe	14.09	14.54	13.66	14.39	14.68	14.32	14.27	14.20	14.47	14.94	14.47	14.51	14.13	14.65	15.12	14.61
Pacific	6.67	7.38	6.16	6.27	6.95	6.69	7.32	6.11	6.36	7.06	6.71	7.43	6.23	6.45	7.17	6.82
Total OECD	40.55	42.32	39.76	40.81	42.41	41.33	42.00	40.95	41.78	43.01	41.94	42.81	41.09	42.15	43.63	42.42
FSU	4.76	4.65	4.20	4.30	4.21	4.34	4.31	4.36	4.52	4.85	4.51	4.70	4.49	4.29	4.83	4.58
Europe	1.16	1.33	1.23	1.13	1.23	1.23	1.39	1.29	1.19	1.29	1.29	1.44	1.33	1.23	1.33	1.33
China	3.33	3.55	3.67	3.48	3.66	3.59	3.96	3.81	4.13	3.84	3.94	4.08	4.15	4.25	4.26	4.19
Other Asia	7.94	8.75	8.32	8.13	8.96	8.54	9.19	8.75	8.68	9.53	9.04	9.81	9.35	9.16	10.15	9.62
Latin America	6.04	6.22	6.28	6.41	6.38	6.32	6.39	6.56	6.68	6.63	6.57	6.69	6.79	6.91	6.87	6.82
Middle East	4.09	4.04	4.17	4.31	4.06	4.15	4.05	4.16	4.33	4.22	4.19	4.19	4.25	4.46	4.34	4.31
Africa	2.19	2.18	2.27	2.21	2.31	2.24	2.29	2.31	2.26	2.37	2.31	2.35	2.38	2.33	2.44	2.37
Total Non-OECD	29.50	30.71	30.14	29.98	30.80	30.41	31.60	31.25	31.79	32.73	31.84	33.25	32.75	32.62	34.21	33.21
World	70.05	73.03	69.90	70.80	73.21	71.74	73.60	72.19	73.57	75.74	73.78	76.06	73.84	74.77	77.84	75.63
Annual Change (% per annum)																
North America	0.2%	3.6%	2.2%	1.6%	3.3%	2.7%	0.0%	3.5%	3.9%	1.1%	2.1%	2.2%	0.4%	0.5%	1.6%	1.2%
Europe	2.2%	2.0%	-0.4%	3.8%	1.0%	1.6%	-1.9%	4.0%	0.6%	1.8%	1.1%	1.7%	-0.5%	1.3%	1.2%	0.9%
Pacific	1.0%	1.1%	0.3%	-0.4%	0.2%	0.3%	-0.8%	-0.9%	1.5%	1.7%	0.4%	1.5%	2.0%	1.4%	1.5%	1.6%
Total OECD	1.0%	2.6%	1.0%	2.0%	2.0%	1.9%	-0.8%	3.0%	2.4%	1.4%	1.5%	1.9%	0.3%	0.9%	1.4%	1.2%
FSU	-2.1%	-9.0%	-6.0%	-5.6%	-14.1%	-8.8%	-7.3%	3.7%	5.2%	15.3%	4.0%	9.0%	3.0%	-5.0%	-0.5%	1.4%
Europe	2.1%	6.2%	5.9%	5.2%	5.2%	5.7%	4.8%	4.8%	4.8%	4.8%	4.8%	3.2%	3.2%	3.2%	3.2%	3.2%
China	8.7%	14.9%	10.7%	0.6%	6.4%	7.9%	11.6%	3.9%	18.7%	5.0%	9.7%	3.0%	9.0%	2.7%	11.0%	6.3%
Other Asia	8.8%	8.0%	6.4%	8.2%	7.9%	7.6%	5.1%	5.2%	6.7%	6.4%	5.8%	6.7%	6.8%	5.6%	6.6%	6.4%
Latin America	0.9%	1.5%	5.4%	6.2%	5.7%	4.7%	2.8%	4.5%	4.1%	4.0%	3.9%	4.6%	3.5%	3.6%	3.5%	3.8%
Middle East	1.5%	1.7%	2.3%	1.9%	0.1%	1.5%	0.4%	-0.3%	0.5%	3.9%	1.1%	3.3%	2.2%	2.9%	2.7%	2.8%
Africa	4.2%	-1.9%	6.5%	2.1%	2.8%	2.3%	5.2%	1.9%	2.4%	2.8%	3.0%	2.7%	2.7%	2.7%	2.8%	2.7%
Total Non-OECD	3.6%	2.8%	4.2%	3.2%	2.2%	3.1%	2.9%	3.7%	6.0%	6.3%	4.7%	5.2%	4.8%	2.6%	4.5%	4.3%
World	2.1%	2.7%	2.3%	2.5%	2.1%	2.4%	0.8%	3.3%	3.9%	3.5%	2.9%	3.3%	2.3%	1.6%	2.8%	2.5%
Annual Change (mb/d)																
North America	0.04	0.71	0.43	0.31	0.67	0.53	0.01	0.70	0.79	0.22	0.43	0.46	0.09	0.10	0.34	0.24
Europe	0.30	0.28	-0.06	0.52	0.14	0.22	-0.27	0.54	0.08	0.26	0.15	0.24	-0.07	0.18	0.18	0.14
Pacific	0.07	0.08	0.02	-0.03	0.01	0.02	-0.06	-0.05	0.09	0.12	0.02	0.11	0.12	0.09	0.11	0.11
Total OECD	0.41	1.07	0.39	0.81	0.82	0.77	-0.32	1.19	0.97	0.60	0.61	0.81	0.14	0.37	0.62	0.49
FSU	-0.10	-0.46	-0.27	-0.25	-0.69	-0.42	-0.34	0.16	0.22	0.64	0.17	0.39	0.13	-0.23	-0.02	0.07
Europe	0.02	0.08	0.07	0.06	0.06	0.07	0.06	0.06	0.05	0.06	0.06	0.04	0.04	0.04	0.04	0.04
China	0.27	0.46	0.36	0.02	0.22	0.26	0.41	0.14	0.65	0.18	0.35	0.12	0.34	0.11	0.42	0.25
Other Asia	0.64	0.64	0.50	0.61	0.66	0.60	0.45	0.43	0.54	0.57	0.50	0.61	0.60	0.48	0.62	0.58
Latin America	0.05	0.09	0.32	0.38	0.34	0.28	0.17	0.28	0.26	0.25	0.24	0.29	0.23	0.24	0.23	0.25
Middle East	0.06	0.07	0.09	0.08	0.00	0.06	0.02	-0.01	0.02	0.16	0.05	0.13	0.09	0.12	0.11	0.12
Africa	0.09	-0.04	0.14	0.04	0.06	0.05	0.11	0.04	0.05	0.06	0.07	0.06	0.06	0.06	0.07	0.06
Total Non-OECD	1.03	0.84	1.20	0.94	0.65	0.91	0.89	1.10	1.81	1.93	1.44	1.66	1.50	0.83	1.48	1.36
World	1.44	1.91	1.59	1.75	1.48	1.68	0.57	2.29	2.77	2.53	2.05	2.46	1.64	1.20	2.10	1.85
Changes from Last Month's Report																
North America	-	-	-	-0.01	-	-	-	-	-0.03	0.03	-	-	-	-0.03	0.05	-
Europe	-	-	-	-	-	-	-0.03	0.02	0.01	-0.03	-0.01	-0.03	0.02	-	-0.03	-0.01
Pacific	-	-	-	-	-	-	-	-	-	-0.04	-0.01	-	-	-	-0.04	-0.01
Total OECD	-	-	-	-0.01	-	-	-0.03	0.02	-0.02	-0.04	-0.02	-0.03	0.02	-0.02	-0.03	-0.02
FSU	-	-	-	-	-	-	-	-	-	0.21	0.05	0.09	-	-	0.12	0.05
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	0.13	-0.11	-	-	-	-	-	-
Other Asia	-0.01	-0.01	-0.01	-0.01	-0.03	-0.01	-0.07	-0.03	0.03	0.02	-0.01	-0.02	-	-	-	-
Latin America	-	0.01	-	-	-0.02	-	0.01	-	-0.03	-0.02	-0.01	0.01	-	-0.03	-0.02	-0.01
Middle East	-	-	-	-	-	-	-	-	-	-0.03	-0.01	-0.02	-	-	-0.03	-0.01
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-0.01	0.01	-0.01	-0.01	-0.05	-0.02	-0.05	-0.03	0.13	0.07	0.03	0.07	-	-0.04	0.06	0.02
World	-0.01	0.01	-0.01	-0.02	-0.05	-0.02	-0.09	-0.01	0.11	0.03	0.01	0.03	0.02	-0.06	0.04	0.01

Global Oil Demand

Global demand in 3Q97 is estimated to have increased by 2.8 mb/d or 3.9%, to 73.6 mb/d. This represents a 0.1 mb/d upward revision from last month's Report, primarily reflecting an adjustment to Chinese apparent demand in September and stronger-than-expected demand in Korea. Global demand in 4Q97 is projected to increase by 2.5 mb/d or 3.5%, with an upward adjustment to apparent FSU demand offsetting downward revisions in a number of OECD and non-OECD regions. The global demand estimate for 1997 is unchanged from last month's Report, representing an annual increase of 2.0 mb/d or 2.9%.

Global Demand in 1997 and 1998

	Demand	Annual Change		Changes from last month's Report
	(mb/d)	(%)	(mb/d)	(mb/d)
1Q97	73.6r	0.8%	0.6	-0.1
2Q97	72.2	3.3%	2.3	-
3Q97	73.6r	3.9%	2.8	0.1
4Q97	75.7	3.5%	2.5	-
1997	73.8	2.9%	2.0	-
1Q98	76.1r	3.3%	2.5	0.1
2Q98	73.8	2.3%	1.6	-
3Q98	74.8	1.6%	1.2	-
4Q98	77.8	2.8%	2.1	-
1998	75.6	2.5%	1.9	-

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

Global demand in 1998 is also unchanged and is projected to increase by slightly less than in 1997. The 1.9 mb/d increase in global demand reflects a slowdown in both OECD and non-OECD regions, most notably in the US and China. The projection of Other Asian demand remains sensitive to downward revision, given recent Korean financial difficulties. However, no further revisions, over and above those made in last month's Report, have been made as evidence of a slowdown in Asian demand growth attributable to the latest Korean developments has yet to materialise.

OECD[1]

Demand in October in the G7 Countries

Inland deliveries of oil products decreased by a combined 240 kb/d or 0.7% in October in the seven largest oil-consuming countries of the OECD. This is slightly below the 275 kb/d or 0.8% increase in the twelve-month moving average. Among the G7 countries, US deliveries decreased by the greatest amount, primarily due to significant declines in heating oil and residual fuel oil deliveries. In Japan, a significant decline in crude deliveries to the power generation sector combined with weak heating fuel deliveries to dampen strong demand growth for petrochemical feedstocks. Aggregate demand increased moderately

Preliminary Inland Deliveries - October 97[1]

	Gasoline		Jet/Kerosene		Diesel		Other Gasoil		RFO		Other [2]		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
USA [3]	8.17	+0.9	1.58	-3.7	2.52	+9.1	1.04	-18.4	0.74	-10.9	4.83	-4.0	18.87	-1.6
Canada	0.63	+0.6	0.11	-7.8	0.41	+1.0	0.08	-12.0	0.13	+14.5	0.23	-12.1	1.58	-1.7
Japan	0.91	+2.6	0.48	-2.6	0.81	-1.2	0.45	-1.5	0.60	-0.7	1.75	-2.4	5.00	-1.1
France	0.37	+3.7	0.11	+8.0	0.60	+13.7	0.39	+17.9	0.10	+18.0	0.53	+7.8	2.10	+10.9
Germany	0.71	-3.0	0.14	+2.5	0.57	-2.2	0.61	-2.1	0.09	-25.4	0.54	+9.2	2.67	-1.1
Italy	0.42	-2.2	0.07	+1.1	0.37	+16.0	0.18	-14.7	0.51	+3.1	0.41	+1.0	1.95	+1.6
UK	0.52	-1.9	0.26	+6.6	0.33	+8.1	0.17	+4.3	0.06	-52.4	0.30	-10.2	1.64	-3.7
European Four	2.03	-1.4	0.57	+5.2	1.88	+7.8	1.35	+1.7	0.76	-8.2	1.77	+3.1	8.36	+1.8
Total	11.74	+0.6	2.74	-1.9	5.61	+6.5	2.91	-7.3	2.23	-6.2	8.57	-2.5	33.81	-0.7

Sources: US EIA, Japan MITI, France CPDP, Germany MWV, UK PIA, Italy Ministry of Industry, Statistics Canada
1 excludes refinery fuel and bunkers (except US)
2 includes 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 October 1996

1 excluding some Member countries, see note on back cover

in the four largest oil-consuming countries in Europe, with strong French deliveries, particularly for heating oil, more than offsetting weak residual fuel oil deliveries in Germany and the UK. Italian deliveries increased mainly due to strong gasoil deliveries and a turnaround in residual fuel oil purchases by ENEL. The total G7 countries' deliveries decreased for all products except gasoline and diesel with heating oil decreasing by the greatest proportion, led by an 18.4% decrease in US deliveries.

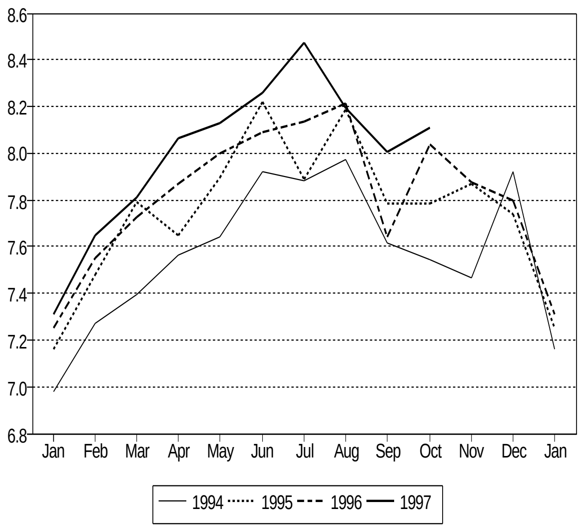
Moving Annual Average Change in Oil Demand
(12-Month Moving Average to October 97)

	LPG	Naphtha	Gasoline	Jet/Kero	Diesel	Other Gasoil	RFO	Other	Total	kb/d
US	-0.5%	19.6%	1.7%	1.5%	3.2%	-1.1%	-6.9%	4.5%	1.6%	287
Canada	3.5%	3.8%	2.3%	4.9%	1.3%	4.8%	8.5%	7.0%	4.0%	76
Japan	0.5%	5.6%	2.9%	-4.3%	-0.9%	-1.1%	-4.1%	-5.0%	-0.6%	-37
France	3.1%	-1.7%	-2.7%	3.4%	4.4%	0.4%	-2.8%	-2.6%	0.4%	7
Germany	-10.5%	12.9%	-0.7%	5.8%	0.8%	-0.7%	-12.7%	4.6%	0.5%	15
Italy	-6.1%	-2.2%	0.8%	0.2%	-5.7%	8.0%	-10.2%	9.8%	-3.1%	-60
UK	2.4%	-19.0%	1.0%	5.1%	5.1%	1.0%	-24.2%	1.1%	-0.7%	-14
European Four	*-2.1%*	*3.1%*	*-0.3%*	*4.3%*	*1.3%*	*0.7%*	*-11.6%*	*2.2%*	*-0.6%*	*-51*
Total	-0.2%	6.4%	1.4%	0.7%	1.8%	0.2%	-7.3%	2.7%	0.8%	275
kb/d	-7	112	165	20	83	7	-207	102	275	

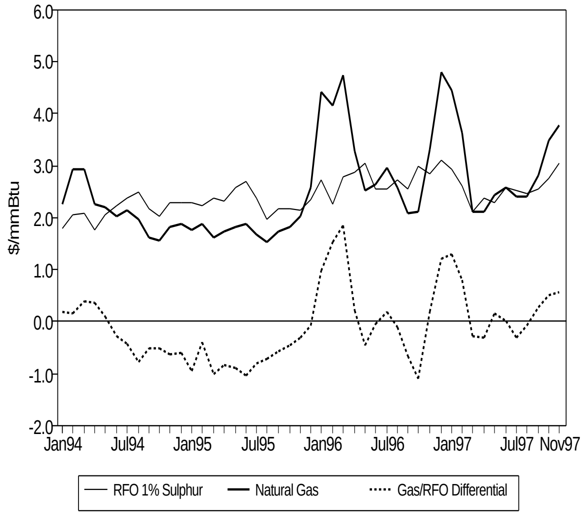
On a twelve-month moving average basis, demand increased for all products except LPG and residual fuel oil. Gasoline deliveries increased by the greatest amount, led by strong North American and Japanese demand. Percentage growth was highest for naphtha deliveries, consistent with a strong upturn in petrochemical feedstock demand this year in North America. Residual fuel oil deliveries have decreased in all G7 countries, except Canada where increased fuel oil use in the power generation sector has compensated for safety-related nuclear closures. In Europe, deliveries have been comparatively weak, primarily due to lower fuel oil deliveries and sluggish gasoline demand.

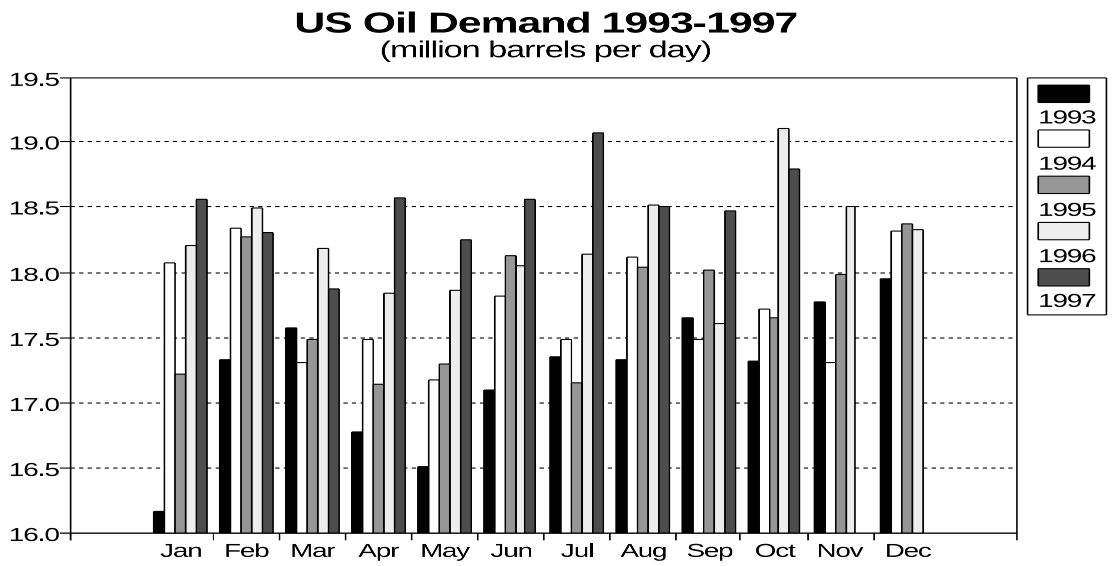
Following comparatively strong growth in September, **US** deliveries decreased by 300 kb/d in October, with declines of 18% for heating oil and 11% for residual fuel oil deliveries, from exceptionally strong growth a year earlier. The decrease in deliveries should be regarded as an anomaly, given demand growth on a 12-month moving average of 1.6% with rates for the two most recent quarters in excess of 3%. The below-trend increase in gasoline deliveries is thought to be largely due to strong year-earlier deliveries. Weakening retail prices this October (see table on page 10) and strong growth in disposable incomes are likely to have a positive effect on underlying consumption. Similarly, the reported decline in heating oil deliveries appears inconsistent with colder weather than last year, suggesting possible upwards revisions.

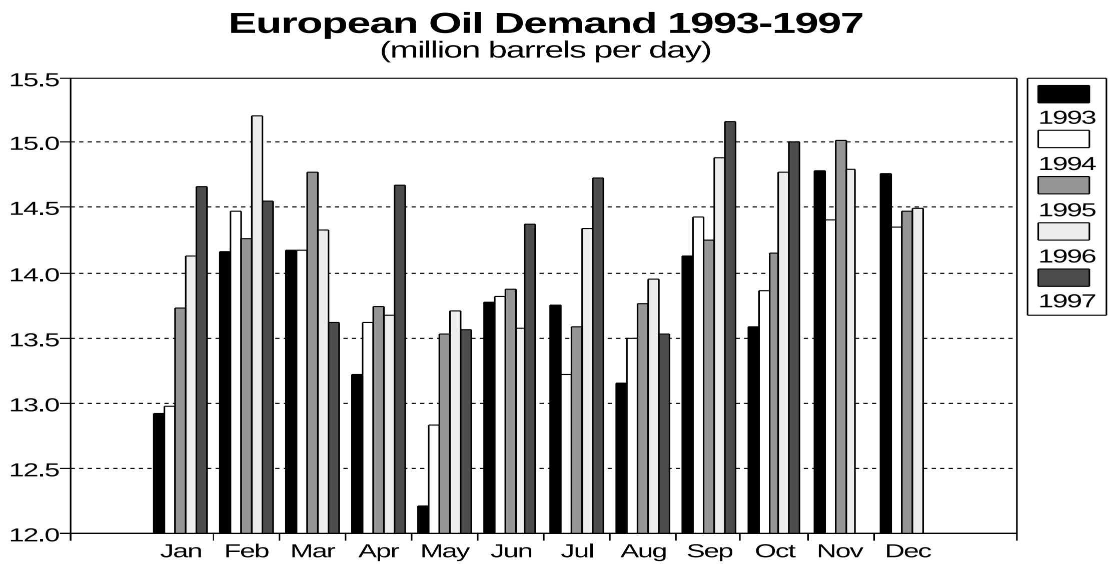
US Gasoline Demand
(million barrels per day)

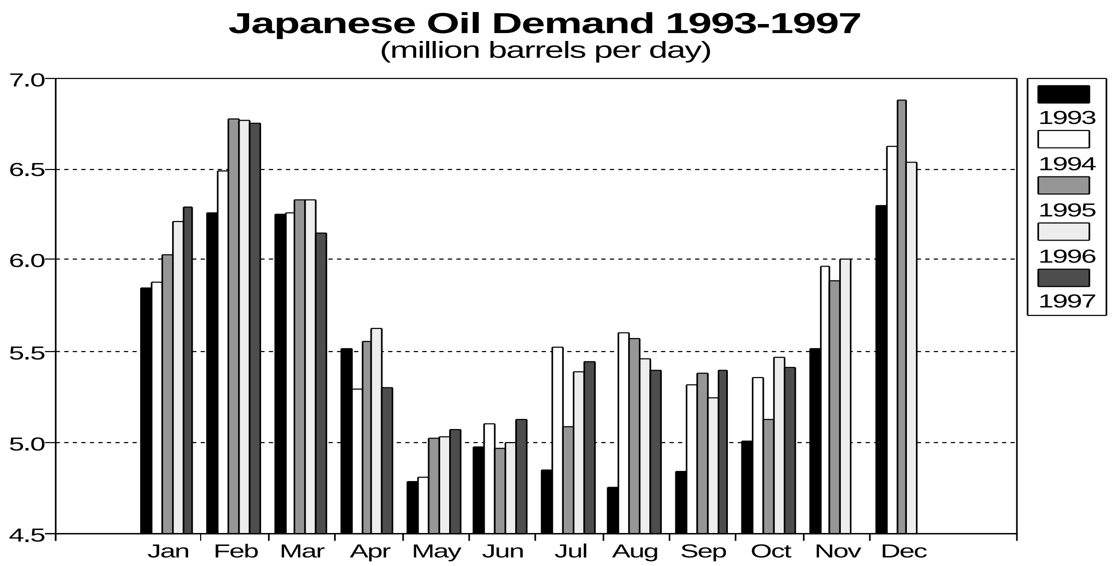


New York RFO & Gas Prices
January 1994 - November 1997




US Oil Demand 1993-1997
(million barrels per day)
19.5
19.0
18.5
18.0
17.5
17.0
16.5
16.0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1993
1994
1995
1996
1997


European Oil Demand 1993-1997
(million barrels per day)
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1993
1994
1995
1996
1997


Japanese Oil Demand 1993-1997
(million barrels per day)
7.0
6.5
6.0
5.5
5.0
4.5
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1993
1994
1995
1996
1997

The New England and Middle Atlantic regions experienced respectively 13.4% and 6.5% more heating days than last year. Again, the demand weakness primarily reflected strong buying last October, when a period of price backwardation that had discouraged stockbuilding ended. This year, a different price development has led to a change in the timing of stockbuilding activity. The strong growth in diesel demand reflects the impact of robust manufacturing output on commercial road haulage, with deliveries increasing by 3.2% on a 12-month moving average basis. Jet/kerosene deliveries declined on an annual basis for the second successive month, following strong growth in the first eight months of the year. As there are indications of continuing strong demand from the commercial aviation sector, the decline in deliveries is thought to be due to timing differences in purchases by the military. Since the military converted from naphtha-based jet fuel to kerosene-based jet fuel two years ago, monthly average military deliveries have varied widely, from 150 kb/d to 270 kb/d.

Deliveries of residual fuel oil declined by more than the trend, despite somewhat colder weather in October and comparatively high natural gas prices. In New York, fuel oil was at a $0.51/mmBtu discount to natural gas compared with a $1.10/mmBtu premium a year earlier (see graph on page 7). Such a combination of events would have been expected to lead to increased electricity demand and greater oil burn from the utility sector in place of more expensive natural gas. The weakness may be partly attributable to a stock drawdown at utilities, particularly in New England, where fuel oil stocks are known to have been higher than year-earlier levels going into the month. Coal use at utilities may have increased, contrary to reports of interruptions in coal deliveries.

Comparison Between Estimates of US Oil Demand Growth in October 1997

	EIA	API	EIA-API kb/d
Gasoline	0.9%	1.1%	-10
Jet/Kerosene	-3.7%	-3.8%	2
Diesel	na	4.5%	na
Other Gasoil	na	-9.2%	na
Total Gasoil	-0.7%	-0.3%	-12
Residual Fuel Oil	-10.9%	-19.5%	72
Other	-4.0%	-2.9%	-15
Total	-1.6%	-1.8%	37

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

The fall in "other product" deliveries may be indicative of a slowdown in petrochemical feedstock demand, following strong demand this year and particularly strong demand last October, when LPG and naphtha deliveries increased by 9% and 7% respectively. The table above highlights the difference between preliminary US demand growth rates derived from the DOE/EIA's Weekly Petroleum Status Report and data provided by the American Petroleum Institute. The two organisations' estimates of total US demand for October were unusually close, although the API estimated nearly double the decline in fuel oil deliveries than the EIA and higher levels of gasoline, gasoil and "other" products.

In **France**, deliveries increased strongly as wholesalers and consumers built stocks in the expectation that a pre-announced truckers' strike at the start of November would lead to a supply disruption similar to or worse than that which affected the country during the truckers' strike in November 1996. In the event, this year's industrial dispute was resolved in one week, leaving wholesaler and consumer stocks at higher levels than would have otherwise been expected. Deliveries were not affected in October by working day effects in France (or in other G7 countries - see table to the right). Among products, diesel deliveries increased particularly strongly due to the behaviour of the commercial road fleet as French road haulage firms built stocks and foreign firms brought forward travel arrangements ahead of the strike. Although consumer stock data for heating oil are unavailable, it is assumed that a stockbuild occurred in October ahead of the strike. Purchases may also have increased in response to colder weather than last year, while favourable prices relative to competing fuels are thought to be largely responsible for increased deliveries of residual fuel oil. Fuel oil deliveries to the industrial and power generation sectors increased in October by 14.1% and 61.4% respectively, contrary to the 12-month moving average decline of 4.4% and 35.4% respectively. The unexpected strength in October is believed to be due to

Change in Number of Working Days in 1997 Compared with a Year Earlier

	USA	Canada	Japan	France	Germany	Italy
January	-	-	-	-	-	-1
February	-1	-1	-1	-1	-1	-1
March	-	-2	-	-1	-2	-1
1Q97	-1	-3	-1	-2	-3	-3
April	-	2	-	1	2	1
May	-1	-1	-	-1	-1	-1
June	1	1	1	1	1	1
2Q97	0	2	1	1	2	1
July	-	-	-	-1	-	-
August	-1	-1	-1	-1	-1	-1
September	1	1	1	1	1	1
3Q97	0	0	0	-1	0	0
October	-	-	-	-	-	-
November	-1	-1	-2	-	-1	-
December	1	1	1	1	1	-
4Q97	0	0	-1	1	0	0

includes Public Holidays
German public holidays are based on Southern German dates

weakening prices and, in the case of the generation sector, particularly weak deliveries a year earlier. By the end of October, fuel oil consumption by EDF had declined by 4.7% on a 12-month moving average. Electricity production in the first eight months of the year increased only marginally (by 0.3%), but with lower electricity exports and increased nuclear and hydro output, oil and coal consumption in thermal power stations fell by a combined 7.8%.

In **Germany**, deliveries were lower for most products, although naphtha deliveries increased by 16% or 35 kb/d, consistent with the trend of strong demand growth throughout this year. Gasoline and diesel deliveries both declined by more than the trend, due to both strong deliveries a year ago and higher retail gasoline prices (see table to the right). The weakness in heating oil deliveries experienced in October, as well as the previous few months, reflects heavy consumer restocking earlier in summer. Nonetheless, consumer stocks ended the month some fourteen million barrels higher than a year earlier. Increased gas penetration in the industrial and utility sectors has continued to contribute to a significant decline in fuel oil deliveries.

Percentage Annual Change in Retail Prices in October 1997[1]

(% per annum change in local currency)

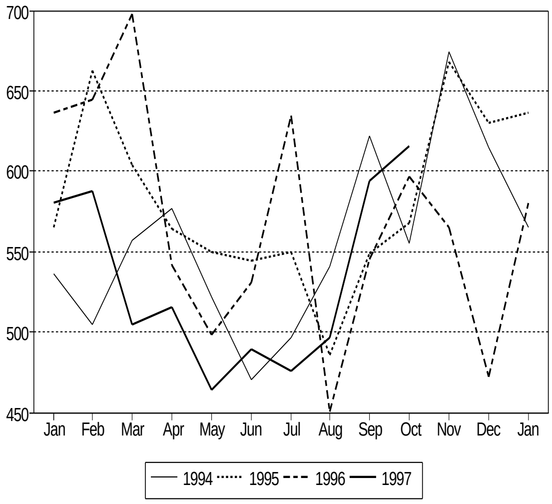
	Gasoline	Diesel	Heating Oil	RFO
USA	0.9%	na	-10.1%	na
Canada	3.0%	0.0%	0.0%	na
Japan[2]	-2.0%	4.6%	9.3%	17.8%
France	2.5%	-3.2%	-4.0%	-4.2%
Germany	3.3%	-1.5%	-7.1%	-3.5%
Italy	1.9%	-4.7%	-2.3%	-4.4%
UK	9.9%	5.4%	-18.5%	-7.5%
Europe Four Avg.	*4.4%*	*-1.0%*	*-8.0%*	*-4.9%*
G7 Average[3]	2.8%	0.1%	-4.7%	-0.4%

1 mid-month
2 Japanese heating oil is represented by kerosene
3 countries with missing data are excluded from the average calculations

Following three successive months of demand increases, **UK** deliveries decreased, with continuing large declines in fuel oil deliveries and a 35 kb/d fall in naphtha deliveries more than offsetting continuing strong gasoil and jet/kerosene demand. Weak residual fuel oil deliveries has been caused by the combination of the cessation of *Orimulsion* use in the Pembroke power station in March 1997 and ongoing substitution by North Sea natural gas throughout the power generation sector. Despite significantly higher retail prices for both gasoline and diesel, diesel deliveries increased while those of gasoline declined. The increase in diesel deliveries was even more surprising, given an 8.8% increase in the previous October.

For the second successive month, an increase in residual fuel oil deliveries to the power generation sector contributed significantly to above-trend growth in **Italian** oil deliveries. However, recent strength in fuel oil deliveries has not been sufficient to reverse the significant 12-month moving average decline, which reflects ongoing substitution of Algerian natural gas for fuel oil in the power generation sector. In addition, ENEL reduced its fuel oil stocks in 1997 to a lower government-sanctioned level. Current stocks are thought have now reached this level, so any further consumption may have to be balanced by equivalent purchases. As shown in the right-hand table below, consumption of hydrocarbon fuels in thermoelectric plants was unusually high in October. In contrast, increased electricity demand for the year-to-date has been met by higher electricity imports and greater hydroelectric output, with hydrocarbon use (in which oil is losing share to natural gas) increasing by only 2.1%. Weak year-on-year growth in gasoline deliveries reflected strong year-earlier deliveries. Italian road transport demand is most likely to

Italian Fuel Oil Deliveries
(thousand barrels per day)



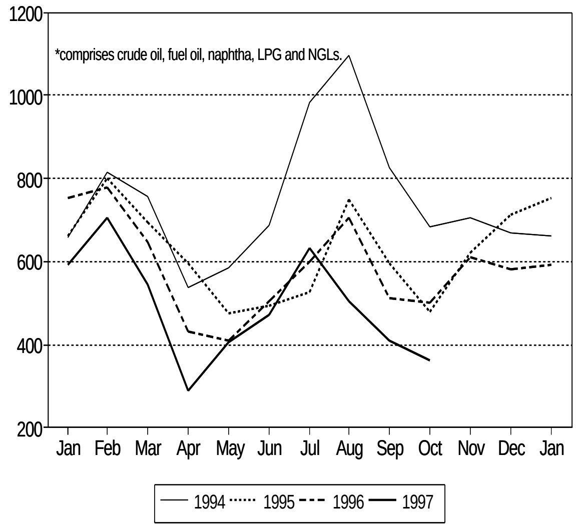
Italian Electricity Consumption

	Oct 97		Year-to-Date	
	TWh	% pa	TWh	% pa
Gross Electricity Output	22.3	5.0	209.1	2.8
Thermoelectric	18.9	12.7	165.4	2.1
Geothermal	0.4	9.3	3.2	1.8
Hydro	3.0	-26.7	40.4	5.7
+ Electricity Imports	3.5	10.2	32.0	3.8
- Own Use/Losses	1.1	9.7	10.1	0.7
- Pumped Storage	0.6	10.4	5.4	-4.8
= Net Consumption	24.1	8.3	225.5	3.3

have been affected in 1997 by a fiscal stimulus to increase car purchases. However, the exact impact on overall fuel consumption remains unclear as the effect of an increased road car population on consumption may have been offset by improved average fuel efficiencies of an increasingly younger car fleet and the possible impact of dieselisation on overall fuel use.

In contrast to strong demand growth in September**, Japanese** oil demand decreased in October, primarily due to strong demand a year earlier. This October, deliveries of crude were particularly weak although demand also declined for gasoil, kerosene and residual fuel oil. Kerosene deliveries declined despite marginally colder weather than last year, due to higher retail prices and strong purchases last month. Residual fuel oil deliveries declined as a result of lower purchases by the power generation sector. Despite a strong increase in electricity demand, consumption of oil products declined, as hydro and nuclear output each increased sharply. The 22% increase in nuclear output reflected outages last autumn, consistent with last year's substantially lower nuclear load factor shown in the table to the right.

Japanese Oil Deliveries in Electricity Generation*
(thousand barrels per day)



Japanese Electricity Generation - October 1997

	TWh		
	Oct-97	Oct-96	%
Hydro	38.6	35.8	7.8%
Hydrocarbon	306.9	357.1	-14.1%
Nuclear	250.2	205.4	21.8%
Total Utility Companies	595.7	598.3	-0.4%
Autoproduced	100	79.5	25.8%
Total Output	684.9	668.5	2.5%
Water Level (vs. Normal)	74.2	73.8	0.5%
Nuclear Load Factor	80.2	68.5	17.1%

Japanese Utilities' Position - October 1997

Annual Change (% pa)	Stocks Open	Deliveries	Use	Stocks Close
Coal	0.1%	32.7%	8.3%	11.0%
LNG	18.2%	-18.4%	-8.4%	-2.2%
Crude	-5.8%	-41.8%	-50.1%	1.1%
NGL	-12.1%	-99.2%	-78.5%	-14.6%
LPG	-9.6%	-65.0%	35.6%	-39.3%
Naphtha	61.0%	-53.0%	-100.0%	27.0%
Residual Fuel	-2.8%	-7.0%	-22.8%	4.2%
Total Oil	-4.5%	-27.7%	-37.7%	0.7%

Demand in 3Q97

OECD demand is estimated to have increased strongly in 3Q97, although the latest data have been adjusted downwards slightly (by 17 kb/d) from the previous month's Report. A net downward revision to G7 demand in September was only partially offset in Australia, the Netherlands and Spain by greater-than-anticipated demand, which increased by 8.5%, 6.1% and 4.8% respectively. In addition, the Swedish authorities have revised their demand data for August upwards by 56 kb/d, reducing the decline in Swedish deliveries in August from 36% to 23%.

Third Quarter OECD Oil Demand by Region
(million barrels per day)

			Change	
	3Q96	3Q97	mb/d	%
North America	20.2	21.0	0.8	3.9
Europe	14.4	14.5	0.1	0.6
Pacific	6.3	6.4	0.1	1.5
Total	40.8	41.9	1.0	2.4

The table below shows changes to 3Q97 demand for eight major products in the seven largest oil-consuming countries, representing some 75% of total monthly OECD demand. Deliveries increased most in percentage terms in Canada due to greater consumption of fuel oil in the power generation sector to replace nuclear generation. In contrast, deliveries declined in three of the four largest European countries, reflecting a combination of weak petrochemical feedstock demand, timing differences in consumer stockbuilding of heating oil and continuing substitution for fuel oil. Among products, gasoline deliveries increased by the greatest amount, reflecting strong demand growth in North America and Japan, although growth was dampened by continuing dieselisation of the European passenger car fleet.

Changes in 3Q97 Oil Product Demand in the Seven Leading Oil Consuming OECD Countries
(% per annum)

	LPG	Naphtha	Gasoline	Jet/Kero	Diesel	Other Gasoil	RFO	Other	Total	kb/d
USA	1.2	28.6	2.8	4.1	2.4	4.9	-7.6	7.3	3.3	*594*
Canada	15.7	-13.1	3.5	-1.0	4.5	10.2	13.9	9.4	6.5	*124*
Japan	0.9	3.4	3.1	4.0	-2.1	1.8	-0.2	-3.5	0.9	*47*
France	6.5	-4.1	-1.4	0.6	4.4	-5.3	1.7	14.9	1.7	*33*
Germany	-3.7	21.1	-1.6	2.5	-0.4	-5.4	-16.7	-1.5	-1.0	*-30*
Italy	-5.4	-7.8	0.6	0.2	9.7	-9.8	-4.1	20.5	-0.1	*-1*
UK	-2.0	-1.6	-1.7	4.7	1.0	-2.8	-31.0	0.3	-2.6	*-47*
European Four	*-1.6*	*7.6*	*-1.1*	*2.7*	*3.2*	*-5.5*	*-9.5*	*7.5*	*-0.5*	*-45*
Total G7	1.9	7.6	2.2	3.6	2.0	-0.3	-5.4	5.7	2.1	*720*
kb/d	*58*	*131*	*255*	*99*	*92*	*-11*	*-142*	*238*	*720*	

Demand in 4Q97, 1997 and 1998

The latest projection of OECD demand in 4Q97 represents a 43 kb/d downward adjustment from the previous month's Report and incorporates adjustments to reflect the weaker-than-expected preliminary demand data for the G7 countries in October, indications of particularly mild weather in Europe in November and further evidence of weak deliveries to the Japanese power generation sector. The projection remains highly sensitive to the impact of weather on oil demand. The projected growth rate is lower than that of 3Q97 (1.4% vs. 2.4%), in part reflecting strong weather-related North American demand growth in 4Q96.

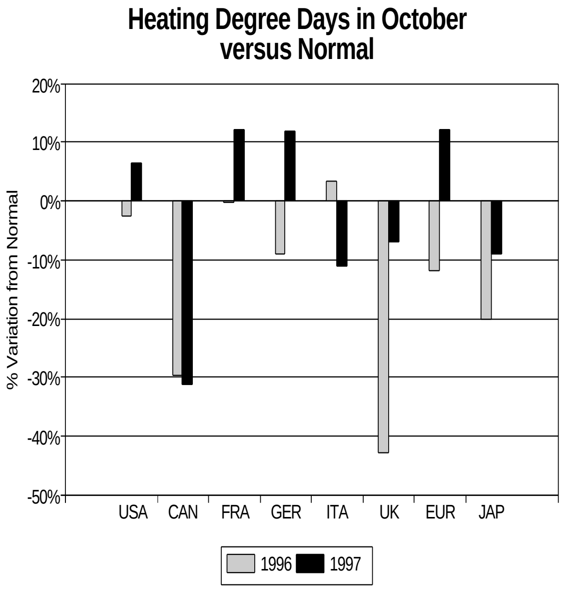
Fourth Quarter OECD Oil Demand by Region
(million barrels per day)

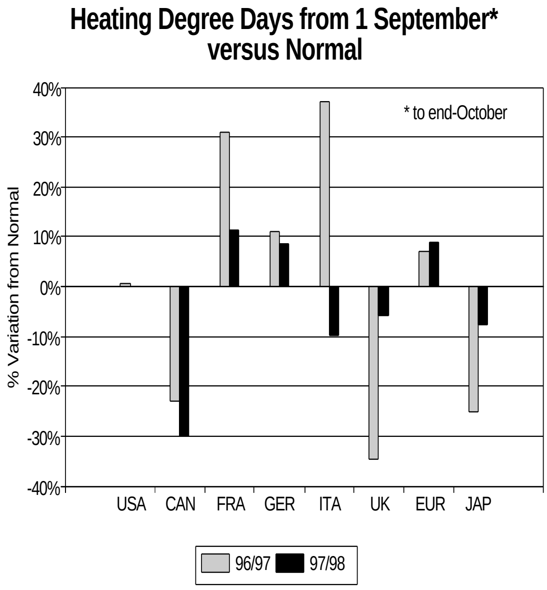
	4Q96	4Q97	Change mb/d	Change %
North America	20.8	21.0	0.2	1.1
Europe	14.7	14.9 r	0.3	1.8
Pacific	6.9	7.1	0.1	1.7
Total	42.4	43.0 r	0.6	1.4

r revised from last month's Report

Nevertheless, preliminary indications of **US** demand in November, based on delivery data up to 21 November, show that oil deliveries increased by 1.8% or 330 kb/d, with demand increasing for all major products, except gasoline and residual fuel, which both declined by 0.8%. The decline in fuel oil deliveries is consistent with preliminary weather data, which indicate that the US experienced 5% fewer heating degree days than last year (although 11.6% more than normal). The decline is inconsistent, however, with the price premium of natural gas over fuel oil, which increased this November in New York to $0.55/mmBtu from $0.19/mmBtu in November 1996 and possibly suggests that firstly, any fuel switching in the power generation sector from gas to fuel oil was insufficient to require increased purchases of fuel oil or secondly, reduced gas burn was compensated by increased coal use. Gasoil deliveries increased by 2.4%, most likely reflecting the combination of low heating oil deliveries in September and continuing strong diesel demand growth. Although it is still early in the heating season, evidence of a mild North American winter, projected on the basis of the effect of El Niňo, has yet to materialise.

In contrast, **European** weather in November was particularly mild, even compared with milder-than-normal weather last year, which may further dampen heating oil deliveries. Deliveries had already been expected to be weak due to significant stockbuilding earlier in 3Q97. In addition, strong French deliveries in October in anticipation of a truckers' strike would be expected to lead to weak demand in November as wholesalers pass on and consumers then use the advance purchases. **Pacific** demand in November is expected to have also been weak, consistent with two less working days in Japan (see table on page 9) and which may reinforce an expectation of continuing weak deliveries, given ongoing oil substitution in the power generation sector. Japan also experienced mild weather with Tokyo recording 73% fewer heating degree days than last year, which is likely to have dampened electricity and kerosene consumption.





OECD oil demand in 1997 is projected to increase by 0.6 mb/d or 1.5% to 41.9 mb/d, a minor 19 kb/d downward adjustment from last month's Report, reflecting changes to the 4Q97 projection and a restatement downwards of Swedish demand in 1Q97. In 1998, demand is expected to increase by 0.5 mb/d or 1.2% to 42.4 mb/d, at a similar rate to that given in last month's Report. Due to an unchanged growth rate in 4Q98, the minor downward adjustment to 4Q97 demand has led to a similar-sized adjustment to the projection of demand in 4Q98.

Non-OECD[2]

Demand Trends in Leading Non-OECD Oil Consuming Countries

Among the largest oil consuming developing countries, recent year-on-year growth was above trend for the three largest, the FSU, China and Korea, but lagged in Mexico, Brazil and India. Declines moderated in Iran and Saudi Arabia with Indonesian demand near trend growth, despite intensifying economic and currency difficulties. The table below contains new data for five of the nine largest consumers. An annual decline in net crude exports has contributed to a significant increase in FSU apparent demand. Similarly, a surge in net crude imports is responsible for strong Chinese apparent demand growth while, in contrast, substitution with natural gas and higher retail prices are thought to be the principal causes of demand weakness in Iran and Saudi Arabia. A large increase in kerosene deliveries has supported Korean demand and more than offset continuing weak demand for diesel.

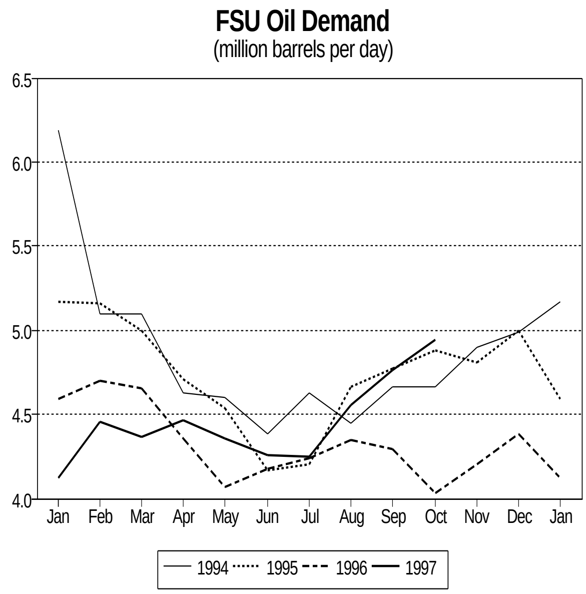
2 including some OECD Member countries, see note on back cover

Non-OECD Demand - Leading Oil-Consuming Countries

	Latest Month	mb/d Latest Month	mb/d Year Earlier	mb/d Previous Month	Change Versus Last Year	Change Versus Previous Month	12-Month Moving Average
FSU	Oct 97	4.95	4.04	4.76	22.5%	3.9%	-1.0%
China	Sep 97	3.97	3.46	4.18	14.7%	-5.0%	10.7%
Korea	Oct 97	2.34	2.17	2.08	7.6%	12.6%	3.3%
Mexico	Oct 97	2.02	1.96	2.05	3.2%	-1.5%	4.5%
Brazil	Aug 97	1.88	1.81	1.90	3.9%	-1.2%	7.1%
India	Sep 97	1.73	1.64	1.71	5.2%	0.8%	7.0%
Iran	Sep 97	1.33	1.35	1.32	-2.0%	0.5%	-3.2%
Saudi Arabia	Sep 97	1.24	1.21	1.26	2.5%	-1.6%	1.9%
Indonesia	Sep 97	1.02	0.92	1.01	10.8%	0.6%	10.3%

Former Soviet Union Apparent Demand

Apparent demand in the former Soviet Union in October is estimated to have increased by 22.5% to 4.95 mb/d. Although there are indications of a turnaround in consumption, the growth in apparent demand is far in excess of underlying consumption and is more likely due to a stockbuild in crude, given evidence of a steep decline in exports in October and an increase in indigenous supply (see Supply section). An analysis of recent demand patterns has contributed to a reassessment of demand prospects in 4Q97, leading to a 210 kb/d upward revision to apparent demand in 4Q97, which is now projected to increase by 0.6 mb/d to 4.9 mb/d. The changes to apparent demand are consistent with assumed normal weather compared with mild weather last year, which dampened demand and contributed to significantly-increased net exports. It is probable, despite an assumed return to normal weather and the resulting stronger demand, that stocks have been built. Hence, some softening in apparent demand may be expected in the near-term as stocks are drawn down. However, apparent demand over the winter period will be highly sensitive to weather and to any restraint on product exports that might be imposed. FSU apparent demand in 1997 is projected to increase by 4.0% to 4.5 mb/d. FSU demand in 1Q98 has been revised upwards by 0.1 mb/d for the second successive month, to 4.7 mb/d, consistent with the expected demand pattern in 4Q97. An upward revision to demand in 4Q98 mirrors the part of the demand strength in 4Q97 that reflects underlying demand strength rather than the impact of a once-only weather-related effect. The modifications have led to a 50 kb/d upward revision to 1998 demand, which is projected to increase by 1.4% to 4.6 mb/d.



Brazilian Demand in August

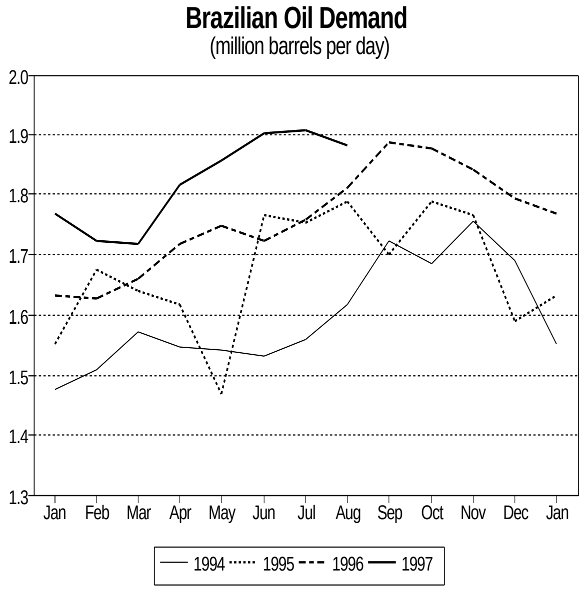
Inland delivery data published in *Brazil Energy* magazine (adjusted to include bunker and refinery fuel estimates and to calibrate the monthly data to the historical series) indicate that total oil demand increased by 3.9% in August, to 1.88 mb/d. The growth was significantly less than the 12-month moving average and unexpectedly low, given only a modest 2.6% increase in the previous August. Among the individual products, only gasoline increased by more than the 12-month moving average. Gasoline-powered vehicles continue to gain share against vehicles using pure alcohol. Very few new alcohol-fuelled cars are being made and an increasing number of older alcohol-fuelled cars are being scrapped and replaced with gasoline vehicles. However, there continues to be a significant amount of alcohol produced to blend Brazilian gasoline, which currently contains about 23% alcohol.

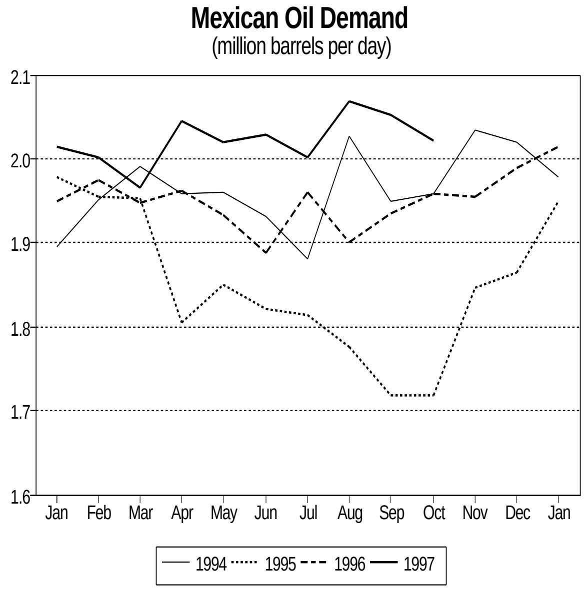
Brazilian Oil Demand

	Aug-97 kb/d	Annual Change kb/d	Annual Change % pa	12-mth mov.avge
Gasoline	314	48	17.9%	12.8%
Alcohol	219	-15	-6.3%	-4.3%
Naphtha	195	17	9.6%	20.1%
Diesel	549	3	0.5%	4.6%
Residual Fuel Oil	249	11	4.5%	12.4%
Other[1]	356	6	1.9%	na
Total Deliveries	1882	70	3.9%	7.1%

1 includes adjustment to calibrate monthly data to the historical series

Nonetheless, alcohol consumption declined in August by a rate greater that of the trend. Also contributing to the slower growth was an only marginal increase in diesel fuel use, which accounts for about 30% of overall Brazilian demand. Furthermore, growth in residual fuel oil demand was only about one-third of the 12-month moving average, primarily due to strong demand a year earlier. The increase in naphtha deliveries represented a significant slowdown in the growth trend as deliveries over the course of this year have increased substantially, reflecting increased petrochemical capacity allied with strong demand for petrochemical feedstocks.





Mexican Demand in October

Preliminary inland data published by state oil company Pemex (adjusted in the same manner as the Brazilian data) indicate that total oil demand grew by 3.2% in October, to 2.02 mb/d, less than the trend. Underlying demand growth was comparatively weak in October, given strong growth a year earlier, particularly for LPG and "other products". However, deliveries of fuel oil increased strongly for the second successive October and represented 28% of total incremental demand this October. Strong fuel oil deliveries reflect increased use in the power generation sector due to low water levels in western Mexico that have constrained hydropower output in recent months. Gasoil deliveries represented a major source of incremental oil product demand, consistent with a sustained recovery in commercial road haulage. Gasoline deliveries increased despite significantly higher prices than a year earlier. In local currency terms, the retail price of gasoline has increased by 20.8%, reflecting a combination of increased commodity prices and unfavourable currency movements.

Mexican Oil Demand

	Oct-97	Annual Change		12 mth
	kb/d	kb/d	% pa	mov.avge
Gasoline	505	15	3.1%	3.6%
Gasoil	280	14	5.3%	8.4%
Residual Fuel Oil	427	29	7.3%	6.8%
LPG	276	6	2.4%	3.4%
Other[1]	534	-2	-0.3%	na
Total	2021	63	3.2%	4.5%

1 includes adjustment to calibrate monthly data to the historical series

Indian Demand in September

Adjustments made to inland delivery data, published by the Indian Ministry of Petroleum and Natural Gas, indicate that total Indian oil demand increased by 5.2% in September, to 1.73 mb/d. Demand growth was slightly below trend, despite weak growth in September 1996 when deliveries increased by only 1.5%, with growth dampened by a 7.4% decline in residual fuel oil deliveries. This September, fuel oil deliveries recovered and LPG and naphtha deliveries increased strongly, reflecting continuing strong

Indian Oil Demand

	Sep-97	Annual Change		12-mth
	kb/d	kb/d	% pa	mov.avge
Diesel	644	26	4.2%	9.9%
Gasoline	116	4	3.3%	4.9%
Fuel Oil	204	19	10.1%	3.9%
LPG	149	18	13.3%	9.5%
Naphtha	120	15	14.8%	20.4%
Kerosene	210	4	1.7%	2.4%
Other[1]	283	1	0.3%	na
Total	1726	86	5.2%	7.0%

1 includes adjustment to calibrate monthly data to the historical series

deliveries to the petrochemical sector and increased LPG use in the residential sector. Overall demand growth was dampened somewhat by below-trend growth in diesel deliveries. Diesel is primarily consumed in the agricultural sector (for both tractors and water pumping) and also in the road transport sector, and the slightly weaker demand growth in September could partially reflect timing differences in the agricultural cycle and lower requirements for pumping. Kerosene continues to lose market share as LPG use in the residential sector is increasingly encouraged.

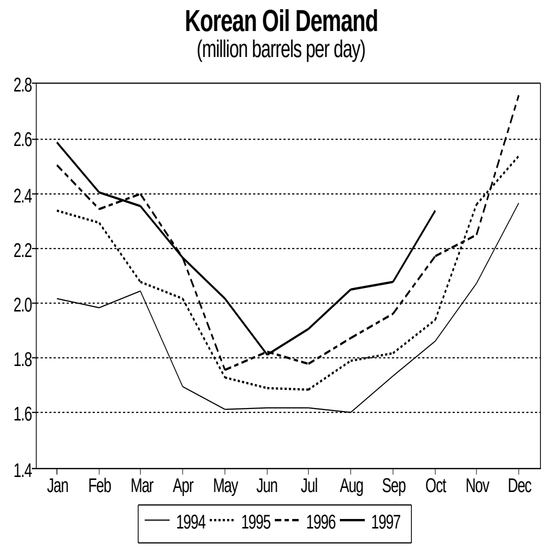
Korean Demand in October

Adjusted data published by the Korean Energy Economics Institute (KEEI) indicate that total Korean demand increased by 7.6% in October, to 2.34 mb/d. On a 12-month moving average basis, Korean demand has increased by only 3.3%, reflecting particularly weak growth in 1Q97 due to weak diesel demand and mild weather, which dampened kerosene deliveries. Oil demand picked up in 2Q97, increasing by 4.7%, although diesel deliveries remained weak, consistent with strong demand a year earlier

Korean Oil Demand

	Oct 97	Annual Change		12 mth
	kb/d	kb/d	% pa	mov.avge
Diesel	463	-40	-8.0%	-6.6%
Gasoline	208	9	4.6%	4.8%
Residual Fuel Oil	458	29	6.9%	2.9%
Naphtha	445	49	12.4%	9.4%
Kerosene	245	70	39.7%	9.6%
Other *1*	519	49	10.4%	na
Total	2338	166	7.6%	3.3%

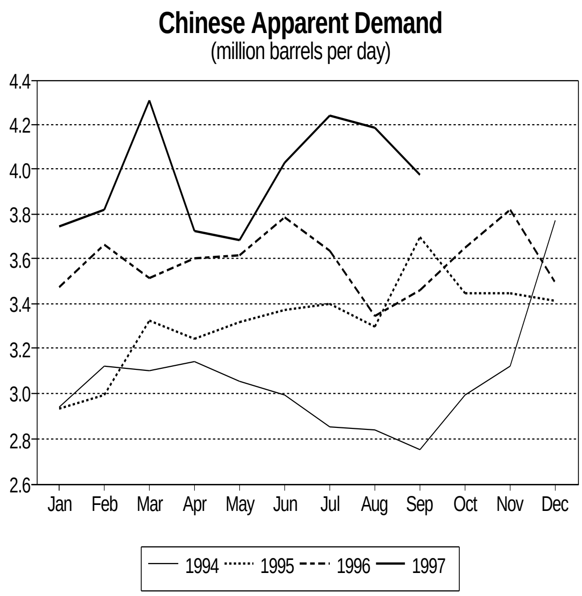
1 includes adjustment to calibrate monthly data to the historical series



and possibly due to a slowdown in commercial road haulage. In 3Q97, oil demand increased by 7.9%, at a rate similar to that of the historical trend, led by an acceleration in gasoline and naphtha demand growth. This October, demand growth was similar to that of recent months, although greater than expected as demand increased in the previous October by 12.7%. Naphtha deliveries were particularly robust, given strong petrochemical capacity additions over the last year. Diesel deliveries continued to decline on an annual and 12-month moving average basis. Although evidence of the impact of the recent financial difficulties on oil demand has yet to be recorded, the underlying weakness in diesel deliveries experienced in 1997 may be partly indicative of a slowdown in the Korean economy.

Chinese Apparent Demand in September

Primarily due to a marked increase in crude net imports compared with a year earlier, apparent demand in China is estimated to have increased by 14.7% or 510 kb/d in September, to 3.97 mb/d. In addition and as outlined below, Chinese apparent demand growth in September was also supported by a marked increase in net product imports. However, demand growth has slowed down from rates experienced in July and August when the annual increase in crude imports was even greater. Although refinery runs increased by 11.8% in September, crude stocks at refineries are assumed to have remained at high levels and it is anticipated that net crude imports may slacken in coming months as crude stocks are drawn down, leading to a lower rate of apparent demand growth. On a 12-month moving average, Chinese apparent demand is estimated to have increased by 10.7%



but lower apparent demand growth of 5% is expected in 4Q97 while inventories are drawn down, contributing to average demand in 1997 of 3.9 mb/d, representing 9.7% growth. The projection of demand in 1998 remains unchanged from last month's Report at 4.2 mb/d, but due to adjustments to 1997 demand, the 1998 growth rate has fallen slightly.

Chinese Trade

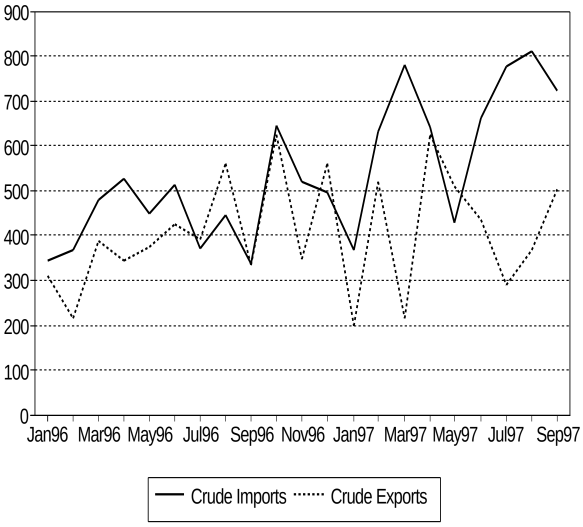
In September, Chinese net imports decreased marginally from August's level, but still represented a 110% increase from the previous September, largely due to substantial growth in net crude imports. On a month-to-month basis, however, crude imports decreased by 86 kb/d with falls in imports from the Congo (-64 kb/d), Indonesia (-110 kb/d), Norway (-63 kb/d) and Yemen (-77 kb/d) offsetting increases from other countries, including Argentina (+130 kb/d).

Crude exports to Indonesia, Korea and Thailand increased by 65 kb/d, 69 kb/d and 63 kb/d respectively from August levels. Japan remained the largest crude export market for China (38% of total crude exports), but the volume declined by 71 kb/d. During the same period, imports from several countries increased including Angola (+40 kb/d), Argentina (+130 kb/d), and Oman (+55 kb/d). Product net imports increased marginally from the previous month's level with China remaining a net exporter of gasoline.

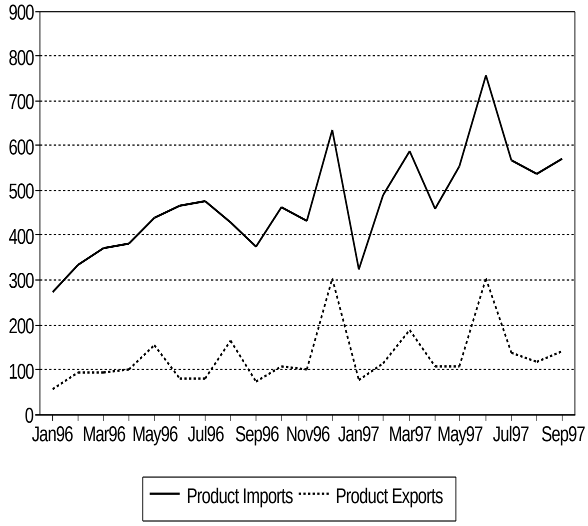
Chinese Crude Oil and Product Trade

	kb/d			Latest Month v.	
	Sep-97	Aug-97	Sep-96	Aug-97	Sep-96
Crude Imports	722	808	337	-11%	114%
Crude Exports	504	366	332	38%	52%
Net Crude	218	442	5	-51%	4551%
Product Imports	569	533	375	7%	52%
Product Exports	140	117	70	20%	99%
Net Product	429	416	304	3%	41%
Total Imports	1291	1341	711	-4%	82%
Total Exports	644	483	402	33%	60%
Total Net	648	858	309	-25%	110%
Product Net Imports					
LPG	136	102	80	34%	70%
Naphtha	34	20	4	76%	694%
Gasoline	-34	-24	-2	42%	1836%
Kerosene	36	34	6	4%	474%
Diesel	82	119	47	-31%	77%
RFO	153	137	152	12%	1%
Other Products	21	29	17	-25%	26%
Total Products	429	416	304	3%	41%

Chinese Crude Oil Trade Jan96-Sep97
(thousand barrels per day)



Chinese Oil Product Trade Jan96-Sep97
(thousand barrels per day)



Non-OECD Demand

Non-OECD demand in 3Q97 is estimated to have increased by 1.8 mb/d or 6.0%, to 31.8 mb/d. This represents a 130 kb/d upward revision, consistent with significant upward adjustments to apparent demand in China, while stronger-than-expected demand growth in Korea and India has been offset by weaker-than-anticipated demand in Latin America, most notably Mexico. Non-OECD demand in 4Q97 has been revised upwards by 70 kb/d, reflecting upward adjustments to FSU demand that have been only partially offset by a downward adjustment to Latin American, Middle Eastern and Chinese apparent demand. Latin American demand has been revised due to weaker-than-expected demand in Mexico in October while Middle Eastern demand has been revised following a reassessment of Iranian demand in the light of year-to-date demand growth pattern. Revisions to Chinese demand have been made in the expectation that strong apparent demand growth in 3Q97 was caused by a significant crude stock build, which will be followed, in 4Q97, by a period of stock drawdown. The changes to quarterly demand have left 1997 non-OECD demand some 30 kb/d higher than in last month's Report at 31.8 mb/d, representing an annual increase of 4.7% or 1.4 mb/d.

Non-OECD demand in 1998 is projected to increase by the same amount as in 1997, by 1.4 mb/d to 33.2 mb/d. The projection remains sensitive to downward revisions to Other Asian demand in the light of current financial difficulties in Korea. Moreover, financial difficulties in Japan may also impact upon general economic activity in the region. In last month's Report, the projection of Other Asian demand in 1998 was revised downwards by 0.1 mb/d on the basis of new economic projections for Indonesia, Malaysia, Philippines and Thailand. All four countries, with the exception of Indonesia, are relatively small consumers of oil compared with the large oil-consuming countries in the region - China, Japan, India and Korea. If demand in large oil-consuming countries such as Korea is affected, further downward revisions to the projection of 1998 Other Asian demand would be required. For example, a reduction by one-half in the anticipated Korean demand growth in 1998 would be equivalent to a loss of some 75 kb/d to anticipated incremental Korean demand. However, until evidence of a slowdown in Korean deliveries is recorded, the projection of Other Asian demand will be maintained.

SUPPLY

Summary

- **World oil production** in November is estimated at 76.0 mb/d, unchanged from the previous month, which was revised upwards by 0.1 mb/d. An increase in **non-OPEC oil supply** of 0.2 mb/d to 45.4 mb/d offset a decrease in OPEC crude supply of the same size. Half of the non-OPEC gain occurred in the OECD, driven by North Sea production, and the other half came from the FSU and Latin America.
- **OPEC crude production** averaged an estimated 27.7 mb/d in November, a decline of 0.2 mb/d from the upwardly-revised figure of 27.9 mb/d for October. Small increases in output from several countries were not enough counter decreases in supply from Iran and Iraq.
- **The "call on OPEC crude plus stock change"** has been revised upwards by 0.2 mb/d in 4Q97 to 27.4 mb/d. The average "call" in 1998 has also been revised upwards by 0.2 mb/d to 26.3 mb/d. Downward revisions to the forecasts for 1998 OECD and Latin American production more than offset upward revisions to the forecast for Russian production next year.
- **Net FSU exports** averaged 2.5 mb/d in November, an increase of 0.2 mb/d over October's downwardly-revised figure. The majority of the gains came from seaborne exports originating at Black Sea ports, as volumes recovered from last month's weather-related problems.

Non-OPEC Oil Supply

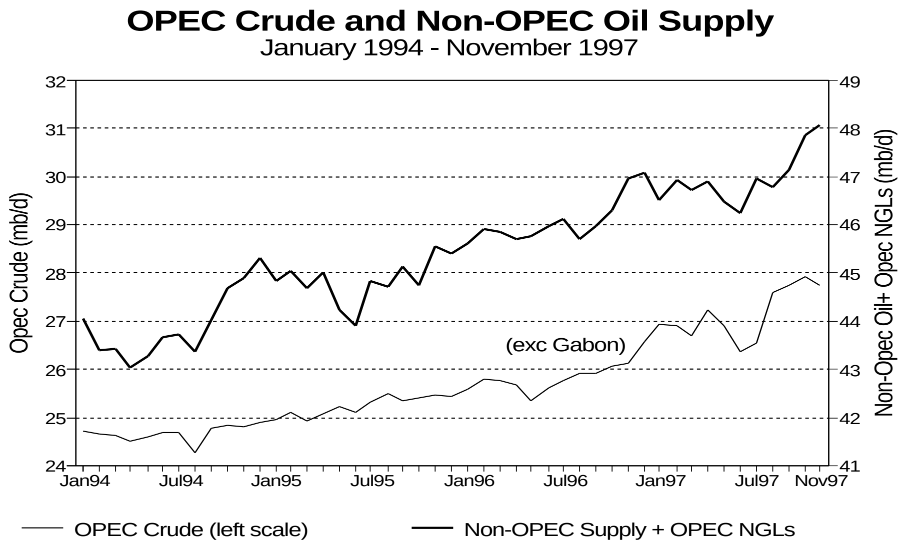
(million barrels per day)

	1996	1997f	1998f	3Q96	4Q96	1Q97	2Q97	3Q97p	4Q97f
CRUDE OIL									
North America	8.03	7.94	8.10	7.97	8.10	7.94	7.88	7.92	8.01
United States	6.46	6.33	6.42	6.39	6.49	6.33	6.32	6.30	6.36
Canada	1.56	1.61	1.68	1.57	1.61	1.60	1.55	1.62	1.65
Europe	6.24	6.29	6.79	6.14	6.45	6.38	6.11	6.05	6.62
North Sea	5.79	5.84	6.35	5.69	6.01	5.93	5.67	5.61	6.17
UK*	2.45	2.41	2.73	2.34	2.61	2.52	2.19	2.34	2.58
Norway	3.09	3.17	3.34	3.09	3.13	3.15	3.21	3.01	3.32
Other North Sea**	0.25	0.27	0.28	0.25	0.27	0.26	0.27	0.26	0.27
Other Europe	0.45	0.44	0.44	0.46	0.44	0.45	0.44	0.43	0.45
Pacific	0.59	0.64	0.71	0.61	0.59	0.59	0.63	0.68	0.65
Australia	0.54	0.57	0.64	0.55	0.52	0.52	0.56	0.61	0.58
Other Pacific	0.05	0.07	0.07	0.06	0.07	0.07	0.07	0.07	0.07
Total OECD	14.85	14.86	15.60	14.71	15.13	14.90	14.62	14.64	15.28
Latin America	5.76	6.10	6.53	5.76	5.86	5.97	6.03	6.11	6.28
Asia (inc. China)	5.02	5.09	5.20	4.98	5.06	5.10	5.10	5.05	5.11
Africa (inc. Gabon)	2.42	2.57	2.74	2.45	2.48	2.51	2.53	2.58	2.66
Other Middle East	1.87	1.86	1.87	1.88	1.89	1.87	1.85	1.86	1.86
Central and Eastern Europe	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Total Non-OECD (ex. FSU)	15.28	15.83	16.55	15.28	15.50	15.66	15.72	15.80	16.12
Russia	5.84	5.93	6.00	5.88	5.82	5.78	5.92	6.01	6.00
Other Republics	0.91	0.95	1.06	0.92	0.94	0.92	0.96	0.96	0.98
Total FSU	6.75	6.88	7.06	6.80	6.76	6.70	6.88	6.96	6.98
NGLS & OTHER									
United States	2.13	2.21	2.22	2.13	2.22	2.18	2.18	2.22	2.23
Canada	0.90	0.92	0.96	0.90	0.92	0.92	0.83	0.95	0.98
North Sea	0.41	0.40	0.41	0.37	0.45	0.43	0.37	0.37	0.43
Russia	0.19	0.20	0.20	0.17	0.20	0.21	0.19	0.18	0.21
Other Non-OPEC	1.58	1.60	1.78	1.54	1.53	1.57	1.58	1.60	1.65
Total NGLs and Other	5.20	5.32	5.57	5.11	5.32	5.31	5.16	5.33	5.49
Processing Gains	1.52	1.57	1.64	1.50	1.55	1.57	1.56	1.56	1.60
Total Non-OPEC Supply	**43.60**	**44.46**	**46.43**	**43.40**	**44.26**	**44.14**	**43.92**	**44.29**	**45.47**

p preliminary
f forecast
* excluding on-shore production
** Denmark, offshore Netherlands and offshore Germany

Overview of Supply Developments and Revisions

World oil supply in November is estimated to have averaged 75.98 mb/d, essentially unchanged from October's level of 75.97 mb/d. Non-OPEC supply is thought to have risen by 236 kb/d to 45.40 mb/d but this was offset by an estimated 226 kb/d drop in OPEC oil supply, 212 kb/d of which was OPEC crude. OECD output rose by 135 kb/d to 18.99 mb/d, driven by a 200 kb/d increase in the North Sea. Norwegian supply rose by 135 kb/d as fields returned from late-year maintenance,and UK supply rose by 62 kb/d aided by new fields coming onstream. North American production declined by 23 kb/d, as modest but broad-based Canadian gains were outweighed by a 48 kb/d drop in US crude. Alaskan output was hampered by unseasonably warm weather and US NGLs supply also fell. Australian production fell by 45 kb/d in large part due to the Griffin field stopping production because of a mechanical failure and a fire.



Non-OECD production increased by 99 kb/d to 24.81 mb/d. Output in the FSU rose by 46 kb/d due to increases in Kazakhstan and Azerbaijan. Russian supply was flat. Latin American production rose by 31 kb/d, due to gains in Mexico and Brazil. African output rose by a modest 15 kb/d, mostly due to Angola.

OPEC crude production is estimated to have fallen by 212 kb/d to 27.73 mb/d. Supply from Iran declined 235 kb/d from unusually high levels during the previous month. Iraqi output also fell by 235 kb/d, as export volumes were lower. These decreases were only partly offset by gains in Saudi Arabia (+105 kb/d), Nigeria (+45 kb/d) and Libya (+40 kb/d).

Revisions

The current estimate of world oil supply in October, of 75.97 mb/d, represents an upward revision of 80 kb/d from last month's estimate. OPEC crude supply was revised upwards by 180 kb/d, due mainly to Iran, whose October estimate increased by 240 kb/d. Non-OPEC oil supply in October was revised downwards by 100 kb/d. OECD supply was adjusted down by 230 kb/d, due mainly to the North Sea and the US, and another 50 kb/d of downward revisions were distributed in Asia and Latin America. These non-OPEC losses were only partly offset by a 180 kb/d increase in FSU production.

Based on historical monthly production data received for the first half of 1997, output from the Federal waters of the US Gulf of Mexico was revised downwards by 90 kb/d in both 1997 and 1998, as older shallow water fields apparently have not produced as much as previously expected. A substantial increase of 260 kb/d is still expected in 1998 compared to 1997, the same increment as before. Based on stable production levels over the last several months, Russian production has been projected to remain flat during 4Q97 and throughout 1998, resulting in upward revisions of 200 kb/d and 180 kb/d respectively for those time periods.

Other countries where forecasts were revised included Australia (-30 kb/d for 1998) due to decreased post-repair expectations for the Wanaea/Cossack project and a change in the forecast start-up date for the Elang/Kakatua development from 1Q98 to 3Q98. Brazilian supply was adjusted (-40 kb/d for 1998) due to slower production growth at new fields being assumed. Ecuadorean production was revised (-30 kb/d for 1998) because an expansion of the main export pipeline, which is currently constraining production, is not considered likely next year.

Revisions to the 1997 North Sea Production Forecast

As follow-up to the discussion entitled *The Upstream Environment: Offshore Delays* in the Report dated 8 September 1997, the forecasts for 1997 production for the UK and Norway have been examined. On a field-by-field basis, annual average production for this year as it is seen currently is compared to the forecast as of the Report dated 9 May 1997. The main revisions are shown in the accompanying tables. The categories of revisions are self-explanatory, except for "Other", where unexpected reservoir performance is generally the cause for adjustments.

In the UK, 1997 crude production was revised downwards by 368 kb/d and 320 kb/d of this is detailed in the table. Of the revisions shown on the table, 36% were caused by technical problems, 30% by start-up delays and 34% by other reasons. All of the revisions were for lower production. The adjustments were concentrated, with the six largest revisions alone accounting for 202 kb/d of the 320 kb/d losses shown. Foinaven finally came onstream last month and Captain came onstream in March 1997, so its underperformance is related to its being a new field. The Scott, Miller, Nelson and Brent fields all are at plateau or declining. For the Brent field in particular, it is unclear whether the field met the expectations of the operator and these internal forecasts were simply not public, or if the operator was also surprised by 1997 reservoir performance.

Major Revisions to 1997 UK Offshore Production Forecast

8 Dec 97 OMR versus 9 May 1997 OMR*

(actual data up to October 1997)

field	expected 1997 (kb/d)	revision	*cause of revisions* start-up delays	technical problems	other
Foinaven	1	-56	✓		
Brent	129	-50			✓
Scott	120	-31		✓	
Captain	23	-22		✓	
Miller	112	-22		✓	
Nelson	131	-21		✓	
Magnus	76	-19		✓	
Durward/Dauntless	10	-18	✓		
MacCulloch	13	-15	✓		
Beryl	75	-14			✓
Bruce	31	-10			✓
Forties	93	-10			✓
Pelican	26	-9			✓
Columba	12	-8			✓
Curlew	3	-8	✓		
Strathspey	30	-7			✓
	Subtotal	-320	97	115	108
Total Crude	2407	-368			
NGLs	253	-47			
Total Oil	2660	-415			

* OMR = Oil Market Report

In Norway, 1997 crude production was revised downwards by 147 kb/d and 124 kb/d of this is detailed in the table. Of the net revisions shown on the table, 56% were caused by start-up delays, 18% by technical problems and 27% by other reasons. Upward (+77 kb/d) as well as downward revisions (-201 kb/d) took place in Norway. Downward adjustments were concentrated here as well, with the top four accounting for 114 kb/d of the 201 kb/d of losses shown. Compared to the UK, there were fewer revisions due to technical problems and more due to other reasons (in both directions), including reservoir performance.

Major Revisions to 1997 Norway Production Forecast
8 Dec 97 OMR versus 9 May 1997 OMR*
(actual data up to October 1997)

field	expected 1997 (kb/d)	revision	start-up delays	technical problems	other
			cause of revisions		
Norne	4	-40	✓		
Snorre	189	-27			✓
Heidrun	228	-25			✓
Vigdis	32	-22		✓	
Balder	0	-19	✓		
Oseberg	474	-17			✓
Gullfaks	418	-14			✓
Troll East	6	-14			✓
Brage	102	-13			✓
Tordis East	0	-10	✓		
Draugen	178	+11			✓
Statfjord E/N	141	+16			✓
Ekofisk	298	+23			✓
Statfjord	336	+27			✓
	Subtotal	-124	-69	-22	-33
Total Crude	3172	-147			
NGLs	136	-7			
Total Oil	3308	-154			

* OMR = Oil Market Report

In the Report dated 9 May 1997, 1998 total liquids production (including crude and NGLs) was forecast at 3.23 mb/d for the UK and 3.65 mb/d for Norway. These figures now stand at 3.00 mb/d (-226 kb/d) and 3.46 mb/d (-183 kb/d) respectively. The factors that have affected this year's output, including fast-track scheduling, technical problems with floating production vessels and gas compressors and a tight market for rigs and other support industries, have been taken into account for next year's forecast to the extent possible but future revisions will of course take place as events unfold and project details emerge.

OECD[1]

North America

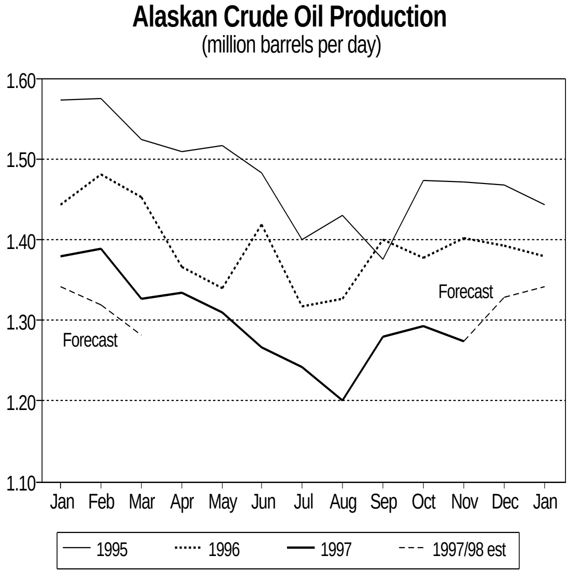
US crude oil production is estimated to have averaged 6.34 mb/d in November, a decrease of 14 kb/d from the previous month. Based upon preliminary data for the first three weeks of the month, production in Alaska averaged 1.27 mb/d (-19 kb/d versus October and 43 kb/d below the forecast). For the second consecutive month, operations were normal but production levels were restrained by warmer than expected weather, which does not allow the gas-handling and reinjection equipment on the North Slope to operate at peak efficiency. Rather than increasing as expected, production at Prudhoe Bay was unchanged and output at Kuparuk and at fields feeding the Lisburne Production Centre (Point McIntyre, Niakuk and Lisburne) fell by a combined 13 kb/d. Alaskan supply is forecast to increase to 1.33 mb/d for December and to average 1.32 mb/d for 1Q98.

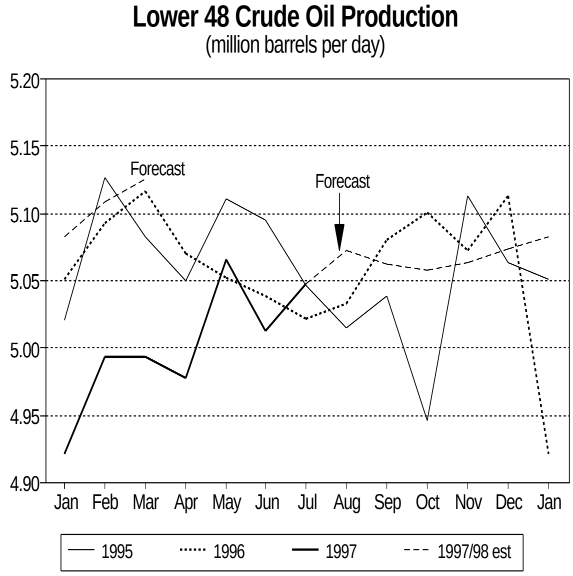
US Minerals Management Service (MMS) production data for the Federal Gulf of Mexico (GOM) was received for the first six months of 1997. Compared to 4Q96 production of 1.08 kb/d, 1Q97 and 2Q97 output from the Federal waters of the GOM averaged 0.97 mb/d and 1.05 mb/d respectively. These figures represent approximately 100 kb/d downward revisions to the previous estimates for 1Q97 and 2Q97. MMS data does not include field level detail and anecdotal evidence from industry contacts and trade press reports do not indicate any underperformance in the large new deepwater fields that have come onstream since 1994. Therefore, output from the older shallow water fields that form the "baseline" of GOM production has been adjusted downwards to match the historical data (to approximately 700 kb/d of supply). Declines from this lower level have been carried forward into the forecast.

The forecast for Federal GOM production for 3Q97 and 4Q97 has been revised to 1.12 mb/d and 1.16 mb/d respectively (down from 1.20 mb/d and 1.23 mb/d). Average production for 1997 is now expected to be 1.08 mb/d (90 kb/d lower than the previous forecast). Dramatic growth is still expected

1 excluding some Member countries, see note on back cover

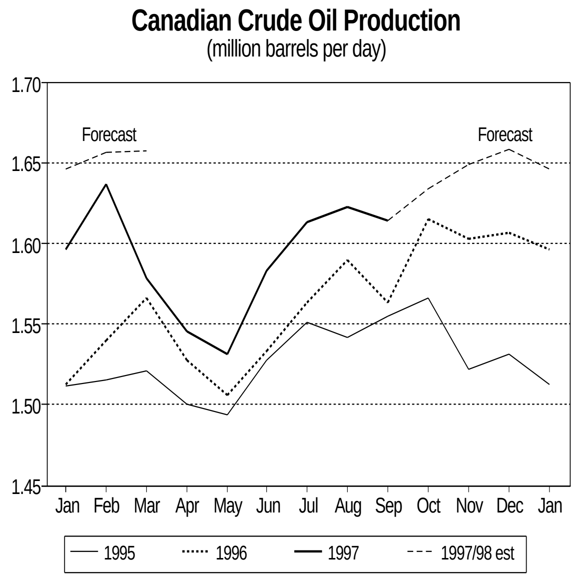
for 1998, which is estimated at 1.34 mb/d, a gain of 262 kb/d over this year. The year-on-year increment is roughly the same as it was before and the level is 90 kb/d lower. New fields driving the growth include Ram-Powell (September 1997 start-up, 60 kb/d plateau), Troika (onstream in November, 80 kb/d), Morpeth (mid-1998, 35 kb/d), Bald Pate (mid-1998, 40 kb/d) and Genesis (late-1998, 55 kb/d). Output at the 1996-vintage Mars field is also expected to grow from 100 kb/d currently to 140 kb/d by spring 1998.





California crude production in July averaged 942 kb/d, compared to 917 kb/d in 1Q97 and 930 kb/d in 2Q97. In a state where most of the production is of price-sensitive heavy crude (typically 13°API) and is dependent upon continued investment in horizontal drilling and gas-fired steam-injection (where natural gas prices are also a factor), it is unclear how long growth in California would continue in a softer market. Nevertheless, in a mature area, a levelling off of production or even an easing of decline rates is an achievement, so any increases are quite impressive. The current estimate is for 936 kb/d during 2H97 and 910 kb/d in 1998. Texas crude production in June averaged 1.42 mb/d and 1.46 mb/d for 2Q97 as a whole, down from 1.50 mb/d in 1Q97. Texas production is estimated at 1.42 mb/d and 1.41 mb/d in 3Q97 and 4Q97 and at 1.36 mb/d in 1998. As with California, Texas output has benefited from additional cash flow from higher prices which has allowed high levels of drilling and workover activity in 1996 and 1997. Total US crude production is forecast to average 6.40 mb/d in December and 6.42 mb/d during 1Q98.

Preliminary data indicate that **Canadian** crude oil production averaged 1.61 mb/d in September, a decrease of 9 kb/d compared to August. Bitumen output in Alberta grew by 12 kb/d, offsetting similar declines in conventional crude production. Supply from Saskatchewan fell slightly and there was no production from the small Cohasset/Panuke development offshore Nova Scotia (-7 kb/d). These fields, which averaged 15 kb/d during 2Q97, had been forecast to cease production at the end of the year and this may have occurred slightly earlier. Supply of Canadian NGLs (including "pentanes plus" and condensate) was flat at 628 kb/d, while synthetic crude production fell to 315 kb/d (-16 kb/d).



In October and November, crude production is estimated to have been 1.63 mb/d and 1.65 mb/d respectively, based primarily upon increments of conventional heavy grades from Alberta and Saskatchewan, bitumen from Alberta and new production from the Atlantic offshore province. The Hibernia field came onstream during the middle of November, with initial production of 20 kb/d. As expected, production growth will be slow, with planned plateau levels of 135 kb/d not expected to be reached until early 1999 and an average of 60 kb/d expected in 1998. The field was relatively expensive to develop, with $5.4 billion in capital costs for 750 million bbls of reserves working out to $7.20/bbl. The reserves figure was recently increased from 615 million bbls due to technological advances improving expected recovery rates of oil in place. Operating costs are estimated at $4.15/bbl. Owners of the field indicate that with additional investment, production has the potential to grow to 150-180 kb/d but this is not factored into the forecast at the current time. Hibernia essentially opens the Atlantic offshore in Canada and production will be growing over the medium term, as Terra Nova (100 kb/d) and White Rose (100 kb/d) fields are planned onstream in late 2000 and 2004 respectively. Hibernia satellite fields can also be expected. Canadian crude production in December and in 1Q98 is forecast at 1.66 mb/d and 1.65 mb/d respectively.

North Sea

Total North Sea oil production in October (including crude, condensate and NGLs) from offshore UK, Norway, Denmark and offshore Netherlands and Germany averaged 6.39 mb/d, a signficant gain of 456 kb/d over September and 156 kb/d lower than forecast. November production is estimated to have averaged 6.59 mb/d, a gain of another 200 kb/d. Driven by increases from recently commissioned fields, production in December and in 1Q98 is forecast to increase further to 6.79 mb/d and 6.81 mb/d respectively.

North Sea Oil Production
(thousand barrels per day)

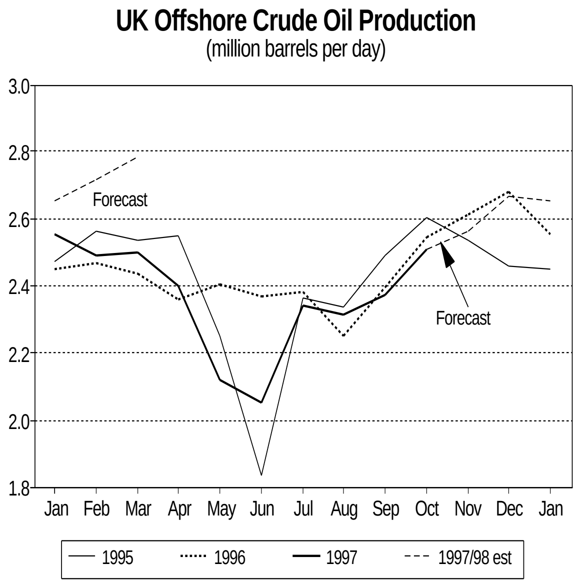
	estimate Nov.	*versus Oct.*	actual Oct.	versus *Sept.*	*versus estimate*
UK	2837	*+62*	2774	*+164*	*-29*
Norway	3472	*+135*	3338	*+291*	*-122*
Denmark	240	*+2*	238	*-1*	*-6*
Other[1]	42	*+1*	41	*+2*	*+1*
Total	**6591**	***+200***	**6391**	***+456***	***-156***

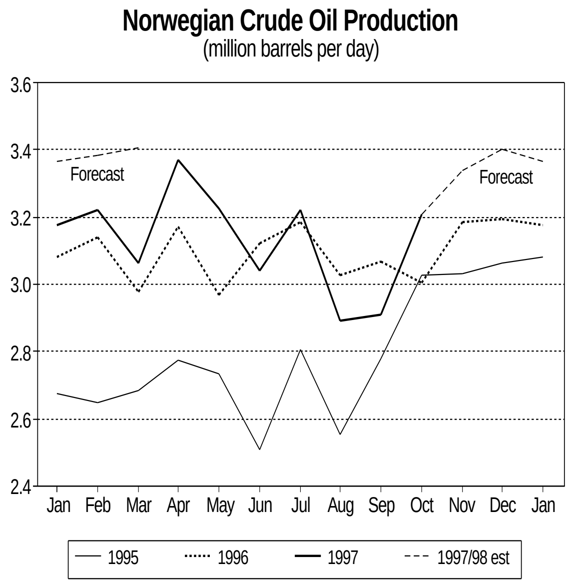
1 offshore Netherlands crude and NGLs and offshore German crude

October **UK** crude production averaged 2.51 mb/d, a monthly increase of 136 kb/d but 26 kb/d lower than forecast. Most of the increment (+77 kb/d) was due to “Other Offshore” fields, with significant contributions from Captain (+23 kb/d to a new record of 38 kb/d) and Alba (+19 kb/d) due to a platform capacity expansion and a new well coming onstream. The Beryl field also gained 15 kb/d and the Douglas/Lennox development at Liverpool Bay rose by 14 kb/d as it recovered from depressed levels in August and September. Output from the Ninian System rose by 38 kb/d on the strength of the increases at Magnus (+17 kb/d), Strathspey (+9 kb/d) and Ninian (+7 kb/d) fields. Flotta System supply also gained significantly (+33 kb/d) as the Piper, Claymore and Saltire fields all posted gains of between 9 kb/d and 15 kb/d. Despite initial production from the Kingfisher, Sedgewick/Brae West, Armada and Erskine fields, which all commenced operations during October, Forties System production fell by 12 kb/d.

November UK crude production is estimated at 2.56 mb/d, a gain of 53 kb/d. Forties System output is thought to have risen by the same amount, with production from the new fields increasing and normal levels assumed elsewhere. Supply from “Other Offshore” fields is estimated to have increased by 36 kb/d, including increments from Liverpool Bay (+13 kb/d), Fife/Fergus (+10 kb/d) and Captain (+9 kb/d). Just weeks ahead of expected severe winter weather, the oft-delayed Foinaven field came onstream on 26 November, marking the opening of the West of Shetlands province. Initial output of 15 kb/d is expected to reach 90 kb/d within a couple of months, although full capacity of 120 kb/d may be reached later next year. The Curlew field also came onstream on 22 November and is expected to build production fairly rapidly to a plateau level of 45 kb/d. Start-up of Mallard, another offshore-loaded field (15 kb/d plateau) is expected this month. Downward revisions to the November estimate are possible, as unspecified operational problems were reported in the Brent System. UK crude production for December and for 1Q98 is forecast at 2.66 mb/d and 2.72 mb/d respectively, as the 2H97 start-ups build output.

According to preliminary data, October **Norwegian** crude production averaged 3.21 mb/d, an increase of 297 kb/d and 115 kb/d lower than forecast. All of the significant monthly changes took place in the Statfjord-Gullfaks Area, where production rose by 334 kb/d to 1.23 mb/d, as the Statfjord, Snorre (which is tied into Statfjord) and Gullfaks fields returned from heavy maintenance programs that lowered production in August and September. Despite the impressive rebound, output from the three fields had been expected to increase even further, by a combined 73 kb/d. Also in the Statfjord-Gullfaks Area, the Vigdis field rose by 59 kb/d to 71 kb/d, as its gas compressor problems were reportedly solved. In the Haltenbanken area off central Norway, the 70 kb/d Njord field came onstream (during the evening of 30 September), with October production estimated at 10 kb/d (the reported figure was considered subject to considerable revision).



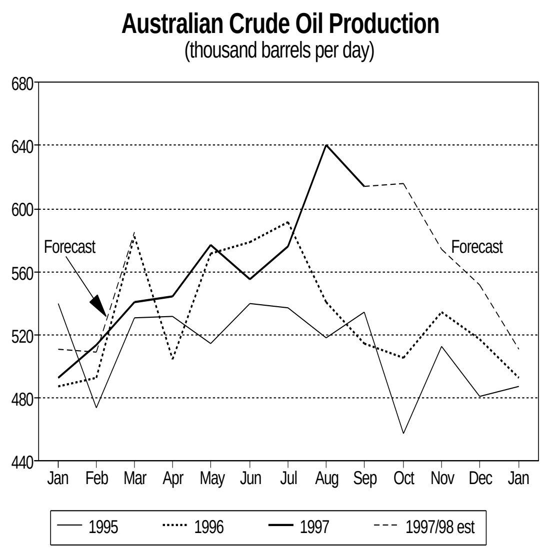


November Norwegian crude production is estimated at 3.34 mb/d, a gain of 128 kb/d. Gains were thought to have been spread throughout the Norwegian sector but, once again, are assumed to have been concentrated in the Statfjord-Gullfaks Area (+69 kb/d), as the three fields discussed above completed their return to normal production levels. Another Haltenbanken field, Norne, started up during November. Details of the pace of the production buildup were announced and resulted in a downward revision to what had been already considered a conservative forecast. The 190-200 kb/d plateau will not be reached until a year from now, with production growing by around 15 kb/d each month, as new wells are started up. Previously, the plateau was expected in May. As with the UK, downward revisions to the November estimate are possible, due to the unclear impact of poor weather conditions during the month. Norwegian crude production for December and for 1Q98 is forecast at 3.40 mb/d and 3.39 mb/d respectively.

Danish crude oil production fell by 1 kb/d in October to 238 kb/d. Small increases in the Dan and Tyra Areas were offset by a decrease in the Gorm area. Output in November and December is estimated at 240 kb/d and 242 kb/d. A small gain to 246 kb/d is expected in 1Q98, due to ongoing development work at the Dan field and continued growth at the relatively new Harald field. Further increases in Denmark next year will be driven by two new fields, Lulita and Siri, expected onstream in May and November respectively. **Dutch** crude oil production, excluding condensate from the P18 field, rose by 2 kb/d in October to 26 kb/d, as output at the F3-FB field rose. Supply in November, December and 1Q98 is estimated to hold steady at 24 kb/d. The 20 kb/d F2-5 field is expected onstream in August 1998 and should push Dutch crude supply to 38 kb/d by 4Q98.

Pacific

Australian crude oil production fell by 27 kb/d in September to 614 kb/d, due to a 29 kb/d decrease in output at the Wanaea/Cossack fields. Persistent problems in the gas handling systems have affected the Wanaea/Cossack project all year and with the exception of the 86 kb/d production level seen in August, output has fluctuated within the 50-70 kb/d range. Australian production in October is estimated to have averaged 616 kb/d, little changed from September. In November, however, output is estimated to have fallen by 42 kb/d to 574 kb/d, due to a mechanical failure and engine room fire at the offshore Griffin field's floating production vessel *Griffin Venture*. The incident occurred on 10 November and production for the month is estimated at 15 kb/d, down from 55 kb/d in October. The vessel is being towed to Singapore



for repairs. Griffin production is not expected to resume until March 1998 and this date may well be pushed back, since the full extent of the damage and the availability of replacement parts is not yet known.

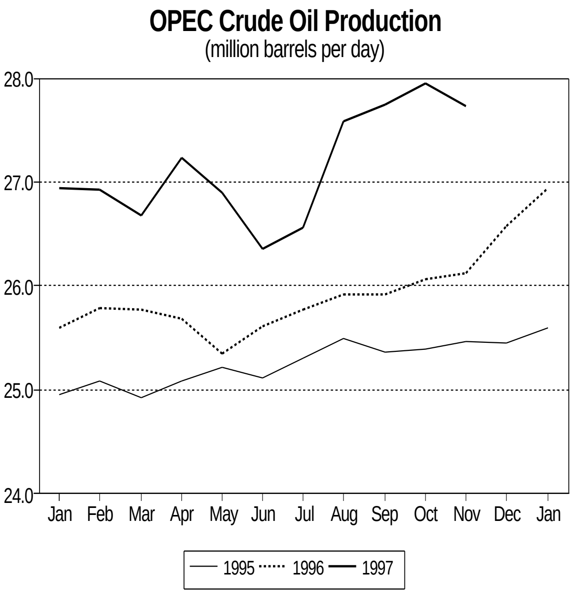
Assuming that scheduled repairs and maintenance will still take Wanaea/Cossack out of production in January and February, 1Q98 Australian crude production is expected to average only 511 kb/d, compared 610 kb/d and 580 kb/d in 3Q97 and 4Q97 respectively. Full-year 1998 Australian crude output is expected to average 640 kb/d, a downward revision of 30 kb/d compared to the forecast in last month's Report. The post-repair production level at Wanaea/Cossack has been lowered to 100 kb/d and the start-up of the Elang/Kakatua development in the Timor Gap has been pushed back from 1Q98 to 3Q98.

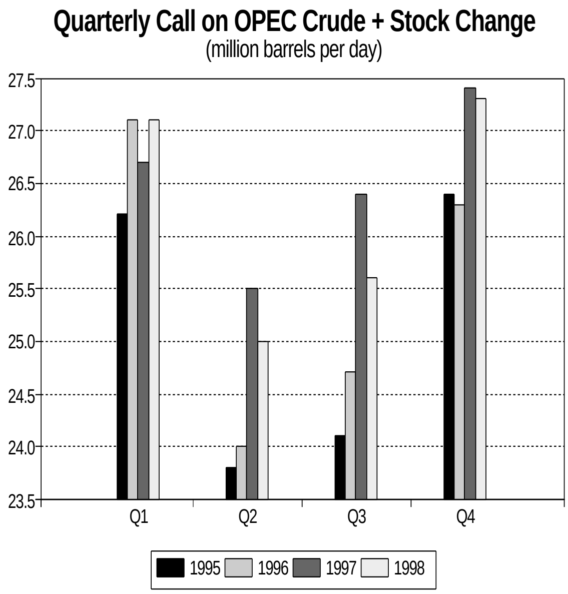
OPEC

OPEC crude production in November is estimated to have averaged 27.73 mb/d, a decrease of 212 kb/d from the October figure of 27.94 mb/d (revised upwards by 177 kb/d). It was the first monthly decrease for OPEC crude since June, when Iraqi exports stopped.

Conversely, at its meeting in Jakarta on 26 November to 1 December, OPEC agreed to raise production quotas by a combined 2.5 mb/d from 25.033 mb/d to 27.5 mb/d. With the exception of Algeria, individual country quotas were raised by 9.5%. Algeria was given a 21.1% increase to 908.5 kb/d. According to the OPEC press release, "the remaining volume of 1,314.08 tb/d [sic kb/d] is to be supplied by Iraq", which also represents a 9.5% increase from the Iraq's previous notional quota of 1.2 mb/d.

The "call on OPEC crude plus stock change" for the last three quarters of this year has been revised upwards by 0.1 mb/d, 0.2 mb/d and 0.2 mb/d respectively. While no change was made to the "call" for 1Q98, the subsequent three quarters were also revised upwards by 0.1 mb/d, 0.2 mb/d and 0.2 mb/d respectively. This resulted in an increase in the average "call" for 1998 of 0.2 mb/d to 26.3 mb/d. Downward revisions to the forecasts for 1998 US, Australian, Brazilian and Ecuadorian production more than offset upward revisions to the Russian forecast for production next year, resulting in a need for more OPEC crude to meet expected world demand.





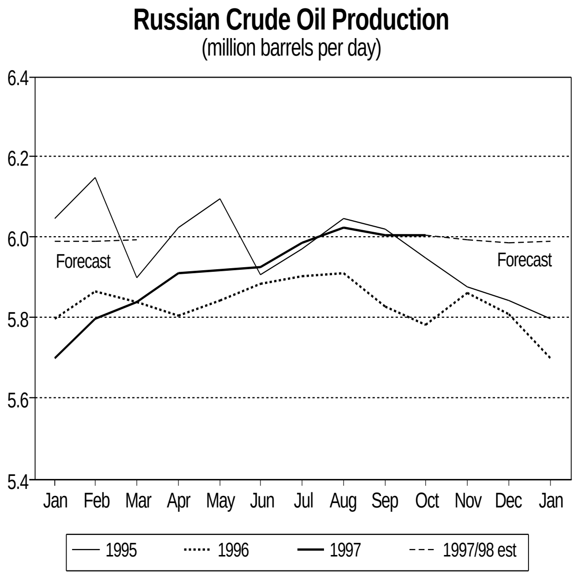
The largest month-to-month changes in OPEC during November were decreases of 235 kb/d each in Iran and Iraq. In **Iran**, crude output in November averaged 3.65 mb/d, down from 3.89 mb/d in October. The October figure was revised upwards by 240 kb/d, as low September supply of 3.45 mb/d was reportedly caused by logistical difficulties (in addition to the technical problems discussed in the Report dated 7 November 1997). Some September Iranian liftings were apparently deferred until October. **Iraqi** crude production averaged 1.34 mb/d in November, as exports averaged 785 kb/d (450 kb/d via Ceyhan and 335 kb/d via Mina Al-Bakr). October production was revised downwards by 62 kb/d to 1.57 mb/d, due to revised export figures of 1.02 mb/d (570 kb/d via Ceyhan and 450 kb/d via Mina Al-Bakr). Iraqi production for domestic use is still considered to be 550 kb/d. **Saudi Arabian** crude production (including output from the Abu Safa field and excluding the Neutral Zone) rose by 105 kb/d in November to 8.1 mb/d. Month-to-month changes in crude production levels for the UAE, Kuwait, the Neutral Zone and Qatar were minimal.

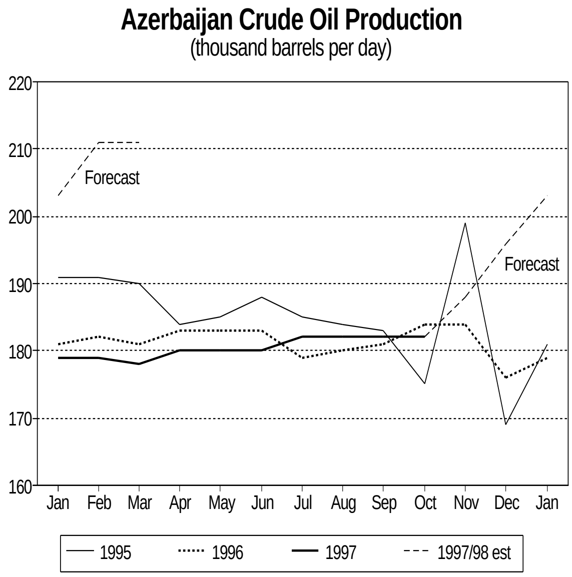
Nigerian crude production is estimated at 2.37 mb/d in November, an increase of 45 kb/d over the previous month (revised upwards by 50 kb/d). Output in all of the main producing regions of the country was thought to have been normal, although reports received at the end of the month suggest that production of Bonny and Forcados grades has been decreasing since the beginning of the year due to ongoing budget problems. If confirmed, these reports introduce downside sensitivity to the Nigerian figures. Tanker-tracking data indicate a gain of 40 kb/d in **Libyan** crude output to 1.43 mb/d. Similar data point to a 30 kb/d gain in **Indonesian** crude output to 1.36 mb/d. The severe smog problems in Southeast Asia apparently had more of an impact on production than previously thought, as September and October Indonesian crude production was revised downwards by 40 kb/d and 50 kb/d respectively, to 1.35 mb/d and 1.33 mb/d. It was reported that some operating personnel in the oil fields were unable to work full shifts due to the pollution. The smog problem dissipated with the arrival of the rainy season last month, which extinguished most of the fires. **Venezuelan** crude production is estimated at 3.29 mb/d in November, up 30 kb/d.

Former Soviet Union (FSU)

Production

Incorporating production data for Russia, Azerbaijan and Kazakhstan, FSU crude production in October averaged 6.94 mb/d. This is down slightly compared to the 3Q97 average of 6.96 mb/d but significantly higher than the 1Q97 and 2Q97 averages of 6.70 mb/d and 6.88 mb/d. November output is estimated at 6.98 mb/d and, underpinned by flat Russian production and modest increases in output from Azerbaijan and Kazakhstan, December and 1Q98 supply is forecast to be 7.02 mb/d and 7.04 mb/d respectively.





Russian crude production in October averaged 6.01 mb/d, the same level as in September. It was the fourth month in a row that Russian production has remained within a narrow range of 5.99-6.01 mb/d and the sixth consecutive month exceeding 5.91 mb/d. Among the largest Russian companies, the major month-to-month changes were Yukos (down by 16 kb/d) and the Tyumen Company (up by 13 kb/d). Joint-venture production was also steady at 378 kb/d (+3 kb/d). In light of the stabilisation in Russian production seen so far in 1997, the estimates for November, December, and for all of next year have been revised upwards, for a relatively flat production profile of between 5.99-6.02 mb/d. The magnitude of the upward revision was 202 kb/d for 4Q97 and 180 kb/d for 1998. The Russian situation seems to defy the usual logic, since upstream activity indicators including well completions, footage drilled, reserve additions, average water cuts at producing wells and the like do not point to flat production but rather to declining production. Recent performance cannot be ignored however, and more and more credence is given to the economic argument that some of the lost production in recent years was intentionally shut in because paying customers were simply not available. The stabilisation of the Russian economy this year has thus played a direct role in the improving health of the upstream oil sector. As always, there is downside risk in Russia, most recently because of concerns that the Southeast Asian economic difficulties may be affecting investor confidence in other “emerging markets” such as Russia, threatening the macroeconomic recovery that has directly aided oil production.

Azerbaijani crude production was steady at 182 kb/d in October. The start-up of early oil production from Chirag is estimated to have nudged output up to 188 kb/d in November and 196 kb/d this month, with 208 kb/d forecast for 1Q98. Crude production in **Kazakhstan** fell to 445 kb/d (-28 kb/d) in October, as declines were seen at YUTEK (-10 kb/d) and, for the second month in a row, the Tengiz joint venture (-12 kb/d). In November, Kazakhstan’s crude output was estimated at 495 kb/d (+50 kb/d), driven by a 32 kb/d gain at Tengiz. It is thought possible that Tengiz production may have been restrained in September and October because of work needed to tie in the new process modules that are planned to raise production to 180 kb/d by the end of this year. By the end of next year, Tengiz capacity is intended to reach 220 kb/d. Kazakhstan’s crude output is forecast at 534 kb/d in December and 540 kb/d during 1Q98.

Net Exports

Net FSU exports averaged 2.54 mb/d in November, an increase of 191 kb/d from the previous month’s figure, which has been revised downwards by 57 kb/d. The bulk of the recovery came from seaborne exports originating from Black Sea ports, which increased by 121 kb/d from the previous month’s figure (revised downwards by 35 kb/d). Overland exports via the Druzhba Pipeline also rose, by 59 kb/d to 859 kb/d, due to growing refinery demands in the eastern part of Germany.

1995-1997 Net FSU Exports
(million barrels per day)

	1995	1996	1997 f	1Q97	2Q97	3Q97	July	Aug	Sept	Oct r	Nov p
Black Sea Exports*	0.98	1.14	†	1.07	1.16	1.31	1.52	1.33	1.07	0.93	1.05
Baltic Exports	0.61	0.77	†	0.83	0.92	0.76	0.84	0.72	0.73	0.69	0.68
Total Seaborne	**1.59**	**1.91**	†	**1.90**	**2.08**	**2.07**	**2.36**	**2.05**	**1.80**	**1.61**	**1.73**
Druzhba Pipeline**	0.83	0.87	†	0.90	0.82	0.75	0.70	0.75	0.79	0.80	0.86
Total Exports	**2.42**	**2.78**	†	**2.80**	**2.89**	**2.82**	**3.06**	**2.80**	**2.59**	**2.41**	**2.59**
Imports	0.05	0.06	†	0.07	0.05	0.06	0.06	0.07	0.07	0.07	0.05
Net FSU Exports	**2.37**	**2.72**	**2.74**	**2.74**	**2.84**	**2.76**	**3.00**	**2.74**	**2.52**	**2.34**	**2.54**
NB: Crude Oil	1.91	2.12	†	2.14	2.12	2.20	2.29	2.32	1.86	1.70	2.00
Oil Products	0.46	0.61	†	0.60	0.72	0.56	0.72	0.42	0.67	0.65	0.54

* 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[2]

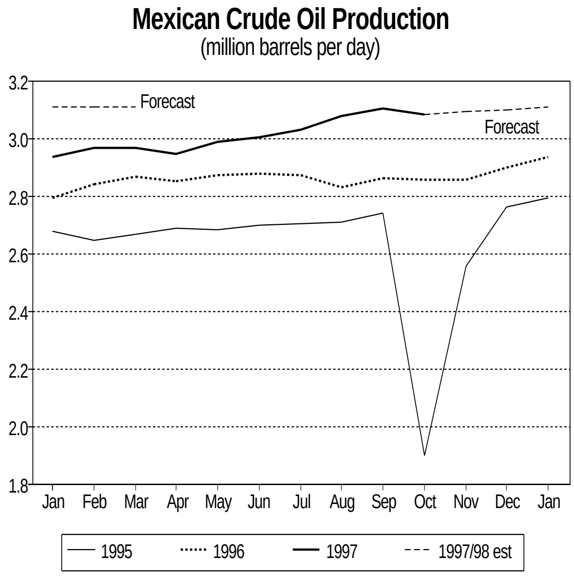
Latin America

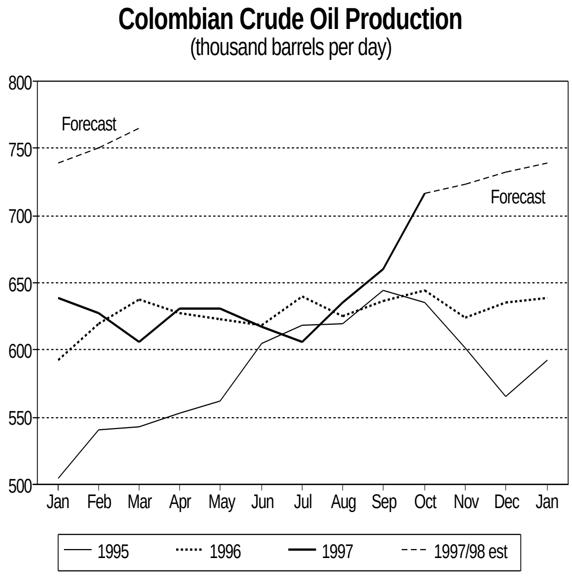
Mexican crude production fell to 3.09 mb/d in October (-18 kb/d) and NGLs output also declined (-16 kb/d). Exports decreased by 88 kb/d to 1.73 mb/d, with volumes destined for the Far East doubling to 115 kb/d. November supply of crude is estimated at 3.10 mb/d, with the forecast for December also at 3.10 mb/d and 1Q98 expected at 3.11 mb/d. NGLs production is expected to grow from 425 kb/d in November and December to 440 kb/d in 1Q98. Recent announcements of a robust Pemex upstream budget for next year bode well for the forecast 1998 versus 1997 crude production increment of 100 kb/d, to 3.13 mb/d. The key short- to medium-term factor in Mexican oil production is investment levels, not reserves. Reserve downgrade reports issued this year by outside consultants hired by Pemex peg reserves at levels that were already expected by resource specialists. The previous higher reserve levels were considered to represent “proved plus probable plus possible reserves” and not “proved reserves”.

Colombian crude production averaged 660 kb/d in September and 717 kb/d in October, believed to be a new record. The October increase was driven by an expansion of Cusiana production to 280 kb/d (+50 kb/d). Cano Limon supply was 164-165 kb/d in both months, constrained by ongoing pipeline attacks. Colombian crude production is estimated at 723 kb/d in November and 733 kb/d in December, with Cusiana assumed to produce at 300 kb/d and 310 kb/d. Three technical issues have been addressed at Cusiana in recent months: compressor problems, pipeline problems, and problems with the settling tanks

2 including some OECD Member countries, see note on back cover

between the wellheads and the in-field gas-oil separators. Colombian 1Q98 crude supply of 752 kb/d assumes continued Cusiana output of 310 kb/d but Cano Limon production returning to 180 kb/d. There is downside sensitivity to Cano Limon because guerrilla activity could continue at a high level until after presidential elections are held next spring.



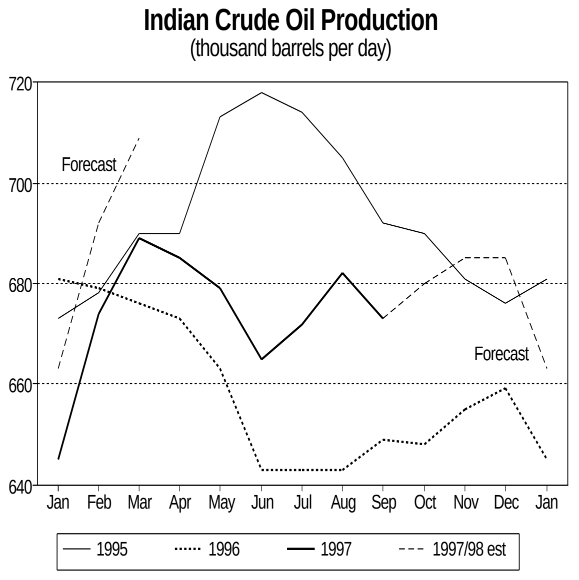


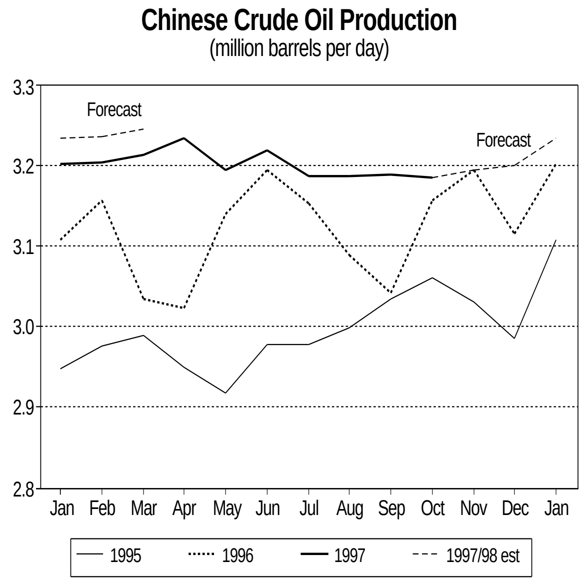
Brazilian crude production averaged 844 kb/d in August (-20 kb/d). Production in the main producing area of the offshore Campos Basin, where new deepwater fields are increasing output, accounted for all the decline. Subsequently, Brazilian crude supply is estimated to have risen from 882 kb/d in September to 912 kb/d in November, and it is forecast at 926 kb/d in December and 955 kb/d for 1Q98. The pace of the production increase in 1998 has been lessened, however, resulting in a 40 kb/d downward revision for next year to 1.0 mb/d. Elsewhere in Latin America, **Peruvian** crude production averaged 115 kb/d in July and 116 kb/d in August but is 9 kb/d below year-earlier levels. Output in **Trinidad and Tobago** fell to 122 kb/d in June from 125 kb/d in May. The forecast for **Ecuadorian** crude production in 1998 was reduced from 420 kb/d to 390 kb/d, due to lowered expectations for any progress towards expansion of the main crude export pipeline, which is currently constraining production.

Asia

Chinese crude production averaged 3.19 mb/d in both September and October, unchanged from August. Offshore production, which fluctuated between 355-360 kb/d during the first four months of this year, has continued in the 310-320 kb/d range where it has remained since May. November production was estimated to have also been 3.19 mb/d, with December forecast at 3.20 mb/d. By the end of this month, the 60 kb/d Lufeng field is expected to come onstream in the South China Sea. Output of this light sweet crude, similar in quality to that of the Indonesian Minas grade, is expected to push Chinese offshore production back up to the levels seen at the beginning of 1997, resulting in 1Q98 Chinese production of 3.24 mb/d.

Indian crude production averaged 682 kb/d in August and 673 kb/d in September, compared to 672 kb/d in July. Offshore Bombay High output continued to slowly erode, averaging 400 kb/d and 396 kb/d during the two months, compared to 414 kb/d in 2Q97. Offsetting increments came from private- and joint-venture production, which reached 52 kb/d and 46 kb/d respectively. This compares to 33 kb/d in 1Q97 and 10 kb/d in 1Q96. Indian crude production is estimated at 683 kb/d in 4Q97 and 688 kb/d in 1Q98.





In other Asian countries, **Vietnamese** crude production was reported at 197 kb/d in October, due to a strong rebound from late-September/early-October maintenance at the 180 kb/d Bach Ho field. **Pakistani** crude production was reported at 50 kb/d in November. In **Papua New Guinea**, there is downside to current estimates of 72 kb/d for November and December crude production. The main Kutubu field was reported to be undergoing problems, with reports of a possibility that no cargoes will be available in December.

OECD TRADE

The tables below show crude and product trade by OECD countries in the **first half** of 1997. Hungarian figures are included in OECD categories following the reclassification of Hungary as an OECD country in the Report dated 9 October 1997 (see page 11). Because of data limitations, Mexico, Korea, Poland and the Czech Republic continues to be included in non-OECD.

OECD countries' net oil imports (crude and products) from non-OECD countries in the first half of 1997 increased marginally, by 32 kb/d or 0.15%, from the second half of 1996, to 21.32 mb/d. However, the net imports were 0.57 mb/d above the level of first half 1996 due to strong demand in the first half of 1997 relative to that of a year ago. Notable changes in the first half of 1997 were an increase of crude imports (+0.24 mb/d) and a decrease of product imports (-0.21 mb/d). OECD countries, especially Europe, needed fewer imports because of surplus local products.

Changes in Total OECD Net Oil Import Positions

(million barrels per day)

	1H97	vs. 2H96	vs. 1H96
versus :			
Middle East	10.03	0.32	0.44
Africa	4.45	-0.07	-0.04
Latin America[1]	3.99	0.19	0.25
FSU	1.86	-0.14	0.19
Others[2]	0.99	-0.26	-0.27
Total	**21.32**	**0.03**	**0.57**
Crude Oil	*19.40*	*0.24*	*0.49*
Products	*1.92*	*-0.21*	*0.08*

1 including Mexico
2 including Korea, Poland and the Czech Republic

Net Oil Import Position by OECD Region in 1H97

(million barrels per day)

	North America	Europe	Pacific	OECD Total
versus :				
Middle East	1.83	3.54	4.66	10.03
Africa	1.98	2.40	0.07	4.45
Latin America[1]	3.63	0.30	0.06	3.99
FSU	0.01	1.84	0.01	1.86
Others[2]	0.05	-0.05	0.99	0.99
Total	**7.50**	**8.04**	**5.79**	**21.32**
Crude Oil	*7.13*	*7.50*	*4.76*	*19.40*
Products	*0.37*	*0.53*	*1.03*	*1.92*

1 including Mexico
2 including Korea, Poland and the Czech Republic

Within OECD, North American net imports accounted for 35% of OECD or 7.5 mb/d. The amount increased by 0.29 mb/d from the previous level. Pacific net imports also rose, by 0.14 mb/d to 5.79 mb/d (27% of OECD). Conversely, European net imports decreased by 0.39 mb/d to 8.04 mb/d (38% of OECD), offsetting most of the increases in the other two regions.

Intra-OECD Net Oil Imports in 1H97

(million barrels per day)

	North America[1]	Europe[2]	Pacific[3]	OECD Total
versus :				
North America	0.16	-1.03	0.06	-0.80
Europe	0.91	-0.23	-0.00	0.68
Pacific	-0.07	0.00	0.02	-0.05
Total	**1.00**	**-1.25**	**0.08**	**-0.17**
Crude Oil	*1.03*	*-0.87*	*-0.00*	*0.16*
Products	*-0.03*	*-0.39*	*0.08*	*-0.34*

1 excluding Mexico
2 excluding Poland and the Czech Republic
3 excluding Korea

North American net imports of oil from OECD countries reached 1 mb/d, an increase of 0.19 mb/d from the previous level. The growth of 0.19 mb/d in net imports of oil came from the growth of 0.13 mb/d in net imports of crude (to 1.03 mb/d) and the decline of 0.06 mb/d in net exports of products (to 0.03 mb/d). As a result, net imports of crude continued to account for all net imports of oil in the first half of 1997. The bulk of the growth of net imports of oil came from those from Europe (+0.13 mb/d). Pacific net imports of oil from OECD countries stayed low, averaging 0.08 mb/d (+0.01 mb/d). Contrary to the situation in North America, it was product imports that continued to account for all net oil imports in the Pacific. European net exports increased by 0.17 mb/d to 1.25 mb/d, due to higher North Sea production and surplus local products.

Crude Trade

Supported by strong demand, **North American** net imports of crude averaged 8.17 mb/d in the first half of 1997, an increase of 0.34 mb/d from the previous level. Net imports from Latin America and Africa grew by 0.17 mb/d and 0.13 mb/d respectively, while those from the Middle East declined by 0.02 mb/d. Within North America, **US** crude imports expanded by 0.25 mb/d from the previous level to 8.52 mb/d. Venezuela continued to hold the largest share (17.3%), averaging 1.48 mb/d, almost unchanged from the previous level. Saudi Arabia had the second largest share (16.1%) at 1.373 mb/d (almost unchanged). Crude imports from Mexico surged but remained the third largest (1.367 mb/d, +0.12 mb/d), followed by those from Canada (1.12 mb/d, unchanged) and Nigeria (0.88 mb/d, +0.12 mb/d)

Pacific net imports of crude increased by 0.16 mb/d to 4.76 mb/d. Pacific net imports from the Middle East averaged 3.93 mb/d (accounting for 82.5% of Pacific net imports), an increase of 0.23 mb/d from the previous level. Within the Pacific region, **Japanese** crude imports grew by 0.16 mb/d from the previous level to 4.55 mb/d. UAE retained the largest share (26.5%) in the Japanese crude import market, averaging 1.20 mb/d, almost unchanged from the previous level. Saudi Arabia had the second largest share (21.9%) at 0.99 mb/d (+0.12 mb/d) followed by Iran (0.45 mb/d). Another million barrels per day of crude were imported from Kuwait (0.30 mb/d), Qatar (0.30 mb/d), Neutral Zone (0.24 mb/d) and Oman (0.22 mb/d). The total imports from the Middle East averaged 3.74 mb/d (+0.22 mb/d) in the half, and accounted for 82.4% of the total crude imports. Aside from imports from the Middle East, imports from Indonesia and China averaged 0.29 mb/d and 0.22 mb/d respectively.

European net crude imports declined by 0.24 mb/d to 6.64 mb/d. The largest change was observed in net imports from Africa, which decreased by 0.28 mb/d to 2.16 mb/d. Elsewhere, net imports from the Middle East increased by 0.08 mb/d to 3.46 mb/d; net imports from Latin America increased by 0.03 mb/d to 0.32 mb/d; and net imports from FSU increased by 0.02 mb/d to 1.48 mb/d. Net exports to North America and Asia increased by 0.07 mb/d, to 0.86 mb/d, and by 0.05 mb/d, to 0.06 mb/d, respectively.

OECD Net Crude Imports in 1H97
(million barrels per day)

	North America	Europe	Pacific	OECD Total
versus :				
North America	0.16	-0.86	-0.03	-0.74
Europe	0.85	-0.00	0.00	0.85
Pacific	0.02	0.00	0.03	0.06
Middle East	1.80	3.46	3.93	9.19
Africa	1.78	2.16	0.05	3.99
Latin America	3.47	0.32	0.05	3.84
FSU	0.00	1.48	0.00	1.48
Others	0.07	0.09	0.73	0.90
Total	**8.17**	**6.64**	**4.76**	**19.56**

These changes indicate that strong demand in North America shifted African crude from Europe to North America. The decline of European net imports was due to a combination of weak regional demand and higher crude production in the North Sea.

Iraqi Crude Oil Imports by OECD Countries
January 97 - August 97
(kb/d)

	Jan-97	Feb-97	Mar-97	Apr-97	May-97	Jun-97	Jul-97	Aug-97	Average
France	64	158	101	81	153	2	-	63	77
Spain	93	21	96	130	66	33	-	66	63
Turkey	63	132	71	73	80	-	-	-	52
US	-	-	35	71	105	118	90	-	53
Others	73	96	74	178	227	-	6	21	84
Total	**295**	**406**	**377**	**533**	**631**	**154**	**96**	**150**	**329**

Twelve OECD countries imported **Iraqi crude** January 1997 to August 1997 at an average rate of 329 kb/d under the UN “Oil-for-Food” programme. France was the largest importer among these countries, averaging 77 kb/d. Spain was the second at 63 kb/d followed by the US and Turkey. Other importing countries included Australia, Belgium, Greece, Italy, Japan, Netherlands, Portugal and Switzerland.

Product Trade

North American net imports of products increased by 0.15 mb/d to 0.34 mb/d in the first half of 1997. **Pacific** net product imports were almost unchanged at 1.11 mb/d while **European** net imports of products decreased by 0.32 mb/d to 0.15 mb/d.

Although the product changes are more scattered and less clear than those for crude, the background is similar. North American net imports of products from Europe and Africa grew by 0.06 mb/d and 0.04 mb/d respectively, and Europe relied more on its own products, causing decreases of net imports from the FSU (-0.14 mb/d).

OECD Net Product Imports in 1H97
(million barrels per day)

	North America	Europe	Pacific	OECD Total
versus :				
North America	0.00	-0.16	0.10	-0.06
Europe	0.06	-0.23	-0.00	-0.17
Pacific	-0.09	0.00	-0.02	-0.11
Middle East	0.03	0.08	0.73	0.84
Africa	0.19	0.24	0.03	0.46
Latin America	0.16	-0.01	0.01	0.15
FSU	0.01	0.37	0.01	0.39
Others	-0.03	-0.14	0.25	0.09
Total	**0.34**	**0.15**	**1.11**	**1.59**

Note: Detailed trade data used for this section are available in the IEA's Monthly Oil Data Service (see inside back cover of the Report).

Summary of 1H97 OECD Net Oil Imnports
(kb/d)

	OECD North America			OECD Europe			OECD Pacific			Total OECD		
	1H97	vs 2H96	vs 1H96	1H97	vs 2H96	vs 1H96	1H97	vs 2H96	vs 1H96	1H97	vs 2H96	vs 1H96
versus :												
OECD	**1002**	**194**	**-58**	**-1253**	**-167**	**193**	**79**	**10**	**-25**	**-172**	**37**	**110**
North America[1]	160	65	13	-1025	-111	167	62	-4	-49	-804	-49	132
Europe	910	129	-96	-228	-53	24	-0	0	0	682	76	-72
Pacific[2]	-68	-1	25	0	-3	1	17	14	24	-50	10	50
Non-OECD	**7499**	**287**	**687**	**8035**	**-393**	**-37**	**5787**	**137**	**-80**	**21321**	**32**	**570**
Latin America[1]	3631	189	250	302	45	20	60	-43	-22	3994	190	248
Non-OECD Europe[3]	6	2	8	-208	-37	-29	0	0	-2	-202	-35	-23
FSU	13	-22	-6	1844	-119	197	6	-2	-2	1863	-142	188
Middle East	1831	-33	160	3537	89	84	4660	262	195	10027	318	439
Asia[2]	-9	43	9	-83	-88	-6	870	-67	-172	778	-112	-169
China	27	-40	-12	-24	-21	-24	149	-48	-51	151	-109	-87
Africa	1978	171	260	2398	-286	-301	73	42	5	4449	-73	-36
Others	23	-23	18	268	23	23	-30	-5	-32	261	-5	9
Total	**8501**	**481**	**629**	**6782**	**-560**	**156**	**5866**	**148**	**-105**	**21149**	**69**	**680**
Crude	*8166*	*335*	*404*	*6636*	*-238*	*100*	*4760*	*158*	*23*	*19561*	*255*	*526*
Products	*335*	*146*	*225*	*147*	*-322*	*56*	*1106*	*-11*	*-128*	*1588*	*-186*	*154*

1 Mexico is included in Latin America
2 Korea is included in Asia
3 Poland and the Czech Republic are included in Non-OECD Europe

Trade in 3Q97

Preliminary data indicate that OECD net imports of oil from non-OECD averaged 21.49 mb/d in 3Q97, an increase of 0.17 mb/d from the level of the first half 1997. Overall North American and European net imports grew by 0.19 mb/d to 8.69 mb/d and by 0.17 mb/d to 7.23 mb/d respectively. North American imports from Latin America increased by 0.11 mb/d. Pacific imports from the Middle East decreased by 0.29 mb/d, causing a decrease of overall Pacific net imports by the same amount to 5.58 mb/d. These changes directly reflect regional demands in 3Q97.

OECD STOCKS

Industry Stock Changes in October

Oil inventories appear to have been little changed in October from significantly revised end of September levels. Preliminary data from OECD Member countries for October suggest that slowing refinery production and increasing seasonal demand generally led to a drawdown of product stocks, while continued high levels of crude imports caused crude inventories to rise moderately. Oil-in-transit and floating storage eased off end of September highs despite increasing OPEC and non-OPEC supplies. With the large downward revisions to September, the 3Q97 stockbuild is now estimated at a much more modest 265 kb/d versus (900 kb/d in last month's Report). The revisions eliminated the unexpected -0.3 mb/d "miscellaneous-to-balance" in last month's Report, although a small positive miscellaneous-to-balance would be more consistent with a moderate level of stockbuilding in non-OECD countries.

October product stock levels fell in all three OECD regions, but increases in crude oil stocks and stocks of "other oils" in North America and the Pacific more than offset European declines resulting in an 80 kb/d increase in total OECD oil stocks. Among the oil products, rising Pacific gasoline stocks and North American distillate and fuel oil stocks were not sufficient to offset declines in the other regions. Conversely, a marginal increase in European "other products" inventories was substantially less than the declines in North America and the Pacific.

Preliminary Industry Stock Changes in October
(million barrels per day)

	North America	Europe	Pacific	Total
Crude Oil	**+0.17**	**-0.08**	**+0.23**	**+0.32**
Gasoline	0.00	-0.04	+0.02	-0.02
Distillates	+0.01	-0.11	0.00	-0.09
Fuel Oil	+0.01	-0.13	-0.04	-0.16
Other Products	-0.09	+0.01	-0.04	-0.12
Total Products	**-0.07**	**-0.27**	**-0.05**	**-0.39**
Other Oils[1]	+0.14	-0.03	+0.05	+0.04
Total Oil	**+0.24**	**-0.39**	**+0.20**	**+0.08**

1 includes feedstocks, NGLs and other hydrocarbons

End-September stock estimates have been reduced by more than 50 mb and estimated end-August levels have been revised by about half that amount, with adjustments for both months primarily in product stock estimates. In addition to the overall downward revision, there appears to have been a reclassification of US "other product" stocks into the "other oils" category. Slightly more than half of the North American 30 mb decrease in product stocks is thought to be a reclassification, as 13 mb of the 33 mb August revision. Lower estimates for September crude stocks in the smaller European countries and downward adjustments to French, Italian and German product stocks were also significant.

Revision to August and September OECD Industry Stock Levels
(million barrels)

	North America	Europe[2]	Pacific	Total
August				
Crude Oil	+0.3	-6.9	+0.8	-5.9
Products	-32.6	+5.4	0.0	-27.1
Other Oils[1]	+12.8	-4.3	0.0	+8.6
Total Oil	**-19.5**	**-5.8**	**+0.8**	**-24.4**
September				
Crude Oil	-1.1	-17.8	+1.4	-17.5
Products	-30.0	-11.4	-3.5	-44.9
Other Oils[1]	+15.4	-2.5	-1.4	+11.5
Total Oil	**-15.7**	**-31.7**	**-3.5**	**-50.9**

1 includes feedstocks, NGLs and other hydrocarbons
2 adjusted for inclusion of Hungary in OECD Europe

Preliminary Stock Levels at the End of October

OECD industry stocks at the end of October are estimated to have been 2606 mb, 53 mb above last October but only 3 mb higher than the significantly-revised September levels. With the revisions, and small monthly growth, inventories have slipped back below 1995 levels for the comparable month, as positive year-on-year comparisons for North America and the Pacific only offset about half the European shortfall from two years ago. Overall OECD industry stocks are back in the middle of the five-year range (although still on the bottom of the range in terms of days of forward demand), with distillate stocks remaining above the range and fuel oil and crude oil stocks below. Gasoline stocks have moved back into the low end of the five-year range.

Year-on-Year End-October OECD Industry Stock Comparisons
(million barrels)

	North America	Europe	Pacific	Total
Crude Oil	-2	-19	-9	-29
Products	+60	+5	+2	+68
Other Oils[1]	+10	-1	+6	+15
Total Oil	**+69**	**-14**	**+1**	**+53**
vs. 1995	*+9*	*-41*	*+11*	*-21*

1 includes feedstocks, NGLs and other hydrocarbons

Regional Stock Developments

Preliminary data indicate that **US** inventories grew more modestly in October. Product stocks were drawn down marginally as refinery throughput was reduced by maintenance from record levels in 3Q97. A 9.5 mb increase in stocks of crude oil and other refinery inputs more than compensated for a 2 mb decline in oil product stocks, resulting in a stockbuild of 236 kb/d for the month, about 150 kb/d higher than last month's estimate. The product stock decrease was concentrated in "other products", which accounted for 50 kb/d of the 70 kb/d monthly decline in US product stocks. Distillate and fuel oil stocks rose slightly in October, while US gasoline stocks were unchanged. Weekly data from the US DOE for the first three weeks of November, show US inventories declining by 7.7 mb. The reduction occurred despite a nearly 8 mb build in crude oil stocks to 320 mb (excluding US territories). All other categories showed declines, except for a modest 0.2 mb increase in residual fuel oil stocks. Gasoline, distillates and jet fuel inventories were only marginally lower, but the DOE "other oils" category (including both other products and some non-crude refinery inputs) declined by 10 mb versus the end of October and unfinished oils stocks were down by 3.2 mb. The declines in product stocks, and increases in crude oil stocks, are consistent with the apparent reduction in refinery throughput associated with the beginning of winter maintenance, and possibly in response to lower margins in some US markets. Because of the exceedingly high levels of refinery utilisation this summer, the maintenance outages are expected to be longer and deeper than normal, suggesting additional declines in stocks of products, particularly gasoline.

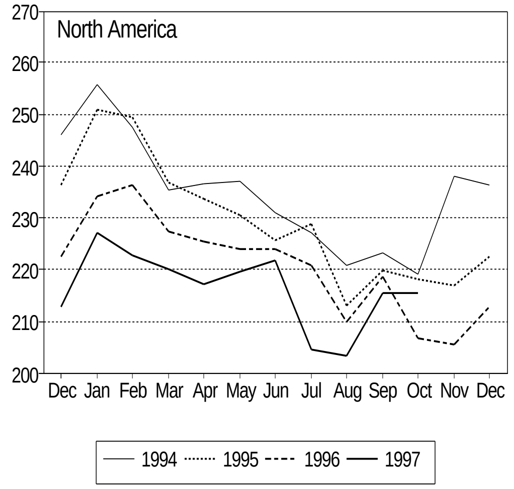
European oil stock levels are substantially lower than estimated in last month's Report due both to the significant revisions to September estimates shown on the previous page and to unexpectedly large declines in October. Germany (-4.7 mb), France (-3.5 mb) and the ten smaller members of the European Union (-3.5 mb) accounted for virtually all of the 11.7 mb monthly decline, as a 2 mb increase in Italian stocks was offset by an equivalent combined reduction in the Netherlands and the UK. Among these other EU Members, the monthly declines appear to have been concentrated in Finland, Austria and Belgium. As with the US, lower European refinery utilisation reduced the supply of products, causing product inventories to be drawn down. But contrary to the US situation, European inventories of crude oil and other refinery inputs also fell, by 2.4 mb and 1.0 mb respectively, and are now a combined 19.7 mb below year-earlier levels. Mild weather in November and already high levels of consumer stocks in Germany may cause stock levels to recover. Declines in oil stocks at electric utilities are also expected to be moderating or even reversing as Italian ENEL's inventory rundown appears to have ended (see Demand section) and increased availability of hydroelectric power in Iberia, following recent heavy rains, is expected to limit the demand for oil in power generation, as will growing North Sea gas use in the UK.

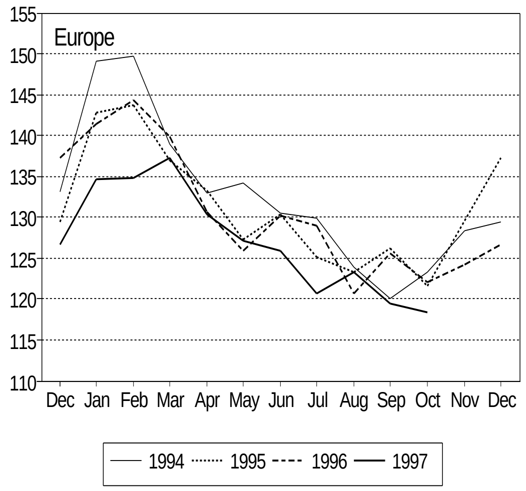
Total **Japanese** industry stocks rose in October, by just under 7 mb. All of the increase was accounted for by changes in crude oil inventories, as a reduction in product stocks was offset by higher stocks of "other oils" (non-crude inputs to refineries). Among the products, fuel oil and "other products" each fell by 1.2 mb, while gasoline rose by 0.7 mb and distillates were up by 0.1 mb. Further increases in light product inventories are considered likely as demand for Japanese light product exports is expected to be constrained by the warm weather in north Asia and relatively high stock levels in Singapore, where total stocks are reported to have reached 12 mb by late November. The stock increase Singapore may be an initial sign of the impact of the financial crises in Thailand and Indonesia.

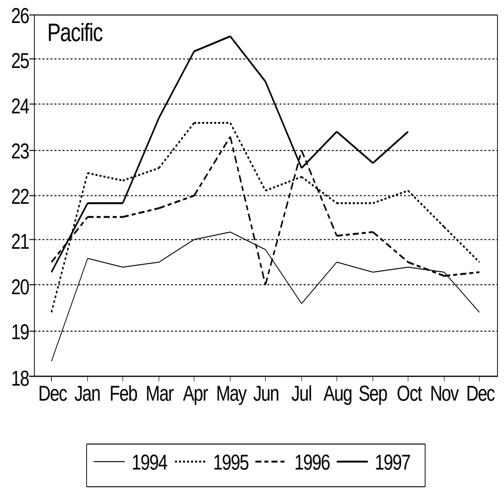
Regional OECD Industry End-Month Stocks: Gasoline and Middle Distillates

(million barrels)

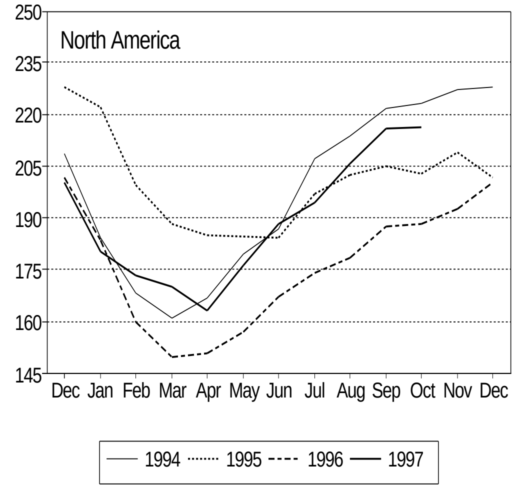
Gasoline

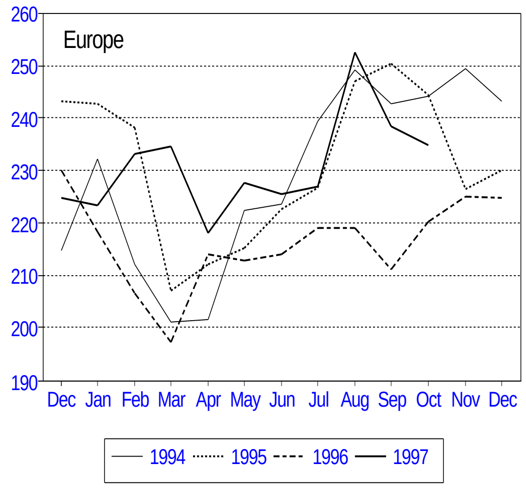


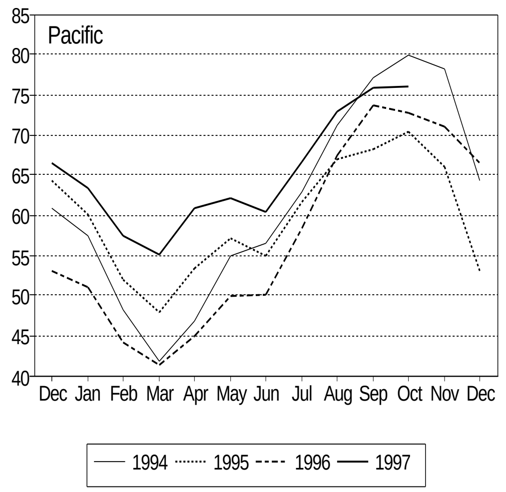




Middle Distillates



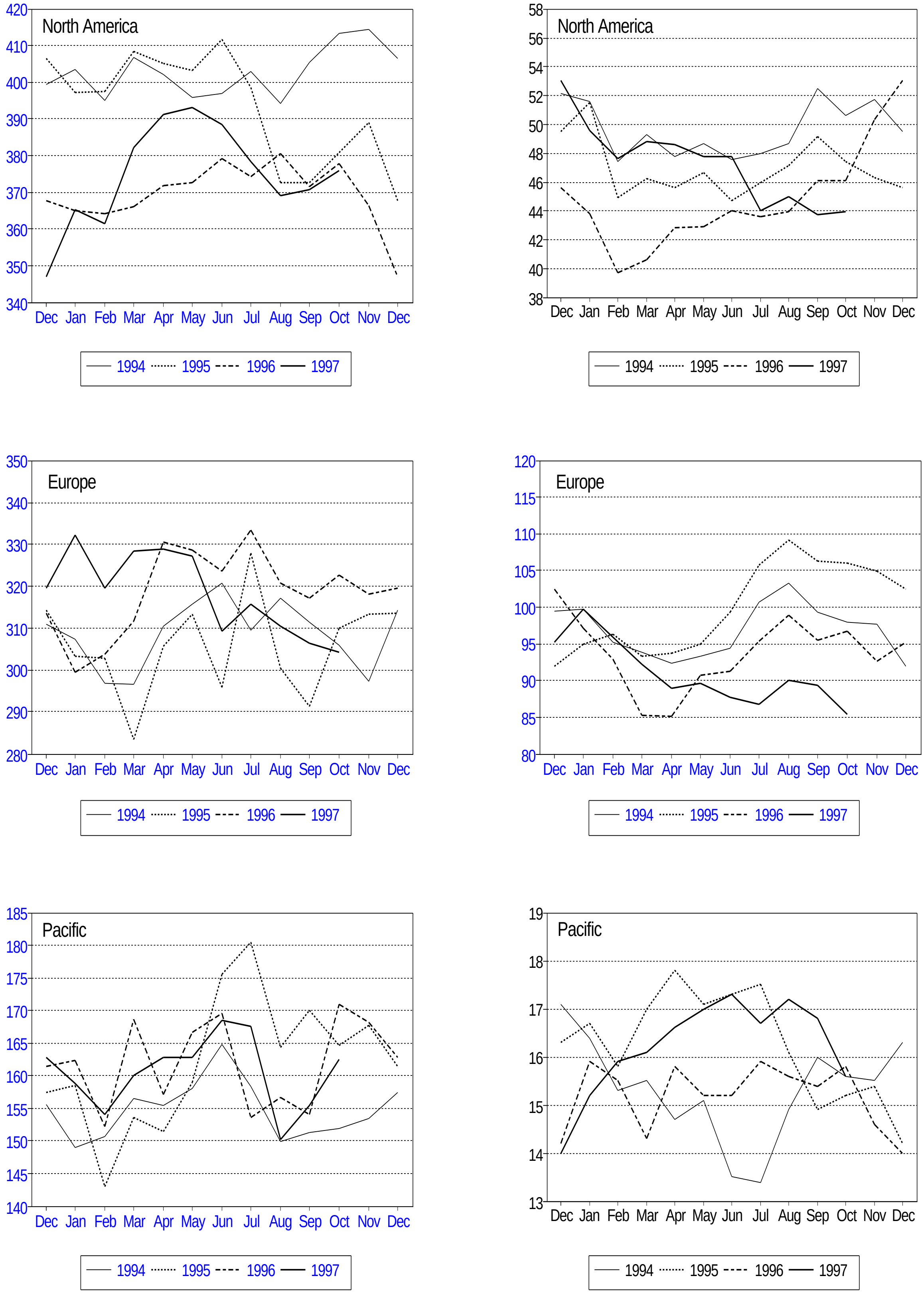




Regional OECD Industry End-Month Stocks: Crude Oil and Fuel Oil

(million barrels)

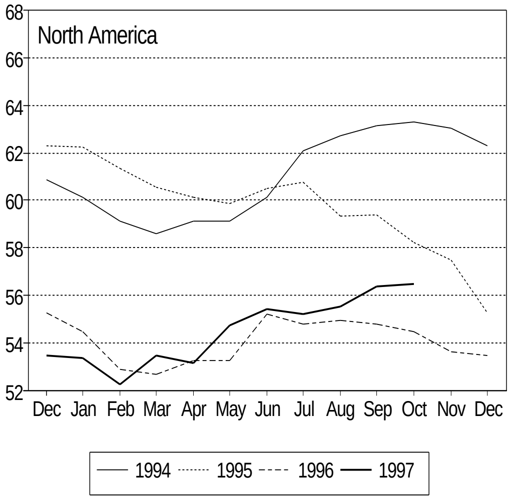
Crude Oil   Fuel Oil

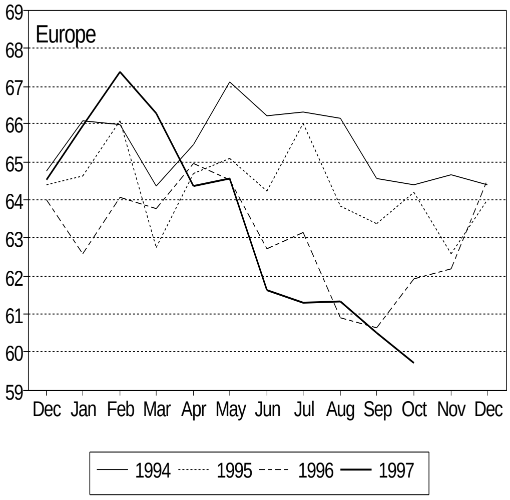


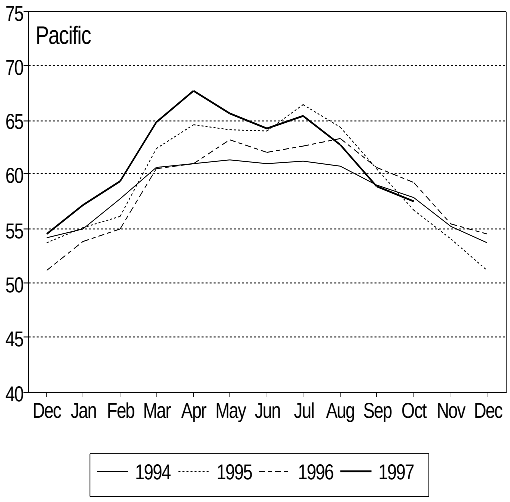
Regional OECD End-Month Industry Stocks

(in days of forward demand and million barrels)

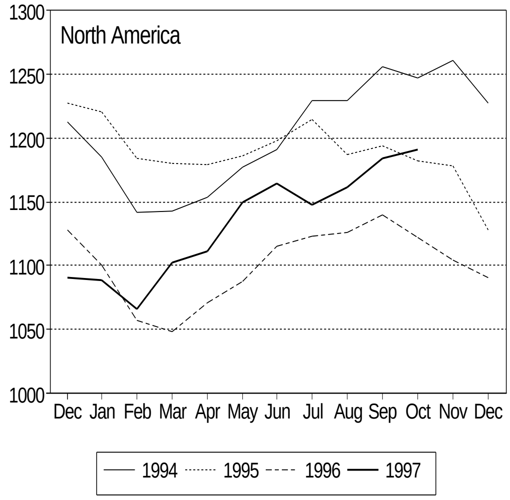
Days[1]

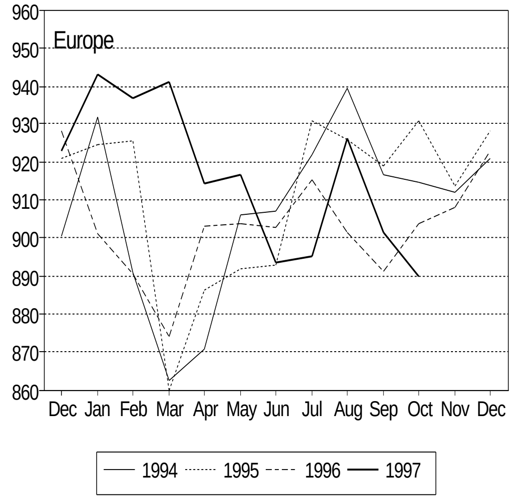


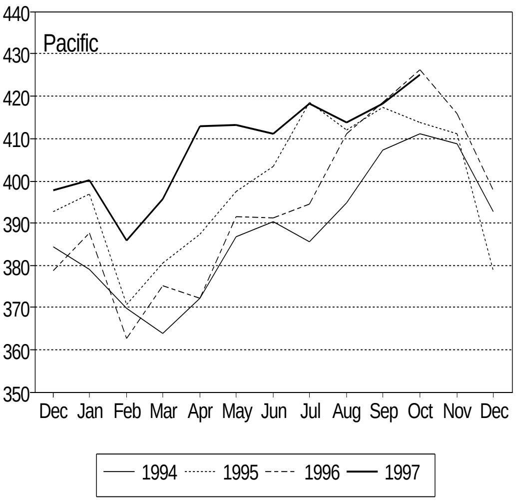




Million Barrels





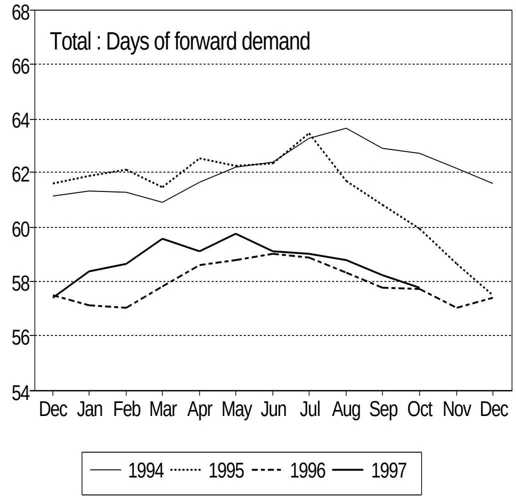


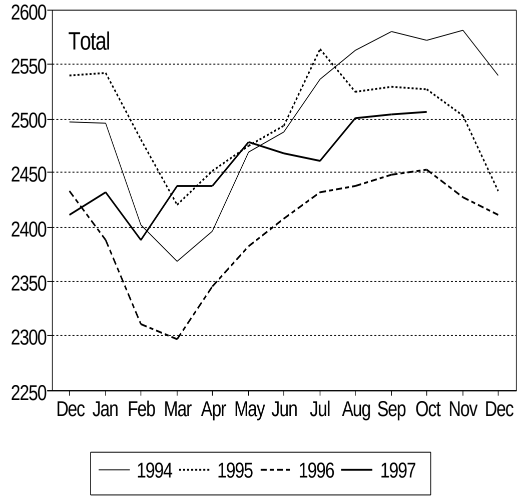
[1] days of total stocks are based on demand for the next three months.

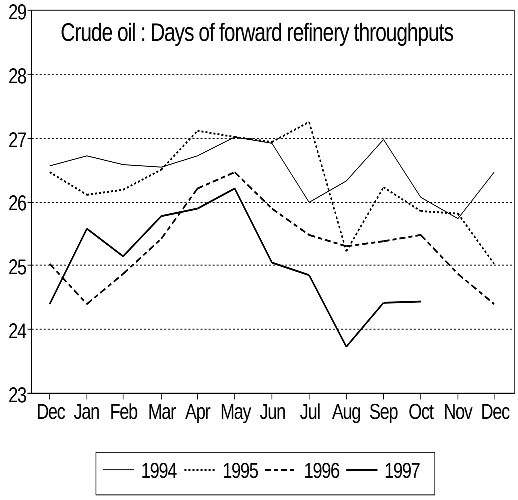
Total OECD End-Month Industry Stocks
(in days and million barrels)

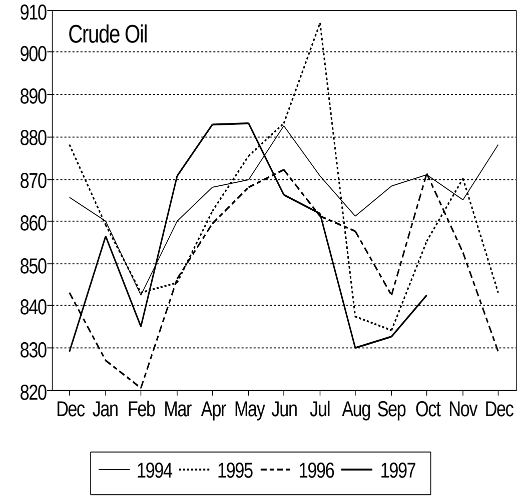
Days[1]

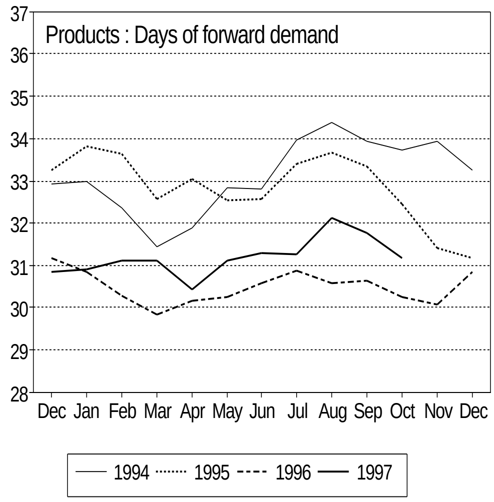
Million Barrels

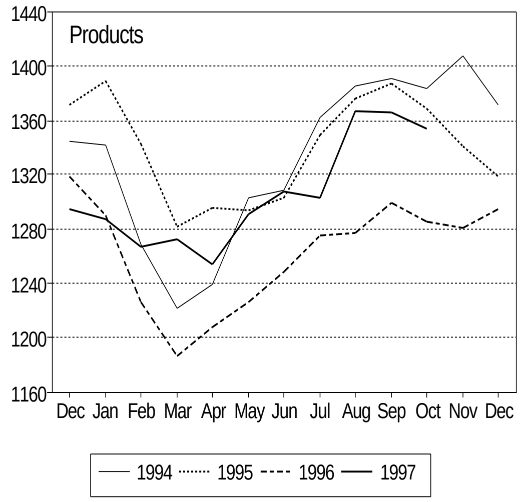












[1] days of total and product stocks are based on demand for the next three months. Days of crude oil stocks are based on refinery throughputs for the next month.

OIL PRICES AND REFINERY ACTIVITY

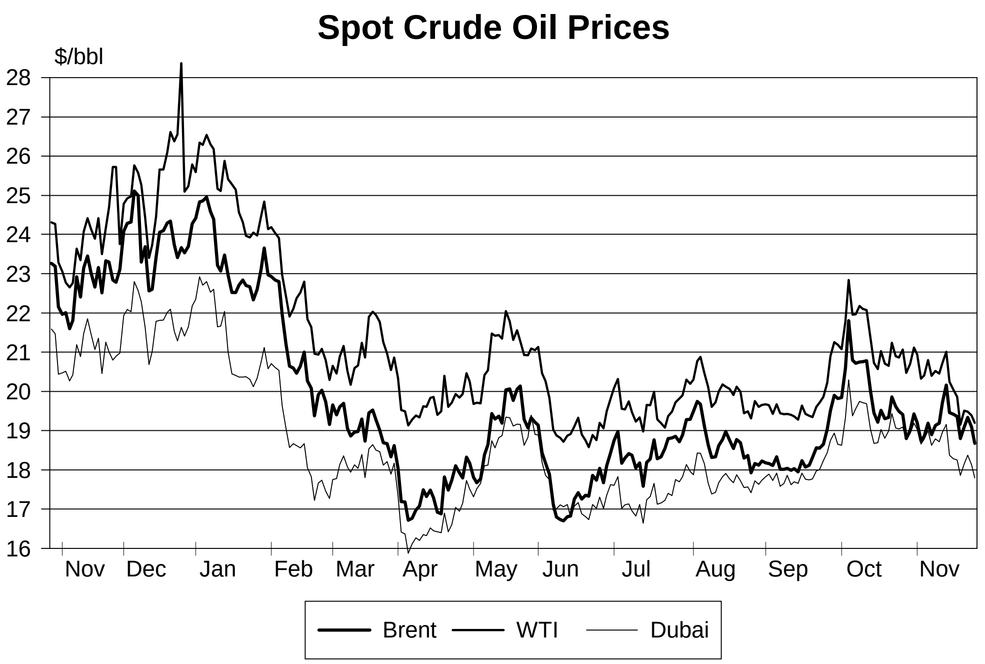
Summary

- Atlantic Basin benchmark **crude oil prices** remained hostage to political events in the first half of November. However, bearish fundamentals underlying oil markets came back into sharp focus by mid-month, as the tensions between Iraq and the UN appeared to ease and benchmark crude oil prices declined by roughly $1/bbl. An increased quota for OPEC and news that an increase the amount of crude oil Iraq is permitted to export was being openly considered by the UN, were further factors fuelling the intensifying bearish sentiment in oil markets by the end of the month. However, firm refiner demand and weather-related tightening availabilities of North Sea crude grades helped to clear an earlier supply overhang of West African and North Sea crude and kept Brent prices little changed at early November levels until the end of the month. Sour crude prices in the Mediterranean continued to strengthen relative to sweet benchmark crude Brent, supported by a combination of strong refiner demand for crude, supply-driven events and underlying product strength in fuel oil markets. By the end of November, the regional sour benchmark crude Urals was traded at a premium to Brent.

- European oil **product markets** provided a mixed picture in November, with gasoline prices weakening seasonally, distillates holding steady and fuel oil remaining exceptionally strong. In the US, prices for most products remained within a narrow trading range, with gasoline performing better than expected at low inventory levels and distillates under performing due to high inventory levels. The earlier exceptional strength in US fuel oil markets waned during the month as a result of competition from plunging natural gas prices. Overall soft Asian product markets were generally soft despite a modest pickup in gasoil demand, as gasoline and kerosene markets continued to weaken.

- Average **refining margins** increased in all major refining centres. On average, crude prices declined by more than most product prices. Strong fuel oil markets caused hydroskimming margins to increase by more than cracking margins. This led to a sharp decline in refinery upgrading economics. The risk premium factored into crude prices during the first half of November and high tanker rates absorbed a major part of what would have been stronger refining margins.

- In October, aggregate refinery **throughputs** in OECD countries are estimated to have decreased by 0.73 mb/d to 34.1 mb/d, but were an impressive 1.4 mb/d or 4.3% higher than a year earlier. Throughput levels in November appear to have increased further in Europe and Japan. Average refinery utilisation in OECD countries declined by two percentage points to 92.2% in October, but nonetheless was almost 3.2 percentage points higher than last October.



Spot Crude Oil Prices

Prices for Atlantic Basin benchmark crudes Brent and West Texas Intermediate remained hostage to political events in the first half of November, as they had been in the second half of October. Persistent and escalating tension between the UN and Iraq surrounding the UN weapons inspection programme kept market anxiety high. In particular, chances for a smooth continuation of Iraqi crude exports in a third UN-Iraq oil-for-food deal in December seemed less likely at that time. On the bearish side, there was downward pressure on prices as the gradually declining crude oversupply in North Sea and West African markets was overshadowed by a Saudi announcement that it would seek a higher OPEC production ceiling at the end of November OPEC meeting.

By mid-month, it became apparent that diplomacy would prevail in the UN/Iraq standoff. Benchmark crude prices thus declined by roughly $1/bbl from the earlier trading ranges. The removal of much of the supply anxiety allowed the market to focus on the bearish fundamental factors, including even a possible expansion of Iraq's humanitarian oil sales and a potential increase in OPEC production. On 29 November, OPEC agreed to increase their quota to 27.5 mb/d from 25.033 mb/d, effective 1 January 1998. However, tightening North Sea crude supplies, as a result of weather-related loading delays and operational problems, combined with firm prompt refiner demand for crude, support Brent prices until just before the OPEC meeting. Brent prices then fell by more than $1/bbl by the first week of December. Nonetheless, Brent prices have declined by a lesser extent than WTI or Dubai since the end of October.

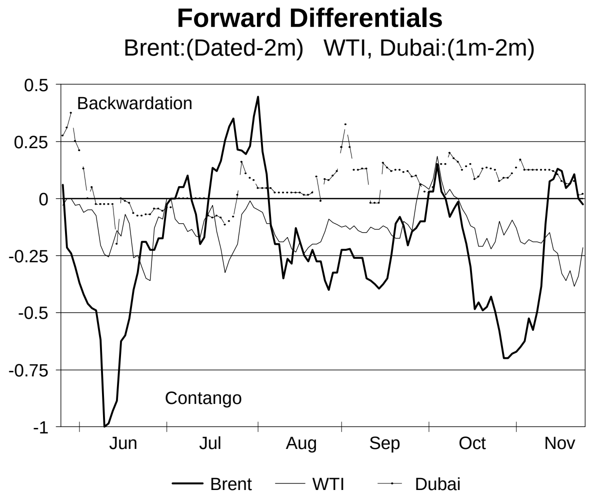
Spot Crude Oil Prices and Differentials
(monthly and weekly averages, $/bbl)

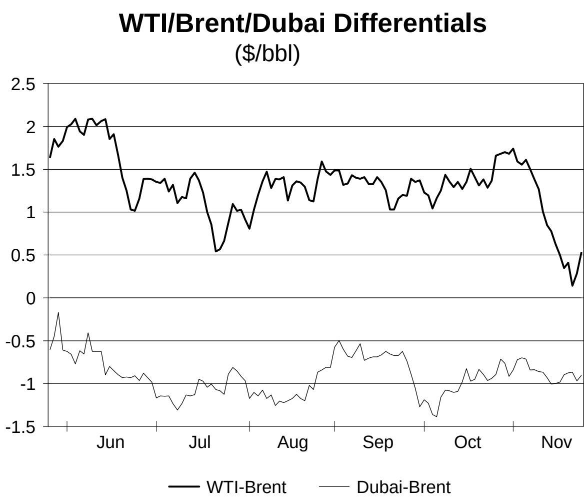
					Week Ending:					
	Sep	Oct	Nov	Change	24 Oct	31 Oct	07 Nov	14 Nov	21 Nov	28 Nov
WTI	19.78	21.31	20.15	-1.16	20.87	20.84	20.62	20.62	19.76	19.36
Brent Dated	18.46	19.93	19.20	-0.73	19.52	19.16	19.00	19.42	19.23	19.04
Urals (del. Mediterranean)	17.70	19.26	19.11	-0.15	18.86	18.65	18.76	19.29	19.21	19.11
Dubai	17.98	19.20	18.53	-0.67	19.07	19.00	18.87	18.85	18.19	18.10
Tapis	19.42	21.32	21.00	-0.32	21.39	21.43	21.38	21.43	20.71	20.28
Brent over Dubai	0.48	0.73	0.67		0.45	0.16	0.13	0.57	1.04	0.94
WTI over Brent	1.32	1.38	0.95		1.35	1.68	1.62	1.20	0.53	0.32
Tapis over Brent	0.96	1.39	1.80		1.87	2.27	2.38	2.01	1.48	1.23
Brent 1st month minus 2nd month	-0.10	-0.07	-0.00		-0.15	-0.29	-0.25	0.02	0.12	0.08
WTI 1st month minus 2nd month	-0.11	-0.07	-0.24		-0.20	-0.12	-0.18	-0.18	-0.29	-0.31

Dated **Brent** prices remained firm throughout the month, reacting more strongly than WTI or Asian benchmark crudes to rising UN/Iraq tensions (particularly in the second week of November), and then being less responsive to the easing of these tensions in mid-November. This strength was the result of firm crude demand from refiners in northern and southern Europe emerging from seasonal turnaround, which led to a swift clearing of the late October and early November crude overhang in North Sea and West African crude markets. A tightness in the Mediterranean sour crude market contributed to firm demand for sweet North Sea and West African crude alternatives from Mediterranean refiners.

In the second half of the month, sweet North Sea crude supplies tightened appreciably due to weather-related loading delays for Norwegian offshore-loading grades and operational problems in the UK Brent system (see Supply section above). This combined with continuing strong European refiner demand for crude to lend extended support to Brent prices and offset the bearish impact of receding tension in the Persian Gulf and the rising prospects of loosening crude supply/demand fundamentals on global crude markets.

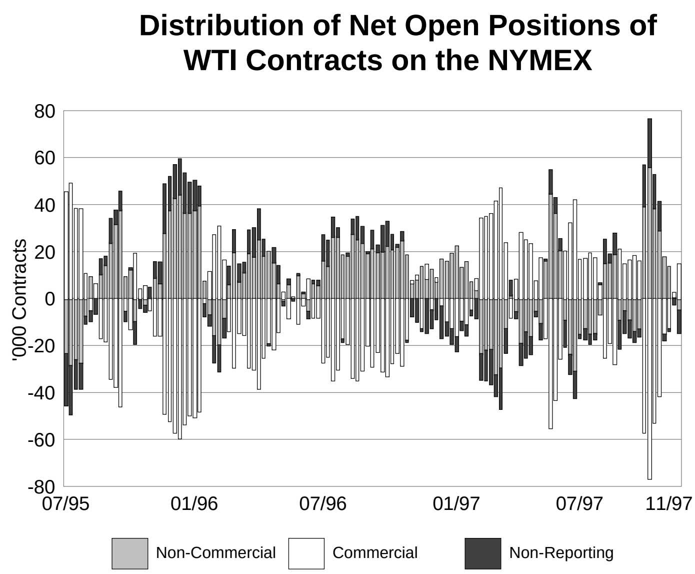
The strength in Brent prices during the first half of November caused a narrowing of dated Brent’s late October discount of almost $0.75/bbl to forward months (see left-hand graph on the following page) and rising supply tightness in the North Sea then led to a brief period of backwardation in the second half of November, with dated Brent trading at a $0.10/bbl premium to forward months. The strength of Brent prices relative to WTI led to near disappearance of the WTI/Brent differential, as shown in the right-hand graph on the following page). This kept the transatlantic arbitrage possibility for North Sea crudes to the US firmly closed throughout the month.





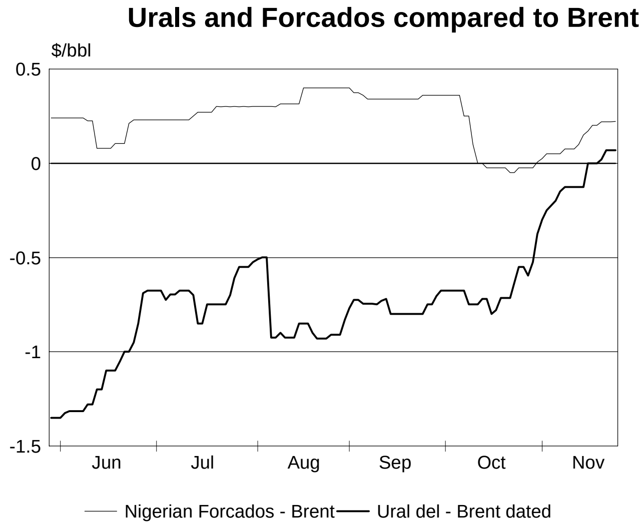
During the four-week period between mid-October and mid-November, **WTI** prices remained firm within a relatively narrow $1/bbl range around $20.70/bbl. Prices were volatile and headline driven, with support by the UN/Iraq dispute more than offsetting bearish fundamentals, such as rising US crude inventory levels as a result of seasonal refinery maintenance. When the UN/Iraq tensions eased by mid-month, WTI prices quickly shed their risk premium and declined by roughly $1/bbl before trading again within a narrow range during the last week of the month. Throughout the month, WTI prices remained in contango, with front month prices at a $0.15-$0.35/bbl discount to second month prices. In the second half of November the contango in the WTI market widened, as shown in the left-hand graph above. The closed arbitrage possibility for North Sea crudes across the Atlantic tightened waterborne supplies of sweet crude on the US Gulf Coast, thus supporting prices for indigenous sweet crude grades relative to WTI.

Traders kept their net positions of WTI contracts on the NYMEX cautiously balanced during the first three weeks of November (see graph to the right) after taking profits by unwinding their large net long positions of mid-October. The group of non-commercial and non-reporting traders changed from holding a net long position during the last couple of weeks (an indication for bullish market sentiment) to holding a net short position (an indication of bearish market sentiment). This group of traders had liquidated their remaining net long position of 12,861 contracts on 4 November and held a net short position of 14,740 contracts on 18 November.



Sour crude prices in the Mediterranean continued to strengthen relative to Brent as shown in the upper graph on the following page, supported by a combination of strong refiner demand, supply-driven events and underlying product strength in fuel oil markets. A postponement of three November-loading Iraqi Kirkuk cargoes out of Ceyhan and disruptions at Russia's main Black Sea export terminal tightened sour crude availability in the Mediterranean appreciably and caused the **Urals** discount to Brent to shrink from $0.50/bbl in late October to parity by the third week of November and, for the first time in twenty months, to a *premium* of $0.07/bbl by the end of November. The latter may also reflect market sentiment anticipating at least a brief disruption in Iraqi crude exports even if the UN and Iraq agree on a third round of crude exports under the "oil-for-food" deal following the expiry of the current round on 4 December.

The steep relative rise in prices for Urals (the only prompt, short-haul sour grade currently available to the Mediterranean in sizeable quantities) caused refiners to seek cheaper and more readily available supply alternatives. This attracted into the region a sizeable amount of North Sea and West African crude grades, which were in abundant supply in late October and early November. The Mediterranean absorbed most of the earlier supply overhang of West African and North Sea cargoes. Sour North Sea grade Flotta was also reported to have been traded unusually to the Mediterranean.



The prompt supply overhang of **West African crude**, which had developed in September and intensified in October was cleared during November. Firm European refiner demand, particularly as a substitute for expensive sour grades in the Mediterranean, added to incremental export possibilities to Asia as exceptionally high freight rates receded. Premia of West African grades to Brent strengthened, as shown by the thin line in the graph above.

Prices for Asian sour benchmark crude **Dubai** weakened slightly during the month relative to Brent prices as shown in the top right-hand graph on the preceding page, mainly as a result of the strength in Brent prices. Weak Asian demand for incremental crude barrels, linked to prospects of a mild winter in northern Asia and amply-supplied regional product markets from additional regional refining capacity, weighed on Middle Eastern crude prices and differentials.

The market for sweet Asian crude grades largely mirrored developments in crude markets outside the North Sea and West Africa, remaining firm and little changed in the first half of the month at comparatively high levels and declining by around $1/bbl following the easing of UN-Iraqi tensions by mid-November. Tightening availabilities of regional light-sweet and medium-sweet crude grades due to production problems in Australia (see Supply section above) and lower export allocations by Indonesia had not affected prices for benchmark crudes **Tapis** and **Minas** by the end of the month. Incremental crude demand in the region remained subdued, in line with the amply-supplied Asian product markets and the expected mild weather.

Freight rates from the Persian Gulf to the east and to the west have declined sharply from their six-year highs reached in late October and early November, as shown in the graph to the right. VLCC fixtures to Rotterdam from the Persian Gulf were down to $1.75/bbl in late November from a early November peak of almost $2.30/bbl, but remained well above levels earlier in the year. Eastbound vessels have seen a similar decline with costs for a VLCC moving to Japan reaching $1/bbl in late November after peaking at $1.71/bbl. Freight rates for **clean product** cargoes across Europe declined to the lowest level in five years, as the clean tanker market came under sustained pressure from an oversupply of tonnage. This in turn triggered a decline in transatlantic rates, which hit a six-year low on 4 November.

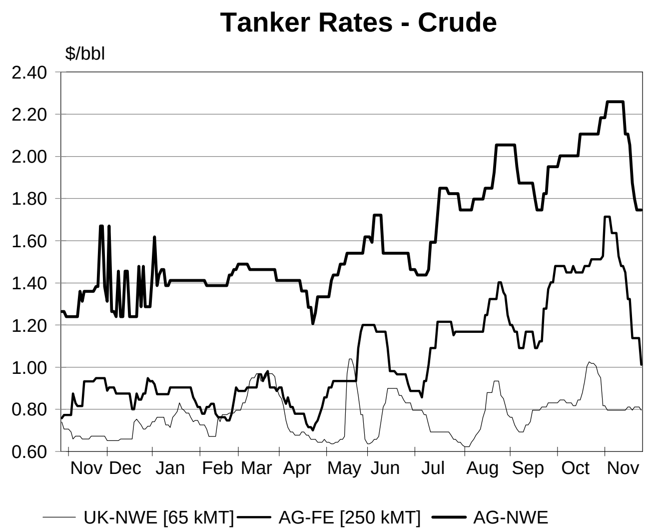


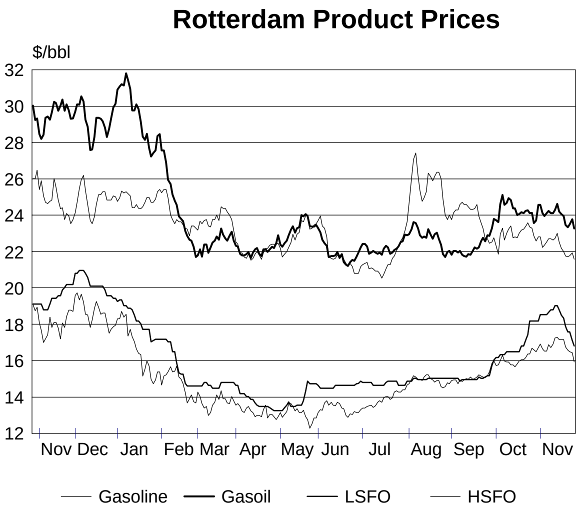
Table 8 shows that the preliminary weighted average **CIF crude import costs** into IEA countries in September was $18.13/bbl, unchanged from the level in August. The corresponding estimates for October and November are $19.39/bbl and $19.10/bbl respectively.

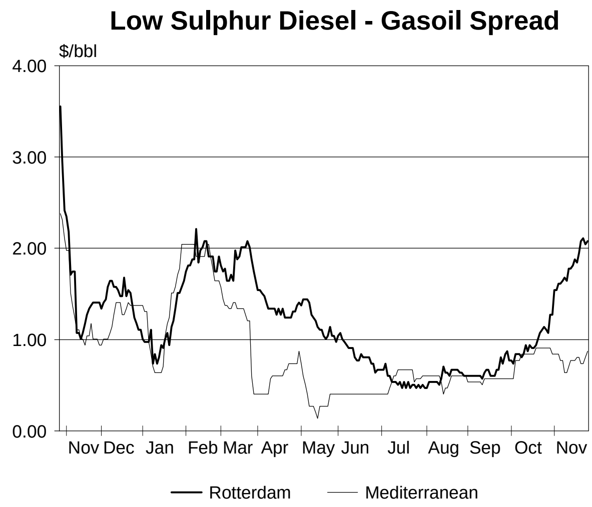
Spot Product Prices in November

Europe

Spot **gasoline** prices in Rotterdam and in the Mediterranean declined during the month. Firm, but seasonally waning regional demand was counter balanced by a lack of arbitrage possibilities to the US and into the Baltic, leaving European gasoline markets amply supplied. European refineries emerging from seasonal turnaround intensified the downward pressure on prices by adding to gasoline supplies and removing maintenance-related refiner demand for gasoline from spot markets. However, relative to crude, average November prices continued to be stronger than last year. At $3.10/bbl, the average regular gasoline/Brent differential in Rotterdam was $1.13/bbl higher than last November, reflecting generally tighter gasoline markets throughout the Atlantic Basin.

European **naphtha** prices declined with gasoline prices amid increasing supplies, subdued regional demand from petrochemical end-users and a closed arbitrage possibility for European naphtha to Asia. In particular, an anticipated return of a condensate splitter from extended turnaround in Rotterdam in December, which is expected to add considerably to naphtha supplies, exerted additional downward pressure on prices. The gasoline/naphtha differential in Rotterdam remained little changed at a low level of around $0.50/bbl, keeping regional **reforming margins** below the threshold for reforming profitability for the second successive month.





Gasoil prices in Northwest Europe again failed to lend much seasonal support to oil markets in November. Muted prompt demand in a well supplied market and stock levels perceived to be at comfortable levels ahead of a potentially mild winter kept prices well below last year's levels. Gasoil prices in Rotterdam remained steady in the first half of the month, but drifted lower in line with benchmark crude prices in the second half of the month. Conversely, tight gasoil supplies and strong demand kept prices firm throughout the month in the Mediterranean. Spot gasoil prices increased slightly relative to October values, diverting Russian exports from Northwest Europe into the Mediterranean. The average gasoil/crude differential in both regional markets increased, as shown in the table below, but remained some $2/bbl below the high levels seen last November.

As shown in the right-hand graph above, one of the most striking developments during the month was the sharp increase in the premia for **diesel** prices versus gasoil in Rotterdam. Although this was primarily a result of the switch to tighter winter grade specifications, additional support was gained from strong prompt diesel demand and tight supplies. The rise of diesel premia even attracted low-sulphur diesel imports from the US.

Spot **kerosene** prices held steady in the Mediterranean and drifted higher in Rotterdam as the strong diesel-to-gasoil premium prompted refiners to maximise low-sulphur diesel production at the expense of kerosene. Tightened kerosene supplies in an active market caused spot prices to rise and attracted arbitrage imports from the US Gulf Coast. The kerosene/gasoil spread in Rotterdam widened from $1/bbl at the start of the month to around $1.80/bbl by the end of November.

Spot **LSFO** prices in Northwest Europe and in the Mediterranean continued to rise well into the first half of November, after increasing appreciably during October in line with export possibilities to the US. Although US demand for European LSFO disappeared, strong buying activity from Italy's electricity sector emerged and from Turkey. In an already tight market, this continued to support LSFO prices and, in Rotterdam, LSFO prices increased to near parity levels with Brent in early November. However, as shown in the left-hand graph on the preceding page, prices decreased appreciably in the second half of November. High refinery throughput levels boosted LSFO production and LSFO imports started to move into the Mediterranean from Northwest Europe, the Middle East and the US. Nonetheless, the average Brent/LSFO differential for November narrowed to $0.91/bbl, the narrowest spread in 22 months.

European **HSFO** prices continued to drift higher in the first half of the month, driven by firm regional demand in a thinly supplied spot market, but declined in the second half of the month in line with lower crude prices. Product tightness was exacerbated early in the month by declining supplies of Russian fuel oil, which was drawn away into strong US markets. The LSFO/HSFO differential in Rotterdam narrowed during the month from $2/bbl to $0.90/bbl, whereas it was little changed in the Mediterranean around an comparatively wide differential of $2.50/bbl.

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
Sep	23.85	25.28	25.88	23.14	22.29	20.84	22.28	23.22	15.09	15.11	16.72	15.88
Oct	22.96	24.07	24.49	25.22	24.27	23.25	24.05	23.87	16.94	16.99	19.31	16.54
Nov	22.30	22.97	23.39	24.08	23.97	23.77	23.64	24.05	18.29	18.42	19.45	17.69
Nov-Oct	-0.67	-1.10	-1.10	-1.14	-0.29	0.51	-0.40	0.18	1.35	1.43	0.14	1.16
Week ending:												
24 Oct	23.34	24.10	23.90	24.98	24.17	23.24	23.75	24.09	17.26	17.16	19.68	16.44
31 Oct	22.89	23.80	23.76	25.11	23.99	23.29	23.68	23.96	18.18	18.10	20.60	17.47
07 Nov	22.47	23.35	23.47	24.80	24.18	23.74	23.81	24.09	18.53	18.70	20.34	17.19
14 Nov	22.75	23.38	23.58	24.56	24.27	24.10	24.13	24.45	18.86	18.92	20.26	18.00
21 Nov	22.03	22.63	23.23	23.62	23.80	23.70	23.51	23.80	18.21	18.37	19.12	18.07
28 Nov	21.76	22.36	23.24	23.08	23.50	23.35	22.84	23.73	17.15	17.31	17.46	17.23

Product Price Differentials to Crude Oil Prices

	Brent	Urals	WTI	Dubai	Brent	Urals	WTI	Dubai	Brent	Urals	WTI	Dubai
Sep	5.39	7.58	6.10	5.16	3.83	3.14	2.51	5.24	-3.37	-2.59	-3.06	-2.10
Oct	3.03	4.81	3.18	6.02	4.34	3.99	2.74	4.67	-2.99	-2.27	-2.00	-2.66
Nov	3.10	3.86	3.24	5.55	4.78	4.66	3.50	5.52	-0.91	-0.69	-0.70	-0.84

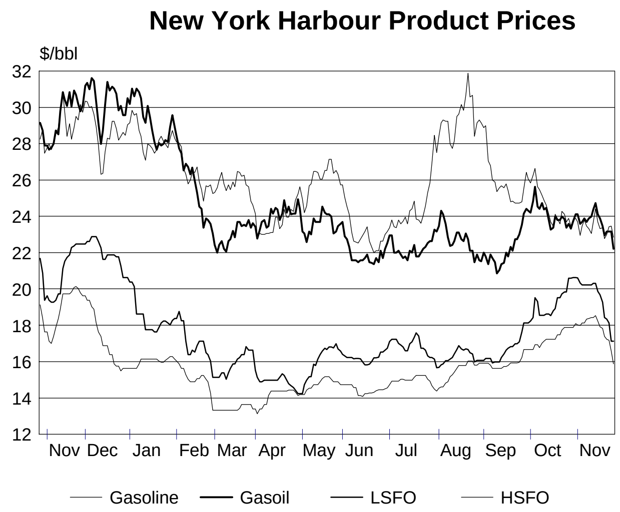
Americas

Spot US **gasoline** prices remained steady in November and traded within a $1/bbl range, largely tracking developments in benchmark crude prices, but gaining modest support from a number of unplanned refinery outages. The regular gasoline/WTI differential trended higher during the month, rising from $3/bbl throughout October to around $4/bbl by the end of November. US gasoline demand continued to exceed expectations in a finely-balanced market (see Demand section above). Although inventory levels were slightly rising, they remained at low enough levels to keep prices vulnerable to volatility. This fuelled the notion that US refiners might need to keep throughput levels high this winter to produce adequate volumes of gasoline, even if mild weather reduced distillate demand. Earlier high premia for gasoline on the US West Coast relative to other US gasoline markets dissipated in November and West Coast supply tightness for regional gasoline grades (which must meet more stringent specifications than in the remainder of the US) eased.

US spot **gasoil** prices also largely tracked developments in regional benchmark crude prices, remaining steady in the first half of the month and declining in the second half, as shown in the graph below. Nonetheless, prices were under downward pressure throughout the month from high gasoil inventory levels, particularly on the US East Coast, and muted regional demand. Persistently high US gasoil production levels (3.51 mb/d on average for the four-week period ending 21 November) raised distillate inventories to a level 15 mb more than year earlier levels. However, gasoil export possibilities to Latin America and Europe (low-sulphur diesel) provided a floor under gasoil prices. Both physical and futures markets for US gasoil remained in contango, encouraging the movement of heating oil into rapidly tightening storage availability as the heating season began. The gasoil/WTI differential increased slightly in November but, as was the case in Europe, remained well below the level of a year earlier.

Spot **kerosene** prices in the US generally followed the pattern of gasoil prices. High kerosene production levels led to an amply-supplied market and kept stocks at relatively high levels except on the US West Coast. West Coast prices spiked in early November as a result of planned and unplanned refinery maintenance. This brief surge in kerosene prices attracted kerosene imports from the US Gulf Coast.

Exceptionally strong spot **LSFO** prices in New York Harbour declined sharply towards the end of the month after rising to near parity levels with WTI in early November (see graph to the right). Utility demand for LSFO on the East Coast and in Florida waned as a result of mild weather on the Atlantic Coast and the related slumping of US natural gas prices. With the lower prices, not only did the arbitrage possibility for imports from Europe close, but strong European LSFO prices caused the trade flow to reverse in response to export possibilities from the US to the Mediterranean.



HSFO prices in New York Harbour and on the US Gulf Coast peaked in early November at the highest level since last December, reflecting a tightening HSFO supply/demand balance. Firm bunker demand and HSFO export possibilities to Latin America (due to planned and unplanned regional refinery maintenance and drought-related hydroelectric availability) were the main factors supporting prices. However, towards the end of November, prices declined by more than $2/bbl amid waning export possibilities and increased US production levels.

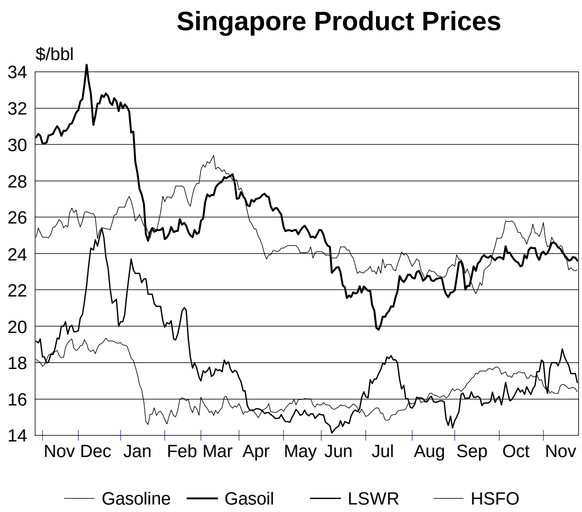
Asia-Pacific

Earlier supply-related strength in the Singapore **gasoline** market faded in November and spot prices declined by more than $2/bbl during the month. Low regional demand from traditional gasoline importers and dissipating maintenance-related refiner demand for gasoline from Indonesia and Malaysia contributed to a build-up of unsold production in the region despite an apparent slowdown of Chinese and Korean gasoline exports. The average gasoline/Dubai differential in Singapore declined to $5.55/bbl but remained $0.95/bbl higher than last November and higher than in Europe and the US.

Spot Singapore **naphtha** prices remained little changed during November. Prompt demand was muted as most spot requirements by petrochemical end-users have been covered for the remainder of the year. Incremental regional demand was easily satisfied by regional naphtha availability, especially from increased production by Korean and Japanese refiners. The arbitrage possibility from Europe remained firmly closed for all but the last week of the month, when some naphtha cargoes from the Mediterranean reportedly were fixed for late January arrival. The gasoline/naphtha differential in Singapore, representative of regional **reforming margins**, declined steadily during the month due to firm naphtha and weakening gasoline prices and remained below the threshold of reforming profitability during most of the month.

Spot **gasoil** prices in Singapore moved within a very narrow band around the average of $24.30/bbl during the first half and $23.80/bbl during the second half of the month. Increased trader demand for gasoil, particularly into China and India, was met mainly by Korean and Thai refiners, leaving Singapore refiners with an acute gasoil supply overhang. This resulted in high and mounting gasoil inventory levels in Singapore which exerted downward pressure on spot prices. Nonetheless, the average gasoil/Dubai differential in Singapore increased in November to $5.52/bbl, but remained substantially lower than last November's value of $9.78/bbl.

Spot **kerosene** prices in Singapore declined sharply in the second half of November, shedding more than $2/bbl. They had increased appreciably in late October and early November as a result of rising tension between the UN and Iraq, but once the tension surrounding the UN/Iraq standoff eased, markets focussed again on fundamentals. Those fundamentals included declining regional jet fuel demand, poor kerosene demand from northern Asia in anticipation of a mild winter and high regional kerosene inventory levels. The kerosene/gasoil differential in Singapore consequently narrowed from more than $2/bbl in early November to below parity by the end of the month.



Spot **HSFO** prices in Singapore remained little changed during most of November after declining in late October in response to incoming cargoes from the Middle East, Latin America and South Africa. Rising regional inventory levels combined with soft regional demand and additional uncommitted incoming cargoes, especially from the Middle East, may lead to further weakness.

Average **LSWR** (Low Sulphur Waxy Residue) prices in Singapore increased slightly in November, but the regional LSWR market continued to suffer from ample supplies, scant regional demand and the closure of earlier arbitrage possibilities for exports to the US. Spot prices largely followed developments in benchmark crude oil prices, remaining steady during most of the first half of the month and declining in the second half.

End-User Product Prices

November mid-month end-user prices for **gasoline** decreased slightly in local currencies in nearly all countries shown in Table 9, following the price decline in international spot gasoline markets. The two exceptions were France, where prices increased slightly, and Japan, where gasoline prices remained unchanged as did distillate and heavy fuel oil prices. Despite their decline, gasoline prices remained above summer levels in most European countries. The steepest decline in prices occurred in Canada and the US. A week long truckers' strike in France in early November disrupted the distribution of oil products, causing temporary but severe shortages of transportation fuels at retail outlets.

Mid-month **automotive diesel** end-user prices and **heating oil** prices increased slightly in local currencies in almost all European countries. The exception was the UK, where diesel prices declined slightly. European heating oil prices reached the highest level since February. Mid-month **heavy fuel oil** prices to industrial users in Europe continued their sustained upward trend, with appreciable increases in November tracking the exceptional strength in European spot fuel oil markets. The steepest increases occurred in France and Italy.

Monthly End-User Product Price Changes - November 1997 versus October 1997

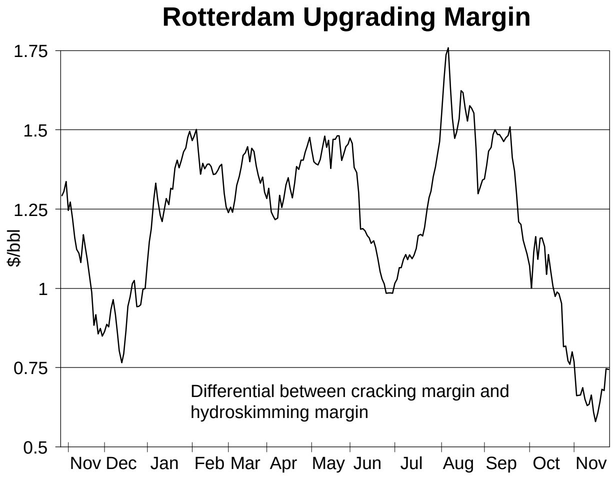
Local Currency Including Taxes

	Gasoline[1] per Litre		Automotive Diesel[3] per Litre		Domestic Heating Oil per 1000 Litres		HFO for Industry[5] per Metric Ton	
US	-0.007[2]	-2.0%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Canada	-0.016	-2.7%	0	0.0%	n.a.	n.a.	n.a.	n.a.
France	0.012	0.2%	0.040	1.1%	36.2	1.6%	52.0	6.4%
Germany	-0.003	-0.2%	0.008	0.7%	3.6	0.7%	9.9	4.1%
Italy	-3.00	-0.2%	3.34	0.3%	13000	0.9%	18000	6.3%
Spain	-0.40	-0.3%	0.070	0.1%	56	0.1%	1160	5.0%
UK	-0.002	-0.3%	-0.002	-0.4%	1.40	0.9%	1.38	1.5%
Japan	0	0.0%	0	0.0%	0[4]	0.0%	0	0.0%

1 premium leaded gasoline for France, Italy, Spain, UK; regular unleaded gasoline for Canada, Germany, Japan and USA
2 estimated
3 VAT excluded where it is refundable: HFO for Industry, Automotive Diesel for Industry
4 kerosene
5 high sulphur fuel oil price for France, Spain, UK and Japan; low sulphur fuel oil price for Germany and Italy

Refining Margins in November

European refining margins, which had increased in late October to favourable levels, continued to rise in the first half of November, providing refiners with a strong incentive to boost refinery throughput. Strengthening distillate and particularly fuel oil prices were the main driving forces supporting the rise in margins. In the second half of the month margins retreated slightly, mainly as gasoline and fuel oil prices weakened faster than crude oil prices. The exceptional strength in European fuel oil markets caused hydroskimming margins to increase by appreciably more than cracking margins and the differential between the two margins (see graph to the right) decreased to an unusually narrow average of $0.67/bbl, the lowest upgrading incentive in 21 months. In line with the extraordinary strength in sour crude markets in the Mediterranean, regional Urals-based refining margins increased by less than those in Rotterdam.



On the **US Gulf Coast**, refining margins increased slightly from October's eight-months low. Firm gasoline and distillate prices were the main contributors to the rise and more than offset the effect of weakening fuel oil prices in the second half of the month. The relative strength in dated Brent prices in November caused the Brent-related cracking margin on the US Gulf Coast to decline.

For the fourth successive month, refining margins in **Singapore** remained within a narrow band at unsatisfactory levels (see graph on page 51), although slightly firmer distillate prices and a steep decline in tanker rates contributed to the small increase in average margins. Nonetheless, high distillate and rising gasoline inventories in Singapore kept downward pressure on regional refining margins. Margin levels remained low enough to prompt some Singapore and Thai refiners to keep refinery throughput levels at reduced rates.

Refining Margins in Major Refining Centres
(monthly and weekly averages, $/bbl)

	Sep	Oct	Nov	Change	Week Ending: 24 Oct	31 Oct	07 Nov	14 Nov	21 Nov	28 Nov
NW Europe										
Brent (Hydroskimming)	0.40	0.20	1.14	0.94	0.44	1.04	1.52	1.28	0.97	0.66
Brent (Cracking)	1.77	1.20	1.80	0.60	1.39	1.83	2.21	1.94	1.59	1.39
Mediterranean										
Urals (Hydroskimming)	0.76	0.70	1.27	0.57	1.12	1.57	1.79	1.47	1.07	0.58
Urals (Cracking)	2.18	1.79	2.05	0.26	2.17	2.47	2.58	2.25	1.81	1.42
US Gulf Coast										
Brent (Cracking)	1.84	0.16	0.06	-0.10	0.10	0.34	0.20	0.27	-0.04	-0.30
WTI (Cracking)	1.94	0.43	0.65	0.23	0.48	0.46	0.36	0.52	0.91	0.83
Singapore										
Dubai (Hydroskimming)	0.01	-0.73	-0.42	0.32	-0.55	-0.53	-0.85	-0.70	-0.04	0.01
Dubai (Cracking)	1.61	1.14	1.49	0.36	1.29	1.33	1.12	1.33	1.77	1.79

Refinery Crude Throughputs in October

Despite a 730 kb/d decline from September's upward-revised figure (+150 kb/d), aggregate OECD refinery crude throughputs for October were an estimated 34.1 mb/d, the highest October level in more than nine years. Monthly declines in North America and Europe of 580 kb/d and 240 kb/d respectively were only partly offset by a 110 kb/d increase in Japan (see table below). Total October OECD throughput is estimated to have been an impressive 1.4 mb/d or 4.3% higher than a year earlier. Average refinery utilisation in OECD countries declined by 2 percentage points to 92.2% in October, but was 3.2 percentage points higher than a year earlier.

Refinery Crude Throughput and Utilisation in OECD Countries

	million barrels per day						% change from		utilisation rate**	
	Jun	Jul	Aug	Sep	Oct*	Jan-Oct*	Oct 96	Jan-Oct 96	Oct 97	Oct 96
OECD Europe	12.48	12.76	12.98	12.97	12.73	12.69	0.4	1.4	93.0%	91.8%
France	1.85	1.75	1.81	1.77	1.78	1.77	1.5	5.5	102.6%	101.0%
Germany	1.85	2.00	2.06	2.06	2.09	2.04	-4.6	-3.3	102.2%	103.4%
Italy	1.60	1.61	1.83	1.83	1.69	1.65	1.5	3.0	83.6%	82.4%
Netherlands	1.22	1.22	1.18	1.05	1.19	1.17	15.2	1.3	98.3%	85.3%
UK	1.75	1.83	1.83	1.87	1.71	1.78	-7.5	0.7	92.7%	100.2%
US	15.14	14.96	15.22	15.30	14.93	14.60	4.6	3.0	95.4%	93.6%
Canada	1.38	1.50	1.50	1.63	1.42	1.44	8.4	7.0	76.8%	70.8%
Japan	3.47	4.17	4.33	4.18	4.29	4.26	15.3	3.3	85.6%	74.1%
Australia/New Zealand	0.73	0.76	0.76	0.77	0.76	0.76	5.1	4.5	93.9%	89.4%
OECD Total	33.20	34.15	34.78	34.85	34.12	33.74	4.3	2.6	92.2%	89.0%

1 estimate
2 based on crude throughput and current operable refining capacity

The 240 kb/d decline to 12.7 mb/d suggested by preliminary data on **European** refinery throughputs reflected the onset of seasonal refinery maintenance. Increased throughputs, mainly in the Netherlands (+140 kb/d) and Finland (+130 kb/d) where refineries returned from maintenance shutdowns, were more than offset by decreases in Italy (-140 kb/d), Spain (-120 kb/d), and the UK (-160 kb/d). Nonetheless, October throughputs in OECD Europe were some 50 kb/d or 0.4% higher than last year. European refinery utilisation rates decreased from 94.8% in September to 93.0% in October, but they varied widely between northwestern Europe (97.1%) and southern Europe (85%).

In the **US**, refinery throughputs decreased by 370 kb/d to 14.93 mb/d from their long-term high in September, marking the onset of US refinery turnarounds. Despite the decline, US throughputs were an impressive 650 kb/d or 4.6% higher than a year earlier. Refinery utilisation slipped to 95.4%, based on current operable refining capacity.

Japanese crude throughputs saw an atypical October increase, by 110 kb/d to 4.29 mb/d, as Japanese refiners maintained high throughput levels to take advantage of liberalised oil product export possibilities. Japanese throughputs were 15.3% or 570 kb/d higher than in October 1996.

In November, refinery throughputs are thought to have increased in Japan and Europe, the latter in line with favourable refining margins and fading refinery maintenance. Weekly US statistics up to 21 November suggest that US throughput levels decreased by about 400 kb/d in November in line with the delayed peak in US autumn turnarounds.

Refinery Maintenance Shutdowns

Planned December refinery maintenance shutdowns are declining seasonally in all major refining centres. But in January 1998, some 750 kb/d of refining capacity is expected to be out of operation for maintenance in the US, starting the annual eastwards-moving turnaround cycle in 1H98, with peak outages expected for the US in February, for Europe in March/April and for Japan in June. There is some flexibility in the timing of turnarounds and the extent of maintenance shutdowns, which may well be influenced by product markets, refining margins and weather conditions. This is particularly true for Asia, where weak product markets have been exerting massive downward pressure on refining margins.

Refinery Maintenance Shutdowns (Primary Distillation)
(million barrels per day of nameplate capacity)

	December	January	February
Europe	0.10	0.18	0.18
US	0.49	0.75	n.a.
Middle East	-	-	-
Japan	0.01	0.01	-
Other Asia/Pacific	0.19	0.18	0.10

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

Downstream Industry Developments

US refining company Ultramar Diamond Shamrock announced plans to expand refining capacity. Primary distillation capacity at the firm's three refineries will rise by 30 kb/d, while cracking capacity will also increase by an unspecified amount.

In mid-November, Indonesia's Pertamina restarted the sweet crude distillation unit at its Cilacap refinery. After debottlenecking, its new capacity is 230 kb/d, up 30 kb/d. Together with September's sour crude distillation unit restart after debottlenecking at 118 kb/d (up 18 kb/d), Cilacap's total distillation capacity was raised to 348 kb/d from 300 kb/d.

After more than 32 years of operation, the Mobil Oil Barbados Ltd. refinery will close sometime before its current contract expires in 2000, government and company officials said in a joint statement. The closing date of the refinery will depend on how soon the government can put into place alternative measures for the import and storage of refined product and the export of the small amount (around 1 kb/d) of locally-produced crude. The refinery is located between two major hotels on a site the government hopes to develop for tourism.

The European joint venture of US Mobil and British Petroleum plans a restructuring of its base oil refining business in Europe by the end of 1999. About $15 million will be invested in its UK Coryton refinery to improve lubricant product quality. Mobil/BP also plans to close its UK Llandarcy lubes refinery.

Germany's Wintershall announced plans for a DM115 million ($66 million) expansion and restructuring project at its 70 kb/d Lingen refinery. Two coking plants will be improved and enlarged by mid-1998, allowing the refinery to stop producing heavy fuel oil, while increasing the output of lighter products.

In an effort to encourage Swiss consumers to switch to cleaner fuels, a new "green tax" of $1.12 per barrel is due to be levied as of 1 July 1998, on all heating oil with a sulfur content above 0.1%. The country imports over half of its domestic heating oil requirements, the bulk from Germany and the Netherlands. Although Switzerland is not a member of the European Union, Swiss tax complements the EU's approach, which sets a maximum sulfur content of 0.2%, but allows Member countries to offer incentives for consumers to switch to lower sulfur fuels.

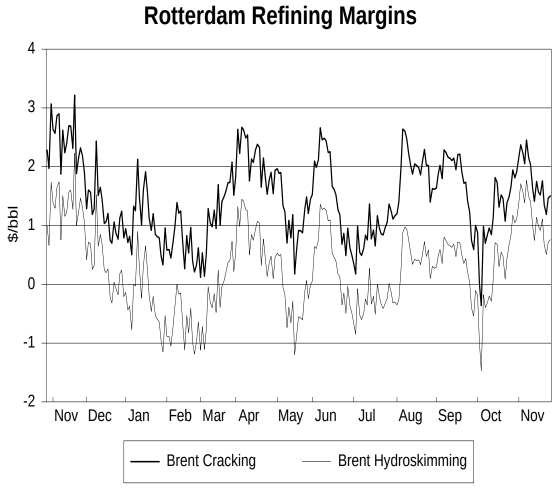
Mexico's state oil company Pemex revealed plans to invest $3.5 billion over the next three years for delayed cokers at four of its six refineries: Cadereyta, Ciudad Madero, Salina Cruz and Minatitlan. These investments will reportedly allow Pemex to increase processing capacity of Maya crude at these locations.

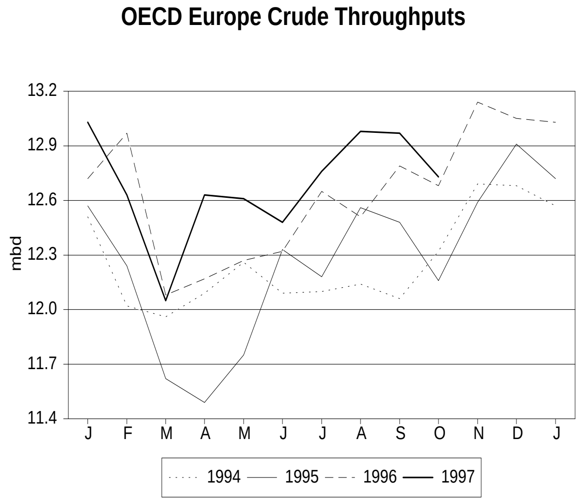
India's Hindustan Petroleum Corp Ltd (HPCL) reportedly will partially restart operations (60-70% throughput) at its fire-damaged refinery at Visakhapatnam by the middle of January 1998. A major fire broke out at the refinery on 14 September, killing at least 56 people, destroying or damaging 19 petroleum product storage tanks and threatening the surrounding area. The refinery is located in the southern state of Andhra Pradesh in a valley encircled by densely populated townships, industries and the headquarters of the Indian Navy's eastern command.

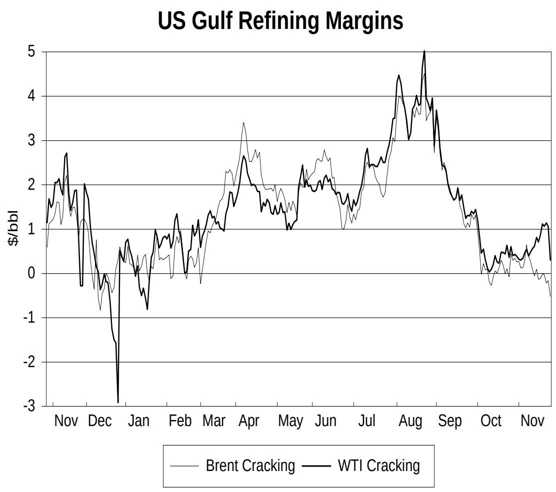
The Indian cabinet approved in November the deregulation of the downstream oil sector and the dismantling by 2002 of the government's administered pricing mechanism. Retail fuel prices will be freed in two phases over four years. State-owned refiner IOC will lose its monopoly on imports and exports of crude and most products, as other companies will be allowed to import fuel and sell directly to consumers. The November cabinet decision also approved a reduction of duties on fuel imports.

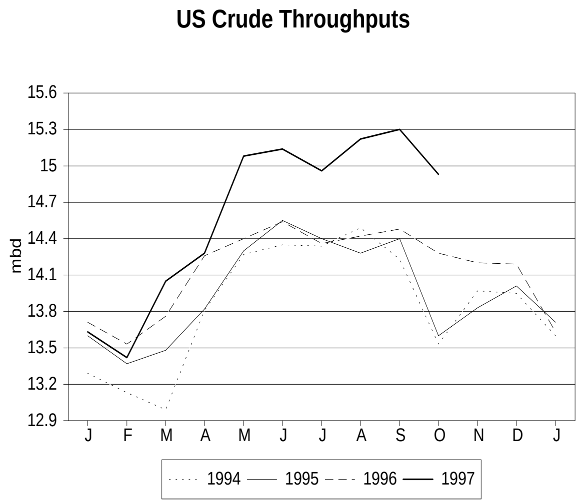
BP, which entered the Thai retail market in 1988, has sold its 48 retail stations to Caltex amid fierce competition inthe gasoline market. However, BP will remain involved in lubricants, aviation fuel, chemicals and solar power markets. The purchase will boost Caltex's network to over 600 stations, giving it a market share of 13.5 %. Mobil has also decided to slow its investment plans. It will reportedly moderate the pace of expansion from thirteen to seven new outlets a year. Mobil has been present in Thailand even longer than BP (since 1986) and has 79 stations.

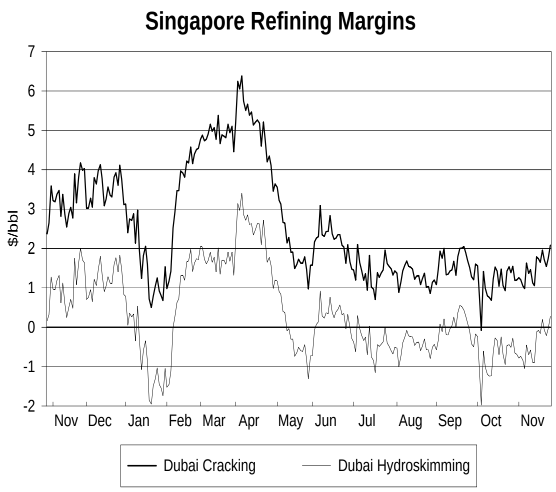
Royal Dutch/Shell Group announced plans to invest $1 billion in a strategic alliance with Russia's RAO Gazprom, resulting in a 50:50 joint development company with planned oil and condensate production of 500 kb/d, starting in 2003. Shell reportedly also signed a memorandum of understanding with Gazprom and Russia's Lukoil to assess a joint bid for Russia's NK Rosneft privatisation tenders. Elsewhere in Russia, British BP bought a ten-per-cent stake in oil producer Sidanco for $571million, from the Oneximbank.


Rotterdam Refining Margins
4
3
2
1
0
-1
-2
$/bbl
Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov
Brent Cracking
Brent Hydroskimming


OECD Europe Crude Throughputs
13.2
12.9
12.6
12.3
12.0
11.7
11.4
mbd
J F M A M J J A S O N D J
1994
1995
1996
1997


US Gulf Refining Margins
5
4
3
2
1
0
-1
-2
-3
$/bbl
Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov
Brent Cracking
WTI Cracking


US Crude Throughputs
15.6
15.3
15
14.7
14.4
14.1
13.8
13.5
13.2
12.9
mbd
J F M A M J J A S O N D J
1994
1995
1996
1997


Singapore Refining Margins
7
6
5
4
3
2
1
0
-1
-2
$/bbl
Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov
Dubai Cracking
Dubai Hydroskimming

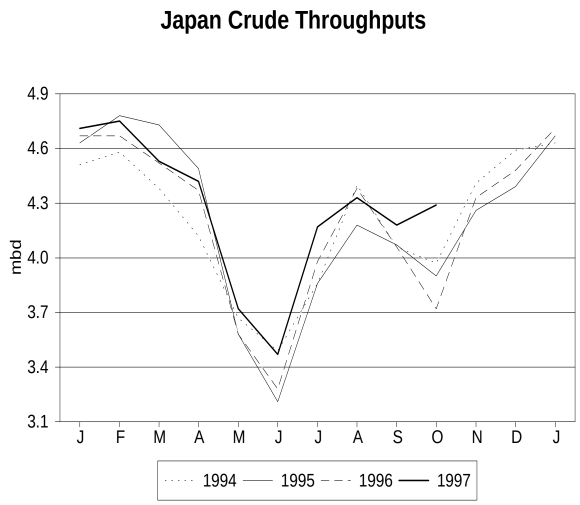

Japan Crude Throughputs
4.9
4.6
4.3
4.0
3.7
3.4
3.1
mbd
J F M A M J J A S O N D J
1994
1995
1996
1997

Table 1
WORLD OIL SUPPLY AND DEMAND
(million barrels per day)

	1994	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997	1Q98	2Q98	3Q98	4Q98	1998
DEMAND																	
OECD																	
North America	19.8	19.8	20.4	19.9	20.2	20.8	20.3	20.4	20.6	21.0	21.0	20.8	20.9	20.7	21.1	21.3	21.0
Europe	13.8	14.1	14.5	13.7	14.4	14.7	14.3	14.3	14.2	14.5	14.9	14.5	14.5	14.1	14.6	15.1	14.6
Pacific	6.6	6.7	7.4	6.2	6.3	6.9	6.7	7.3	6.1	6.4	7.1	6.7	7.4	6.2	6.5	7.2	6.8
TOTAL OECD	40.1	40.6	42.3	39.8	40.8	42.4	41.3	42.0	40.9	41.8	43.0	41.9	42.8	41.1	42.2	43.6	42.4
NON-OECD																	
FSU[1]	4.9	4.8	4.6	4.2	4.3	4.2	4.3	4.3	4.4	4.5	4.9	4.5	4.7	4.5	4.3	4.8	4.6
Europe	1.1	1.2	1.3	1.2	1.1	1.2	1.2	1.4	1.3	1.2	1.3	1.3	1.4	1.3	1.2	1.3	1.3
China[2]	3.1	3.3	3.5	3.7	3.5	3.7	3.6	4.0	3.8	4.1	3.8	3.9	4.1	4.2	4.2	4.3	4.2
Other Asia	7.3	7.9	8.7	8.3	8.1	9.0	8.5	9.2	8.8	8.7	9.5	9.0	9.8	9.4	9.2	10.2	9.6
Latin America	6.0	6.0	6.2	6.3	6.4	6.4	6.3	6.4	6.6	6.7	6.6	6.6	6.7	6.8	6.9	6.9	6.8
Middle East	4.0	4.1	4.0	4.2	4.3	4.1	4.1	4.1	4.2	4.3	4.2	4.2	4.2	4.3	4.5	4.3	4.3
Africa	2.1	2.2	2.2	2.3	2.2	2.3	2.2	2.3	2.3	2.3	2.4	2.3	2.4	2.4	2.3	2.4	2.4
TOTAL NON-OECD	28.5	29.5	30.7	30.1	30.0	30.8	30.4	31.6	31.2	31.8	32.7	31.8	33.3	32.7	32.6	34.2	33.2
TOTAL DEMAND[3]	68.6	70.1	73.0	69.9	70.8	73.2	71.7	73.6	72.2	73.6	75.7	73.8	76.1	73.8	74.8	77.8	75.6
SUPPLY																	
OECD																	
North America	10.9	11.0	11.0	10.9	11.0	11.2	11.0	11.0	10.9	11.1	11.2	11.1	11.3	11.1	11.3	11.5	11.3
Europe	6.1	6.4	6.7	6.6	6.6	7.0	6.7	6.9	6.5	6.5	7.1	6.7	7.3	7.0	7.0	7.7	7.3
Pacific	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8
TOTAL OECD	17.7	18.0	18.4	18.2	18.3	18.9	18.4	18.6	18.2	18.3	19.1	18.5	19.3	18.9	19.1	20.1	19.3
NON-OECD																	
FSU	7.2	7.1	7.0	7.0	7.1	7.1	7.1	7.0	7.2	7.3	7.3	7.2	7.4	7.4	7.4	7.5	7.5
Europe	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
China	2.8	3.0	3.1	3.1	3.1	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Other Asia	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.3	2.2
Latin America	5.9	6.1	6.5	6.6	6.5	6.6	6.5	6.7	6.8	6.9	7.1	6.9	7.2	7.3	7.4	7.6	7.4
Middle East	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Africa	2.4	2.6	2.6	2.6	2.7	2.8	2.7	2.8	2.8	2.8	2.9	2.8	3.0	3.0	3.1	3.1	3.0
Processing Gains[4]	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
TOTAL NON-OPEC	41.6	42.5	43.4	43.3	43.4	44.3	43.6	44.1	43.9	44.3	45.5	44.5	46.1	45.9	46.2	47.5	46.4
OPEC																	
Crude	24.7	25.2	25.7	25.5	25.9	26.3	25.8	26.8	26.8	27.3							
NGLs	2.4	2.4	2.5	2.6	2.7	2.7	2.6	2.7	2.8	2.8	2.9	2.8	2.9	2.9	3.0	3.0	2.9
TOTAL OPEC	27.0	27.7	28.2	28.1	28.5	28.9	28.5	29.6	29.6	30.1							
TOTAL SUPPLY[5]	68.6	70.2	71.6	71.5	71.9	73.2	72.1	73.7	73.5	74.4							
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	0.1	-0.3	-1.8	1.2	0.4	-0.4	-0.1	0.3	0.3	0.4							
Government	0.1	0.0	0.4	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0							
TOTAL OECD	0.2	-0.3	-1.3	1.1	0.3	-0.5	-0.1	0.3	0.3	0.4							
Floating Storage/Oil in Transit	-0.1	0.1	-0.3	0.1	0.0	-0.1	-0.1	0.1	0.5	0.5							
Miscellaneous to balance[6]	-0.1	0.3	0.2	0.3	0.8	0.6	0.5	-0.4	0.6	0.0							
TOTAL STOCK CH. & MISC.	0.0	0.1	-1.4	1.6	1.1	0.0	0.3	0.1	1.3	0.8							
Memo items:																	
FSU Net Exports	2.4	2.4	2.4	2.8	2.8	2.9	2.7	2.7	2.8	2.8	2.5	2.7	2.7	2.9	3.1	2.7	2.9
Call on OPEC crude + Stock ch.[7]	24.6	25.1	27.1	24.0	24.7	26.3	25.5	26.7	25.5	26.4	27.4	26.5	27.1	25.0	25.6	27.3	26.3
Total Demand ex. FSU	63.8	65.3	68.4	65.7	66.5	69.0	67.4	69.3	67.8	69.1	70.9	69.3	71.4	69.3	70.5	73.0	71.1
Total demand exc. FSU (% ch)[8]	3.1	2.4	3.6	2.9	3.1	3.2	3.2	1.3	3.3	3.8	2.7	2.8	3.0	2.2	2.1	3.0	2.6

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)

	1994	1995	1Q96	2Q96	3Q96	4Q96	1996	1Q97	2Q97	3Q97	4Q97	1997	1Q98	2Q98	3Q98	4Q98	1998
DEMAND																	
OECD																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-
TOTAL OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-0.1	-
NON-OECD																	
FSU	-	-	-	-	-	-	-	-	-	-	0.3	-	0.1	-	-	0.1	0.1
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	0.1	-0.1	-	-	-	-	-	-
Other Asia	-	-	-0.1	-	-	-	-0.1	-0.1	-	0.1	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-0.1	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL NON-OECD	-	-	-	-0.1	-	-	-	-	-0.1	0.1	-	-	0.1	-	-0.1	0.1	-
TOTAL DEMAND	-	-	-	-	-	-0.1	-0.1	-0.1	-	0.1	-	-	0.1	-	-	-	-
SUPPLY																	
OECD																	
North America	-	-	-	-	-	-	-	-0.2	-0.1	-	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-0.1	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-0.1	-0.1	-0.1	-
TOTAL OECD	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
NON-OECD																	
FSU	-	-	-	-	-	-	-	-	-	-	0.1	-	0.2	0.1	0.1	0.2	0.2
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-0.1
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL NON-OPEC	-	-	-	-	-	-	-	-0.2	-0.2	-0.1	-0.1	-0.1	-	-0.1	-0.2	-0.1	-0.1
OPEC																	
Crude	-	-	-	-	-	-	-	-	-	-							
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL OPEC	-	-	-	-	-	-	-	-	-	-							
TOTAL SUPPLY	-	-	-	-	-	-	-	-0.2	-0.2	-0.1							
STOCK CHANGES AND MISCELLANEOUS																	
REPORTED OECD																	
Industry	-	-	-	-	-	-	-	-	-	-0.5							
Government	-	-	-	-	-	-	-	-0.1	-	-							
TOTAL OECD	-	-	-	-	-	-0.1	-	-0.1	-	-0.5							
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	-							
Miscellaneous to balance	-	-	-	-	-	0.1	0.1	-0.1	-0.1	0.3							
TOTAL STOCK CH. & MISC.	-	-	-	-	-	0.1	-	-0.1	-0.2	-0.3							
Memo items:																	
FSU Net Exports	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.2
Call on OPEC crude + Stock ch.	-0.1	-	-	-	-	-	-	-	0.1	0.2	0.2	0.1	-	0.1	0.2	0.2	0.2
Total Demand ex. FSU	-	-	-	-	-	-0.1	-	-0.1	-	0.2	-0.2	-	-	-	-	-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)

	May			June			Second Quarter			July			August		
	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%
North America															
LPG	2.15	2.06	-3.9	2.07	2.05	-1.1	2.14	2.11	-1.2	2.06	2.08	1.0	2.14	2.21	3.4
Naphtha	0.28	0.39	41.1	0.29	0.36	25.0	0.28	0.37	30.4	0.30	0.38	28.3	0.33	0.37	12.8
Motor Gasoline	8.66	8.83	1.9	8.77	8.98	2.4	8.65	8.85	2.3	8.83	9.22	4.5	8.95	8.93	-0.3
Jet/Kerosene	1.58	1.68	6.1	1.71	1.74	1.8	1.65	1.73	5.0	1.72	1.87	8.7	1.75	1.85	5.2
Gasoil	3.58	3.74	4.2	3.63	3.70	2.0	3.68	3.81	3.6	3.46	3.75	8.2	3.64	3.60	-1.1
Residual Fuel Oil	0.98	0.93	-5.0	0.92	0.96	4.7	0.93	0.96	3.0	1.05	0.98	-7.0	1.03	0.92	-10.9
Other Products	2.60	2.79	7.2	2.78	3.05	9.7	2.61	2.81	7.7	2.78	3.10	11.6	2.86	2.96	3.4
Total	**19.83**	**20.41**	**2.9**	**20.17**	**20.84**	**3.3**	**19.94**	**20.64**	**3.5**	**20.19**	**21.37**	**5.8**	**20.71**	**20.83**	**0.6**
Europe															
LPG	0.82	0.83	0.8	0.75	0.76	1.8	0.82	0.84	2.7	0.78	0.84	7.1	0.79	0.78	-1.8
Naphtha	1.06	1.05	-1.6	0.93	1.05	13.4	0.96	1.04	8.7	0.99	1.05	6.0	1.03	0.99	-4.0
Motor Gasoline	3.08	3.04	-1.4	3.00	3.13	4.4	3.06	3.10	1.4	3.23	3.22	-0.5	3.16	3.07	-2.9
Jet/Kerosene	0.91	0.91	0.1	0.91	0.95	5.3	0.89	0.93	3.7	0.98	1.02	4.2	0.98	1.03	5.1
Gasoil	4.61	4.50	-2.4	4.61	5.04	9.3	4.65	4.96	6.9	4.87	5.23	7.4	4.80	4.40	-8.4
Residual Fuel Oil	1.97	1.90	-3.2	2.04	1.93	-5.1	2.03	1.97	-2.8	2.13	1.90	-10.8	1.91	1.88	-1.3
Other Products	1.26	1.32	4.9	1.35	1.50	10.8	1.25	1.34	7.0	1.37	1.46	6.9	1.28	1.37	7.2
Total	**13.72**	**13.55**	**-1.2**	**13.58**	**14.37**	**5.8**	**13.66**	**14.19**	**4.0**	**14.34**	**14.71**	**2.6**	**13.95**	**13.52**	**-3.1**
Pacific															
LPG	0.66	0.66	-0.9	0.65	0.66	0.5	0.69	0.68	-2.4	0.63	0.68	7.1	0.64	0.61	-5.5
Naphtha	0.72	0.79	9.6	0.68	0.76	11.0	0.73	0.79	8.5	0.79	0.73	-7.1	0.79	0.82	3.7
Motor Gasoline	1.23	1.25	1.8	1.20	1.25	3.8	1.23	1.25	2.1	1.32	1.34	1.2	1.39	1.42	1.8
Jet/Kerosene	0.58	0.54	-7.5	0.54	0.55	1.6	0.64	0.59	-7.8	0.54	0.55	1.5	0.54	0.58	6.3
Gasoil	1.43	1.42	-0.5	1.41	1.44	2.5	1.46	1.46	0.4	1.50	1.47	-1.8	1.43	1.44	1.0
Residual Fuel Oil	0.69	0.70	1.7	0.71	0.74	4.1	0.72	0.71	-1.9	0.81	0.83	2.8	0.77	0.73	-5.5
Other Products	0.68	0.62	-8.9	0.71	0.66	-6.6	0.69	0.63	-9.4	0.73	0.80	9.2	0.78	0.76	-3.3
Total	**6.00**	**5.98**	**-0.2**	**5.91**	**6.06**	**2.5**	**6.16**	**6.11**	**-0.9**	**6.32**	**6.39**	**1.2**	**6.35**	**6.35**	**0.0**
OECD															
LPG	3.63	3.55	-2.3	3.48	3.47	-0.2	3.65	3.63	-0.6	3.47	3.59	3.5	3.57	3.59	0.6
Naphtha	2.06	2.23	8.0	1.90	2.17	14.3	1.97	2.20	11.7	2.07	2.16	4.2	2.15	2.18	1.4
Motor Gasoline	12.97	13.12	1.1	12.98	13.36	3.0	12.94	13.20	2.1	13.38	13.78	2.9	13.51	13.42	-0.7
Jet/Kerosene	3.08	3.13	1.8	3.16	3.25	2.7	3.19	3.25	2.1	3.24	3.44	6.2	3.28	3.45	5.4
Gasoil	9.62	9.66	0.4	9.64	10.18	5.6	9.78	10.24	4.7	9.83	10.44	6.3	9.87	9.44	-4.4
Residual Fuel Oil	3.63	3.53	-2.8	3.66	3.63	-0.9	3.68	3.63	-1.1	3.99	3.71	-7.0	3.71	3.53	-4.9
Other Products	4.55	4.73	4.1	4.84	5.21	7.6	4.56	4.78	4.9	4.88	5.36	10.0	4.92	5.09	3.3
Total	**39.54**	**39.94**	**1.0**	**39.66**	**41.27**	**4.1**	**39.76**	**40.95**	**3.0**	**40.86**	**42.48**	**4.0**	**41.01**	**40.70**	**-0.8**

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)

	Second Quarter			July			August			September			Third Quarter		
	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%
United States															
LPG	1.83	1.81	-1.2	1.80	1.79	-0.9	1.87	1.87	-0.5	1.86	1.95	5.0	1.84	1.87	1.2
Naphtha	0.21	0.28	34.7	0.21	0.29	35.8	0.24	0.28	17.4	0.25	0.33	33.3	0.24	0.30	28.6
Motor Gasoline	7.99	8.15	2.1	8.14	8.47	4.1	8.22	8.20	-0.3	7.64	8.00	4.8	8.00	8.23	2.8
Jet/Kerosene	1.54	1.60	4.3	1.59	1.72	8.5	1.60	1.70	6.2	1.64	1.61	-2.4	1.61	1.68	4.1
Gasoil	3.23	3.33	3.1	3.05	3.28	7.7	3.18	3.12	-1.9	3.18	3.30	3.9	3.14	3.23	3.2
Residual Fuel Oil	0.77	0.77	-0.7	0.90	0.78	-13.5	0.86	0.72	-16.5	0.72	0.80	11.0	0.83	0.77	-7.6
Other Products	2.35	2.51	7.0	2.46	2.74	11.3	2.53	2.61	3.3	2.31	2.48	7.4	2.44	2.61	7.3
Total	**17.91**	**18.46**	**3.0**	**18.14**	**19.06**	**5.1**	**18.51**	**18.51**	**0.0**	**17.60**	**18.48**	**5.0**	**18.09**	**18.69**	**3.3**
Japan															
LPG	0.61	0.59	-2.8	0.56	0.59	6.2	0.57	0.52	-8.4	0.52	0.55	5.6	0.55	0.56	0.9
Naphtha	0.72	0.78	8.6	0.78	0.72	-7.2	0.78	0.81	3.7	0.72	0.83	15.0	0.76	0.79	3.4
Motor Gasoline	0.88	0.91	3.4	0.98	0.98	0.5	1.04	1.07	3.2	0.90	0.95	5.9	0.97	1.00	3.1
Jet/Kerosene	0.54	0.49	-8.7	0.44	0.45	2.3	0.44	0.47	6.5	0.49	0.50	3.3	0.45	0.47	4.0
Diesel*	0.75	0.73	-3.3	0.79	0.77	-2.5	0.74	0.74	-1.0	0.75	0.73	-2.8	0.76	0.74	-2.1
Other Gasoil*	0.45	0.47	5.1	0.47	0.45	-3.2	0.45	0.45	0.4	0.47	0.51	8.1	0.46	0.47	1.8
Residual Fuel Oil	0.68	0.68	-0.9	0.75	0.80	5.9	0.74	0.69	-6.4	0.72	0.72	-0.2	0.74	0.74	-0.2
Direct use of Crude Oil	0.22	0.18	-16.0	0.31	0.31	-0.4	0.35	0.28	-21.6	0.28	0.19	-29.8	0.32	0.26	-16.8
Other Products	0.36	0.33	-9.9	0.32	0.37	16.6	0.34	0.37	8.6	0.40	0.40	2.0	0.35	0.38	8.6
Total	**5.22**	**5.17**	**-1.0**	**5.39**	**5.45**	**1.0**	**5.46**	**5.40**	**-1.0**	**5.25**	**5.39**	**2.8**	**5.37**	**5.41**	**0.9**
Germany															
LPG	0.09	0.09	-5.2	0.10	0.09	-9.2	0.10	0.10	-6.5	0.09	0.10	5.3	0.10	0.10	-3.7
Naphtha	0.32	0.39	22.6	0.31	0.37	16.8	0.32	0.38	17.9	0.29	0.38	29.5	0.31	0.37	21.1
Motor Gasoline	0.71	0.72	0.9	0.73	0.72	-0.8	0.71	0.69	-3.5	0.71	0.71	-0.5	0.72	0.70	-1.6
Jet/Kerosene	0.13	0.14	6.5	0.15	0.15	0.7	0.14	0.15	3.7	0.14	0.14	3.2	0.14	0.15	2.5
Diesel	0.44	0.45	3.8	0.45	0.47	3.6	0.44	0.43	-3.3	0.49	0.48	-1.6	0.46	0.46	-0.4
Other Gasoil	0.78	0.91	16.5	0.85	0.97	13.8	0.98	0.71	-27.7	1.01	1.01	0.2	0.94	0.89	-5.4
Residual Fuel Oil	0.17	0.17	-2.0	0.17	0.15	-13.8	0.17	0.14	-20.7	0.16	0.14	-15.5	0.17	0.14	-16.7
Other Products	0.19	0.20	5.0	0.21	0.20	-4.0	0.18	0.18	-3.3	0.21	0.22	2.7	0.20	0.20	-1.5
Total	**2.83**	**3.06**	**8.3**	**2.97**	**3.11**	**4.7**	**3.05**	**2.75**	**-9.7**	**3.11**	**3.17**	**2.1**	**3.04**	**3.01**	**-1.0**
Italy															
LPG	0.09	0.09	2.9	0.09	0.09	-4.4	0.09	0.08	-6.9	0.10	0.09	-5.1	0.09	0.09	-5.4
Naphtha	0.13	0.13	-1.4	0.13	0.12	-12.1	0.12	0.12	-7.6	0.13	0.13	-3.6	0.13	0.12	-7.8
Motor Gasoline	0.45	0.46	2.5	0.48	0.48	-0.5	0.46	0.44	-2.6	0.44	0.46	5.4	0.46	0.46	0.6
Jet/Kerosene	0.07	0.07	1.3	0.08	0.08	-2.3	0.07	0.08	12.0	0.08	0.07	-8.2	0.08	0.08	0.2
Diesel	0.32	0.31	-2.5	0.33	0.33	-0.6	0.24	0.25	0.5	0.27	0.36	31.0	0.28	0.31	9.7
Other Gasoil	0.11	0.14	31.1	0.14	0.17	21.8	0.13	0.11	-12.5	0.24	0.18	-27.4	0.17	0.15	-9.8
Residual Fuel Oil	0.52	0.49	-6.4	0.63	0.48	-25.0	0.45	0.50	10.1	0.55	0.59	8.9	0.54	0.52	-4.1
Other Products	0.10	0.13	26.6	0.13	0.15	19.3	0.09	0.10	12.5	0.12	0.16	27.5	0.11	0.13	20.5
Total	**1.78**	**1.81**	**1.8**	**2.02**	**1.89**	**-6.4**	**1.65**	**1.67**	**1.3**	**1.93**	**2.04**	**5.5**	**1.87**	**1.87**	**-0.1**
France															
LPG	0.09	0.08	-3.9	0.08	0.08	6.1	0.07	0.08	6.6	0.08	0.09	6.7	0.08	0.08	6.5
Naphtha	0.13	0.15	15.9	0.13	0.14	8.8	0.16	0.10	-37.6	0.11	0.14	28.8	0.13	0.13	-4.1
Motor Gasoline	0.36	0.35	-2.0	0.39	0.38	-2.1	0.38	0.37	-4.0	0.35	0.35	2.3	0.37	0.37	-1.4
Jet/Kerosene	0.11	0.11	1.0	0.12	0.12	-2.9	0.12	0.12	2.6	0.11	0.12	2.3	0.12	0.12	0.6
Diesel	0.48	0.51	6.0	0.51	0.53	3.6	0.45	0.45	0.2	0.48	0.52	9.2	0.48	0.50	4.4
Other Gasoil	0.30	0.29	-2.4	0.38	0.42	12.0	0.33	0.31	-7.1	0.43	0.35	-19.3	0.38	0.36	-5.3
Residual Fuel Oil	0.15	0.14	-7.8	0.12	0.12	2.1	0.11	0.10	-4.7	0.13	0.14	7.0	0.12	0.12	1.7
Other Products	0.24	0.20	-16.7	0.26	0.28	9.6	0.22	0.26	17.6	0.24	0.28	18.3	0.24	0.27	14.9
Total	**1.85**	**1.83**	**-1.0**	**1.98**	**2.07**	**4.8**	**1.84**	**1.78**	**-3.0**	**1.93**	**1.99**	**3.2**	**1.92**	**1.95**	**1.7**
United Kingdom															
LPG	0.18	0.16	-8.8	0.17	0.18	2.7	0.18	0.18	-1.2	0.18	0.17	-7.2	0.18	0.18	-2.0
Naphtha	0.07	0.05	-23.3	0.06	0.05	-9.9	0.07	0.06	-6.0	0.07	0.08	9.6	0.07	0.06	-1.6
Motor Gasoline	0.53	0.54	3.0	0.54	0.53	-1.7	0.52	0.50	-3.0	0.51	0.51	-0.4	0.52	0.51	-1.7
Jet/Kerosene	0.23	0.24	4.2	0.24	0.25	4.5	0.24	0.25	4.8	0.26	0.27	4.8	0.24	0.26	4.7
Diesel	0.29	0.32	7.8	0.30	0.30	-1.7	0.29	0.28	-3.0	0.30	0.32	7.9	0.30	0.30	1.0
Other Gasoil	0.18	0.18	2.1	0.18	0.17	-0.7	0.18	0.17	-1.7	0.20	0.19	-5.7	0.18	0.18	-2.8
Residual Fuel Oil	0.16	0.11	-32.9	0.12	0.10	-20.4	0.14	0.09	-33.6	0.16	0.10	-36.9	0.14	0.10	-31.0
Other Products	0.18	0.18	0.9	0.20	0.21	2.3	0.19	0.19	-1.2	0.21	0.20	-0.4	0.20	0.20	0.3
Total	**1.82**	**1.79**	**-1.7**	**1.80**	**1.78**	**-1.4**	**1.81**	**1.74**	**-4.0**	**1.89**	**1.85**	**-2.4**	**1.83**	**1.79**	**-2.6**
Canada															
LPG	0.30	0.29	-2.0	0.25	0.28	13.2	0.26	0.34	30.5	0.21	0.21	0.0	0.24	0.28	15.7
Naphtha	0.07	0.09	18.1	0.08	0.09	8.7	0.09	0.09	0.0	0.08	0.04	-49.7	0.08	0.07	-13.2
Motor Gasoline	0.61	0.63	3.3	0.65	0.69	5.3	0.68	0.66	-2.5	0.60	0.65	8.5	0.64	0.67	3.5
Jet/Kerosene	0.09	0.10	13.9	0.11	0.12	3.9	0.12	0.11	-11.5	0.10	0.11	6.4	0.11	0.11	-1.0
Diesel	0.15	0.15	0.0	0.15	0.15	0.0	0.16	0.16	0.0	0.16	0.18	13.7	0.16	0.16	4.5
Other Gasoil	0.27	0.29	9.7	0.24	0.28	15.3	0.26	0.27	4.1	0.28	0.31	11.4	0.26	0.28	10.2
Residual Fuel Oil	0.10	0.12	20.7	0.11	0.13	20.7	0.11	0.12	13.3	0.10	0.11	6.9	0.11	0.12	13.9
Other Products	0.24	0.27	12.2	0.30	0.33	11.8	0.30	0.31	2.6	0.28	0.32	14.5	0.29	0.32	9.4
Total	**1.83**	**1.95**	**6.4**	**1.89**	**2.07**	**9.2**	**1.97**	**2.05**	**4.0**	**1.82**	**1.93**	**6.5**	**1.90**	**2.02**	**6.5**

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)

	1996	1997[f]	1998[f]	4Q96	1Q97	2Q97	3Q97[p]	4Q97[f]	Sep97	Oct97	Nov97
OPEC[1]											
Crude Oil											
Saudi Arabia	7.91			7.90	7.98	7.92	8.08		8.16	8.00	8.10
Iran	3.67			3.66	3.62	3.62	3.58		3.45	3.89	3.65
Iraq	0.58			0.65	1.11	1.05	1.22		1.68	1.57	1.34
UAE	2.23			2.27	2.29	2.23	2.25		2.25	2.25	2.25
Kuwait	1.81			1.81	1.84	1.81	1.83		1.85	1.84	1.86
Neutral Zone	0.48			0.52	0.53	0.52	0.54		0.55	0.56	0.55
Qatar	0.49			0.51	0.56	0.61	0.65		0.66	0.67	0.68
Nigeria	2.15			2.23	2.25	2.29	2.29		2.31	2.33	2.37
Libya	1.39			1.40	1.41	1.43	1.43		1.42	1.39	1.43
Algeria	0.82			0.84	0.85	0.85	0.85		0.84	0.87	0.86
Venezuela	2.94			3.06	3.07	3.16	3.22		3.24	3.26	3.29
Indonesia	1.39			1.40	1.36	1.38	1.37		1.35	1.33	1.36
Total Crude Oil	25.84			26.25	26.84	26.83	27.29		27.74	27.94	27.73
NGLs[2]	2.61	2.80	2.95	2.67	2.73	2.77	2.83	2.86	2.86	2.86	2.84
TOTAL OPEC	28.45			28.92	29.57	29.60	30.13		30.60	30.80	30.57
NON-OPEC[1,3]											
OECD											
North America	11.05	11.06	11.29	11.24	11.04	10.89	11.09	11.22	11.13	11.18	11.16
United States	8.59	8.54	8.64	8.71	8.51	8.51	8.52	8.60	8.57	8.58	8.53
Canada	2.46	2.53	2.64	2.53	2.53	2.39	2.57	2.63	2.56	2.60	2.63
Europe	6.71	6.74	7.25	6.96	6.88	6.54	6.46	7.09	6.43	6.89	7.10
UK	2.81	2.76	3.10	3.00	2.91	2.51	2.67	2.96	2.71	2.87	2.94
Norway	3.23	3.31	3.46	3.27	3.29	3.35	3.14	3.45	3.05	3.34	3.47
Others	0.67	0.67	0.69	0.69	0.68	0.68	0.65	0.68	0.67	0.68	0.68
Pacific	0.67	0.73	0.80	0.66	0.67	0.72	0.77	0.74	0.77	0.78	0.74
Australia	0.60	0.64	0.71	0.58	0.58	0.63	0.69	0.65	0.69	0.69	0.64
Others	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09
Total OECD	18.44	18.53	19.33	18.86	18.59	18.16	18.32	19.05	18.33	18.85	18.99
Non-OECD											
Former USSR	7.07	7.22	7.45	7.08	7.05	7.20	7.28	7.34	7.28	7.29	7.34
Russia	6.04	6.12	6.20	6.02	5.99	6.11	6.19	6.20	6.19	6.21	6.20
Others	1.03	1.09	1.25	1.07	1.06	1.09	1.09	1.14	1.09	1.09	1.14
Asia	5.23	5.32	5.47	5.27	5.33	5.32	5.28	5.35	5.28	5.35	5.36
China	3.12	3.20	3.23	3.15	3.21	3.22	3.19	3.19	3.19	3.19	3.19
Malaysia	0.73	0.75	0.77	0.75	0.75	0.75	0.75	0.76	0.76	0.76	0.76
India	0.74	0.76	0.78	0.73	0.75	0.76	0.76	0.76	0.75	0.76	0.77
Others	0.64	0.61	0.68	0.64	0.62	0.61	0.59	0.64	0.57	0.64	0.63
Europe	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Latin America	6.54	6.87	7.39	6.60	6.72	6.78	6.89	7.08	7.01	7.05	7.08
Mexico	3.28	3.42	3.58	3.25	3.33	3.35	3.47	3.51	3.53	3.50	3.52
Brazil	1.06	1.16	1.30	1.11	1.13	1.15	1.15	1.20	1.17	1.19	1.20
Argentina	0.83	0.88	0.89	0.85	0.87	0.89	0.89	0.88	0.90	0.90	0.88
Colombia	0.64	0.67	0.86	0.65	0.64	0.64	0.65	0.74	0.67	0.73	0.74
Ecuador	0.39	0.38	0.39	0.38	0.39	0.39	0.37	0.37	0.37	0.37	0.37
Others	0.36	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Middle East[4]	1.90	1.89	1.91	1.92	1.90	1.88	1.89	1.90	1.89	1.90	1.90
Oman	0.90	0.91	0.91	0.93	0.91	0.91	0.92	0.92	0.92	0.92	0.92
Syria	0.58	0.56	0.54	0.57	0.57	0.56	0.56	0.56	0.56	0.56	0.56
Yemen	0.37	0.37	0.41	0.38	0.38	0.37	0.37	0.38	0.37	0.38	0.38
Africa	2.68	2.84	3.03	2.75	2.77	2.80	2.85	2.93	2.89	2.91	2.93
Egypt	0.92	0.92	0.94	0.90	0.91	0.91	0.93	0.94	0.94	0.94	0.94
Angola	0.69	0.73	0.83	0.70	0.71	0.72	0.73	0.75	0.74	0.75	0.76
Gabon	0.36	0.37	0.36	0.37	0.37	0.37	0.37	0.37	0.36	0.37	0.37
Others	0.71	0.82	0.90	0.79	0.78	0.81	0.82	0.87	0.85	0.86	0.87
Total Non-OECD	23.65	24.36	25.46	23.85	23.99	24.21	24.41	24.82	24.57	24.71	24.81
Processing Gains[5]	1.52	1.57	1.64	1.55	1.57	1.56	1.56	1.60	1.56	1.60	1.60
TOTAL NON-OPEC	43.60	44.46	46.43	44.26	44.14	43.92	44.29	45.47	44.46	45.17	45.40
TOTAL SUPPLY	**72.05**			**73.18**	**73.71**	**73.52**	**74.41**		**75.06**	**75.97**	**75.98**

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 COUNTRIES[1]

(thousand barrels per day)

	3rd Quarter 97p		October		November		4th Quarter 97f		1997f		1998f	
	Level	Change[2]	Level	Change	Level	Change	Level	Change	Level	Change	Level	Change
United States												
Alaska	1241	-64	1293	12	1274	-19	1299	57	1302	-91	1280	-22
California (inc. offshore)	939	9	930	-6	933	3	932	-7	929	-18	910	-19
Texas	1417	-30	1411	-3	1408	-3	1408	-9	1441	-41	1359	-82
Offshore Gulf of Mexico	1202	76	1225	12	1236	11	1239	36	1155	70	1427	273
Other US Lower 48	1503	-12	1492	-7	1486	-6	1487	-16	1504	-53	1445	-59
NGLs[3]	1857	16	1926	55	1892	-34	1925	68	1874	49	1910	36
Other Hydrocarbons	365	22	305	-53	305	0	308	-56	331	30	310	-21
Total	**8524**	**16**	**8581**	**9**	**8533**	**-48**	**8597**	**73**	**8536**	**-54**	**8642**	**106**
Canada												
Alberta Light & Medium	632	15	632	5	630	-2	630	-2	635	-44	613	-21
Alberta Heavy	260	14	262	4	264	2	264	4	256	-6	264	8
Alberta Bitumen	249	35	252	-1	254	2	254	5	231	68	265	33
Saskatchewan	382	7	392	4	394	2	394	12	383	27	396	13
Other Conventional	94	-8	96	8	108	12	106	12	100	-30	145	45
NGLs	622	14	646	19	655	9	655	33	633	14	652	19
Syncrudes	327	101	322	7	322	0	322	-5	287	8	308	21
Total	**2565**	**179**	**2602**	**46**	**2627**	**25**	**2625**	**59**	**2526**	**38**	**2644**	**118**
United Kingdom[4]												
Brent Fields	383	-8	381	0	393	12	392	9	409	-70	387	-22
Forties Fields	848	98	854	-12	907	53	895	47	861	-47	884	22
Ninian Fields	242	-15	274	38	245	-29	254	13	259	-48	213	-46
Flotta Fields	186	7	228	33	209	-19	217	31	198	-23	227	29
Other Offshore Fields	683	71	773	77	809	36	820	137	680	150	1019	340
NGLs	233	11	264	28	274	9	279	46	253	-2	273	20
Total	**2576**	**165**	**2774**	**164**	**2837**	**62**	**2858**	**282**	**2660**	**-41**	**3003**	**343**
Norway[4]												
Ekofisk/Ula Area	538	6	531	3	549	18	543	5	518	15	501	-17
Oseberg Area	880	24	876	-33	894	18	888	8	891	-18	836	-55
Statfjord-Gullfaks-Snorre	1040	-243	1228	334	1297	69	1284	244	1199	-3	1247	47
Haltenbanken	413	23	430	2	445	15	452	39	416	59	594	178
Sleipner/Frigg	139	-14	144	-8	152	8	149	11	148	25	162	15
Plant Condensate (as NGLs)	7	0	6	0	6	0	6	-1	7	-1	6	-1
Lighter NGLs	124	-10	123	-7	130	7	128	4	129	-5	117	-12
Total	**3140**	**-213**	**3338**	**291**	**3472**	**135**	**3449**	**309**	**3308**	**74**	**3464**	**156**
Other OECD Europe												
Other North Sea	259	-6	273	1	273	0	273	14	265	17	284	19
Onshore U.K.	94	-9	100	-2	102	2	101	7	103	-4	99	-3
Italy	112	0	120	-2	120	0	120	8	113	13	120	7
Turkey	67	0	66	0	66	0	66	-1	66	-1	61	-5
Other	162	4	159	2	159	0	159	-3	160	-16	154	-6
NGLs	28	-6	35	6	39	4	38	10	36	-2	39	3
Non-Conventional Oils	24	-15	26	1	26	0	26	2	32	-7	26	-6
Total	**746**	**-33**	**779**	**6**	**785**	**6**	**784**	**38**	**775**	**-1**	**784**	**8**
Australia												
Gippsland Basin	234	5	227	-1	225	-2	224	-10	221	23	215	-6
Cooper/Eromanga	34	-1	33	-3	32	-1	33	-2	34	-2	34	0
Carnarvon Basin	319	48	334	5	294	-40	302	-17	289	13	354	65
Bonaparte Basin	18	-0	17	2	17	0	17	-1	17	-3	32	14
Other Fields	5	-0	5	0	5	0	5	0	5	-1	5	0
NGLs	77	2	73	-2	71	-2	70	-6	71	7	71	-0
Total	**687**	**53**	**689**	**0**	**644**	**-45**	**651**	**-36**	**637**	**38**	**710**	**73**
Other OECD Pacific												
New Zealand	58	-4	63	12	63	0	63	5	61	18	61	-0
Japan	10	-0	10	0	10	0	10	0	10	-0	10	-0
NGLs	14	-0	13	0	13	0	13	-1	14	2	13	-1
Synthetic Fuels	3	-1	4	0	4	0	4	1	4	-4	3	-1
Total	**85**	**-5**	**90**	**12**	**90**	**0**	**90**	**5**	**89**	**15**	**87**	**-2**
OECD												
Crude Oil	14642	28	15110	474	15252	142	15279	637	14860	-18	15605	745
NGLs	2961	27	3087	99	3079	-7	3114	153	3017	60	3082	65
Non-Conventional Oils	719	107	657	-45	657	0	660	-59	654	27	648	-6
Total	**18323**	**161**	**18854**	**528**	**18989**	**135**	**19053**	**730**	**18531**	**69**	**19334**	**803**

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 STOCKS[1] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES in mb/d			
	Jun97	Jul97	Aug97	Sep97*	Oct97*	Oct94	Oct95	Oct96	Q496	Q197	Q297	Q397
North America												
Crude	388	378	369	371	376	413	381	378	-0.27	0.38	0.00	-0.19
Gasoline	222	205	203	215	215	219	218	207	-0.06	0.07	0.04	-0.07
Middle Distillate	188	194	206	216	216	223	203	188	0.14	-0.34	0.26	0.30
Residual Fuel Oil	48	44	45	44	44	51	47	46	0.07	-0.04	0.00	-0.04
Total Products[3]	625	616	633	654	651	658	638	591	-0.10	-0.34	0.58	0.32
Total[4]	1164	1148	1161	1184	1191	1247	1182	1122	-0.53	0.10	0.61	0.22
Europe												
Crude	309	316	310	307	304	306	310	323	0.03	0.10	-0.21	-0.03
Gasoline	126	121	123	120	118	123	122	122	0.01	0.12	-0.12	-0.07
Middle Distillate	225	227	252	238	235	244	244	220	0.15	0.11	-0.10	0.14
Residual Fuel Oil	88	87	90	89	85	98	106	97	0.00	-0.03	-0.05	0.02
Total Products[3]	526	523	558	537	528	551	564	523	0.24	0.16	-0.27	0.11
Total[4]	894	895	926	901	890	915	931	904	0.34	0.22	-0.52	0.08
Pacific												
Crude	169	168	150	156	162	152	165	171	0.10	-0.03	0.09	-0.14
Gasoline	25	23	23	23	23	20	22	20	-0.01	0.04	0.01	-0.02
Middle Distillate	60	67	73	76	76	80	70	73	-0.08	-0.13	0.06	0.17
Residual Fuel Oil	17	17	17	17	16	16	15	16	-0.01	0.02	0.01	0.00
Total Products[3]	157	164	175	175	174	174	167	172	-0.18	-0.08	0.07	0.20
Total[4]	411	418	414	418	425	411	414	426	-0.23	-0.02	0.17	0.08
Total												
Crude	866	862	830	833	843	871	855	871	-0.15	0.45	-0.12	-0.36
Gasoline	372	348	350	358	357	363	362	349	-0.06	0.23	-0.08	-0.16
Middle Distillate	474	488	531	530	527	547	517	481	0.20	-0.35	0.22	0.61
Residual Fuel Oil	153	147	152	150	145	164	169	159	0.06	-0.05	-0.04	-0.03
Total Products[3]	1307	1303	1367	1365	1353	1383	1369	1286	-0.05	-0.25	0.38	0.63
Total[4]	2468	2461	2501	2503	2506	2572	2527	2453	-0.41	0.30	0.26	0.38

OECD GOVERNMENT-CONTROLLED STOCKS[5] AND QUARTERLY STOCK CHANGES

	RECENT MONTHLY STOCKS[2] in Million Barrels					PRIOR YEARS' STOCKS[2] in Million Barrels			STOCK CHANGES[3] in mb/d			
	Jun97	Jul97	Aug97	Sep97*	Oct97*	Oct94	Oct95	Oct96	Q496	Q197	Q297	Q397
North America												
Crude	563	563	563	563	563	592	592	574	-0.09	-0.03	0.00	0.00
Europe												
Crude	131	131	127	123	123	134	134	134	-0.02	0.00	-0.01	-0.09
Products	191	192	193	193	193	187	184	186	0.02	0.03	0.01	0.02
Pacific												
Crude	307	308	309	312	312	272	296	300	0.03	0.05	0.00	0.05
Total												
Crude	1002	1003	999	998	998	998	1021	1007	-0.07	0.02	-0.01	-0.04
Products	191	192	193	193	193	187	184	186	0.02	0.03	0.01	0.02
Total[4]	1193	1195	1191	1191	1191	1185	1205	1194	-0.05	0.05	0.00	-0.02

* 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 STOCKS[1] ON LAND IN SELECTED COUNTRIES

(million barrels)

	May			June			July			August			September		
	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%	1996	1997	%
United States															
Crude	304.8	327.0	7.3	314.3	321.8	2.4	309.6	309.5	-0.1	315.2	300.8	-4.6	304.3	303.2	-0.4
Motor Gasoline	205.1	202.0	-1.5	204.6	204.8	0.1	201.5	189.9	-5.8	191.5	187.2	-2.2	200.4	198.8	-0.8
Middle Distillate	135.3	153.3	13.3	143.2	165.9	15.9	148.4	170.8	15.1	152.9	181.1	18.5	162.9	190.8	17.2
Residual Fuel Oil	34.3	39.2	14.4	34.9	39.2	12.2	34.8	35.5	2.0	35.8	36.4	1.8	37.6	35.2	-6.5
Other Products	121.9	136.1	11.6	130.9	147.7	12.9	136.4	153.9	12.8	137.9	160.8	16.6	140.5	160.3	14.1
Total Products	496.7	530.6	6.8	513.6	557.6	8.6	521.1	550.0	5.6	518.1	565.6	9.2	541.4	585.1	8.1
Other [2]	132.1	140.7	6.5	133.2	134.0	0.7	136.2	135.7	-0.4	136.4	139.8	2.5	134.3	141.8	5.6
Total	**933.6**	**998.3**	**6.9**	**961.1**	**1013.4**	**5.4**	**966.9**	**995.1**	**2.9**	**969.8**	**1006.2**	**3.8**	**980.0**	**1030.1**	**5.1**
Japan															
Crude	151.2	147.1	-2.7	152.7	152.4	-0.2	136.4	149.4	9.5	140.1	135.5	-3.3	138.1	141.1	2.2
Motor Gasoline	13.9	14.4	3.6	11.6	13.0	12.1	11.6	12.8	10.3	11.7	12.9	10.2	11.9	13.0	9.0
Middle Distillate	40.5	50.0	23.4	42.3	48.6	14.9	47.9	54.3	13.4	58.6	61.1	4.2	63.3	64.1	1.2
Residual Fuel Oil	12.7	14.0	9.8	12.6	14.6	15.8	12.9	13.7	6.1	13.1	13.8	5.9	12.5	13.8	10.6
Other Products	49.7	48.3	-2.8	49.7	47.3	-4.8	52.8	51.2	-3.0	54.2	55.1	1.6	54.7	53.7	-1.8
Total Products	116.8	126.6	8.4	116.3	123.6	6.3	125.2	132.1	5.4	137.6	142.9	3.9	142.3	144.5	1.5
Other [2]	73.3	83.8	14.3	71.9	79.4	10.5	75.6	80.1	5.8	80.8	82.1	1.6	84.3	82.6	-2.0
Total	**341.2**	**357.5**	**4.8**	**340.8**	**355.3**	**4.3**	**337.3**	**361.5**	**7.2**	**358.5**	**360.5**	**0.6**	**364.7**	**368.2**	**1.0**
Germany															
Crude	20.9	23.0	10.4	20.9	20.7	-1.3	19.1	23.8	24.6	21.1	21.5	1.8	22.1	22.4	1.4
Motor Gasoline	9.7	12.7	31.1	11.4	11.4	0.4	11.2	10.0	-10.2	8.6	9.7	11.8	9.5	8.6	-9.9
Middle Distillate	15.6	22.4	43.5	15.3	15.8	3.5	18.3	18.2	-0.8	15.4	21.8	41.5	14.0	14.3	1.6
Residual Fuel Oil	8.9	9.5	7.1	8.3	8.6	3.2	8.3	8.8	6.1	9.1	8.4	-7.1	9.1	9.3	1.6
Other Products	11.2	11.8	4.5	11.9	11.2	-6.5	11.5	11.6	0.8	11.5	12.1	5.5	11.1	10.8	-3.1
Total Products	45.4	56.3	24.1	46.9	47.0	0.2	49.3	48.6	-1.4	44.6	52.0	16.6	43.8	42.9	-2.1
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	**66.3**	**79.4**	**19.8**	**67.9**	**67.7**	**-0.3**	**68.4**	**72.4**	**5.8**	**65.7**	**73.5**	**11.9**	**65.9**	**65.3**	**-0.9**
Italy															
Crude	39.5	37.2	-5.8	39.6	38.9	-1.7	37.5	40.1	7.0	36.5	34.9	-4.4	36.2	33.2	-8.2
Motor Gasoline	21.2	20.1	-5.1	21.0	20.3	-3.2	21.6	19.8	-8.3	21.0	21.7	3.4	23.0	20.4	-11.2
Middle Distillate	35.1	32.6	-6.9	34.9	32.9	-5.8	33.4	31.6	-5.6	37.4	36.5	-2.4	39.2	34.6	-11.8
Residual Fuel Oil	23.0	20.8	-9.4	24.9	20.2	-18.9	25.2	22.1	-12.4	26.9	22.2	-17.6	27.0	21.8	-19.5
Other Products	9.9	9.0	-8.2	9.4	10.1	7.6	8.5	10.0	17.1	8.4	11.1	32.1	7.4	10.0	34.4
Total Products	89.1	82.7	-7.3	90.2	83.5	-7.4	88.8	83.4	-6.0	93.7	91.4	-2.4	96.7	86.7	-10.3
Other [2]	4.7	7.4	55.7	4.5	7.6	68.5	5.2	5.4	3.0	5.4	6.1	11.9	5.7	6.0	5.3
Total	**133.3**	**127.2**	**-4.6**	**134.3**	**130.0**	**-3.2**	**131.5**	**128.9**	**-2.0**	**135.6**	**132.4**	**-2.3**	**138.5**	**125.9**	**-9.1**
France															
Crude	40.3	43.4	7.6	37.6	35.2	-6.2	43.4	40.0	-7.9	43.8	38.2	-12.8	38.1	41.2	8.1
Motor Gasoline	20.8	16.9	-18.6	21.2	16.1	-23.9	20.1	15.0	-25.3	16.9	16.1	-5.2	17.2	16.0	-6.6
Middle Distillate	39.3	38.0	-3.2	38.7	36.3	-6.1	36.3	32.4	-10.8	35.8	37.2	3.7	32.9	34.1	3.6
Residual Fuel Oil	8.9	8.0	-10.2	8.2	7.9	-2.9	8.2	8.3	1.2	8.4	9.1	8.2	8.4	7.9	-6.2
Other Products	8.5	8.2	-4.0	8.5	8.7	2.6	8.4	7.9	-5.9	8.2	8.8	6.9	8.7	8.7	0.3
Total Products	77.5	71.2	-8.2	76.4	69.0	-9.7	73.0	63.6	-12.9	69.4	71.1	2.4	67.2	66.7	-0.6
Other [2]	12.7	12.2	-4.2	13.6	12.1	-11.2	13.1	12.3	-6.0	12.6	12.0	-5.3	12.6	11.7	-6.7
Total	**130.6**	**126.7**	**-2.9**	**127.6**	**116.3**	**-8.8**	**129.6**	**116.0**	**-10.5**	**125.9**	**121.3**	**-3.7**	**117.9**	**119.7**	**1.5**
United Kingdom															
Crude	32.8	34.5	5.2	32.6	34.0	4.3	35.9	34.4	-4.0	31.2	34.5	10.4	35.4	33.7	-4.8
Motor Gasoline	14.7	14.6	-0.7	15.2	15.6	3.0	14.2	14.7	3.8	14.5	15.4	6.0	15.4	14.7	-4.3
Middle Distillate	18.4	20.4	11.0	18.8	20.0	6.6	18.2	19.3	6.3	18.0	20.3	13.0	17.4	19.6	12.7
Residual Fuel Oil	7.5	7.3	-2.1	6.5	7.6	16.8	7.0	7.7	9.1	7.3	6.2	-15.9	7.1	6.9	-2.9
Other Products	11.7	12.0	3.3	12.4	12.9	3.6	11.7	11.8	0.8	11.7	12.6	7.0	10.8	11.9	9.7
Total Products	52.2	54.4	4.1	52.9	56.1	6.1	51.1	53.5	4.7	51.6	54.5	5.5	50.8	53.2	4.7
Other [2]	16.6	14.3	-14.0	15.2	16.2	6.7	14.3	14.0	-1.4	14.8	14.8	0.2	15.5	15.1	-2.6
Total	**101.6**	**103.1**	**1.5**	**100.7**	**106.3**	**5.6**	**101.3**	**102.0**	**0.7**	**97.6**	**103.7**	**6.3**	**101.7**	**102.0**	**0.3**
Canada															
Crude	59.5	57.6	-3.1	56.3	58.2	3.4	56.1	60.5	7.9	56.8	59.9	5.4	58.7	59.0	0.5
Motor Gasoline	17.4	16.2	-6.9	17.7	15.4	-12.9	17.6	13.3	-24.7	16.9	14.6	-13.9	16.7	15.1	-9.7
Middle Distillate	18.0	19.2	6.4	20.3	18.8	-7.4	22.3	20.2	-9.5	21.9	21.2	-3.0	21.3	21.6	1.1
Residual Fuel Oil	4.6	4.6	-0.7	5.0	4.7	-7.6	4.9	4.5	-7.1	4.2	4.6	10.4	4.5	4.6	0.7
Other Products	17.7	18.4	4.1	16.8	17.7	4.8	16.1	17.6	9.4	15.7	17.0	7.9	16.2	16.9	4.5
Total Products	57.7	58.4	1.1	60.0	56.6	-5.6	60.9	55.6	-8.7	58.7	57.4	-2.3	58.8	58.2	-1.1
Other [2]	12.5	11.0	-12.1	13.6	11.8	-13.1	15.4	12.8	-17.2	16.9	13.6	-19.2	18.1	12.8	-29.4
Total	**129.7**	**127.0**	**-2.1**	**129.9**	**126.6**	**-2.5**	**132.3**	**128.9**	**-2.6**	**132.4**	**130.9**	**-1.1**	**135.6**	**130.0**	**-4.1**

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 barrels' and 'days')

	End September 1996		End December 1996		End March 1997		End June 1997 [4]		End September 1997 [3]	
	Stock[1] Level	Days Fwd[2] Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
Canada	135.6	70	124.9	64	129.2	66	126.6	-	-	-
United States	1553.7	83	1507.4	83	1512.3	82	1576.9	-	-	-
NORTH AMERICA	1712.9	82	1656.0	81	1665.2	81	1727.2	83	1747.2	-4121576
Australia	43.2	53	40.9	51	44.1	53	45.1	-	-	-
Japan	664.5	111	651.1	102	649.7	126	662.2	-	-	-
New Zealand	10.6	81	8.4	61	8.9	80	10.6	-	-	-
PACIFIC	718.4	103	700.4	96	702.6	115	717.9	113	730.0	55685
Austria	17.2	73	17.9	82	17.4	77	17.6	-	-	-
Belgium	27.4	48	29.3	46	28.4	51	27.2	-	-	-
Denmark	19.1	77	19.2	80	20.2	90	17.5	-	-	-
Finland	23.8	111	26.8	136	24.4	121	24.4	-	-	-
France	147.6	75	154.4	76	156.5	85	149.2	-	-	-
Germany	297.0	103	303.0	109	312.6	102	299.3	-	-	-
Greece	19.7	52	21.8	57	23.4	67	22.9	-	-	-
Hungary	13.4	77	16.2	116	18.8	109	16.9	-	-	-
Ireland	8.2	63	8.6	63	7.8	61	8.7	-	-	-
Italy	144.3	73	134.9	72	142.8	79	133.4	-	-	-
Luxembourg	0.8	20	0.8	20	1.0	24	0.9	-	-	-
Netherlands	97.4	126	106.3	135	104.8	124	102.1	-	-	-
Norway	57.7	252	59.7	271	57.2	246	48.4	-	-	-
Portugal	18.8	67	18.2	65	20.9	70	18.3	-	-	-
Spain	94.1	77	94.4	79	94.5	80	94.0	-	-	-
Sweden	29.7	67	32.5	91	33.0	104	32.7	-	-	-
Switzerland	44.5	153	45.4	169	45.4	161	45.9	-	-	-
Turkey	48.9	73	50.1	83	50.8	81	50.4	-	-	-
United Kingdom	101.7	53	103.8	56	104.1	58	106.3	-	-	-
EUROPE[5]	1211.2	83	1243.1	87	1263.9	89	1216.1	84	1217.5	39803
Total	3642.5	86	3599.6	86	3631.7	89	3661.2	88	3694.6	85381
DAYS OF IEA NET IMPORTS[6]	-	127	-	123	-	123	-	124	-	125

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 September 1997 stock level based on preliminary data.
4 End September 1997 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	Industry
		Millions of Barrels			Days of Fwd. Demand[2]	
Q394	3760	1180	2580	92	29	63
Q494	3730	1190	2540	90	29	62
Q195	3618	1198	2421	92	30	61
Q295	3686	1192	2494	92	30	62
Q395	3732	1202	2530	90	29	61
Q495	3625	1191	2434	86	28	58
Q196	3507	1210	2297	88	30	58
Q296	3611	1203	2408	88	29	59
Q396	3642	1194	2449	86	28	58
Q496	3600	1189	2411	86	28	57
Q197	3632	1193	2439	89	29	60
Q297	3661	1193	2468	89	29	60
Q397	3695	1191	2503	86	28	58

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 September 1997(when latest forecasts are used).

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

	1994	1995	1996	3Q96	4Q96	1Q97	2Q97	3Q97	Jun97	Jul97	Aug97	Sep97	Oct97	Nov97
Crude Oil Prices														
IEA CIF Average Import	15.65	17.19	20.52	20.45	23.19	21.57	18.13	18.07	17.89	18.02	18.13	18.13	18.39*	19.10*
FOB Spot														
Brent (Dated)	15.80	17.02	20.65	20.96	23.58	21.10	18.06	18.56	17.58	18.54	18.68	18.46	19.93	19.20
WTI (1st month)	17.19	18.41	22.15	22.43	24.75	22.75	20.00	19.80	19.28	19.63	19.98	19.78	21.31	20.15
Urals (Del. Med.)	15.23	16.62	20.06	20.10	22.96	20.12	16.90	17.80	16.48	17.85	17.84	17.70	19.26	19.11
Dubai (1st month)	14.75	16.10	18.54	18.96	21.51	19.37	17.52	17.71	17.28	17.37	17.77	17.98	19.20	18.53
OPEC Basket	15.53	16.88	20.23	20.30	23.01	20.79	17.86	18.03	17.37	17.86	18.07	18.16	19.54	18.70*
Product Prices[1]														
Rotterdam, Barges FOB														
Premium 0.15 g/l	20.18	21.25	24.62	24.83	26.93	25.92	24.15	25.66	23.69	23.72	27.44	25.83	24.39	23.64
Regular Unleaded	18.65	19.75	22.99	23.31	25.02	24.18	22.28	23.66	21.87	21.57	25.58	23.85	22.96	22.30
Naphtha	17.30	18.15	21.70	21.90	25.01	23.57	19.99	20.98	19.97	20.27	21.31	21.37	22.45	21.85
Jet/Kerosene	20.95	21.60	27.05	27.48	31.88	26.93	23.37	23.49	22.73	23.09	23.85	23.53	25.11	25.52
Gasoil	19.80	20.47	25.91	26.41	30.08	25.45	22.41	22.42	21.93	22.20	22.76	22.29	24.27	23.97
Fuel Oil 1.0%S	14.00	15.76	17.52	16.35	19.62	16.21	14.08	14.94	14.61	14.74	14.99	15.09	16.94	18.29
Fuel Oil 3.5%S	13.01	14.82	16.30	15.57	18.56	15.03	13.20	14.64	13.35	13.90	14.90	15.11	16.10	16.78
Gross Product Worth[2]	18.34	19.28	23.34	23.46	26.57	23.33	20.87	21.28	20.40	20.55	21.86	21.43	22.45	22.23
Brent Cracking Margin	1.49	1.15	1.51	1.41	1.84	0.99	1.63	1.54	1.60	0.87	1.97	1.77	1.20	1.80
Mediterranean - Basis Italy, Cargoes FOB														
Premium 0.15 g/l	20.23	20.99	24.56	24.80	26.49	25.51	23.93	24.99	23.11	23.24	26.45	25.28	24.07	22.97
Naphtha	15.71	16.35	19.81	20.13	23.14	21.96	18.74	19.73	18.65	19.05	20.10	20.03	21.16	20.65
Jet/Kerosene	19.26	19.94	25.39	26.00	29.70	24.70	20.99	20.78	20.21	20.30	21.16	20.88	22.95	23.16
Gasoil	18.71	19.39	24.64	25.06	28.81	23.73	21.07	20.85	20.01	20.54	21.17	20.84	23.25	23.77
Fuel Oil 1.0%S	13.93	15.48	18.10	18.02	19.72	15.91	14.45	14.93	14.96	14.70	14.97	15.11	16.99	18.42
Fuel Oil 3.5%S	11.98	13.95	18.00	25.65	17.51	14.03	12.35	13.14	12.13	12.61	13.19	13.61	15.13	15.85
Gross Product Worth[3]	17.36	18.39	22.17	22.23	25.19	21.87	19.64	20.03	19.02	19.31	20.57	20.21	21.37	21.48
Urals Cracking Margin	1.79	1.44	1.80	1.81	1.93	1.43	2.42	1.91	2.21	1.13	2.41	2.18	1.79	2.05
NY Harbour, Barges														
Premium Unleaded 93	23.65	24.81	27.77	28.00	30.59	28.19	26.56	29.74	26.13	28.42	32.53	28.28	26.11	23.88
Regular Unleaded 87	20.54	22.57	25.81	25.88	28.37	26.77	24.31	26.61	23.10	24.54	29.40	25.88	24.49	23.39
Jet/Kerosene	22.20	21.76	27.57	27.13	30.86	27.21	23.73	23.87	22.72	23.47	24.38	23.76	24.79	23.91
No.2 (Heating Oil)	20.68	20.72	26.35	25.69	30.06	25.93	23.17	22.41	21.93	22.26	22.69	22.28	24.05	23.64
Fuel Oil 1.0%S (Cargo)	15.05	16.06	19.21	17.93	21.34	17.10	15.72	16.60	16.22	16.80	16.28	16.72	19.31	19.45
Fuel Oil 3.0%S (Cargo)	12.25	14.47	16.03	15.49	18.52	14.83	14.43	15.46	14.44	14.96	15.48	15.94	17.35	17.80
Gross Product Worth[4]	19.54	20.33	23.06	23.93	26.57	24.62	22.87	23.66	22.23	23.21	24.95	22.82	22.83	21.90
WTI Cracking Margin	1.24	0.82	0.75	0.41	0.72	0.77	1.76	2.77	1.86	2.48	3.88	1.94	0.43	0.65
Singapore, Cargoes														
Gasoline[5]	21.10	22.11	23.58	22.32	25.38	27.34	24.38	23.19	23.77	23.38	23.05	23.14	25.22	24.08
Naphtha	16.34	17.54	20.22	20.22	23.62	24.36	21.21	20.98	20.73	21.40	21.00	20.53	22.04	22.30
Jet/Kerosene	21.74	22.72	28.36	27.75	31.70	28.97	24.48	22.89	23.67	23.20	22.91	22.55	24.63	24.82
Gasoil	20.87	21.60	27.07	25.86	31.07	26.90	24.98	22.38	22.87	21.45	22.47	23.22	23.87	24.05
LSWR (0.3%)[6]	13.58	14.74	18.04	17.57	20.54	19.61	15.19	16.25	14.95	17.19	15.67	15.88	16.54	17.69
HSFO (3.5%S 180cst)	13.17	14.98	16.83	15.89	18.67	15.91	15.57	16.18	15.56	15.27	16.09	17.17	17.32	16.55
HSFO (3.5%S 380cst)	12.37	14.30	15.90	15.21	17.85	14.89	14.55	15.62	14.60	14.83	15.57	16.45	16.56	15.85
Gross Product Worth[7]	18.76	19.74	23.06	22.03	25.88	24.12	22.11	20.85	21.06	20.38	20.83	21.33	22.36	21.98
Dubai Cracking Margin	2.97	2.35	3.10	1.58	2.96	3.34	3.12	1.43	2.21	1.40	1.27	1.61	1.14	1.49

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

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

Table 9

END USER PRICES FOR PETROLEUM PRODUCTS[1]
November 1997

	National Currency						US Dollars					
			% ch Prev. Month		% ch Year Ago				% ch Prev. Month		% ch Year Ago	
	Price	Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax
GASOLINE [2] Price per Litre												
France	6.462	5.162	0.2	0.8	2.1	3.2	1.117	0.225	2.5	3.1	-9.7	-8.8
Germany	1.636	1.193	-0.2	-0.4	2.4	8.0	0.945	0.256	1.7	1.4	-10.6	-5.6
Italy	1923	1432	-0.2	-0.5	0.7	-0.5	1.140	0.291	2.2	1.8	-9.7	-10.8
Spain	120.2	81.4	-0.4	-1.1	1.5	4.0	0.825	0.266	1.7	1.0	-11.4	-9.2
UK	0.695	0.554	-0.3	-1.4	8.8	-8.5	1.176	0.237	3.9	2.8	10.6	-6.9
Japan	102	59	0.0	0.0	-2.0	-8.7	0.818	0.345	-2.6	-2.6	-11.5	-17.6
Canada	0.572	0.289	-2.7	-4.7	-0.9	-2.7	0.406	0.201	-4.8	-6.7	-5.9	-7.6
USA[3]	0.336	0.101	-2.0	-2.9	-2.9	-4.1	0.336	0.235	-2.0	-2.9	-2.9	-4.1
AUTOMOTIVE DIESEL [4] Price per Litre												
France	3.701	2.351	1.1	3.1	-1.6	-8.2	0.640	0.233	3.4	5.4	-13.0	-18.8
Germany	1.088	0.620	0.7	1.7	-0.6	-1.5	0.629	0.270	2.6	3.6	-13.2	-13.9
Italy	1204.17	747.47	0.3	0.7	-3.1	-7.8	0.714	0.271	2.6	3.1	-13.1	-17.3
Spain	80.92	43.20	0.1	0.2	-1.3	-2.7	0.555	0.259	2.1	2.2	-13.8	-15.0
UK	0.544	0.403	-0.4	-2.1	5.6	-18.0	0.920	0.239	3.8	2.1	7.4	-16.6
Japan	82	36	0.0	0.0	3.3	1.3	0.658	0.368	-2.6	-2.6	-6.8	-8.5
Canada	0.547	0.224	0.0	-0.6	-0.5	-3.3	0.388	0.229	-2.1	-2.7	-5.6	-8.2
USA	..	..	..	..	..	..	..	..	..	..	..	..
DOMESTIC HEATING OIL Price per 1000 Litres												
France	2333.4	913.4	1.6	2.2	-2.0	-3.4	403.2	245.4	3.9	4.5	-13.3	-14.6
Germany	523.7	148.3	0.7	0.8	-0.2	-0.2	302.5	216.9	2.6	2.7	-12.8	-12.8
Italy	1428000	985470	0.9	2.5	-0.7	-4.0	846.5	262.3	3.3	4.9	-10.9	-13.9
Spain	49705	19456	0.1	0.2	-2.5	-3.5	341.1	207.6	2.2	2.2	-14.9	-15.8
UK	152.00	33.04	0.9	1.1	-13.6	-14.8	257.2	201.3	5.2	5.4	-12.1	-13.3
Japan[5]	50190	2390	0.0	0.0	3.2	1.3	403.1	383.9	-2.6	-2.6	-6.8	-8.6
Canada	..	..	..	..	..	..	..	..	..	..	..	..
USA[6]	252.5	..	1.2	..	-10.1	..	252.5	..	1.2	..	-10.1	..
HFO FOR INDUSTRY [4,7] Price per Metric Ton												
France	870.0	159.9	6.4	7.9	4.7	5.3	150.3	122.7	8.8	10.4	-7.4	-6.9
Germany	250.5	30.0	4.1	4.7	3.5	4.0	144.7	127.4	6.0	6.6	-9.6	-9.2
Italy	302000	45000	6.3	7.5	2.7	3.2	179.0	152.3	8.8	10.0	-7.9	-7.4
Spain	24422	2150	5.0	5.5	3.1	3.4	167.6	152.9	7.1	7.7	-10.0	-9.8
UK	93.63	20.20	1.5	1.9	-7.3	-11.3	158.4	124.2	5.8	6.2	-5.8	-9.8
Japan	22989	1095	0.0	0.0	17.8	15.5	184.7	175.9	-2.6	-2.6	6.3	4.3
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

Oil Market Report Contacts

OECD Stocks (and Editor) David Knapp
(+33 1) 40 57 65 90
e-mail: david.knapp@iea.org

Demand Gareth Lewis-Davies
(+33 1) 40 57 65 92
e-mail: gareth.lewis-davies@iea.org

Supply Michael Wittner
(+33 1) 40 57 65 91
e-mail: mike.wittner@iea.org

Oil Prices and Refinery Activity Roberto M. Sieber
(+33 1) 40 57 65 93
e-mail: roberto.sieber@iea.org

Oil Trade Miharu Kanai
(+33 1) 40 57 65 94
e-mail: miharu.kanai@iea.org

Statistical Support Isabelle Ynesta
(+33 1) 40 57 65 95
e-mail: isabelle.ynesta@iea.org

Fax: *(+33 1) 40 57 65 99/40 57 65 09*

Editorial Enquiries

Oil Industry and Markets Division
International Energy Agency (IEA)
9 rue de la Fédération
75739 PARIS Cedex 15, FRANCE
Tel. (+33 1) 40 57 65 90

Subscription and Delivery Enquiries

FT Energy
Maple House
149 Tottenham Court Road
LONDON W1P 9LL, UK

Ab Hamid
Tel. (+44 (0)171) 896 2243/2241
Fax. (+44 (0)171) 896 2275
abh@pearson-pro.com

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 9 October 1997, 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 (© 1997 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 and Poland in Non-OECD Europe, Korea in Other Asia and Mexico in Latin America.

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