

8 December 1999

## HIGHLIGHTS

- Oil markets are rapidly tightening, causing prices to increase. Seasonal demand growth exceeds the gains in non-OPEC supply, while OPEC supply, which had been held flat until the second half of November, is now lower. Inventories are moving sharply downwards.
- World oil production averaged 73.9 mb/d in November, a decrease of 250 kb/d. Although non-OPEC output rose by 450 kb/d, mainly due to the North Sea and North America, crude supply from OPEC fell by 700 kb/d, because of reductions by Iraq and Iran.
- Iraq rejected two short extensions of Phase VI of the oil-for-food programme; exports ended on 24 November. Iran reduced its exports to comply more closely with its production target. Preliminary estimates show that November compliance with OPEC's cutback agreements rose to 89% from a downwardly-revised 83% in October.
- Global oil demand in the third quarter averaged 74.7 mb/d, 1.3% higher than a year earlier. Preliminary statistics for inland deliveries to OECD markets in October, totalling 36 mb/d, show an average 2.3% demand growth. Weekly statistics suggest that US demand in November grew by a robust 6% versus a year earlier. Fourth quarter global demand is estimated at 76.9 mb/d (+2.1%).
- A moderate decline of 440 kb/d in OECD industry stocks in October is expected to intensify through the remainder of the quarter. Non-OECD stocks are believed to be quite low, so the burden of meeting demand growth lies with OECD stocks.
- Refinery margins got caught in a squeeze in November, as product price increases lagged behind those of crude oil. At current margins, refiners are expected to cut runs, further increasing tightness in the product markets.

**Next Issue: 20 January 2000**



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

## INTERNATIONAL ENERGY AGENCY



The International Energy Agency (IEA) is seeking a dynamic and experienced energy expert to serve as the Editor of the IEA Oil Market Report and to lead its Oil Industry and Markets Division in the Office of Oil Markets and Emergency Preparedness.

**Duties:** Supervise and co-ordinate the Division's monitoring and analysis of oil industry and market developments and the preparation of the IEA's monthly Oil Market Report as the Editor • advise governments on recent trends in global and medium-term oil market developments • plan, organise and participate in meetings of the Standing Group on the Oil Market • work closely with other IEA divisions on oil industry and market aspects, including emergency preparedness • follow-up with media, governments and the oil industry.

**Qualifications:** Nationals (female or male) of OECD member countries\* are eligible to apply. The successful candidates will possess an advanced level university degree in economics or other relevant discipline. At least 10-15 years experience in the international oil industry with experience in the field of oil and energy policy. Strong analytical, communication and interpersonal skills are essential.

**Languages:** Excellent drafting and speaking ability in English, a working knowledge of French would be an advantage.

**Conditions:** The vacancy will arise in July 2000. Annual salary starts at FF529,140, plus allowances according to personal circumstances. Application, enclosing CV, specifying the reference "IEA/OIMD" should be sent no later than 1 February 2000 to:

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† 0 only within France

Only short-listed candidates will receive an acknowledge.

The OECD is an equal opportunity employer and encourages applications from female candidates.

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## A THIRSTY MARKET

Oil demand exceeds oil supply. Inventories are being drawn down rapidly to meet the unsatisfied demand. And prices are rising. This is a thirsty oil market, waiting for more oil, which will have to come principally from OPEC countries.

Global demand is rising not only to meet seasonal heating requirements in the northern hemisphere but also to fuel the very strong economic growth in North America and the recovering economies of Asia. There are pockets of economic strength in the recently-sluggish European economies, especially in France. Oil supply from outside OPEC is increasing much less rapidly than demand. Maintenance at North Sea fields is over, and operating conditions in Alaska normally improve with the onset of colder weather. New fields in the North Sea, Australia and the Gulf of Mexico are offsetting declines in mature producing areas. But there has not yet been a major turnaround in upstream oil activity. Little of the production that was shut in or lost due to lack of workovers and other upstream investment during last year's price collapse has reappeared.

As a result, OPEC production and oil from inventory are the only sources available to satisfy the growing demand. But OECD inventories have already dropped, almost to the low levels of 1996 and there will be less and less inventory to draw down. Compliance with OPEC production targets has moved back to 89%, toward the upper end of the 83-93% range of the last seven months, and Iraq shut down exports in the last week of November both of which exacerbate the market tightness.

### World Supply and Demand Balances 1999-2000

	(million barrels per day)				2000	
	1Q-3Q	Oct	Nov	Dec	1Q	2Q
Demand	74.74	75.82	76.58	78.3	78.1	75.4
Non-OPEC Supply	44.35	44.77	45.22	45.3	45.4	45.0
OPEC NGLs	2.82	2.84	2.84	2.8	2.9	2.9
OPEC Crude	26.65	26.50	25.80	(24-25.1)**	(26.3)	(26.4)
Iraq	2.60	2.82	2.37	(0.6-1.7)	(2.9)	(3.0)
"OPEC10"	24.05	23.68	23.42	(23.4)	(23.4)	(23.4)
Needed from Stocks	-0.93	-1.71	-2.73	(-5.1-6.2)	(-3.5)	(-1.1)
OECD Stock Change	-0.33	-0.44	-1.80	(-3.0)		
Oil-in-Transit	0.06	0.55	0.48	(0.5)		
Non-OECD Stock Change*	-0.65	-1.83	-1.40	(-2.7-3.8)		

\* including errors and omissions in supply, demand and OECD stock data

\*\* based on assumptions of the range of Iraq output and other OPEC at current levels]

The consensus view is that the Iraq outage may be relatively brief (see Supply section page 19), because Iraq needs the money. But there are reasons why Iraq might choose to stay out of the market for a while longer. First, Iraq's fields may need a rest from the aggressive production of this year. Second, there is over \$2 billion worth of approved humanitarian aid and oilfield equipment currently in the pipeline and another \$2 billion in escrow awaiting United Nations approval. The windfall revenues of Phase VI's higher prices and higher export levels may take some time to digest. Last and possibly most important, Saddam Hussein has a rapt audience in the oil market and in political circles.

When will OPEC move to raise production? In other words, are inventories now low enough and prices high enough to motivate such a move? Any possible consumer buying to protect against Y2K risks would take place over the next three weeks, draining even more oil from already depleted primary stocks. Futures markets seem to think there will be more oil soon. The words from key producers about standing ready to help with any major Y2K problems are comforting, but their silence on the evident stresses building in the oil market is not.

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# DEMAND

## Summary

- Projections for world oil demand are unchanged from those of the last Report: 75.3 mb/d this year and 77.1 mb/d next year. But these estimates may prove too high if weather remains mild and the recent weakness in heavy products persists.

### Global Oil Demand by Region

(million barrels per day)

	1999	Annual Change (mb/d)			Annual Change (%)		
		1998	1999	2000	1998	1999	2000
North America	23.69	0.45	0.54	0.45	2.0	2.3	1.9
Europe	16.02	0.35	-0.09	0.29	2.2	-0.6	1.8
OECD Pacific	8.65	-0.53	0.21	0.19	-5.9	2.5	2.2
China	4.35	0.07	0.20	0.16	1.7	4.8	3.7
Other Asia	7.07	0.05	0.30	0.34	0.7	4.4	4.8
<i>Subtotal Asia</i>	<i>20.07</i>	<i>-0.41</i>	<i>0.70</i>	<i>0.70</i>	<i>-2.1</i>	<i>3.6</i>	<i>3.5</i>
FSU	3.93	-0.19	-0.15	0.07	-4.4	-3.7	1.8
Middle East	4.29	0.11	-0.00	0.12	2.5	-0.1	2.9
Africa	2.41	0.06	0.03	0.07	2.6	1.2	2.7
Latin America	4.88	0.22	0.03	0.11	4.7	0.6	2.3
<i>World</i>	<i>75.29</i>	<i>0.59</i>	<i>1.05</i>	<i>1.80</i>	<i>0.8</i>	<i>1.4</i>	<i>2.4</i>

- Regional assessments of demand growth continue to shift, with North America and Asia showing more demand strength and Europe progressively more weakness, particularly in demand for residual fuel oil.

### Global Demand from 1999 to 2000

	Demand (mb/d)	Annual Change*		Changes from last month's Report (mb/d)
		(%)	(mb/d)	
1Q99	76.5	2.1%	1.6	-
2Q99	73.1	0.2%	0.1	-
3Q99	74.7	1.3%	0.9	-0.1
4Q99	76.9	2.1%	1.6	-
1Q00	78.1	2.1%	1.6	-
2Q00	75.4	3.2%	2.3	0.1
3Q00	76.2	1.9%	1.5	-0.2
4Q00	78.8	2.4%	1.8	0.1
1998	74.2	0.8%	0.6	-0.1
1999	75.3	1.4%	1.1	-
2000	77.1	2.4%	1.8	-

\* year-on-year change

- Oil demand in OECD Europe finished the third quarter 470 kb/d (or 3%) lower than a year earlier and 110 kb/d lower than projected in the last Report. European demand was down virtually across the barrel, with only jet fuel defying the trend. But stronger-than-anticipated US oil demand meant the third quarter assessment of OECD demand dropped only 60 kb/d, to an average 46.9 mb/d.
- Oil demand in non-OECD countries during the third quarter is now estimated to have been 27.8 mb/d, 20 kb/d less than in last Report. The marked weakness in Middle Eastern demand was almost entirely offset by strength in China and other Asian countries. The apparent demand for oil in China during the third quarter was 10% higher than a year earlier.
- Early indications of demand point to fourth quarter strength. Preliminary statistics for inland deliveries in October to OECD markets totalling 36 mb/d show an average 2.3% demand growth and the weekly statistics suggest US demand growing 6% in November.

## Summary of Global Oil Demand

	1997	1Q98	2Q98	3Q98	4Q98	1998	1Q99	2Q99	3Q99	4Q99	1999	1Q00	2Q00	3Q00	4Q00	2000	
<b>Demand (mb/d)</b>																	
North America	22.70	22.65	22.97	23.51	23.46	23.15	23.55	23.22	23.93	24.04	23.69	23.94	23.69	24.36	24.53	24.13	
Europe	15.00	15.41	14.72	15.21	15.87	15.30	15.80	14.38	14.74	15.84	15.19	15.72	14.90	15.01	16.15	15.44	
Pacific	8.97	9.20	7.77	7.98	8.82	8.44	9.43	7.89	8.24	9.04	8.65	9.64	8.12	8.36	9.24	8.84	
Total OECD	46.66	47.26	45.46	46.70	48.14	46.89	48.78	45.50	46.91	48.92	47.52	49.30	46.71	47.73	49.92	48.42	
FSU	4.27	4.52	4.09	3.89	3.83	4.08	4.19	3.59	3.99	3.95	3.93	4.27	3.91	3.99	3.83	4.00	
Europe	0.77	0.87	0.81	0.75	0.82	0.81	0.90	0.83	0.77	0.84	0.83	0.93	0.86	0.80	0.87	0.87	
China	4.08	4.35	4.25	4.03	3.98	4.15	4.26	4.57	4.44	4.12	4.35	4.60	4.68	4.40	4.37	4.51	
Other Asia	6.73	6.66	6.76	6.68	7.00	6.78	7.05	7.00	7.02	7.22	7.07	7.39	7.34	7.36	7.57	7.42	
Latin America	4.63	4.66	4.88	4.97	4.87	4.85	4.71	4.89	4.96	4.95	4.88	4.80	5.00	5.09	5.08	4.99	
Middle East	4.19	4.19	4.31	4.43	4.23	4.29	4.20	4.31	4.23	4.42	4.29	4.32	4.43	4.36	4.55	4.41	
Africa	2.32	2.40	2.38	2.30	2.47	2.38	2.39	2.38	2.38	2.50	2.41	2.46	2.44	2.44	2.57	2.48	
Total Non-OECD	26.99	27.66	27.47	27.06	27.19	27.34	27.70	27.55	27.80	28.00	27.77	28.78	28.65	28.44	28.84	28.68	
World	73.65	74.92	72.94	73.76	75.33	74.24	76.48	73.05	74.71	76.91	75.29	78.08	75.37	76.17	78.76	77.09	
<b>of which:</b>																	
<i>US (ex Terr.)</i>	18.62	18.46	18.86	19.24	19.10	18.92	19.19	19.00	19.64	19.61	19.36	19.42	19.35	19.92	19.95	19.66	
<i>Euro 4</i>	8.62	8.84	8.35	8.64	8.91	8.68	8.97	7.90	8.21	8.88	8.49	8.88	8.20	8.29	8.99	8.59	
<i>Japan</i>	5.71	6.15	4.97	5.24	5.70	5.52	6.17	5.02	5.29	5.84	5.58	6.30	5.12	5.30	5.92	5.66	
<i>Korea</i>	2.28	2.08	1.82	1.78	2.11	1.95	2.29	1.87	1.97	2.17	2.08	2.36	1.99	2.07	2.28	2.17	
<i>Mexico</i>	1.85	1.95	1.97	2.00	2.05	1.99	2.09	2.03	2.00	2.08	2.05	2.15	2.09	2.09	2.17	2.12	
<i>Canada</i>	1.94	1.94	1.87	2.01	2.02	1.96	1.96	1.92	2.00	2.06	1.99	2.06	1.98	2.07	2.11	2.05	
<i>Brazil</i>	2.08	2.08	2.18	2.25	2.22	2.18	2.11	2.19	2.24	2.26	2.20	2.14	2.24	2.29	2.33	2.25	
<i>India</i>	1.78	1.88	1.85	1.78	1.93	1.86	2.05	2.02	1.96	2.02	2.01	2.18	2.14	2.07	2.14	2.13	
<b>Annual Change (% per annum)</b>																	
North America	2.2%	1.8%	2.1%	2.6%	1.4%	2.0%	4.0%	1.1%	1.8%	2.5%	2.3%	1.7%	2.0%	1.8%	2.0%	1.9%	
Europe	0.9%	4.0%	-0.4%	1.5%	3.1%	2.1%	2.5%	-2.3%	-3.1%	-0.1%	-0.7%	-0.5%	3.6%	1.8%	1.9%	1.7%	
Pacific	1.7%	-6.6%	-4.9%	-5.5%	-6.3%	-5.9%	2.5%	1.6%	3.3%	2.5%	2.5%	2.2%	2.9%	1.5%	2.3%	2.2%	
Total OECD	1.7%	0.7%	0.0%	0.8%	0.4%	0.5%	3.2%	0.1%	0.4%	1.6%	1.3%	1.1%	2.7%	1.8%	2.0%	1.9%	
FSU	-1.3%	5.2%	-1.6%	-8.2%	-12.7%	-4.4%	-7.3%	-12.4%	2.6%	3.2%	-3.7%	2.0%	9.0%	-0.1%	-3.0%	1.8%	
Europe	1.7%	5.6%	5.6%	5.6%	5.6%	5.6%	2.7%	2.7%	2.7%	2.7%	2.7%	4.0%	4.0%	4.0%	4.0%	4.0%	
China	11.0%	7.2%	8.9%	-1.3%	-6.9%	1.7%	-2.0%	7.5%	10.1%	3.6%	4.8%	7.9%	2.4%	-1.0%	6.0%	3.7%	
Other Asia	5.5%	-0.6%	-0.1%	0.4%	3.3%	0.7%	5.9%	3.5%	5.1%	3.2%	4.4%	4.8%	4.8%	4.8%	4.8%	4.8%	
Latin America	3.8%	6.5%	4.9%	4.9%	2.6%	4.7%	1.0%	0.2%	-0.2%	1.6%	0.6%	2.0%	2.2%	2.5%	2.7%	2.3%	
Middle East	4.2%	3.1%	3.2%	1.9%	2.0%	2.5%	0.1%	-0.1%	-4.5%	4.5%	-0.1%	2.9%	2.9%	2.9%	2.9%	2.9%	
Africa	3.5%	3.3%	1.5%	0.6%	4.9%	2.6%	-0.2%	-0.0%	3.7%	1.3%	1.2%	2.7%	2.7%	2.7%	2.7%	2.7%	
Total Non-OECD	4.4%	3.8%	2.6%	-0.1%	-1.0%	1.3%	0.2%	0.3%	2.7%	3.0%	1.5%	3.9%	4.0%	2.3%	3.0%	3.3%	
World	2.6%	1.8%	1.0%	0.5%	-0.1%	0.8%	2.1%	0.2%	1.3%	2.1%	1.4%	2.1%	3.2%	1.9%	2.4%	2.4%	
<b>Annual Change (mb/d)</b>																	
North America	0.48	0.40	0.47	0.60	0.33	0.45	0.90	0.25	0.41	0.58	0.54	0.39	0.47	0.43	0.49	0.45	
Europe	0.13	0.59	-0.05	0.23	0.47	0.31	0.39	-0.34	-0.47	-0.02	-0.11	-0.08	0.51	0.27	0.31	0.25	
Pacific	0.15	-0.65	-0.40	-0.47	-0.59	-0.53	0.23	0.12	0.26	0.22	0.21	0.21	0.23	0.12	0.21	0.19	
Total OECD	0.76	0.34	0.02	0.36	0.21	0.23	1.52	0.04	0.20	0.78	0.63	0.52	1.21	0.82	1.00	0.89	
FSU	-0.06	0.22	-0.07	-0.35	-0.56	-0.19	-0.33	-0.51	0.10	0.12	-0.15	0.08	0.32	-0.00	-0.12	0.07	
Europe	0.01	0.05	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.04	0.03	0.03	0.03	0.03	
China	0.41	0.29	0.35	-0.05	-0.30	0.07	-0.09	0.32	0.41	0.14	0.20	0.34	0.11	-0.04	0.25	0.16	
Other Asia	0.35	-0.04	-0.01	0.02	0.22	0.05	0.39	0.24	0.34	0.22	0.30	0.34	0.34	0.34	0.35	0.34	
Latin America	0.17	0.28	0.23	0.23	0.13	0.22	0.05	0.01	-0.01	0.08	0.03	0.09	0.11	0.12	0.13	0.11	
Middle East	0.17	0.12	0.13	0.08	0.08	0.11	0.01	-0.01	-0.20	0.19	-0.00	0.12	0.12	0.12	0.13	0.12	
Africa	0.08	0.08	0.03	0.01	0.11	0.06	-0.01	-0.00	0.08	0.03	0.03	0.06	0.06	0.06	0.07	0.07	
Total Non-OECD	1.13	1.01	0.71	-0.01	-0.27	0.35	0.05	0.08	0.74	0.81	0.42	1.08	1.10	0.63	0.84	0.91	
World	1.89	1.35	0.72	0.34	-0.05	0.59	1.57	0.11	0.95	1.59	1.05	1.60	2.32	1.45	1.84	1.80	
<b>Changes from Last Month's Report</b>																	
North America	-	-	-	-	-	-	-	-	0.05	0.04	0.02	-	-0.01	0.05	0.03	0.02	
Europe	-	-	-	-	-	-	0.01	0.02	-0.11	-0.15	-0.06	-0.06	-0.01	-0.12	-0.15	-0.09	
Pacific	-	-	-	0.01	-	-	-	-	-	0.02	0.01	-	-	-	0.02	0.01	
Total OECD	-	-	-	0.01	-	-	0.01	0.02	-0.06	-0.09	-0.03	-0.06	-0.02	-0.07	-0.09	-0.06	
FSU	-	-	-	-	-	-	-	-	-	0.08	0.02	-	-	-	0.08	0.02	
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
China	-	-	-	-	-	-	-	-	0.25	-0.07	0.05	0.04	0.09	0.04	-	0.04	
Other Asia	-	-	-	-	-	-	-0.01	-0.01	0.04	-0.01	-	0.01	0.05	0.10	0.05	0.05	
Latin America	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.07	-0.07	-0.03	-0.05	-0.03	-0.07	-0.07	-0.03	-0.05	
Middle East	-	0.01	0.01	0.01	0.01	0.01	0.01	0.02	-0.31	0.07	-0.05	0.01	0.02	-0.32	0.08	-0.05	
Africa	-	-	-	-	-	-	-	-	0.07	0.01	0.02	0.02	0.02	0.08	0.03	0.04	
Total Non-OECD	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.03	-0.06	-0.02	0.06	-0.01	0.05	0.10	-0.16	0.20	0.05	
World	-0.03	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.04	-0.08	-0.03	-0.04	-0.01	0.08	-0.24	0.10	-0.02	

## OECD

### Early Indications of Demand

Preliminary October data for inland deliveries in eight large oil markets again show a healthy increase, of 810 kb/d or 2.3%, despite declines in gasoline demand. Middle distillate took the lead, with diesel and gasoil gaining nearly 500 kb/d and jet/kerosene about 100 kb/d. Inland deliveries of "other products" remained strong, more than 300 kb/d higher than a year ago, with most of that in naphtha and LPG for petrochemicals. Residual fuel oil's loss of demand in Italy can be entirely explained by higher hydropower and electricity imports.

#### Preliminary Inland Deliveries - October 1999<sup>1</sup>

	Gasoline		Jet/Kerosene		Diesel		Gasoil		RFO		Other <sup>2</sup>		Total Products	
	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa	mb/d	% pa
United States <sup>3</sup>	8.46	1.0	1.75	4.9	2.72	14.2	1.16	-0.8	0.76	1.1	4.94	2.0	19.78	3.1
Mexico	0.49	-5.4	0.05	4.0	0.27	-4.6	0.00	-66.7	0.44	5.3	0.35	12.5	1.60	1.1
Japan	0.96	0.7	0.42	3.7	0.76	-3.3	0.42	-1.2	0.56	1.4	1.68	10.6	4.79	3.5
Korea	0.15	-6.7	0.05	10.6	0.36	21.6	0.17	-13.1	0.29	10.8	0.91	9.6	1.92	7.9
France	0.31	-4.8	0.12	5.9	0.55	1.0	0.35	16.9	0.07	-33.5	0.50	0.2	1.90	0.7
Germany	0.70	-2.5	0.15	3.5	0.60	-0.6	0.66	12.9	0.09	-13.3	0.50	-5.8	2.69	0.6
Italy	0.39	-4.8	0.07	7.1	0.39	3.0	0.16	-0.6	0.31	-8.8	0.40	4.0	1.72	-1.1
UK	0.46	-11.0	0.27	-8.6	0.29	-9.5	0.22	34.1	0.03	-26.1	0.23	-14.3	1.50	-6.6

Sources: US EIA, Japan MITI, France CPDP, Germany MWV, UK PIA, Italy Ministry of Industry, Statistics Canada, Mexico Pemex, Korea PEDCO  
Percentage change is calculated from the same month of the previous year

1 excludes refinery fuel and bunkers (except US)

2 includes direct use of crude oil

3 fifty states only. Diesel's share of total distillate is estimated.

The UK data may signal real weakness, coming as they do on the heels of last month's nearly 4% decline. Inland deliveries lost 110 kb/d, half in gasoline and 30 kb/d in diesel. Bunkers fell by an additional 20 kb/d. It seems likely that the demand loss is real, triggered by the UK's high fuel taxes. Cross-border purchases (particularly for diesel) have led the UK government to cancel next year's annual fuel tax escalator (6% per year, in real terms) in favour of a more flexible approach.

There may again be upside potential in the near-term US market. This Report assumes US oil demand growth in October of 3.1%, based on weekly statistics from the US Energy Information Agency, but the American Petroleum Institute estimates 5.4% and monthly EIA figures continue to outstrip preliminary weekly estimates.

#### Percentage Annual Change in Retail Prices in November 1999<sup>1</sup>

(% per annum change in local currency)

	Gasoline	Diesel	Gasoil	RFO
USA	24%	24%	na	na
Canada	18%	10%	na	na
Japan <sup>2</sup>	7%	4%	-2%	10%
France	12%	17%	29%	66%
Germany	14%	14%	54%	45%
Italy	8%	12%	11%	57%
UK	19%	20%	31%	46%

1 Mid-month

2 Japanese heating oil is represented by kerosene

Residual fuel oil in Europe and gasoil in Germany remain much more expensive than a year ago. Rising prices are likely to have spurred early purchase of feedstocks by industry and restrained industrial and utility demand for fuel oil. The relatively modest price increase shown for Japan reflects the increased competition in this market.

### Moving Annual Average Change in Oil Demand

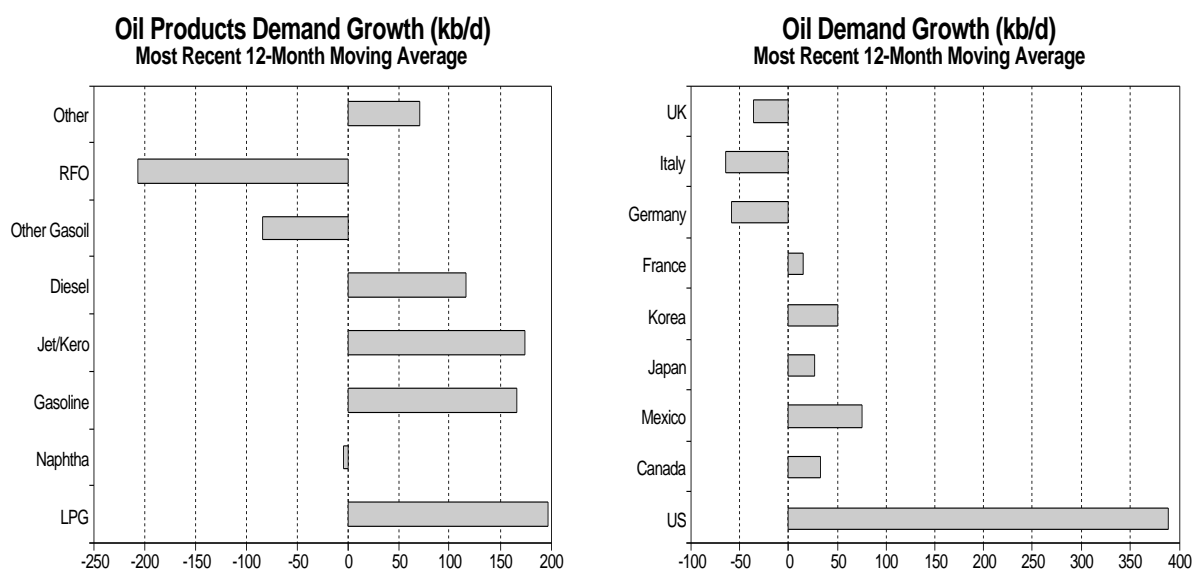
(12-Month Moving Average to September 1999)

	LPG	Naphtha	Gasoline	Jet/ Kerosene	Diesel	Other Gasoil	RFO	Other	Total	kb/d
US	6.3%	-10.2%	1.6%	3.8%	3.0%	-4.2%	-2.5%	4.4%	2.1%	390
Canada*	3.2%	2.8%	2.9%	-1.5%	0.5%	2.8%	0.8%	-2.0%	1.7%	33
Mexico	10.7%	-29.9%	-0.6%	6.2%	-0.2%	na	-4.4%	53.4%	3.8%	75
Japan	2.4%	6.5%	2.4%	1.5%	-0.6%	1.3%	-5.3%	-6.2%	0.5%	27
Korea	6.7%	2.8%	3.4%	24.4%	-5.4%	-4.6%	-0.3%	131.1%	2.5%	51
France	3.3%	-2.0%	0.5%	15.6%	6.2%	4.7%	-7.7%	-21.0%	0.8%	16
Germany	-5.7%	-2.9%	0.0%	5.7%	4.7%	-7.9%	-7.3%	2.4%	-2.0%	-59
Italy	-1.2%	-19.5%	-0.3%	13.8%	3.7%	5.8%	-14.3%	2.7%	-3.3%	-65
UK	-3.4%	8.3%	-2.3%	3.7%	-0.8%	-1.4%	-18.8%	-4.3%	-2.0%	-36
Total	5.0%	-0.1%	1.3%	5.2%	2.2%	-2.2%	-5.5%	1.8%	1.1%	431
kb/d	197	-4	167	174	116	-84	-206	71	431	

\* near-month data for Canada are estimated

Oil demand in these eight markets plus Canada (as measured by a twelve-month moving average) continues to soar. The growth of 168 kb/d through August led to 286 kb/d by September and to 431 kb/d now. This represents an increase of 155 kb/d in a single month, half in Japan and Korea and another 55 kb/d in the US. According to the latest weekly statistics, US demand grew 6% in November.

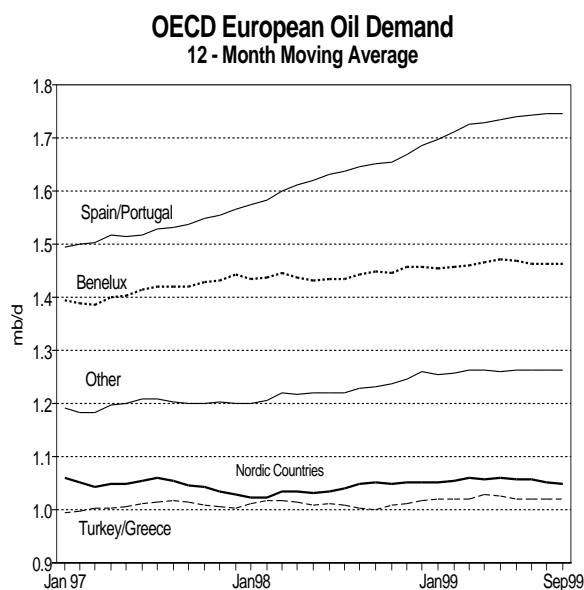
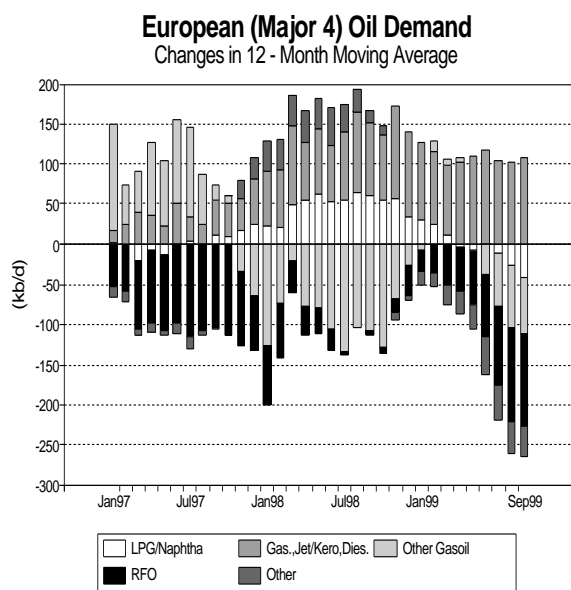
On the product side, the moving average demand for LPG and naphtha rose another 40 kb/d, a development which may point to a mini-boom in petrochemicals. Jet fuel demand increased 20 kb/d, as another confirmation of economic recovery. And demand for "other gasoil", or heating oil, leaped 60 kb/d as winter buying began in earnest. As the right-hand bar chart shows, OECD oil demand growth has been predominantly in North America, but Japan and Korea are beginning to show their strength.



### European Demand

European oil demand in 1999 is projected to fall 110 kb/d short of 1998. Demand has flattened in faster growing European markets such as Spain and Portugal and demand for residual fuel oil is weak virtually across-the-board. This is despite EU economic growth estimated by the European Commission to be 2.1% this year and 3% next. The French economy, particularly the private sector, seems to be restructuring and improving most quickly, as witness the boom at the French stock exchange, while the German economic model is changing more slowly, limiting growth. Jet demand, a leading indicator of economic growth, clearly shows this contrast, growing by 15% this year in **France** versus just 5% in **Germany**.

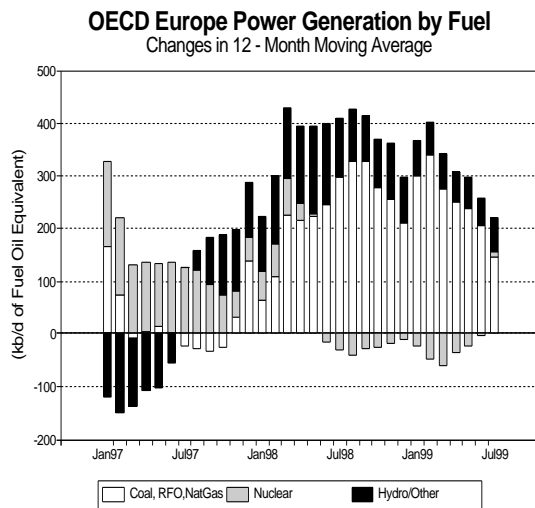




Against this backdrop, European oil demand looks surprisingly weak, with structural changes such as electricity-supply restructuring primarily responsible. Weakness in second quarter demand can be attributed to rising prices and the timing of new taxes. But oil demand in the third quarter was 470 kb/d lower than a year earlier, a third of that in gasoil (grey bars) and another third in fuel oil (black bars). Though gasoil buying has resumed, fuel oil's weakness remains, due to higher prices, the increasing openness of European electricity markets and recovering hydropower.

The chart on the right shows electricity generation gains and losses by fuel, all converted to fuel-oil equivalents. The white section of the bars shows the use of coal, oil and natural gas; the grey bars show nuclear power and the black bars show hydro- and geo-thermal power.

The use of hydrocarbons (at the margin, fuel oil) increased dramatically through 1998 because nuclear and hydropower production was limited. That trend has reversed now that hydropower is recovering to more-normal levels. Even if hydrocarbon use remains constant, it tends to mean less residual fuel oil as progressively more coal and natural gas is forced into the mix - coal for reasons of price, natural gas for environmental reasons.



European electricity restructuring has already undermined the fundamentals of residual fuel oil demand, although the process is far from complete.

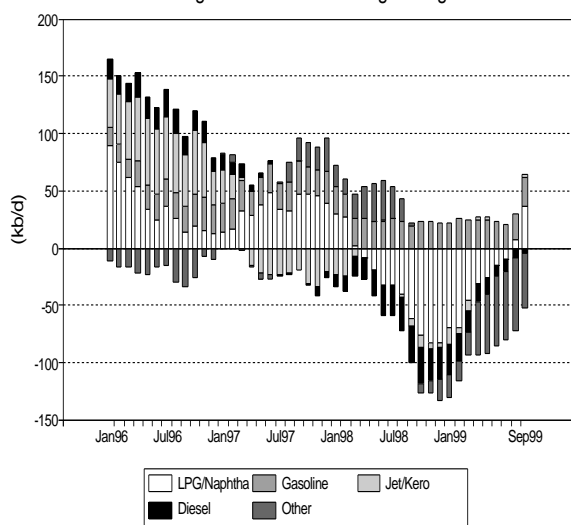
Germany is one of the first countries to have opened its electricity market to full competition and Italy's ENEL in mid-November announced its plan to divest three generating companies. Increasing inter-connections across Europe have opened the way to higher imports of nuclear and hydropower surpluses. The more open these markets become, the smaller the niche left for oil in electric-power generation. Fuel oil weakness is now expected to persist through next year, resulting in a reduction of projected demand growth in 2000 to just 260 kb/d.

### OECD Pacific Demand

**Japanese** oil demand in the third quarter totalled 50 kb/d higher than a year ago, despite accelerating losses in power generation. Demand for petrochemical feedstocks grew 110 kb/d and that for gasoline, 30 kb/d. Even so, the mild weather and mixed economic signals prompt caution, with economic growth modest and consumer spending restrained, despite a rising stock market.

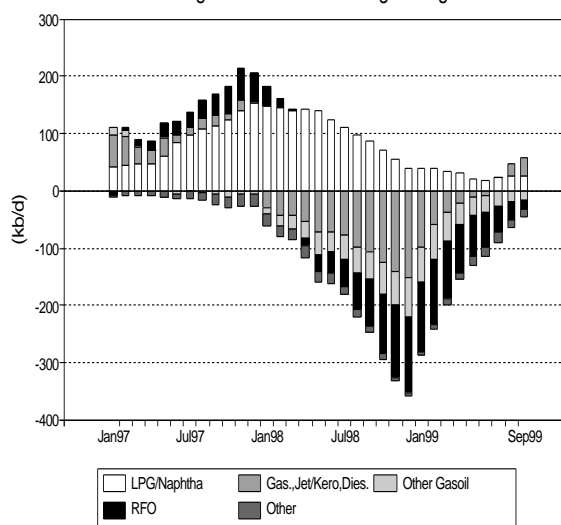
### Japanese Oil Demand (excluding Electricity Utilities)

Changes in 12 - Month Moving Average



### Korean Oil Demand

Changes in 12 - Month Moving Average



The smaller but much faster-growing **Korean** market rose 190 kb/d in the same period, a third of it in transportation fuel (striped bars) and another third in petrochemical feedstocks (white bars). Korean weather has also been mild, limiting kerosene demand, but the economy is racing ahead, growing over 12% in the third quarter.

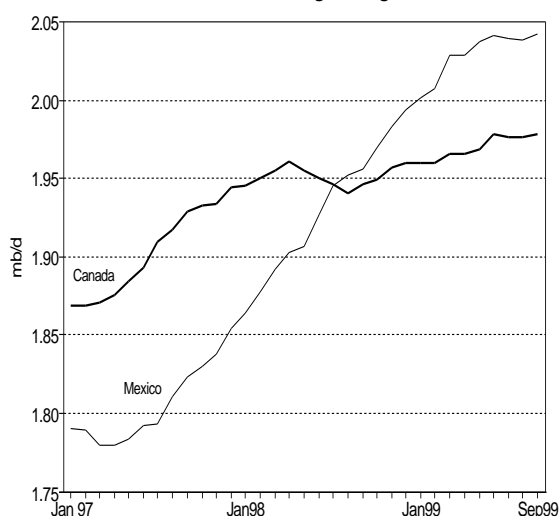
Projected oil demand in OECD Pacific countries (Japan, Korea, **Australia** and **New Zealand**) is essentially unchanged from the last Report at an average 8.65 mb/d in 1999 (210 kb/d growth), with the Australian economy continuing to be strong. Demand for the four countries in 2000 is expected to gain another 190 kb/d, with upside potential for Korea.

### North American Demand

North America continues to be an oil-demand powerhouse, growing an average 2.3% in 1999, to 23.7 mb/d, and a slightly-slower 1.9% (450 kb/d) next year. The US economy and US oil demand continue to outstrip expectations, with GDP in the third quarter estimated to have grown 5.5% despite interest rate increases.

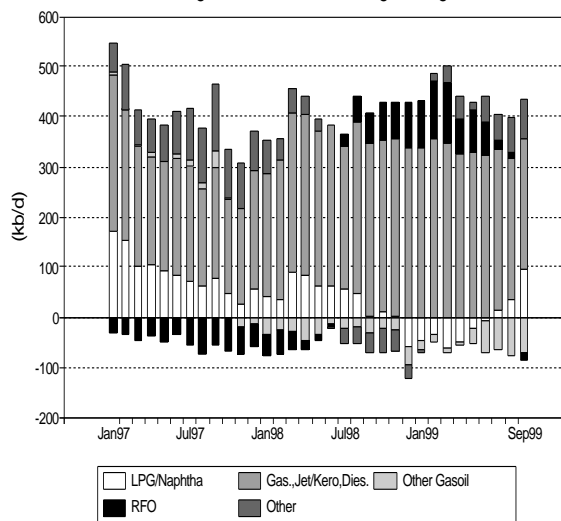
### Canadian and Mexican Oil Demand

12 - Month Moving Average



### US Oil Demand

Changes in 12 - Month Moving Average



**Mexican** demand growth has slowed recently, yet higher oil revenues to the exporting nation and the relocation of US industrial facilities to Mexico are keeping the demand fundamentals strong.

## Non-OECD

### Former Soviet Union Apparent Demand

November marks the fourth consecutive month of growth in apparent demand in the FSU. Preliminary figures for the most recent three months show year-on-year gains averaging 9%, though the current projection for the fourth quarter, for now, has been held far below that. This recent surge in apparent demand has been made possible by crude production an average 230 kb/d (3%) higher than last year and net exports 110 kb/d (or 3%) lower. Apparent demand at this unusually high level is likely to include stock rebuilding at electric power and industrial plants. Economic recovery has been strong enough (and fuel oil for power expensive enough) to prompt the FSU to maximise nuclear output.

The current assessment is essentially unchanged from that of the last Report, at 3.9 mb/d in 1999 (150 kb/d below 1998) and just 70 kb/d growth in 2000, to an average 4 mb/d. There may be upside potential to both these figures, depending upon the extent to which stocks need to be rebuilt further.

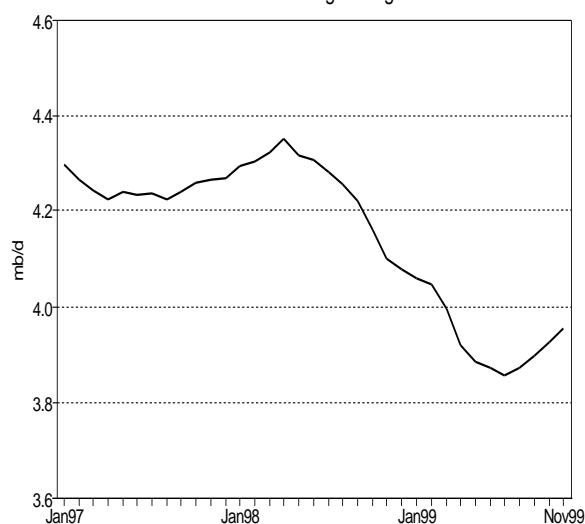
### Chinese Apparent Demand and Trade

Projected demand for petroleum in **China** continues to be pushed by bullish current data. Compared to the same period of 1998, the apparent demand for oil (net domestic supply) grew 320 kb/d (or over 7%) in the second quarter and 410 kb/d (10%) in the third. This, too, is likely to reflect substantial restocking, for the underlying economy is still relatively weak and restructuring is slow. Trade barriers will diminish and restructuring will proceed more quickly as China meets the conditions of membership in the World Trade Organisation (WTO). On the other hand, the initial impact of WTO membership is likely to be industrial consolidation and contraction, limiting oil demand growth.

The current assessment for Chinese oil demand remains growth of just 200 kb/d (4.8%) in 1999, to an average 4.35 mb/d, with an additional 160 kb/d gain next year. Oil demand to date has been propped up by government spending to stimulate the economy, economic growth has slowed five percentage points since 1994 and deflation continues. However, the central bank recently signalled that it will increase money supply to help combat deflation; this would stimulate consumer spending and oil demand.

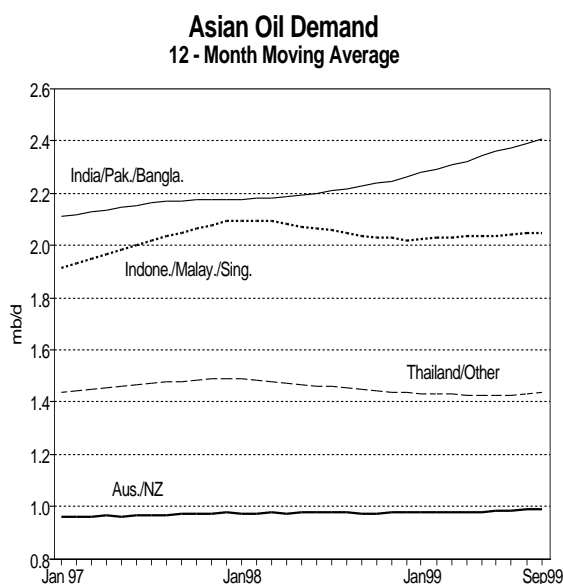
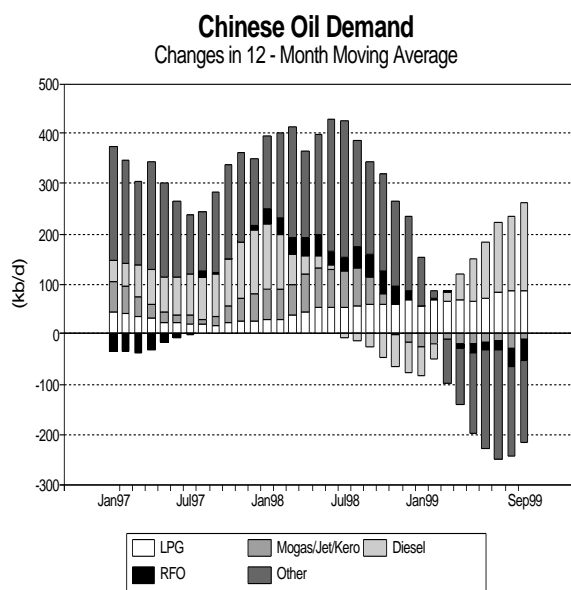
Chinese net imports in September were almost unchanged from the previous month at 1.13 mb/d. But the trend toward higher crude imports and lower product imports was becoming apparent; net crude imports posted another record high, while net product imports plunged to the lowest levels since January 1998. The incentives for formal and informal importing of products were reduced, as the differentials between international and domestic prices narrowed. The Government's restrictions on product imports, aided by crackdowns on smuggling and illegal distribution channels, also accelerated the trend. As a result, Chinese refinery throughputs in September increased to 3.49 mb/d, the highest ever, realising a Government policy goal of higher utilisation of domestic refining capacity.

FSU Apparent Demand  
12 Month Moving Average



Chinese Crude Oil and Product Trade  
(thousand barrels per day)

	kb/d			Latest Month vs.	
	Sept 99	Aug 99	Sept 98	Aug 99	Sept 98
Crude Imports	1046	990	526	56	520
Crude Exports	124	187	391	-63	-267
Net Crude Imports	922	802	135	119	787
Total Net Imports	1125	1137	580	-12	545
<b>Product Net Imports</b>					
LPG	149	173	196	-24	-46
Naphtha	1	1	0	0	1
Gasoline	-122	-124	-50	2	-72
Kerosene	6	11	12	-6	-6
Diesel	-15	-0	25	-15	-40
RFO	167	173	244	-6	-77
Other Products	18	99	19	-81	-1
Total Products	203	334	445	-131	-242



### Indian Demand and Trade

Measured by a twelve-month moving average, **Indian** oil demand through September has grown 160 kb/d, three times as fast as a year ago. The leading contributor has been high-speed diesel, or HSD, which grew 60 kb/d due in large part to prices capped substantially below world market levels. However, the government in early October permitted a 40% increase in the ex-storage price of HSD. Even if the duty on diesel is reduced, the higher prices should put the brakes on demand growth, as the projections anticipate. Oil demand is expected to reach an average 2.13 mb/d next year. The 120 kb/d growth anticipated is higher by one-third than the 1993-98 average, due in large part to aggressive refining and petrochemical expansions.

India also imported more crude and fewer products in September. Crude imports remained high at 923 kb/d. Product imports fell to the lowest levels in three years, as newly-commissioned refineries such as Indian Oil Corporation's Panipat and Reliance Petroleum's Jamnagar started providing domestic markets with petroleum products. Indian refinery throughputs increased to 1.75 mb/d, another record high, in September.

### India - Crude Oil and Product Trade

(thousand barrels per day)

	kb/d			Latest Month v.	
	Sept 99	Aug 99	Sept 98	Aug 99	Sept 98
Crude Imports	923	898	859	25	65
Crude Exports	0	0	0	0	0
Net Crude Imports	923	898	859	25	65
Total Net Imports	1194	1313	1420	-119	-226
<b>Product Net Imports</b>					
Gasoil	27	155	293	-128	-265
Gasoline	0	0	0	-0	-0
Fuel Oil	13	11	20	2	-7
LPG	87	65	51	22	37
Naphtha	5	2	-23	3	28
Kerosene	136	180	221	-44	-85
Other	136	145	185	-9	-48
Total	271	415	561	-145	-291

Source: Indian Ministry of Commerce

### Other Non-OECD Asia

Petroleum product demand in these countries is now expected to grow at a more aggressive 220 kb/d between this year and next, consistent with Asian recovery. The economic condition of these countries is most closely monitored by the Asian Development Bank, which upgraded its 1999 GDP forecast from 5.5% in September to 5.7% by late November, seeing growth sustained through next year. The latest oil-demand data show a modest demand loss in the **Philippines** but continued improvement in **Thailand**, which is now expected to finish 1999 even with last year.

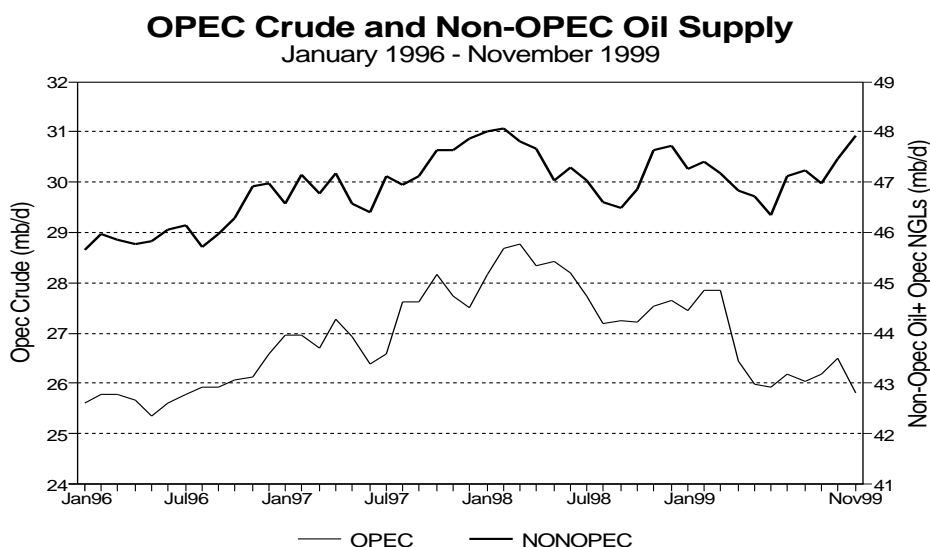
### Other Non-OECD

Latin American oil demand is now expected to finish 1999 only 30 kb/d higher than last year, with half that paltry growth in **Brazil**. After six years of growth in Brazil averaging 100 kb/d, it fell to just 50 kb/d in the fourth quarter of 1998 and has continued its collapse with a demand loss of 15-20 kb/d in the third quarter of this year. Demand has also been weak in **Argentina**, with losses averaging 15 kb/d (3%) through the first seven months. The estimate of 1999 oil demand in the Middle East has also been reduced from a projected 60 kb/d growth anticipated in last Report to *no growth*, as seen in the first half of this year. Partially offsetting this loss is 20 kb/d higher growth (from 0.4% to 1.2%) now projected for Africa.

# SUPPLY

## Summary

- Preliminary estimates indicate that **world oil production** averaged 73.9 mb/d in November, a decrease of 250 kb/d from October. A 450 kb/d gain in non-OPEC output was not enough to overcome a sharp 700 kb/d decline in OPEC crude supply.
- **OPEC** crude production fell in November to 25.8 mb/d due to major decreases in Iraq and Iran. Iraq rejected two extensions of Phase VI of the “oil-for-food” programme, first for two weeks to 4 December and then for one week until 11 December. As a result, exports of 2.2 mb/d ended on 24 November, and Iraqi crude supply for the month dropped by 440 kb/d. Iranian crude supply was 310 kb/d lower. Export loadings were reportedly delayed so that Iran could be in compliance with its OPEC production target of 3.36 mb/d. Crude output from other members was up modestly, by a combined 50 kb/d. For OPEC excluding Iraq, total cuts of 3.87 mb/d in November represented **89% compliance** with the Organisation’s cumulative reduction target of 4.32 mb/d. This compares to a figure of 83% for October, a six month low. October compliance was revised downwards from 87% due to higher supply from Iran.
- **Non-OPEC** oil supply averaged 45.2 mb/d in November, an increase of 450 kb/d. Most of the increment - 360 kb/d - is estimated to have come from **OECD** countries. North Sea production was 190 kb/d higher, driven by rebounds from technical problems and maintenance in Norway. North American output grew by 140 kb/d, mainly from an assumed increase in Mexican production.
- **Non-OECD** oil production is thought to have gained 90 kb/d in November. The bulk of the increase was due to Oman. Output there was reported to be 95 kb/d higher than in October but is planned to be reduced by 155 kb/d in December, possibly because of maintenance. With Russian production flat, supply from the rest of the Former Soviet Union is estimated to have fallen by 50 kb/d, in part because of problems on the Baku-Supsa pipeline. This was offset by growth in production from Africa and Asia, primarily from Sudan and Vietnam.
- **Net exports** from the **Former Soviet Union** fell by 130 kb/d in November from the upwardly-revised October figures. Black Sea volumes accounted for almost all of the decline, because of weather-related closures at the port of Novorossiysk.
- The “**call on OPEC crude plus stock change**” for 2000 has been revised downwards by 0.1 mb/d to 28.9 mb/d, due to minor adjustments to projected non-OPEC supply and global demand. The “call” for 2000 represents growth of 1 mb/d over this year’s estimate.



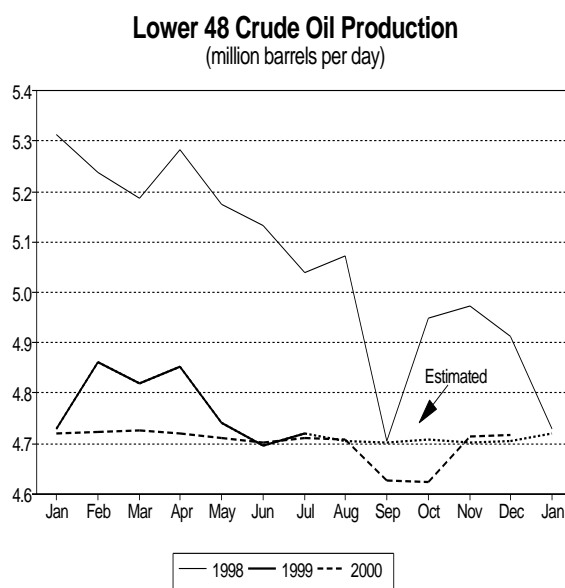
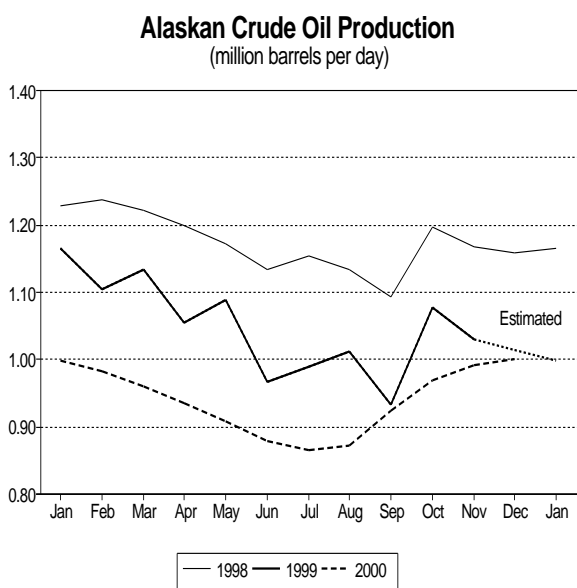
*All world oil supply figures for November discussed in this Report are IEA estimates. Estimates for OPEC countries and Alaska are supported by preliminary November crude supply data.*

**Note: Random events present downside risk to the non-OPEC production estimates contained in this Report. These events can include accidents, unplanned or unannounced maintenance, technical problems, labour strikes, political unrest, guerrilla activity, wars, weather-related supply losses and Y2K problems. No contingency allowance for random events is subtracted from the supply projections. Although upside variations can occur, experience in recent years indicates that, roughly speaking, the random events listed above may cause supply losses of perhaps 100-300 kb/d for non-OPEC supply each year.**

**OECD**

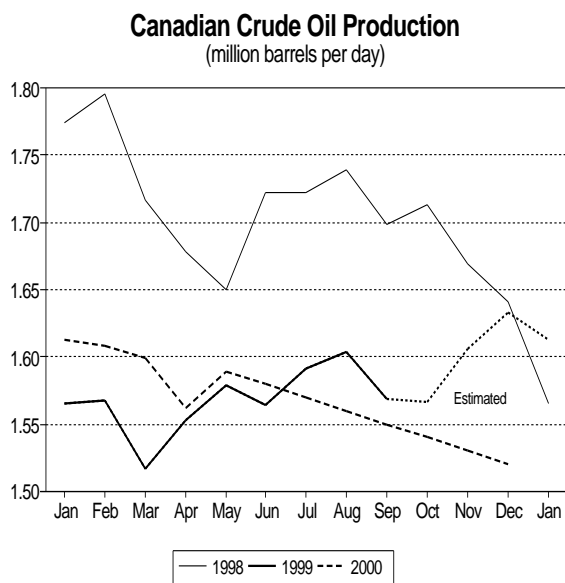
*North America*

**US - November - Alaska actual, other estimate:** US crude supply fell by 54 kb/d to 5.73 mb/d in November. Most of the decrease took place in Alaska, where output dropped by 46 kb/d to 1.03 mb/d. A series of power outages during the second half of the month reduced production at the Prudhoe Bay field and supply there fell from 560 kb/d in October to 527 kb/d in November. In addition, on 13 November, the main Alyeska pipeline was shut down for eight hours for planned maintenance, affecting production at all North Slope fields.



Estimated supply in California, Texas and the "Other Lower 48" states declined by a combined 19 kb/d during the month but this was partly offset by a gain of 12 kb/d in output from the Gulf of Mexico. Out of an estimated 1.36 mb/d of Gulf of Mexico crude production during November, around 60% is from fields that have started up since 1994, most of them located in deep water. At the end of November or the beginning of December, the deepwater Virgo field (in 1,130 feet of water) came onstream but plateau production of 15 kb/d is not expected until the beginning of 2001.

**Canada - September actual, October and November estimates:** Crude production averaged 1.57 mb/d in September, a decline of 34 kb/d from the previous month. Most of the decrease took place at the Atlantic offshore Hibernia field, where output fell by 24 kb/d due to a week of planned maintenance. In October, crude production is estimated to have remained steady at 1.57 mb/d. Hibernia output declined by another 12 kb/d, because of technical problems related to gas re-injection equipment. This decrease was offset by a gain in Western Canadian crude production. November crude supply is thought to have risen by



40 kb/d to 1.61 mb/d, due mainly to a 33 kb/d recovery at Hibernia to 110 kb/d. No planned or unplanned downtime was reported at the field.

The first details about White Rose, which will be the third sizable Atlantic offshore field, have begun to emerge. Although no plateau production figure has been mentioned, initial production from South White Rose could be in 2003. The field has estimated recoverable reserves of 250 million barrels. Plans are less advanced for North White Rose, which has an estimated 150 million barrels. The second field to start up will be Terra Nova, in early 2001, with a target plateau of 125 kb/d.

Synthetics output fell from 333 kb/d in August to 289 kb/d in September, as eight days of maintenance and repairs reduced production at the Suncor plant. Preliminary data for October indicate a return to normal operations at Suncor and an overall recovery to 326 kb/d. November synthetics output is estimated to have averaged 340 kb/d.

#### Mexico - October actual, November estimate:

Crude production averaged 2.77 mb/d in October, an unexpected decrease of 95 kb/d from the previous month. Since January 1998, crude output has averaged at or below 2.8 mb/d on only two other occasions, in October 1998 and in June 1999. The reduction was caused by a cut in heavy Maya-grade crude and was apparently made in order for exports to stay at Mexico's agreed "Hague Agreement" target. October exports averaged 1.52 mb/d, exactly matching the target. November crude production is assumed to have bounced back to 2.90 mb/d.

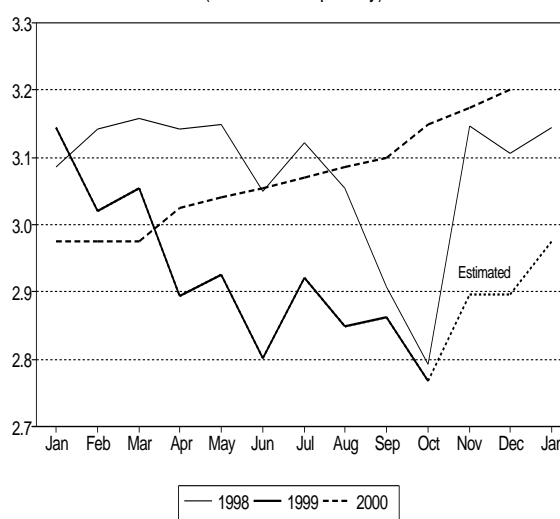
Next year's investment budget for the Mexican state oil company, Pemex, was announced at \$8.7 billion, with \$5.9 billion earmarked for the exploration and production of oil and gas. Of the latter figure, only 35% is to come from the state, with 65% to come from private sources (such as bond issues). No new projects were announced. The Cantarell field in the Bay of Campeche, which produces Maya crude, continues to be a spending priority for Pemex. The nitrogen injection project, which is meant to maintain reservoir pressure and increase the recovery of oil from the Cantarell reservoirs, is on schedule for a start-up in April of next year. The infrastructure to transport nitrogen to the field and to inject it was completed during November. The total project cost is \$1 billion.

#### North Sea

**UK - September actual, October and November estimates:** September crude output averaged 2.59 mb/d, a modest decline of 30 kb/d from the previous month. Maintenance in the Alwyn Area fields pulled Brent System supply down by 47 kb/d and subpar performances at the Forties and Nelson fields led Forties System production to a decrease of 37 kb/d. On the positive side, offshore-loaded fields gained 67 kb/d. The new Orion field contributed 6 kb/d in its first month, while the Buckland field grew by 23 kb/d in its second month. Combined output from the Fife, Fergus and Flora fields increased by 12 kb/d in their first full month of operations after a four month shutdown caused by damage to the *Uisge Gorm* floating production, storage and offloading vessel (FPSO). Lastly, the Captain and J-Block fields turned in strong performances, adding 10 kb/d and 11 kb/d in September.

In October, the maintenance season drew to a close. Crude production is estimated to have increased by 89 kb/d to 2.68 mb/d, which would be the highest since December 1998. Most of the gain is attributed to a 47 kb/d rebound in the Brent System, as fields returned from planned maintenance. In addition, Forties System supply grew by 33 kb/d, with output from the Forties and Nelson fields recovering.

**Mexican Crude Oil Production**  
(million barrels per day)



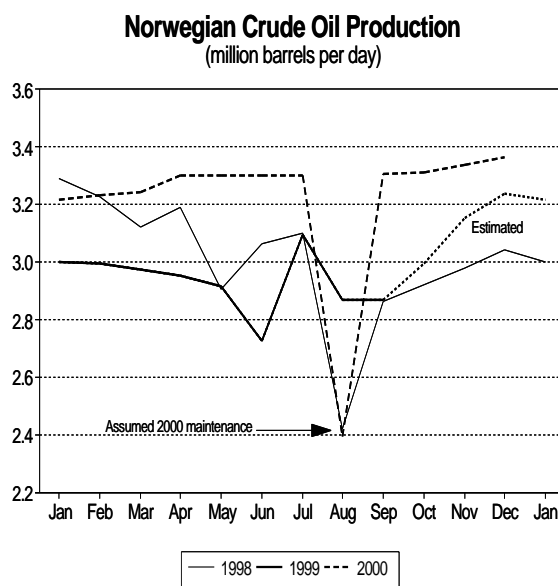
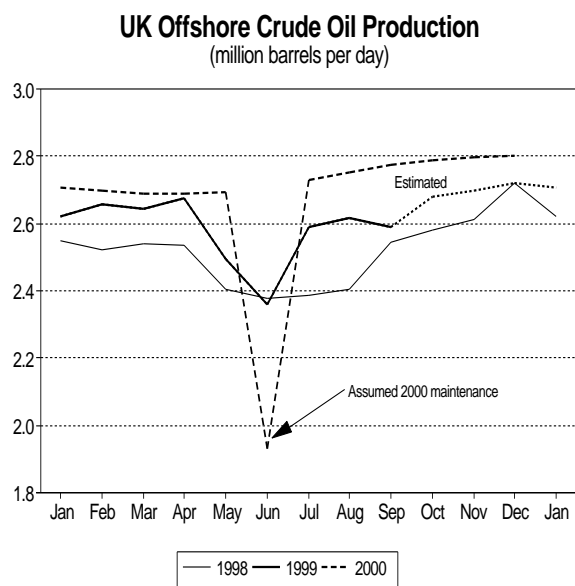
**North Sea Oil Production Outlook**  
November 1999 - April 2000  
(thousand barrels per day)

	Nov	Dec	Jan	Feb	Mar	Apr
UK	2938	2992	2976	2957	2936	2930
Norway	3275	3363	3337	3349	3365	3418
Denmark	344	344	343	340	339	338
Other*	48	48	48	48	47	44
<b>Total</b>	<b>6604</b>	<b>6747</b>	<b>6704</b>	<b>6693</b>	<b>6687</b>	<b>6730</b>

\* offshore Netherlands and offshore Germany

Technical problems were reported at two other Forties System fields, Lomond and Armada, but with only a minimal impact on monthly output.

November appears to have been a relatively uneventful month. Crude supply is estimated to have increased by 20 kb/d to 2.70 mb/d, driven by offshore-loaded fields. Late in November, the FPSO for the Triton project was reported to be waiting for good weather to sail from Teesside to its final location in the Teal Area of the Central North Sea. Triton, which includes development of the Bittern, Guillemot West and Guillemot Northwest fields, is the next major project scheduled for start-up in the UK. Once the FPSO has arrived at the site, there will be a month of work - also subject to weather - before first oil. Plans call for initial production of 25 kb/d, rising to an eventual plateau of 105 kb/d, once gas compression is fully operational.



**Norway - September actual, October and November estimates:** September crude production fell by a minimal 4 kb/d from the previous month, averaging 2.86 mb/d. Ekofisk-Ula Area output rose by 189 kb/d, as the Ekofisk and Ula fields recovered from a twelve-day planned shutdown in August. In addition, 27 kb/d of production was registered at the Yme field, compared to none the prior month. Production at the field is measured by shuttle tanker deliveries to the Mongstad terminal, the Norwegian Petroleum Directorate's "fiscal metering point". Major maintenance in the Statfjord-Gullfaks Area caused a 222 kb/d decline in output. Maintenance work was performed at the Snorre field, which affected its Vigdis satellite as well. Similarly, a shutdown at the Gullfaks A platform affected the Gullfaks South, Rimfaks and Gullveig satellite fields. Supply from the Oseberg-Troll Area gained 13 kb/d, driven by the Veslefrikk field. Veslefrikk came back onstream on 11 September, after being down since 25 May for scheduled maintenance and a refit needed to tie in the future Huldra condensate development.

In October, estimated crude supply rose by 130 kb/d to 2.99 mb/d. A gain of 148 kb/d in the Statfjord-Gullfaks Area led the way, as Gullfaks A, Snorre and other smaller fields returned from maintenance. However, a planned shutdown took place at the Gullfaks C platform, which reduced output from Tordis and Tordis East as well. Oseberg-Troll Area production rose by 51 kb/d, as Veslefrikk climbed back to normal full-month production and the Oseberg field recovered from a subpar September. In the Haltenbanken Area, which is estimated to have risen by 35 kb/d, Heidrun also bounced back from a subpar month. Supply from the Ekofisk-Ula Area fell by 100 kb/d, as a gas leak caused a one-week shutdown at the Ekofisk field. Two new fields, each with a target plateau output of 100 kb/d, came onstream in the Sleipner-Frigg Area during the month: Balder on 6 October (after a two-year delay) and Jotun (only slightly behind schedule) on 25 October.

November crude output is thought to have averaged 3.15 mb/d, up 157 kb/d over the prior month. Stafford-Gullfaks Area production gained 78 kb/d as maintenance ended, Ekofisk-Ula Area supply recovered from technical problems, growing by 76 kb/d and the new Balder and Jotun fields pushed Sleipner-Frigg Area output up by 20 kb/d. In addition, an Oseberg-Troll Area gain of 12 kb/d was led by output from the new Troll C platform, which began production on 31 October. Initial output was reported



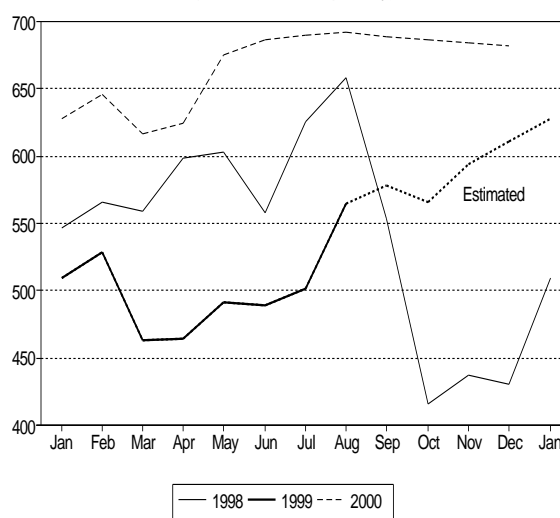
to be 35 kb/d, with an eventual plateau targeted at 100 kb/d. Haltenbanken Area supply fell by 30 kb/d, as the Norne field was down for ten days to upgrade the FPSO to allow natural gas exports next year.

**Denmark - October actual, November estimate:** Crude output in October averaged a new high of 351 kb/d, smashing through the old record of 319 kb/d set just the previous month. The performance was led by the South Arne field, which came onstream in July. In October, South Arne output nearly doubled to 33 kb/d. The other field that came onstream in 1999, Siri, also reached a high of 47 kb/d, up 4 kb/d. Production increased at the Dan (+2 kb/d), Harald (+3 kb/d) and Skjold (+6 kb/d) fields from already strong levels in September. It is estimated that November crude production fell back slightly to 344 kb/d. Projected supply in 2000 has been increased to 339 kb/d, up from 327 kb/d in last month's Report. The revision was based partly on strong field performance in recent months and partly on a Danish Government report indicating that work performed over the last two years would allow output at the Dan field to remain flat, rather than decline, next year.

### Pacific

**Australia - November estimate:** Crude production in November is estimated to have averaged 594 kb/d, a gain of 28 kb/d over the estimate for October. The increase stems from new production at the Laminaria/Corallina field, which came onstream on 7 November with an initial output of 40 kb/d. Located in the Timor Sea, the *Northern Endeavour* FPSO has a capacity of 170 kb/d. However, the operator noted that although this represents the potential peak production level, the sustainable plateau is expected to be 140 kb/d. The plateau is expected to last two years before production starts to decline. The field was originally expected to have come onstream a year ago. November output in the Gippsland and Carnarvon Basins is thought to have been flat at 217 kb/d and 293 kb/d.

**Australian Crude Oil Production**  
(thousand barrels per day)



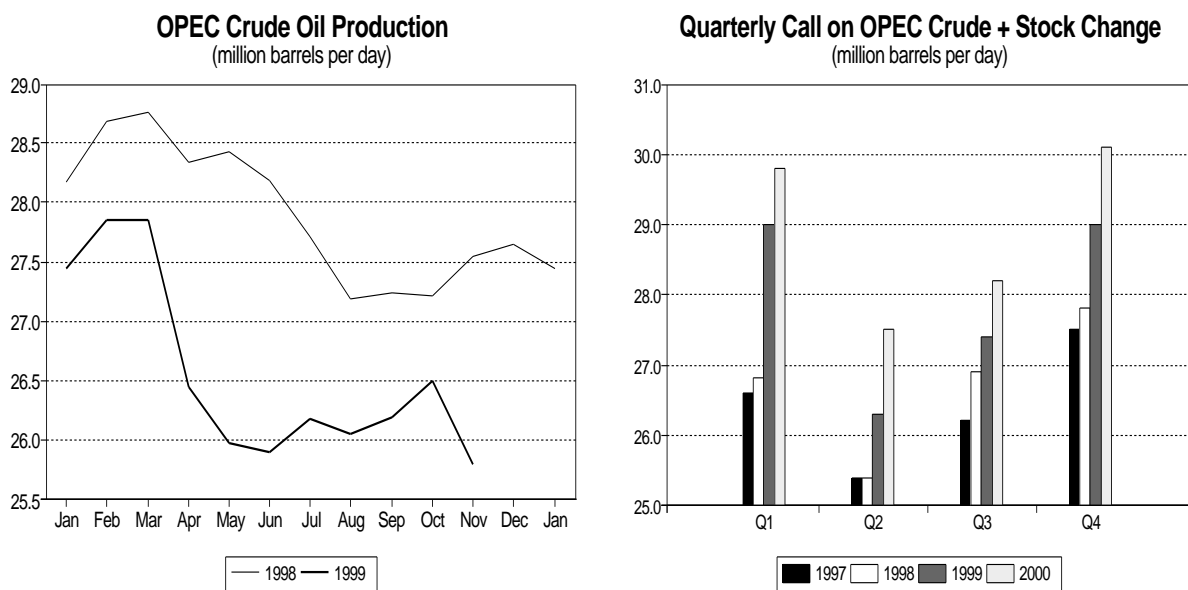
Reserves at the Buffalo field may be far below the previously estimated 22 million barrels of proved and probable oil, based on the results of additional appraisal drilling. The field was originally due onstream in late December 1999, with a planned plateau of 40 kb/d. However, the operator was reportedly considering a late change in development plans, looking at alternatives to the FPSO option. The projections in this Report now incorporate a start-up delay until next spring and a lower plateau production rate of 20 kb/d.

### OPEC

Driven by sharp reductions in exports from Iraq and Iran, OPEC crude supply fell sharply in November by 700 kb/d to 25.8 mb/d. Initial assessments indicate that crude supply from the two countries dropped by 440 kb/d and 310 kb/d; aggregate output from other members rose by only 50 kb/d.

For OPEC excluding Iraq (the OPEC 10), November crude production averaged 23.42 mb/d, 260 kb/d lower than in October. Total crude production cuts of 3.87 mb/d compare to the current cumulative reduction target of 4.32 mb/d, resulting in November **compliance** of 89%. The 89% compliance level is the average compliance rate for the May to November period and falls just in the upper half of the 83-93% range for the period. Compliance during October was revised downwards from 87% to 83%, as supply from the OPEC 10 is now thought to have been 160 kb/d higher than shown in last month's Report. The largest adjustment to the October figures was once again in crude supply from Iran, which was revised upwards by 210 kb/d.

**Iraqi** crude supply averaged 2.37 mb/d in November, 440 kb/d less than the previous month. Although the UN Security Council extended Phase VI of the oil-for-food programme, initially for two weeks to 4 December and subsequently for another week to 11 December, Iraq rejected both extensions. As a result, daily exports of 2.2 million barrels ended on 24 November. For the month as whole, oil-for-food exports averaged only 1.79 mb/d. Domestic refinery inputs, exports to Jordan and "other uses" consumed another 0.58 mb/d.



The other major decline took place in **Iran**, where exports dropped from an upwardly revised level of 2.11 mb/d in October to 1.80 mb/d in November. Domestic refinery inputs are assumed to have averaged 1.37 mb/d in each month. November production is thus 3.17 mb/d but this is a preliminary estimate and subject to revision. November exports of 1.80 mb/d compare to 1.84 and 1.85 mb/d in August and September.

#### OPEC Crude Production 1998-1999

	(million barrels per day)					
	OPEC excl. Iraq	Cutback	Cutback Target	Percent of Target	Iraq	OPEC
February	26.96				1.72	28.68
March	26.91				1.85	28.76
April	26.34	0.65	1.25	46%	2.01	28.35
May	26.17	0.82	1.25	61%	2.27	28.43
June	26.32	0.67	1.25	47%	1.86	28.18
July	25.40	1.59	2.60	59%	2.32	27.72
August	24.76	2.23	2.60	85%	2.43	27.19
September	24.81	2.18	2.60	83%	2.43	27.24
October	24.79	2.20	2.60	84%	2.43	27.22
November	25.09	1.90	2.60	71%	2.45	27.54
December	25.28	1.71	2.60	63%	2.36	27.64
January	25.04	1.95	2.60	73%	2.41	27.45
February	25.31	1.68	2.60	62%	2.54	27.85
March	25.36	1.63	2.60	60%	2.50	27.85
April	23.81	3.49	4.32	80%	2.64	26.45
May	23.49	3.81	4.32	88%	2.50	25.98
June	23.50	3.79	4.32	87%	2.40	25.90
July	23.42	3.87	4.32	89%	2.76	26.18
August	23.26	4.04	4.32	93%	2.80	26.05
September	23.33	3.96	4.32	91%	2.86	26.19
October	23.68	3.61	4.32	83%	2.82	26.50
November	23.42	3.87	4.32	89%	2.37	25.80

Notes: (a) all production numbers are IEA figures  
 (b) from April 1998 to March 1999, cutbacks are measured against OPEC's original February 1998 "baseline" of 26.99 mb/d; from April 1999 onwards, cutbacks are measured against OPEC's revised February 1998 "baseline" of 27.29 mb/d  
 (c) the production figures used to calculate the "percent of target" exclude 150 kb/d of crude output from the Abu Safah field; elsewhere in the table and in the Report, this output is considered to be part of Saudi Arabia's production

According to the state-owned National Iranian Oil Company and market sources, export loadings were reduced during the second half of November in order to more strictly observe Iran's OPEC production target of 3.36 mb/d. Iran's October crude supply of 3.48 mb/d significantly exceeded the target. It is not clear at this point how much exports were reduced, how much was deferred from November into December or from December into January and, in fact, what the pre-existing export programme for these

months was. Estimates of the number of deferred cargoes range from 4 to 10, with a typical cargo size at Kharg Island of 2 million barrels.

Crude production from all other OPEC members was up by a combined 50 kb/d. Output from **Saudi Arabia** and **Venezuela** was flat at 7.40 mb/d and 2.73 mb/d. Figures for Saudi Arabia include 150 kb/d from the Abu Safah field (produced on behalf of Bahrain) but exclude supply from the Neutral Zone.

As a result of several minor adjustments that have been made to projected non-OPEC supply and global demand for next year, the “**call on OPEC crude plus stock change**” for the year 2000 has been revised downwards by 0.1 mb/d to 28.9 mb/d. By quarter, the current “call” for 2000 is as follows: 29.8 mb/d (revised by -0.1 mb/d), 27.5 mb/d (+0.1 mb/d), 28.2 mb/d (-0.3 mb/d) and 30.1 mb/d (+0.1 mb/d). The relatively large third quarter 2000 revision was driven by lower demand projected for that time period; this corresponds to a lowering of third quarter 1999 demand.

### *Iraqi Oil-for-Food Exports*

On 19 November, the UN Security Council voted to extend Phase VI of the oil-for-food programme for two weeks, from 21 November until 4 December. A further extension of one week, to 11 December, was approved by the Security Council on 3 December. Both extensions were rejected by Iraq, the first one via a voice mail message. Shipments from the Turkish port of Ceyhan ended on 22 November and loadings from Mina al-Bakr ended on 24 November. Phase VI exports totalled 390 million barrels with a value of \$7.457 billion. This is more than \$800 million lower than the revenue ceiling of \$8.3 billion, which was raised from \$5.3 billion. The amount of that increase equalled the total shortfall of revenue authorised but not generated in earlier phases of the programme. Therefore, the \$800 million represents the remaining shortfall.

The removal of 2.2 mb/d of exports - or between 15 and 16 million barrels a week - from an already tight physical market has put the Iraqi situation in the spotlight. Iraq has consistently said that it will only resume exports under a 6-month rollover. From a marketing and logistics viewpoint, extensions of a week or two are impractical for both sellers and buyers, since they involve arranging contracts, chartering ships and getting price formulas approved, all for what amounts to a handful of spot cargoes.

Security Council discussions are presently proceeding on two tracks. The first concerns oil-for-food and whether it should be extended or rolled over, and for how long. The second concerns a comprehensive omnibus resolution dealing with the broader sanctions regime, involving the possibility of a future easing of sanctions in exchange for a resumption of arms inspections. The two are not mutually exclusive. It is important to note that even if a comprehensive agreement is reached, the oil-for-food programme would likely still be necessary for a period of time..

All key parties involved want oil-for-food exports to resume. For example, the US and the UK do not want to be seen as stopping a humanitarian programme, Iraq needs the food, medicine and oil spare parts at some point, and Russia has urgent problems at home. An agreement on oil-for-food exports could be reached quickly or it may take a few more weeks (see Market Overview). Once an agreement is reached, actual shipments would then resume in a week or so.

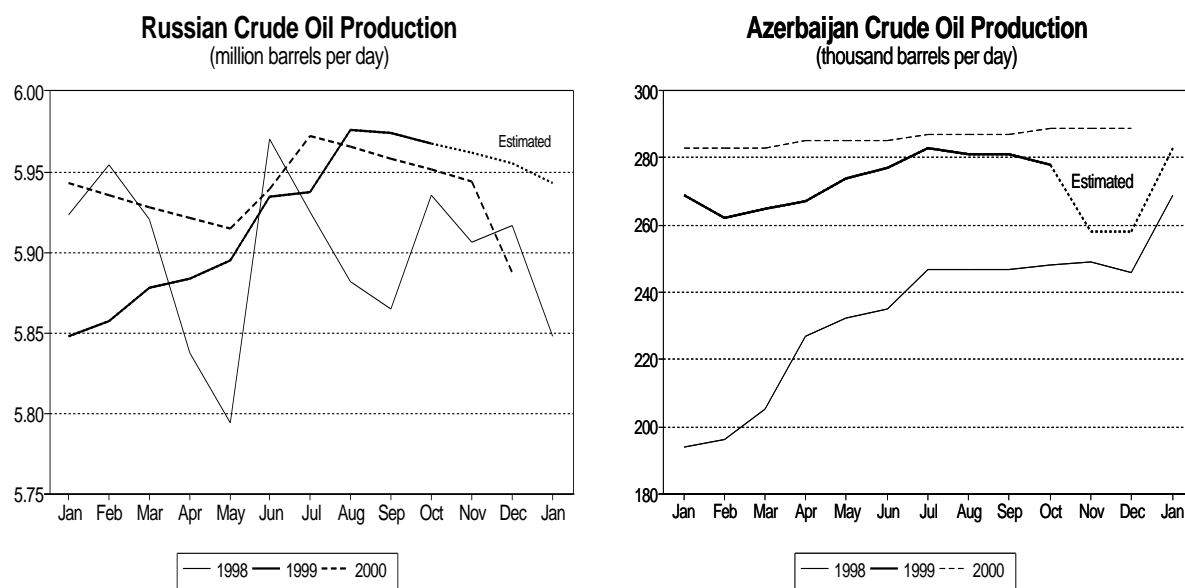
## **Former Soviet Union (FSU)**

### *Production*

**Russia - October actual, November estimate:** Russian crude production averaged 5.97 mb/d in October, matching the September figure. Output is thought to have fallen slightly in November, to 5.96 mb/d. Technical problems at the eastern offshore Piltun-Astokhskiye field, which comprises the Sakhalin-2 development, continued. Production was shut down on 28 September, after a loading line to the floating storage and offloading vessel became disconnected, resulting in a small spill. The field restarted late in October but it was shut down again after only a few days, on 1 November. The Sakhalin Energy consortium that operates the field was hoping for another restart later in November, in an attempt to fill another cargo before the early December weather shutdown. The operator announced plans to build a 750-km pipeline to Yuzhno-Sakhalinsk in the south of the island, where it would also build a loading

terminal that would be navigable year-round, allowing steadier production. In addition, Sakhalin Energy said that it would fix under-performing wells through remedial work, including hydro fracturing and gravel packing.

In other developments, a resolution signed by Prime Minister Vladimir Putin will give meaningful federal tax breaks for restarting crude production from wells that were idle on 1 January 1999. The measure also recommends that regional authorities waive local taxes on such wells. Roughly 36,000 out of a total of 133,000 Russian wells were idle at the beginning of the year. Although technical problems are a major factor, many of the wells are believed to have been shut down for economic reasons. A significant number of wells in this latter category are already thought to have been restarted, in line with this year's crude oil price recovery. This has contributed to the strength in Russian output in 1999.



**Azerbaijan - October actual, November estimate:** Crude output averaged 278 kb/d in October, a slight decrease of 3 kb/d from the previous month. The change took place in onshore fields operated by state company Socar. Offshore Socar production was unchanged at 149 kb/d. Output from the offshore Chirag field, operated by the Azerbaijan International Operating Company (AIOC), was estimated to be unchanged at 100 kb/d. November crude production in Azerbaijan is thought to have fallen to 258 kb/d, due to lower supply from Chirag. Heavy rainfall and flooding caused the Baku-Supsa pipeline, currently the sole outlet for Chirag crude, to be shut down on 23 November, with Chirag output adversely affected. Operations are expected to return to normal in a week or so.

### Net Exports

Net FSU exports in November averaged 3.42 mb/d, a slight decrease from the upwardly-revised October figures. Although the Russian Government eased restrictions on product exports, export volumes did not increase, due to frequent weather-related closures at the port of Novorossiysk. As a result, Black Sea

### 1998-2000 Net FSU Exports

(million barrels per day)

	1998	1999 <sup>f</sup>	2000 <sup>f</sup>	1Q99	2Q99	3Q99	Jul 99	Aug 99	Sep 99	Oct 99 <sup>r</sup>	Nov 99 <sup>p</sup>
Black Sea Exports <sup>1</sup>	1.31			1.28	1.59	1.52	1.59	1.66	1.31	1.68	1.56
Baltic Sea Exports	0.96			0.95	1.23	1.01	1.16	0.90	0.97	0.80	0.82
<b>Total Seaborne</b>	<b>2.27</b>			<b>2.24</b>	<b>2.82</b>	<b>2.53</b>	<b>2.75</b>	<b>2.56</b>	<b>2.28</b>	<b>2.48</b>	<b>2.38</b>
Druzhba Pipeline <sup>2</sup>	0.99			0.96	1.02	1.00	1.03	0.97	1.01	1.03	1.03
Other	0.03			0.03	0.04	0.03	0.01	0.04	0.05	0.05	0.03
<b>Total Exports</b>	<b>3.30</b>			<b>3.23</b>	<b>3.89</b>	<b>3.56</b>	<b>3.78</b>	<b>3.57</b>	<b>3.33</b>	<b>3.56</b>	<b>3.44</b>
Imports	0.08			0.05	0.03	0.02	0.02	0.02	0.01	0.01	0.01
<b>Net FSU Exports</b>	<b>3.22</b>	<b>3.54</b>	<b>3.54</b>	<b>3.18</b>	<b>3.86</b>	<b>3.55</b>	<b>3.76</b>	<b>3.55</b>	<b>3.32</b>	<b>3.55</b>	<b>3.42</b>
NB: Crude	2.44			2.42	2.77	2.57	2.70	2.56	2.44	2.72	2.60
Products	0.78			0.76	1.09	0.98	1.06	0.99	0.88	0.83	0.82

1 includes a small amount of non-Russian crude oil exports  
r revised  
f forecast

2 crude oil only  
p preliminary

exports decreased by 117 kb/d. Among products, fuel oil exports (-45 kb/d) and gasoil exports (+42 kb/d) both averaged 398 kb/d. In the Russian Far East, no shipments of Sakhalin-2 crude were reported, because of continuing production problems at the project.

#### *Update on Central Asian Oil Export Pipelines*

Construction of the Caspian Pipeline Consortium's **CPC pipeline** across southern Russia began in November. The 1,580-km pipeline project connects the Tengiz field in Western Kazakhstan with the Russian port of Novorossiysk on the Black Sea. It has been planned since the early 1990s, when Chevron entered Kazakhstan for the development of the Tengiz field. The first phase of construction, which will cost \$2.4 billion, is scheduled for completion in February 2001, with the first cargo loaded by the end of June 2001. The pipeline will have a capacity of 560 kb/d in the first phase, rising to 1.34 mb/d in the second phase. The Tengiz field has potential reserves of 6-9 billion barrels, enough for planned peak production of 700 kb/d in 2010. Output will pick up as export capacity increases.

The Tengiz field produced 194 kb/d in the third quarter of this year. Currently, a variety of methods, including combinations of pipeline, rail and barge are used to export Tengiz output. The largest volumes are transported by pipeline and rail. The Chevron-led Tengizchevroil (TCO) joint venture has access to 40-60 kb/d of space in the Atyrau-Samara pipeline, which links to the Russian pipeline network. Pipeline transport is cheaper than rail but Tengiz output shipped via pipeline is mixed into poorer quality Urals blend and TCO receives no compensation for the resulting quality penalty.

In addition to Tengiz production, condensate from the Karachaganak field will be transported through the CPC pipeline to Western markets. Currently, gas and condensate from the field, which lies close to the Russian border, are sent to a Russian processing plant in Orenburg and the condensate is sold in Russia. However, non-payment problems have seriously affected output and sales. Karachaganak condensate production averaged 59 kb/d in the third quarter of 1999, down from 78 kb/d in the second. Since potential output is much higher, producers at the field plan to build a new 460-km liquids pipeline which will be tied into the CPC pipeline in Atyrau, Kazakhstan.

Meanwhile, on 18 November in Istanbul, the leaders of Turkey, Azerbaijan and Georgia signed four agreements that provide a legal framework for a proposed 1,730-km **Baku-Ceyhan** main export pipeline from the Azeri capital to the Mediterranean coast of Turkey. The US, which has been strongly backing the pipeline project, witnessed the agreements, while Kazakhstan and Turkmenistan were observers. Construction is scheduled to begin in 2001 and reach completion in 2004.

Although the signing of the agreements represents an important milestone, at the present time there is still not enough oil to fill the pipeline's 1 mb/d planned capacity and hence to make it commercially viable. The Azeri, Chirag and deepwater Guneshli fields operated by AIOC possibly represent up to 4 billion barrels of reserves and peak production of 800 kb/d and are the only fields currently earmarked for the pipeline. In order to make the pipeline economic, AIOC states that 6 billion barrels of reserves and a full 1 mb/d of production are required. US Secretary of Energy Bill Richardson acknowledged at the signing ceremony that "the true test of commercial viability lies in the marketplace".

## Revisions

As shown on the table below, only minor changes to the non-OPEC supply estimates have been made this month. The 1999 figure was revised downwards by 40 kb/d, due to slightly lower production from Malaysia, Mexico and Norway. In contrast, the 2000 projection was revised upwards by 30 kb/d, due to slightly higher projected output from Denmark and Norway. As a result, growth in 2000 of 750 kb/d is now 70 kb/d higher than in last month's Report. In absolute terms, non-OPEC supply is currently projected to be 45.29 mb/d. This compares to 45.25 mb/d a month ago and the same 45.25 mb/d in August 1999, when the outlook for 2000 was first introduced.

### Revisions to Non-OPEC Oil Supply

(million barrels per day)

	last month's OMR			this month's OMR			this month vs. last month		
	1999	2000	00 vs. 99	1999	2000	00 vs. 99	1999	2000	00 vs. 99
North America	13.90	13.96	0.05	13.89	13.95	0.05	-0.01	-0.01	0.00
Europe	6.73	7.01	0.28	6.72	7.04	0.32	-0.01	0.03	0.04
Pacific	0.66	0.80	0.13	0.67	0.81	0.14	0.00	0.01	0.01
<b>Total OECD</b>	<b>21.30</b>	<b>21.76</b>	<b>0.46</b>	<b>21.28</b>	<b>21.79</b>	<b>0.51</b>	<b>-0.02</b>	<b>0.03</b>	<b>0.05</b>
Former USSR	7.47	7.53	0.05	7.47	7.54	0.06	-0.00	0.01	0.01
Europe	0.19	0.18	-0.01	0.19	0.18	-0.01	0.00	0.00	0.00
China	3.19	3.16	-0.04	3.19	3.16	-0.03	-0.00	0.00	0.01
Other Asia	2.27	2.24	-0.02	2.25	2.23	-0.02	-0.02	-0.01	0.01
Latin America	3.83	3.90	0.06	3.83	3.90	0.06	-0.00	-0.00	0.00
Middle East	1.87	1.87	0.00	1.87	1.87	-0.00	0.00	0.00	-0.00
Africa	2.78	2.90	0.12	2.78	2.90	0.12	0.01	0.00	-0.00
<b>Total Non-OECD</b>	<b>21.60</b>	<b>21.78</b>	<b>0.17</b>	<b>21.59</b>	<b>21.78</b>	<b>0.19</b>	<b>-0.02</b>	<b>0.00</b>	<b>0.02</b>
Processing Gains	1.66	1.72	0.05	1.66	1.72	0.05	0.00	0.00	0.00
<b>Total Non-OPEC</b>	<b>44.57</b>	<b>45.25</b>	<b>0.68</b>	<b>44.53</b>	<b>45.29</b>	<b>0.75</b>	<b>-0.04</b>	<b>0.03</b>	<b>0.07</b>

OMR = Oil Market Report

# OECD STOCKS

## Industry Stock Changes in October

The OECD stock draw continued in October, but with a very distinct differences between west and east. US stocks draws dominated the 440 kb/d decrease in OECD industry inventories, with US product stock being drawn down by more than crude oil stock increased. Further east, European crude builds and product draws were about equal, while in the Pacific there were sizable increases in both crude and product inventories. Crude is being sucked eastwards out of the Atlantic Basin and into Asia, where imports are high and refinery runs are more than sufficient to meet growing seasonal demand. In contrast, US crude imports have cratered and refinery runs are down as a result of seasonal maintenance and low margins.

### Preliminary Industry Stock Change in October 1999

	(million barrels per day)			
	October (preliminary)			
	North America	Europe	Pacific	Total
<b>Crude Oil</b>	<b>+0.04</b>	<b>+0.45</b>	<b>-0.01</b>	<b>+0.48</b>
Gasoline	-0.14	-0.07	+0.02	-0.20
Distillates	-0.39	-0.35	+0.22	-0.52
Fuel Oil	+0.09	+0.01	+0.02	+0.12
Other Products	-0.41	0.00	-0.01	-0.42
<b>Total Products</b>	<b>-0.85</b>	<b>-0.42</b>	<b>+0.25</b>	<b>-1.02</b>
Other Oils <sup>1</sup>	+0.06	+0.02	+0.03	+0.10
<b>Total Oil</b>	<b>-0.75</b>	<b>+0.05</b>	<b>+0.27</b>	<b>-0.44</b>

<sup>1</sup> includes feedstocks, NGLs and other hydrocarbons

Revisions to September OECD industry stock data also were dominated, atypically, by the Pacific. Total OECD industry stocks were revised upwards by 7.9 mb as upward adjustments to crude oil (+7.8 mb), gasoline (+5.6 mb) and fuel oil (+5 mb) more than offset a reduction in distillates (-10.3 mb). About two-thirds of the Pacific revision was in crude oil and one-third in products, primarily "other products". Japan (+14.1 mb) accounted for more than 60% of the rise, with Korea (+9 mb) and Australia/New Zealand (+1 mb) accounting for the rest.

### Revisions vs. 9 November 1999 Report

(million barrels)

### Effect on September Stock Change

(million barrels per day)

	North America		Europe		Pacific		North America	Europe	Pacific	Total
	August	Sept	August	Sept	August	Sept				
Crude Oil	0.0	-2.7	+3.2	-5.1	-0.2	+15.7	-0.09	-0.27	+0.53	+0.17
Oil Products	0.0	-1.3	-1.4	-5.0	0.0	+8.2	-0.04	-0.12	+0.27	+0.11
Other Oils	0.0	+0.1	-0.8	-2.3	+0.4	+0.3	0.00	-0.05	0.00	-0.05
<b>Total</b>	<b>0.0</b>	<b>-3.9</b>	<b>+1.0</b>	<b>-12.4</b>	<b>+0.2</b>	<b>+24.2</b>	<b>-0.13</b>	<b>-0.44</b>	<b>+0.80</b>	<b>+0.23</b>

## Preliminary Stock Levels at the End of October

Total OECD industry stocks dropped again in October to 2.659 billion barrels slightly, down from an upwardly revised 2.672 billion barrels at the end of September. OECD industry stocks are now 15 mb below where they stood at the end of October 1997, and within 100 mb of their lows in October 1996. Continued rapid declines in November may indeed have brought OECD industry stocks almost to the 1996 level. Reportedly, key producers regard 1996 stock levels as a target for their current production discipline.

### Year-on-Year End of October Industry Stock Comparisons

(million barrels)

	North America	Europe	Pacific	Total
Crude Oil	-16	-18	-1	-35
Products	-42	-45	-3	-90
Other Oils <sup>1</sup>	-16	-4	-5	-25
<b>Total Oil</b>	<b>-74</b>	<b>-67</b>	<b>-9</b>	<b>-150</b>
<i>versus 1997</i>	<i>-14</i>	<i>+41</i>	<i>-41</i>	<i>-15</i>
<i>versus 1996</i>	<i>+62</i>	<i>+42</i>	<i>-3</i>	<i>+99</i>

<sup>1</sup> includes feedstocks, NGLs and other hydrocarbons

## Regional Stock Developments

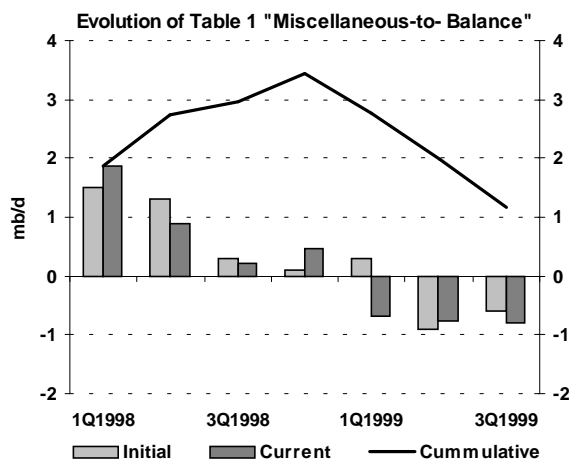
The US is clearly leading the global stockdraw, with US inventories down 755 kb/d in October and 1.25 mb/d through most of November. The US stockdraw in December could approach 2 mb/d. Very low levels of imports are forcing a rundown in crude oil stocks, despite reduced refinery runs. Crude imports declined from 9.2 mb/d in July to 8.4 mb/d in October and averaged just over 8.1 mb/d for the four weeks ended 26 November. The collapse of transatlantic arbitrage due to the narrow price differential between Brent and WTI and strong Asian demand for Atlantic Basin crudes have limited imports of foreign crudes into the US Gulf Coast. Canada appears to be moving more crude across Canada and less into the US Midwest. With lower imports, only a limited recovery in domestic production and very low margins, refineries have reduced output. With growing demand, product inventories are draining rapidly. By late November, gasoline stocks in the US had fallen to their second lowest (after 1996) level of the decade for this time of year, and distillate stocks are not far behind. Over the next few weeks, home heating oil customers will begin topping off tanks in advance of Y2K and near the end of the year, gasoline tanks will be filled up. This will suck even more oil out of primary inventories.

In contrast to the large draw in the US, European industry stocks were little changed in October, rising by 46 kb/d. Crude oil stocks rose in Norway, Germany and Italy as production gains or imports more than kept pace with refinery runs. **Norwegian** production has begun to rise with the end of maintenance and the start up of two new fields, Balder and Jotun, both of which have floating production, storage and offloading vessels on the fields. Norwegian stocks rose by 166 kb/d in October and may increase further in the last two months of the year. **German** stocks increased by 117 kb/d and **Italian** stocks were up by 41 kb/d, with crude stocks increases in both countries exceeding product stock draws. A similar pattern occurred in **Denmark, Belgium, Portugal** and **Greece**. The opposite occurred in most other European countries, as distillate drawdowns led to declining total industry stocks in the **Netherlands** (-97 kb/d), **France** (-82 kb/d), and the **UK** (-70 kb/d). Stocks also declined in **Ireland, Austria** and **Finland**.

The stock build in the OECD Pacific region occurred entirely in Japan. **Japanese** stocks grew by 285 kb/d, as crude and nearly all product stocks increased. Only fuel oil stocks saw a modest decline. Imports of crude increased by over 500 kb/d in October, allowing refinery production and net product imports to exceed sales by 200 kb/d. Crude stocks probably continued to increase in November, but cancellation of some Iranian contracts for late November and December could lead to stock draws at the end of the year. Chinese exports to Japan are also being reduced because of a Chinese government mandate to increase use of Chinese crude in domestic refineries. **Korean** stocks fell slightly in October (-19 kb/d). A draw of 120 kb/d in crude oil stocks more than offset builds in stocks of distillates (+93 kb/d), fuel oil (+25 kb/d) and gasoline (+4 kb/d). "Other Products" inventories fell by 21 kb/d.

## An Un-fond Farewell to the "Missing Barrels"

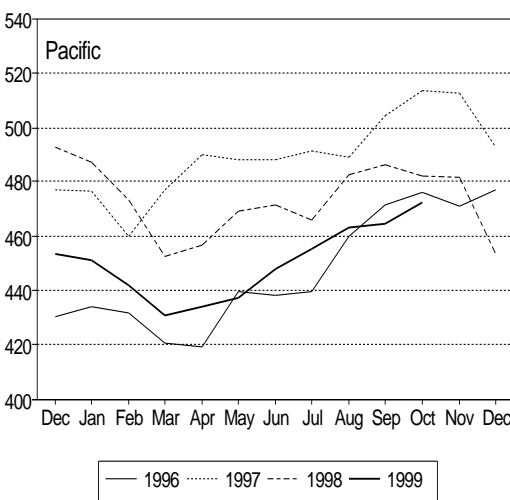
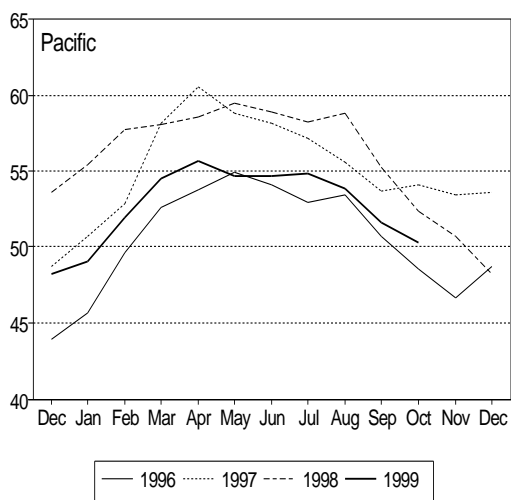
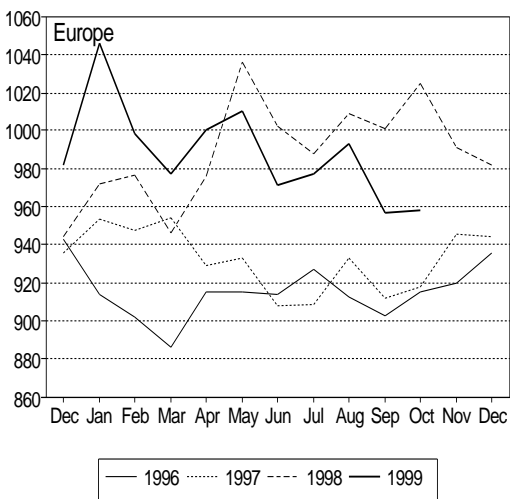
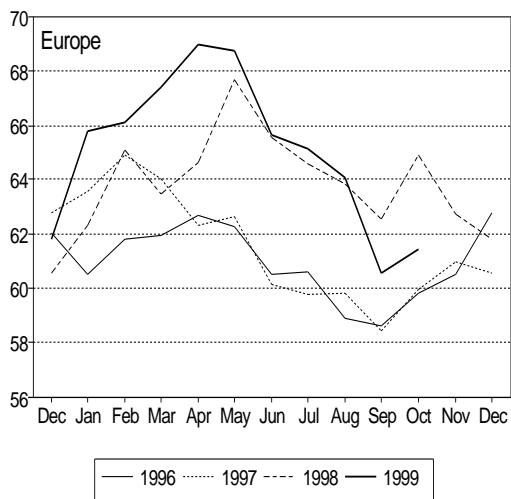
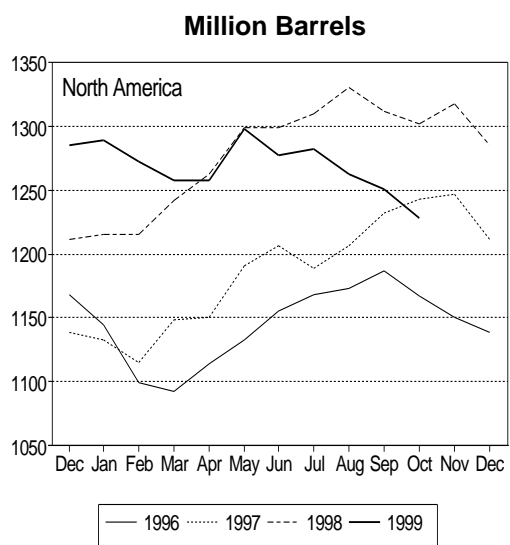
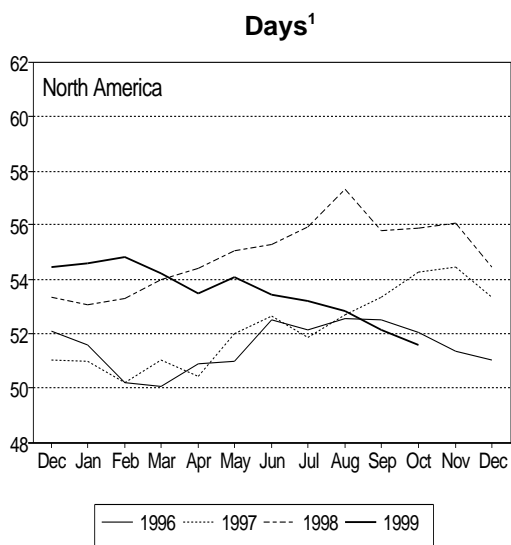
During the first half of 1998 a large amount of the excess supply in the oil market was unaccounted for. This led to an unusually large "miscellaneous-to-balance" category in the World Oil Supply and Demand Table (Table 1 at the back of the Report). There was strong disagreement at the time as to whether these "missing barrels" were the result of statistical errors, or whether they represented a large increase in oil stored in non-OECD areas. Such an increase would have been clearly motivated by the steep upward slope to the forward price curve and the burgeoning speculative demand for oil. Almost two years later, most of the relevant evidence is in. The weight of that evidence is that the missing barrels *did* exist and that they have now returned to the market. The return was triggered by the reversal in the shape of the forward price curve and the need for additional barrels following OPEC's effective production limitation which began last March. As shown in the graph on the right, revisions to supply and demand data had a limited effect on the "miscellaneous-to-balance". Revisions between the initial estimate for first quarter 1998 and the most current data resulted in an *upward* revision of 0.4 mb/d, which was offset by a 0.4 mb/d downward revision in the second quarter. All three quarters this year have had sizable negative miscellaneous to balances, as most of the barrels "returned" to meet current demand. The rest of the barrels are likely to show up by the end of this quarter. It may be possible at last to bid farewell to the "missing barrels" issue.





### Regional OECD End-Month Industry Stocks

(In days of forward demand and million barrels)



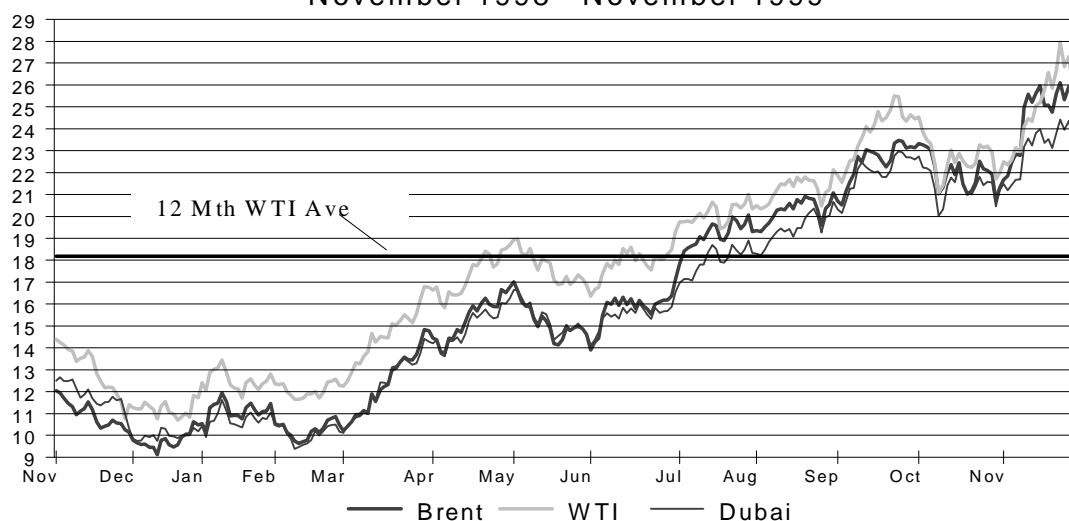
<sup>1</sup> Days of total stocks are based on demand for the next three months.

# OIL PRICES AND REFINERY ACTIVITY

## Summary

- **Crude oil prices** strengthened in the first part of November, leaving October's correction far behind. Crude markets tightened due to continued OPEC adherence to production reductions, and so did product markets due to declining crude runs associated with poor margins. Iraq further fuelled the market rally with its decision to reject an interim two-week continuation of the sixth phase of the UN "oil-for-food" programme, leading to the suspension of loadings by 24 November. Key producers' pronouncements about supporting "stable markets", speculation about possible sales by consumer countries from their strategic reserves and Iraq's announcement that it might be prepared to accept a simple six month roll-over of the "oil-for-food" programme calmed the market at month end. However, demand continues to outstrip supply and stocks are rapidly approaching recent lows of 1996.
- **Futures markets** activity was surprisingly subdued. The market was driven by fundamentals, especially inventory levels and the high rate of crude and product stock draws. The futures curves remain in steepening backwardation (downward sloping forward price curves), as prices in January increased more than prices in succeeding months. Backwardation reduces the incentive to hold inventory.
- **Spot product prices** rose on average in October, but lagged behind comparable crude oil price increases. Middle distillates fared best, followed by lighter products, with the heavier products losing ground. North American product prices showed the largest increase, followed by those in Europe and then Asia. Reduced refinery throughputs and increased seasonal demand are drawing down inventory, leaving markets somewhat exposed with respect to possible Y2K disruptions.
- **Refinery margins** collapsed in November, as refiners got caught in a squeeze between rapidly rising crude oil prices and lagging product prices. Margins fell despite voluntary throughput reductions, scheduled and unscheduled maintenance and weather-related disruptions. At current levels, margins are too low to provide incentives for refiners to increase runs. Consequently, crude runs are likely to continue falling and product inventory declines may accelerate.
- **Refinery throughputs** of OECD countries fell by 200 kb/d in October from September levels. Crude throughputs in OECD North America accounted for the bulk of the reduction, only partly offset by increases in OECD Asia. Preliminary data show October refinery utilisation rates in OECD countries averaging 88%. The decrease in aggregate OECD throughputs followed seasonal patterns, but is tracking well below comparable levels established last year.

**Spot Crude Prices**  
November 1998 - November 1999



## Crude Oil Prices and CIF Import Costs

The top stories of November crude oil markets are price volatility and Iraq. But the story behind the story has nothing to do with Iraq. It is about tightening markets, stock draws, Asian recovery, refinery margins, Y2K uncertainties, political wrangling and OPEC paralysis - a fear of destabilising a hard-won and perhaps unique consensus. Iraqi posturing is made possible by, and simply adds one more dimension to, this mix.

Crude oil prices experienced significant gains in the first part of the month. They resumed their upward path, putting behind them October's correction. These gains were supported by stories emanating from OPEC about maintaining production ceilings, weather-related disruptions in the Black Sea and the US Gulf Coast (USGC), increased Asian purchases and global inventory reductions. Iraq further fuelled the market with its decision to reject an interim two week continuation of the sixth phase for the UN "oil-for-food" programme and to suspend loadings on 24 November. This trend was broken at the end of the month by a sharp drop in prices associated with OPEC pronouncements about supporting "stable markets". Also contributing to this correction were statements about possible sales from the US Strategic Petroleum Reserve (SPR), mild weather and Iraqi's announcement that it was prepared to accept a simple six month roll-over of the "oil-for-food" programme.

### Spot Crude Oil Prices and Differentials

(monthly and weekly averages, \$/bbl)

	Sept	Oct	Nov	Change	Week Ending:					
					22 Oct	29 Oct	05 Nov	12 Nov	19 Nov	26 Nov
WTI	23.85	22.69	24.96	2.26	22.55	22.60	22.70	24.49	26.01	27.36
Brent Dated	22.49	22.01	24.58	2.57	21.54	21.65	22.32	25.35	25.30	25.79
Urals (delivered Mediterranean)	21.79	21.29	24.10	2.81	20.90	20.96	21.66	24.73	24.81	25.49
Dubai	21.95	21.47	23.03	1.57	21.33	21.24	21.49	23.45	23.56	24.25
Tapis	23.80	23.60	24.78	1.18	23.48	23.60	23.23	24.21	25.54	26.48
Brent over Dubai	0.54	0.54	1.55		0.21	0.41	0.83	1.90	1.74	1.54
WTI over Brent	1.36	0.69	0.37		1.01	0.95	0.38	-0.86	0.72	1.57
Tapis over Brent	1.31	1.59	0.19		1.94	1.95	0.91	-1.14	0.24	0.69
Brent 1st month minus 2nd month	0.43	-0.06	0.56		-0.18	-0.16	0.13	0.54	0.57	0.82
WTI 1st month minus 2nd month	0.26	-0.01	0.34		-0.23	-0.05	0.05	0.18	0.45	0.55

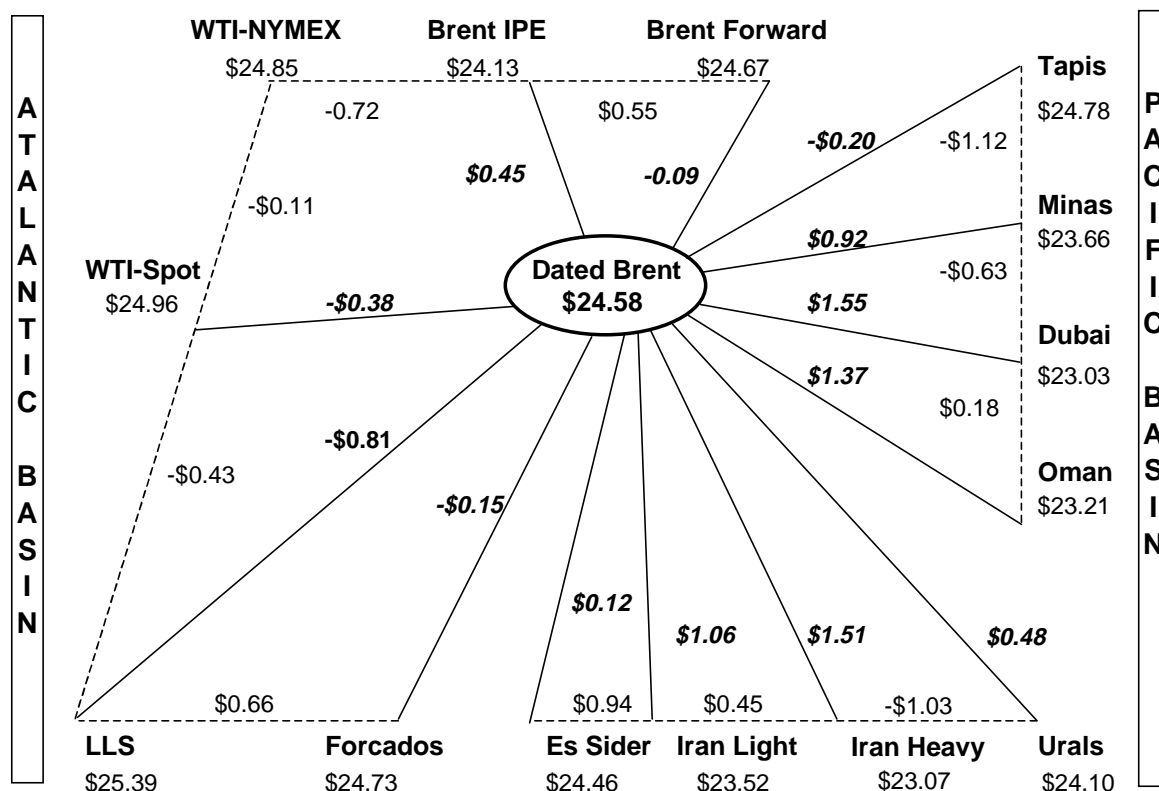
After another wild roller-coaster ride, the speculative element in the market has been displaced by fundamentals. Although rumours abound, it is inventory data that are ultimately driving markets. Increased Asian demand, aggravated by the region's commercial storage limitations, is "pulling" Atlantic Basin crudes east, strengthening them at the expense of their Pacific counterparts. This shift in trade patterns is rapidly drawing down Atlantic Basin stocks. Weather-related disruptions in Urals loading at the Black Sea port of Novorossiisk and ongoing *force majeure*s due to political unrest in Nigeria, combined with Iraqi suspension of Kirkuk loadings have strengthened European crude oil prices and accelerated inventory draws. Similarly, scheduled refinery maintenance, low refining margins, weather related disruptions in the USGC and year-end US tax-induced selling all contribute to increased product stock draws.

The market anticipates that OPEC will maintain its resolve into the new year. Compliance rates are close to 90%. The possibility that some consumer countries might release part of their strategic reserves has had a calming influence on the market as have key producers' announcements that they will work with consuming nations to ensure adequate supply in the face of possible Y2K problems and potential continuation of Iraqi disruptions. The two events effectively cap the range of escalating prices. Consequently, fundamentals - as reflected in stock draws - have become the focus of attention. Confusion remains. Declining stock levels contribute to heightened volatility. Yet, for the time being, the speculative dimension has been constrained, with the paper market now responding to physical events.

November saw significant price increases in all major crudes, led by Atlantic Basin and, in particular, Mediterranean crudes. On a month-on-month basis, Iranian Light and Heavy and Russian Urals prices increased 14%. North West European and West African crudes rose by 12%, followed by US crudes in the 10% range. Mid-East prices gained 7%, while Far-East prices lagged, at 5%. Paper markets generally underperformed their physical counterparts.

Louisiana Light Sweet (LLS) gained \$2.70 per barrel over the month, followed by West Texas Intermediate (WTI) and West Texas Sour (WTS). Among the major internationally-traded crudes, Dated Brent kept pace with LLS, while Dubai lost ground. The regional winners were Urals and Iranian Light and Heavy in the Mediterranean. Minas and Tapis lost ground in Asia. Year-to-date, both North Sea and Mediterranean crudes are up by over 130%, while WTI has doubled in price. The WTI 12-month average price is \$18.17 compared to \$16.69 for Brent and \$16.22 for Dubai, still well below OPEC's stated target ranges.

### Average Spot, Paper Crude Oil Prices and Differentials - November 1999

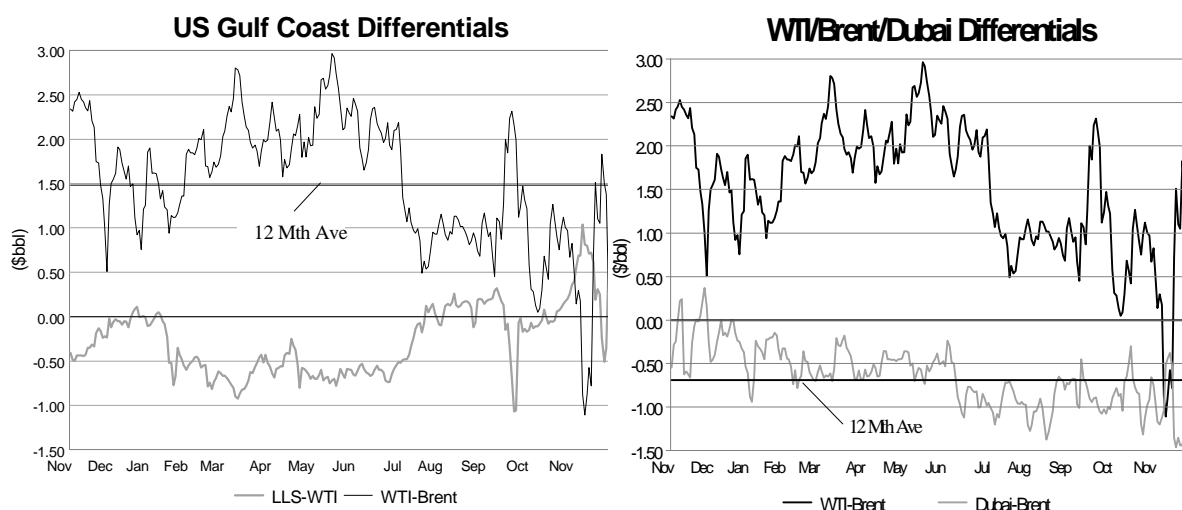


This graph depicts regional crude oil prices and differentials. Dated Brent is a widely traded spot crude and a benchmark of global sweet crude oil prices. It is referenced in approximately 80% of all international term and contract sales. Average monthly closing prices are arranged around the outside of the graphic, with differentials between crudes on the inside and differentials to Dated Brent along the axis. Reflecting geography, Atlantic Basin crudes are connected on the left, while Mediterranean crudes are located along the bottom with Middle and Far East crudes along the right.

The US Midcontinent market, home of **WTI Cushing** (the NYMEX futures market delivery location), continued to experience contradictory signals. For the early part of the month, both LLS and Brent traded at a contra-seasonal premium to WTI despite large inland stock draws. These premia were associated with strength in the Brent markets due to high Asian demand which pulled Atlantic Basin crudes east. Consequently, WTI prices weakened relative to their Gulf Coast counterparts. This relationship reversed towards the end of the month as news of "Iraq" spooked the paper market, but re-established itself at the end of the month. LLS, the regional sweet marker crude for the US Gulf Coast, traded at an average discount of 67 cents to WTI earlier in the year. Strength in LLS relative to WTI is a reflection of limited arbitrage opportunities. With Brent-based crudes pulled east, there is less competition for LLS on the Gulf Coast.

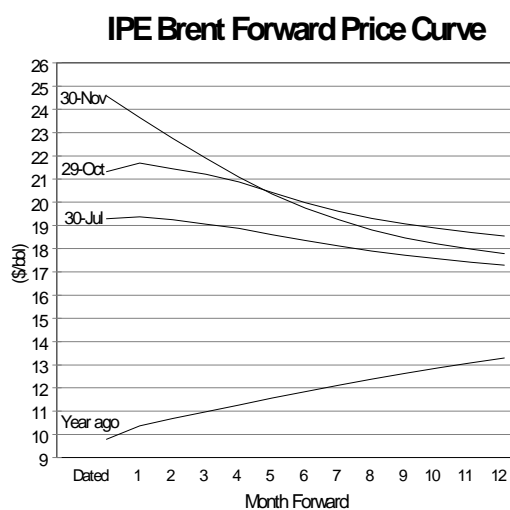
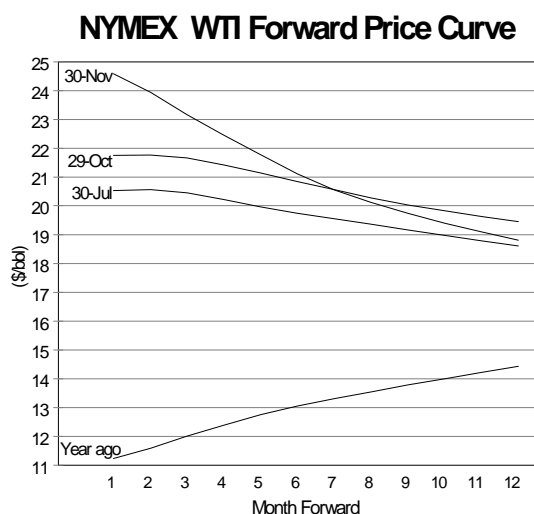
The strength of **Dated-Brent** versus WTI is a reflection of four factors. First, economy-driven and seasonal Asian demand is pulling Brent-based North Sea and African crudes east. This tightens the overall Atlantic Basin market and increases Brent prices. This market is already tight due to OPEC production ceilings and the growing impact of stock draws. The second factor is reported "squeezes" on physical oil. As liquidity decreases, the Brent spot and forward markets have limited volumes concentrated in the hands of a few traders, allowing prices to rise in conjunction with the relative unavailability of crude. Third, there were ongoing supply disruptions in Nigeria due to civil unrest. The Nigerian problem shut in significant volumes of crude at a time of increased demand. **Forcados** prices benefited from these developments

strengthening relative to Brent. Fourth, weather-related delays in Urals loadings, Russian product restrictions and the halt of Iraqi exports further limited supply and resulted in upward pressure on price. Being more exposed, Mediterranean prices increased more than their North West European counterparts.



East-of-Suez markets were negatively affected by the strength in Atlantic Basin crude prices. The Brent-Dubai differential widened significantly as Asian refiners bid up the price of Brent by pulling West African crudes east. A surge in seasonal demand, combined with increased economic activity, possible Y2K related stockpiling, minimal commercial storage and low regional stocks caused Asia-Pacific buyers to bid for available Atlantic Basin crudes. Prices reacted accordingly. For most of the month, European and US buyers were priced out of the West African market. US refiners had little choice other than to draw down stocks. This trend dovetails rather nicely with the US refineries' tax-induced strategy of holding minimal stocks at the end of the year.

**Dubai** prices rose in conjunction with **Oman** and both outperformed their far east counterparts. These crudes are generally more sour and heavier than their West African and North Sea counterparts, and were discounted accordingly. At the same time, Malaysian **Tapis** and **Minas** were exposed to increased competition from Atlantic Basin crudes. However, Minas, a heavy sweet crude, benefited from OPEC and Indonesian supply disruptions, growing distillate demand and reduced exports of Chinese Daqing crude. Concerns about possible Y2K problems appear to have rekindled the appetite of Asian utilities for straight-run fuels. Straight-run fuels, crudes with low sulphur and impurities but high in caloric value, provide utilities with enhanced storage options and flexibility over competing fuel sources such as natural gas, LPG, nuclear.



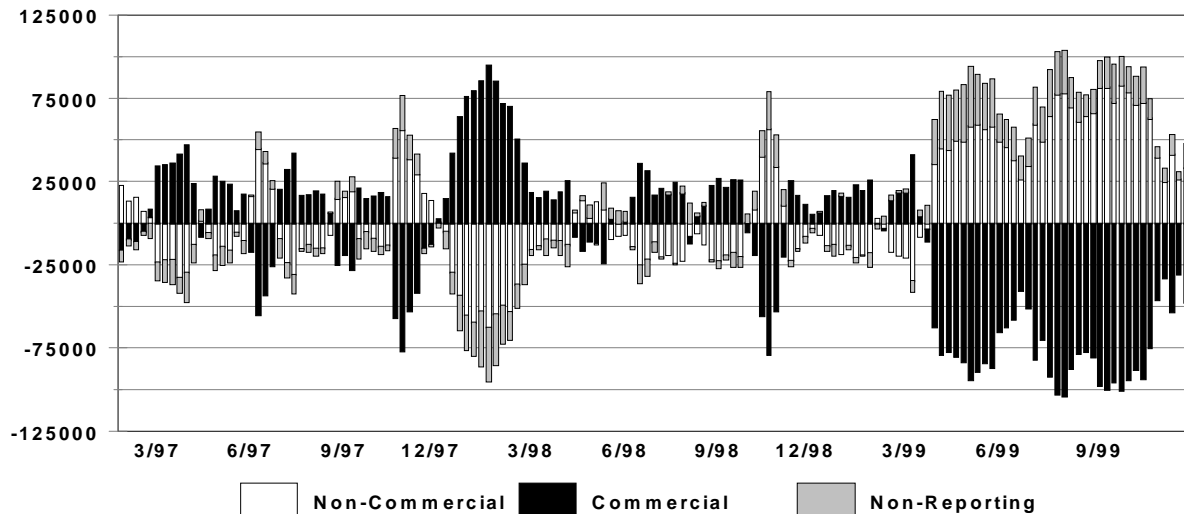
The **forward price curves** for WTI and Brent, shown in the two graphs above, pivoted upwards into steeper backwardation over the month, primarily as a result of the increase in front-month prices associated with the Iraqi supply disruptions. Prices have shifted into steeper backwardation (prices for the current month higher than prices for succeeding months). In general, front-month prices have gained at the expense of prices further out along the curve, increasing the degree of backwardation. The 30 November WTI and Brent curves stand in stark contrast to the mild upward slope of the forward price curves of a year ago.

The current differential between WTI and Brent futures averaged 72 cents per barrel in favour of WTI. The differential stood at \$1.90 in May and was down to 89 cents as recently as September. The collapse of this paper-on-paper differential reflects the underlying weakness of WTI and the strengthening of Brent caused by increasing Asian demand. The WTI spot-versus-futures differential favoured "wet" barrels by 11 cents per barrel whereas the IPE Brent spot-versus-futures differential favoured "paper" by 45 cents.

Backwardation undermines the incentive to build or hold inventory, because prices are expected to be lower tomorrow than they are today. Consequently, speculative commercial stocks would be expected to flood the market. But, despite all the talk of rising prices associated with a tightening market, the current slope of the futures curves suggests that the market expects prices to move down. The slope of the curves also suggests that the market is not overly concerned about possible Y2K supply disruptions.

As the accompanying chart shows, November witnessed a slight decrease in the number of net open-interest positions, from 53,000 to 43,000. This decrease in paper demand follows on the heels of October's massive sell-off of long speculative positions. It further undermines physical demand and prices. By collectively selling off their massively-long speculative positions in October, paper traders inadvertently drove down crude oil prices with no change in fundamentals. By reducing their positions at Cushing, the NYMEX delivery point, speculators have unwittingly increased the importance of fundamentals in the market.

### Volume and Distribution of WTI Contracts on the NYMEX



Given the uncertainties surrounding Y2K, Iraq and the risk of market imbalances associated with continuing OPEC production restraints, one is left to ponder whether the current financial markets are efficient in managing risk. Commodity speculators are not overly interested in underlying commodities or market fundamentals. They make money on the margin and flourish in times of volatility. Risk and uncertainty are their feeding grounds. The greater the volatility, the greater the potential for reward. It is hard to imagine any market more stressed and uncertain than that of crude oil right now. And yet, the speculators have exited and are staying away in droves.

The preliminary weighted average **CIF crude import costs** to IEA Member countries in September averaged \$21.34 per barrel, up \$1.82, or 9%, over August. This was the seventh consecutive month in which prices increased. CIF prices increased across all major IEA regions with prices in IEA North

America leading the way at 11%, followed by IEA Europe and IEA Pacific with 9% price increases. Average CIF price increases generally correspond to underlying crude-oil price increases in the same period. On a year-to-date basis, IEA North America experienced the largest CIF price increase at 110%. IEA Europe followed at 100% and IEA Pacific was up 90%. As such, average CIF prices lagged slightly behind the underlying feedstock price increases (Dated-Brent, 130% on a year-to-date basis; spot WTI, 100%; and Dubai, 115%), partly reflecting lower shipping costs due to weak tanker markets.

### Weighted-Average CIF<sup>1</sup> Crude Import Cost by Area

	\$/bbl			
	Total IEA	IEA Europe	IEA North America	IEA Pacific
Apr 99	14.42	14.55	14.48	14.04
May 99	15.34	14.87	15.57	16.02
June 99	15.58	15.18	15.53	16.65
Jul 99	17.71	18.12	17.43	17.36
Aug 99*	19.52	19.91	19.18	19.30
Sept 99*	21.34	21.70	21.31	20.95

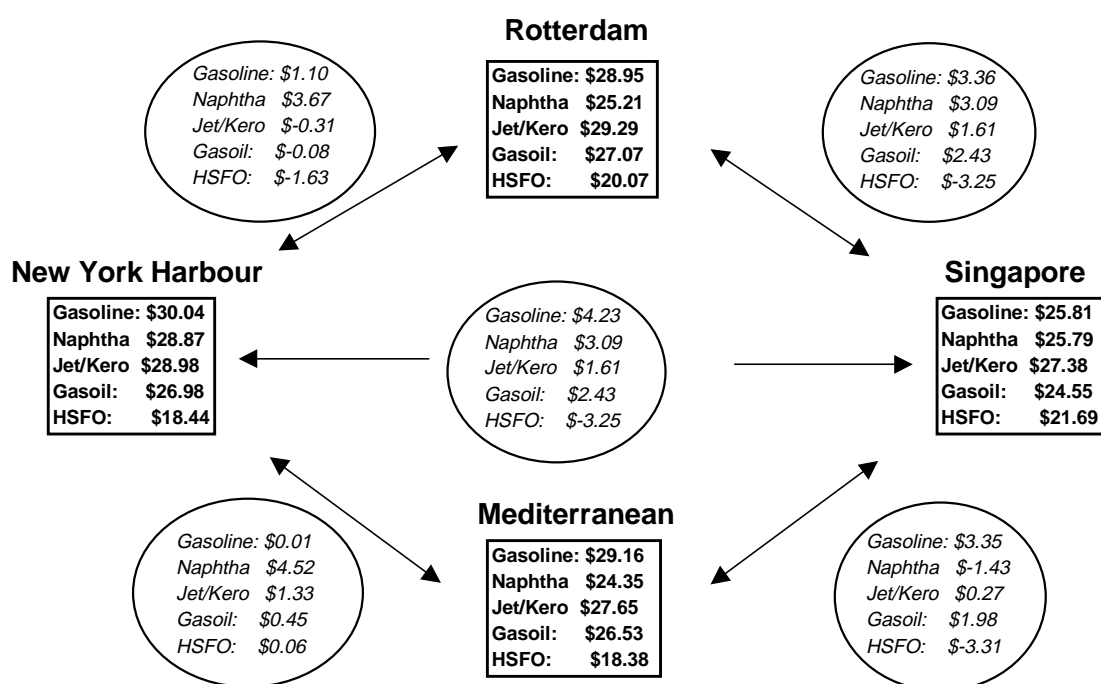
\* estimated

\*\* CIF = cost, insurance and freight

### Spot Product Prices in November

Much to the detriment of refining margins, product prices lagged behind advances in crude oil prices over the month. Middle distillates outperformed lighter ends, which outperformed the heavy ends of the product barrel. Jet/kero posted the largest gains across all markets, followed by gasoil. On average, these products kept pace with price changes in their underlying crude feedstocks. North American product prices showed the largest increase, followed by Europe and then Asia. Monthly product price changes ranged from an increase of \$3.12 per barrel for jet/kero in New York Harbour (NYH) to minus 68 cents per barrel for low sulphur fuel oil (LSFO) in the Mediterranean.

### Monthly Average Spot Product Prices and Differentials - November 1999



**Gasoline** prices increased across all markets. North American prices experienced the largest gains primarily in response to falling inventory levels. Prices were strongest in New York Harbour and the Mediterranean followed by Rotterdam and Singapore. Based on \$4 per barrel differentials, product that can meet US specifications is expected to flow from Asia to meet North America demand. **Naphtha** prices showed considerable strength in Europe and Asia as a result of strong petrochemical feedstock demand. Falling natural gas and gas liquids prices in response to milder than anticipated weather, should weaken naphtha demand and prices. **Jet/kero** prices had the largest increase across all markets. These gains reflect the onset of increased travel and perhaps some potential stockpiling in advance of Y2K.

### Spot Product Prices

(monthly and weekly averages, \$/bbl)

	Sept	Oct	Nov	Nov-Oct % Chg	Week Ending					Sept	Oct	Nov	
					29 Oct	05 Nov	12 Nov	19 Nov	26 Nov				
<b>Rotterdam, Barges FOB</b>													
											<i>Differential to Brent</i>		
Premium 0.15 g/l	28.11	27.93	28.95	1.01	3.6%	27.50	26.52	28.29	29.89	31.18	5.63	5.92	4.37
Regular Unleaded	26.00	26.01	27.22	1.21	4.7%	25.60	24.84	26.62	28.15	29.35	3.51	4.00	2.64
Naphtha	23.05	24.55	25.21	0.65	2.7%	24.32	24.22	24.25	25.42	27.08	0.57	2.55	0.63
Jet/Kerosene	26.58	26.19	29.29	3.10	11.9%	26.50	26.44	28.43	30.31	32.11	4.10	4.18	4.71
Gasoil	24.71	24.59	27.07	2.48	10.1%	24.77	24.71	26.21	28.18	29.50	2.22	2.58	2.49
Fuel Oil 1.0%S	18.15	19.55	19.78	0.23	1.2%	19.88	19.31	19.61	19.95	20.26	-4.33	-2.46	-4.80
Fuel Oil 3.5%S	18.43	19.70	20.07	0.37	1.9%	19.84	19.17	19.79	20.46	20.88	-4.05	-2.31	-4.51
<b>Mediterranean - Basis Italy, Cargoes FOB</b>													
											<i>Differential to Brent</i>		
Premium 0.15 g/l	28.39	27.90	29.16	1.26	4.5%	27.80	27.15	28.74	29.89	30.94	6.60	6.61	5.06
Naphtha	22.21	23.66	24.35	0.69	2.9%	23.53	23.42	23.34	24.54	26.25	0.41	2.37	0.25
Jet/Kerosene	25.34	24.64	27.62	2.98	12.1%	25.24	25.13	26.67	28.31	30.08	3.55	3.35	3.52
Gasoil	23.75	23.93	26.53	2.60	10.9%	24.30	24.18	25.82	27.55	28.91	1.96	2.64	2.43
Fuel Oil 1.0%S	17.72	18.79	18.11	-0.68	-3.6%	19.01	18.37	17.82	17.96	18.26	-4.07	-2.50	-5.99
Fuel Oil 3.5%S	17.39	18.52	18.38	-0.14	-0.7%	18.86	18.59	18.15	18.16	18.56	-4.40	-2.78	-5.72
<b>NY Harbour, Barges</b>													
											<i>Differential to Brent</i>		
Premium Unleaded 93	30.92	28.09	30.04	1.95	6.9%	27.17	27.68	29.82	30.68	32.55	7.07	5.40	5.09
Regular Unleaded 87	28.88	26.34	29.17	2.83	10.8%	26.00	26.68	29.20	29.88	31.55	5.03	3.64	4.22
Jet/Kerosene	26.82	25.87	28.98	3.12	12.1%	26.26	26.51	28.61	30.04	31.13	2.98	3.17	4.03
No.2 (Heating Oil)	25.27	24.48	27.19	2.71	11.1%	24.78	25.19	26.93	28.23	28.96	1.42	1.79	2.24
Fuel Oil 1.0%S (Cargo)	19.52	19.45	19.56	0.11	0.6%	20.20	19.19	19.48	19.89	19.89	-4.33	-3.24	-5.39
Fuel Oil 3.0%S (Cargo)	18.74	18.46	18.44	-0.02	-0.1%	18.70	18.08	18.08	18.66	19.06	-5.11	-4.23	-6.52
<b>Singapore, Cargoes</b>													
											<i>Differential to Brent</i>		
Gasoline Unleaded 95	26.83	24.78	25.81	1.04	4.2%	25.54	25.18	25.37	26.19	26.88	4.87	3.31	2.78
Naphtha	24.55	24.69	25.79	1.09	4.4%	25.60	24.72	25.21	26.48	27.18	2.59	3.23	2.75
Jet/Kerosene	26.40	25.90	27.38	1.48	5.7%	26.27	25.45	26.86	28.33	29.13	4.45	4.43	4.35
Gasoil	23.10	23.60	24.55	0.95	4.0%	23.77	23.04	23.78	25.19	26.52	1.15	2.14	1.52
LSWR (0.3%S)	18.95	20.46	21.22	0.75	3.7%	21.00	20.81	21.00	21.53	21.85	-3.00	-1.00	-1.82
HSFO (3.5%S 180cst)	19.77	21.37	22.10	0.73	3.4%	22.15	21.46	21.96	22.53	22.87	-2.18	-0.10	-0.93
HSFO (3.5%S 380cst)	19.36	20.97	21.69	0.72	3.5%	21.86	21.06	21.57	22.07	22.48	-2.59	-0.50	-1.34

**Gasoil** prices experienced significant gains in North America and Europe in response to falling inventory levels and reduced Russian exports. Asian gasoil prices rose less, in response to milder weather, notably in Japan, and increased throughputs in China and India. The conclusion of Middle East term-price negotiations once again pave the way for product to flow east. The biggest losers from a pricing perspective were **LSFO** and **high sulphur fuel oil (HSFO)**. Unseasonally mild weather has played havoc with these two products. Utilities that can switch between fuels have substituted away from fuel oil in favour of cheaper natural gas. Heavy fuel oil has simply been priced out of fuel-substitutable markets. In light of possible Y2K disruptions, some Asian utilities might be induced to pay a premium for straight-run products given the increased flexibility and security of oil and product storage and distribution systems as compared to natural gas, LPG and nuclear generation.

#### Americas

Spot product prices in the US gained across the board with middle distillates increasing more than light and heavier products. On average, however, November product prices lost ground against crude oil. Poor refining margins have led US refiners to reduce runs. Reduced runs have depleted product stocks. This complements rather nicely with the tax-motivated year-end destocking program of the US refining complex, but provides little cushion for possible weather disruptions or Y2K-related problems.

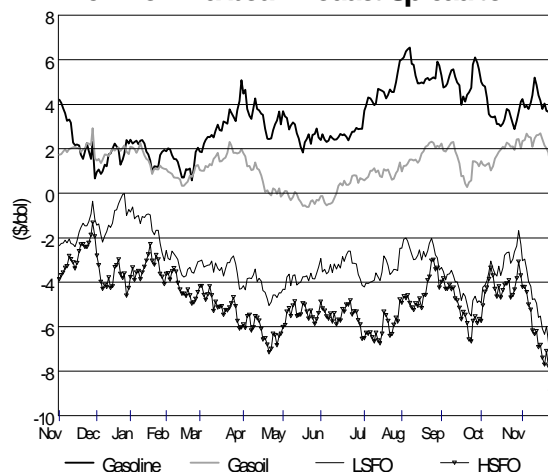
**Gasoline** product prices in North America are rising in response to falling inventories. Stock are falling due to the impact of poor refining margins on throughputs and unscheduled maintenance, weather-related disruptions and refinery re-tooling to maximise winter heating fuel production. In addition, destocking is exacerbated by limited arbitrage opportunities and tax-induced year-end selling. Prices on the US West Coast have been under increased pressure due to the combined impact of tighter product specifications limiting competition and ongoing regional infrastructure problems. At current differentials, one would expect gasoline to begin to flow from Asia to North America to help build stocks.



## New York Harbour Product Spot Prices

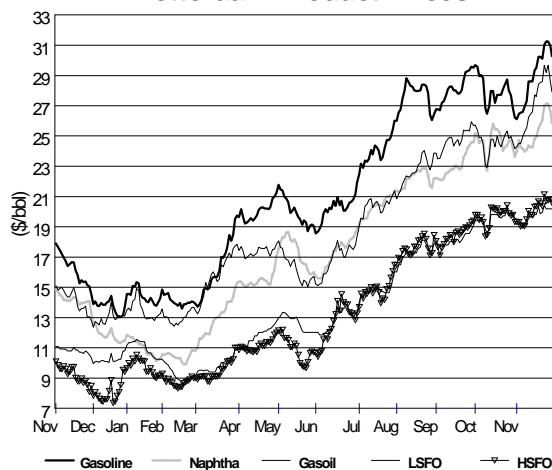


## New York Harbour Product Spread to WTI

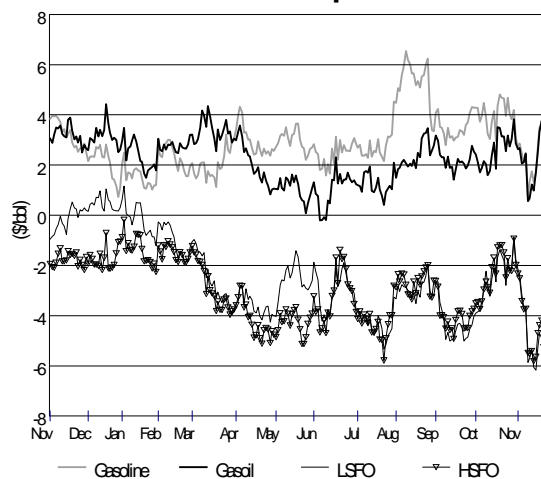


**Distillate** stocks also continued to fall, putting upward pressure on price. Despite mild weather, limited arbitrage opportunities combined with Russian export restrictions and reduced refinery throughputs are reducing North American distillate inventories in advance of possible Y2K disruptions and the peak winter heating season. The declines have been particularly severe in the US Northeast, the single largest heating oil consuming region in the world. An unexpected cold snap, or unanticipated refinery outages, could draw down middle distillate stocks sharply, contributing to spot outages and significant price gyrations. **Fuel Oil** prices, on the other hand, have weakened due to weather related factors. Milder temperatures have cratered natural gas prices, and any utility that can, but had not already substituted away from fuel oil, will. The dramatic run-up in crude oil prices has simply priced residual fuel out of the utilities market. The return of refineries from scheduled maintenance, and an increase in hydroelectric output, has reduced Mexican demand for residual fuel oil, undermining prices in the Gulf Coast region.

## Rotterdam Product Prices



## Rotterdam Product Spreads to Brent



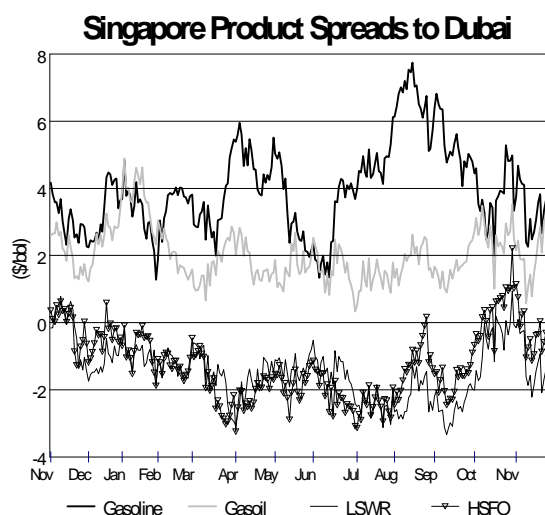
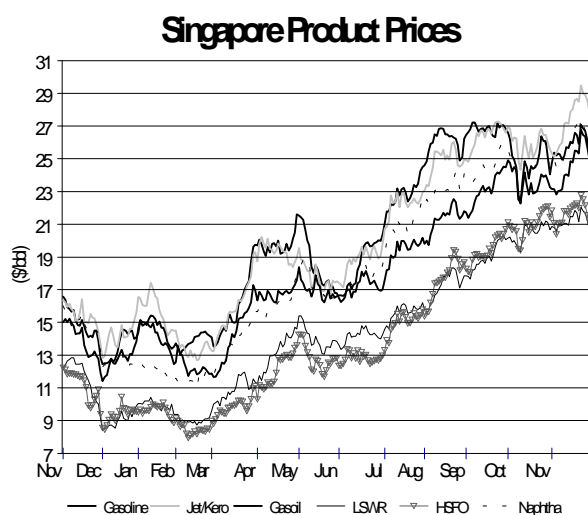
## Europe

As elsewhere, **middle distillates** led all other product price increases in Europe. German consumers rushed back into the market replenishing their depleted home heating oil inventories. The typical German fuel tank holds anywhere from 6 to 12 months worth of fuel supply. This comes at a time of reduced Russian exports and lower crude runs due to marginal refinery economics. Rising diesel prices have pulled European **jet fuel** in its wake. The switch in diesel specifications on 15 January 2000 has reduced overall kerosene production. **Naphtha** lost ground to crude oil due to the impact of reduced natural gas and gas liquids prices on petrochemical demand. At the margin, reduced crude runs impact naphtha more than other products, as it represents a smaller proportions of the "product barrel".

**Gasoline** prices, while increasing, lost ground to those in the US and Asia. **Gasoil** prices gained some strength from the Russian export ban on fuel oil products. But the ban is temporary and the end of the harvest season, coupled with increased Russian crude runs, could lead to increased exports. Displaced Asian product may also find its way into the European market, further depressing prices. In the end, middle distillate prices remained flat last month. **LSFO** and **HSFO** prices experienced the biggest declines in November. Milder than expected temperatures combined with reduced natural gas prices and increased hydroelectric generation undermined utility demand and fuel oil prices. Italian fuel oil sales, Europe's largest market, have declined by 17% over the past three months. A harsher than expected winter and possible Y2K supply disruptions, could stress low product stocks and contribute to significant price fluctuations. November spot product prices were higher in Rotterdam than the Mediterranean for all commodities other than gasoline.

### Asia-Pacific

Singapore product price increases trailed the other markets. Product prices rose on average by 4%, much less than the cost of imported crude. Asian **gasoline** continues to labour, in search of a home, as demand on the US West Coast levelled off with the restart of regional refining capacity. On average, prices are over \$3 per barrel lower in Singapore than the other major refining centres. At these differentials, and given gasoline destocking in North America, arbitrage should soon begin to clear the market. **Naphtha** prices received support from increased petrochemical demand. A milder than anticipated winter, especially in Japan, has reduced gasoil demand and restrained prices.



**LSFO** and **HSFO** prices fared better in Asia than in other refining centres. Asian fuel oil demand was supported by a number of factors including low crude runs, depleting stocks, increasing economic activity, Y2K stock building and increasing Chinese demand. China announced renewed import quotas to stem the tide of rising domestic prices. This should continue to strengthen heavier product prices into the future, although Chinese fuel switching away from crude into less expensive coal in the utility sector could dampen demand. Fuel oil stocks in Singapore are at their lowest level of the past seven years, not a very comfortable situation to be in on the eve of Y2K.

### End-User Product Prices

End-user product prices in November followed a random pattern, as shown in Table 9 at the end of the Report. France and Spain experienced increases while prices in Germany, Italy and the UK generally declined. German **diesel** and **domestic heating oil** prices declined while those in the US increased. Similarly, Spanish **heating fuel oil** prices increased while German prices declined. Japan experienced relatively stable mid-month end-user product prices.

#### Mid-Month End-User Product Price Changes November 1999 versus October 1999

Local Currency Including Taxes

	Gasoline <sup>1</sup>	Automotive Diesel <sup>2</sup>	Domestic Heating Oil <sup>3</sup>	HFO for Industry <sup>5</sup>
US	0.0	2.8	3.9	na
Canada	1.4	-0.5	na	na
France	0.2	2.0	3.1	1.5
Germany	-0.3	-5.7	-1.5	-1.8
Italy	-1.5	-1.3	0.1	0.5
Spain	0.2	2.8	4.1	4.4
UK	-0.8	-0.9	0.8	2.0
Japan	1.0	1.3	1.7	0.0

<sup>1</sup> premium leaded gasoline for France, Italy, Spain, the UK; regular unleaded gasoline for Canada, Germany, Japan and the US

<sup>2</sup> estimated

<sup>3</sup> VAT excluded where it is refundable: Heavy Fuel Oil for Industry, Automotive Diesel for Industry

<sup>4</sup> kerosene

<sup>5</sup> high sulphur fuel oil price for France, Spain, the UK and Japan; low sulphur fuel oil price for Germany and Italy - details are shown in Table 9 at the back of the Report

On a year-on-year basis, heating fuel oil showed the largest percentage increase, about 50%, followed by domestic fuel oil, automotive diesel and gasoline. Japan had the lowest overall year-on-year percent increases, less than 10%, and Spain, the highest, in the 30% range. In this respect, average end-user price increases have lagged behind both spot product and crude-oil price increases. This runs counter to the broader public perception.

### Refining Margins in November

Refining margins collapsed in November. Refiners got caught in a squeeze between rapidly rising crude oil prices and lagging product prices. Margins collapsed despite voluntary throughput reductions and scheduled and unscheduled maintenance. At current levels, margins are too low to provide significant incentives to increase runs. Consequently, crude runs are falling and product inventories are on the decline, exacerbating the overall tightness in the global market. This destocking of the crude and product markets increases overall exposure to possible Y2K disruptions.

Hydroskimming margins experienced the steepest declines and are mired in red ink. Cracking margins fared somewhat better, declining in all regions from October levels. Cracking, however, remained marginally positive in Singapore and the Mediterranean.

Europe bore the brunt of the margin declines. Spiralling physical Brent prices undermined **Rotterdam** margins in the beginning of the month, while weather-related loading problems in the Black Sea caused a spike in Urals prices for the **Mediterranean**. The month closed with the suspension of Iraqi exports, which forced European refiners to scramble for higher-cost, lighter and more distant substitutes. Europe was forced to bid crude away from an ever tightening Atlantic Basin. To compound matters, Russia announced additional export restrictions to year's end and Shell shut-in some of its Nigerian production. Rotterdam margins were supported by reduced crude runs in Northwest Europe, while the unscheduled closure of the Izmit and Aspropyrgos refineries in Turkey and Greece due to earlier earthquakes continued to strengthen prices in the Mediterranean.

### Refining Margins in Major Refining Centres

(monthly and weekly averages, \$/bbl)

	Sept	Oct	Nov	Change	Week Ending:					
					22 Oct	29 Oct	05 Nov	12 Nov	19 Nov	26 Nov
<i>NW Europe</i>										
Brent (Hydroskimming)	-0.84	-0.22	-1.66	-1.44	0.21	0.31	-0.77	-3.10	-1.88	-1.29
Brent (Cracking)	0.49	0.90	-0.26	-1.17	1.33	1.37	0.31	-1.74	-0.36	0.36
<i>Mediterranean</i>										
Urals (Hydroskimming)	-0.27	0.68	-1.04	-1.72	1.16	1.24	0.23	-2.19	-1.34	-1.07
Urals (Cracking)	1.10	1.89	0.46	-1.43	2.38	2.40	1.39	-0.72	0.32	0.72
<i>US Gulf Coast</i>										
Brent (Cracking)	1.31	-0.10	-0.92	-0.82	0.16	0.03	-0.37	-1.91	-1.01	-0.37
WTI (Cracking)	0.91	0.24	-0.04	-0.29	0.39	0.14	0.41	0.34	-0.43	-0.69
<i>Singapore</i>										
Dubai (Hydroskimming)	-0.58	0.49	-0.20	-0.69	0.55	1.29	0.37	-1.00	-0.21	-0.22
Dubai (Cracking)	0.78	1.27	0.63	-0.64	1.24	2.02	1.14	-0.29	0.63	0.79

For the purposes of this Report, refining margins are calculated on the basis of an "average" refinery that is running a "typical" crude slate in a specific refining centre. Consequently, reported margins should be taken as an indication, or proxy, of changes in profitability for a given refining centre. No attempt is made to model or otherwise comment upon the relative economics of specific refineries, running individual crude slates and producing custom product slates.

Refiners on the **US Gulf Coast** fared better due to WTI's relative weakness. Brent cracking margins plummeted, whereas WTI cracking operations posted more moderate declines. USGC margins were supported by weather-related throughput reductions and scheduled maintenance programs heading into peak winter heating fuel demand. US destocking means that appropriate price signals will be needed if refiners are to increase crude runs.

**Singapore** cracking and hydroskimming margins declined over the month. Margins benefited from the relative weakness of Dubai and Asian crudes and the strength of the product market relative to crude oil. Dubai cracking margins, although low, were the highest of the four major refining centres. Singapore margins were supported by incremental Asian economic activity, low product inventories and significant reductions in crude throughputs due to marginal refining economics.

## OECD Refinery Throughputs in October

Aggregate refinery throughputs of **OECD** countries in October decreased by 200 kb/d, or slightly less than 0.5%. Throughputs in OECD Asia increased, fully offset by decreases in OECD North America and Europe. Japan, Korea, and the UK increased their crude runs, while runs in the US, France, Italy and Spain declined. Preliminary data suggest that refinery utilisation rates in OECD countries averaged 88% in September, a decline of 1.4 percentage points from 1998. The reductions in aggregate OECD throughputs follows seasonal patterns, but with crude runs well below comparable levels established last year.

**North American** throughputs decreased by 50 kb/d from September, in line with seasonal patterns. US throughput fell by 60 b/d for an aggregate utilisation rate of just over 90%. Utilisation rates in Canada and Mexico continue to lag behind those of the US. October and November normally represents turn-around months when refiners switch to winter heating mode operations. Consequently, utilisation rates should continue their downward path. Low margins, unscheduled maintenance, weather-related problems and year-end tax selling strategies could exacerbate these declines. These throughput reductions are occurring in tandem with the destocking of crude inventories and should tighten the market, exposing prices to increased volatility.

Estimated OECD **Europe** throughputs in October decreased by 260 kb/d. Current crude runs are well below levels of the previous three years. France and the Italy experienced the largest declines in OECD Europe. The strength of the Brent market played havoc with regional refinery margins, and European throughputs were reduced accordingly. Throughputs normally strengthen as European refiners gear up to meet peak seasonal heating demand. European refining peaks in the winter, whereas US refining output peaks in the summer. Nonetheless, OECD Europe utilisation rate stood at only 89% in October, a massive 8.3 percentage point drop from the previous year.

OECD **Pacific** throughputs increased slightly, by 130 kb/d, in October. While throughputs increased in Japan, utilisation rates remained low relative to other regions at a paltry 75%. In contrast, Korean refineries are operating at maximum capacity. The onset of peak winter demand, combined with the strengthening Asian economies, low commercial inventories and possible Y2K stockpiling, would normally result in increased throughputs. Poor margins, on the other hand, provide an economic disincentive to increase runs.

In line with seasonal patterns, refinery throughputs in **November** are thought to have increased across all major OECD regions. US weekly statistics suggest that US throughput levels averaged 14.7 mb/d for the four weeks ending 26 November. The level of increase, however, is expected to be lower than in previous periods, restrained by the significant crude oil destocking program forced on the market by OPEC production constraints.

### Refinery Crude Throughputs and Utilisation in OECD Countries

	million barrels per day					change from Sep 98		utilisation rate <sup>2</sup>	
	June	July	Aug	Sept	Oct <sup>1</sup>	mb/d	%	Oct 99	Oct 98
OECD Europe <sup>3</sup>	12.82	13.30	13.45	13.22	12.96	-1.220	-8.6	88.7%	97.0%
France	1.59	1.87	1.80	1.64	1.56	-0.292	-15.7	90.0%	106.8%
Germany	2.14	2.09	2.23	2.24	2.21	-0.110	-4.8	97.6%	102.5%
Italy	1.54	1.56	1.80	1.84	1.69	-0.194	-10.3	83.2%	92.7%
Netherlands	1.07	1.09	1.04	1.08	1.01	-0.217	-17.6	83.5%	101.4%
Spain	1.13	1.18	1.18	1.21	1.18	0.019	1.6	92.2%	90.7%
UK	1.68	1.63	1.57	1.58	1.62	-0.160	-9.0	93.0%	102.2%
US	15.12	15.27	15.47	14.78	14.72	0.630	4.5	90.3%	89.0%
Canada	1.75	1.58	1.67	1.65	1.64	-0.009	-0.6	89.0%	89.5%
Mexico	0.99	1.12	1.20	1.16	1.17	-0.016	-1.4	75.3%	76.3%
Japan	3.57	3.88	4.05	3.92	3.99	0.220	5.8	74.5%	70.1%
Korea	2.18	2.40	2.13	2.40	2.46	0.092	3.9	99.9%	96.2%
Australia/New Zealand	0.86	0.84	0.84	0.84	0.83	0.107	14.7	100.6%	87.7%
OECD Total <sup>4</sup>	37.30	38.40	38.80	37.97	38.57	-0.192	-0.5	87.9%	89.3%

<sup>1</sup> estimate

<sup>2</sup> based on crude throughput and current operable refining capacity

<sup>3</sup> includes Czech Republic, Hungary and Poland

<sup>4</sup> includes Czech Republic, Hungary, Poland, Mexico and Korea

## Downstream Industry Developments

On 30 November, the US Federal Trade Commission (FTC) approved the merger between Exxon and Mobil. To preserve competition, the FTC ordered the two companies to divest 2,431 gasoline stations, mainly on the East Coast and in California, pipeline interests in Alaska and the Southeast, a 130 kb/d oil refinery in Benicia, California, and other smaller assets. The divestitures will be completed within nine months, except for the refinery and gasoline stations in California. Nine thousand jobs will initially be cut from the combined company's 123,000 worldwide employees and total cost saving is expected to exceed \$2.8 billion annually. With this approval, the merger, which had been announced on 1 December 1998, was completed. The merged company, Exxon Mobil, is headquartered in Irving, Texas.

Tosco, the largest independent US refiner, has announced that it will buy 1,740 gasoline stations from Exxon Mobil. The deal covers Exxon-branded stations in New York state and New England and Mobil-branded stations from New Jersey to Virginia. Tosco currently has 4,500 sites to sell fuel, including both gasoline stations and convenient stores.

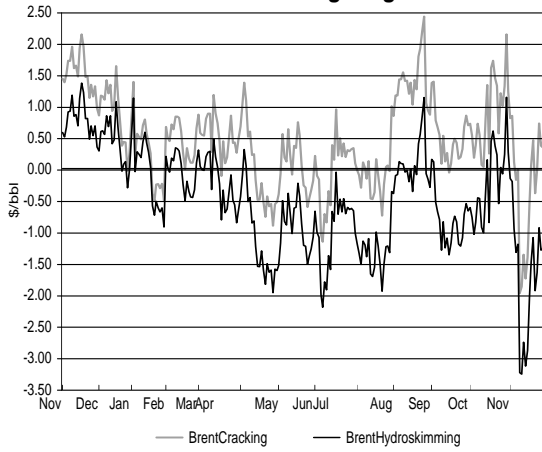
Prior to the US approval, the Canadian Federal Competition Bureau cleared the Exxon-Mobil merger, which involved Imperial Oil, 70% owned by Exxon, and Mobil Oil Canada. Imperial Oil is the largest oil company in Canada, with a 30% market share, while Mobil Oil Canada is a major natural gas producer and has a significant interest in the Hibernia field.

Mexico's state-owned Pemex plans to have resume tenders for the upgrading and expansion of its 200 kb/d Minatitlan refinery on the Gulf Coast. Mexico aims to increase its ability to refine heavy Maya grade and produce more high-octane gasoline to reduce its gasoline imports from the US.

Shell and Texaco plan to swap retail assets in the UK and Greece. Texaco is trading its entire 375-site retailing network in Greece for Shell's 80 sites in the UK. Texaco will focus its European downstream operations on Northwest Europe, while Shell's market share in Greece will rise from 14% to 20%.

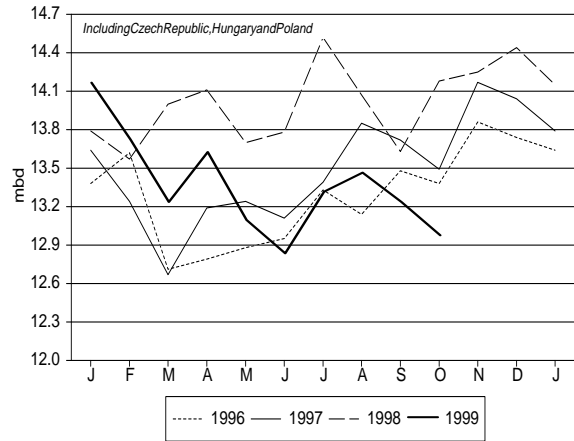
The Indian Oil Corporation hired an engineering company to do front end engineering and design work for the expansion of its Barauni refinery, located northwest of Calcutta. The plant's capacity will rise to 120 kb/d from 66 kb/d by October 2001. The Barauni plant supplies eastern India with petroleum products.

**RotterdamRefiningMargins**

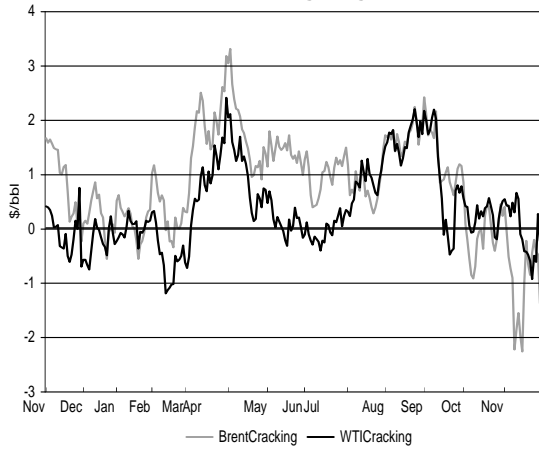


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**OECDEuropeCrudeThroughputs**

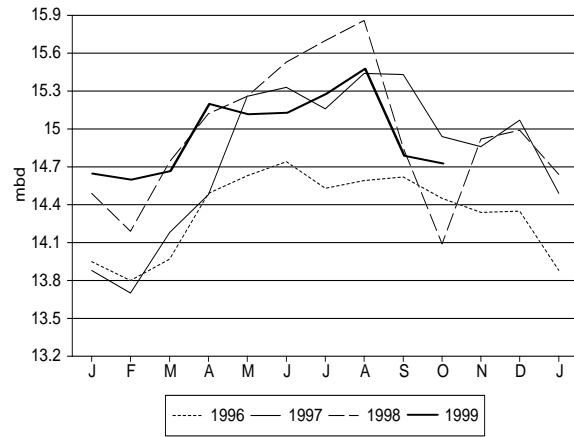


**USGulfRefiningMargins**

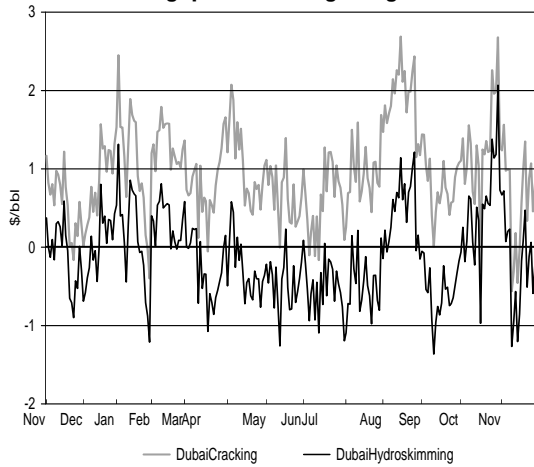


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**USCrudeThroughputs**

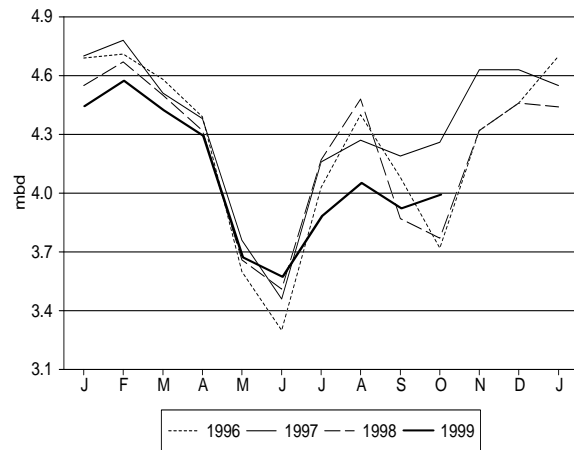


**Singapore Refining Margins**



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**JapanCrudeThroughputs**



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

	1996	1997	1Q98	2Q98	3Q98	4Q98	1998	1Q99	2Q99	3Q99	4Q99	1999	1Q00	2Q00	3Q00	4Q00	2000
<b>OECD DEMAND</b>																	
North America	22.2	22.7	22.7	23.0	23.5	23.5	23.2	23.6	23.2	23.9	24.0	23.7	23.9	23.7	24.4	24.5	24.1
Europe	14.9	15.0	15.4	14.7	15.2	15.9	15.3	15.8	14.4	14.7	15.8	15.2	15.7	14.9	15.0	16.1	15.4
Pacific	8.8	9.0	9.2	7.8	8.0	8.8	8.4	9.4	7.9	8.2	9.0	8.6	9.6	8.1	8.4	9.2	8.8
Total OECD	45.9	46.7	47.3	45.5	46.7	48.1	46.9	48.8	45.5	46.9	48.9	47.5	49.3	46.7	47.7	49.9	48.4
<b>NON-OECD DEMAND</b>																	
FSU <sup>1</sup>	4.3	4.3	4.5	4.1	3.9	3.8	4.1	4.2	3.6	4.0	4.0	3.9	4.3	3.9	4.0	3.8	4.0
Europe	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.9
China <sup>1</sup>	3.7	4.1	4.3	4.2	4.0	4.0	4.2	4.3	4.6	4.4	4.1	4.3	4.6	4.7	4.4	4.4	4.5
Other Asia	6.4	6.7	6.7	6.8	6.7	7.0	6.8	7.1	7.0	7.0	7.2	7.1	7.4	7.3	7.4	7.6	7.4
Latin America	4.5	4.6	4.7	4.9	5.0	4.9	4.8	4.7	4.9	5.0	4.9	4.9	4.8	5.0	5.1	5.1	5.0
Middle East	4.0	4.2	4.2	4.3	4.4	4.2	4.3	4.2	4.3	4.2	4.4	4.3	4.3	4.4	4.4	4.5	4.4
Africa	2.2	2.3	2.4	2.4	2.3	2.5	2.4	2.4	2.4	2.4	2.5	2.4	2.5	2.4	2.4	2.6	2.5
Total Non-OECD	25.9	27.0	27.7	27.5	27.1	27.2	27.3	27.7	27.6	27.8	28.0	27.8	28.8	28.7	28.4	28.8	28.7
<b>Total Demand<sup>2</sup></b>	<b>71.8</b>	<b>73.7</b>	<b>74.9</b>	<b>72.9</b>	<b>73.8</b>	<b>75.3</b>	<b>74.2</b>	<b>76.5</b>	<b>73.1</b>	<b>74.7</b>	<b>76.9</b>	<b>75.3</b>	<b>78.1</b>	<b>75.4</b>	<b>76.2</b>	<b>78.8</b>	<b>77.1</b>
<b>OECD SUPPLY</b>																	
North America	14.3	14.6	14.9	14.7	14.2	14.3	14.5	14.1	13.8	13.8	13.9	13.9	14.0	13.9	13.9	14.1	13.9
Europe	6.7	6.7	6.9	6.6	6.3	6.8	6.7	6.8	6.5	6.6	7.0	6.7	7.1	6.9	6.8	7.3	7.0
Pacific	0.7	0.7	0.7	0.7	0.8	0.6	0.7	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8
Total OECD	21.7	22.1	22.6	22.0	21.3	21.6	21.9	21.5	20.9	21.1	21.6	21.3	21.9	21.6	21.5	22.2	21.8
<b>NON-OECD SUPPLY</b>																	
FSU	7.1	7.2	7.3	7.2	7.3	7.4	7.3	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.6	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	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.2
Other Asia	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2
Latin America	3.3	3.4	3.6	3.6	3.7	3.9	3.7	3.9	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.9	3.9
Middle East	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	1.9
Africa	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.9	2.8	2.9	2.9	2.9	2.9	2.9
Total Non-OECD	20.4	20.9	21.1	21.1	21.1	21.5	21.2	21.5	21.5	21.6	21.8	21.6	21.8	21.8	21.8	21.8	21.8
Processing Gains <sup>3</sup>	1.5	1.6	1.7	1.6	1.6	1.7	1.6	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Total Non-OPEC	43.7	44.5	45.4	44.7	44.1	44.8	44.7	44.6	44.0	44.4	45.1	44.5	45.4	45.0	45.0	45.7	45.3
<b>OPEC</b>																	
Crude	25.8	27.2	28.5	28.3	27.4	27.5	27.9	27.7	26.1	26.1							
NGLs	2.6	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9
Total OPEC	28.4	29.9	31.3	31.1	30.2	30.3	30.7	30.5	28.9	29.0							
<b>Total Supply<sup>4</sup></b>	<b>72.1</b>	<b>74.4</b>	<b>76.7</b>	<b>75.8</b>	<b>74.2</b>	<b>75.0</b>	<b>75.4</b>	<b>75.2</b>	<b>72.9</b>	<b>73.4</b>							
<b>STOCK CHANGES AND MISCELLANEOUS</b>																	
<b>Reported OECD</b>																	
Industry	0.0	0.3	-0.1	1.5	0.3	-0.8	0.2	-0.7	0.3	-0.3							
Government	0.0	0.0	0.0	0.3	0.1	0.1	0.1	0.0	0.1	-0.1							
Total	0.0	0.3	-0.1	1.7	0.4	-0.7	0.3	-0.7	0.4	-0.4							
Floating Storage/Oil in Transit	-0.1	0.1	0.0	0.3	-0.1	0.0	0.0	0.1	0.2	-0.1							
Miscellaneous to balance <sup>5</sup>	0.3	0.4	1.9	0.9	0.2	0.5	0.9	-0.7	-0.8	-0.8							
<b>Total Stock Ch. &amp; Misc</b>	<b>0.3</b>	<b>0.8</b>	<b>1.7</b>	<b>2.9</b>	<b>0.5</b>	<b>-0.3</b>	<b>1.2</b>	<b>-1.3</b>	<b>-0.1</b>	<b>-1.3</b>							
<b>Memo items:</b>																	
FSU Net Exports	2.8	3.0	2.8	3.1	3.4	3.5	3.2	3.2	3.9	3.5	3.6	3.5	3.2	3.6	3.6	3.7	3.5
Call on OPEC crude + Stock ch. <sup>6</sup>	25.5	26.4	26.8	25.4	26.9	27.8	26.7	29.0	26.3	27.4	29.0	27.9	29.8	27.5	28.2	30.1	28.9
Total Demand ex. FSU	67.4	69.4	70.4	68.8	69.9	71.5	70.2	72.3	69.5	70.7	73.0	71.4	73.8	71.5	72.2	74.9	73.1
Total demand exc. FSU (% ch) <sup>7</sup>	3.4	2.9	1.6	1.2	1.0	0.7	1.1	2.7	0.9	1.2	2.0	1.7	2.1	2.9	2.1	2.7	2.4

1 figures for FSU and China are apparent demand derived from official production figures and trade data

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

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

4 comprises crude oil, condensates, NGLs, oil from non-conventional sources and other sources of supply

5 includes changes in non-reported stocks in OECD and non-OECD areas

6 equals total demand minus total non-OPEC supply minus OPEC NGLs and thus includes "Miscellaneous to balance" for historical time periods

7 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)

	1996	1997	1Q98	2Q98	3Q98	4Q98	1998	1Q99	2Q99	3Q99	4Q99	1999	1Q00	2Q00	3Q00	4Q00	2000
<b>OECD DEMAND</b>																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-
Europe	-	-	-	-	-	-	-	-	-	-0.2	-0.2	-0.1	-0.1	-	-0.1	-0.2	-0.1
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-0.1	-0.1	-	-0.1	-0.1	-0.1
<b>NON-OECD DEMAND</b>																	
FSU	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	0.2	-0.1	-	-	0.1	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-
Latin America	-	-0.1	-	-	-	-	-0.1	-	-0.1	-	-0.1	-	-	-0.1	-0.1	-	-
Middle East	-	-	-	-	-	-	-	-	-	-0.3	0.1	-	-	-	-0.3	-	-0.1
Africa	-	-	-	-	-	-	-	-	-	0.1	-	-	0.1	-	-	0.1	0.1
Total Non-OECD	-	-	-	-	-	-	-0.1	-	-	-	0.1	-	0.1	0.1	-0.2	0.2	0.1
<b>Total Demand</b>	-	-	-	-0.1	-	-	-0.1	-	-	-0.1	-	-	-	0.1	-0.2	0.1	-
<b>OECD SUPPLY</b>																	
North America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.1
Europe	-	-	-	-	-	-	-	-	-	-	-0.1	-	-	-	-	-	-
Pacific	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-
Total OECD	-	-	-	-	-	-	-	-	-	-	-0.1	-	0.1	0.1	-	-	-
<b>NON-OECD SUPPLY</b>																	
FSU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Asia	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-	-	-	-
Latin America	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OECD	-	-	-	-	-0.1	-	-	-	-	-0.1	-	-	-	-	-	-	-
Processing Gains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-OPEC	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-	-
<b>OPEC</b>																	
Crude	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGLs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total OPEC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Supply</b>	-	-	-	-	-0.1	-	-	-	-	-	-	-	-	-	-	-	-
<b>STOCK CHANGES AND MISCELLANEOUS</b>																	
<b>REPORTED OECD</b>																	
Industry	-	-	-	0.1	-	0.1	-	-	-	-	-	-	-	-	-	-	-
Government	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floating Storage/Oil in Transit	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-
Miscellaneous to balance	-	0.1	-	-	-	-	-	-	-	-0.3	-	-	-	-	-	-	-
<b>Total Stock Ch. &amp; Misc</b>	-	0.1	-	-	-	-	-	-	0.1	0.1	-	-	-	-	-	-	-
<b>Memo items:</b>																	
FSU Net Exports	-	-	-	-	-	-	-	-	-	-	-0.1	-0.1	-	-	-	-0.1	-
Call on OPEC crude + Stock ch.	-	-0.1	-	-0.1	-	-	-	-	-	-0.1	0.1	-	-0.1	0.1	-0.3	0.1	-0.1
Total Demand ex. FSU	-	-	-	-0.1	-	-	-	-	-	-0.1	-0.1	-	-	0.1	-0.2	-	-

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<sup>1</sup>**  
(million barrels per day)

	May			June			Second Quarter			July			August		
	1998	1999	%	1998	1999	%	1998	1999	%	1998	1999	%	1998	1999	%
<b>North America</b>															
LPG	2.28	2.48	8.8	2.33	2.71	16.3	2.39	2.67	11.5	2.42	2.76	14.2	2.45	2.72	11.2
Naphtha	0.38	0.33	-12.0	0.39	0.29	-25.3	0.40	0.32	-18.2	0.47	0.38	-19.0	0.43	0.33	-22.2
Motor Gasoline	9.47	9.52	0.5	9.77	10.03	2.7	9.58	9.70	1.3	9.97	10.06	0.9	9.82	9.83	0.1
Jet/Kerosene	1.81	1.86	2.6	1.87	1.91	1.8	1.85	1.88	1.2	1.88	1.89	0.2	1.89	1.97	4.2
Gasoil	4.05	4.03	-0.5	4.38	4.28	-2.4	4.23	4.17	-1.4	4.08	4.19	2.6	4.24	4.17	-1.8
Residual Fuel Oil	1.49	1.60	7.8	1.69	1.58	-6.8	1.66	1.51	-9.0	1.88	1.49	-20.8	1.68	1.71	1.5
Other Products	2.91	2.65	-9.0	3.00	3.38	12.5	2.87	2.98	4.0	3.09	3.02	-2.3	3.11	3.42	10.0
<b>Total</b>	<b>22.37</b>	<b>22.46</b>	<b>0.4</b>	<b>23.45</b>	<b>24.18</b>	<b>3.1</b>	<b>22.97</b>	<b>23.22</b>	<b>1.1</b>	<b>23.79</b>	<b>23.78</b>	<b>0.0</b>	<b>23.63</b>	<b>24.15</b>	<b>2.2</b>
<b>Europe</b>															
LPG	0.87	0.78	-9.3	0.81	0.81	0.4	0.86	0.81	-5.6	0.82	0.74	-9.8	0.81	0.74	-8.3
Naphtha	1.11	1.19	6.6	1.14	1.17	2.9	1.15	1.20	4.5	1.20	1.16	-3.4	1.14	1.17	2.2
Motor Gasoline	3.14	3.14	0.0	3.34	3.37	0.9	3.24	3.25	0.4	3.45	3.44	-0.2	3.31	3.31	-0.1
Jet/Kerosene	0.98	1.06	8.2	1.02	1.13	11.1	0.99	1.08	9.1	1.08	1.15	6.4	1.10	1.15	4.0
Gasoil	4.61	4.46	-3.2	5.37	4.99	-7.0	5.03	4.76	-5.3	5.35	4.80	-10.3	4.76	4.81	1.1
Residual Fuel Oil	1.94	1.82	-6.1	2.02	1.87	-7.3	2.01	1.88	-6.6	2.07	1.83	-11.6	1.99	1.81	-8.8
Other Products	1.36	1.32	-3.3	1.65	1.54	-6.8	1.43	1.39	-3.3	1.51	1.44	-4.7	1.50	1.39	-7.5
<b>Total</b>	<b>14.00</b>	<b>13.77</b>	<b>-1.7</b>	<b>15.34</b>	<b>14.89</b>	<b>-3.0</b>	<b>14.72</b>	<b>14.38</b>	<b>-2.3</b>	<b>15.47</b>	<b>14.55</b>	<b>-6.0</b>	<b>14.62</b>	<b>14.39</b>	<b>-1.6</b>
<b>Pacific</b>															
LPG	0.81	0.81	0.0	0.81	0.81	0.0	0.83	0.85	1.6	0.81	0.84	3.0	0.78	0.78	-0.6
Naphtha	1.30	1.25	-3.5	1.26	1.33	5.5	1.28	1.32	2.7	1.30	1.36	5.1	1.31	1.45	10.4
Motor Gasoline	1.47	1.46	-0.1	1.46	1.48	1.5	1.46	1.48	1.2	1.55	1.59	3.1	1.62	1.67	3.2
Jet/Kerosene	0.66	0.65	-0.4	0.67	0.63	-6.3	0.70	0.76	7.8	0.64	0.65	1.4	0.66	0.70	6.4
Gasoil	1.75	1.73	-1.0	1.77	1.80	1.3	1.79	1.82	1.2	1.79	1.80	0.4	1.68	1.77	5.5
Residual Fuel Oil	1.11	1.08	-2.6	1.18	1.24	4.5	1.15	1.17	2.0	1.22	1.17	-4.5	1.17	1.17	-0.4
Other Products	0.49	0.52	4.8	0.61	0.52	-15.0	0.54	0.50	-8.0	0.71	0.60	-16.2	0.74	0.63	-15.2
<b>Total</b>	<b>7.58</b>	<b>7.51</b>	<b>-1.0</b>	<b>7.77</b>	<b>7.80</b>	<b>0.4</b>	<b>7.77</b>	<b>7.89</b>	<b>1.6</b>	<b>8.03</b>	<b>8.02</b>	<b>-0.2</b>	<b>7.96</b>	<b>8.16</b>	<b>2.5</b>
<b>OECD</b>															
LPG	3.96	4.08	3.0	3.95	4.33	9.7	4.09	4.33	5.9	4.04	4.33	7.1	4.04	4.24	5.0
Naphtha	2.78	2.77	-0.6	2.79	2.79	0.1	2.83	2.84	0.5	2.96	2.90	-2.1	2.89	2.95	2.3
Motor Gasoline	14.08	14.13	0.3	14.57	14.88	2.1	14.28	14.44	1.1	14.96	15.09	0.9	14.75	14.81	0.4
Jet/Kerosene	3.44	3.57	3.6	3.57	3.67	3.0	3.55	3.72	4.7	3.60	3.69	2.3	3.66	3.82	4.5
Gasoil	10.40	10.22	-1.8	11.52	11.07	-4.0	11.05	10.75	-2.8	11.23	10.79	-3.9	10.68	10.75	0.6
Residual Fuel Oil	4.54	4.51	-0.7	4.90	4.69	-4.2	4.82	4.56	-5.4	5.18	4.49	-13.3	4.84	4.69	-3.2
Other Products	4.76	4.48	-5.9	5.26	5.44	3.3	4.84	4.87	0.5	5.32	5.06	-4.8	5.36	5.44	1.6
<b>Total</b>	<b>43.96</b>	<b>43.74</b>	<b>-0.5</b>	<b>46.56</b>	<b>46.87</b>	<b>0.7</b>	<b>45.46</b>	<b>45.50</b>	<b>0.1</b>	<b>47.29</b>	<b>46.35</b>	<b>-2.0</b>	<b>46.21</b>	<b>46.70</b>	<b>1.1</b>

<sup>1</sup> 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. Gasoil comprises diesel, light heating oil and other gasoils. North America comprises US 50 states, US territories, Mexico and Canada.

**Table 3**  
**OIL DEMAND IN SELECTED OECD COUNTRIES<sup>1</sup>**  
(million barrels per day)

	Second Quarter			July			August			September			Third Quarter		
	1998	1999	%	1998	1999	%	1998	1999	%	1998	1999	%	1998	1999	%
<b>United States<sup>2</sup></b>															
LPG	1.75	1.97	12.5	1.76	2.06	17.4	1.79	2.04	13.9	1.71	2.30	34.3	1.75	2.13	21.6
Naphtha	0.29	0.22	-23.1	0.34	0.27	-20.4	0.32	0.25	-21.7	0.35	0.24	-33.2	0.34	0.25	-25.2
Motor Gasoline	8.37	8.48	1.3	8.68	8.78	1.2	8.57	8.58	0.2	8.31	8.35	0.5	8.52	8.57	0.6
Jet/Kerosene	1.66	1.68	1.1	1.68	1.68	-0.2	1.68	1.76	4.6	1.60	1.69	5.4	1.66	1.71	3.2
Gasoil	3.43	3.36	-2.1	3.29	3.42	3.8	3.45	3.38	-1.8	3.38	3.40	0.8	3.37	3.40	0.9
Residual Fuel Oil	0.88	0.77	-11.7	1.08	0.77	-28.6	0.91	1.01	11.3	0.97	0.80	-17.9	0.99	0.86	-12.8
Other Products	2.49	2.52	1.4	2.63	2.52	-4.3	2.63	2.85	8.6	2.57	2.76	7.7	2.61	2.71	3.9
<b>Total</b>	<b>18.86</b>	<b>19.00</b>	<b>0.8</b>	<b>19.47</b>	<b>19.50</b>	<b>0.2</b>	<b>19.35</b>	<b>19.88</b>	<b>2.8</b>	<b>18.89</b>	<b>19.54</b>	<b>3.4</b>	<b>19.24</b>	<b>19.64</b>	<b>2.1</b>
<b>Japan<sup>3</sup></b>															
LPG	0.57	0.57	0.4	0.54	0.54	0.4	0.52	0.49	-6.1	0.53	0.69	31.0	0.53	0.57	8.2
Naphtha	0.72	0.77	6.0	0.75	0.75	0.5	0.72	0.85	18.0	0.73	0.80	9.2	0.73	0.80	9.1
Motor Gasoline	0.93	0.95	1.9	1.02	1.03	1.0	1.08	1.12	3.3	0.96	1.00	4.5	1.02	1.05	2.9
Jet/Kerosene	0.49	0.51	4.6	0.44	0.43	-2.4	0.44	0.44	-1.5	0.46	0.49	4.9	0.45	0.45	0.4
Diesel	0.70	0.69	-0.5	0.75	0.72	-4.0	0.71	0.70	-0.4	0.69	0.71	3.2	0.72	0.71	-0.6
Other Gasoil	0.47	0.48	1.9	0.45	0.47	5.1	0.42	0.46	8.6	0.49	0.51	3.5	0.45	0.48	5.6
Residual Fuel Oil	0.67	0.64	-4.6	0.78	0.63	-18.8	0.72	0.69	-4.5	0.71	0.76	6.6	0.74	0.69	-6.1
Direct use of Crude Oil	0.10	0.11	14.2	0.24	0.16	-34.9	0.30	0.20	-33.4	0.18	0.17	-3.7	0.24	0.18	-26.7
Other Products	0.33	0.31	-8.2	0.35	0.35	-1.3	0.38	0.33	-11.6	0.35	0.38	10.9	0.36	0.35	-1.1
<b>Total</b>	<b>4.97</b>	<b>5.02</b>	<b>1.0</b>	<b>5.32</b>	<b>5.09</b>	<b>-4.4</b>	<b>5.29</b>	<b>5.27</b>	<b>-0.3</b>	<b>5.11</b>	<b>5.52</b>	<b>8.1</b>	<b>5.24</b>	<b>5.29</b>	<b>1.0</b>
<b>Germany</b>															
LPG	0.09	0.08	-10.3	0.09	0.08	-6.7	0.09	0.09	-4.6	0.11	0.08	-22.1	0.10	0.08	-11.7
Naphtha	0.36	0.39	8.5	0.38	0.35	-8.5	0.38	0.34	-9.3	0.41	0.36	-11.7	0.39	0.35	-9.9
Motor Gasoline	0.72	0.72	0.3	0.73	0.72	-2.0	0.72	0.72	0.4	0.72	0.72	-0.9	0.72	0.72	-0.8
Jet/Kerosene	0.14	0.15	6.9	0.15	0.16	7.8	0.15	0.15	0.3	0.15	0.16	10.7	0.15	0.16	6.2
Diesel	0.45	0.46	3.4	0.49	0.50	2.7	0.46	0.48	4.9	0.49	0.51	4.6	0.48	0.50	4.0
Other Gasoil	0.72	0.42	-41.2	0.86	0.43	-50.2	0.73	0.64	-12.4	0.80	0.73	-7.9	0.79	0.60	-24.7
Residual Fuel Oil	0.16	0.15	-7.7	0.15	0.13	-11.5	0.15	0.12	-18.5	0.15	0.13	-13.5	0.15	0.13	-14.5
Other Products	0.17	0.17	1.6	0.18	0.21	14.9	0.18	0.20	12.2	0.21	0.23	8.8	0.19	0.21	11.9
<b>Total</b>	<b>2.80</b>	<b>2.54</b>	<b>-9.2</b>	<b>3.03</b>	<b>2.58</b>	<b>-14.8</b>	<b>2.85</b>	<b>2.74</b>	<b>-3.8</b>	<b>3.03</b>	<b>2.93</b>	<b>-3.5</b>	<b>2.97</b>	<b>2.75</b>	<b>-7.5</b>
<b>Italy</b>															
LPG	0.09	0.09	-6.5	0.09	0.07	-18.5	0.08	0.08	-4.1	0.10	0.09	-7.1	0.09	0.08	-9.9
Naphtha	0.14	0.10	-24.0	0.12	0.09	-24.4	0.12	0.09	-26.7	0.11	0.12	3.2	0.12	0.10	-16.6
Motor Gasoline	0.46	0.46	0.8	0.49	0.48	-3.3	0.45	0.45	-0.5	0.47	0.45	-3.1	0.47	0.46	-2.3
Jet/Kerosene	0.07	0.09	22.0	0.09	0.09	1.5	0.08	0.09	7.7	0.08	0.09	18.6	0.08	0.09	8.8
Diesel	0.35	0.35	1.1	0.36	0.37	2.8	0.25	0.29	14.9	0.36	0.40	9.3	0.32	0.35	8.3
Other Gasoil	0.15	0.13	-13.4	0.15	0.15	-0.3	0.16	0.15	-8.8	0.19	0.16	-18.5	0.17	0.15	-9.8
Residual Fuel Oil	0.48	0.40	-18.0	0.52	0.45	-14.8	0.50	0.42	-16.4	0.46	0.46	-0.1	0.49	0.44	-10.9
Other Products	0.15	0.14	-3.4	0.16	0.14	-16.2	0.13	0.13	0.3	0.15	0.17	16.5	0.15	0.15	-0.5
<b>Total</b>	<b>1.88</b>	<b>1.76</b>	<b>-6.7</b>	<b>1.99</b>	<b>1.83</b>	<b>-7.8</b>	<b>1.77</b>	<b>1.68</b>	<b>-5.1</b>	<b>1.92</b>	<b>1.94</b>	<b>1.0</b>	<b>1.89</b>	<b>1.81</b>	<b>-4.0</b>
<b>France</b>															
LPG	0.10	0.09	-7.1	0.09	0.08	-15.4	0.09	0.08	-3.9	0.10	0.09	-6.7	0.09	0.09	-8.8
Naphtha	0.20	0.21	7.0	0.22	0.21	-3.3	0.23	0.21	-7.4	0.21	0.20	-6.8	0.22	0.21	-5.9
Motor Gasoline	0.35	0.35	0.6	0.39	0.38	-1.4	0.36	0.36	0.5	0.35	0.34	-1.0	0.37	0.36	-0.7
Jet/Kerosene	0.11	0.14	24.5	0.13	0.15	11.7	0.13	0.14	9.5	0.12	0.14	15.2	0.13	0.14	12.0
Diesel	0.52	0.55	5.9	0.55	0.57	3.1	0.47	0.51	8.6	0.54	0.57	5.6	0.52	0.55	5.6
Other Gasoil	0.32	0.29	-9.5	0.37	0.31	-16.9	0.28	0.31	10.0	0.33	0.32	-1.1	0.33	0.31	-4.0
Residual Fuel Oil	0.14	0.12	-10.5	0.14	0.08	-41.2	0.13	0.10	-23.4	0.17	0.12	-25.9	0.14	0.10	-30.1
Other Products	0.21	0.15	-29.0	0.21	0.17	-15.9	0.16	0.15	-9.8	0.25	0.18	-28.6	0.21	0.17	-19.3
<b>Total</b>	<b>1.94</b>	<b>1.90</b>	<b>-1.9</b>	<b>2.10</b>	<b>1.95</b>	<b>-7.0</b>	<b>1.85</b>	<b>1.86</b>	<b>0.8</b>	<b>2.06</b>	<b>1.97</b>	<b>-4.5</b>	<b>2.00</b>	<b>1.93</b>	<b>-3.7</b>
<b>United Kingdom</b>															
LPG	0.13	0.13	5.1	0.10	0.13	31.1	0.15	0.12	-20.6	0.16	0.12	-21.8	0.14	0.12	-8.8
Naphtha	0.07	0.08	5.1	0.09	0.08	-10.0	0.06	0.09	62.7	0.06	0.09	63.4	0.07	0.09	31.6
Motor Gasoline	0.50	0.50	-0.6	0.52	0.51	-1.0	0.50	0.49	-1.4	0.51	0.50	-0.8	0.51	0.50	-1.0
Jet/Kerosene	0.26	0.27	2.5	0.28	0.27	-2.3	0.29	0.29	-0.5	0.29	0.29	0.8	0.29	0.28	-0.7
Diesel	0.30	0.30	0.4	0.32	0.31	-3.5	0.29	0.30	2.3	0.31	0.31	1.2	0.31	0.31	-0.1
Other Gasoil	0.18	0.17	-5.1	0.19	0.16	-12.0	0.18	0.17	-6.1	0.20	0.17	-14.8	0.19	0.17	-11.1
Residual Fuel Oil	0.12	0.09	-24.3	0.11	0.08	-31.8	0.11	0.08	-28.9	0.10	0.08	-21.6	0.11	0.08	-27.7
Other Products	0.18	0.17	-3.8	0.18	0.17	-1.1	0.18	0.16	-9.1	0.16	0.15	-6.7	0.17	0.16	-5.6
<b>Total</b>	<b>1.73</b>	<b>1.70</b>	<b>-1.7</b>	<b>1.77</b>	<b>1.71</b>	<b>-3.5</b>	<b>1.77</b>	<b>1.71</b>	<b>-3.3</b>	<b>1.80</b>	<b>1.74</b>	<b>-3.3</b>	<b>1.78</b>	<b>1.72</b>	<b>-3.3</b>
<b>Canada</b>															
LPG	0.25	0.26	5.6	0.26	0.26	-1.1	0.23	0.25	5.3	0.22	0.22	-3.1	0.24	0.24	0.4
Naphtha	0.08	0.09	5.5	0.09	0.09	5.3	0.08	0.08	5.8	0.08	0.08	4.7	0.08	0.09	5.3
Motor Gasoline	0.65	0.66	2.7	0.71	0.71	-0.3	0.70	0.70	0.2	0.66	0.69	4.4	0.69	0.70	1.3
Jet/Kerosene	0.10	0.10	0.0	0.11	0.11	0.0	0.11	0.11	-3.0	0.11	0.12	5.9	0.11	0.11	0.9
Diesel	0.17	0.17	0.1	0.17	0.17	0.3	0.17	0.17	-1.5	0.18	0.20	8.0	0.18	0.18	2.3
Other Gasoil	0.26	0.27	5.8	0.24	0.24	-0.4	0.26	0.26	-1.9	0.28	0.30	5.7	0.26	0.26	1.2
Residual Fuel Oil	0.13	0.13	-3.8	0.15	0.12	-15.0	0.12	0.12	-5.4	0.17	0.13	-26.3	0.15	0.12	-16.6
Other Products	0.23	0.24	3.2	0.30	0.30	0.0	0.30	0.30	0.0	0.31	0.31	0.0	0.30	0.30	0.0
<b>Total</b>	<b>1.87</b>	<b>1.92</b>	<b>2.8</b>	<b>2.03</b>	<b>2.00</b>	<b>-1.1</b>	<b>1.98</b>	<b>1.98</b>	<b>0.0</b>	<b>2.01</b>	<b>2.03</b>	<b>0.9</b>	<b>2.01</b>	<b>2.00</b>	<b>-0.1</b>

<sup>1</sup> 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. Gasoil comprises diesel, light heating oil and other gasoils.

<sup>2</sup> US figures exclude US territories.

<sup>3</sup> In Japan, the breakdown between Diesel and Other Gasoil in the latest month is estimated.

**Table 4**  
**WORLD OIL PRODUCTION**  
(million barrels per day)

	1998	1999	2000	2Q99	3Q99	4Q99	1Q00	2Q00	Sep 99	Oct 99	Nov 99
<b>OPEC</b>											
Crude Oil											
Saudi Arabia	8.09			7.35	7.42				7.40	7.40	7.40
Iran	3.63			3.47	3.26				3.22	3.48	3.17
Iraq	2.11			2.51	2.81				2.86	2.82	2.37
UAE	2.30			2.03	2.03				2.03	2.02	2.03
Kuwait	1.80			1.57	1.58				1.59	1.63	1.63
Neutral Zone	0.55			0.51	0.50				0.50	0.52	0.53
Qatar	0.66			0.60	0.62				0.62	0.63	0.64
Nigeria	2.11			2.01	1.90				1.91	1.97	1.97
Libya	1.39			1.33	1.33				1.33	1.34	1.36
Algeria	0.82			0.73	0.74				0.74	0.73	0.74
Venezuela	3.12			2.74	2.73				2.73	2.73	2.73
Indonesia	1.33			1.26	1.26				1.28	1.24	1.23
<b>Total Crude Oil</b>	<b>27.92</b>			<b>26.11</b>	<b>26.14</b>				<b>26.19</b>	<b>26.50</b>	<b>25.80</b>
Total NGLs <sup>1</sup>	2.79	2.83	2.89	2.81	2.84	2.85	2.87	2.88	2.85	2.85	2.85
<b>Total OPEC</b>	<b>30.72</b>			<b>28.92</b>	<b>28.98</b>				<b>29.04</b>	<b>29.35</b>	<b>28.65</b>
<b>NON-OPEC<sup>2</sup></b>											
<b>OECD</b>											
<b>North America</b>	14.54	13.89	13.95	13.80	13.81	13.87	13.98	13.85	13.70	13.77	13.91
United States	8.37	7.99	7.88	7.98	7.95	8.00	7.95	7.84	7.94	8.04	7.99
Mexico	3.50	3.36	3.48	3.32	3.30	3.27	3.39	3.46	3.28	3.18	3.31
Canada	2.67	2.55	2.58	2.50	2.57	2.61	2.64	2.56	2.49	2.55	2.61
<b>Europe</b>	6.65	6.72	7.04	6.46	6.64	7.02	7.13	6.89	6.57	6.84	7.04
UK	2.84	2.93	2.98	2.82	2.89	3.03	3.04	2.74	2.88	2.98	3.02
Norway	3.14	3.10	3.33	2.99	3.06	3.25	3.35	3.42	2.99	3.12	3.28
Others	0.67	0.69	0.73	0.66	0.69	0.74	0.74	0.73	0.70	0.74	0.74
<b>Pacific</b>	0.69	0.67	0.81	0.62	0.69	0.73	0.77	0.81	0.71	0.70	0.73
Australia	0.62	0.60	0.74	0.55	0.62	0.66	0.70	0.74	0.65	0.63	0.66
Others	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.07	0.07
<b>Total OECD</b>	<b>21.88</b>	<b>21.28</b>	<b>21.79</b>	<b>20.89</b>	<b>21.14</b>	<b>21.62</b>	<b>21.88</b>	<b>21.55</b>	<b>20.99</b>	<b>21.32</b>	<b>21.67</b>
<b>NON-OECD</b>											
<b>Former USSR</b>	7.30	7.47	7.54	7.44	7.54	7.54	7.52	7.51	7.53	7.57	7.52
Russia	6.12	6.15	6.16	6.13	6.19	6.19	6.17	6.15	6.21	6.19	6.19
Others	1.17	1.32	1.37	1.31	1.35	1.35	1.36	1.37	1.32	1.38	1.33
<b>Asia</b>	5.38	5.44	5.39	5.43	5.41	5.44	5.43	5.39	5.38	5.43	5.45
China	3.19	3.19	3.16	3.19	3.18	3.18	3.17	3.16	3.12	3.19	3.19
Malaysia	0.72	0.71	0.72	0.70	0.69	0.72	0.72	0.72	0.72	0.72	0.72
India	0.75	0.75	0.71	0.75	0.74	0.74	0.73	0.72	0.74	0.74	0.74
Others	0.72	0.79	0.80	0.79	0.80	0.80	0.81	0.79	0.79	0.79	0.81
<b>Europe</b>	0.20	0.19	0.18	0.19	0.19	0.19	0.19	0.18	0.19	0.19	0.19
<b>Latin America</b>	3.70	3.83	3.90	3.81	3.82	3.84	3.86	3.88	3.83	3.84	3.84
Brazil	1.28	1.40	1.50	1.38	1.41	1.42	1.46	1.49	1.42	1.42	1.42
Argentina	0.90	0.85	0.84	0.85	0.85	0.85	0.84	0.84	0.85	0.85	0.85
Colombia	0.77	0.84	0.81	0.84	0.83	0.83	0.83	0.82	0.82	0.83	0.83
Ecuador	0.38	0.37	0.39	0.37	0.38	0.37	0.37	0.38	0.38	0.37	0.37
Others	0.37	0.37	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
<b>Middle East<sup>3</sup></b>	1.89	1.88	1.87	1.87	1.88	1.89	1.88	1.88	1.89	1.88	1.98
Oman	0.90	0.90	0.91	0.90	0.89	0.90	0.90	0.91	0.90	0.89	0.99
Syria	0.55	0.54	0.52	0.54	0.53	0.53	0.53	0.52	0.53	0.53	0.53
Yemen	0.40	0.40	0.41	0.39	0.41	0.41	0.41	0.41	0.41	0.41	0.41
<b>Africa</b>	2.73	2.78	2.90	2.72	2.81	2.89	2.90	2.90	2.85	2.87	2.89
Egypt	0.88	0.85	0.82	0.86	0.85	0.84	0.83	0.83	0.85	0.84	0.84
Angola	0.73	0.76	0.80	0.76	0.76	0.78	0.78	0.80	0.77	0.77	0.77
Gabon	0.35	0.34	0.34	0.34	0.33	0.34	0.35	0.35	0.33	0.34	0.34
Others	0.77	0.83	0.93	0.76	0.87	0.93	0.94	0.94	0.90	0.92	0.94
<b>Total Non-OECD</b>	<b>21.20</b>	<b>21.59</b>	<b>21.78</b>	<b>21.46</b>	<b>21.64</b>	<b>21.78</b>	<b>21.77</b>	<b>21.76</b>	<b>21.66</b>	<b>21.77</b>	<b>21.86</b>
Processing Gains <sup>4</sup>	1.64	1.67	1.72	1.65	1.65	1.69	1.74	1.70	1.65	1.69	1.69
<b>TOTAL NON-OPEC</b>	<b>44.71</b>	<b>44.53</b>	<b>45.29</b>	<b>43.99</b>	<b>44.42</b>	<b>45.09</b>	<b>45.39</b>	<b>45.00</b>	<b>44.29</b>	<b>44.77</b>	<b>45.22</b>
<b>TOTAL SUPPLY</b>	<b>75.43</b>			<b>72.91</b>	<b>73.41</b>				<b>73.33</b>	<b>74.11</b>	<b>73.86</b>

<sup>1</sup> includes condensates reported by OPEC countries, oil from non-conventional sources, e.g. Orimulsion, and non-oil inputs to Saudi Arabian MTBE

<sup>2</sup> comprises crude oil, condensates, NGLs and oil from non-conventional sources

<sup>3</sup> includes small amounts of production from Israel, Jordan and Bahrain

<sup>4</sup> net of volumetric gains and losses in refining (excludes net gain/loss in FSU, China and non-OECD Europe) and marine transportation losses

**Table 4A**  
**OIL SUPPLY IN OECD COUNTRIES<sup>1</sup>**

(thousand of barrels per day)

	1998	1999	2000	2Q99	3Q99	4Q99	1Q00	2Q00	Sep 99	Oct 99	Nov 99
<b>United States</b>											
Alaska	1175	1047	940	1037	978	1040	979	907	932	1076	1030
California	904	834	788	834	826	816	805	793	822	820	816
Texas	1383	1219	1126	1234	1196	1177	1156	1136	1188	1183	1177
Federal Gulf of Mexico <sup>2</sup>	1231	1300	1473	1282	1312	1359	1425	1462	1326	1345	1357
Other US Lower 48	1563	1391	1312	1413	1375	1352	1336	1320	1365	1360	1352
NGLs <sup>3</sup>	1753	1816	1857	1793	1876	1875	1872	1844	1911	1875	1875
Other Hydrocarbons	362	382	381	382	384	381	381	381	397	381	381
<b>Total</b>	<b>8370</b>	<b>7990</b>	<b>7878</b>	<b>7977</b>	<b>7947</b>	<b>8001</b>	<b>7954</b>	<b>7843</b>	<b>7942</b>	<b>8041</b>	<b>7987</b>
<b>Canada</b>											
Alberta Light/Medium/Heavy	858	779	735	772	772	771	756	740	765	772	771
Alberta Bitumen	282	247	242	242	255	261	254	243	256	259	262
Saskatchewan	399	367	362	356	369	378	372	365	374	374	379
Other Crude	171	182	229	195	192	191	225	229	173	161	194
NGLs	655	645	675	622	649	669	692	655	628	658	665
Synthetic Crudes	308	324	340	317	330	335	341	323	289	326	340
<b>Total</b>	<b>2673</b>	<b>2545</b>	<b>2583</b>	<b>2504</b>	<b>2566</b>	<b>2606</b>	<b>2639</b>	<b>2555</b>	<b>2485</b>	<b>2550</b>	<b>2611</b>
<b>Mexico</b>											
Crude	3071	2918	3069	2874	2877	2852	2975	3040	2861	2766	2895
NGLs	425	438	415	449	424	415	415	415	414	414	415
<b>Total</b>	<b>3495</b>	<b>3356</b>	<b>3484</b>	<b>3323</b>	<b>3301</b>	<b>3266</b>	<b>3390</b>	<b>3455</b>	<b>3275</b>	<b>3180</b>	<b>3310</b>
<b>UK Offshore<sup>4</sup></b>											
Brent Fields	398	413	370	422	397	408	397	344	362	409	408
Forties Fields	855	912	922	854	903	916	915	821	881	914	916
Ninian Fields	210	153	136	154	155	150	146	126	151	150	150
Flotta Fields	210	202	197	180	217	209	205	186	213	211	209
Other Fields	840	933	1048	900	927	1016	1033	964	984	996	1015
NGLs	221	230	227	223	208	243	260	223	214	220	240
<b>Total</b>	<b>2735</b>	<b>2842</b>	<b>2900</b>	<b>2732</b>	<b>2807</b>	<b>2943</b>	<b>2956</b>	<b>2665</b>	<b>2805</b>	<b>2900</b>	<b>2938</b>
<b>Norway<sup>4</sup></b>											
Ekofisk-Ula Area	476	447	460	430	432	442	470	468	501	390	466
Oseberg-Troll Area	796	666	673	625	630	685	686	681	627	678	690
Statfjord-Gullfaks Area	1082	1007	977	1019	962	996	977	1005	798	946	1024
Haltenbanken Area	534	705	826	640	771	824	857	850	785	820	790
Sleipner-Frigg Area	120	157	279	152	148	181	238	296	154	161	181
NGLs	128	122	116	120	119	124	122	120	123	124	124
<b>Total</b>	<b>3136</b>	<b>3104</b>	<b>3331</b>	<b>2987</b>	<b>3062</b>	<b>3252</b>	<b>3351</b>	<b>3419</b>	<b>2987</b>	<b>3118</b>	<b>3275</b>
<b>Other OECD Europe</b>											
Other N Sea Crude/NGLs <sup>5</sup>	285	346	384	324	349	394	388	384	364	399	392
UK Onshore	105	86	77	85	83	82	80	78	79	82	82
Italy	105	87	100	81	90	95	100	100	90	90	95
Turkey	62	59	59	57	60	59	59	59	59	59	59
Other	172	146	136	150	141	141	139	137	136	141	140
NGLs (excl. North Sea)	22	23	25	19	15	26	26	25	17	26	26
Non-Conventional Oils	28	29	28	26	30	28	28	28	31	28	28
<b>Total</b>	<b>779</b>	<b>775</b>	<b>808</b>	<b>743</b>	<b>769</b>	<b>824</b>	<b>819</b>	<b>810</b>	<b>775</b>	<b>825</b>	<b>822</b>
<b>Australia</b>											
Gippsland Basin	178	214	210	216	219	217	214	211	217	217	217
Cooper-Eromanga Basin	32	26	23	27	25	25	24	23	25	25	25
Carnarvon Basin	307	246	277	203	273	293	276	274	307	293	293
Other Crude	28	44	161	36	30	58	121	159	29	30	60
NGLs	70	69	70	72	75	68	68	72	72	68	68
<b>Total</b>	<b>616</b>	<b>600</b>	<b>741</b>	<b>553</b>	<b>622</b>	<b>660</b>	<b>702</b>	<b>739</b>	<b>650</b>	<b>634</b>	<b>662</b>
<b>Other OECD Pacific</b>											
New Zealand	46	43	41	44	42	42	42	41	40	42	42
Japan	9	8	8	8	7	8	8	8	7	8	8
NGLs	13	14	15	14	13	15	15	15	13	15	15
Synthetic Fuels	4	4	3	4	4	3	3	3	4	3	3
<b>Total</b>	<b>72</b>	<b>69</b>	<b>66</b>	<b>69</b>	<b>66</b>	<b>68</b>	<b>67</b>	<b>67</b>	<b>64</b>	<b>68</b>	<b>68</b>
<b>OECD</b>											
Crude Oil	17877	17175	17630	16838	17004	17426	17645	17441	16864	17167	17481
NGLs	3298	3366	3409	3321	3387	3446	3481	3377	3399	3411	3439
Non-Conventional Oils	702	738	752	729	747	747	752	735	721	738	752
<b>Total</b>	<b>21877</b>	<b>21280</b>	<b>21791</b>	<b>20888</b>	<b>21139</b>	<b>21620</b>	<b>21878</b>	<b>21552</b>	<b>20984</b>	<b>21316</b>	<b>21673</b>

<sup>1</sup> subcategories refer to crude oil only unless otherwise noted<sup>2</sup> only production from Federal waters is included<sup>3</sup> to the extent possible, condensates from natural gas processing plants are included with NGLs, while field condensates are counted as crude oil<sup>4</sup> North Sea production is grouped by area including all fields being processed through the named facility, ie, not just the field of that name<sup>5</sup> other North Sea NGLs is included

**Table 5**  
**OECD INDUSTRY STOCKS<sup>1</sup> AND QUARTERLY STOCK CHANGES**

	RECENT MONTHLY STOCKS <sup>2</sup>					PRIOR YEARS' STOCKS <sup>2</sup>			STOCK CHANGES			
	in Million Barrels					in Million Barrels			in mb/d			
	Jun1999	Jul1999	Aug1999	Sep1999*	Oct1999*	Oct1996	Oct1997	Oct1998	4Q1998	1Q1999	2Q1999	3Q1999
<b>North America</b>												
Crude	434	438	422	409	410	398	411	426	0.05	0.29	-0.06	-0.27
Gasoline	246	233	229	233	229	218	230	232	0.11	0.03	-0.05	-0.14
Middle Distillate	213	218	223	229	217	195	220	230	0.03	-0.42	0.10	0.18
Residual Fuel Oil	51	52	46	49	51	47	45	51	0.05	-0.07	0.02	-0.02
Total Products <sup>3</sup>	690	690	686	691	665	617	670	707	-0.14	-0.59	0.27	0.02
Total <sup>4</sup>	1278	1282	1263	1251	1228	1166	1242	1302	-0.28	-0.30	0.22	-0.29
<b>Europe</b>												
Crude	350	353	348	331	345	329	338	363	-0.11	0.27	-0.23	-0.21
Gasoline	129	122	128	126	124	124	121	132	0.06	0.06	-0.14	-0.03
Middle Distillate	269	276	283	269	258	222	227	287	-0.14	-0.38	0.38	0.00
Residual Fuel Oil	76	79	84	83	83	98	86	91	-0.03	-0.07	-0.06	0.07
Total Products <sup>3</sup>	561	567	588	569	556	528	522	601	-0.08	-0.42	0.15	0.09
Total <sup>4</sup>	971	977	993	957	958	916	917	1025	-0.21	-0.17	-0.06	-0.15
<b>Pacific</b>												
Crude	188	185	186	186	186	180	200	187	-0.04	-0.06	0.08	-0.02
Gasoline	27	26	25	25	26	23	27	23	-0.04	0.05	0.01	-0.03
Middle Distillate	69	73	77	82	89	93	99	93	-0.11	-0.20	0.10	0.15
Residual Fuel Oil	22	24	23	23	24	25	26	25	0.00	-0.01	0.00	0.01
Total Products <sup>3</sup>	179	187	194	198	206	208	221	209	-0.22	-0.21	0.12	0.21
Total <sup>4</sup>	448	455	463	464	473	476	514	482	-0.36	-0.25	0.19	0.18
<b>Total</b>												
Crude	971	976	957	926	941	906	948	976	-0.09	0.50	-0.21	-0.49
Gasoline	402	380	382	384	378	365	377	388	0.14	0.14	-0.19	-0.20
Middle Distillate	550	568	584	580	564	510	545	611	-0.23	-1.00	0.58	0.32
Residual Fuel Oil	149	155	153	154	158	170	157	167	0.02	-0.15	-0.03	0.06
Total Products <sup>3</sup>	1429	1444	1468	1459	1427	1353	1413	1517	-0.44	-1.22	0.54	0.32
Total <sup>4</sup>	2697	2714	2719	2672	2659	2558	2674	2809	-0.85	-0.73	0.35	-0.26

**OECD GOVERNMENT-CONTROLLED STOCKS<sup>5,6</sup> AND QUARTERLY STOCK CHANGES**

	RECENT MONTHLY STOCKS <sup>2</sup>					PRIOR YEARS' STOCKS <sup>2</sup>			STOCK CHANGES <sup>3</sup>			
	in Million Barrels					in Million Barrels			in mb/d			
	Jun1999	Jul1999	Aug1999	Sep1999*	Oct1999*	Oct1996	Oct1997	Oct1998	4Q1998	1Q1999	2Q1999	3Q1999
<b>North America</b>												
Crude	575	576	575	575	575	574	563	564	0.09	0.01	0.03	0.01
<b>Europe</b>												
Crude	149	149	150	149	148	135	126	143	0.02	0.02	0.02	0.00
Products	210	208	203	200	197	190	199	210	0.01	-0.03	0.02	-0.11
<b>Pacific</b>												
Crude	315	315	315	315	315	300	314	315	0.00	0.00	0.00	0.00
<b>Total</b>												
Crude	1039	1040	1040	1039	1037	1009	1003	1022	0.11	0.02	0.05	0.01
Products	210	208	203	200	197	190	199	210	0.01	-0.03	0.02	-0.11
Total <sup>4</sup>	1250	1249	1244	1240	1236	1199	1202	1234	0.12	-0.01	0.06	-0.10

\* estimated

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

6 Korean government stocks are excluded for reasons of confidentiality

**Table 6**  
**INDUSTRY STOCKS<sup>1</sup> ON LAND IN SELECTED COUNTRIES**

	(million barrels)														
	May			June			July			August			September		
	1998	1999	%	1998	1999	%	1998	1999	%	1998	1999	%	1998	1999	%
<b>United States</b>															
Crude	350.9	339.8	-3.2	332.3	328.0	-1.3	338.1	330.3	-2.3	329.0	314.2	-4.5	309.8	302.5	-2.3
Motor Gasoline	220.3	223.5	1.5	221.8	216.4	-2.5	215.6	204.3	-5.2	210.2	199.4	-5.2	206.6	203.9	-1.3
Middle Distillate	184.2	184.0	-0.1	185.2	182.0	-1.7	195.0	187.8	-3.7	201.8	192.7	-4.5	205.5	198.7	-3.3
Residual Fuel Oil	38.8	40.5	4.4	39.7	42.5	7.1	39.6	43.1	8.8	41.8	37.1	-11.2	39.7	39.3	-1.1
Other Products	154.6	152.7	-1.2	163.1	151.9	-6.9	166.1	158.1	-4.8	174.3	159.3	-8.6	176.4	151.2	-14.3
Total Products	597.9	600.7	0.5	609.9	592.8	-2.8	616.3	593.4	-3.7	628.0	588.5	-6.3	628.1	593.0	-5.6
Other <sup>2</sup>	139.8	142.0	1.6	145.1	140.6	-3.1	143.7	140.0	-2.6	148.4	140.9	-5.1	151.2	137.2	-9.2
<b>Total</b>	<b>1088.6</b>	<b>1082.5</b>	<b>-0.6</b>	<b>1087.3</b>	<b>1061.3</b>	<b>-2.4</b>	<b>1098.1</b>	<b>1063.7</b>	<b>-3.1</b>	<b>1105.4</b>	<b>1043.6</b>	<b>-5.6</b>	<b>1089.1</b>	<b>1032.8</b>	<b>-5.2</b>
<b>Japan</b>															
Crude	145.9	131.4	-10.0	147.2	136.0	-7.6	143.3	136.4	-4.7	137.8	142.8	3.7	139.5	138.1	-1.0
Motor Gasoline	14.5	15.5	6.9	12.8	14.7	15.1	12.5	13.3	6.7	12.7	12.8	0.7	12.9	12.6	-2.2
Middle Distillate	46.6	44.5	-4.4	45.3	45.8	1.2	49.4	48.3	-2.3	57.6	52.5	-8.8	61.4	54.5	-11.2
Residual Fuel Oil	11.7	10.1	-13.4	10.9	9.0	-16.8	11.4	10.3	-9.9	12.9	11.5	-10.7	11.9	9.2	-22.6
Other Products	49.5	46.1	-6.9	48.6	45.5	-6.4	49.1	47.9	-2.5	52.9	52.6	-0.5	54.8	52.3	-4.6
Total Products	122.3	116.3	-4.9	117.6	115.1	-2.1	122.4	119.8	-2.2	136.1	129.4	-4.9	141.0	128.6	-8.8
Other <sup>2</sup>	83.5	74.1	-11.3	78.6	71.8	-8.6	78.8	73.9	-6.2	83.2	73.6	-11.5	80.5	70.2	-12.8
<b>Total</b>	<b>351.8</b>	<b>321.8</b>	<b>-8.5</b>	<b>343.4</b>	<b>323.0</b>	<b>-6.0</b>	<b>344.5</b>	<b>330.1</b>	<b>-4.2</b>	<b>357.1</b>	<b>345.9</b>	<b>-3.1</b>	<b>361.0</b>	<b>336.9</b>	<b>-6.7</b>
<b>Germany</b>															
Crude	27.2	28.9	6.0	24.2	23.9	-1.2	26.3	27.4	4.0	26.2	25.0	-4.7	24.6	23.0	-6.3
Motor Gasoline	12.2	9.0	-25.9	11.8	9.3	-21.4	10.0	8.8	-11.9	10.2	10.4	2.1	9.7	10.6	8.5
Middle Distillate	23.7	23.7	-0.1	18.7	22.0	17.3	17.8	24.8	39.6	22.3	23.2	4.2	21.8	21.3	-2.5
Residual Fuel Oil	9.9	9.5	-4.6	9.5	9.0	-5.5	9.4	8.8	-6.7	10.0	8.8	-11.6	8.8	9.3	5.2
Other Products	12.9	12.7	-1.7	12.2	12.2	-0.1	12.4	12.7	2.6	12.7	13.2	3.9	12.2	12.7	4.3
Total Products	58.7	54.9	-6.6	52.3	52.5	0.3	49.6	55.1	11.2	55.2	55.7	0.9	52.6	53.9	2.4
Other <sup>2</sup>	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
<b>Total</b>	<b>85.9</b>	<b>83.7</b>	<b>-2.6</b>	<b>76.5</b>	<b>76.4</b>	<b>-0.2</b>	<b>75.9</b>	<b>82.5</b>	<b>8.7</b>	<b>81.4</b>	<b>80.7</b>	<b>-0.9</b>	<b>77.1</b>	<b>76.9</b>	<b>-0.4</b>
<b>Italy</b>															
Crude	45.7	40.0	-12.4	44.0	34.5	-21.7	41.0	35.9	-12.4	37.0	33.7	-8.8	34.1	33.4	-2.0
Motor Gasoline	31.6	28.2	-10.8	30.9	28.6	-7.7	29.3	27.1	-7.3	32.1	29.0	-9.7	31.6	30.7	-2.9
Middle Distillate	36.6	32.2	-12.1	34.4	30.7	-10.9	33.6	30.5	-9.5	37.9	33.1	-12.6	38.5	30.5	-20.7
Residual Fuel Oil	21.2	16.6	-22.1	21.3	15.8	-26.2	20.7	15.4	-26.0	20.4	17.7	-13.3	20.6	17.2	-16.6
Other Products	7.4	8.7	17.5	7.4	7.8	5.5	7.5	8.4	12.2	8.6	9.2	7.3	8.7	8.7	-0.4
Total Products	96.8	85.6	-11.6	94.1	82.8	-12.0	91.2	81.4	-10.8	98.9	89.0	-10.1	99.4	87.1	-12.4
Other <sup>2</sup>	8.2	6.2	-24.4	8.3	6.9	-17.2	7.0	5.8	-17.5	7.4	6.9	-6.7	6.9	6.4	-8.1
<b>Total</b>	<b>150.7</b>	<b>131.9</b>	<b>-12.5</b>	<b>146.4</b>	<b>124.1</b>	<b>-15.2</b>	<b>139.2</b>	<b>123.1</b>	<b>-11.6</b>	<b>143.3</b>	<b>129.6</b>	<b>-9.6</b>	<b>140.5</b>	<b>126.9</b>	<b>-9.7</b>
<b>France</b>															
Crude	40.1	44.2	10.2	37.8	43.1	14.2	39.0	40.0	2.6	35.0	39.5	12.7	39.3	37.8	-3.8
Motor Gasoline	15.7	16.9	7.9	14.9	17.1	14.6	14.3	15.7	9.6	14.0	15.9	13.3	14.4	14.6	1.4
Middle Distillate	41.7	43.7	5.0	40.0	41.0	2.6	38.5	42.7	10.9	43.8	45.5	3.9	42.1	41.4	-1.6
Residual Fuel Oil	7.8	7.3	-5.7	7.3	6.5	-10.8	7.8	6.6	-15.7	8.7	8.0	-7.3	8.4	7.2	-14.9
Other Products	10.1	9.1	-9.6	9.8	8.4	-14.2	10.0	8.8	-12.0	10.6	8.7	-17.8	9.4	8.5	-10.0
Total Products	75.2	77.1	2.5	72.0	73.0	1.5	70.7	73.8	4.5	77.1	78.1	1.4	74.3	71.6	-3.6
Other <sup>2</sup>	12.9	12.3	-4.1	11.8	12.5	6.4	12.3	11.8	-4.4	13.0	11.7	-10.3	12.7	11.0	-13.7
<b>Total</b>	<b>128.2</b>	<b>133.6</b>	<b>4.3</b>	<b>121.5</b>	<b>128.7</b>	<b>5.9</b>	<b>121.9</b>	<b>125.6</b>	<b>3.0</b>	<b>125.1</b>	<b>129.3</b>	<b>3.3</b>	<b>126.3</b>	<b>120.4</b>	<b>-4.7</b>
<b>United Kingdom</b>															
Crude	37.9	35.7	-5.7	36.4	34.2	-6.0	36.7	35.8	-2.4	35.8	41.5	16.1	36.9	37.8	2.3
Motor Gasoline	13.5	13.2	-2.6	12.6	11.2	-11.6	12.0	10.9	-9.8	11.9	12.1	2.2	12.2	11.4	-6.3
Middle Distillate	22.0	22.5	2.2	20.7	21.4	3.2	19.8	20.5	3.2	19.6	20.0	1.9	19.9	21.3	7.1
Residual Fuel Oil	5.6	5.3	-6.5	6.5	5.3	-18.7	6.3	5.6	-11.7	6.1	5.5	-8.5	6.2	5.6	-9.8
Other Products	12.1	11.4	-5.9	12.7	13.1	2.8	12.5	13.1	4.9	12.5	13.4	6.9	11.9	13.1	10.5
Total Products	53.3	52.4	-1.8	52.5	50.9	-3.1	50.7	50.0	-1.3	50.1	51.0	2.0	50.1	51.4	2.5
Other <sup>2</sup>	15.9	14.2	-10.3	16.0	13.1	-18.6	17.2	13.5	-21.7	15.5	12.2	-20.9	16.1	12.7	-20.9
<b>Total</b>	<b>107.0</b>	<b>102.3</b>	<b>-4.4</b>	<b>105.0</b>	<b>98.2</b>	<b>-6.5</b>	<b>104.5</b>	<b>99.3</b>	<b>-5.0</b>	<b>101.3</b>	<b>104.8</b>	<b>3.5</b>	<b>103.2</b>	<b>101.9</b>	<b>-1.2</b>
<b>Canada<sup>3</sup></b>															
Crude	64.7	70.2	8.4	63.3	72.1	14.0	61.1	72.1	18.0	59.4	72.1	21.4	59.3	72.1	21.6
Motor Gasoline	15.3	16.3	6.6	14.7	16.3	10.9	13.2	16.3	23.4	15.0	16.3	8.4	15.7	16.3	3.7
Middle Distillate	23.0	21.8	-5.1	23.7	21.8	-8.2	22.8	21.8	-4.4	22.8	21.8	-4.6	23.1	21.8	-5.8
Residual Fuel Oil	4.4	3.9	-11.6	4.2	3.9	-8.8	4.5	3.9	-14.0	4.8	3.9	-19.1	4.6	3.9	-16.2
Other Products	20.2	21.9	8.6	20.2	21.9	8.3	19.8	21.9	10.7	19.9	21.9	10.2	19.6	21.9	11.7
Total Products	62.7	63.8	1.7	62.8	63.8	1.5	60.2	63.8	5.9	62.5	63.8	2.1	63.0	63.8	1.3
Other <sup>2</sup>	14.2	13.7	-3.8	15.8	13.7	-13.4	17.4	13.7	-21.2	19.0	13.7	-27.8	20.5	13.7	-33.2
<b>Total</b>	<b>141.7</b>	<b>147.7</b>	<b>4.2</b>	<b>141.9</b>	<b>149.6</b>	<b>5.4</b>	<b>138.8</b>	<b>149.6</b>	<b>7.8</b>	<b>140.9</b>	<b>149.6</b>	<b>6.2</b>	<b>142.9</b>	<b>149.6</b>	<b>4.7</b>

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

<sup>2</sup> other includes NGLs, refinery feedstocks, additives/oxygenates and other hydrocarbons

<sup>3</sup> Canada June, July, August and September 1999 data are estimated

**Table 7**  
**TOTAL STOCKS ON LAND IN OECD COUNTRIES**  
(millions of barrels<sup>1</sup> and 'days'<sup>2</sup>)

	End September 1998		End December 1998		End March 1999		End June 1999		End September 1999 <sup>3,4</sup>	
	Stock <sup>1</sup> Level	Days Fwd <sup>2</sup> Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand	Stock Level	Days Fwd Demand
<b>North America</b>										
Canada	142.9	71	141.8	72	149.0	77	149.6	-	-	-
Mexico	50.1	24	45.6	22	44.7	22	44.5	-	-	-
United States	1652.5	87	1647.0	86	1613.9	85	1636.1	-	-	-
<b>Total</b>	<b>1874.7</b>	<b>80</b>	<b>1856.6</b>	<b>79</b>	<b>1829.7</b>	<b>79</b>	<b>1852.4</b>	<b>77</b>	<b>1826.5</b>	<b>76</b>
<b>Pacific</b>										
Australia	40.3	46	35.2	42	39.7	46	41.6	-	-	-
Japan	676.0	119	648.9	105	634.2	126	638.1	-	-	-
Korea <sup>5</sup>	75.1	36	75.4	33	62.7	33	73.6	-	-	-
New Zealand	9.9	74	9.1	70	9.4	67	9.8	-	-	-
<b>Total</b>	<b>801.3</b>	<b>91</b>	<b>768.6</b>	<b>81</b>	<b>745.9</b>	<b>95</b>	<b>763.0</b>	<b>93</b>	<b>779.5</b>	<b>86</b>
<b>Europe<sup>6</sup></b>										
Austria	19.9	77	19.2	77	19.3	81	21.2	-	-	-
Belgium	34.5	55	33.0	53	28.7	53	31.9	-	-	-
Czech Republic	14.7	88	15.3	106	14.9	84	13.6	-	-	-
Denmark	22.7	94	21.1	93	21.6	99	22.2	-	-	-
Finland	24.8	115	24.6	112	23.0	112	24.1	-	-	-
France	166.4	80	158.3	75	175.4	92	172.4	-	-	-
Germany	317.8	108	322.4	104	308.7	121	312.0	-	-	-
Greece	33.9	79	30.3	72	32.6	94	29.2	-	-	-
Hungary	20.8	129	21.2	151	22.0	182	22.3	-	-	-
Ireland	10.1	62	10.1	58	9.2	58	10.3	-	-	-
Italy	140.5	69	135.4	69	131.4	75	124.1	-	-	-
Luxembourg	1.0	21	1.0	23	1.0	22	1.0	-	-	-
Netherlands	120.3	143	117.2	143	115.3	134	117.0	-	-	-
Norway	51.2	235	55.9	250	55.2	261	56.3	-	-	-
Poland	10.0	21	12.5	30	11.7	27	13.0	-	-	-
Portugal	22.3	67	19.7	58	21.0	62	23.1	-	-	-
Spain	106.8	73	106.9	73	106.7	79	107.6	-	-	-
Sweden	38.0	96	35.6	89	34.5	94	36.5	-	-	-
Switzerland	46.7	171	45.3	172	44.1	169	43.5	-	-	-
Turkey	50.8	78	51.8	82	53.0	88	51.8	-	-	-
United Kingdom	103.2	57	103.7	57	104.9	62	98.2	-	-	-
<b>Total</b>	<b>1356.2</b>	<b>85</b>	<b>1340.4</b>	<b>85</b>	<b>1334.2</b>	<b>93</b>	<b>1331.1</b>	<b>90</b>	<b>1306.8</b>	<b>82</b>
<b>Total OECD</b>	<b>4032.2</b>	<b>84</b>	<b>3965.6</b>	<b>81</b>	<b>3909.8</b>	<b>86</b>	<b>3946.5</b>	<b>84</b>	<b>3912.8</b>	<b>80</b>
<b>DAYS OF IEA Net Imports<sup>7</sup></b>	<b>-</b>	<b>129</b>	<b>-</b>	<b>122</b>	<b>-</b>	<b>121</b>	<b>-</b>	<b>122</b>	<b>-</b>	<b>121</b>

<sup>1</sup> 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

<sup>2</sup> 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

<sup>3</sup> end September 1999 stock level based on preliminary data

<sup>4</sup> end June 1999 and end September 1999 forward demand figures are IEA Secretariat forecasts

<sup>5</sup> Korean government stocks are excluded for reasons of confidentiality

<sup>6</sup> data not available for Iceland

<sup>7</sup> 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 <sup>1,2</sup> controlled Millions of Barrels		Industry	Total	Government <sup>1,2</sup> controlled Days of Fwd. Demand <sup>3</sup>	
3Q1996	3760	1198	2561	2561	80	25	54
4Q1996	3745	1194	2551	2551	80	25	54
1Q1997	3783	1204	2579	2579	83	26	57
2Q1997	3807	1204	2602	2602	82	26	56
3Q1997	3851	1203	2648	2648	80	25	55
4Q1997	3850	1202	2648	2648	81	25	56
1Q1998	3840	1200	2640	2640	84	26	58
2Q1998	3997	1224	2773	2773	86	26	59
3Q1998	4032	1234	2798	2798	84	26	58
4Q1998	3966	1245	2721	2721	81	26	56
1Q1999	3910	1244	2666	2666	86	27	59
2Q1999	3947	1250	2697	2697	84	27	57
3Q1999	3913	1240	2672	2672	80	25	55

<sup>1</sup> includes government-owned stocks and stock holding organisation stocks held for emergency purposes

<sup>2</sup> Korean government stocks are excluded for reasons of confidentiality

<sup>3</sup> days of forward demand calculated using actual demand except in 2Q1999 and 3Q1999 (when latest forecasts are used)

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

	1996	1997	1998	3Q98	4Q98	1Q99	2Q99	3Q99	Jun 99	Jul 99	Aug 99	Sep 99	Oct 99	Nov 99
<b>CRUDE OIL PRICES</b>														
<i>IEA CIF Average Import*</i>	20.52	19.11	12.64	11.92	11.43	10.96	15.08	19.31	15.58	17.71	19.52	21.34		
<i>FOB Spot</i>														
Brent (Dated)	20.65	19.12	12.76	12.51	11.15	11.26	15.46	20.64	15.82	19.16	20.27	22.49	22.01	24.58
WTI (1st month)	22.15	20.62	14.40	14.17	12.88	13.05	17.64	21.73	17.90	20.13	21.23	23.85	22.69	24.96
Urals (Del. Med.)	20.06	18.33	11.83	11.92	10.40	10.65	14.37	20.09	14.80	18.67	19.79	21.79	21.29	24.10
Dubai (1st month)	18.54	18.15	12.18	12.53	11.53	11.04	15.28	19.80	15.50	18.00	19.44	21.95	21.47	23.03
OPEC Basket*	20.29	18.68	12.28	12.33	10.98	11.08	15.38	20.01	15.61	18.28	19.66	22.17	21.67	23.74
<b>PRODUCT PRICES<sup>1</sup></b>														
<i>Rotterdam, Barges FOB</i>														
Premium 0.15 g/l	24.62	24.77	18.24	18.24	15.79	14.92	20.08	26.58	20.20	24.01	27.63	28.11	27.93	28.95
Regular Unleaded	22.99	23.03	16.54	16.07	14.18	13.21	18.26	24.49	18.26	21.91	25.56	26.00	26.01	27.22
Naphtha	21.70	21.43	14.64	13.94	13.76	11.44	16.67	21.84	17.18	20.32	22.16	23.05	24.55	25.21
Jet/Kerosene	27.05	24.58	17.16	16.20	15.73	14.96	19.05	24.60	19.12	22.58	24.63	26.58	26.19	29.29
Gasoil	25.91	23.39	16.19	15.20	14.25	14.09	16.82	22.58	16.84	20.39	22.64	24.71	24.59	27.07
Fuel Oil 1.0%S	17.52	15.47	11.73	10.99	10.91	10.03	12.41	16.76	12.81	14.80	17.32	18.15	19.55	19.78
Fuel Oil 3.5%S	16.30	14.59	10.20	9.92	9.25	9.34	11.56	16.94	12.62	14.82	17.58	18.43	19.70	20.07
Gross Product Worth <sup>2</sup>	23.34	21.74	15.19	14.67	13.48	12.82	16.53	22.22	16.78	20.06	22.64	23.97	23.95	25.48
Brent Cracking Margin	1.51	1.41	1.34	1.11	1.25	0.41	0.00	0.59	-0.02	-0.10	1.39	0.49	0.90	-0.26
<i>Mediterranean - Basis Italy, Cargoes FOB</i>														
Premium 0.15 g/l	24.56	24.29	17.86	18.43	15.66	14.60	20.10	27.16	20.40	24.64	28.47	28.39	27.90	29.16
Naphtha	19.81	20.10	13.54	12.69	12.73	10.18	15.61	20.96	16.24	19.40	21.27	22.21	23.66	24.35
Jet/Kerosene	25.39	22.19	14.99	13.94	13.94	13.25	17.49	23.15	17.35	21.23	22.88	25.34	24.64	27.62
Gasoil	24.64	22.04	14.83	13.80	13.29	12.75	15.43	21.79	15.98	19.44	22.19	23.75	23.93	26.53
Fuel Oil 1.0%S	18.10	15.48	10.96	10.27	9.76	9.76	11.56	16.62	12.09	14.73	17.42	17.72	18.79	18.11
Fuel Oil 3.5%S	18.00	13.45	9.14	8.79	8.76	8.36	10.35	15.70	10.74	13.45	16.26	17.39	18.52	18.38
Gross Product Worth <sup>3</sup>	22.17	20.50	14.25	13.77	12.84	12.06	15.56	21.62	15.99	19.41	22.26	23.20	23.49	24.86
Urals Cracking Margin	1.80	1.85	2.07	1.49	2.08	1.05	0.85	1.22	0.84	0.41	2.15	1.10	1.89	0.46
<i>NYHarbour, Barges</i>														
Premium Unleaded 93	27.77	27.16	19.59	19.98	16.60	16.50	22.85	28.98	22.81	27.03	28.99	30.92	28.09	30.04
Regular Unleaded 87	25.81	25.22	17.80	17.43	15.54	15.14	20.56	26.76	20.49	24.64	26.77	28.88	26.34	29.17
Jet/Kerosene	27.57	24.58	18.03	17.58	16.65	14.91	18.77	24.71	19.47	22.72	24.58	26.82	25.87	28.98
No.2 (Heating Oil)	26.35	23.64	16.43	15.45	14.68	14.35	17.83	23.08	18.09	21.03	22.96	25.27	24.48	27.19
Fuel Oil 1.0%S (Cargo)	19.21	16.91	12.32	11.99	11.13	10.38	13.85	18.23	14.63	16.54	18.62	19.52	19.45	19.56
Fuel Oil 3.0%S (Cargo)	16.03	15.25	10.25	9.62	9.21	8.86	11.94	16.53	12.44	14.03	16.83	18.74	18.46	18.44
Gross Product Worth <sup>4</sup>	23.06	23.18	16.75	16.61	14.27	14.23	19.11	23.97	18.96	22.05	23.99	25.86	24.04	26.01
WTI Cracking Margin	0.75	1.46	1.25	1.33	0.30	0.08	0.37	1.13	-0.04	0.82	1.66	0.91	0.24	-0.04
<i>Singapore, Cargoes</i>														
Gasoline <sup>5</sup>	23.58	24.57	17.19	16.22	15.03	14.59	18.94	25.22	18.49	22.81	26.02	26.83	24.78	25.81
Naphtha	20.22	21.92	14.84	13.82	14.34	12.41	17.11	22.87	17.68	20.93	23.14	24.55	24.69	25.79
Jet/Kerosene	28.36	24.97	16.36	16.26	15.62	14.99	18.65	24.49	18.82	22.24	24.82	26.40	25.90	27.38
Gasoil	27.07	24.28	15.47	14.67	13.89	13.70	16.98	21.26	17.19	19.39	21.29	23.10	23.60	24.55
LSWR (0.3%S) <sup>6</sup>	18.04	16.92	10.98	10.42	10.82	9.94	13.78	17.26	14.17	15.61	17.20	18.95	20.46	21.22
HSFO (3.5%S 180cst)	16.83	15.93	10.65	10.26	11.36	9.88	13.27	17.85	13.45	15.62	18.17	19.77	21.37	22.10
HSFO (3.5%S 380cst)	15.90	15.10	10.09	9.81	10.85	9.29	12.56	17.33	12.80	14.98	17.65	19.36	20.97	21.69
Gross Product Worth <sup>7</sup>	23.06	22.04	14.65	13.91	13.55	12.87	16.53	21.53	16.59	19.44	21.86	23.29	23.29	24.23
Dubai Cracking Margin	3.10	2.30	1.01	-0.08	0.72	1.07	0.76	1.20	0.59	0.92	1.89	0.78	1.27	0.63

\* IEA CIF Average Import price for September and OPEC Basket for November are estimates

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<sup>1</sup>**  
**November 1999**

	National Currency						US Dollars					
	Price		% ch Prev. Month		% ch Year Ago		Price		% ch Prev. Month		% ch Year Ago	
	Price	Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax	Price	Excl. Tax
<b>GASOLINE<sup>2</sup> (Price per Litre)</b>												
France	6.557	4.987	0.2	0.6	11.0	52.4	1.090	0.245	-2.8	-0.4	-0.6	39.4
Germany	1.795	1.288	-0.3	-1.2	13.6	32.7	0.921	0.244	-4.2	-5.5	1.1	20.6
Italy	1909	1342	-1.5	0.1	9.8	33.0	1.065	0.302	-5.5	-4.8	-3.5	19.5
Spain	123.2	78.8	0.2	0.5	16.1	44.2	0.799	0.270	-4.0	-4.7	1.0	23.0
UK	0.734	0.581	-0.8	-3.8	12.7	33.3	1.372	0.311	3.4	17.4	15.7	63.0
Japan	102.9	58.7	1.0	2.3	7.0	16.9	0.979	0.420	2.1	3.5	22.6	34.0
Canada	0.631	0.295	1.4	2.8	17.5	34.4	0.430	0.229	2.2	3.5	23.4	41.1
USA	0.338	0.101	0.0	0.0	24.3	38.6	0.338	0.237	0.0	0.0	24.3	38.6
<b>AUTOMOTIVE DIESEL<sup>3</sup> (Price per Litre)</b>												
France	4.002	2.502	2.0	5.6	17.3	53.1	0.632	0.237	-1.7	1.8	4.4	36.3
Germany	1.091	0.680	-5.7	-13.8	13.9	21.6	0.578	0.218	-9.1	-17.0	1.2	8.1
Italy	1273	756	-1.3	1.6	12.4	34.5	0.681	0.276	-4.9	-2.1	0.2	19.8
Spain	87.11	44.90	2.8	6.0	17.4	40.2	0.542	0.263	-0.9	2.2	4.4	24.6
UK	0.671	0.502	-0.9	-4.0	19.6	51.4	1.088	0.273	-1.8	-4.9	16.8	47.8
Japan	83.0	36.1	1.3	2.2	4.0	6.8	0.789	0.446	2.5	3.3	19.2	22.4
Canada	0.573	0.227	-0.5	-0.9	10.2	16.1	0.391	0.236	0.2	-0.1	15.7	21.9
USA	0.330	0.116	2.8	4.4	24.1	42.7	0.330	0.214	2.8	4.4	24.1	42.7
<b>DOMESTIC HEATING OIL (Price per 1000 Litres)</b>												
France	2430.9	940.9	3.1	4.2	29.1	43.3	383.7	235.2	-0.7	0.4	14.9	27.5
Germany	585.3	200.7	-1.5	-2.0	53.5	54.6	309.9	203.6	-5.1	-5.5	36.5	37.5
Italy	1486000	1003398	0.1	5.8	10.6	29.8	794.7	258.1	-3.5	2.0	-1.4	15.7
Spain	55469	20748	4.1	5.7	34.0	52.2	345.2	216.1	0.3	1.8	19.2	35.4
UK	154.60	37.66	0.8	1.1	30.8	38.6	250.8	189.7	-0.1	0.2	27.7	35.3
Japan <sup>4</sup>	44940	2140	1.7	1.7	-2.1	-2.1	427.4	407.0	2.8	2.8	12.2	12.2
Canada	-	-	-	-	-	-	-	-	-	-	-	-
USA <sup>5</sup>	257.8	-	3.9	-	17.0	-	257.8	-	3.9	-	17.0	-
<b>HFO FOR INDUSTRY<sup>3,6</sup> (Price per Metric Ton)</b>												
France	963.2	163.2	1.5	1.8	65.6	90.5	152.1	126.3	-2.2	-1.9	47.4	69.6
Germany	267.0	30.0	-1.8	-2.1	44.5	53.1	141.4	125.5	-5.4	-5.6	28.4	36.1
Italy	344550	60777	0.5	0.6	56.6	62.2	184.3	151.8	-3.1	-3.0	39.5	44.5
Spain	28720	2235	4.4	4.8	61.8	70.3	178.7	164.8	0.6	1.0	43.9	51.5
UK	111.50	26.77	2.0	2.7	46.2	56.2	180.9	137.4	1.1	1.8	42.8	52.5
Japan	20632	982	0.0	0.0	9.8	9.8	196.2	186.9	1.1	1.1	25.8	25.8
Canada	-	-	-	-	-	-	-	-	-	-	-	-
USA	-	-	-	-	-	-	-	-	-	-	-	-

1 mid-month prices

2 unleaded premium (95 RON) gasoline for France, Germany, Italy, Spain, UK; regular unleaded gasoline for Canada, Japan and USA

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

4 kerosene

5 previous month data

6 high sulphur fuel oil price for France, Spain, UK and Japan; low sulphur fuel oil price for Germany and Italy

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## Methodology

The projections of demand and non-OPEC supply in this Report are not forecasts. A forecast would entail predictions of OPEC supply, crude and product prices and their effects upon demand and non-OPEC supply; this is not the objective of this Report. Our projections assume continuation of "normal" demand and supply conditions such as normal weather and prevailing maintenance and utilisation rates. There are no allowances for contingencies in supply projections. As abnormal events occur they are noted and evaluated. Where deemed appropriate, adjustments are made to what is considered "normal" in the future.

## Users' Guide to the IEA Oil Market Report

Readers are referred to the Users' Guide, published in conjunction with the Annual Statistical Supplement, dated 10 August 1999, 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 (© 1999 Platt's - a division of McGraw-Hill Inc.).

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