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Haitham Al Ghais, OPEC Secretary General.

Welcome to the **59th** edition of the ***Annual Statistical Bulletin*** (ASB).

Since first appearing in 1965, the ASB has become one of the energy industry's most authoritative compilations of oil related data, and a key reference tool for analysts, researchers, policymakers and industry experts the world over. Fifty-nine years on, we are proud that this OPEC product continues to go from strength to strength.

Today, in an era of often contradictory and polarizing energy discourse, the ASB's enduring appeal is testament to the fact that maintaining market stability and energy security requires policymaking leaning on concrete and reliable data, which the ASB has in abundance. In this regard, we believe that data has a vital role to play in cutting through the noise and helping dispel ambiguity.

In 2023, for example, global oil demand expanded, year-on-year, by 2.6 million barrels of oil a day (mb/d) to reach an average of 102.2 mb/d. In addition, demand grew in almost every region, with the non-OECD leading the way.

Immediately, one can see from the data that calls to avoid investing in new oil projects do not reflect realities worldwide. Instead, data-driven analysis points to the fact that oil demand continues to grow, and we believe it will continue to do so long into the future.

Perhaps when reviewing the ASB's wealth of data — which is grouped by geographic region and encompasses all major economic zones of the world — take a moment to also recognize the 70 million jobs supported by the global oil industry that underpin this data. Moreover, they also rely on data-driven publications such as the ASB to help support and push the industry forward, as the world looks to use reliable and accurate data to enable sustainable future energy pathways for all.

For their crucial work in compiling this 59th edition of the ASB, I would like to express my sincere thanks to the many statisticians, analysts and researchers at the OPEC Secretariat and in OPEC Member Countries for their dedication, collaboration and hard work. The quality of this flagship publication and its contribution to the maintenance of market stability and global energy security at a time of great uncertainty is a tremendous achievement. It is one we are all proud of.

A handwritten signature in blue ink, appearing to read "Haitham Al Ghais".

Haitham Al Ghais
Secretary General



The **Annual Statistical Bulletin (ASB)**, one of the flagship publications of the Organization of the Petroleum Exporting Countries (OPEC), provides detailed and comprehensive time series data covering all chains of the oil industry, ranging from the exploration to the transportation segments.

The ASB is distinctive in providing comprehensive statistical data on oil and gas activities in each of the 12 OPEC Member Countries: **Algeria, Congo, Equatorial Guinea, Gabon, the Islamic Republic of Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, the United Arab Emirates and Venezuela**. In addition, it provides valuable data for many other countries grouped by geographical region, and covers the major economic zones all over the world.

The current version of the ASB comprises data up to the end of 2023, with the following highlights:

- ▶ World **proven crude oil reserves** stood at 1,570 billion barrels (bn b) at the end of 2023, higher by 6 bn b, or 0.4%, compared to 2022 levels. Proven crude oil reserves in OPEC Member Countries increased slightly to 1,241 bn b at the end of 2023, while world proven natural gas reserves increased by 0.3% to reach approximately 206.43 trillion standard cubic metres (tr s cu m). Proven natural gas reserves in OPEC Member Countries stood at 75.12 tr s cu m at the end of 2023, up 0.2% from the level at the end of 2022.
- ▶ Total **world crude oil production** increased in 2023 by 0.42 million barrels/day (mb/d), or 0.6%, compared to 2022. This marked the third consecutive annual increase since 2020, reaching an average of 73.24 mb/d. Crude oil production from OPEC Member Countries and non-OPEC oil-producing countries participating in the Declaration of Cooperation (DoC) declined, year-on-year (y-o-y), by 0.96 mb/d, or 3.5% and 0.16 mb/d, or 1.0%, respectively, while crude production from non-DoC countries rose by 1.54 mb/d, or 5.1%.
- ▶ World **oil demand** grew by 2.56 mb/d, y-o-y, or 2.6%, to reach an average of 102.21 mb/d in 2023. This exceeded pre-pandemic annual average levels. Oil demand grew, y-o-y, in almost every region, with the largest gains recorded in China, India, the Middle East, Latin America and OECD Americas. Oil demand in OPEC Member Countries was strong in 2023, gaining 0.39 mb/d, or 4.5%, y-o-y.
- ▶ **World refining capacity** expanded in 2023 by nearly 1.5 mb/d, y-o-y, to stand at 102.92 mb/d. The non-OECD region, particularly the Middle East and Africa, recorded refining capacity additions. Refinery capacity in the OECD remained relatively unchanged, y-o-y, as additions in OECD Americas were offset by shutdowns in OECD Europe and OECD Asia Pacific. Globally, refinery throughput increased by 1.63 mb/d, or 1.9%, to reach 85.59 mb/d in 2023, driven by higher run rates mainly in the non-OECD region, including China, India and the Middle East.
- ▶ OPEC Member Countries **exported** an average of 19.71 mb/d of crude oil in 2023, a decrease of about 0.60 mb/d, or 2.9%, compared to 2022, remaining below pre-pandemic levels. Following the same pattern seen in previous years, the bulk of crude oil from OPEC Member Countries — 14.10 mb/d, or 71.6% — was exported to Asia. Considerable volumes of crude oil — about 3.62 mb/d — were also exported to Europe in 2023, compared with 3.70 mb/d recorded in 2022. OECD Americas imported 1.03 mb/d of crude oil from OPEC Member Countries in 2023. Exports of petroleum products from OPEC Member Countries averaged 4.81 mb/d during 2023, up by around 0.37 mb/d, or 8.4%, compared to 2022. Imports of petroleum products by OPEC Member Countries averaged 1.43 mb/d in 2023, roughly 0.18 mb/d, or 11.0%, lower than in 2022.

SECTION 1

Summary

Table 1.1
OPEC Members' facts and figures, 2023

	Algeria	Congo	Equatorial Guinea	Gabon	IR Iran	Iraq	Kuwait	Libya	Nigeria	Saudi Arabia	United Arab Emirates	Venezuela	OPEC
Population million people	46.55	6.14	1.54	2.21	86.55	43.32	4.86	6.85	222.18	32.82	9.71	33.73	496.46
Land area ¹ 1,000 sq km	2,382	342	28	268	1,648	438	18	1,760	924	2,150	84	916	10,957
GDP per capita \$	5,301	2,350	6,661	9,291	4,663	5,860	32,785	6,576	2,251	32,529	51,907	2,879	6,693
Nominal GDP at market prices million \$	246,800	14,423	10,284	20,524	403,526	253,882	159,337	45,011	500,149	1,067,583	504,173	97,116	3,322,808
GDP growth, real PPP %	4.2	4.0	-5.9	2.3	4.7	-2.2	-2.2	10.2	2.9	-0.8	3.4	4.0	1.9
Value of exports million \$	60,374	10,600	5,100	12,174	99,690	109,705	87,065	36,343	82,857	370,974	570,169	16,910	1,461,960
Value of imports million \$	50,444	5,976	4,200	3,669	94,108	86,755	64,681	21,917	101,140	291,565	470,477	18,033	1,212,964
Current account balance million \$	5,431	3,576	120	-371	13,152	51,399	51,404	5,110	-806	34,070	72,748	1,705	237,537
Value of petroleum exports million \$	26,115	6,811	1,745	6,107	41,129	102,574	78,061	30,689	46,298	248,376	78,161	13,682	679,746
Proven crude oil reserves million barrels	12,200	1,811	1,100	2,000	208,600	145,019	101,500	48,363	37,500	267,230	113,000	303,008	1,241,331
Natural gas reserves billion s cu m	4,504	284	39	26	33,988	3,714	1,784	1,505	5,943	9,651	8,210	5,476	75,124
Crude oil production 1,000 b/d	973	271	55	223	2,859	4,118	2,590	1,189	1,187	9,606	2,944	783	26,799
Natural gas marketed production million s cu m	104,275	425	7,103	463	275,000	10,963	15,547	11,750	42,403	123,531	56,686	22,631	670,777
Refinery capacity 1,000 b/cd	677	21	na	25	2,237	1,266	1,415	634	1,122	3,291	1,227	2,276	14,190
Refinery throughput 1,000 b/d	671	19	na	13	1,790	739	1,035	87	27	2,514	1,104	466	8,466
Output of petroleum products 1,000 b/d	657	18	na	21	1,775	928	1,244	112	17	2,529	974	275	8,549
Oil demand 1,000 b/d	472	8	5	46	1,840	934	457	200	484	3,275	1,022	336	9,080
Crude oil exports ² 1,000 b/d	483	249	54	204	1,323	3,467	1,568	1,024	1,476	6,659	2,651	550	19,707
Exports of petroleum products 1,000 b/d	515	5	0	10	408	198	965	91	3	1,273	1,143	201	4,811
Imports of petroleum products 1,000 b/d	3	0	5	5	95	104	17	145	476	433	126	19	1,429
Natural gas exports million s cu m	52,037	0	4,571	0	12,927	0	0	1,066	29,650	0	4,756	0	105,007

Notes:

1. Land area figures as per official websites.

2. Crude oil exports may include lease condensates and volumes of oil in transit.

Table 1.2

OPEC Members' crude oil production allocations

(1,000 b/d)

	Apr82– Mar83	Apr83– Oct84	Nov84– Aug86	Sep86– Oct86	Nov86	Dec86	Jan87– Jun87	Jul87– Dec87	Jan88– Dec88	Jan89– Jun89	Jul89– Sep89
	1/	2/	3/	4/	5/	6/	7/	8/	9/	10/	11/
Algeria	650	725	663	663	669	669	635	667	667	695	733
Gabon	150	150	137	137	160	160	152	159	159	166	175
IR Iran	1,200	2,400	2,300	2,300	2,317	2,317	2,255	2,369	2,369	2,640	2,783
Iraq	1,200	1,200	1,200	1,200	—	—	1,466	1,540	—	2,640	2,783
Kuwait	800	1,050	900	900	921	999	948	996	996	1,037	1,093
Libya	750	1,100	990	990	999	999	948	996	996	1,037	1,093
Nigeria	1,300	1,300	1,300	1,300	1,304	1,304	1,238	1,301	1,301	1,355	1,428
Saudi Arabia	7,150	5,000	4,353	4,353	4,353	4,353	4,133	4,343	4,343	4,524	4,769
United Arab Emirates	1,000	1,100	950	950	950	950	902	948	948	988	1,041
Venezuela	1,500	1,675	1,555	1,555	1,574	1,574	1,495	1,571	1,571	1,636	1,724
OPEC	15,700	15,700	14,348	14,348			14,172	14,890		16,718	17,622
OPEC excl Iraq					13,247	13,325			13,350		
	Oct89– Dec89	Jan90– Jul90	Aug90	Apr91– Sep91	Oct91– Jan92	Feb92– Sep92	Oct92– Dec92	Jan93– Feb93	Mar93– Sep93	Oct93– Jun96	Jul96– Dec97
	12/	13/	14/	15/	16/	17/	18/	19/	20/	21/	22/
Algeria	771	827	827	827	nd	760	nd	764	732	750	750
Gabon	184	197	197	285	nd	273	nd	293	281	287	—
IR Iran	2,926	3,140	3,140	3,217	nd	3,184	nd	3,490	3,340	3,600	3,600
Iraq	2,926	3,140	3,140	—	nd	505	nd	500	400	400	1,200
Kuwait	1,149	1,500	1,500	—	nd	812	nd	1,500	1,600	2,000	2,000
Libya	1,149	1,233	1,233	1,425	nd	1,395	nd	1,409	1,350	1,390	1,390
Nigeria	1,501	1,611	1,611	1,840	nd	1,751	nd	1,857	1,780	1,865	1,865
Saudi Arabia	5,014	5,380	5,380	8,034	nd	7,887	nd	8,395	8,000	8,000	8,000
United Arab Emirates	1,094	1,095	1,500	2,320	nd	2,244	nd	2,260	2,161	2,161	2,161
Venezuela	1,812	1,945	1,945	2,235	nd	2,147	nd	2,360	2,257	2,359	2,359
OPEC	18,526	20,068	20,473	20,183^a	23,650[*]	20,958	24,200[*]	22,828	21,901	22,812	23,325

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

— No production level allocated.

nd No distribution made.

^ Includes Angola, Ecuador and Qatar.

Includes Indonesia and Qatar.

* Includes Ecuador, Indonesia and Qatar.

< Includes Angola, Ecuador, Indonesia and Qatar.

a. OPEC excluding Kuwait and Iraq.

b. OPEC excluding IR Iran and Iraq.

c. OPEC excluding Libya and Nigeria.

d. OPEC excluding IR Iran, Libya and Venezuela.

Agreed at the:

- 1/ 63rd (Extraordinary) Meeting of the OPEC Conference, 19–20 March 1982.
- 2/ 67th (Extraordinary) Meeting of the OPEC Conference, 14 March 1983. No production level allocated to Saudi Arabia which acted as the swing producer. Venezuela: 1.7 mb/d including condensates. Nigeria: At the 70th Meeting of the OPEC Conference, 10–11 July 1984, a temporary production rise to 1.4 mb/d and 1.45 mb/d in August 1984 and September 1984, respectively, was decided.
- 3/ 71st (Extraordinary) Meeting of the OPEC Conference, 29–31 October 1984. Retained at the 75th (Extraordinary) Meeting of the OPEC Conference, 4 October 1985.
- 4/ 78th Meeting of the OPEC Conference, 25–30 June 1986, and 28 July–5 August 1986, with the exception of Iraq.
- 5/ 79th (Extraordinary) Meeting of the OPEC Conference, 6–22 October 1986, with the exception of Iraq.
- 6/ 79th (Extraordinary) Meeting of the OPEC Conference, 6–22 October 1986, with the exception of Iraq.
- 7/ 80th Meeting of the OPEC Conference, 11–20 December 1986.
- 8/ 81st Meeting of the OPEC Conference, 25–27 June 1987.
- 9/ 82nd Meeting of the OPEC Conference, 9–14 December 1987, with the exception of Iraq. Extended at the 83rd Meeting of the OPEC Conference, 11–14 June 1988, with the exception of Iraq.
- 10/ 84th Meeting of the OPEC Conference, 21–28 November 1988.
- 11/ 85th Meeting of the OPEC Conference, 5–7 June 1989.
- 12/ 3rd Meeting of the Eight-Minister Monitoring Committee, 23–27 September 1989.
- 13/ 86th Meeting of the OPEC Conference, 25–28 November 1989.
- 14/ 87th Meeting of the OPEC Conference, 26–27 July 1990. September 2000–March 2001: Oil Ministers' informal consultations and 1st Ministerial Monitoring Committee, 26–29 August 1990 (interim course of action: OPEC shall consequently increase production in accordance with need). Retained August 1990 agreement at the 88th Meeting of the OPEC Conference, December 12–13, 1990.
- 15/ 3rd Meeting of the Ministerial Monitoring Committee, 11–12 March 1991. Reservations were made by Algeria and IR Iran as to the total OPEC production level. Reiterated without reservations at the 89th Meeting of the OPEC Conference, 4 June 1991.
- 16/ 4th Meeting of the Ministerial Monitoring Committee, 24–25 September 1991. Retained at the 90th Meeting of the Conference, 26–27 November 1991.
- 17/ 6th Meeting of the Ministerial Monitoring Committee, 12–15 February 1992. Reservations were made by IR Iran as to the total OPEC production level and by Saudi Arabia as to their allocated production level. Rollover (inclusive of reservations) at the 91st Meeting of the OPEC Conference, 21–22 May 1992. The Conference also decided to allow any additional production from Kuwait.
- 18/ 9th Meeting of the Ministerial Monitoring Committee, 16–17 September 1992. Reaffirmed to allow for any additional production from Kuwait.
- 19/ 92nd Meeting of the OPEC Conference, 25–27 November 1992, with full support of Member Countries, except Iraq and the allowance of additional volumes to Kuwait as they become available during the 1Q93.
- 20/ 10th Meeting of the Ministerial Monitoring Committee, 13–16 February 1993 with full support of Member Countries, except Iraq. Rollover of this agreement at the 93rd Meeting of the OPEC Conference, 8–10 June 1993, with full support of Member Countries, except Iraq and Kuwait.
- 21/ 94th (Extraordinary) Meeting of the OPEC Conference, 25–29 September 1993, with full support of Member Countries, except Iraq. Maintained at the 12th Meeting of the Ministerial Monitoring Committee, 25–26 March 1994, with full support of Member Countries, except Iraq. Maintained at the 97th, 98th and 99th Meeting of the OPEC Conference, 21–22 November 1994, 19–20 June, 1995, and 21–22 November 1995, respectively.
- 22/ 100th Meeting of the OPEC Conference, 5–7 June 1996. The remaining volume of 1.2 mb/d is to be supplied by Iraq. Rollover of the agreement at the 101st and the 102nd Meeting of the OPEC Conference, 27–28 November 1996, and 25–26 June 1997, respectively.

Summary

**Table 1.2
OPEC Members' crude oil production allocations**

(1,000 b/d)

	Jan98–Mar98	Apr98–Jun98	Jul98–Mar99	Apr99–Mar00	Apr00–Jun00	Jul00–Sep00	1 Oct00–30 Oct00	31 Oct00–Jan0	Feb01–Mar01	Apr01–Aug01
	23/	24/	25/	26/	27/	28/	29/	30/	31/	32/
Algeria	909	50	788	731	788	811	837	853	805	773
IR Iran	3,942	140	3,318	3,359	–	3,727	3,844	3,917	3,698	3,552
Iraq	1,314	–	–	–	–	–	–	–	–	–
Kuwait	2,190	125	1,980	1,836	1,980	2,037	2,101	2,141	2,021	1,941
Libya	1,522	80	1,323	1,227	1,323	1,361	1,404	1,431	1,350	1,296
Nigeria	2,042	125	2,033	1,885	2,033	2,091	2,157	2,198	2,075	1,993
Saudi Arabia	8,761	300	8,023	7,438	8,023	8,253	8,512	8,674	8,189	7,865
United Arab Emirates	2,366	125	2,157	2,000	2,157	2,219	2,289	2,333	2,201	2,113
Venezuela	2,583	200	2,845	2,720	2,845	2,926	3,019	3,077	2,902	2,786
OPEC	25,630									
OPEC excl Iraq	1,145	22,467	21,196	19,149^b	23,425	24,163	24,624	23,241	22,319	
Target OPEC excl Iraq	23,762									
	Sep01–Dec01	Jan02–Dec02	Jan03	Feb03–May03	Jun03–Oct03	Nov03–Mar04	Apr04–Jun04	Jul04	Aug04–Oct04	1 Nov04–16 Mar05
	33/	34/	35/	36/	37/	38/	39/	40/	41/	42/
Algeria	741	693	735	782	811	782	750	814	830	862
IR Iran	3,406	3,186	3,377	3,597	3,729	3,597	3,450	3,744	3,817	3,964
Iraq	–	–	–	–	–	–	–	–	–	–
Kuwait	1,861	1,741	1,845	1,966	2,038	1,966	1,886	2,046	2,087	2,167
Libya	1,242	1,162	1,232	1,312	1,360	1,312	1,258	1,365	1,392	1,446
Nigeria	1,911	1,787	1,894	2,018	2,092	2,018	1,936	2,101	2,142	2,224
Saudi Arabia	7,541	7,053	7,476	7,963	8,256	7,963	7,638	8,288	8,450	8,775
United Arab Emirates	2,025	1,894	2,007	2,138	2,217	2,138	2,051	2,225	2,269	2,356
Venezuela	2,670	2,497	2,647	2,819	2,923	2,819	2,704	2,934	2,992	3,107
OPEC excl Iraq	21,397	20,013	21,213	22,595	23,425	22,595	21,673	23,517	23,979	24,901

23/ 103rd Meeting of the OPEC Conference, 26 November–1 December 1997. The remaining volume of 1,314,080 b/d is to be supplied by Iraq.

24/ 104th Meeting (Extraordinary) of the OPEC Conference, 30 March 1998. Data reflects temporary production adjustments from OPEC excluding Iraq production in February 1998 as reported by selected secondary sources. Iraq is not called upon to participate in this agreement.

25/ 105th Meeting of the OPEC Conference, 24 June 1998. Iraq is not called upon to participate in this agreement.

26/ 107th Meeting of the OPEC Conference, 23 March 1999. Reaffirmed strong commitment to the agreement at the 108th Meeting of the OPEC Conference, 22 September 1999. Iraq is not called upon to participate in this agreement.

27/ 109th Meeting of the OPEC Conference, 27–29 March 2000. Agreement of OPEC Member Countries excluding IR Iran and Iraq.

28/ 110th (Extraordinary) Meeting of the OPEC Conference, 21 June 2000. Iraq is not called upon to participate in this agreement.

29/ 111th Meeting of the OPEC Conference, 10–11 September 2000. Iraq is not called upon to participate in this agreement.

30/ 111th Meeting of the OPEC Conference, 10–11 September 2000; including additional 500,000 b/d (price band mechanism) as announced by the OPEC President on 30 October 2000, and effective from 31 October 2000. Iraq is not called upon to participate in this agreement.

31/ 113th (Extraordinary) Meeting of the OPEC Conference, 17 January 2001. Iraq is not called upon to participate in this agreement.

32/ 114th Meeting of the OPEC Conference, 16–17 March 2001. Retained at the 115th (Extraordinary) and 116th (Extraordinary) Meeting of the OPEC Conference, 5 June and 3 July 2001, respectively. Iraq is not called upon to participate in this agreement.

33/ OPEC Conference, 25 July 2001. Retained at the 117th Meeting of the OPEC Conference, 26–27 September 2001. Iraq is not called upon to participate in this agreement.

34/ Announced during the 118th (Extraordinary) Meeting of the OPEC Conference, 14 November 2001, and confirmed its implementation during the Consultative Meeting of the OPEC Conference in Cairo, 28 December 2001. Retained at the 119th (Extraordinary), 120th (Extraordinary) and 121st Meeting of the OPEC Conference, 15 March, 26 June and 19 September 2002, respectively. Iraq is not called upon to participate in this agreement.

35/ 122th (Extraordinary) Meeting of the OPEC Conference, 12 December 2002. Iraq is not called upon to participate in this agreement.

36/ 123rd (Extraordinary) Meeting of the OPEC Conference, 12 January 2003. Retained at the 124th Meeting of the OPEC Conference, 11 March 2003. Iraq is not called upon to participate in this agreement.

37/ Consultative Meeting of the OPEC Conference, 24 April 2003. Retained at the 125th (Extraordinary) and 126th (Extraordinary) Meeting of the OPEC Conference, 11 June and 31 July 2003, respectively. Iraq is not called upon to participate in this agreement.

38/ 127th Meeting of the OPEC Conference, 24 September 2003. Retained at the 128th (Extraordinary) and 129th (Extraordinary) Meeting of the OPEC Conference, 4 December 2003, and 10 February 2004, respectively. Iraq is not called upon to participate in this agreement.

39/ 129th (Extraordinary) Meeting of the OPEC Conference, 10 February 2004. Reconfirmed at the 130th Meeting of the OPEC Conference, 31 March 2004. Iraq is not called upon to participate in this agreement.

40/ 131st (Extraordinary) Meeting of the OPEC Conference, 3 June 2004. Iraq is not called upon to participate in this agreement.

41/ 131st (Extraordinary) Meeting of the OPEC Conference, 3 June 2004. Iraq is not called upon to participate in this agreement.

42/ 132nd Meeting of the OPEC Conference, 15 September 2004. Iraq is not called upon to participate in this agreement. During the 133rd (Extraordinary) Meeting of the OPEC Conference, 10 December 2004, Member Countries agreed to collectively reduce the over-production by 1 mb/d from their current actual output, effective 1 January 2005. Agreement of 132nd Meeting is retained at the 134th (Extraordinary) Meeting of the OPEC Conference, 30 January 2005.

Table 1.2

OPEC Members' crude oil production allocations

(1,000 b/d)

	17 Mar05– 30 Jun05	Jul05– Oct06	Nov06– Jan07	Feb07– Oct07	Nov07– Dec07	Jan08– Sep08	Oct08	Nov08– Dec08	Jan09– Dec11	Jan12– Dec15
	43/	44/	45/	46/	47/	48/	49/	50/	51/	52/
Algeria	878	894	59	25	nd	nd	nd	71	nd	nd
IR Iran	4,037	4,110	176	73	nd	nd	nd	199	nd	nd
Iraq	–	–	–	–	–	–	–	–	–	nd
Kuwait	2,207	2,247	100	42	nd	nd	nd	132	nd	nd
Libya	1,473	1,500	72	30	nd	nd	nd	89	nd	nd
Nigeria	2,265	2,306	100	42	nd	nd	nd	113	nd	nd
Saudi Arabia	8,937	9,099	380	158	nd	nd	nd	466	nd	nd
United Arab Emirates	2,400	2,444	101	42	nd	nd	nd	134	nd	nd
Venezuela	3,165	3,223	138	57	nd	nd	nd	129	nd	nd
OPEC excl Iraq	25,362	25,823	1,126	469	500#			1,333		
Target OPEC excl Iraq		26,300#		25,800#	27,253#	29,673^	28,808^	27,308^	24,845^	
Target OPEC										30,000^

- 43/ 135th Meeting of the OPEC Conference, 16 March 2005. Iraq is not called upon to participate in this agreement. The President of the Conference is authorized, after consultation with fellow Heads of Delegation, to announce an additional 500,000 b/d increase until its next Meeting, if prices remain at current high levels or continue to further rise.
- 44/ 136th (Extraordinary) Meeting of the OPEC Conference, 15 June 2005. Iraq is not called upon to participate in this agreement. The President of the Conference is authorized, after consultation with fellow Heads of Delegation, to announce an additional 500,000 b/d increase until its next Meeting, if prices remain at current high levels or continue to further rise. The 137th OPEC Conference, 20 September 2005, agreed to make available to the market the spare capacity of 2 mb/d, should it be called for, for a period of three months, starting 1 October 2005. The 138th (12 December 2005), the 139th (Extraordinary, 31 January 2006), the 140th (8 March 2006) and the 141st (Extraordinary, 1 June 2006) Conference retained the OPEC production level as agreed on 15 June 2005.
- 45/ Consultative Meeting of the OPEC Conference, 19–20 October 2006. Data reflects interim production adjustments from OPEC excluding Iraq production in September 2006. Iraq is not called upon to participate in this agreement.
- 46/ 143rd (Extraordinary) Meeting of the OPEC Conference, 14 December 2006. Data reflects a further production adjustment to the decision taken in Doha, 19–20 October 2006. Iraq is not called upon to participate in this agreement.
- 47/ 145th Meeting of the OPEC Conference, 11 September 2007. Angola and Iraq are not called upon to participate in this agreement. Data reflect production increase of 500,000 b/d for OPEC (excluding Angola and Iraq) to achieve 27,253 mb/d.
- 48/ 146th (Extraordinary) Meeting of the OPEC Conference, 5 December 2007. Iraq is not called upon to participate in the agreement.
- 49/ 149th Meeting of the OPEC Conference, 9–10 September 2008. The Conference agreed to abide to September 2007 production allocations (adjusted to include new Members Angola and Ecuador and excluding Indonesia and Iraq), totalling to 28.8 mb/d.
- 50/ 150th (Extraordinary) Meeting of the OPEC Conference, 24 October 2008. Data reflects a production adjustment of 1.5 mb/d to achieve 27.31 mb/d. Iraq and Indonesia are not called upon to participate in the agreement.
- 51/ The 151th (Extraordinary) Meeting of the Conference, 17 December 2008, agreed to reduce OPEC production excluding Iraq production by a total of 4.2 mb/d from September levels of the actual production based on secondary sources. Iraq is not called upon to participate in the agreement.
- 52/ The 160th Meeting of the Conference, 14 December 2011, decided to maintain the total OPEC production level of 30.0 mb/d. This agreement was maintained at the 161st (14 June 2012), the 162nd (12 December 2012), the 163rd (31 May 2013), the 164th (4 December 2013), the 165th (11 June 2014), the 166th (27 November 2014) and – for the last time – at the 167th (5 June 2015) Meeting of the Conference.

	Jan17– May17	Jun17– Dec18	Jan19– May19	Jun19– Dec19	Jan20– Mar20	May20– Jul20	Aug20– Dec20	Jan21– Apr21	May21	Jun21
	53/	54/	55/	56/	57/	58/	58/	59/	60/	60/
Algeria	1,039	1,039	1,025	1,025	1,013	816	864	876	887	898
Congo	–	–	315	315	311	251	266	269	273	276
Equatorial Guinea	–	178	123	123	122	98	104	105	107	108
Gabon	193	193	181	181	179	144	153	155	157	159
IR Iran	3,797	3,797	–	–	–	–	–	–	–	–
Iraq	4,351	4,351	4,512	4,512	4,462	3,592	3,804	3,857	3,905	3,954
Kuwait	2,707	2,707	2,724	2,724	2,669	2,168	2,297	2,329	2,358	2,387
Libya	–	–	–	–	–	–	–	–	–	–
Nigeria	–	–	1,685	1,774	1,753	1,412	1,495	1,516	1,535	1,554
Saudi Arabia	10,058	10,058	10,311	10,311	10,144	8,492	8,993	9,119	9,232	9,347
United Arab Emirates	2,874	2,874	3,072	3,072	3,012	2,446	2,590	2,626	2,659	2,692
Venezuela	1,972	1,972	–	–	–	–	–	–	–	–
OPEC	26,991^c	27,169^c	23,948^d	24,037^d	23,665^d	19,419^d	20,566^d	20,852^d	21,113^d	21,375^d
Target OPEC		32,500^c								

- 53/ The 171st Meeting of the Conference, 30 November 2016, decided to reduce its production by around 1.2 mb/d to bring its ceiling to 32.5 mb/d, effective of 1 January 2017. Agreed crude oil production levels were allocated, with the exception of Libya and Nigeria.
- 54/ The 172nd Meeting of the Conference, 25 May 2017, decided to extend its production adjustments for a further period of nine months. Furthermore, the Conference approved Equatorial Guinea's admission to the Organization with immediate effect (the table is adjusted accordingly). The 173rd Meeting of the Conference, 30 November 2017, amended the adjustment to take effect for the whole year 2018.
- 55/ The 175th Meeting of the Conference, 6–7 December 2018, decided to adjust OPEC overall production by 800,000 b/d from October 2018 levels, effective as of January 2019, for an initial period of six months, with a review in April 2019.
- 56/ The 176th Meeting of the OPEC Conference, 1 July 2019, decided to extend the production adjustments agreed at the 175th Meeting of the OPEC Conference for an additional period of nine months and to adjust the required production level for Nigeria from 1.685 mb/d to 1.774 mb/d effective June 2019.
- 57/ The 177th Meeting of the OPEC Conference, 6 December 2019, decided to support additional adjustments to the adjustment levels as agreed at the 175th Meeting of the OPEC Conference.
- 58/ The 9th and 10th OPEC and non-OPEC Ministerial Meetings, 9–10 and 12 April 2020, agreed to adjust downwards overall crude oil production from OPEC and participating non-OPEC countries by 9.7 mb/d, starting on 1 May 2020, for an initial period of two months that concludes on 30 June 2020. The 179th Meeting of the OPEC Conference, as well as the 11th OPEC and non-OPEC Ministerial Meeting, held on 6 June 2020, agreed on extending the production adjustments pertaining in May and June by one further month.
- 59/ The 12th OPEC and non-OPEC Ministerial Meeting, 5 January 2021, agreed to increase production from OPEC and participating non-OPEC countries by 500,000 b/d starting in January 2021, and adjusting the production reduction from 7.7 mb/d to 7.2 mb/d. The decision for OPEC production allocation was reconfirmed by the 13th and 14th OPEC and non-OPEC Ministerial Meeting, 5 January 2021, and 4 March 2021.
- 60/ The 15th OPEC and non-OPEC Ministerial Meeting, 1 April 2021, approved the adjustment of the production levels for May, June and July 2021.

Summary

**Table 1.2
OPEC Members' crude oil production allocations**

(1,000 b/d)

	Jul21	Aug21	Sep21	Oct21	Nov21	Dec21	Jan22	Feb22	Mar22	Apr22
	60/	61/	61/	62/	63/	64/	65/	66/	67/	68/
Algeria	912	922	932	942	952	962	972	982	992	1,002
Congo	281	284	287	290	293	296	300	303	306	309
Equatorial Guinea	110	111	112	114	115	116	117	118	120	121
Gabon	161	163	165	166	168	170	172	173	175	177
IR Iran	-	-	-	-	-	-	-	-	-	-
Iraq	4,016	4,061	4,105	4,149	4,193	4,237	4,281	4,325	4,370	4,414
Kuwait	2,425	2,451	2,478	2,505	2,532	2,558	2,585	2,612	2,639	2,665
Libya	-	-	-	-	-	-	-	-	-	-
Nigeria	1,579	1,596	1,614	1,631	1,649	1,666	1,683	1,701	1,718	1,735
Saudi Arabia	9,495	9,600	9,704	9,809	9,913	10,018	10,122	10,227	10,331	10,436
United Arab Emirates	2,735	2,765	2,795	2,825	2,855	2,885	2,916	2,946	2,976	3,006
Venezuela	-	-	-	-	-	-	-	-	-	-
OPEC	21,714^d	21,953^d	22,192^d	22,431^d	22,670^d	22,908^d	23,148^d	23,387^d	23,627^d	23,865^d

	May22	Jun22	Jul22	Aug22	Sep22	Oct22	Nov22-Dec23
	69/	70/	71/	72/	73/	74/	75/
Algeria	1,013	1,023	1,039	1,055	1,057	1,055	1,007
Congo	312	315	320	325	325	325	310
Equatorial Guinea	122	123	125	127	127	127	121
Gabon	179	181	183	186	187	186	177
IR Iran	-	-	-	-	-	-	-
Iraq	4,461	4,509	4,580	4,651	4,663	4,651	4,431
Kuwait	2,694	2,724	2,768	2,811	2,818	2,811	2,676
Libya	-	-	-	-	-	-	-
Nigeria	1,753	1,772	1,799	1,826	1,830	1,826	1,742
Saudi Arabia	10,549	10,663	10,833	11,004	11,030	11,004	10,478
United Arab Emirates	3,040	3,075	3,127	3,179	3,186	3,179	3,019
Venezuela	-	-	-	-	-	-	-
OPEC	24,123^d	24,385^d	24,774^d	25,164^d	25,223^d	25,164^d	23,961^d

- 60/ The 15th OPEC and non-OPEC Ministerial Meeting, 1 April 2021, approved the adjustment of the production levels for May, June and July 2021.
- 61/ The 19th OPEC and non-OPEC Ministerial Meeting, 18 July 2021, approved to adjust upward their overall production by 400,000 b/d on a monthly basis starting August 2021.
- 62/ The 20th OPEC and non-OPEC Ministerial Meeting, 1 September 2021, reconfirmed the production adjustment plan from the 19th OPEC and non-OPEC Ministerial Meeting and approved to adjust upward the monthly overall production by 400,000 b/d for the month of October 2021.
- 63/ The 21st OPEC and non-OPEC Ministerial Meeting, 4 October 2021, reconfirmed the production adjustment plan from the 19th OPEC and non-OPEC Ministerial Meeting and approved to adjust upward the monthly overall production by 400,000 b/d for the month of November 2021.
- 64/ The 22nd OPEC and non-OPEC Ministerial Meeting, 4 November 2021, reconfirmed the production adjustment plan from the 19th OPEC and non-OPEC Ministerial Meeting and approved to adjust upward the monthly overall production by 400,000 b/d for the month of December 2021.
- 65/ The 23rd OPEC and non-OPEC Ministerial Meeting, 2 December 2021, reconfirmed the production adjustment plan from the 19th OPEC and non-OPEC Ministerial Meeting and approved to adjust upward the monthly overall production by 400,000 b/d for the month of January 2022.
- 66/ The 24th OPEC and non-OPEC Ministerial Meeting, 4 January 2022, reconfirmed the production adjustment plan from the 19th OPEC and non-OPEC Ministerial Meeting and approved to adjust upward the monthly overall production by 400,000 b/d for the month of February 2022.
- 67/ The 25th OPEC and non-OPEC Ministerial Meeting, 2 February 2022, reconfirmed the production adjustment plan from the 19th OPEC and non-OPEC Ministerial Meeting and approved to adjust upward the monthly overall production by 400,000 b/d for the month of March 2022.
- 68/ The 26th OPEC and non-OPEC Ministerial Meeting, 2 March 2022, reconfirmed the production adjustment plan from the 19th OPEC and non-OPEC Ministerial Meeting and approved to adjust upward the monthly overall production by 400,000 b/d for the month of April 2022.
- 69/ The 27th OPEC and non-OPEC Ministerial Meeting, 31 March 2022, reconfirmed the baseline adjustment, the production adjustment plan and the monthly production adjustment mechanism approved at the 19th OPEC and non-OPEC Ministerial Meeting and the decision to adjust upward the monthly overall production by 432,000 b/d for the month of May 2022.
- 70/ The 28th OPEC and non-OPEC Ministerial Meeting, 5 May 2022, reconfirmed the production adjustment plan and the monthly production adjustment mechanism approved at the 19th OPEC and non-OPEC Ministerial Meeting and the decision to adjust upward the monthly overall production by 432,000 b/d for the month of June 2022.
- 71/ The 29th OPEC and non-OPEC Ministerial Meeting, 2 June 2022, reconfirmed the production adjustment plan and the monthly production adjustment mechanism approved at the 19th OPEC and non-OPEC Ministerial Meeting and the decision to adjust upward the monthly overall production. Moreover, it advanced the planned overall production adjustment for the month of September and redistribute equally the 432,000 b/d production increase over the months of July and August 2022. Therefore, July production will be adjusted upward by 648,000 b/d.
- 72/ The 30th OPEC and non-OPEC Ministerial Meeting, 30 June 2022, reconfirmed the production adjustment plan and the monthly production adjustment mechanism approved at the 19th and 29th OPEC and non-OPEC Ministerial Meetings and the decision to adjust upward the monthly overall production for the month of August 2022 by 0.648 mb/d.
- 73/ The 31st OPEC and non-OPEC Ministerial Meeting, 3 August 2022, reaffirmed the decision of the 10th OPEC and non-OPEC Ministerial Meeting on 12 April 2020 and further endorsed in subsequent meetings including the 19th OPEC and non-OPEC Ministerial Meeting on the 18 July 2021, and adjusted upward the production level for OPEC and non-OPEC Participating Countries by 0.1 mb/d for the month of September 2022.
- 74/ The 32nd OPEC and non-OPEC Ministerial Meeting, 5 September 2022, reverted to the production level of August 2022 for OPEC and non-OPEC Participating Countries for the month of October 2022.
- 75/ The 33rd OPEC and non-OPEC Ministerial Meeting, 5 October 2022, reaffirmed the decision of the 10th OPEC and non-OPEC Ministerial Meeting on 12 April 2020 and further endorsed in subsequent meetings, including the 19th OPEC and non-OPEC Ministerial Meeting on 18 July 2021, and adjusted downward the overall production by 2 mb/d from the August 2022 required production levels, starting November 2022 for OPEC and non-OPEC Participating Countries.

SECTION 2

Macro-economics

Table 2.1
OPEC Members' population

(million people)

	2019	2020	2021	2022	2023	change 23/22
Algeria	43.424	44.244	45.024	45.800	46.553	0.753
Congo	5.571	5.702	5.836	5.970	6.138	0.168
Equatorial Guinea	1.360	1.406	1.452	1.498	1.544	0.046
Gabon	2.080	2.108	2.135	2.161	2.209	0.048
IR Iran	83.075	84.038	84.841	85.690	86.547	0.857
Iraq	39.128	40.150	41.191	42.249	43.324	1.075
Kuwait	4.776	4.671	4.628	4.737	4.860	0.123
Libya	6.578	6.644	6.710	6.777	6.845	0.068
Nigeria	208.282	213.402	218.402	221.602	222.179	0.577
Saudi Arabia	30.064	31.553	30.784	32.175	32.819	0.644
United Arab Emirates	9.504	9.282	9.558	9.635	9.713	0.078
Venezuela	32.220	32.605	32.986	33.360	33.729	0.369
OPEC	466.061	475.806	483.547	491.654	496.460	4.806

Table 2.2
OPEC Members' nominal GDP (at current market prices)

(m \$)

	2019	2020	2021	2022	2023	change 23/22
Algeria	171,750	145,684	163,421	225,547	246,800	21,253
Congo	13,977	11,485	13,387	13,961	14,423	462
Equatorial Guinea	11,364	9,894	12,269	11,767	10,284	-1,483
Gabon	16,824	15,337	20,229	21,076	20,524	-552
IR Iran	241,658	195,528	289,294	347,446	403,526	56,080
Iraq	233,636	182,455	209,692	286,640	253,882	-32,759
Kuwait	136,189	107,505	141,779	182,809	159,337	-23,472
Libya	69,280	46,921	35,224	43,289	45,011	1,722
Nigeria	406,176	430,197	436,450	470,332	500,149	29,817
Saudi Arabia	838,565	734,271	874,156	1,108,572	1,067,583	-40,989
United Arab Emirates	417,990	349,473	415,179	507,064	504,173	-2,891
Venezuela	73,003	43,788	57,666	92,104	97,116	5,012
OPEC	2,630,412	2,272,539	2,668,746	3,310,607	3,322,808	12,201

Table 2.3

OPEC Members' real GDP growth rates (PPP based weights)

(%)

	2019	2020	2021	2022	2023
Algeria	1.0	-5.1	3.4	3.6	4.2
Congo	1.1	-6.3	1.1	1.8	4.0
Equatorial Guinea	-5.5	-4.8	-0.4	3.2	-5.9
Gabon	3.8	-1.8	1.5	3.0	2.3
IR Iran	-3.1	3.3	4.7	3.8	4.7
Iraq	5.4	-12.1	1.6	7.0	-2.2
Kuwait	1.4	-5.3	1.7	6.1	-2.2
Libya	-11.2	-29.5	28.3	-8.3	10.2
Nigeria	2.2	-1.8	3.6	3.3	2.9
Saudi Arabia	1.1	-3.6	5.1	7.5	-0.8
United Arab Emirates	1.1	-5.0	4.4	7.8	3.4
Venezuela	-27.7	-30.0	1.0	8.0	4.0
OPEC	-0.8	-4.3	4.2	5.4	1.9

Notes:

Aggregates were compiled on the basis of 2017 GDP weights using 2017 purchasing power parities (PPP).

Table 2.4

OPEC Members' values of exports of goods and services

(m \$)

	2019	2020	2021	2022	2023	change 23/22
Algeria	39,479	25,603	44,471	70,928	60,374	-10,554
Congo	7,854	4,670	8,847	11,727	10,600	-1,127
Equatorial Guinea	5,810	4,041	5,851	6,231	5,100	-1,131
Gabon	8,678	7,275	11,229	12,935	12,174	-761
IR Iran	51,642	39,413	60,135	95,033	99,690	4,657
Iraq	88,903	50,613	85,224	127,079	109,705	-17,374
Kuwait	72,580	47,982	76,177	110,370	87,065	-23,305
Libya	29,058	9,312	33,417	37,686	36,343	-1,343
Nigeria	67,481	37,984	46,868	68,119	82,857	14,738
Saudi Arabia	285,860	182,848	286,502	445,881	370,974	-74,907
United Arab Emirates	404,046	351,258	425,149	532,797	570,169	37,372
Venezuela	21,017	6,682	10,138	17,686	16,910	-776
OPEC	1,082,407	767,682	1,094,008	1,536,469	1,461,960	-74,510

Notes:

All figures fob.

Table 2.5
OPEC Members' values of petroleum exports

(m \$)

	2019	2020	2021	2022	2023	change 23/22
Algeria	22,674	13,188	23,356	32,545	26,115	-6,430
Congo	7,072	3,689	5,785	8,297	6,811	-1,487
Equatorial Guinea	2,703	1,765	2,366	3,111	1,745	-1,366
Gabon	4,767	2,714	4,641	6,812	6,107	-706
IR Iran	19,402	7,914	25,526	38,985	41,129	2,144
Iraq	80,028	44,130	79,789	121,064	102,574	-18,489
Kuwait	52,432	35,228	61,703	94,000	78,061	-15,939
Libya	24,197	5,724	27,485	33,272	30,689	-2,583
Nigeria	45,128	27,730	41,378	53,457	46,298	-7,159
Saudi Arabia	200,488	119,359	202,166	327,007	248,376	-78,631
United Arab Emirates	52,417	31,341	54,595	94,677	78,161	-16,516
Venezuela	18,335	5,738	8,816	15,379	13,682	-1,697
OPEC	529,642	298,520	537,606	828,605	679,746	-148,859

Table 2.6
OPEC Members' values of imports of goods and services

(m \$)

	2019	2020	2021	2022	2023	change 23/22
Algeria	50,488	40,962	43,551	45,999	50,444	4,445
Congo	4,944	3,279	5,696	7,356	5,976	-1,380
Equatorial Guinea	4,971	3,669	4,351	4,297	4,200	-97
Gabon	3,712	3,454	3,353	3,775	3,669	-107
IR Iran	59,969	49,479	56,700	87,823	94,108	6,284
Iraq	72,283	54,722	50,707	69,162	86,755	17,593
Kuwait	61,135	44,015	48,954	55,909	64,681	8,772
Libya	22,694	12,912	16,957	19,925	21,917	1,993
Nigeria	93,969	71,285	51,667	79,274	101,140	21,866
Saudi Arabia	218,975	182,184	213,516	258,213	291,565	33,352
United Arab Emirates	321,525	273,691	347,532	417,032	470,477	53,444
Venezuela	11,071	9,785	11,911	17,537	18,033	496
OPEC	925,734	749,437	854,895	1,066,303	1,212,964	146,661

Notes:

All figures cif.

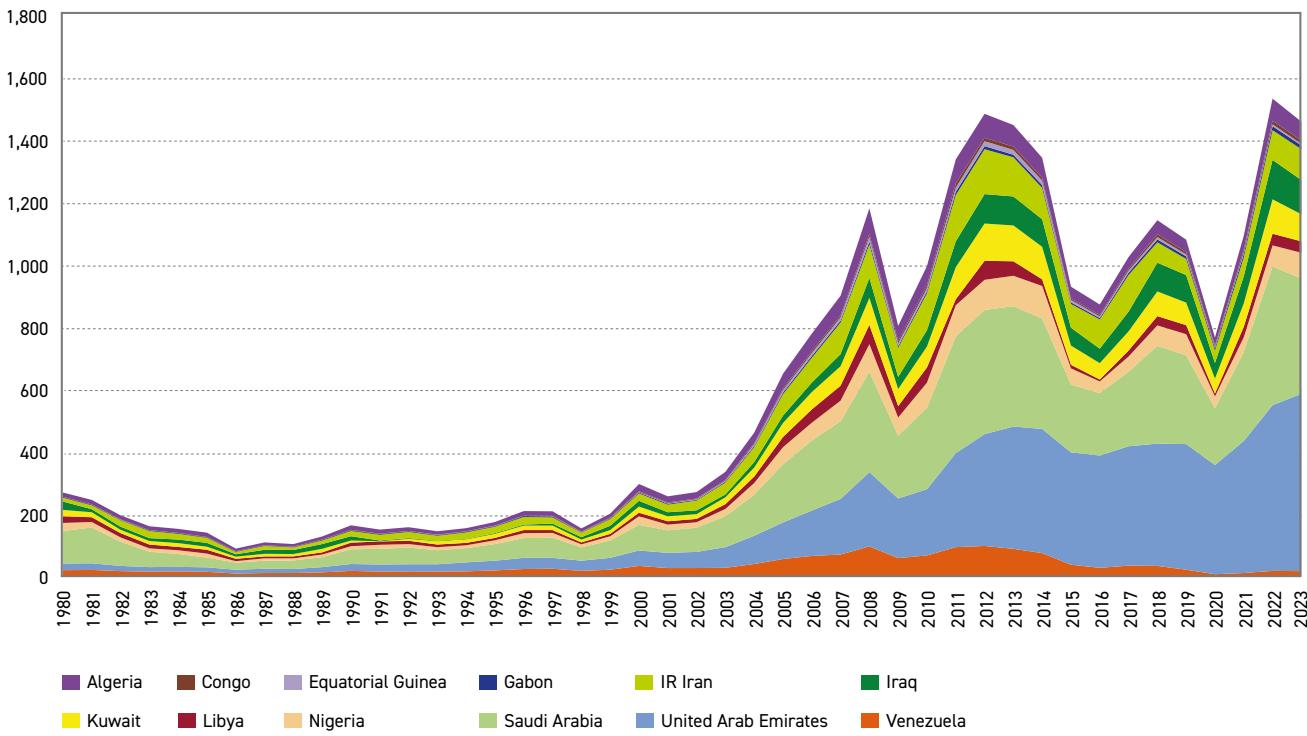
Table 2.7
Current account balances in OPEC Members

(m \$)

	2019	2020	2021	2022	2023	change 23/22
Algeria	-16,912	-18,684	-4,512	19,453	5,431	-14,022
Congo	1,632	1,441	1,584	3,782	3,576	-206
Equatorial Guinea	106	3	499	355	120	-235
Gabon	-807	-1,063	-926	354	-371	-725
IR Iran	-1,652	-708	11,144	14,205	13,152	-1,053
Iraq	15,763	-6,198	24,565	58,010	51,399	-6,611
Kuwait	17,861	4,843	37,390	63,111	51,404	-11,707
Libya	4,817	-4,780	5,675	10,718	5,110	-5,608
Nigeria	-13,685	-15,986	-1,849	-1,010	-806	204
Saudi Arabia	38,451	-25,547	41,718	151,519	34,070	-117,448
United Arab Emirates	37,332	22,073	47,986	88,795	72,748	-16,048
Venezuela	5,506	-2,518	879	2,743	1,705	-1,038
OPEC	88,413	-47,126	164,154	412,034	237,537	-174,497

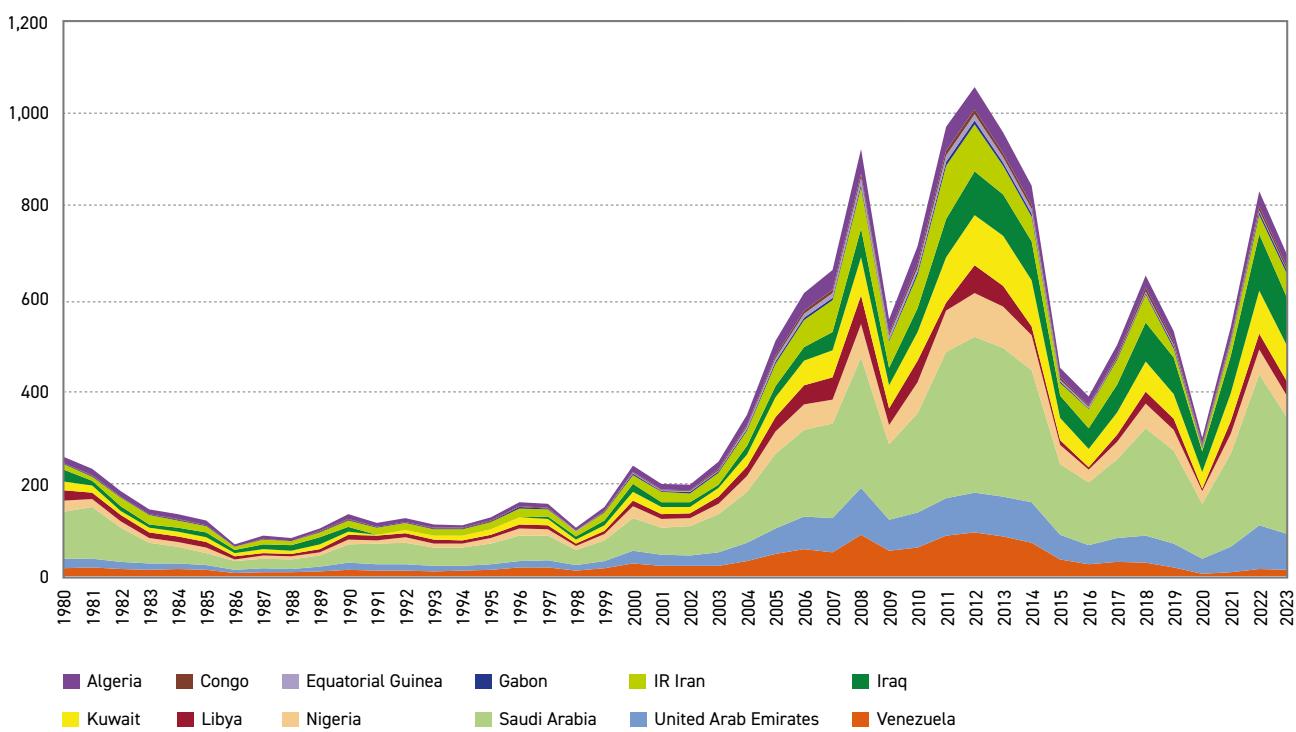
Graph 2.1
OPEC Members' values of exports of goods and services

(bn \$)



Graph 2.2
OPEC Members' values of petroleum exports

(bn \$)



SECTION 3

Oil data: upstream

Oil data: upstream

Table 3.1
World proven crude oil reserves by country

(mb)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	54,580	46,402	52,233	55,710	58,265	2,555
Canada ¹	4,906	4,919	4,855	4,731	4,711	-20
Chile	150	150	150	150	150	0
Mexico	5,333	5,498	5,618	5,558	5,674	116
United States	44,191	35,835	41,610	45,271	47,730	2,459
OECD Europe	13,224	12,412	11,772	11,251	11,115	-136
Denmark	441	441	428	340	346	6
Norway	8,523	7,902	7,745	7,573	7,642	69
United Kingdom	2,700	2,500	2,000	1,800	1,500	-300
Others	1,560	1,569	1,599	1,538	1,627	89
OECD Asia Pacific	2,477	2,475	1,833	1,890	1,906	16
Australia	2,390	2,390	1,747	1,803	1,803	0
Others	87	85	86	87	103	16
China	26,154	26,023	26,491	27,003	27,889	886
India	4,423	4,605	4,489	4,370	4,849	479
Other Asia	13,577	12,841	12,829	11,315	11,322	7
Brunei	1,100	1,100	1,100	1,100	1,100	0
Indonesia	3,150	2,480	2,440	2,250	2,270	20
Malaysia	3,600	3,600	3,600	2,700	2,700	0
Vietnam	4,400	4,400	4,400	4,400	4,400	0
Others	1,327	1,261	1,289	865	852	-13
Latin America	331,628	330,719	340,481	342,265	343,616	1,351
Argentina	2,389	2,483	2,411	2,838	2,924	86
Brazil	13,435	12,715	11,890	13,242	14,856	1,614
Colombia	1,960	2,036	1,820	2,040	2,074	34
Ecuador	8,273	8,273	8,273	8,273	8,273	0
Venezuela	303,806	303,561	303,468	303,221	303,008	-213
Others	1,765	1,651	12,619	12,651	12,481	-170
Middle East	863,418	865,519	869,612	871,095	871,182	87
IR Iran	208,600	208,600	208,600	208,600	208,600	0
Iraq	145,019	145,019	145,019	145,019	145,019	0
Kuwait	101,500	101,500	101,500	101,500	101,500	0
Oman	5,373	5,373	5,373	4,856	4,905	49
Qatar	25,244	25,244	25,244	25,244	25,244	0
Saudi Arabia	267,073	267,082	267,192	267,192	267,230	38
United Arab Emirates	105,000	107,000	111,000	113,000	113,000	0
Others	5,609	5,701	5,684	5,684	5,684	0
Africa	124,117	123,449	119,099	119,050	119,583	533
Algeria	12,200	12,200	12,200	12,200	12,200	0
Angola	7,783	7,231	2,516	2,550	2,550	0
Congo	1,947	1,811	1,811	1,811	1,811	0
Egypt	3,075	3,075	3,300	3,300	3,300	0
Equatorial Guinea	1,100	1,100	1,100	1,100	1,100	0
Gabon	2,000	2,000	2,000	2,000	2,000	0
Libya	48,363	48,363	48,363	48,363	48,363	0
Nigeria	36,890	36,910	37,050	36,967	37,500	533
Sudans	5,000	5,000	5,000	5,000	5,000	0
Others	5,759	5,759	5,759	5,759	5,759	0
Russia	80,000	80,000	80,000	80,000	80,000	0
Other Eurasia	38,874	38,874	38,874	38,874	38,874	0
Azerbaijan	7,000	7,000	7,000	7,000	7,000	0
Belarus	198	198	198	198	198	0
Kazakhstan	30,000	30,000	30,000	30,000	30,000	0
Turkmenistan	600	600	600	600	600	0
Ukraine	395	395	395	395	395	0
Uzbekistan	594	594	594	594	594	0
Others	87	87	87	87	87	0
Other Europe	914	914	914	914	914	0
Total World	1,553,386	1,544,233	1,558,627	1,563,737	1,569,515	5,778
of which						
OPEC	1,233,498	1,235,146	1,239,303	1,240,973	1,241,331	358
<i>OPEC percentage</i>	79.4	80.0	79.5	79.4	79.1	
Non-OPEC DoC	137,501	137,758	137,861	136,384	136,549	165
DoC	1,370,999	1,372,904	1,377,164	1,377,357	1,377,880	523
Non-DoC	182,387	171,329	181,463	186,380	191,635	5,255

Notes: Figures as at year-end.

1. Data excludes oil sands.

Table 3.2
Active rigs by country

(number)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	989	475	778	973	836	-137
Canada	135	91	149	145	152	7
Chile	1	2	2	2	1	-1
Mexico	49	41	47	47	60	13
United States	804	341	580	779	623	-156
OECD Europe	77	52	61	70	67	-3
Germany	4	0	1	3	2	-1
Italy	5	1	2	4	2	-2
Netherlands	3	2	2	2	1	-1
Norway	17	17	18	17	18	1
Poland	6	3	2	2	2	0
United Kingdom	11	5	8	10	12	2
Others	31	24	28	32	30	-2
OECD Asia Pacific	29	17	23	24	24	0
Australia	25	14	19	20	19	-1
New Zealand	2	1	2	2	2	0
Others	2	2	2	2	3	1
China¹	38	30	41	41	49	8
India	109	81	76	78	77	-1
Other Asia	65	49	68	65	78	13
Indonesia	26	26	32	32	39	7
Malaysia	12	3	7	4	6	2
Pakistan	15	13	15	11	14	3
Others	12	7	14	18	19	1
Latin America	265	78	112	131	114	-17
Argentina	50	29	51	60	57	-3
Bolivia	5	2	4	3	3	0
Brazil	14	9	8	12	14	2
Colombia	33	14	29	35	24	-11
Ecuador	5	5	11	7	9	2
Trinidad & Tobago	3	3	0	1	0	-1
Venezuela	149	12	3	7	3	-4
Others	6	4	6	6	4	-2
Middle East	532	383	406	434	471	37
IR Iran	117	117	117	117	117	0
Iraq	77	30	44	55	62	7
Kuwait	87	85	78	67	89	22
Oman	53	42	46	49	49	0
Qatar	14	8	10	11	11	0
Saudi Arabia	115	59	65	80	80	0
United Arab Emirates	66	40	42	52	62	10
Yemen	1	1	1	1	0	-1
Others	2	1	3	2	1	-1
Africa	173	129	187	242	189	-53
Algeria	42	22	77	132	73	-59
Angola	21	7	9	11	9	-2
Congo	4	5	5	1	0	-1
Egypt	31	17	30	33	33	0
Equatorial Guinea	1	0	3	0	0	0
Gabon	9	5	4	2	4	2
Libya	16	11	14	9	16	7
Nigeria	17	49	23	27	28	1
Others	32	13	22	27	26	-1
Other Europe	14	12	9	13	10	-3
Romania	10	10	4	4	4	0
Others	4	2	5	9	6	-3
Total world^{1,2}	2,291	1,306	1,761	2,071	1,915	-156
of which						
OPEC	700	435	475	549	534	-15
<i>OPEC percentage</i>	<i>30.6</i>	<i>33.3</i>	<i>27.0</i>	<i>26.5</i>	<i>27.9</i>	
Non-OPEC DoC ²	121	91	102	105	116	11
DoC ²	821	526	577	654	650	-4
Non-DoC ^{1,2}	1,470	780	1,184	1,417	1,265	-152

Notes:

Figure as at year-end.

1. Excluding onshore rigs for China.

2. Excluding Russia and Other Eurasia.

Table 3.3
Wells completed in OPEC Members

(number)

	2019	2020	2021	2022	2023	change 23/22
Algeria	265	160	113	149	155	6
Congo	15	9	4	11	20	9
Equatorial Guinea	9	0	2	0	0	0
Gabon	59	23	16	18	25	7
IR Iran	117	105	105	105	105	0
Iraq	190	130	108	221	264	43
Kuwait ¹	379	444	380	448	455	7
Libya	115	93	102	58	114	56
Nigeria	100	81	73	74	93	19
Saudi Arabia ¹	580	466	314	370	418	48
United Arab Emirates	440	320	254	276	346	70
Venezuela	639	23	90	23	22	-1
OPEC	2,908	1,854	1,561	1,753	2,017	264
Total world	67,818	46,305	51,924	60,029	59,701	-328

Notes:

- Figures include share of wells completed from Neutral Zone.

Table 3.4

Crude oil production in OPEC and non-OPEC DoC Members

(1,000 b/d)

OPEC Members	1980	1990	2000	2010	2022	2023	change 23/22
Algeria	1,020	783	796	1,190	1,020	973	-47
Congo	56	156	269	308	262	271	10
Equatorial Guinea	0	0	116	241	81	55	-26
Gabon	175	274	281	241	191	223	33
IR Iran	1,467	3,135	3,661	3,544	2,554	2,859	305
Iraq	2,646	2,113	2,810	2,358	4,453	4,118	-335
Kuwait ¹	1,664	859	1,996	2,312	2,707	2,590	-117
Libya	1,832	1,389	1,347	1,487	981	1,189	207
Nigeria	2,058	1,727	2,054	2,048	1,138	1,187	49
Saudi Arabia ¹	9,901	6,413	8,095	8,166	10,591	9,606	-985
United Arab Emirates	1,702	1,763	2,175	2,324	3,064	2,944	-120
Venezuela	2,165	2,135	2,891	2,854	716	783	67
OPEC	24,685	20,747	26,491	27,072	27,758	26,799	-960
Azerbaijan	243	240	268	981	558	504	-54
Bahrain	48	108	180	182	190	183	-6
Brunei	248	134	174	148	71	67	-3
Kazakhstan	430	433	623	1,383	1,464	1,567	103
Malaysia	290	572	597	519	397	373	-24
Mexico	1,937	2,548	3,012	2,577	1,622	1,653	31
Oman	283	685	891	758	848	815	-33
Russia	10,760	10,100	6,246	9,694	9,756	9,592	-164
Sudans	0	0	179	462	206	200	-6
Non-OPEC DoC	14,238	14,820	12,170	16,705	15,112	14,956	-157
DoC	38,923	35,567	38,661	43,777	42,871	41,754	-1,116

Notes:

Prior to 2020, the crude oil production series for Nigeria includes some blended condensate from lease and gas plants.

1. Figures include share of production from Neutral Zone.

Table 3.5
World crude oil production by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	15,297	14,182	14,119	14,766	15,807	1,041
Canada	1,304	1,199	1,185	1,231	1,225	-6
Chile	3	1	2	2	2	0
Mexico	1,679	1,663	1,665	1,622	1,653	31
United States	12,311	11,318	11,268	11,911	12,927	1,017
OECD Europe	2,775	2,977	2,904	2,724	2,753	28
Denmark	102	71	66	65	58	-6
Norway	1,408	1,699	1,770	1,685	1,794	109
United Kingdom	1,007	931	792	724	645	-78
Others	258	277	276	251	255	4
OECD Asia Pacific	164	163	143	129	106	-23
Australia	136	138	121	110	85	-25
Others	28	25	22	19	21	2
China	3,825	3,889	3,988	4,094	4,181	87
India	623	587	574	563	544	-19
Other Asia	1,815	1,670	1,542	1,431	1,375	-56
Brunei	100	85	83	71	67	-3
Indonesia	664	631	585	539	540	1
Malaysia	506	456	418	397	373	-24
Thailand	126	117	98	79	70	-9
Vietnam	222	194	184	180	173	-7
Others	197	188	175	166	153	-13
Latin America	5,961	5,536	5,575	6,026	6,642	616
Argentina	509	480	513	582	635	53
Brazil	2,788	2,940	2,905	3,022	3,402	380
Colombia	886	781	736	754	777	22
Ecuador	531	479	473	481	475	-6
Venezuela	1,013	569	636	716	783	67
Others	235	287	312	471	570	99
Middle East	24,172	22,043	22,234	25,094	23,809	-1,285
Bahrain	194	196	193	190	183	-6
IR Iran	2,363	1,991	2,392	2,554	2,859	305
Iraq	4,576	3,997	3,971	4,453	4,118	-335
Kuwait¹	2,678	2,438	2,415	2,707	2,590	-117
Oman	841	762	752	848	815	-33
Qatar	595	603	601	606	606	0
Saudi Arabia¹	9,808	9,213	9,125	10,591	9,606	-985
United Arab Emirates	3,058	2,779	2,718	3,064	2,944	-120
Others	59	65	68	81	87	6
Africa	7,133	5,857	6,199	5,863	6,025	162
Algeria	1,023	899	911	1,020	973	-47
Angola	1,373	1,271	1,124	1,137	1,098	-38
Chad	118	106	96	87	79	-8
Congo	329	300	267	262	271	10
Egypt	511	487	445	449	453	4
Equatorial Guinea	110	114	93	81	55	-26
Gabon	218	207	181	191	223	33
Ghana	198	183	151	142	132	-10
Libya	1,091	389	1,207	981	1,189	207
Nigeria	1,737	1,493	1,323	1,138	1,187	49
Sudans	237	230	221	206	200	-6
Others	189	177	180	169	164	-5
Russia	10,390	9,409	9,619	9,756	9,592	-164
Other Eurasia	2,542	2,353	2,345	2,268	2,308	40
Azerbaijan	678	611	590	558	504	-54
Kazakhstan	1,587	1,470	1,489	1,464	1,567	103
Others	276	271	266	245	236	-9
Other Europe	119	114	109	103	98	-5
Total world	74,814	68,779	69,353	72,818	73,242	424
of which						
OPEC	28,003	24,388	25,239	27,758	26,799	-960
OPEC percentage	37.4	35.5	36.4	38.1	36.6	
Non-OPEC DoC	16,212	14,883	15,030	15,112	14,956	-157
DoC	44,215	39,270	40,269	42,871	41,754	-1,116
Non-DoC	30,598	29,509	29,084	29,947	31,487	1,540

Notes:

Prior to 2020, the crude oil production series for Nigeria includes some blended condensate from lease and gas plants.

1. Figures include share of production from Neutral Zone.

Table 3.6
Non-DoC liquids production and DoC NGLs
(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	23,950	22,936	23,507	24,903	26,598	1,695
Canada	5,413	5,167	5,443	5,611	5,692	81
Chile	11	9	9	9	10	1
United States	18,526	17,760	18,055	19,283	20,896	1,613
OECD Europe	3,740	3,926	3,800	3,588	3,652	64
Denmark	107	78	72	71	65	-6
Norway	1,736	2,009	2,031	1,893	2,018	125
United Kingdom	1,146	1,066	910	861	774	-86
Others	751	773	787	763	795	32
OECD Asia Pacific	523	523	512	477	447	-30
Australia	455	452	441	410	379	-31
Others	68	71	71	67	68	1
China	4,054	4,140	4,274	4,424	4,516	93
India	833	782	779	774	772	-1
Other Asia	1,930	1,805	1,745	1,641	1,613	-28
Indonesia	917	882	860	836	839	2
Thailand	514	460	442	374	368	-6
Vietnam	251	219	212	207	201	-6
Others	248	245	232	224	206	-18
Latin America	6,086	6,026	5,961	6,340	6,960	621
Argentina	708	646	694	769	818	49
Brazil	3,557	3,673	3,590	3,715	4,172	457
Colombia	911	805	761	780	803	22
Ecuador	539	484	478	486	480	-6
Others	371	417	437	589	687	98
Middle East	1,969	1,987	2,005	2,016	2,024	8
Qatar	1,897	1,908	1,924	1,921	1,923	1
Others	72	79	81	94	101	7
Africa	2,704	2,528	2,297	2,279	2,221	-58
Angola	1,417	1,316	1,163	1,170	1,132	-38
Chad	118	106	96	87	79	-8
Egypt	655	619	592	600	596	-3
Ghana	198	185	157	152	146	-6
South Africa	122	119	104	97	98	1
Others	195	183	185	173	169	-4
Other Eurasia	396	377	374	359	362	3
Other Europe	123	118	113	107	101	-6
Non-DoC production	46,309	45,148	45,366	46,907	49,268	2,361
Processing gains	2,373	2,155	2,287	2,398	2,470	72
Non-DoC liquids production	48,682	47,304	47,653	49,305	51,738	2,433
OPEC(NGL ¹ + NCO ²)	5,171	5,121	5,245	5,361	5,407	46
Non-OPEC DoC (NGL ¹ + NCO ²)	2,184	2,271	2,392	2,567	2,769	202
DoC (NGL¹ + NCO²)	7,355	7,392	7,638	7,928	8,176	248
Non-DoC liquids production & DoC (NGL¹+NCO²)	56,037	54,696	55,291	57,233	59,914	2,681

Notes:

1. NGL refers to natural gas liquids.
2. NCO refers to non-conventional oil.

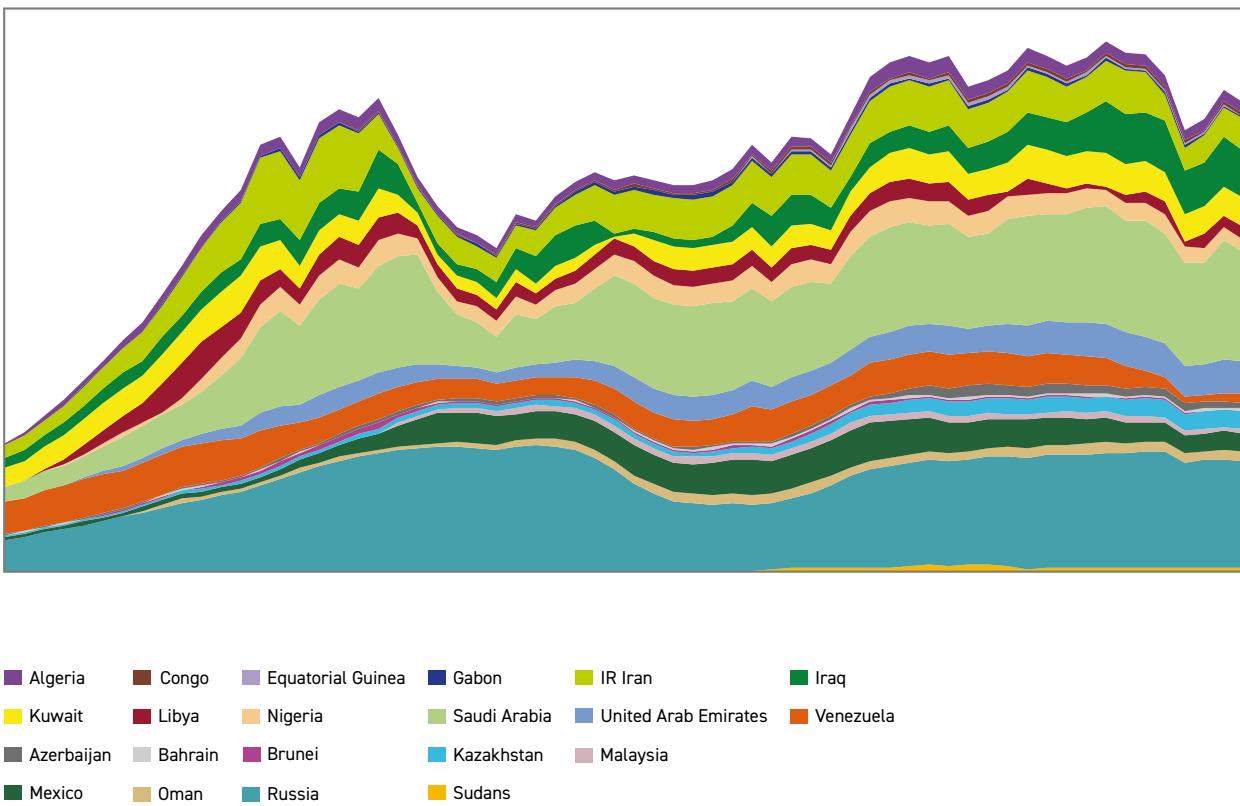
Table 3.7
World biofuel production

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	1,217	1,099	1,189	1,255	1,358	103
Canada	41	37	37	37	40	3
United States	1,176	1,062	1,152	1,218	1,318	100
OECD Europe	374	360	366	371	387	17
France	65	55	48	51	48	-3
Germany	79	78	78	82	83	1
Italy	25	27	28	29	30	1
Netherlands	43	44	51	49	55	6
Poland	24	24	24	26	28	2
Spain	51	42	44	43	37	-6
United Kingdom	13	15	19	22	23	1
Others	73	75	74	69	84	15
OECD Asia Pacific	19	20	20	21	21	0
China	71	79	92	105	109	4
India	36	40	61	77	85	8
Other Asia	262	262	287	316	329	13
Indonesia	145	148	177	204	210	6
Malaysia	28	18	19	23	31	8
Thailand	56	57	52	49	53	4
Others	33	39	39	40	35	-5
Latin America	762	706	683	698	784	86
Argentina	61	37	51	57	53	-4
Brazil	666	634	594	602	691	89
Colombia	18	17	18	19	19	0
Others	17	18	20	20	21	1
Others	9	10	9	9	9	0
Total world	2,750	2,575	2,709	2,851	3,082	231

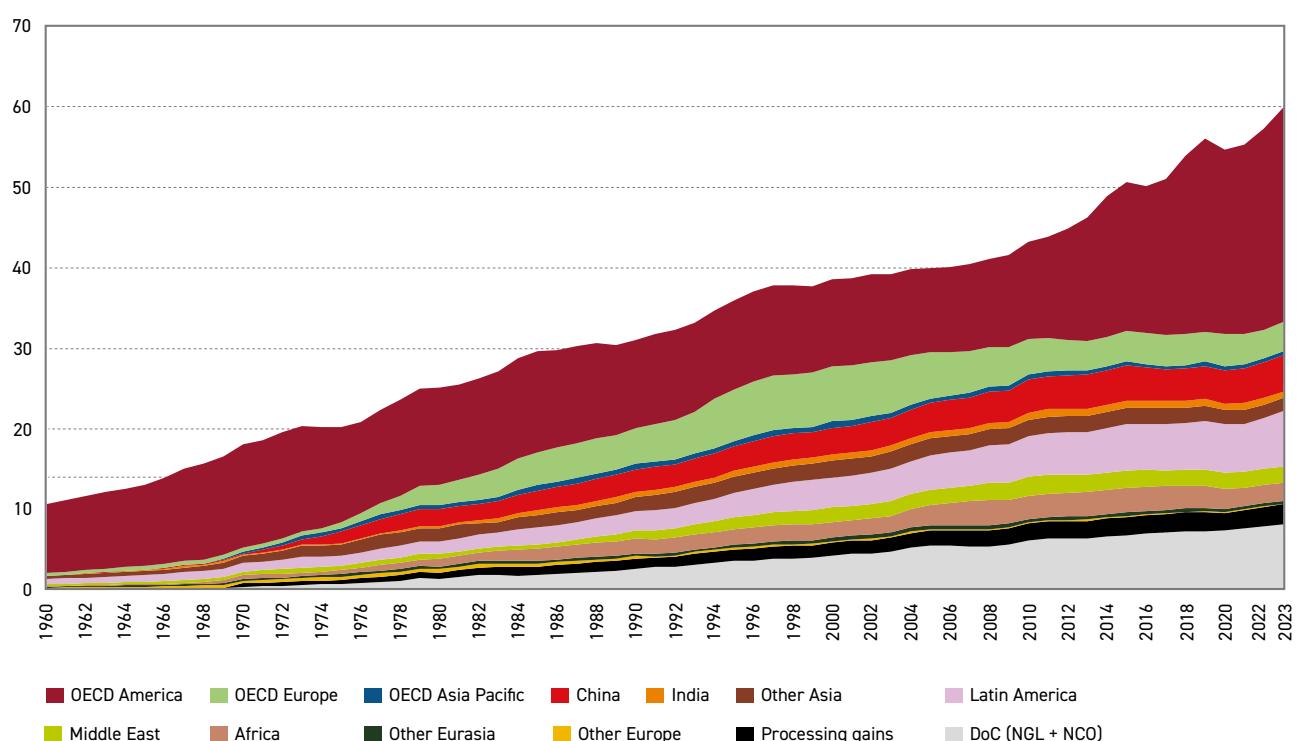
Graph 3.1
Crude oil production in OPEC and non-OPEC DoC Members

(m b/d)



Graph 3.2
Non-DoC liquids production and DoC NGLs

(m b/d)



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SECTION 4

Oil data: downstream

Table 4.1

Refinery capacity¹ in OPEC Members by company and location

(1,000 b/d)

	Location	2019	2020	2021	2022	2023	change 23/22
Algeria⁴		657	677	677	677	677	0
Sonatrach	Skikda	355	355	355	355	355	0
	Skikda (Condensate)	122	122	122	122	122	0
	Arzew	87	87	87	87	87	0
	Algiers	58	78	78	78	78	0
	Hassi Messaoud	22	22	22	22	22	0
	Adrar	13	13	13	13	13	0
Congo		21	21	21	21	21	0
Societe Nationale des Petroles du Congo	Pointe Noire	21	21	21	21	21	0
Equatorial Guinea²		na	na	na	na	na	0
Gabon		25	25	25	25	25	0
Total and Shell	Port Gentil	25	25	25	25	25	0
IR Iran⁴		2,201	2,201	2,202	2,237	2,237	0
NIOC	Abadan	399	399	374	374	374	0
	Isfahan	375	375	375	375	375	0
	Bandar Abbas	344	344	344	344	344	0
	Tehran	245	245	245	245	245	0
	Arak	242	242	242	242	242	0
	Tabriz	110	110	110	110	110	0
	Shiraz	56	56	82	82	82	0
	Kermanshah	22	22	22	22	22	0
	Lavan	48	48	48	48	48	0
	Bandar Abbas	240	240	240	240	240	0
	Qeshm	120	120	120	155	155	0
Iraq		743	758	976	1,116	1,266	150
INOC	Baiji	38	53	140	140	290	150
	Basrah	210	210	210	210	210	0
	Daura	140	140	140	140	140	0
	Kirkuk	30	30	56	56	56	0
	Sainia	30	30	30	30	30	0
	Najaf	30	30	30	30	30	0
	Samawa	30	30	30	30	30	0
	Nasiria	30	30	30	30	30	0
	Missan	30	30	40	40	40	0
	Diwania	20	20	20	20	20	0
	Haditha	16	16	16	16	16	0
	Qaiarah	14	14	14	14	14	0
	Kask	7	7	20	20	20	0
	Kar	80	80	160	160	160	0
	Bazyan	38	38	40	40	40	0
	Karbala	na	na	na	140	140	0
Kuwait		736	800	800	1,005	1,415	410
KNPC	Mina Al-Ahmadi	466	346	346	346	346	0
	Mina Abdullah	270	454	454	454	454	0
	Al-Zour	na	na	na	205	615	410
Libya		634	634	634	634	634	0
NOC	Ras Lanuf	220	220	220	220	220	0
	Zawia	120	120	120	120	120	0
	Tobruk	20	20	20	20	20	0
	Marsa El-Brega	10	10	10	10	10	0
	Sarir	10	10	10	10	10	0
	Zueitina (Condensate)	68	68	68	68	68	0
	Briga (Condensate)	155	155	155	155	155	0
	Mellita (Condensate)	31	31	31	31	31	0

Table 4.1

Refinery capacity¹ in OPEC Members by company and location

(1,000 b/d)

	Location	2019	2020	2021	2022	2023	change 23/22
Nigeria		446	462	472	472	1,122	650
PHRC	New Port Hartcourt	150	150	150	150	150	0
WRPC	Warri	125	125	125	125	125	0
KRPC	Kaduna	110	110	110	110	110	0
PHRC	Port Hartcourt	60	60	60	60	60	0
Edo Refinery and Petrochemicals	Benin	1	1	1	1	1	0
Niger Delta Refining	Ogbele	na	11	11	11	11	0
Waltersmith Petroman Oil Ltd	Ibigwe	na	5	5	5	5	0
Omsa, Pillar, Astek (Opac)	Kwale	na	na	10	10	10	0
Dangote Group	Olokola, Lagos, Lekki	na	na	na	na	650	650
Saudi Arabia⁴		2,896	2,927	3,327	3,291	3,291	0
Saudi Aramco	Ras Tanura	550	550	550	550	550	0
	Yanbu	245	252	252	220	220	0
	Riyadh	126	130	130	126	126	0
Saudi Aramco & Mobil	Samref	400	400	400	400	400	0
Saudi Aramco & Petrola	Rabigh	400	400	400	400	400	0
Saudi Aramco & Total	Satorp	440	460	460	460	460	0
Saudi Aramco	Yasref	430	430	430	430	430	0
Saudi Aramco & Shell	Sasref	305	305	305	305	305	0
Saudi Aramco	Jazan	na	na	400	400	400	0
United Arab Emirates⁴		1,122	1,272	1,272	1,227	1,227	0
ADNOC	Al-Ruwais (East and West)	817	817	817	817	817	0
Emirate Oil	Jebel Ali	140	210	210	210	210	0
ADNOC	Umm Al-Narr	85	85	85	na	na	
VTTI Fujairah Terminals Limited FTL FZC - 1 Fujairah		80	80	80	120	120	0
VTTI Fujairah Terminals Limited FTL FZC - 2 Fujairah		na	80	80	80	80	0
Venezuela		2,276	2,276	2,276	2,276	2,276	0
PDVSA	Amuay	645	645	645	645	645	0
	Cardon	310	310	310	310	310	0
	Puerto La Cruz	187	187	187	187	187	0
	El Palito	140	140	140	140	140	0
	San Roque	5	5	5	5	5	0
	Bajo Grande	16	16	16	16	16	0
	Petromonagas ³	248	248	248	248	248	0
	Petrocedeno ³	158	158	158	158	158	0
	Petrozuata ³	284	284	284	284	284	0
	Anzoátegui ³	160	160	160	160	160	0
	Petrozuata ³	122	122	122	122	122	0
Total OPEC		11,757	12,053	12,681	12,980	14,190	1,210

Notes:

1. All figures refer to the designated, or nameplate refining capacity.
2. Equatorial Guinea does not have refining capacities.
3. Upgrader refinery capacity.
4. Includes condensate splitters.

Oil data: downstream

Table 4.2

World refinery capacity¹ by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	22,294	21,495	21,500	21,504	21,679	175
Canada	2,046	1,910	1,910	1,926	1,926	0
Chile	220	220	220	220	220	0
Mexico	1,615	1,615	1,615	1,615	1,615	0
United States ²	18,413	17,750	17,755	17,743	17,918	175
OECD Europe	14,568	14,453	13,983	13,983	13,959	-24
Belgium	776	776	669	669	644	-24
France	1,252	1,252	1,151	1,151	1,151	0
Germany	2,051	2,051	2,051	2,051	2,051	0
Italy	1,900	1,900	1,900	1,900	1,900	0
Netherlands	1,342	1,292	1,292	1,292	1,292	0
Poland	581	581	581	581	581	0
Spain	1,562	1,562	1,562	1,562	1,562	0
Turkey	784	784	784	784	784	0
United Kingdom	1,238	1,173	1,173	1,173	1,173	0
Others ²	3,081	3,081	2,820	2,820	2,820	0
OECD Asia Pacific	7,970	7,855	7,620	7,364	7,237	-128
Australia	462	462	227	227	227	0
Japan	3,597	3,482	3,482	3,362	3,235	-128
New Zealand	136	136	136	0	0	0
South Korea ²	3,518	3,518	3,518	3,518	3,518	0
Others	257	257	257	257	257	0
China	16,059	16,074	16,318	16,934	16,810	-124
India	4,796	4,796	4,836	4,836	4,836	0
Other Asia	7,654	7,669	7,468	7,468	7,508	40
Indonesia	1,272	1,272	1,272	1,272	1,272	0
Thailand	1,235	1,250	1,250	1,250	1,250	0
Singapore	1,684	1,684	1,453	1,453	1,453	0
Malaysia	925	925	955	955	955	0
Philippines	276	276	276	276	276	0
Pakistan	368	368	368	368	368	0
Vietnam	367	367	367	367	367	0
Others ²	1,528	1,528	1,528	1,528	1,568	40
Latin America	6,618	6,648	6,648	6,681	6,681	0
Argentina	631	661	661	661	661	0
Brazil	2,289	2,289	2,289	2,289	2,289	0
Colombia	415	415	415	415	415	0
Ecuador	188	188	188	188	188	0
Venezuela³	2,276	2,276	2,276	2,276	2,276	0
Others ²	820	820	820	853	853	0
Middle East	8,700	8,965	9,495	9,865	10,655	790
I R Iran ²	2,201	2,201	2,202	2,237	2,237	0
Iraq	743	758	976	1,116	1,266	150
Kuwait	736	800	800	1,005	1,415	410
Qatar ²	430	430	430	430	430	0
Saudi Arabia²	2,896	2,927	3,327	3,291	3,291	0
United Arab Emirates²	1,122	1,272	1,272	1,227	1,227	0
Others ²	572	577	488	559	789	230
Africa	3,657	3,642	3,503	3,375	4,105	730
Algeria²	657	677	677	677	677	0
Angola	80	80	80	80	80	0
Congo	21	21	21	21	21	0
Egypt	833	833	833	833	893	60
Gabon	25	25	25	25	25	0
Libya	634	634	634	634	634	0
Nigeria	446	462	472	472	1,122	650
South Africa	520	520	345	210	210	0
Others ²	442	391	416	423	443	20
Russia	7,030	7,030	7,105	7,105	7,105	0
Other Eurasia	1,779	1,779	1,779	1,539	1,539	0
Azerbaijan	120	120	120	120	120	0
Belarus	505	505	505	505	505	0
Kazakhstan	425	425	425	425	425	0
Turkmenistan	237	237	237	237	237	0
Ukraine	240	240	240	0	0	0
Others	252	252	252	252	252	0
Other Europe	966	966	811	811	811	0
Bulgaria	195	195	195	195	195	0
Croatia	90	90	90	90	90	0
Romania	256	256	256	256	256	0
Others	426	426	270	270	270	0
Total world	102,092	101,374	101,066	101,465	102,924	1,459
<i>of which</i>						
OPEC	11,757	12,053	12,681	12,980	14,190	1,210
OPEC percentage	11.5	11.9	12.5	12.8	13.8	
OECD	44,832	43,803	43,103	42,851	42,875	23

Notes:

1. All figures refer to the designated or nameplate refining capacity.
2. Includes condensate splitters.
3. Includes upgrader capacity.

Table 4.3
World refinery throughput by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	20,108	17,563	18,733	19,777	19,854	77
Canada	2,211	1,990	2,073	2,200	2,260	60
Chile	252	205	225	208	209	1
Mexico	658	643	779	886	882	-4
United States	16,987	14,725	15,655	16,483	16,503	20
OECD Europe	13,250	11,691	12,019	12,598	12,454	-144
Belgium	712	553	620	580	622	41
France	1,089	784	747	871	961	90
Germany	1,937	1,847	1,859	1,956	1,756	-199
Italy	1,467	1,228	1,357	1,465	1,422	-43
Netherlands	1,261	1,149	1,206	1,212	1,265	54
Poland	583	547	538	579	546	-32
Spain	1,315	1,117	1,168	1,261	1,235	-26
Turkey	720	682	730	790	779	-11
United Kingdom	1,215	990	1,002	1,135	1,055	-80
Others	2,951	2,795	2,792	2,749	2,813	64
OECD Asia Pacific	7,421	6,490	6,396	6,729	6,555	-174
Australia	500	416	328	264	264	0
Japan	3,209	2,640	2,616	2,822	2,678	-144
New Zealand	125	96	92	24	0	-24
South Korea	3,334	3,109	3,120	3,341	3,336	-5
Others	253	229	240	277	277	0
China	13,015	13,484	14,073	13,486	14,777	1,291
India	5,043	4,421	4,725	4,997	5,177	180
Other Asia	5,503	5,173	5,165	5,364	5,444	79
Indonesia	986	962	927	952	974	23
Thailand	1,025	998	995	1,022	1,049	26
Singapore	1,175	1,090	1,128	1,030	1,007	-22
Malaysia	587	520	451	569	612	43
Philippines	168	114	84	122	140	18
Pakistan	206	201	206	203	212	9
Vietnam	265	289	288	321	325	4
Others	1,092	1,000	1,086	1,146	1,126	-20
Latin America	3,973	3,346	3,652	3,779	3,820	40
Argentina	473	442	466	484	491	7
Brazil	1,678	1,717	1,785	1,889	1,925	36
Colombia	408	367	350	353	364	11
Ecuador	143	131	143	146	151	5
Venezuela	818	345	521	550	466	-84
Others	453	345	387	357	422	66
Middle East	7,742	6,900	7,549	8,077	8,396	319
IR Iran	1,718	1,587	1,691	1,752	1,790	37
Iraq	639	543	623	702	739	37
Kuwait	660	575	686	842	1,035	193
Qatar	454	462	315	317	327	10
Saudi Arabia	2,484	2,173	2,475	2,702	2,514	-188
United Arab Emirates	1,037	936	1,063	1,046	1,104	58
Others	750	623	696	716	886	170
Africa	2,205	2,071	2,025	1,991	1,965	-26
Algeria	645	649	643	669	671	2
Angola	54	47	40	44	36	-8
Congo	17	16	17	18	19	1
Egypt	559	600	594	623	530	-93
Gabon	14	17	19	20	13	-6
Libya	83	86	134	114	87	-27
Nigeria	9	1	5	5	27	22
South Africa	542	414	325	269	327	58
Others	282	243	248	230	254	24
Russia	5,701	5,387	5,612	5,462	5,500	38
Other Eurasia	1,256	1,156	1,298	1,175	1,156	-18
Azerbaijan	130	123	143	131	131	1
Belarus	360	328	393	378	342	-36
Kazakhstan	386	315	349	364	388	24
Turkmenistan	172	172	173	176	178	2
Ukraine	85	92	94	16	0	-16
Others	123	126	146	111	118	7
Other Europe	547	474	462	525	489	-35
Bulgaria	139	108	94	153	136	-16
Croatia	54	53	50	45	46	1
Romania	250	211	206	240	212	-29
Others	105	103	112	87	96	9
Total world	85,766	78,157	81,709	83,960	85,587	1,627
<i>of which</i>						
OPEC	8,124	6,929	7,876	8,419	8,466	47
<i>OPEC percentage</i>	9.5	8.9	9.6	10.0	9.9	
OECD	40,780	35,744	37,148	39,104	38,863	-240

Notes:

Includes throughput of crude oil, NGLs, and other hydrocarbons, as well as upgrader intake in some countries.

Oil data: downstream

Table 4.4
Output of petroleum products in OPEC Members

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
Algeria	660	614	621	644	657	13
Gasoline	83	67	74	74	83	8
Kerosene	33	22	19	22	18	-4
Distillates	216	205	211	211	224	12
Residuals	110	112	104	110	109	-1
Others	217	208	214	226	224	-2
Congo	16	16	16	17	18	1
Gasoline	5	5	5	5	5	0
Kerosene	2	1	1	2	2	0
Distillates	3	3	3	3	4	0
Residuals	6	6	6	6	7	0
Others	1	1	1	1	1	0
Equatorial Guinea	na	na	na	na	na	
Gabon	11	16	19	20	21	1
Gasoline	2	1	2	2	2	0
Kerosene	1	1	2	2	2	0
Distillates	4	5	6	6	6	0
Residuals	5	7	8	8	8	0
Others	1	2	2	2	3	0
IR Iran	1,705	1,577	1,673	1,737	1,775	38
Gasoline	407	383	405	424	439	15
Kerosene	119	67	95	100	104	3
Distillates	550	521	547	570	589	19
Residuals	385	373	384	373	366	-7
Others	243	233	242	269	277	8
Iraq	747	587	740	834	928	94
Gasoline	95	48	44	63	79	16
Kerosene	49	38	40	34	37	3
Distillates	118	102	118	136	153	18
Residuals	329	279	335	377	410	33
Others	156	121	203	224	249	24
Kuwait	886	780	845	983	1,244	261
Gasoline	61	51	61	64	76	12
Kerosene	136	115	148	199	259	60
Distillates	168	181	190	236	293	57
Residuals	147	73	90	92	192	100
Others	374	361	356	393	424	32
Libya	76	80	126	148	112	-36
Gasoline	3	3	6	7	6	-2
Kerosene	4	4	7	9	7	-2
Distillates	10	11	19	24	20	-5
Residuals	10	11	18	23	17	-6
Others	49	51	75	84	63	-21

Table 4.4
Output of petroleum products in OPEC Members
(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
Nigeria	8	1	5	6	17	11
Gasoline	2	0	0	0	0	0
Kerosene	1	0	0	1	2	1
Distillates	2	0	2	2	5	3
Residuals	2	0	2	2	7	5
Others	0	0	1	1	3	2
Saudi Arabia	2,586	2,177	2,548	2,768	2,529	-239
Gasoline	548	454	544	630	615	-16
Kerosene	232	145	126	153	157	4
Distillates	1,057	985	1,115	1,209	1,092	-117
Residuals	424	345	422	481	440	-41
Others	325	248	341	294	225	-69
United Arab Emirates	1,005	925	1,041	953	974	21
Gasoline	96	90	98	93	95	2
Kerosene	283	244	293	263	270	7
Distillates	227	208	228	205	212	7
Residuals	45	41	46	40	39	-1
Others	354	341	375	352	357	5
Venezuela	743	339	270	266	275	9
Gasoline	186	57	57	83	90	7
Kerosene	23	7	9	15	14	0
Distillates	115	41	48	35	37	2
Residuals	238	123	95	112	105	-7
Others	182	109	61	21	28	7
OPEC	8,445	7,113	7,904	8,375	8,549	174
Gasoline	1,500	1,176	1,315	1,466	1,510	45
Kerosene	885	646	742	800	874	74
Distillates	2,470	2,265	2,489	2,639	2,636	-3
Residuals	1,704	1,376	1,514	1,631	1,706	74
Others	1,908	1,681	1,879	1,876	1,862	-14

Notes:

Data may include products from GTLs and condensate units.

Oil data: downstream

Table 4.5
World output of petroleum products by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	23,525	20,282	21,629	22,579	22,707	128
Canada	2,190	1,962	2,031	2,140	2,210	69
Chile	244	193	202	180	221	40
Mexico	660	638	754	865	844	-21
United States	20,432	17,489	18,642	19,393	19,433	40
OECD Europe	13,861	12,173	12,542	13,091	12,960	-131
Belgium	734	579	646	600	645	44
France	1,121	805	769	892	991	99
Germany	2,076	1,973	1,981	2,095	1,883	-212
Italy	1,521	1,268	1,401	1,519	1,479	-39
Netherlands	1,329	1,183	1,256	1,237	1,303	66
Poland	600	564	555	594	556	-38
Spain	1,356	1,150	1,215	1,305	1,279	-26
Turkey	772	732	784	851	839	-12
United Kingdom	1,262	1,025	1,033	1,157	1,080	-77
Others	3,090	2,894	2,901	2,841	2,905	64
OECD Asia Pacific	7,636	6,652	6,594	6,914	6,737	-176
Australia	507	424	333	268	263	-5
Japan	3,279	2,726	2,730	2,924	2,764	-160
New Zealand	126	96	92	24	0	-24
South Korea	3,397	3,130	3,149	3,363	3,376	13
Others	327	276	289	334	334	0
China	12,501	12,952	13,537	13,013	14,304	1,291
India	5,665	5,120	5,426	5,690	5,962	272
Other Asia	7,598	7,333	7,099	7,298	7,469	171
Indonesia	1,024	1,049	927	952	974	22
Thailand	1,371	1,418	1,295	1,316	1,368	52
Singapore	1,236	1,150	1,192	1,090	1,068	-22
Malaysia	574	512	447	566	611	45
Philippines	163	112	85	125	146	20
Pakistan	196	196	201	198	206	8
Vietnam	252	277	276	308	312	4
Others	2,781	2,619	2,676	2,743	2,784	41
Latin America	4,374	3,618	3,642	3,743	3,883	140
Argentina	521	487	520	541	554	14
Brazil	1,787	1,839	1,903	2,017	2,152	135
Colombia	329	296	285	288	299	10
Ecuador	143	130	144	149	155	6
Venezuela	743	339	270	266	275	9
Others	851	528	520	483	449	-34
Middle East	8,036	7,092	7,820	8,292	8,575	283
IR Iran	1,705	1,577	1,673	1,737	1,775	38
Iraq	747	587	740	834	928	94
Kuwait	886	780	845	983	1,244	261
Qatar	350	359	248	250	259	9
Saudi Arabia	2,586	2,177	2,548	2,768	2,529	-239
United Arab Emirates	1,005	925	1,041	953	974	21
Others	756	686	725	767	865	98
Africa	2,087	1,912	1,897	1,879	1,884	6
Algeria	660	614	621	644	657	13
Angola	55	44	40	48	50	1
Congo	16	16	16	17	18	1
Egypt	570	596	587	563	529	-34
Gabon	11	16	19	20	21	1
Libya	76	80	126	148	112	-36
Nigeria	8	1	5	6	17	11
South Africa	461	326	277	236	294	58
Others	230	218	207	196	187	-10
Russia	6,257	5,912	6,160	5,985	6,021	36
Other Eurasia	1,412	1,354	1,482	1,332	1,298	-34
Azerbaijan	123	114	135	128	132	4
Belarus	349	329	390	376	344	-32
Kazakhstan	426	402	429	439	442	3
Turkmenistan	174	173	175	177	180	2
Ukraine	86	93	95	15	0	-15
Others	255	242	259	195	199	4
Other Europe	939	838	821	823	804	-19
Bulgaria	149	109	95	156	139	-17
Croatia	58	54	52	47	51	5
Romania	281	254	239	261	242	-19
Others	451	421	436	360	372	13
Total world	93,892	85,238	88,649	90,639	92,605	1,966
<i>of which</i>						
OPEC	8,445	7,113	7,904	8,375	8,549	174
<i>OPEC percentage</i>	9.0	8.3	8.9	9.2	9.2	
OECD	45,022	39,107	40,765	42,584	42,405	-179

Notes:

Data may exclude products from GTL and condensate units.

Table 4.6

Oil demand by main petroleum product in OPEC Members

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
Algeria	430	383	418	431	472	41
Gasoline	85	73	74	72	78	6
Kerosene	14	7	7	11	15	4
Distillates	229	201	212	219	225	6
Residuals	3	4	4	3	5	2
Others	101	99	122	126	149	23
Congo	9	7	7	8	8	0
Gasoline	2	2	2	2	2	0
Kerosene	1	0	0	0	0	0
Distillates	4	3	3	3	4	0
Residuals	0	0	0	0	0	0
Others	2	2	2	2	2	0
Equatorial Guinea	5	5	5	5	5	1
Gasoline	2	1	2	2	2	0
Kerosene	1	1	1	1	1	0
Distillates	2	2	2	2	2	0
Residuals	0	0	0	0	0	0
Others	0	0	0	0	0	0
Gabon	48	42	45	45	46	1
Gasoline	7	6	6	6	7	0
Kerosene	3	3	3	3	3	0
Distillates	35	29	31	31	31	0
Residuals	0	0	0	0	0	0
Others	2	4	5	5	5	0
IR Iran	1,838	1,692	1,777	1,793	1,840	47
Gasoline	590	550	575	574	598	23
Kerosene	98	52	61	67	70	3
Distillates	511	472	491	508	510	2
Residuals	258	252	255	218	226	8
Others	380	366	396	425	436	11
Iraq	716	550	621	828	934	106
Gasoline	146	119	159	185	191	6
Kerosene	41	40	34	38	36	-2
Distillates	152	131	145	166	168	2
Residuals	253	130	189	214	258	44
Others	124	129	94	225	280	56

Oil data: downstream

Table 4.6
Oil demand by main petroleum product in OPEC Members (1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
Kuwait	460	461	462	469	457	-12
Gasoline	79	61	75	82	86	4
Kerosene	23	11	12	19	21	2
Distillates	55	48	56	60	54	-7
Residuals	103	60	103	99	101	2
Others	200	281	216	208	195	-12
Libya	214	183	186	192	200	8
Gasoline	83	91	91	95	98	3
Kerosene	4	3	3	3	3	0
Distillates	94	61	63	65	68	3
Residuals	22	18	19	19	22	2
Others	11	10	11	10	10	0
Nigeria	470	466	495	518	484	-33
Gasoline	355	350	389	420	349	-71
Kerosene	23	15	17	15	13	-2
Distillates	89	94	81	71	83	12
Residuals	1	1	2	3	3	0
Others	2	6	6	10	36	27
Saudi Arabia	3,139	2,927	2,966	3,172	3,275	103
Gasoline	550	455	480	500	509	9
Kerosene	103	44	47	72	95	24
Distillates	528	492	503	574	609	35
Residuals	540	600	568	608	632	24
Others	1,419	1,338	1,367	1,418	1,429	11
United Arab Emirates	899	828	916	958	1,022	64
Gasoline	215	200	220	234	249	15
Kerosene	168	142	166	173	188	15
Distillates	129	115	130	138	148	10
Residuals	329	323	340	348	354	6
Others	58	47	60	65	82	18
Venezuela	367	188	232	272	336	64
Gasoline	155	61	65	84	88	5
Kerosene	6	3	3	11	15	3
Distillates	113	39	43	51	53	2
Residuals	47	56	65	71	116	45
Others	47	29	56	56	64	8
OPEC	8,595	7,732	8,129	8,690	9,080	389
Gasoline	2,268	1,969	2,139	2,257	2,258	1
Kerosene	485	320	353	414	460	47
Distillates	1,940	1,688	1,759	1,888	1,955	66
Residuals	1,555	1,445	1,544	1,584	1,718	134
Others	2,346	2,310	2,334	2,547	2,689	142

Table 4.7
World oil demand by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD America	25,289	22,206	24,027	24,724	24,957	233
Canada	2,558	2,201	2,283	2,410	2,454	43
Chile	362	331	361	406	405	-1
Mexico	1,966	1,626	1,631	1,747	1,737	-11
United States	20,403	18,049	19,753	20,160	20,362	201
OECD Europe	14,333	12,425	13,092	13,551	13,448	-103
Belgium	644	562	624	605	585	-20
France	1,691	1,425	1,538	1,548	1,554	6
Germany	2,355	2,148	2,134	2,175	2,052	-122
Italy	1,255	1,033	1,160	1,261	1,246	-16
Netherlands	901	859	853	843	871	28
Poland	698	660	698	724	722	-2
Spain	1,328	1,088	1,192	1,289	1,269	-20
Turkey	987	921	974	1,013	1,077	64
United Kingdom	1,578	1,222	1,256	1,376	1,396	20
Others	2,895	2,507	2,664	2,717	2,675	-42
OECD Asia Pacific	7,895	7,130	7,318	7,308	7,246	-63
Australia	1,151	990	1,013	1,064	1,123	58
Japan	3,733	3,335	3,394	3,336	3,289	-47
New Zealand	181	150	147	151	154	3
South Korea	2,596	2,448	2,555	2,527	2,452	-75
Others	234	205	210	231	228	-3
China	14,002	14,269	15,471	15,047	16,360	1,313
India	4,994	4,510	4,772	5,137	5,342	205
Other Asia	9,060	8,131	8,667	9,072	9,277	205
Indonesia	1,856	1,622	1,786	1,922	1,997	74
Malaysia	786	680	772	799	813	14
Pakistan	470	425	469	491	482	-9
Philippines	449	378	454	489	529	40
Singapore	1,410	1,339	1,376	1,411	1,443	32
Thailand	1,456	1,330	1,347	1,458	1,483	26
Vietnam	454	407	431	499	523	25
Others	2,179	1,949	2,032	2,002	2,006	4
Latin America	6,594	5,900	6,246	6,435	6,690	254
Argentina	709	597	683	724	734	10
Brazil	3,236	3,071	3,207	3,245	3,346	101
Colombia	348	292	341	368	384	17
Ecuador	271	225	235	247	259	12
Venezuela	367	188	232	272	336	64
Others	1,664	1,527	1,548	1,580	1,631	51
Middle East	8,201	7,445	7,794	8,303	8,634	331
IR Iran	1,838	1,692	1,777	1,793	1,840	47
Iraq	716	550	621	828	934	106
Kuwait	460	461	462	469	457	-12
Qatar	342	292	321	344	370	26
Saudi Arabia	3,139	2,927	2,966	3,172	3,275	103
Syria	127	123	124	127	123	-4
United Arab Emirates	899	828	916	958	1,022	64
Others	680	572	607	614	614	0
Africa	4,435	4,078	4,223	4,401	4,460	59
Algeria	430	383	418	431	472	41
Angola	175	146	144	152	172	20
Congo	9	7	7	8	8	0
Egypt	834	760	786	862	851	-11
Equatorial Guinea	5	5	5	5	5	1
Gabon	48	42	45	45	46	1
Libya	214	183	186	192	200	8
Nigeria	470	466	495	518	484	-33
South Africa	654	595	622	623	637	15
Tunisia	113	87	84	93	81	-13
Others	1,485	1,405	1,432	1,472	1,502	30
Russia	3,568	3,387	3,615	3,752	3,841	89
Other Eurasia	1,192	1,074	1,212	1,150	1,174	24
Azerbaijan	123	106	107	109	114	5
Belarus	141	127	188	180	180	0
Kazakhstan	293	285	292	296	299	2
Turkmenistan	161	150	188	192	198	7
Ukraine	286	231	250	184	188	4
Others	187	176	185	190	195	5
Other Europe	764	697	754	775	785	10
Bulgaria	124	118	128	133	131	-2
Croatia	113	106	117	119	120	1
Romania	202	188	202	210	215	5
Serbia	104	93	101	101	105	5
Others	221	192	205	212	213	1
Total world	100,328	91,252	97,191	99,655	102,212	2,557
<i>of which</i>						
OPEC	8,595	7,732	8,129	8,690	9,080	389
<i>OPEC percentage</i>	8.6	8.5	8.4	8.7	8.9	
OECD	47,516	41,761	44,438	45,583	45,650	67

Oil data: downstream

Table 4.8

World oil demand by main petroleum product and region

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	25,289	22,206	24,027	24,724	24,957	233
Gasoline	11,065	9,453	10,267	10,464	10,586	122
Kerosene	2,049	1,243	1,563	1,836	1,953	117
Distillates	5,291	4,782	5,107	5,279	5,234	-45
Residuals	539	465	578	501	433	-68
Others	6,345	6,263	6,512	6,644	6,751	107
OECD Europe	14,333	12,425	13,092	13,551	13,448	-103
Gasoline	2,038	1,757	1,930	2,052	2,150	98
Kerosene	1,554	741	856	1,308	1,473	165
Distillates	6,475	5,942	6,239	6,241	6,028	-213
Residuals	838	690	712	752	695	-57
Others	3,428	3,295	3,355	3,198	3,102	-96
OECD Asia Pacific	7,895	7,130	7,318	7,308	7,246	-63
Gasoline	1,515	1,383	1,390	1,403	1,407	4
Kerosene	906	609	604	689	801	112
Distillates	1,912	1,823	1,861	1,869	1,858	-11
Residuals	428	423	453	491	446	-45
Others	3,134	2,892	3,010	2,856	2,734	-123
China	14,002	14,269	15,471	15,047	16,360	1,313
Gasoline	3,245	3,192	3,477	3,178	3,445	267
Kerosene	909	673	715	511	802	291
Distillates	3,462	3,396	3,510	3,705	3,907	203
Residuals	510	537	622	615	798	183
Others	5,876	6,470	7,146	7,038	7,408	370
India	4,994	4,510	4,772	5,137	5,342	205
Gasoline	700	633	716	796	844	47
Kerosene	236	132	141	164	184	20
Distillates	1,732	1,481	1,590	1,743	1,836	92
Residuals	113	104	111	123	125	2
Others	2,212	2,159	2,214	2,311	2,355	44
Other Asia	9,060	8,131	8,667	9,072	9,277	205
Gasoline	1,915	1,808	1,933	2,073	2,125	52
Kerosene	813	486	480	551	696	145
Distillates	2,169	2,068	2,328	2,416	2,446	31
Residuals	1,150	1,090	1,104	1,160	1,160	0
Others	3,013	2,680	2,821	2,871	2,850	-22
Latin America	6,594	5,900	6,246	6,435	6,690	254
Gasoline	1,911	1,701	1,793	1,902	1,985	83
Kerosene	323	195	241	279	310	31
Distillates	2,082	1,900	2,021	2,067	2,112	45
Residuals	605	533	557	548	611	63
Others	1,672	1,572	1,634	1,640	1,671	32
Middle East	8,201	7,445	7,794	8,303	8,634	331
Gasoline	1,669	1,444	1,592	1,683	1,721	38
Kerosene	474	308	366	415	483	68
Distillates	1,780	1,628	1,709	1,821	1,895	75
Residuals	1,503	1,396	1,417	1,467	1,508	41
Others	2,775	2,670	2,711	2,917	3,026	110

Table 4.8

World oil demand by main petroleum product and region

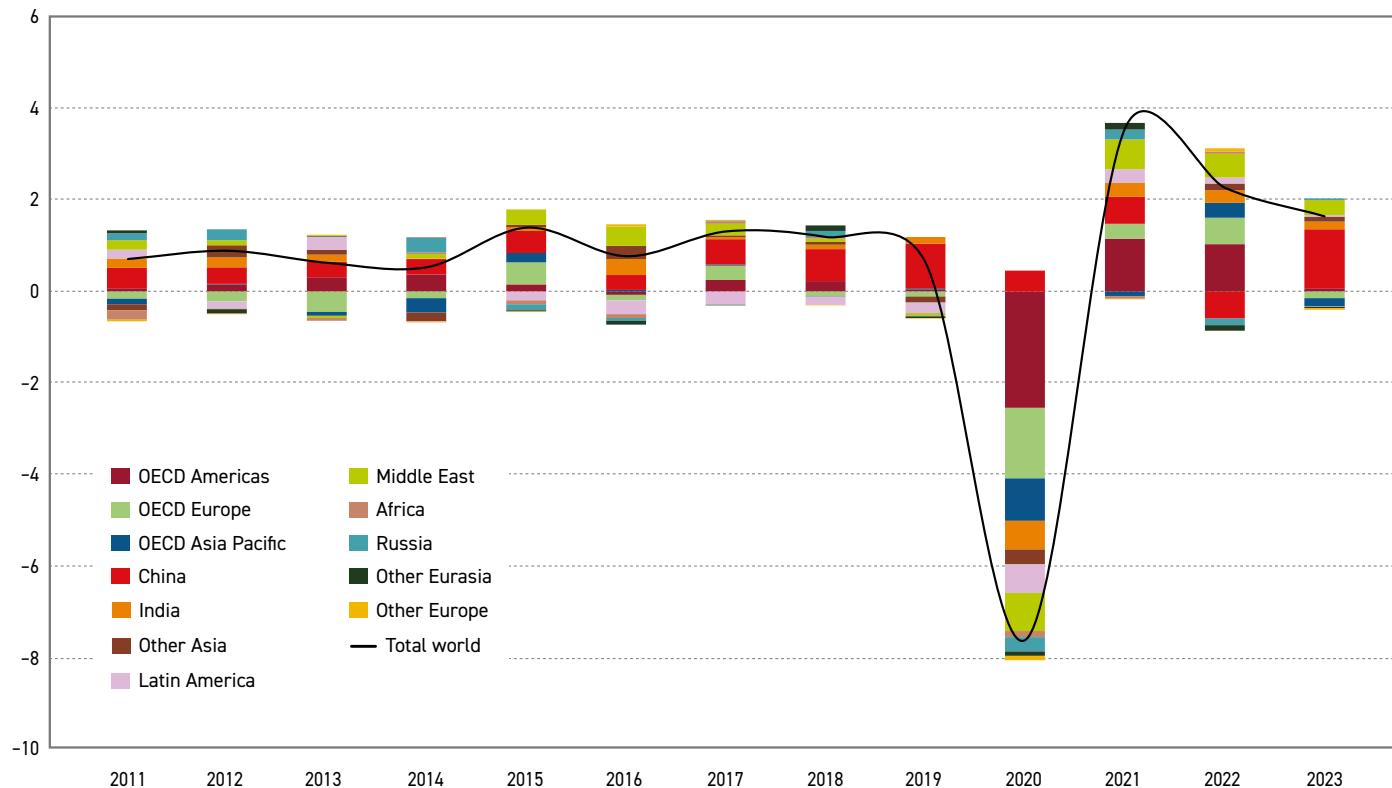
(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
Africa	4,435	4,078	4,223	4,401	4,460	59
Gasoline	1,179	1,105	1,169	1,217	1,197	-21
Kerosene	333	235	257	275	309	34
Distillates	1,762	1,643	1,700	1,728	1,760	31
Residuals	431	396	378	423	409	-14
Others	729	700	718	757	785	28
Russia	3,568	3,387	3,615	3,752	3,841	89
Gasoline	895	881	912	951	965	14
Kerosene	227	143	158	123	117	-6
Distillates	863	833	930	980	989	9
Residuals	112	73	87	90	93	4
Others	1,472	1,457	1,528	1,609	1,677	68
Other Eurasia	1,192	1,074	1,212	1,150	1,174	24
Gasoline	225	190	234	217	223	6
Kerosene	94	22	60	47	53	6
Distillates	517	508	570	547	556	9
Residuals	276	283	298	280	280	0
Others	81	72	49	59	62	3
Other Europe	764	697	754	775	785	10
Gasoline	166	140	167	168	177	9
Kerosene	26	5	12	23	27	4
Distillates	352	348	353	364	372	8
Residuals	40	39	34	20	19	-1
Others	180	164	188	199	190	-9
Total world	100,328	91,252	97,191	99,655	102,212	2,557
Gasoline	26,524	23,687	25,580	26,105	26,823	718
Kerosene	7,943	4,792	5,453	6,221	7,206	985
Distillates	28,397	26,352	27,918	28,761	28,994	234
Residuals	6,546	6,029	6,352	6,469	6,577	108
Others	30,918	30,393	31,888	32,099	32,611	512
<i>of which</i>						
OPEC	8,595	7,732	8,129	8,690	9,080	389
Gasoline	2,268	1,969	2,139	2,257	2,258	1
Kerosene	485	320	353	414	460	47
Distillates	1,940	1,688	1,759	1,888	1,955	66
Residuals	1,555	1,445	1,544	1,584	1,718	134
Others	2,346	2,310	2,334	2,547	2,689	142
OECD	47,516	41,761	44,438	45,583	45,650	67
Gasoline	14,618	12,593	13,587	13,919	14,143	224
Kerosene	4,509	2,593	3,023	3,833	4,227	394
Distillates	13,678	12,547	13,207	13,389	13,120	-269
Residuals	1,805	1,578	1,743	1,744	1,574	-170
Others	12,906	12,450	12,878	12,698	12,586	-112

Oil data: downstream

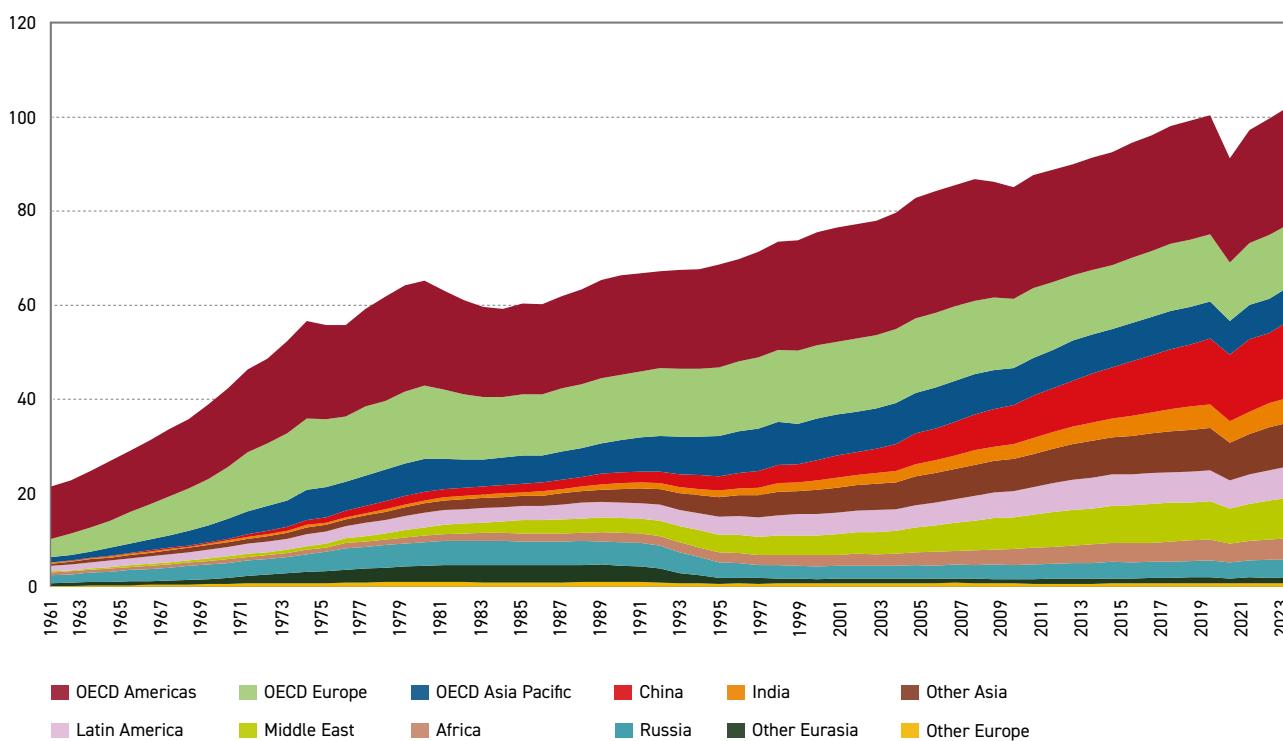
Graph 4.1
World refinery throughput by region

(y-o-y change; mb/d)



Graph 4.2
World oil demand by region

(mb/d)



SECTION 5

Oil trade

Oil trade

Table 5.1
OPEC Members' crude oil exports by destination

(1,000 b/d)

	Destination	2019	2020	2021	2022	2023
Algeria of which	OECD Americas	584	439	446	477	483
	OECD Europe	16	24	17	21	11
	OECD Asia Pacific	360	286	308	356	392
	China	43	30	27	25	0
	India	9	8	0	0	4
	Other Asia	54	27	11	17	8
	Latin America	32	37	46	27	34
	Middle East	44	19	33	31	29
	Africa	23	0	0	0	0
	Russia	0	0	0	0	0
	Other Eurasia	0	0	2	0	0
	Other Europe	0	7	1	0	0
Congo of which	OECD Americas	309	282	251	243	249
	OECD Europe	15	5	0	5	9
	OECD Asia Pacific	18	25	10	36	28
	China	5	5	24	0	1
	India	231	182	166	128	173
	Other Asia	20	15	25	35	20
	Latin America	17	26	18	12	6
	Middle East	3	5	3	19	11
	Africa	0	8	5	0	0
	Russia	0	10	0	8	0
	Other Eurasia	0	0	0	0	0
	Other Europe	0	0	0	0	0
Equatorial Guinea of which	OECD Americas	110	115	93	81	54
	OECD Europe	15	0	0	3	0
	OECD Asia Pacific	37	29	41	56	31
	China	0	4	0	0	0
	India	30	53	21	15	21
	Other Asia	22	20	27	7	0
	Latin America	6	8	5	0	2
	Middle East	0	0	0	0	0
	Africa	0	0	0	0	0
	Russia	0	0	0	0	0
	Other Eurasia	0	0	0	0	0
	Other Europe	0	0	0	0	0
Gabon of which	OECD Americas	207	196	181	185	204
	OECD Europe	0	0	0	2	0
	OECD Asia Pacific	17	38	21	49	42
	China	19	15	29	18	39
	India	141	117	57	63	68
	Other Asia	22	20	40	50	54
	Latin America	0	0	0	0	0
	Middle East	0	0	0	1	0
	Africa	0	0	0	0	1
	Russia	1	0	0	0	0
	Other Eurasia	0	0	0	0	0
	Other Europe	0	0	0	0	0
IR Iran of which	OECD Americas	651	404	763	901	1,323
	OECD Europe	0	0	3	1	5
	OECD Asia Pacific	60	4	1	0	0
	China	136	0	0	0	0
	India	298	78	230	276	486
	Other Asia	94	0	0	0	0
	Latin America	64	317	435	524	744
	Middle East	0	0	0	44	5
	Africa	0	0	0	0	0
	Russia	0	0	0	0	0
	Other Eurasia	0	0	0	0	0
	Other Europe	0	0	0	0	0
Iraq of which	OECD Americas	3,968	3,428	3,440	3,712	3,467
	OECD Europe	300	139	178	253	197
	OECD Asia Pacific	1,052	756	844	914	795
	China	362	242	166	255	273
	India	1,039	1,137	949	950	1,069
	Other Asia	988	902	1,005	1,012	930
	Latin America	119	84	93	67	32
	Middle East	8	6	16	0	3
	Africa	36	22	35	72	10
	Russia	46	65	74	120	118
	Other Eurasia	0	0	0	0	0
	Other Europe	0	0	81	69	41
Kuwait of which	OECD Americas	1,986	1,826	1,740	1,879	1,568
	OECD Europe	153	0	0	0	0
	OECD Asia Pacific	16	32	0	0	3
	China	662	552	511	548	519
	India	454	538	607	637	509
	Other Asia	214	184	221	176	140
	Latin America	419	429	354	446	307
	Middle East	0	0	0	0	0
	Africa	68	86	47	71	27
	Russia	0	0	0	0	0
	Other Eurasia	0	0	0	0	0
	Other Europe	0	5	0	0	0

Table 5.1
OPEC Members' crude oil exports by destination

(1,000 b/d)

	Destination	2019	2020	2021	2022	2023
Libya		1,036	347	1,091	920	1,024
of which	OECD Americas	64	3	89	78	82
	OECD Europe	678	241	799	658	774
	OECD Asia Pacific	31	7	13	9	12
	China	188	73	124	77	67
	India	3	4	10	18	6
	Other Asia	52	14	42	76	54
	Latin America	4	0	2	0	0
	Middle East	0	0	5	3	4
	Africa	5	0	0	1	0
	Russia	0	0	0	0	0
	Other Eurasia	0	0	4	0	0
	Other Europe	11	5	5	0	25
Nigeria		2,008	1,879	1,592	1,388	1,476
of which	OECD Americas	28	90	170	130	222
	OECD Europe	439	812	664	702	703
	OECD Asia Pacific	238	38	22	8	37
	China	0	81	34	8	14
	India	0	296	299	194	125
	Other Asia	427	221	173	145	158
	Latin America	252	21	50	51	35
	Middle East	122	9	8	6	14
	Africa	261	310	168	144	168
	Russia	0	0	0	0	0
	Other Eurasia	164	0	0	0	0
	Other Europe	78	0	3	0	2
Saudi Arabia		7,038	6,659	6,227	7,364	6,659
of which	OECD Americas	561	549	422	530	347
	OECD Europe	797	756	517	759	678
	OECD Asia Pacific	1,866	1,855	1,754	1,978	1,943
	China	1,671	1,701	1,758	1,754	1,608
	India	852	751	707	815	714
	Other Asia	781	582	580	1,046	1,010
	Latin America	67	52	84	94	49
	Middle East	266	212	209	151	135
	Africa	177	202	196	237	175
	Russia	0	0	0	0	0
	Other Eurasia	0	0	0	0	0
	Other Europe	0	0	0	0	0
United Arab Emirates		2,414	2,418	2,305	2,717	2,651
of which	OECD Americas	3	1	10	4	14
	OECD Europe	0	3	17	85	75
	OECD Asia Pacific	1,248	1,089	1,349	1,006	1,005
	China	242	528	419	554	668
	India	414	448	331	385	229
	Other Asia	464	248	167	683	657
	Latin America	0	1	0	0	0
	Middle East	0	0	0	0	0
	Africa	43	101	12	0	2
	Russia	0	0	0	0	0
	Other Eurasia	0	0	0	0	0
	Other Europe	0	0	0	0	0
Venezuela		847	487	448	438	550
of which	OECD Americas	28	0	0	0	142
	OECD Europe	98	39	0	15	27
	OECD Asia Pacific	0	0	0	0	0
	China	246	14	102	100	101
	India	338	110	0	0	5
	Other Asia	82	281	317	284	248
	Latin America	46	31	26	33	28
	Middle East	7	0	3	5	0
	Africa	1	11	0	0	0
	Russia	0	0	0	0	0
	Other Eurasia	0	2	0	0	0
	Other Europe	0	0	0	0	0
OPEC		21,159	18,481	18,577	20,304	19,707
of which	OECD Americas	1,183	811	890	1,027	1,027
	OECD Europe	3,571	3,022	3,223	3,629	3,548
	OECD Asia Pacific	4,609	3,837	3,895	3,848	3,829
	China	4,549	4,510	4,468	4,562	4,787
	India	2,999	2,763	2,669	2,661	2,177
	Other Asia	2,492	2,266	2,269	3,360	3,308
	Latin America	424	135	240	272	161
	Middle East	455	256	333	294	308
	Africa	601	786	497	580	496
	Russia	0	0	0	0	0
	Other Eurasia	164	2	5	0	0
	Other Europe	112	93	89	69	67

Notes:

Data may include lease condensates and volumes of oil in transit.

Oil trade

Table 5.2
World crude oil exports by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	7,525	7,549	7,243	7,929	8,546	616
Canada	3,343	3,143	3,189	3,341	3,401	61
Mexico	1,200	1,199	1,091	1,012	1,085	74
United States	2,982	3,206	2,963	3,576	4,058	482
Others	0	1	0	1	1	0
OECD Europe	2,144	2,277	2,237	2,142	2,238	96
Norway	1,234	1,502	1,563	1,558	1,704	146
United Kingdom	834	726	613	551	492	-58
Others	77	48	61	33	42	9
OECD Asia Pacific	271	271	281	272	275	4
Australia	249	253	268	257	258	2
Others	22	18	13	15	17	2
China	16	33	53	41	28	-13
India	0	0	0	0	0	0
Other Asia	653	656	545	434	462	28
Brunei	107	88	69	58	61	2
Indonesia	74	92	117	40	56	16
Malaysia	287	280	210	203	211	7
Vietnam	94	99	65	55	58	3
Others	91	97	84	77	76	-1
Latin America	3,289	3,008	2,736	3,060	3,531	471
Brazil	1,301	1,401	1,292	1,346	1,715	369
Colombia	609	539	422	487	484	-3
Ecuador	398	352	316	313	309	-5
Trinidad & Tobago	60	57	60	54	55	1
Venezuela	847	487	448	438	550	112
Others	75	172	198	421	418	-3
Middle East	17,586	16,266	16,036	18,155	17,236	-919
Bahrain	156	151	152	152	148	-3
IR Iran	651	404	763	901	1,323	422
Iraq	3,968	3,428	3,440	3,712	3,467	-246
Kuwait	1,986	1,826	1,740	1,879	1,568	-311
Oman	839	860	897	922	919	-3
Qatar	485	464	474	475	472	-3
Saudi Arabia	7,038	6,659	6,227	7,364	6,659	-704
United Arab Emirates	2,414	2,418	2,305	2,717	2,651	-66
Others	49	55	38	34	29	-5
Africa	6,126	5,028	5,282	4,841	5,031	190
Algeria	584	439	446	477	483	6
Angola	1,319	1,220	1,080	1,085	1,064	-21
Congo	309	282	251	243	249	6
Egypt	90	103	111	71	75	4
Equatorial Guinea	110	115	93	81	54	-27
Gabon	207	196	181	185	204	19
Libya	1,036	347	1,091	920	1,024	104
Nigeria	2,008	1,879	1,592	1,388	1,476	88
Sudans	138	135	138	116	136	20
Others	324	313	301	275	265	-10
Russia	5,241	4,617	4,510	4,780	4,586	-194
Other Eurasia	2,033	1,975	1,862	1,813	1,877	64
Azerbaijan	559	500	483	441	389	-52
Kazakhstan	1,411	1,417	1,323	1,315	1,425	109
Others	63	57	56	56	63	7
Other Europe	16	25	23	17	19	1
Total world	44,902	41,704	40,810	43,484	43,829	345
<i>of which</i>						
OPEC	21,159	18,481	18,577	20,304	19,707	-597
<i>OPEC percentage</i>	47.1	44.3	45.5	46.7	45.0	
OECD	9,940	10,097	9,761	10,343	11,059	716

Notes:

Data may include lease condensates and volumes of oil in transit.

Table 5.3
World exports of petroleum products by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	6,092	5,864	6,199	6,577	6,750	173
Canada	482	418	439	411	431	19
Mexico	115	139	170	199	193	-6
United States	5,489	5,292	5,573	5,944	6,092	148
Others	6	15	16	23	35	12
OECD Europe	7,312	6,460	7,109	6,943	6,942	-1
Belgium	608	502	541	513	561	48
France	367	278	278	296	308	12
Germany	449	454	522	564	502	-62
Italy	557	462	531	526	507	-19
Netherlands	2,247	1,918	2,258	2,193	2,158	-35
Norway	428	388	379	295	297	2
Spain	420	398	396	359	380	22
Sweden	230	201	323	307	302	-5
United Kingdom	451	395	392	452	405	-48
Others	1,555	1,464	1,489	1,439	1,522	83
OECD Asia Pacific	2,243	1,858	1,821	2,083	2,047	-36
Japan	609	385	401	510	489	-21
South Korea	1,409	1,259	1,206	1,346	1,337	-9
Others	225	214	213	227	221	-6
China	1,460	1,324	1,289	1,146	1,336	190
India	1,360	1,216	1,284	1,312	1,313	1
Other Asia	2,828	2,748	2,874	3,021	3,317	295
Indonesia	71	66	66	69	70	1
Malaysia	646	775	877	938	1,126	188
Singapore	1,622	1,440	1,426	1,487	1,606	119
Others	489	466	505	527	515	-12
Latin America	840	848	800	913	973	60
Brazil	217	284	246	253	274	21
Ecuador	39	56	62	59	49	-10
Trinidad & Tobago	15	12	10	8	7	-2
Venezuela	97	70	67	176	201	25
Others	472	426	415	416	442	26
Middle East	4,039	3,564	4,112	4,436	4,789	353
Bahrain	250	214	218	234	227	-6
IR Iran	285	281	333	383	408	25
Iraq	107	151	158	172	198	26
Kuwait	637	527	604	711	965	254
Qatar	466	433	456	466	470	3
Saudi Arabia	1,300	1,017	1,344	1,468	1,273	-196
United Arab Emirates	882	840	891	903	1,143	240
Others	113	103	109	98	106	8
Africa	854	900	901	822	803	-19
Algeria	506	503	493	509	515	7
Angola	17	16	29	22	25	3
Congo	6	4	4	5	5	0
Egypt	126	166	134	49	28	-21
Equatorial Guinea	0	0	0	0	0	0
Gabon	8	9	10	10	10	0
Libya	21	66	89	99	91	-9
Nigeria	20	0	11	0	3	3
Others	150	136	131	127	125	-2
Russia	2,554	2,417	2,385	2,277	2,299	23
Other Eurasia	437	383	358	284	302	18
Azerbaijan	28	28	38	22	25	3
Kazakhstan	122	114	107	99	85	-14
Others	288	240	214	163	192	29
Other Europe	231	197	166	223	195	-28
Romania	101	91	82	101	89	-11
Others	130	106	85	123	106	-16
Total world	30,250	27,778	29,298	30,037	31,067	1,030
<i>of which</i>						
OPEC	3,869	3,467	4,005	4,437	4,811	374
<i>OPEC percentage</i>	12.8	12.5	13.7	14.8	15.5	
OECD	15,647	14,181	15,129	15,603	15,740	136

Notes:

Data may include re-exports and volumes of oil in transit.

Table 5.4

World exports of petroleum products by main petroleum product and region

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	6,092	5,864	6,199	6,577	6,750	173
Gasoline	1,080	930	1,058	1,067	1,029	-38
Kerosene	248	111	121	192	186	-6
Distillates	1,477	1,360	1,229	1,385	1,310	-75
Residuals	333	274	283	312	322	10
Others	2,954	3,188	3,509	3,621	3,903	281
OECD Europe	7,312	6,460	7,109	6,943	6,942	-1
Gasoline	1,980	1,645	1,883	1,865	1,795	-70
Kerosene	439	317	314	364	408	44
Distillates	1,978	1,926	2,084	1,957	2,047	90
Residuals	872	911	1,105	1,043	951	-92
Others	2,045	1,661	1,723	1,714	1,741	26
OECD Asia Pacific	2,243	1,858	1,821	2,083	2,047	-36
Gasoline	350	274	375	397	404	6
Kerosene	454	310	256	334	340	6
Distillates	864	751	714	831	793	-38
Residuals	141	111	86	129	105	-24
Others	434	411	391	391	406	14
China	1,460	1,324	1,289	1,146	1,336	190
Gasoline	380	372	340	293	286	-7
Kerosene	375	213	182	232	337	105
Distillates	424	391	342	216	274	58
Residuals	203	286	356	338	361	23
Others	79	62	68	67	77	11
India	1,360	1,216	1,284	1,312	1,313	1
Gasoline	301	268	294	303	324	21
Kerosene	155	86	104	143	176	32
Distillates	605	604	624	600	554	-46
Residuals	32	17	32	32	32	0
Others	267	242	229	233	227	-6
Other Asia	2,828	2,748	2,874	3,021	3,317	295
Gasoline	722	695	852	897	945	48
Kerosene	178	301	258	263	276	12
Distillates	872	854	863	890	896	5
Residuals	611	454	444	474	510	36
Others	445	443	457	496	690	195
Latin America	840	848	800	913	973	60
Gasoline	126	129	112	96	99	3
Kerosene	32	17	13	33	33	0
Distillates	70	82	73	92	104	12
Residuals	376	407	373	389	465	76
Others	236	212	229	302	272	-31
Middle East	4,039	3,564	4,112	4,436	4,789	353
Gasoline	229	223	268	338	362	24
Kerosene	417	339	356	422	498	76
Distillates	1,104	954	1,198	1,244	1,328	84
Residuals	549	484	552	626	683	57
Others	1,741	1,563	1,738	1,805	1,917	112

Table 5.4

World exports of petroleum products by main petroleum product and region

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
Africa	854	900	901	822	803	-19
Gasoline	39	37	36	36	46	10
Kerosene	69	67	47	32	28	-4
Distillates	56	43	35	40	37	-3
Residuals	213	269	214	213	229	16
Others	476	483	570	501	463	-38
Russia	2,554	2,417	2,385	2,277	2,299	23
Gasoline	122	133	100	125	147	23
Kerosene	62	47	49	28	28	1
Distillates	1,050	1,042	997	968	988	20
Residuals	646	585	628	564	542	-22
Others	675	611	611	592	594	2
Other Eurasia	437	383	358	284	302	18
Gasoline	75	93	77	58	65	7
Kerosene	11	5	4	4	5	1
Distillates	116	99	97	74	83	9
Residuals	133	88	92	83	87	4
Others	102	97	87	65	62	-3
Other Europe	231	197	166	223	195	-28
Gasoline	81	71	57	83	78	-5
Kerosene	8	4	5	8	9	1
Distillates	77	63	50	70	56	-14
Residuals	19	11	11	13	15	1
Others	45	48	44	49	38	-11
Total world	30,250	27,778	29,298	30,037	31,067	1,030
Gasoline	5,484	4,869	5,450	5,558	5,580	23
Kerosene	2,446	1,818	1,707	2,057	2,325	268
Distillates	8,693	8,170	8,307	8,368	8,471	103
Residuals	4,127	3,899	4,176	4,216	4,301	85
Others	9,499	9,023	9,657	9,838	10,390	552
<i>of which</i>						
OPEC	3,869	3,467	4,005	4,437	4,811	374
Gasoline	218	219	256	324	355	31
Kerosene	357	298	324	402	475	73
Distillates	946	811	1,021	1,090	1,186	95
Residuals	656	595	650	775	826	51
Others	1,692	1,544	1,754	1,846	1,969	124
OECD	15,647	14,181	15,129	15,603	15,740	136
Gasoline	3,410	2,849	3,315	3,329	3,228	-101
Kerosene	1,141	738	690	891	934	44
Distillates	4,319	4,037	4,027	4,173	4,150	-23
Residuals	1,346	1,297	1,473	1,484	1,379	-105
Others	5,432	5,261	5,623	5,727	6,049	322

Notes:

Data may include re-exports and volumes of oil in transit.

Oil trade

Table 5.5

World exports of crude oil and petroleum products by country

(1,000 b/d)

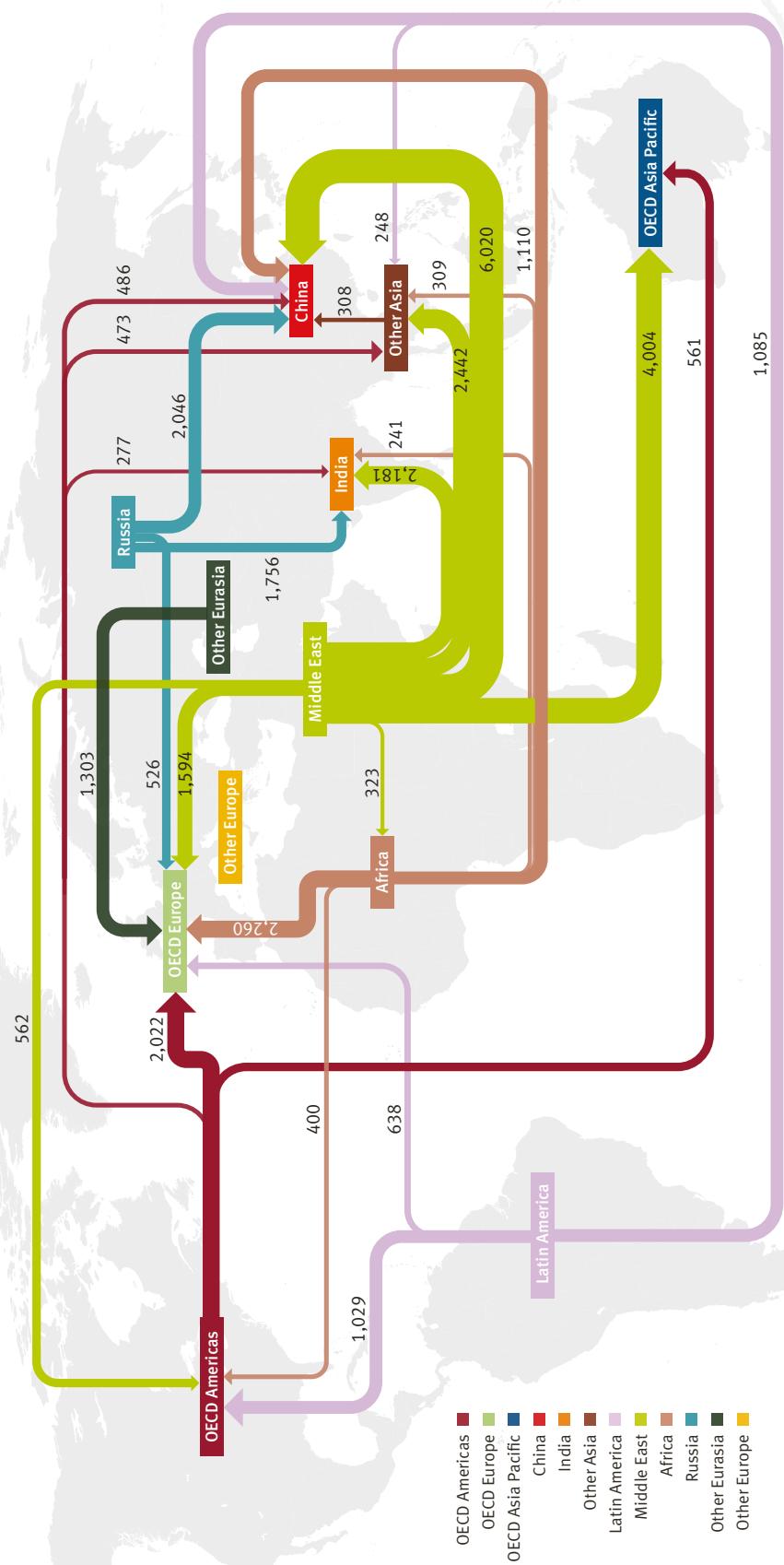
	2019	2020	2021	2022	2023	change 23/22
OECD Americas	13,618	13,413	13,442	14,507	15,296	789
Canada	3,826	3,561	3,628	3,752	3,832	80
Mexico	1,315	1,337	1,262	1,211	1,278	67
United States	8,471	8,498	8,536	9,520	10,150	630
Others	6	16	16	24	36	11
OECD Europe	9,457	8,736	9,346	9,085	9,181	96
Belgium	608	502	545	514	561	48
France	367	278	279	296	308	12
Germany	451	454	522	566	503	-63
Italy	557	465	535	537	528	-9
Netherlands	2,255	1,925	2,264	2,193	2,159	-35
Norway	1,662	1,890	1,942	1,853	2,001	148
Spain	420	398	396	359	380	22
Sweden	236	202	341	307	302	-5
United Kingdom	1,285	1,122	1,005	1,003	897	-106
Others	1,616	1,500	1,517	1,458	1,542	84
OECD Asia Pacific	2,513	2,129	2,102	2,355	2,322	-32
Australia	345	362	364	342	344	2
Japan	609	385	401	510	489	-21
South Korea	1,409	1,259	1,206	1,346	1,337	-9
Others	151	124	131	157	153	-5
China	1,476	1,357	1,342	1,188	1,364	177
India	1,360	1,216	1,284	1,312	1,313	1
Other Asia	3,481	3,404	3,419	3,455	3,778	323
Brunei	125	188	231	227	212	-15
Indonesia	145	158	183	108	125	17
Malaysia	933	1,055	1,088	1,142	1,337	195
Singapore	1,625	1,442	1,432	1,487	1,606	119
Vietnam	141	138	110	82	99	18
Others	512	422	375	409	399	-11
Latin America	4,129	3,856	3,536	3,973	4,504	532
Brazil	1,518	1,685	1,538	1,599	1,989	390
Colombia	743	679	551	609	572	-37
Ecuador	437	408	378	372	357	-15
Trinidad & Tobago	75	70	70	63	62	-1
Venezuela	944	557	515	614	751	137
Others	412	458	484	715	772	57
Middle East	21,625	19,830	20,148	22,591	22,025	-566
Bahrain	406	365	370	385	376	-10
IR Iran	936	685	1,096	1,284	1,731	447
Iraq	4,075	3,579	3,598	3,884	3,664	-220
Kuwait	2,623	2,353	2,344	2,590	2,532	-58
Oman	935	948	975	1,008	1,012	4
Qatar	950	897	930	942	942	0
Saudi Arabia	8,338	7,675	7,571	8,832	7,932	-900
United Arab Emirates	3,296	3,258	3,196	3,620	3,794	174
Others	65	70	68	46	43	-3
Africa	6,980	5,928	6,184	5,663	5,834	171
Algeria	1,090	942	939	986	998	12
Angola	1,335	1,236	1,109	1,107	1,089	-18
Congo	315	286	255	247	254	7
Egypt	216	268	245	121	104	-17
Equatorial Guinea	110	115	93	81	54	-27
Gabon	214	205	191	195	215	20
Libya	1,057	413	1,180	1,019	1,115	95
Nigeria	2,028	1,879	1,603	1,388	1,479	91
Sudans	139	136	138	117	137	20
Others	474	447	431	401	390	-12
Russia	7,795	7,034	6,896	7,057	6,886	-171
Other Eurasia	2,470	2,358	2,220	2,097	2,179	82
Azerbaijan	587	529	520	463	414	-49
Kazakhstan	1,533	1,531	1,430	1,414	1,509	95
Others	350	298	270	219	255	37
Other Europe	247	222	190	241	214	-26
Romania	102	92	83	102	90	-12
Others	145	130	107	139	124	-15
Total world	75,151	69,482	70,108	73,521	74,896	1,375
<i>of which</i>						
OPEC	25,028	21,948	22,581	24,741	24,519	-223
<i>OPEC percentage</i>	33.3	31.6	32.2	33.7	32.7	
OECD	25,588	24,278	24,890	25,946	26,799	852

Notes:

Data may include lease condensates, re-exports of petroleum products and volumes of oil in transit.

Graph 5.1
World inter-regional trade of crude oil, 2023

(1,000 b/d)



Notes:
Excluding intraregional trade.
Only volumes greater than 200,000 b/d are shown.
Data may include lease condensates and volumes of oil in transit.

Oil trade

Table 5.6
World imports of crude oil by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	7,837	6,788	6,939	7,059	7,263	204
Canada	852	766	661	632	605	-27
Chile	185	147	164	146	179	33
United States	6,801	5,875	6,114	6,281	6,478	197
Others	0	0	0	0	0	0
OECD Europe	11,545	10,005	10,219	10,918	10,813	-105
Belgium	696	551	579	559	609	50
France	976	666	683	824	919	95
Germany	1,737	1,666	1,641	1,781	1,558	-224
Greece	461	459	473	443	471	28
Italy	1,275	1,014	1,145	1,260	1,236	-24
Netherlands	1,153	998	1,060	1,074	1,085	11
Spain	1,339	1,105	1,134	1,284	1,243	-41
Sweden	344	375	363	381	350	-31
Turkey	627	591	634	676	634	-42
United Kingdom	910	713	734	848	830	-18
Others	2,026	1,868	1,772	1,788	1,878	90
OECD Asia Pacific	6,628	5,674	5,618	5,952	5,707	-245
Australia	328	238	207	170	153	-17
Japan	3,023	2,472	2,493	2,733	2,546	-187
South Korea	2,924	2,660	2,613	2,759	2,735	-24
Others	352	303	305	290	273	-17
China	10,180	10,853	10,301	10,187	11,309	1,122
India	4,507	4,035	4,202	4,581	4,674	93
Other Asia	3,518	3,222	3,181	3,650	3,743	92
Indonesia	209	232	206	311	333	22
Malaysia	284	248	131	317	423	106
Philippines	162	130	108	130	126	-4
Singapore	848	753	793	835	798	-38
Thailand	932	837	863	920	957	37
Others	1,083	1,023	1,081	1,138	1,106	-31
Latin America	603	487	554	718	748	30
Brazil	189	134	166	274	290	16
Ecuador	20	15	16	16	16	0
Trinidad & Tobago	3	0	0	0	0	0
Venezuela	4	6	6	71	40	-31
Others	387	332	366	356	401	45
Middle East	438	475	492	517	634	117
Bahrain	226	179	183	215	209	-5
United Arab Emirates	53	163	187	187	257	69
Others	159	133	122	115	168	53
Africa	676	626	411	341	326	-14
Algeria	3	0	0	0	0	0
Egypt	121	221	154	118	59	-59
South Africa	445	307	179	147	169	21
Others	107	98	78	76	99	23
Russia	0	0	0	0	0	0
Other Eurasia	410	374	294	241	272	30
Belarus	363	321	235	205	239	34
Ukraine	16	25	32	16	13	-4
Others	31	28	27	20	20	0
Other Europe	450	348	345	439	400	-39
Bulgaria	141	97	91	142	125	-17
Croatia	62	48	48	44	46	2
Romania	178	142	140	179	151	-28
Others	69	61	66	73	77	4
Total world	46,792	42,888	42,557	44,604	45,890	1,286
<i>of which</i>						
OECD	26,010	22,467	22,776	23,929	23,783	-146

Notes:

Data may include lease condensates and volumes of oil in transit.

Table 5.7
World imports of petroleum products by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	3,956	3,284	3,761	3,541	3,453	-88
Canada	324	202	218	230	232	3
Mexico	1,138	932	1,004	1,031	1,000	-31
United States	2,340	1,988	2,360	2,048	2,036	-12
Others	154	162	180	233	185	-48
OECD Europe	7,889	6,936	7,265	7,506	7,382	-124
Belgium	564	530	561	554	523	-31
France	939	926	967	876	792	-84
Germany	907	752	806	773	778	5
Italy	322	270	271	300	297	-3
Netherlands	1,798	1,559	1,745	1,792	1,633	-159
Spain	365	308	310	329	329	0
Turkey	444	382	400	431	541	110
United Kingdom	704	523	527	617	659	43
Others	1,847	1,685	1,678	1,835	1,829	-5
OECD Asia Pacific	2,617	2,566	2,870	2,874	3,017	143
Australia	634	590	678	784	894	110
Japan	896	919	1,012	914	902	-12
South Korea	995	963	1,080	1,018	1,034	16
Others	92	95	100	158	187	29
China	1,389	1,318	1,428	1,485	2,090	605
India	969	1,066	1,003	1,057	1,127	70
Other Asia	5,759	5,317	5,248	5,474	5,512	38
Indonesia	728	533	518	809	730	-79
Malaysia	679	795	790	813	882	69
Singapore	2,244	2,088	1,977	1,944	2,034	89
Others	2,108	1,900	1,963	1,908	1,866	-42
Latin America	2,042	1,712	1,947	1,957	1,803	-153
Brazil	725	606	738	774	695	-79
Ecuador	188	165	170	164	180	16
Panama	65	42	51	40	38	-1
Venezuela	167	68	69	88	19	-69
Others	897	831	919	891	871	-20
Middle East	1,090	909	982	1,097	1,058	-39
IR Iran	98	92	99	91	95	4
Iraq	96	77	107	113	104	-9
Kuwait	14	15	34	29	17	-12
Qatar	5	5	0	0	0	0
Saudi Arabia	319	353	361	360	433	73
United Arab Emirates	266	120	129	249	126	-123
Others	292	248	252	255	284	29
Africa	2,393	2,247	2,359	2,363	2,501	137
Algeria	43	35	21	11	3	-8
Angola	65	134	55	67	94	26
Congo	0	0	0	0	0	0
Egypt	264	149	203	184	210	26
Equatorial Guinea	5	4	4	5	5	0
Gabon	8	7	6	5	5	0
Libya	144	147	133	128	145	17
Morocco	294	267	291	307	306	-1
Nigeria	460	466	488	525	476	-49
Tunisia	89	73	76	74	80	6
Others	1,021	965	1,083	1,057	1,176	120
Russia	23	31	34	19	19	1
Other Eurasia	362	373	361	320	338	17
Ukraine	222	221	241	183	188	5
Others	140	153	120	137	150	13
Other Europe	457	425	433	459	484	25
Bulgaria	38	47	49	45	43	-3
Croatia	49	41	47	58	61	3
Romania	67	57	68	70	87	17
Others	303	280	269	286	294	8
Total world	28,948	26,185	27,691	28,153	28,784	631
<i>of which</i>						
OPEC	1,620	1,385	1,450	1,605	1,429	-176
<i>OPEC percentage</i>	5.6	5.3	5.2	5.7	5.0	
OECD	14,462	12,786	13,896	13,922	13,852	-69

Notes:

Data may include re-exports and volumes of oil in transit.

Table 5.8

World imports of petroleum products by main petroleum product and region

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	3,956	3,284	3,761	3,541	3,453	-88
Gasoline	1,517	1,135	1,422	1,281	1,329	48
Kerosene	302	209	229	218	240	22
Distillates	582	532	616	599	564	-35
Residuals	207	184	193	209	115	-93
Others	1,347	1,225	1,301	1,234	1,205	-30
OECD Europe	7,889	6,936	7,265	7,506	7,382	-124
Gasoline	634	567	612	605	640	35
Kerosene	914	591	577	785	851	66
Distillates	2,918	2,705	2,718	2,764	2,825	62
Residuals	721	776	912	901	822	-79
Others	2,703	2,296	2,447	2,451	2,243	-208
OECD Asia Pacific	2,617	2,566	2,870	2,874	3,017	143
Gasoline	183	189	226	258	293	35
Kerosene	155	103	113	140	212	72
Distillates	395	420	483	538	603	65
Residuals	102	85	116	95	110	15
Others	1,783	1,769	1,931	1,843	1,799	-45
China	1,389	1,318	1,428	1,485	2,090	605
Gasoline	8	11	8	0	0	0
Kerosene	76	54	29	18	7	-11
Distillates	24	24	15	9	3	-6
Residuals	270	231	251	234	512	278
Others	1,012	998	1,125	1,223	1,568	344
India	969	1,066	1,003	1,057	1,127	70
Gasoline	49	31	23	25	17	-8
Kerosene	0	0	0	0	0	0
Distillates	40	32	3	7	1	-6
Residuals	48	111	154	166	164	-2
Others	832	891	823	860	945	85
Other Asia	5,759	5,317	5,248	5,474	5,512	38
Gasoline	1,368	1,273	1,308	1,402	1,348	-54
Kerosene	341	203	151	185	224	39
Distillates	1,400	1,242	1,192	1,177	1,246	69
Residuals	1,461	1,329	1,354	1,335	1,302	-33
Others	1,190	1,271	1,243	1,376	1,392	16
Latin America	2,042	1,712	1,947	1,957	1,803	-153
Gasoline	426	386	414	378	383	5
Kerosene	107	54	66	69	63	-7
Distillates	702	631	726	715	677	-38
Residuals	247	202	210	229	196	-34
Others	559	439	530	564	485	-80
Middle East	1,090	909	982	1,097	1,058	-39
Gasoline	487	368	398	448	431	-17
Kerosene	11	6	10	13	14	2
Distillates	133	99	144	135	130	-5
Residuals	403	387	380	413	417	4
Others	56	49	50	89	66	-23

Table 5.8

World imports of petroleum products by main petroleum product and region

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
Africa	2,393	2,247	2,359	2,363	2,501	137
Gasoline	817	810	847	914	894	-20
Kerosene	151	94	107	109	102	-6
Distillates	956	869	929	900	1,014	114
Residuals	107	101	108	86	79	-7
Others	363	374	367	355	411	57
Russia	23	31	34	19	19	1
Gasoline	0	2	2	2	2	0
Kerosene	0	1	0	0	0	0
Distillates	1	6	6	3	4	1
Residuals	0	2	3	2	0	-2
Others	22	19	23	12	13	2
Other Eurasia	362	373	361	320	338	17
Gasoline	64	70	73	63	60	-3
Kerosene	10	5	8	8	11	3
Distillates	175	187	178	156	167	11
Residuals	4	3	4	4	6	2
Others	108	107	98	89	95	5
Other Europe	457	425	433	459	484	25
Gasoline	34	31	31	31	30	-1
Kerosene	17	6	9	13	14	1
Distillates	197	184	199	222	221	-2
Residuals	125	120	114	118	117	-1
Others	84	83	79	75	101	27
Total world	28,948	26,185	27,691	28,153	28,784	631
Gasoline	5,587	4,873	5,366	5,407	5,428	21
Kerosene	2,084	1,327	1,299	1,558	1,737	179
Distillates	7,523	6,932	7,211	7,224	7,453	229
Residuals	3,694	3,531	3,798	3,792	3,842	50
Others	10,060	9,522	10,016	10,172	10,323	151
<i>of which</i>						
OPEC	1,620	1,385	1,450	1,605	1,429	-176
Gasoline	887	722	777	838	760	-78
Kerosene	35	26	32	36	21	-16
Distillates	209	158	190	194	175	-19
Residuals	412	411	402	442	400	-42
Others	76	67	50	94	72	-22
OECD	14,462	12,786	13,896	13,922	13,852	-69
Gasoline	2,333	1,890	2,261	2,144	2,263	118
Kerosene	1,371	903	919	1,143	1,302	159
Distillates	3,896	3,657	3,818	3,901	3,993	92
Residuals	1,030	1,045	1,221	1,205	1,048	-157
Others	5,833	5,290	5,678	5,529	5,247	-282

Notes:

Data may include re-exports and volumes of oil in transit.

Table 5.9

World imports of crude oil and petroleum products by country

(1,000 b/d)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	11,793	10,072	10,701	10,600	10,716	116
Canada	1,175	968	879	862	838	-24
Mexico	1,138	932	1,004	1,031	1,000	-31
United States	9,141	7,863	8,474	8,329	8,514	185
Others	339	309	344	379	364	-15
OECD Europe	19,434	16,941	17,484	18,425	18,195	-229
Belgium	1,261	1,080	1,141	1,113	1,132	19
France	1,915	1,593	1,650	1,700	1,711	11
Germany	2,645	2,418	2,447	2,555	2,336	-219
Greece	559	537	563	529	553	24
Italy	1,597	1,284	1,416	1,560	1,533	-27
Netherlands	2,950	2,557	2,805	2,866	2,719	-147
Spain	1,703	1,413	1,444	1,613	1,572	-41
Sweden	533	549	510	559	547	-12
Turkey	1,071	974	1,034	1,108	1,175	68
United Kingdom	1,614	1,236	1,261	1,464	1,489	25
Others	3,586	3,301	3,212	3,357	3,428	71
OECD Asia Pacific	9,245	8,239	8,487	8,826	8,725	-102
Australia	962	828	885	954	1,047	93
Japan	3,919	3,391	3,505	3,647	3,448	-199
South Korea	3,919	3,623	3,693	3,778	3,769	-8
Others	445	397	405	448	460	13
China	11,570	12,171	11,730	11,672	13,399	1,727
India	5,475	5,101	5,206	5,638	5,801	163
Other Asia	9,277	8,540	8,429	9,125	9,255	130
Indonesia	937	765	724	1,121	1,063	-57
Malaysia	963	1,043	921	1,130	1,305	175
Philippines	473	373	434	463	482	18
Singapore	3,091	2,841	2,770	2,780	2,831	52
Thailand	1,148	1,040	1,077	1,139	1,134	-5
Others	2,664	2,477	2,504	2,492	2,439	-53
Latin America	2,646	2,199	2,501	2,675	2,552	-123
Brazil	914	740	904	1,048	985	-62
Ecuador	207	179	186	181	196	16
Venezuela	171	74	74	159	59	-100
Others	1,352	1,205	1,336	1,287	1,311	23

Table 5.9

World imports of crude oil and petroleum products by country

(1,000 b/d)

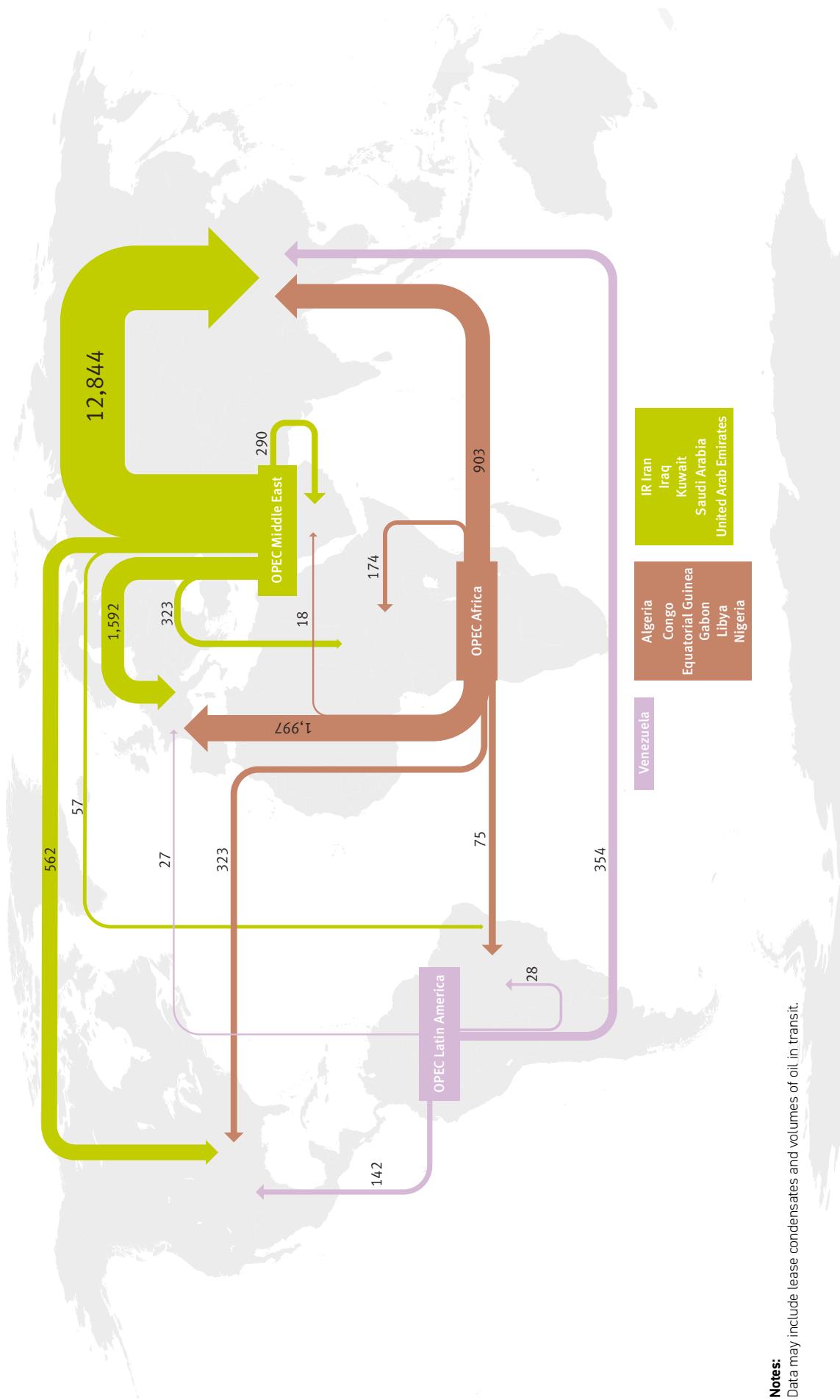
	2019	2020	2021	2022	2023	change 23/22
Middle East	1,528	1,384	1,474	1,614	1,693	78
Bahrain	232	188	193	219	219	0
IR Iran	98	92	99	91	95	4
Iraq	96	77	107	113	104	-9
Kuwait	14	15	34	29	17	-12
Qatar	5	5	0	0	0	0
Saudi Arabia	319	353	361	360	474	114
United Arab Emirates	319	284	316	436	382	-54
Others	445	372	364	366	400	35
Africa	3,069	2,873	2,770	2,704	2,827	123
Algeria	46	35	21	11	3	-8
Angola	65	134	55	67	94	26
Congo	0	0	0	0	0	0
Egypt	385	370	357	302	269	-33
Equatorial Guinea	5	4	4	5	5	0
Gabon	8	7	6	5	5	0
Libya	144	147	133	128	145	17
Morocco	294	267	291	307	306	-1
Nigeria	460	466	488	525	476	-49
South Africa	520	385	265	267	312	45
Tunisia	105	93	102	94	102	8
Others	1,037	964	1,049	993	1,110	117
Russia	23	31	34	19	19	1
Other Eurasia	772	747	654	562	609	48
Belarus	367	322	237	206	240	34
Ukraine	238	246	272	200	201	1
Others	166	179	145	156	169	13
Other Europe	907	773	778	898	884	-14
Bulgaria	179	144	140	188	168	-20
Croatia	110	89	95	103	107	5
Romania	245	199	209	249	238	-11
Others	373	341	335	359	371	13
Total world	75,739	69,072	70,247	72,758	74,674	1,916
<i>of which</i>						
OPEC	1,680	1,554	1,643	1,863	1,767	-96
OECD	40,472	35,253	36,673	37,851	37,636	-215

Notes:

Data may include lease condensates, re-exports of petroleum products and volumes of oil in transit.

Graph 5.2
OPEC Members' crude oil exports by destination, 2023

(1,000 b/d)



SECTION 6

Oil transportation

Oil transportation

Table 6.1
Average spot freight rates by vessel category

(% of Worldscale)

Tanker size (1,000 dwt)	2019	2020	2021	2022	2023
GP 16.5–24.9	134.0	124.6	125.3	267.3	183.7
MR 25.0–44.9	164.1	146.3	146.2	303.6	217.4
LR1 45.0–79.9	118.3	103.0	95.8	204.7	161.4
LR2 80.0–159.9	72.2	62.4	47.7	105.8	89.6
VLCC 160.0–319.9	50.2	49.6	28.7	50.1	48.3

Notes:

Average spot freight rates are the average of all spot freight rates by tanker size reported each month in the spot market.

GP = general purpose carrier; MR = medium range carrier; LR1 = large range 1 carrier; LR2 = large range 2 carrier; VLCC = very large crude carrier.

Table 6.2
Dirty tanker spot freight rates

(% of Worldscale and \$/t)

	2019 %	2019 \$/t	2020 %	2020 \$/t	2021 %	2021 \$/t	2022 %	2022 \$/t	2023 %	2023 \$/t
ME/EAST	66	13.0	60	14.0	35	6.9	63	13.7	58	15.3
ME/WEST	35	7.8	39	11.6	23	5.6	38	10.3	39	13.0
WAF/EAST	66	20.5	60	22.1	37	11.4	64	21.5	59	23.9
WAF/USGC	81	15.4	66	14.8	53	9.9	117	23.8	100	24.6
WEST/USGC	67	12.5	58	11.7	42	7.9	95	19.8	82	20.4
INDO/EAST	114	14.1	90	13.1	87	10.8	187	25.1	162	26.0
CAR/USEC	128	11.2	114	11.4	105	9.6	232	22.8	178	21.1
MED/MED	116	7.9	88	6.5	97	6.3	195	13.8	164	13.8
MED/WEST	108	12.4	82	10.5	89	9.6	180	21.2	153	22.2

Notes:

ME = Middle East; EAST = Far East; WEST = North-West Europe; WAF = West Africa; USGC = US Gulf Coast; INDO = Indonesia; CAR = Caribbean; USEC = US East Coast; MED = Mediterranean.

Table 6.3
Clean tanker spot freight rates

(% of Worldscale and \$/t)

	2019 %	2019 \$/t	2020 %	2020 \$/t	2021 %	2021 \$/t	2022 %	2022 \$/t	2023 %	2023 \$/t
ME/EAST	124	26.2	119	29.9	99	20.8	219	50.2	155	42.7
SING/EAST	151	16.0	135	16.8	139	14.7	305	34.9	203	28.1
WEST/USEC	134	19.3	124	18.9	125	16.1	268	37.9	183	32.6
MED/MED	166	10.4	145	10.2	144	9.4	298	20.7	219	17.9
MED/WEST	175	20.2	154	20.0	154	17.3	308	37.6	229	34.0

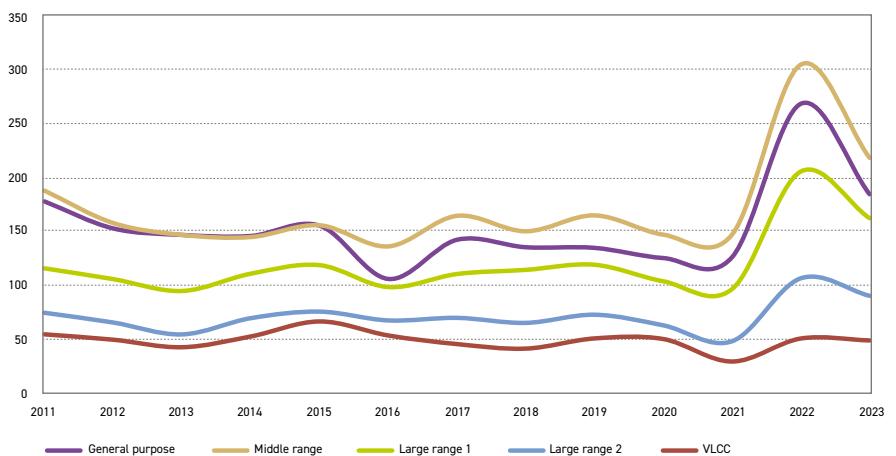
Notes:

ME = Middle East; EAST = Far East; SING = Singapore; WEST = North-West Europe; USEC = US East Coast, MED = Mediterranean.

Graph 6.1

Average spot freight rates by vessel category

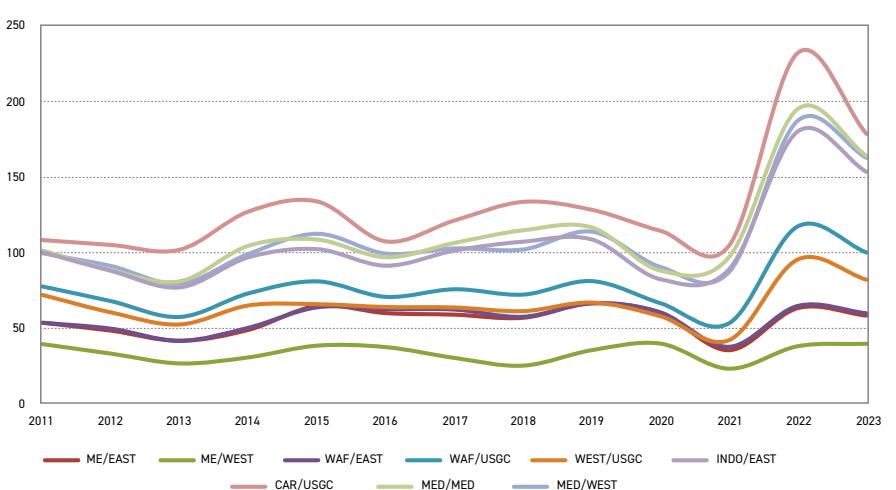
(% of Worldscale)



Graph 6.2

Dirty tankers spot freight rates

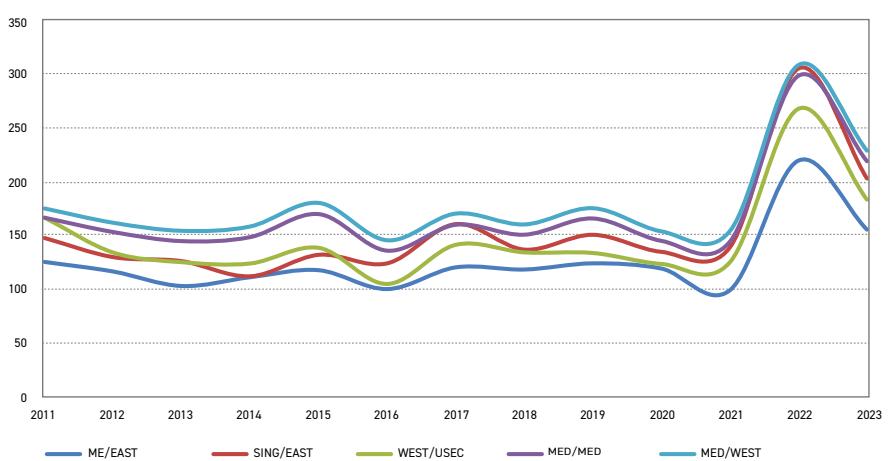
(% of Worldscale)



Graph 6.3

Clean tanker spot freight rates

(% of Worldscale)



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SECTION 7

Oil prices

Oil prices

Table 7.1
OPEC Reference Basket (ORB) and corresponding components' spot prices (\$/b)

	Representative crude stream	2019	2020	2021	2022	2023
Algeria	Saharan Blend	64.49	42.12	70.89	104.24	83.64
Congo	Djeno	61.80	35.77	63.35	93.65	75.12
Equatorial Guinea	Zafiro	65.74	41.54	71.09	102.88	83.42
Gabon	Rabi Light	63.18	40.22	70.34	100.64	82.11
IR Iran	Iran Heavy	61.85	40.77	69.80	99.92	83.13
Iraq	Basrah Light/Medium ¹	63.64	41.55	69.86	97.33	80.68
Kuwait	Kuwait Export	64.25	41.49	70.50	101.19	84.26
Libya	Ess Sider	63.81	40.06	69.16	101.28	82.21
Nigeria	Bonny Light	65.63	41.53	70.63	103.63	83.46
Saudi Arabia	Arab Light	64.96	41.91	70.65	101.64	84.94
United Arab Emirates	Murban	64.72	42.98	70.09	98.89	82.85
Venezuela	Merey	54.04	28.12	51.45	76.96	64.37
OPEC	ORB	64.04	41.47	69.89	100.08	82.95

Notes:

1. As of 2022, ORB based on Basrah Medium, before Basrah Light.

Table 7.2
OPEC Reference Basket in nominal and real terms (\$/b)

	2019	2020	2021	2022	2023
Nominal oil price	64.04	41.47	69.89	100.08	82.95
Real oil price ¹	63.35	40.99	66.46	100.87	83.19

Notes:

1. Base: 2017 = 100.

Table 7.3

Annual average of adjustment factors for selected OPEC Reference Basket components

(\$/b)

		2019	2020	2021	2022	2023
Europe						
Algeria	Saharan Blend	0.31	0.43	0.08	3.14	1.07
Iran	Iran Heavy	-6.80	-5.78	-4.38	-2.77	-0.99
Iraq	Basrah Light/Medium ¹	-3.03	-2.65	-2.51	-6.63	-4.75
Libya	Es Sider	-0.38	-1.71	-1.65	0.16	-0.37
Nigeria	Bonny Light	1.44	-0.16	-0.17	2.49	0.90
Saudi Arabia	Arab Light	-1.29	-3.21	-1.70	2.06	2.78
Asia						
Iran	Iran Heavy	-0.14	-1.19	0.58	3.55	1.12
Iraq	Basrah Light/Medium ¹	1.26	-0.16	1.32	2.68	0.33
Kuwait	Kuwait Export	0.91	-1.10	1.24	4.81	2.23
Saudi Arabia	Arab Light	1.85	-0.43	1.71	5.81	3.02
US						
Iraq	Basrah Light/Medium ¹	1.33	0.56	-0.17	-1.94	-0.98
Saudi Arabia	Arab Light	3.00	1.17	1.08	4.82	6.92
	Arab Medium	1.35	0.07	0.38	4.24	7.28
	Arab Heavy	0.52	-0.44	-0.04	3.79	6.83

Notes:

1. As of 2022, ORB based on Basrah Medium, before Basrah Light.
Adjustment factors are related to corresponding benchmark crudes.

Oil prices

Table 7.4

ICE Brent, NYMEX WTI and DME Oman annual average of the 1st, 6th and 12th forward months(\$/b)

	2019	2020	2021	2022	2023
ICE Brent					
1 st forward month	64.16	43.21	70.95	99.04	82.17
6 th forward month	62.32	45.15	68.26	91.63	80.10
12 th forward month	61.19	46.20	65.88	86.66	77.84
NYMEX WTI					
1 st forward month	57.04	39.34	68.11	94.33	77.60
6 th forward month	56.80	41.86	65.62	87.46	75.98
12 th forward month	55.47	42.71	62.72	82.08	73.49
DME Oman					
1 st forward month	63.99	43.03	69.50	96.34	82.02
6 th forward month	60.93	44.52	66.59	88.09	79.64
12 th forward month	59.68	45.54	64.20	83.13	77.37

Table 7.5

Spot prices of petroleum products in major markets

(\$/b)

		2019	2020	2021	2022	2023
US Gulf						
Gasoline	Regular unleaded 87	72.70	47.80	86.72	123.34	104.59
Ultra low sulphur diesel	15ppm sulphur	79.60	50.80	85.10	145.80	115.10
Fuel Oil	3.0% sulphur	52.55	34.72	59.84	76.84	68.14
Singapore						
Gasoline	Premium unleaded 97	74.15	47.61	81.66	117.52	100.72
Gasoil	0.05% sulphur	77.22	48.36	75.96	130.65	104.01
Fuel Oil	380 centistokes	56.70	37.53	62.07	76.63	69.23
Rotterdam						
Gasoline	Premium unleaded 98	79.52	51.34	85.89	136.26	125.96
Gasoil	10ppm sulphur	79.50	49.17	78.31	142.32	111.19
Fuel Oil	3.5% Sulphur	48.90	33.27	60.09	75.42	69.45

Notes:

US Gulf and Singapore prices apply to cargo. Rotterdam prices apply to barge size lots.

Table 7.6
Crack spreads in major markets

(\$/b)

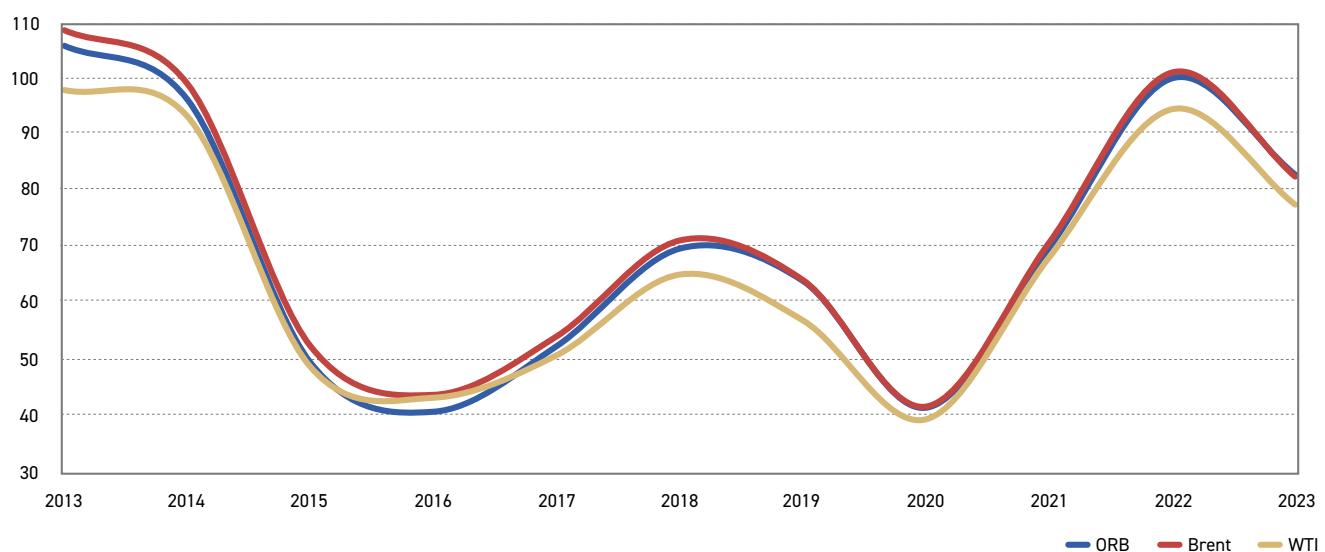
	2019	2020	2021	2022	2023
US Gulf crack spread vs WTI					
Gasoline – Regular unleaded 87	15.79	8.28	18.55	28.79	27.01
Ultra low sulphur diesel 62	22.61	11.31	16.93	51.25	37.52
Fuel oil – 3.0% sulphur	-4.51	-4.65	-8.33	-17.71	-9.44
Singapore crack spread vs Dubai					
Gasoline – Premium unleaded 97	10.77	5.37	12.28	21.2	18.7
Gasoil – 0.05% sulphur	13.75	6.12	6.58	34.33	21.99
Fuel oil – 380 centistokes	-6.83	-4.67	-7.31	-19.69	-12.79
Rotterdam crack spread vs Brent					
Gasoline – Premium unleaded 98	15.26	9.86	15.09	35.16	43.39
Gasoil – 10ppm sulphur	15.26	7.65	7.51	41.22	28.62
Fuel oil – 3.5% sulphur	-15.37	-8.26	-10.71	-25.68	-13.12

Notes:

US Gulf and Singapore prices apply to cargo. Rotterdam prices apply to barge size lots.

Graph 7.1
OPEC Reference Basket, Brent and WTI

(\$/b)



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SECTION 8

Taxes on oil

Table 8.1
Composite barrel and its components in major OECD oil consuming countries

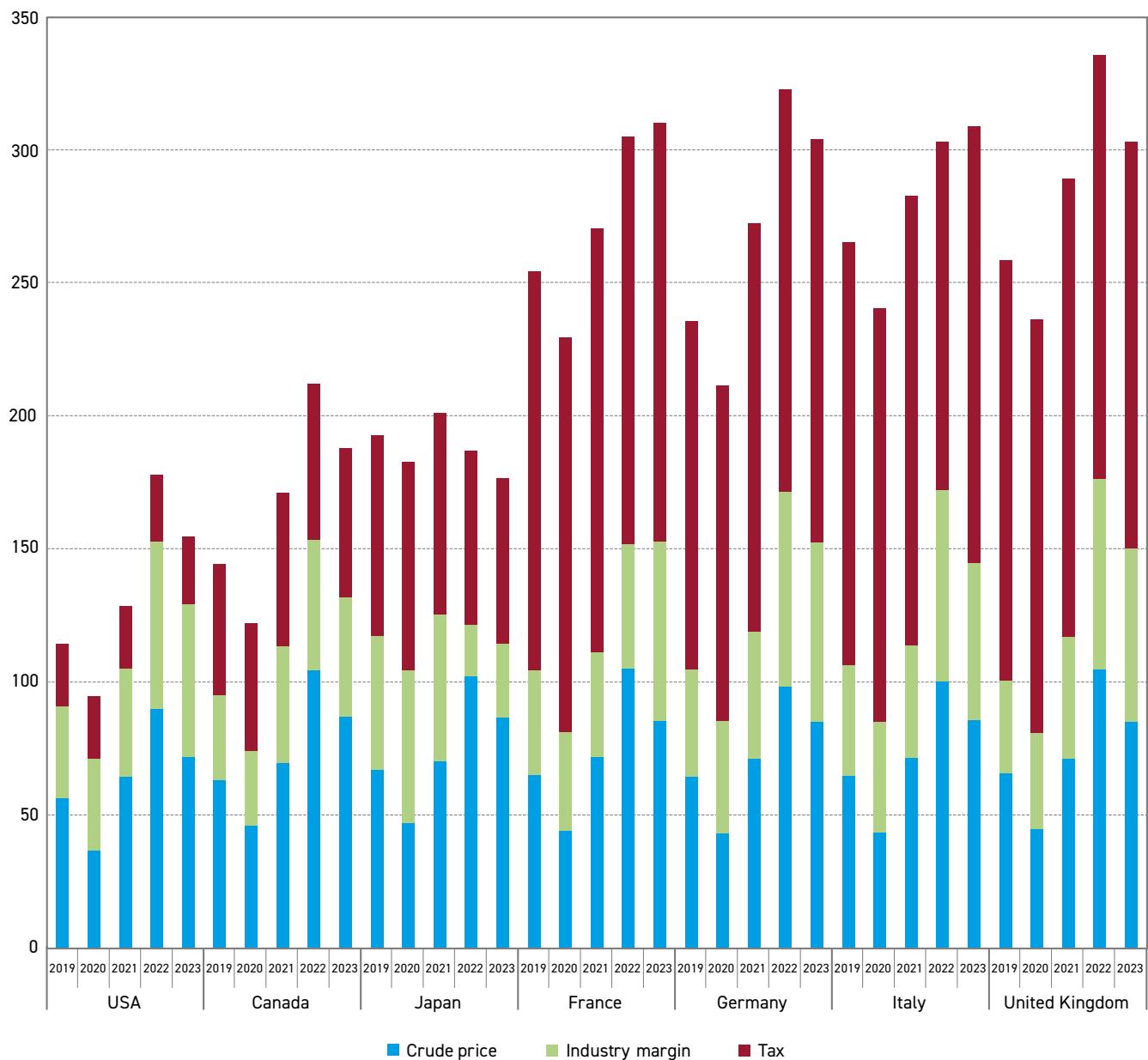
	2019				2020				2021				2022				2023			
	\$/b	% share	% change y-o-y	\$/b	% share	% change y-o-y	\$/b	% share	% change y-o-y											
USA																				
Composite Barrel	114.30	49.3	-4.0	94.61	36.57	-17.2	128.58	50.1	35.9	177.84	89.71	50.4	38.3	154.51	71.87	46.5	-13.1			
Crude CIF Price	56.33		-4.8	35.1	23.77	-35.1	64.43	23.67	76.2	25.29	14.2	6.9	39.2	25.32	16.4	-19.9				
Tax	23.74	20.8	0.3	25.1	0.1	-0.43											0.1			
Industry Margin	34.23	29.9	-5.5	34.28	36.2	0.1	40.49	31.5	18.1	62.84	35.3	55.2	57.32	37.1			-8.8			
Canada																				
Composite Barrel	144.27		-7.9	121.85	45.79	-27.5	170.80	40.2	40.2	212.07	49.1	50.0	24.2	187.79	86.93	46.3	-11.4			
Crude CIF Price	63.12	43.8	-10.9	47.97	39.4	-3.1	57.43	33.6	19.7	58.90	27.8	2.6	5.9	56.26	30.0	-4.5				
Tax	49.52	34.3	0.5%	47.97	28.09	-11.2	43.93	25.7	56.4	49.01	23.1	11.6	44.60	23.8			-9.0			
Industry Margin	31.63	21.9	-13.5																	
Japan																				
Composite Barrel	192.60		-0.3	182.48		-5.3	201.17	10.2	10.2	186.86		-7.1		176.53	0.0	-5.5				
Crude CIF Price	66.78	34.7	-8.3	46.85	25.7	-29.8	70.25	34.9	49.9	102.11	54.6	45.4	5.4	86.60	49.1	-15.2				
Tax	75.27	39.1	3.5	78.40	43.0	4.2	76.07	37.8	-3.0	65.62	35.1	-13.7	4.0	62.22	35.2	-5.2				
Industry Margin	50.55	26.2	6.2	57.23	31.4	13.2	54.85	27.3	-4.1	19.13	10.2	-65.1	27.72	15.7		44.9				
France																				
Composite Barrel	254.19		-5.0	229.44		-9.7	270.25	17.8	17.8	304.87		12.8		309.94	1.7					
Crude CIF Price	64.98	25.6	-9.2	44.04	19.2	-32.2	71.70	26.5	62.8	105.06	34.5	46.5	4.5	85.32	27.5					
Tax	149.98	59.0	-4.6	148.47	64.7	-1.0	159.42	59.0	7.4	153.07	50.2	-4.0	4.0	157.37	50.7	2.7				
Industry Margin	39.23	15.4	0.8	36.93	16.1	-5.9	39.13	14.5	6.0	46.73	15.3	19.4	67.35	21.7		44.1				
Germany																				
Composite Barrel	235.45		-6.4	211.34		-10.2	272.21	28.8	28.8	322.56		18.5		303.88	-5.8					
Crude CIF Price	64.43	27.4	-8.6	43.05	20.4	-33.2	71.19	26.2	65.4	97.99	30.4	37.6	4.6	85.04	28.0					
Tax	130.77	55.5	-4.9	126.28	59.8	-3.4	153.46	56.4	21.5	151.16	46.9	-1.5	1.5	151.75	49.9	0.4				
Industry Margin	40.25	17.1	-7.6	42.01	19.9	4.4	47.56	17.5	13.2	73.41	22.8	54.3	67.09	22.1		-8.6				
Italy																				
Composite Barrel	265.11		-5.6	240.27		-9.4	282.56	17.6	17.6	302.99		7.2		308.75	1.9					
Crude CIF Price	64.70	24.4	-8.7	43.24	18.0	-33.2	71.45	25.3	65.2	99.91	33.0	39.8	5.8	85.55	27.7	-14.4				
Tax	159.07	60.0	-5.3	155.57	64.7	-2.2	168.82	59.7	8.5	131.04	43.2	-22.4	4.2	164.38	53.2	25.4				
Industry Margin	41.34	15.6	-1.3	41.46	17.3	0.3	42.28	15.0	2.0	72.04	23.8	70.4	58.82	19.1		-18.4				
United Kingdom																				
Composite Barrel	258.55		-3.2	236.21		-8.6	289.22	22.4	22.4	335.36		16.0		302.95	-9.7					
Crude CIF Price	65.58	25.4	-9.7	44.62	18.9	-32.0	71.20	24.6	59.6	104.66	31.2	47.0	4.0	84.89	28.0					
Tax	158.37	61.3	-3.1	155.51	65.8	-1.8	172.57	59.7	11.0	159.15	47.5	-7.8	7.8	153.16	50.6	-3.8				
Industry Margin	34.61	13.4	12.2	36.08	15.3	4.3	45.45	15.7	2.6	71.55	21.3	57.4	64.90	21.4		-9.3				
G7																				
Composite Barrel	209.21		-4.7	188.03		-10.1	230.68	22.7	22.7	263.22		14.1		249.19	-5.3					
Crude CIF Price	63.70	30.4	-8.7	43.45	23.1	-31.8	69.95	30.3	61.0	100.51	38.2	43.7	3.7	83.74	33.6	-16.7				
Tax	106.67	51.0	-3.3	105.14	55.9	-1.4	115.92	50.2	10.3	106.32	40.4	-8.3	8.3	110.05	44.2	3.5				
Industry Margin	38.83	18.6	-1.4	39.44	21.0	1.6	44.81	19.4	13.6	56.39	21.4	25.8	55.40	22.2		-1.8				
OECD																				
Composite Barrel	216.58		-3.8	191.24		-11.7	232.53	21.6	21.6	277.62		19.4		252.98	-8.9					
Crude CIF Price	64.62	29.8	-8.8	43.97	23.0	-32.0	69.90	30.1	59.0	99.84	36.0	42.8	8.9	83.80	33.1	-16.1				
Tax	109.91	50.7	0.4	103.90	54.3	-5.5	112.79	48.5	8.6	109.18	39.3	-3.2	3.2	112.00	44.3	2.6				
Industry Margin	42.05	19.4	-6.2	43.37	22.7	3.1	49.85	21.4	14.9	68.61	24.7	37.6	57.19	22.6		-16.6				

Notes:

Prices partly estimated and preliminary. Quotations converted from various volumetric units to barrel. Revisions have been made throughout the time series. Because of rounding in the conversions from other units to barrels, some results may not agree exactly with the sum of their component parts.

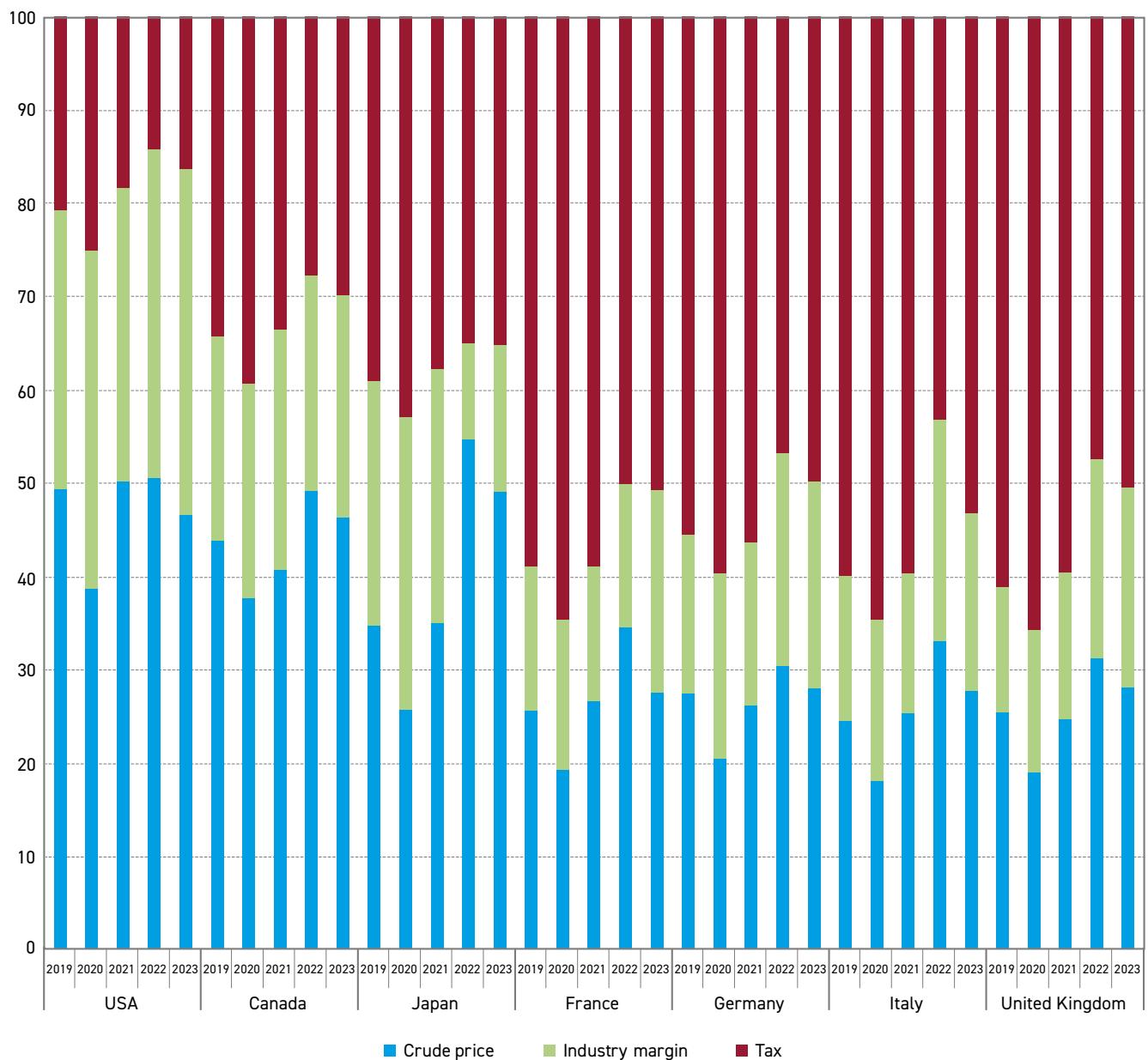
Graph 8.1
Composite barrel and its components

(\$/b)



Graph 8.2
Composite barrel and its components in percentage

(%)



SECTION 9

Natural gas data

Natural gas data

Table 9.1
World proven natural gas reserves by country

(bn s cu m)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	15,913	15,933	19,604	19,798	20,533	735
Canada	2,471	2,472	2,615	2,802	2,802	0
Chile	8	8	10	10	10	0
Mexico	263	283	305	312	311	-1
United States	13,171	13,171	16,674	16,674	17,410	736
OECD Europe	2,855	3,095	3,190	3,207	3,192	-15
Denmark	77	74	73	77	71	-6
Germany	25	22	20	20	25	5
Italy	46	44	40	37	35	-2
Netherlands	133	92	93	72	56	-16
Norway	2,165	2,095	2,072	1,959	1,979	20
Poland	85	85	84	89	89	0
United Kingdom	260	221	212	188	172	-16
Others	64	462	596	765	765	0
OECD Asia Pacific	3,475	3,463	3,562	3,621	3,618	-3
Australia	2,846	2,844	2,844	2,844	2,844	0
Japan	26	24	23	23	23	0
New Zealand	53	54	50	42	39	-3
Others	550	541	645	712	712	0
China	2,834	2,922	2,892	2,887	2,985	98
India	1,381	1,372	1,372	1,139	945	-194
Other Asia	5,447	5,148	5,003	4,757	4,597	-160
Bangladesh	300	284	263	243	225	-18
Brunei	240	233	228	222	222	0
Indonesia	1,233	1,118	1,028	902	788	-114
Malaysia	2,240	2,130	2,095	2,056	2,056	0
Myanmar	248	240	232	224	224	0
Pakistan	454	461	487	458	430	-28
Thailand	138	112	97	97	97	0
Vietnam	190	186	182	178	178	0
Others	404	384	391	377	377	0
Latin America	7,338	7,161	7,148	7,142	7,130	-12
Argentina	400	376	392	437	470	33
Bolivia	200	192	183	175	175	0
Brazil	365	338	379	406	434	28
Colombia	90	83	90	80	71	-9
Ecuador	11	10	9	9	9	0
Peru	287	274	262	237	208	-29
Trinidad & Tobago	302	289	284	279	279	0
Venezuela	5,674	5,590	5,541	5,511	5,476	-35
Others	9	9	8	8	8	0
Middle East	80,742	80,781	81,322	82,338	82,463	125
IR Iran	33,899	33,988	33,988	33,988	33,988	0
Iraq	3,714	3,714	3,714	3,714	3,714	0
Kuwait	1,784	1,784	1,784	1,784	1,784	0
Oman	674	673	673	673	661	-12
Qatar	23,831	23,831	23,831	23,831	23,831	0
Saudi Arabia	8,366	8,437	8,507	9,514	9,651	137
United Arab Emirates	7,726	7,730	8,200	8,210	8,210	0
Others	748	624	624	624	624	0
Africa	17,998	17,945	18,035	17,935	17,891	-44
Algeria	4,504	4,504	4,504	4,504	4,504	0
Angola	343	301	301	129	55	-74
Cameroon	170	179	176	173	173	0
Congo	284	284	284	284	284	0
Egypt	2,209	2,209	2,209	2,209	2,209	0
Equatorial Guinea	39	39	39	39	39	0
Gabon	26	26	26	26	26	0
Libya	1,505	1,505	1,505	1,505	1,505	0
Mozambique	2,840	2,840	2,840	2,840	2,840	0
Nigeria	5,761	5,750	5,848	5,913	5,943	30
Others	316	309	303	313	313	0
Russia	49,084	47,759	47,759	44,150	44,150	0
Other Eurasia	18,931	18,920	18,848	18,844	18,844	0
Azerbaijan	1,917	1,917	1,917	1,917	1,917	0
Kazakhstan	1,830	1,830	1,830	1,830	1,830	0
Turkmenistan	13,950	13,950	13,950	13,950	13,950	0
Ukraine	349	338	266	248	248	0
Uzbekistan	867	867	867	867	867	0
Others	18	18	18	32	32	0
Other Europe	97	92	88	84	84	0
Bulgaria	4	4	4	4	4	0
Romania	81	77	74	70	70	0
Others	12	11	10	10	10	0
Total world	206,095	204,591	208,823	205,903	206,434	531
<i>of which</i>						
OPEC	73,282	73,350	73,941	74,992	75,124	132
<i>OPEC percentage</i>	35.6	35.9	35.4	36.4	36.4	
OECD	22,243	22,491	26,356	26,626	27,344	717

Notes: Figures as at year-end.

Table 9.2

World marketed production of natural gas by country

(million s cu m)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	1,179,810	1,169,724	1,195,170	1,261,281	1,308,694	47,413
Canada	188,020	183,528	190,348	203,343	207,456	4,113
Chile	1,750	1,402	1,275	1,387	1,430	43
Mexico	27,038	25,581	23,917	25,078	26,746	1,668
United States	963,002	959,213	979,630	1,031,473	1,073,062	41,589
OECD Europe	218,709	202,087	193,913	204,403	182,722	-21,681
Denmark	3,133	1,840	1,918	1,982	2,106	124
Germany	5,741	4,874	4,806	4,569	4,063	-506
Italy	4,851	3,932	3,335	3,328	3,019	-309
Netherlands	33,607	24,167	21,962	18,681	12,393	-6,288
Norway	119,050	116,208	118,301	126,961	117,179	-9,782
Poland	5,669	5,593	5,563	5,484	3,697	-1,787
United Kingdom	40,287	39,925	33,077	38,392	35,108	-3,284
Others	6,371	5,548	4,951	5,006	5,158	152
OECD Asia Pacific	169,408	176,720	183,488	192,449	190,234	-2,215
Australia	151,924	153,014	156,262	162,973	160,938	-2,035
Japan	3,872	3,589	3,934	4,224	4,004	-220
New Zealand	4,516	4,477	3,916	3,736	3,776	40
Others	9,096	15,640	19,376	21,516	21,516	0
China	169,970	185,900	201,100	213,770	226,803	13,033
India	31,160	27,700	32,300	33,879	35,458	1,579
Other Asia	290,900	268,790	269,980	267,332	270,676	3,344
Bangladesh	25,310	23,500	24,000	24,600	29,232	4,632
Brunei	11,630	11,100	10,120	9,400	9,015	-385
Indonesia	63,940	56,000	55,770	58,072	60,374	2,302
Malaysia	68,100	62,900	67,240	71,600	71,740	140
Myanmar	16,660	15,790	15,280	14,900	13,410	-1,490
Pakistan	37,400	35,800	37,300	36,800	35,912	-888
Thailand	37,420	33,700	33,100	27,400	27,163	-237
Vietnam	9,010	8,040	6,520	7,100	7,028	-72
Others	21,430	21,960	20,650	17,460	16,801	-659
Latin America	191,354	178,507	182,490	189,738	189,324	-414
Argentina	49,351	45,101	45,306	48,488	48,109	-379
Bolivia	16,460	15,810	16,470	15,080	12,926	-2,154
Brazil	44,724	46,650	48,824	50,338	54,677	4,339
Colombia	9,770	9,500	9,780	9,600	9,466	-134
Ecuador	310	300	310	310	310	0
Peru	13,700	11,990	11,800	13,900	14,873	973
Trinidad & Tobago	35,530	30,240	25,430	26,700	25,432	-1,268
Venezuela	20,559	18,026	23,720	24,421	22,631	-1,790
Others	950	890	850	900	900	0
Middle East	701,413	707,342	722,173	737,341	756,577	19,235
IR Iran	241,730	249,630	257,119	262,261	275,000	12,739
Iraq	11,544	7,374	9,586	9,778	10,963	1,185
Kuwait	13,952	12,883	12,728	13,883	15,547	1,664
Oman	35,110	35,300	37,470	39,600	40,074	474
Qatar	204,430	205,720	206,740	210,490	211,058	568
Saudi Arabia	117,000	119,000	120,485	122,895	123,531	637
United Arab Emirates	55,097	55,064	54,485	55,574	56,686	1,111
Others	22,550	22,370	23,560	22,860	23,718	858
Africa	266,685	252,070	271,521	257,581	253,090	-4,491
Algeria	90,302	85,119	105,043	100,513	104,275	3,762
Angola	10,546	11,313	8,820	5,505	5,591	86
Cameroon	2,360	2,380	2,330	2,400	2,756	356
Congo	580	405	415	423	425	2
Egypt	67,470	60,740	70,400	67,000	59,328	-7,672
Equatorial Guinea	6,235	6,023	7,047	8,105	7,103	-1,002
Gabon	464	502	454	463	463	0
Libya	26,830	20,930	13,010	12,570	11,750	-820
Nigeria	47,828	49,947	48,572	44,307	42,403	-1,904
Others	14,070	14,710	15,430	16,295	18,995	2,700
Russia	692,680	651,400	719,200	673,968	636,900	-37,068
Other Eurasia	211,318	196,849	210,343	214,330	222,206	7,876
Azerbaijan	22,840	24,280	29,940	34,957	36,583	1,626
Kazakhstan	26,500	25,680	24,760	22,420	23,370	950
Turkmenistan	86,700	82,700	87,830	92,900	98,263	5,363
Ukraine	20,700	19,700	19,800	18,000	16,560	-1,440
Uzbekistan	54,300	44,200	47,690	45,730	47,102	1,372
Others	278	289	323	323	328	5
Other Europe	11,340	10,230	9,980	10,140	10,225	85
Bulgaria	30	50	30	20	16	-4
Croatia	840	700	620	600	546	-54
Romania	9,950	9,010	8,920	9,140	9,285	145
Others	520	470	410	380	378	-2
Total world	4,134,747	4,027,318	4,191,658	4,256,213	4,282,908	26,696
<i>of which</i>						
OPEC	632,120	624,904	652,664	655,194	670,777	15,583
<i>OPEC percentage</i>	15.3	15.5	15.6	15.4	15.7	
OECD	1,567,927	1,548,531	1,572,571	1,658,133	1,681,650	23,518

Natural gas data

Table 9.3
World natural gas exports by country

(million s cu m)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	208,586	220,623	267,968	280,800	297,650	16,850
Canada	76,629	70,932	79,560	85,279	82,118	-3,161
United States	131,884	149,640	188,376	195,489	215,521	20,032
Others	73	51	32	32	11	-21
OECD Europe	427,005	406,933	369,751	357,913	291,679	-66,234
Austria	40,152	38,617	36,708	19,107	8,281	-10,826
Belgium	24,606	24,632	22,710	45,208	36,994	-8,214
Denmark	1,344	1,713	1,740	2,153	8,393	6,240
France	10,789	9,102	5,787	15,232	14,089	-1,143
Germany	67,989	76,251	71,298	49,517	20,176	-29,341
Italy	326	316	316	316	316	0
Netherlands	47,664	39,976	43,276	41,126	38,218	-2,908
Norway	113,250	112,270	111,456	119,063	114,930	-4,133
Spain	1,121	1,188	3,018	6,016	6,605	589
United Kingdom	8,044	9,595	6,816	23,484	15,850	-7,634
Others	111,720	93,273	66,626	36,691	27,827	-8,864
OECD Asia Pacific	100,433	106,694	113,860	116,124	115,306	-818
Australia	100,253	102,434	106,708	106,500	105,682	-818
Others	180	4,260	7,152	9,624	9,624	0
China	3,639	5,196	5,436	5,730	6,371	641
India	90	0	0	0	0	0
Other Asia	93,040	89,420	90,399	90,270	86,575	-3,695
Brunei	8,590	7,990	7,300	6,170	5,502	-668
Indonesia	24,860	24,250	23,520	22,310	21,463	-847
Malaysia	35,560	34,210	36,779	39,230	38,431	-799
Myanmar	12,240	11,370	11,350	11,300	9,990	-1,310
Others	11,790	11,600	11,450	11,260	11,189	-71
Latin America	36,240	32,840	25,480	27,080	24,807	-2,273
Argentina	1,710	1,470	580	1,700	2,521	821
Bolivia	12,650	12,000	11,990	10,140	7,673	-2,467
Peru	5,080	4,850	3,480	4,310	4,604	294
Trinidad & Tobago	16,800	14,240	9,270	10,740	9,879	-861
Others	0	280	160	190	130	-60
Middle East	164,378	160,556	174,129	175,379	193,779	18,400
IR Iran	12,350	11,520	18,425	18,794	12,927	-5,867
Oman	13,430	12,810	13,340	14,790	14,847	57
Qatar	129,340	127,460	134,515	134,515	161,249	26,734
United Arab Emirates	9,258	8,766	7,849	7,280	4,756	-2,524
Others	0	0	0	0	0	0
Africa	105,642	97,220	121,327	112,625	109,345	-3,280
Algeria	42,776	39,459	54,759	48,920	52,037	3,117
Angola	5,904	6,367	5,084	7,540	5,090	-2,450
Congo	0	0	0	0	0	0
Egypt	5,030	2,120	9,370	9,810	8,124	-1,686
Equatorial Guinea	4,679	4,026	4,694	5,737	4,571	-1,166
Libya	5,700	4,292	3,066	2,479	1,066	-1,413
Nigeria	35,953	35,586	38,464	32,190	29,650	-2,540
Others	5,600	5,370	5,890	5,950	8,807	2,857
Russia	258,240	236,880	244,310	169,940	175,745	5,805
Other Eurasia	77,730	61,530	76,840	76,771	77,356	585
Azerbaijan	11,300	13,310	19,280	22,581	23,248	667
Kazakhstan	17,840	12,640	12,150	7,350	5,411	-1,939
Turkmenistan	36,370	32,000	39,690	43,100	46,969	3,869
Uzbekistan	12,220	3,580	5,720	3,740	1,729	-2,011
Others	0	0	0	0	0	0
Other Europe	542	432	77	990	4,033	3,043
Bulgaria	500	400	0	0	854	854
Others	42	32	77	990	3,179	2,189
Total world	1,475,565	1,418,324	1,489,577	1,413,623	1,382,646	-30,976
<i>of which</i>						
OPEC	110,716	103,649	127,257	115,400	105,007	-10,392
<i>OPEC percentage</i>	7.5	7.3	8.5	8.2	7.6	
OECD	736,024	734,250	751,579	754,837	704,635	-50,202

Notes:

Data may include re-exports and natural gas in transit.

Table 9.4
World natural gas imports by country

(million s cu m)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	167,914	159,640	170,374	175,632	170,239	-5,393
Canada	26,071	23,684	24,540	25,428	25,260	-168
Mexico	59,250	58,850	61,830	59,210	58,152	-1,058
United States	77,641	72,241	79,516	85,638	83,130	-2,508
Others	4,952	4,865	4,488	5,356	3,697	-1,659
OECD Europe	726,837	695,891	703,379	675,696	548,622	-127,074
Austria	51,374	45,080	41,460	31,237	15,023	-16,214
Belgium	43,367	42,696	41,004	61,082	52,027	-9,055
France	54,670	46,140	45,410	55,303	45,946	-9,357
Germany	158,897	155,493	154,452	133,624	88,580	-45,044
Italy	70,912	66,227	72,728	72,403	61,856	-10,547
Netherlands	59,286	59,922	57,426	61,933	59,502	-2,431
Poland	44,790	41,039	39,361	15,196	17,630	2,434
Spain	37,190	32,489	36,968	39,675	35,914	-3,761
Turkey	45,212	48,125	58,701	54,661	49,683	-4,978
United Kingdom	47,620	43,925	51,071	56,524	45,421	-11,103
Others	113,519	114,755	104,798	94,058	77,040	-17,018
OECD Asia Pacific	171,661	168,336	166,598	160,312	147,936	-12,376
Australia	5,772	6,711	6,069	2,865	658	-2,207
Japan	111,308	107,286	98,780	95,697	86,583	-9,114
South Korea	53,813	53,559	60,951	60,951	59,895	-1,056
Others	768	780	798	799	800	1
China	129,730	136,520	162,860	146,720	162,932	16,212
India	31,500	33,900	31,070	25,410	23,559	-1,851
Other Asia	71,660	74,550	79,370	80,390	82,303	1,913
Malaysia	4,190	3,950	2,890	4,290	3,180	-1,110
Pakistan	10,700	9,760	11,000	8,900	8,697	-203
Singapore	14,440	15,570	15,880	15,050	14,763	-287
Thailand	14,370	14,390	16,060	17,880	21,767	3,887
Others	27,960	30,880	33,540	34,270	33,896	-374
Latin America	20,710	21,300	30,400	20,430	19,325	-1,105
Argentina	7,330	7,050	8,180	5,890	3,887	-2,003
Brazil	9,660	9,820	17,610	9,140	6,580	-2,560
Venezuela	0	0	0	0	0	0
Others	3,720	4,430	4,610	5,400	8,857	3,457
Middle East	39,157	41,078	43,266	43,900	45,029	1,129
IR Iran	1,270	20	0	0	0	0
Iraq	6,104	7,200	9,738	9,430	10,118	688
Jordan	2,770	4,170	3,450	3,720	4,037	317
Kuwait	4,509	5,335	7,024	7,481	8,190	710
Oman	2,000	1,600	1,500	1,500	1,920	420
United Arab Emirates	22,504	22,653	21,554	21,770	20,764	-1,006
Others	0	100	0	0	0	0
Africa	10,140	11,930	14,070	15,560	16,160	600
Egypt	0	2,150	4,110	6,500	6,907	407
Morocco	950	850	710	160	873	713
South Africa	3,950	3,900	4,300	4,200	4,053	-147
Tunisia	4,440	4,130	4,050	3,900	3,464	-436
Others	800	900	900	800	863	63
Russia	19,000	8,590	13,110	8,350	4,494	-3,856
Other Eurasia	48,990	44,040	32,030	31,940	30,686	-1,254
Belarus	18,750	17,340	18,300	17,600	17,000	-600
Kazakhstan	7,900	3,200	1,700	1,600	1,126	-474
Ukraine	14,200	15,800	2,600	1,500	444	-1,056
Others	8,140	7,700	9,430	11,240	12,116	876
Other Europe	10,830	10,140	11,770	10,360	10,105	-255
Bulgaria	3,240	3,210	3,160	2,800	2,888	88
Romania	2,360	1,750	2,580	1,800	1,673	-127
Others	5,230	5,180	6,030	5,760	5,543	-217
Total world	1,448,129	1,405,915	1,458,297	1,394,700	1,261,390	-133,310
<i>of which</i>						
OPEC	34,387	35,208	38,316	38,680	39,072	392
<i>OPEC percentage</i>	2.4	2.5	2.6	2.8	3.1	
OECD	1,066,412	1,023,867	1,040,351	1,011,640	866,797	-144,843

Notes:

Data may include re-exports and natural gas in transit.

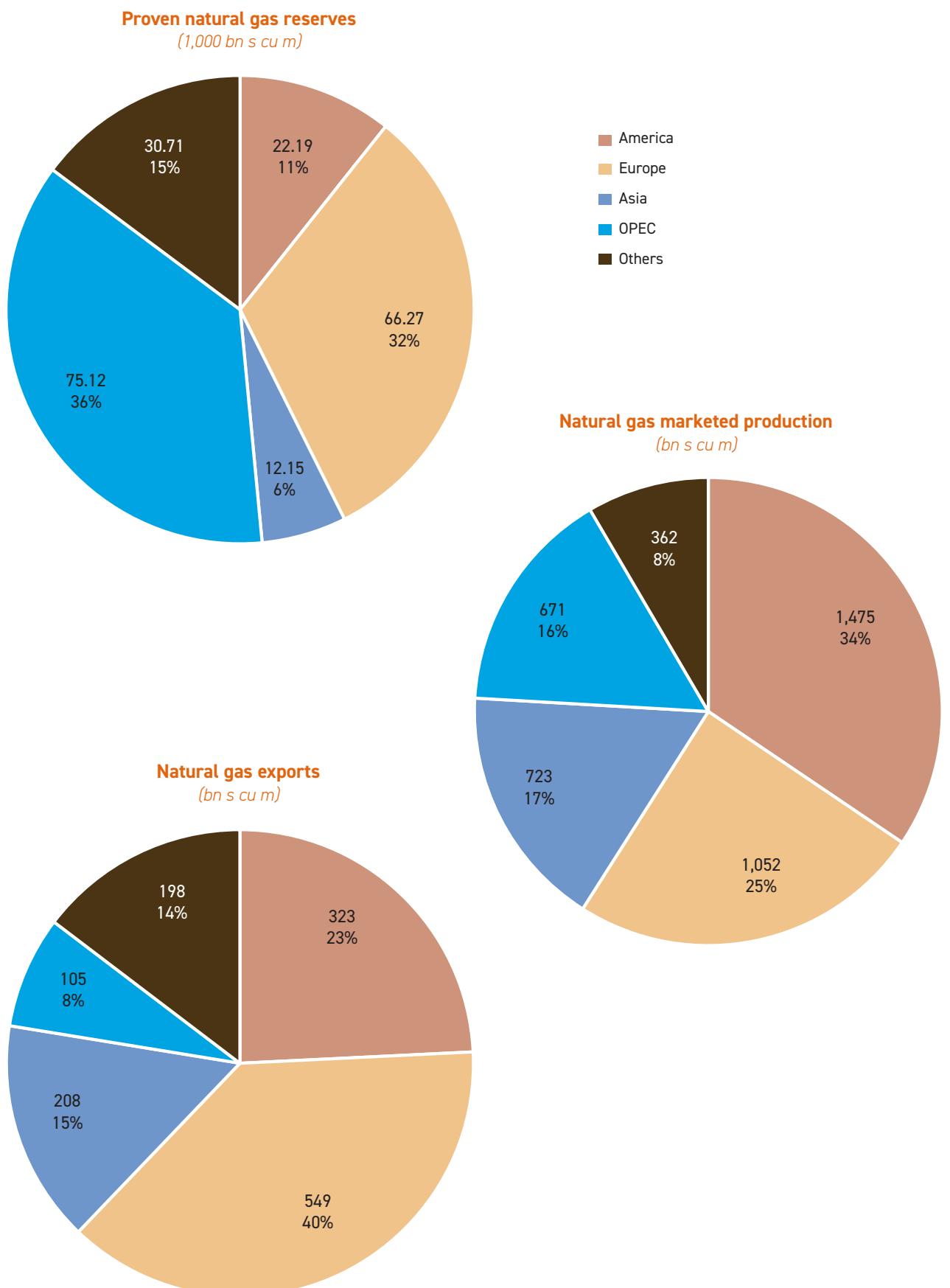
Natural gas data

Table 9.5
World natural gas demand by country

(million s cu m)

	2019	2020	2021	2022	2023	change 23/22
OECD Americas	1,111,516	1,089,462	1,097,384	1,149,447	1,162,218	12,771
Canada	138,954	133,063	138,140	145,161	144,753	-408
Chile	6,229	6,233	6,270	6,855	6,828	-27
Mexico	86,468	84,401	85,186	83,131	84,618	1,487
United States	879,865	865,765	867,788	914,300	926,019	11,719
OECD Europe	523,034	507,247	537,600	470,156	440,269	-29,887
France	41,614	38,562	40,866	36,963	33,363	-3,600
Germany	91,792	89,292	93,627	79,259	76,877	-2,382
Italy	74,316	70,920	76,108	69,511	62,816	-6,695
Netherlands	44,912	44,067	42,278	32,990	31,834	-1,156
Spain	35,399	31,738	33,581	32,309	28,731	-3,578
Turkey	44,995	48,232	59,653	51,040	50,088	-952
United Kingdom	79,321	73,336	76,271	71,028	64,782	-6,246
Others	110,685	111,100	115,216	97,056	91,778	-5,278
OECD Asia Pacific	236,779	235,778	224,613	225,732	217,294	-8,438
Australia	57,443	57,291	55,623	59,338	55,947	-3,391
Japan	114,172	112,087	97,543	95,928	88,680	-7,248
South Korea	50,743	51,751	57,013	56,476	58,619	2,143
Others	14,421	14,649	14,434	13,990	14,048	58
China	299,610	322,420	363,960	359,890	388,495	28,605
India	62,570	61,600	63,370	58,680	67,095	8,415
Other Asia	264,000	248,300	255,300	250,800	255,495	4,695
Bangladesh	30,560	29,500	31,570	30,840	29,958	-882
Brunei	3,040	3,110	2,820	3,230	3,244	14
Indonesia	39,350	31,910	32,440	33,390	36,540	3,150
Malaysia	36,980	33,720	35,800	36,660	36,293	-367
Pakistan	48,100	45,560	48,300	45,700	45,015	-686
Thailand	51,790	48,090	49,080	45,280	48,927	3,647
Others	54,180	56,410	55,290	55,700	55,518	-182
Latin America	145,550	131,595	144,950	131,682	133,709	2,027
Argentina	48,490	44,950	47,290	46,940	49,475	2,535
Brazil	31,840	29,870	37,680	27,920	25,407	-2,513
Colombia	10,130	10,250	10,010	9,880	10,275	395
Peru	8,620	7,140	8,320	9,590	10,261	671
Trinidad & Tobago	18,730	16,000	16,160	15,960	15,400	-560
Venezuela	17,550	13,725	13,650	9,292	9,740	448
Others	10,190	9,660	11,840	12,100	13,151	1,051
Middle East	550,154	553,139	567,305	583,714	606,073	22,359
Bahrain	18,900	19,200	20,060	19,900	20,858	958
IR Iran	231,220	233,000	243,019	253,469	261,073	7,604
Iraq	17,598	18,798	19,324	19,865	20,362	497
Kuwait	18,460	18,218	19,752	21,364	23,737	2,373
Oman	23,680	24,090	25,630	26,310	27,147	837
Qatar	42,930	42,630	44,380	43,490	49,809	6,319
Saudi Arabia	122,720	119,000	120,000	122,400	123,531	1,131
United Arab Emirates	68,226	70,763	68,190	70,236	72,694	2,458
Others	6,420	7,440	6,950	6,680	6,862	182
Africa	153,346	154,179	161,109	164,050	169,516	5,466
Algeria	46,809	45,226	49,568	51,400	51,820	420
Angola	789	821	826	588	591	3
Congo	580	405	415	425	430	5
Egypt	62,440	60,770	65,140	63,690	64,551	861
Equatorial Guinea	1,477	1,876	2,193	2,426	2,358	-68
Gabon	635	665	554	461	450	-11
Libya	6,939	8,554	10,475	10,580	8,346	-2,234
Nigeria	12,705	14,361	10,108	12,970	18,717	5,747
South Africa	5,050	4,950	5,290	4,900	4,753	-147
Others	15,920	16,550	16,540	16,610	17,500	890
Russia	453,440	423,110	488,000	472,740	465,649	-7,091
Other Eurasia	181,800	179,180	164,680	165,010	175,003	9,993
Azerbaijan	12,530	11,120	11,170	8,760	12,400	3,640
Kazakhstan	16,560	16,240	14,310	16,670	19,171	2,501
Turkmenistan	50,330	50,700	48,140	49,800	51,294	1,494
Ukraine	34,340	35,540	21,750	19,200	18,816	-384
Uzbekistan	42,080	40,900	42,560	44,790	48,373	3,583
Others	25,960	24,680	26,750	25,790	24,949	-841
Other Europe	21,670	19,970	21,750	20,500	19,630	-870
Bulgaria	2,770	2,860	3,190	2,820	2,622	-198
Romania	12,310	10,760	11,500	10,940	10,301	-639
Others	6,590	6,350	7,060	6,740	6,707	-33
Total world	4,003,469	3,925,980	4,090,022	4,052,401	4,100,446	48,045
of which						
OPEC	544,920	544,592	557,248	574,887	593,258	18,371
OPEC percentage	13.6	13.9	13.6	14.2	14.5	
OECD	1,871,329	1,832,487	1,859,597	1,845,335	1,819,781	-25,554

Graph 9.1
Natural gas flows during 2023



General notes

General Notes

Definitions

Biofuels: transportation fuels derived from biomass, including fuel ethanol and biodiesel, whereby these fuels are usually blended with petroleum fuels.

Ethanol is an alcohol made by fermenting starch or sugar, notably from (corn) grains and sugar cane. Biodiesel is made primarily from vegetable oils (e.g. palm oil, soybean oil) or from other oily sources (such as waste cooking grease).

Completion: the installation of permanent equipment for the production of oil or gas.

Composite barrel: a consumption weighted average of retail prices (including taxes) of the main groups of petroleum products.

Crude oil: a mixture of hydrocarbons that exists in a liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. For statistical purposes, volumes reported as crude oil include:

- liquids technically defined as crude oil;
- small amounts of hydrocarbons that exist in the gaseous phase in natural underground reservoirs, but which are liquid at atmospheric pressure after being recovered from oil well (casing head) gas in lease separators;
- small amounts of non-hydrocarbons produced with the oil;
- very heavy and extra-heavy crude oils with viscosity less than 10,000 mPa.s (centipoises) at original reservoir conditions.

Distillates: middle distillate type of hydrocarbons; includes products similar to number one and number two heating oils and diesel fuels. These products are used for space heating, diesel engine fuel and electrical power generation.

Dry hole: a well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Exports of petroleum products: excludes international air and marine bunkers.

Gasoline: a mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in internal combustion engines; includes gasoline used in aviation.

Geneva I agreement: agreement of January 1972 between some OPEC Member Countries and the major international oil companies, which had the effect of establishing an index for quarterly adjustments of posted crude oil prices on the basis of the arithmetic average of the deviations of the exchange rates of nine major currencies against the US dollar. This was modified to an import-weighted index in 1978, accounting for exchange rates and inflation rate. The present 'modified Geneva I + US dollar' currency basket includes the US dollar, the Chinese yuan, the Euro, the Indian rupee, the Turkish lira, the Japanese yen, the South Korean won, the UK pound, the Vietnamese dong and the Swiss franc

Kerosene: medium hydrocarbon distillates in the 150° to 280° C distillation range and used as a heating fuel as well as for certain types of internal combustion engines; includes jet fuel, which is a fuel of naphtha or of kerosene type, suitable for commercial or military purposes in aircraft turbine engines.

Natural gas liquids (NGLs): those reservoir gases liquefied at the surface in lease separators, field facilities or gas processing plants. NGLs consist of field condensates and natural gas plant products such as ethane, pentane, propane, butane and natural gasoline.

Natural gas: a mixture of hydrocarbon compounds and small quantities of various non-hydrocarbons existing in the gaseous phase or in solution with oil in natural underground reservoirs at reservoir conditions. The natural gas volumes refer to Standard Conditions of 60° F, 14.73 psia (15.6° C, 760 mm/Hg).
Gross production: the total flow of natural gas from oil and gas reservoirs of associated-dissolved and non-associated gas.

Marketed production: corresponds to gross production, minus the volumes of gas flared or re-injected into fields, minus the shrinkage..

Re-injection: the total volume of natural gas produced from oil and gas completions, processed through gas-processing plants and field facilities, and used for gas lift, gas injection and cycling operations.

Shrinkage: volume shrinkage due to purification and/or extraction of natural gas liquids, gas used as input to GTL plants, lease separators, plant own consumption and any other losses caused by spillage, evaporation, etc.

Non-conventional oil: includes synthetic crude oil from tar sands, oil shale, etc., liquids derived from coal liquefaction (CTL) and gas liquefaction (GTL), hydrogen and emulsified oils (e.g. Orimulsion), non-hydrocarbon compounds added to or blended with a product to modify fuel properties (octane, cetane, cold properties, etc.) e.g. alcohols (methanol, ethanol), ethers (such as MTBE (methyl tertiary butyl ether), ETBE (ethyl tertiary butyl ether), TAME (tertiary amyl methyl ether) or esters (e.g. rapeseed or dimethylester, etc.) and chemical compounds such as TML (tetramethyl lead) or TEL (tetraethyl lead) and detergents

Oil demand: inland delivery, including refinery fuels and losses, as well as products from gas plants; including international air and marine bunkers as well as direct crude burning.

Oil or gas well: a well completed for the production of oil or gas from one or more zones or reservoirs.

Oil supply: consists of crude oil natural gas liquids and non-conventional oil production.

OPEC Basket: the OPEC Reference Basket (ORB) price was introduced on 1 January 1987. Up to 15 June 2005, it was the arithmetic average of seven selected crudes. These were: Saharan Blend (Algeria); Minas (Indonesia); Bonny Light (Nigeria); Arab Light (Saudi Arabia); Dubai (United Arab Emirates); Tia Juana Light (Venezuela); and Isthmus (Mexico). As of 16 June 2005, the ORB is calculated as a production-weighted average of the OPEC Basket of crudes. These are: Saharan Blend (Algeria); Girassol (Angola, between January 2007 and December 2023); Oriente (Ecuador, between October 2007 and February 2020); Djeno (Congo, as of June 2018), Zafiro (Equatorial Guinea, as of 25 May, 2017); Rabi Light (Gabon, as of 1 July 2016); Minas (Indonesia, until December 2008, between January 2016 and December 2016); Iran Heavy (IR Iran); Basrah Medium (Iraq; prior to 2022 ORB based on Basrah Light); Kuwait Export (Kuwait); Es Sider (Libya); Bonny Light (Nigeria); Qatar Marine (Qatar, until December 2018); Arab Light (Saudi Arabia); Murban (United Arab Emirates); and Merey (Venezuela).

Output of petroleum products: the total amount of petroleum products produced from refinery input in a given period, excluding refinery fuels.

Petroleum products: products obtained from the processing of crude oil, unfinished oils, NGLs and other hydrocarbon compounds. These include aviation gasoline, motor gasoline, naphtha, kerosene, jet fuel, distillate fuel oil, residual fuel oil, liquefied petroleum gas, lubricants, paraffin wax, petroleum coke, asphalt and other products.

Proven crude oil reserves: the estimated quantities of all liquids statistically defined as crude oil. They consist of those quantities of crude oil which by analysis of geoscience and engineering data can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods and government regulations (*source: SPE – Petroleum Resources Management System*).

Proven natural gas reserves: are the estimated quantities of all hydrocarbons statistically defined as natural gas. They consist of those quantities of natural gas (associated and non-associated) which by analysis of geoscience and engineering data can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operation methods and government regulations (*source: SPE – Petroleum Resources Management System*).

Refinery capacity (charge): the input (feed) capacity of refinery processing facilities.

Refinery capacity (operable): the maximum amount of input to atmospheric distillation units that can be processed in an average 24-hour period.

Refinery throughput: oil input to atmospheric distillation unit..

Residual fuel oil: fuels obtained as liquid still bottoms from the distillation of crude used alone or in blends with heavy liquids from other refinery process operations. These are used for the generation of electric power, space heating, vessel bunkering and various industrial purposes.

Rig: a derrick complete with engine-house and other equipment necessary for drilling oil and gas wells.

Well (exploratory and development): a hole drilled for the purpose of finding or producing crude oil or natural gas, or providing services related to the production of crude oil and natural gas.

Country groupings

(OPEC Member Countries are shown in bold.)

OECD Americas: Canada, Chile, Mexico and United States.

OECD Europe: Austria, Belgium, Czech Republic, Denmark (including Faroe Islands), Estonia, Finland, France (including Andorra and Monaco), Germany, Greece, Hungary, Iceland, Ireland, Italy (including San Marino and the Holy See), Latvia, Lithuania, Luxembourg, Netherlands, Norway (including Svalbard and Jan Mayen Islands), Poland, Portugal, Slovakia, Slovenia, Spain (including Canary Islands), Sweden, Switzerland (including Liechtenstein), Turkey and United Kingdom.

OECD Asia Pacific: Australia, Japan, Korea (Republic of), New Zealand and Other OECD Asia Pacific.

China: People's Republic of China.

India: India.

Other Asia: Afghanistan, American Samoa, Bangladesh, Bhutan, Brunei, Cambodia, Canton and Enderbury Islands, China Hong Kong Special Administrative Regions (SAR), China Macau SAR, Cook Islands, Fiji, French Polynesia, Guam, Indonesia, Kiribati, Korea (Democratic People's Republic of), Lao People's Democratic Republic, Malaysia, Maldives, Micronesia Federated States of, Mongolia, Myanmar, Nauru, Nepal, New Caledonia, Niue, Pakistan, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Tonga, Tuvalu, Vanuatu, Vietnam, and Other Other Asia.

General Notes

Latin America: Antigua, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Federation of St Kitts and Nevis, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama (including Panama Canal Zone), Paraguay, Peru, St Lucia, St Vincent, Suriname, Trinidad & Tobago, Uruguay, **Venezuela** and Other Latin America

Middle East: Bahrain, **Islamic Republic of Iran, Iraq, Jordan, Kuwait**, Lebanon, Oman, Qatar, **Saudi Arabia**, Syrian Arab Republic, **United Arab Emirates (UAE)** (Abu Dhabi, Ajman, Dubai, Fujairah, Ras al-Khaimah, Sharjah, Umm al-Qaiwain) and Yemen.

Africa: Algeria, Angola, Benin, Botswana, British Indian Ocean Territory, Burkina Faso, Burundi, Cameroon (United Republic of), Cape Verde, Central African Republic, Chad, Comoros, **Congo**, Congo (Democratic Republic of the), Djibouti, Egypt, **Equatorial Guinea**, Eritrea, Eswatini, Ethiopia, **Gabon**, Gambia (The), Ghana, Guinea, Guinea-Bissau, Côte d'Ivoire, Kenya, Lesotho, Liberia, **Libya**, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, **Nigeria**, Reunion, Rwanda, St Helena, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudans (including South Sudan and Sudan), Tanzania, Togo, Tunisia, Uganda, Western Sahara, Zambia and Zimbabwe.

Russia: Russian Federation.

Other Eurasia: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

Other Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Gibraltar, Malta, Montenegro, the Republic of North Macedonia, Romania and Serbia.

Organization of the Petroleum Exporting Countries (OPEC): Algeria (1969), Congo (2018), Equatorial Guinea (2017), Gabon (1975–1995, re-joined OPEC in 2016), the Islamic Republic of Iran (1960), Iraq (1960), Kuwait (1960), Libya (1962), Nigeria (1971), Saudi Arabia (1960), United Arab Emirates (1967), Venezuela (1960).

Countries Participating in the Declaration of Cooperation (DoC): Algeria, Congo, Equatorial Guinea, Gabon, the Islamic Republic of Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates, Venezuela, Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.

Organization for Economic Co-operation and Development (OECD): Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States and Other OECD.

Abbreviations

Symbols:

na Not available/not applicable.

Currencies:

\$	US dollar	IRR	Iranian rial	SAR	Saudi Arabian riyal
€	Euro	IQD	Iraqi dinar	AED	United Arab Emirates dirham
DZD	Algerian dinar	KWD	Kuwaiti dinar	VES	Bolívar soberano
XAF	Central African Franc (Congo, Gabon and Equatorial Guinea)	LYD	Libyan dinar		
		NGN	Nigerian naira		

Miscellaneous:

b	barrel(s)	fob	free on board	NCV	net calorific value
b/d	barrels per day	ft	feet	NCO	non-conventional oil
b/yr	barrels per year	GDP	gross domestic product	NOC	national oil company
bn	billion	GTL	gas to liquids	NGLs	natural gas liquids
bn b	billion barrels	LHS	left-hand side	t	tonne
cif	cost, insurance and freight	LNG	liquefied natural gas	toe	tonne of oil equivalent
cu m	cubic metres	LPG	liquefied petroleum gas	tr	trillion
dwt	deadweight tonnage	mb	million barrels		

Rounding: In all tables' totals may not add up due to independent rounding.

Balance of import-export tables may not match due to independent assessments and usage of various secondary sources.

Selected oil companies

ADMA-OPCO, Abu Dhabi Marine Operating Company	NIOC, National Iranian Oil Company
ADNOC, Abu Dhabi National Oil Company	NNPC, Nigerian National Petroleum Corporation
ADOC, Abu Dhabi Oil Company	NOC, National Oil Corporation (Libya)
Agip, SpA	NODCO, National Oil Distribution Company (Qatar)
Agoco, Arabian Gulf Oil Company (SP Libyan AJ)	NPHR, New Port Harcourt Refinery
Amerada, Hess Amerada Hess Corporation	Oasis Oil Company of the Libya
AOC, Arabian Oil Company	Occidental Petroleum Corporation
Aquitaine, Aquitane Societe Nationale des Petroles d'Aquitaine	OMV Aktiengesellschaft
Aramco, Saudi Arabian Oil Company (Saudi Aramco)	PDVSA, Petroleos de Venezuela SA
Arco, Atlantic Richfield Company	Perenco
Asameria, Asameria Oil	Pertamina Perusahaan Pertambangan Minyak Dan Gas Bumi Negara
Ashland, Ashland Oil	Petrobras
BP, BP plc	PetroChina Co., Ltd.
Brega Marketing, Brega Petroleum Marketing Company	Petroecuador National Oil Company of Ecuador
Buttes, Buttes Gas & Oil Company	Petroindustrial Refinery operations company of Ecuador
Calasiatic, Calasiatic Petroleum Company	Petromer Trend Petromer Trend Corporation
Caltex (PT), PT Caltex Pacific Indonesia	Petromin the General Petroleum and Mineral Organization of Saudi Arabia
ChevronTexaco Corporation	Petronas
China Petroleum & Chemical Corp. (SNP)	Petroproduccion Exploration and production oil company of Ecuador
Conoco, Continental Oil Company	Phillips Petroleum Company
Corpoven SA	PPMC Pipeline and Products Marketing Company (Nigeria)
DPC, Dubai Petroleum Company	QGPC Qatar General Petroleum Corporation (now Qatar Petroleum)
EGPC, Egyptian General Petroleum Corporation	Royal Dutch/Shell Royal Dutch Petroleum Company, The Netherlands, and Shell Transport and Trading Co, UK
Eni	Shell Global
ENOC, Emirates National Oil Company (UAE)	SINOPEC
Equinor	Société Nationale des Pétroles du Congo (SNPC)
ExxonMobil Corporation	SOMO Oil
GASCO Abu Dhabi Onshore Gas Company	Sonangol Sociedade Nacional de Combustíveis de Angola
Getty Oil Corporation	Sonatrach Entreprise Nationale Sonatrach
GOC, Gabon Oil Company	Stancal Standard Oil Company of California
Gulf Oil Corporation	PT Stanvac Indonesia
Hispanoil Hispanica de Petroleos SA	Tenneco Incorporated
INOC, Iraq National Oil Company	Tesoro Indonesia Petroleum Corporation
Inpex, Indonesia Petroleum Ltd	Topco Texas Overseas Petroleum Company
JORC, Jeddah Oil Refinery Company	TotalEnergies SE
KRPC, Kaduna Refinery & Petrochemical Company	Union Oil Union Oil Company of California
KNPC, Kuwait National Petroleum Company KSC	Valero Energy Corporation (VLO)
KOC, Kuwait Oil Company KSC	VOO Veba Oil Operations (Libya)
Lagoven SA	Waha Oil Company (Libya)
Maraven SA	Wintershall AG
Marathon Petroleum Corp. (MPC)	WRPC Warri Refinery & Petrochemical Company
Maxus Energy Corporation	Zadco Zakum Development Company
Mobil Oil Corporation	ZOC Zueitina Oil Company (Libya)
NIGC, National Iranian Gas Company	

Major sources

Direct communications to the OPEC Secretariat
American Petroleum Institute (API)
Arab Oil & Gas
Argus Media
Asia Pacific Economic Cooperation (APEC)
Baker Hughes
Bloomberg
BP Statistical Review of World Energy
Brazil: Ministry of Mines and Energy
Brazil: National Agency of Petroleum, Natural Gas and Biofuels
Business Monitor International

Cambridge Energy Research Associates
Canadian Association of Petroleum Producers
Canada: National Energy Board
Canadian Energy Research Institute
Cedigaz, Natural Gas in the World
Central Bank of Kuwait
Central Bank of the U.A.E.
Centre for Global Energy Studies
China: National Bureau of Statistics
China: National Petroleum Corporation
Central Bank reports

General Notes

Clarkson Research Studies: The Liquid Gas Carrier Register	OECD/IEA: Energy Balances of non-OECD countries
De Golyer & MacNaughton: Twentieth Century Petroleum Statistics	OECD/IEA: Energy Balances of OECD countries
Eastern Bloc Research, CIS and East European Energy Databook	OECD/IEA: Energy Statistics of non-OECD countries
Economist Intelligence Unit (EIU): country reports and database	OECD/IEA: Energy Statistics of OECD countries
Energy Detente	OECD/IEA: Quarterly Energy Prices and Taxes
Energy Information Administration, US Department of Energy	OECD: International Trade by Commodities Statistics
Eurostat	Oil & Gas Journal
Fearnleys, Annual Review	Oil and Energy Trends: Annual Statistical Review
Financial Times: Oil and Gas International Yearbook	Oil Bulletin Petrolier
Galbraith's Weekly Tanker Fixtures Report	Oil Movements
Gas Exporting Countries Forum (GECF)	OilX
General Authority for Statistics of the Kingdom of Saudi Arabia	Organización Latinoamericana de Energía (OLADE)
Goldman Sachs	Organization of Arab Petroleum Exporting Countries (OAPEC)
Haver Analytics	Petrobras
IHS Global Insight	Petroleum Argus
IHS Cambridge Energy Research Associates (IHS CERA)	Petroleum Economist
India: Ministry of Petroleum & Natural Gas	Petroleum Intelligence Weekly (PIW)
Institut Français du Pétrole (IFP): The World Gas Industry	Petro-Logistics
Institute of Energy Economics, Japan (IEEJ)	Petrostrategies
International Energy Agency (IEA): Energy Prices and Taxes; Energy Statistics and Balances; Monthly Oil/Gas Data Services	Platts (S&P Global)
IEA Monthly Oil Data Service (MODS)	PIRA
International Monetary Fund (IMF): International Financial Statistics, World Economic Outlook Database, Direction of Trade Statistics	Port of Fujairah
Japan: Ministry of Economy, Trade and Industry	Port of Rotterdam
Joint Organizations Data Initiative	Reuters
Kayros	Rystad Energy
KPLER	Saudi Central Bank
Kuwait Central Statistical Bureau	Simpson Spence & Young: World Oil Tanker Trends
Middle East Economic Survey	Society of Petroleum Engineers (SPE): Petroleum Resources Management System
National Energy Administration of the People's Republic of China (NEA)	S&P Global Commodity Insights
National and international oil companies' reports	United Nations: Energy Statistics Yearbook; Monthly Bulletin of Statistics
National statistical publications	United Nations: National Account Statistics
National Westminster Bank	Wood Mackenzie
Norway: Ministry of Petroleum and Energy	World Bank: World Development Indicators
NYMEX	World LPG Gas Association
OECD: Trade by Commodities	World Oil
	World Petroleum Trends

Conversion factors

Crude oil

Standard factors	Metric tonne	Long ton	Barrels	Cubic metres (kilolitres)
Metric tonne	1	0.984	7.33	1.165
Long ton	1.016	1	7.45	1.128
Barrels	0.136	0.134	1	0.159
Cubic metres (kilolitres)	0.858	0.887	6.289	1

By country	(b/tonne)	Petroleum products	(b/tonne)
Algeria	8.052	Gasoline	8.4998
Congo	7.113	Kerosene	7.7652
Equatorial Guinea	7.207	Distillates	7.2296
Gabon	7.442	Residuals	6.6208
IR Iran	7.382		
Iraq	7.379		
Kuwait	7.160		
Libya	7.570		
Nigeria	7.417		
Saudi Arabia	7.323		
United Arab Emirates	7.565		
Venezuela	6.656		
OPEC	7.369		

Notes

Notes



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9–10 July 2025
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