

Dramatic narrative, arresting analysis and original research are combined in this history of one of the world's biggest oil businesses between 1950 and 1975. Assessing BP's comparative performance, the book focuses on how BP responded politically, economically and culturally to the rise of new competitors, the decline of Britain's imperial power, and the determination of nation states to assert national sovereignty over the vital commodity, oil.

Climaxing with the OPEC crisis which shook the world in the 1970s, the book – authorised by BP with uniquely unrestricted access to its records – has wide appeal and relevance, especially for those interested in big business, globalisation and nationalism, international affairs, OPEC, the Middle East and oil.

JAMES BAMBERG is an authority on the history of the world oil industry. Author of *The History of The British Petroleum Company: Volume II, The Anglo-Iranian Years*, 1928–1954, he has for some years been the official historian of BP. He is also a visiting fellow at the Centre for International Business History in the Economics Department, University of Reading, and a research associate at the Faculty of History, University of Cambridge.





THE HISTORY OF THE BRITISH PETROLEUM COMPANY





BRITISH PETROLEUM AND GLOBAL OIL 1950-1975

The Challenge of Nationalism

JAMES BAMBERG





CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning and research at the highest international levels of excellence.

www.cambridge.org Information on this title: www.cambridge.org/9780521259514

© BP Amoco plc 2000

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2000

A catalogue record for this publication is available from the British Library

Library of Congress Cataloguing in Publication data

Bamberg, J. H.
British Petroleum and global oil, 1950–1975 : the challenge of nationalism / James Bamberg.
p. cm.

Includes bibliographical references and index.

ISBN 0 521 25951 7 (hardback) 0 521 78515 4 (paperback)

 British Petroleum Company–History.
 Petroleum industry and trade–Great Britain–History.
 Title. HD9571.9.B73 B36 2000

> 338.7´622338´0941–dc21 ISBN 978-0-521-25951-4 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication, and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

ISBN 978-0-521-78515-0 Paperback



Contents

	List of colour plates	pages xi
	List of illustrations	xiii
	List of maps, graphs and diagrams	xviii
	List of tables	xxi
	Preface	xxiii
	List of abbreviations	XXV
	A note on the text	xxviii
	Introduction	1
Par	et I In a rising tide of nationalism	11
1	'The structure and sinews of the Company'	13
	The expansion of non-Iranian supplies	20
	Holding on to markets	30
	Staff and organisation	31
	Finance	36
	Strategy	45
2	Management and culture	48
	The succession problem: 'A matter of public importance'	48
	The managerial hierarchy	58
	Management culture	68
3	The Suez crisis	75
	Precautionary planning	77
	The Anglo-American schism	82
	The oil lift	92

vii



viii	Contents	
4	'The energetic search for new sources of crude oil' The golden age in the Middle East The decision to diversify oil sources Nigeria Libya South America and the Caribbean Canada	100 100 105 109 113 119 125
5	Finance and the British government	130
Par	t II Under pressure from the producers	141
6	The advent of OPEC The formation of OPEC Royalty expensing and OPEC's 'weak link'	143 147 151
7	The political balancing act The IPC and Iraq The pivotal role of Iran	162 163 171
8	The 'Holy Grail' of exploration Alaska Britain and the North Sea 'A second-class power'	185 185 195 203
9	The push for outlets 'Our Marketing policy has been our Concessions policy' European markets The UK France West Germany Italy	216 217 226 229 240 243 248
10	And more outlets India and Pakistan The Consolidated area The Far East Entry into America	252 256 260 267 271
11	Refining and shipping The European refining boom Shipping	279 279 290



	Contents	ix
12	Financial strains	299
13	The managerial hierarchy	316
	The board of directors	316
	Human resources and organisation	324
Par	rt III Diversifications	337
14	Alliances in petrochemicals	339
	Negotiations with ICI	344
	The partnership with Distillers	348
	Growth through joint ventures	350
	The lure of integration	370
15	Integration in petrochemicals	374
	The BP-Distillers merger	379
	Rationalisation	386
16	Computing	394
	The rise of operational research	399
	The demise of operational research	416
17	Nutrition	424
	Genesis	424
	Research and development	425
	Demonstration units	431
	Large-scale commercialisation	434
	Demise of BP Proteins	438
	Birth of BP Nutrition	443
Par	rt IV OPEC takes control	445
18	'An avalanche of escalating demands'	447
	Oil, 'the Achilles heel of the West'	448
	The Libyan breakthrough	450
	The Tehran Agreement	455
	Libya again	462
19	The end of an era	467
	Participation and nationalisation	467
	The Yom Kippur War	474
	The oil crisis	479



x Contents

Retrospect and conclusion	490
Notes to the text	500 596
Notes to the tables, graphs and diagrams Select bibliography	602
Index	616



Colour plates

(between pages 276 and 277)

- 1 Sir Neville Gass, who succeeded Basil Jackson as BP's chairman and chief executive in 1957, at a lunch given by the Ruler of Abu Dhabi in his palace in 1958
- 2 BP service station in Aden in the 1950s
- 3 Preliminary examination of rock samples in a BP palaeontological laboratory in the 1950s
- 4, 5 BP's trademark before and after the 'New Look' was introduced in 1958
- 6, 7 BP service station at Rivenhall End, Essex, before and after the introduction of the 'New Look'
 - 8 BP service station at Wursthorn, Germany, with the 'New Look'
 - 9 BP service station at Pont de l'Isère, France
- 10, 11 BP tankers: the 28,000-ton *British Adventure* in 1958 and BP's first 100,000-tonner, the *British Admiral*, which was delivered in 1965
 - 12 'Have mercy on your tappets.' Advertisement for BP Super Viscostatic in the 1960s
 - 13 Flaring of gas from BP's jack-up drilling rig, the *Sea Gem*, after it discovered the West Sole gas field in the southern basin of the North Sea in 1965
 - 14 BP survey party in the Libyan desert in 1966
 - 15 Atlas computer at London University in 1966
 - 16 BP's old and new head offices: the old Britannic House in Finsbury Circus, London, and the new Britannic House in Moor Lane in 1967
 - 17 The boardroom in the old Britannic House
 - 18 The boardroom in the new Britannic House in 1969



xii

List of colour plates

- 19 Cellulose acetate being processed at BP Chemicals' Stroud works in 1967
- 20, 21 Naphtachimie's chemical works at Lavera, France, in 1967 and Erdölchemie's chemical works at Dormagen, Germany, in 1967
 - 22 Models in PVC uniforms at opening of BP's all-plastic service station at Baldock, UK, in 1968
 - 23 Lounge of BP show-home at Great Burgh, Surrey, UK, incorporating plastic building components, fittings and furnishings, in 1969
 - 24 Aerial view of Yukon River and Brooks Range, Alaska
 - 25 Put River No 1 camp at Prudhoe Bay, Alaska, where BP struck oil in 1969
 - 26 Man in freezing blizzard at Put River, Alaska, 1969
 - 27 BP geologists Alwyne Thomas, Harry Warman and Peter Kent, who received the 1970 MacRobert Award for Engineering and Technology for the oil exploration in Alaska that resulted in the discovery of Prudhoe Bay
 - 28 One of the Sinclair gasoline stations on the eastern seaboard of the USA acquired by BP in 1969 following ARCO's takeover of Sinclair. The Sinclair trademark, a diplodocus dinosaur, would soon become extinct
 - 29 Unveiled: the first BP sign to appear on a service station in the USA at Atlanta, Georgia, on 29 April 1969
 - 30 A Sohio service station in the 1960s
 - 31 The ex-Sinclair Marcus Hook refinery in Pennsylvania, USA, in 1975, after modernisation
 - 32 BP's semi-submersible drilling rig, the *Sea Quest*, which discovered the Forties oil field in the northern basin of the North Sea in 1970
 - 33 Taking sterile samples at the pilot proteins plant at BP's Grangemouth refinery, Scotland, in 1970
 - 34 Whisky and liquid Toprina: Scotland's oldest and newest fermentation products in 1970
 - 35 'Scappa con Superissima!' BP Italiana advertisement in 1970
 - 36 One of the BP Tanker Company's new VLCCs, the 215,000-ton *British Scientist*, off the coast of Shikoku, Japan, in 1971



Illustrations

1	The British at play in Iran: Abadan golf course, late page 1940s	16
2	Sir William Fraser (later Lord Strathalmond), the Company's	
_	chairman and chief executive, with the Queen Mother, visiting	
	Grangemouth refinery in 1952	22
3	Electric welding during the erection of Kent refinery in 1952	23
	A 99-mile rig skid in Kuwait in 1954	26
	Surveyor stripped to the waist and native boy shielding him	
	from the sun with an umbrella, at work on the power station	
	at Aden refinery in the 1950s	27
6	Harold Snow, a BP director, with negotiators General	
	Fazlullah Zahidi, Iranian Prime Minister; Orville Harden of	
	Standard Oil (NJ); John Loudon of Royal Dutch-Shell;	
	Abdullah Intizam, Iranian Foreign Minister; Dr Ali Amini,	
	Iranian Finance Minister, in Tehran, 1954	50
7	Basil Jackson, who succeeded Lord Strathalmond as BP's	
	chairman and chief executive in 1956	54
8	The Hon. Maurice Bridgeman, who succeeded Sir Neville	
	Gass as BP's chairman and chief executive in 1960	57
9	Snakes and ladders game from Shell magazine in 1953,	
	illustrating the hierarchical nature of corporate life	64
10	Egyptian leader, Gamal Abdel Nasser, being acclaimed in the	
	streets of Cairo after he announced the nationalisation of the	
	Suez Canal Company in July 1956	76
11	British Prime Minister, Sir Anthony Eden, and French Premier,	
	Guy Mollet, at Downing Street for talks on the Israeli–Egyptian	
	situation on 30 October 1956. Behind them are the British	

xiii



xiv

List of illustrations

	Foreign Secretary, John Selwyn Lloyd, and his French	
12	counterpart, François Pineau	82
12	Blockships in the Suez Canal with burning oil tanks in the background in November 1956	83
13	Wreck of the tug, <i>Hercule</i> , in the Suez Canal, with Navy	0.5
	House, gutted by fire, in the background, in 1956	97
14	The BP Tanker Company's 12,000-ton oil tanker, British	
	Restraint, in transit through the reopened Suez Canal in	
	September 1957	98
	An anticline in Iran	104
	Seismic survey party in Tanganyika in the 1950s	107
	Laying geophone cables in Papua in the 1950s	108
18	Drilling site at Oloibiri, Nigeria's first commercial oil field,	
4.0	discovered by Shell-BP in 1956	112
19	King Idris of Libya at the official opening of the Tobruk oil	420
20	terminal in February 1967	120
	Drilling rig at Provincia, Colombia, in 1962	124
21	BP geologist examining exposed rock structure in Northern Alberta, Canada, in the 1950s	128
22 23	OPEC's two founding fathers: Venezuelan oil minister, Juan	120
22, 23	Pablo Perez Alfonzo, and Saudi Arabia's first oil minister,	
	Abdullah Tariki	149
2.4	OPEC's first Secretary General, Fuad Rouhani, at a reception	11/
	in Geneva in 1963	157
25	Riza Fallah putting his feet up with Farhang Mehr (Governor	
	of OPEC for Iran) while waiting for the banquet at the OPEC	
	conference in Riyadh, Saudi Arabia, in December 1963	159
26	Saddam Hussein, Vice-President of Iraq's Revolutionary	
	Command Council, speaking at a rally in a stadium in	
	Baghdad in 1970	172
27	The coronation of the Shah as Emperor of Iran on his forty-	
	eighth birthday in October 1967	176
28	President Richard Nixon and the Shah of Iran standing	
	among others before the coffin of the former US president,	
20	General Eisenhower, in Washington in April 1969	181
29	Muammar al-Qaddafi, head of Libya's Revolutionary	100
20	Command Council and Prime Minister of Libya, in 1970	182
30	Fitter inspecting rock-drilling bits at Eakring in the UK in	196
	1955	176



	List of illustrations	XV
31	Diver being prepared for descent to the seabed at Lulworth	
	Bay, Dorset, UK, in 1963	197
32	'An engineering job in pastry': Christmas cake, weighing	
	over 4 cwt, of the Sea Quest, in December 1966	201
33	'You get such a lot out of oil.' BP advertisement in 1972	217
	" but to most people, of course, BP stands for BP	
Ο.	advertisement in 1973	241
35	BP filling station at Misty Mount, South Africa, in 1963	263
	BP road tanker delivering BP products to farmers in Natal,	200
50	South Africa, in the 1960s	264
37	BP service station at Salisbury (Harare) Airport, Rhodesia	204
37	(Zimbabwe), in the 1960s	265
20	Road tankers at Umtali refinery, Rhodesia (Zimbabwe), in	203
30	••	
	October 1965, before the imposition of international sanctions against Ian Smith's white settler regime. The refinery,	
	in which BP held a 21 per cent shareholding, was shut down	200
20	in January 1966, after the sanctions were imposed	266
37	BP signs being prepared for shipment to the US for the	272
40	rebranding of the Sinclair stations which BP acquired in 1969	273
40	Inside one of the oil storage tanks at BP's refinery at	205
4.1	Gothenburg in the 1960s	285
	New reactor being erected at SFPBP's Lavera refinery in 1973	286
42	New crude oil distillation unit for BP's Rotterdam refinery in	205
	1971	287
43	A busy scene at the cargo jetty of the giant Abadan refinery	
	before it was nationalised in 1951	292
44	Chief engineer's cabin on the BP Tanker Company's 32,000-	
	ton oil tanker, British Sailor, in the 1950s	293
45	Cricket on the foredeck of the British Queen, the BP Tanker	
	Company's first 50,000-ton tanker, delivered in 1959	296
46	Main deck of BP's first VLCC, the 215,000-ton British	
	Explorer, rolling in Atlantic swell, in 1970	298
47	David Steel, managing director of the Kuwait Oil Company,	
	with King Hussein of Jordan and HH Shaikh Abdullah, Ruler	
	of Kuwait, in 1964. Steel joined the BP board as a managing	
	director in 1965, and would later become BP's chairman and	
	chief executive	318
48	Paula Harris, Senior Mathematician in the Computer	
	Department, explaining mixed integer circuitry. In 1967, she	



xvi

List of illustrations

	became the first female employee to be admitted to BP's	
	Senior Luncheon Club	331
49	Early chemical plants at Distillers' Saltend site at Hull in the	
	1930s	342
50	British Hydrocarbon Chemicals' plant at Grangemouth	354
	Man using a dip to check the level after filling a British	001
<i>J</i> 1	Industrial Solvents' road tanker at Hull in 1950	363
52	Men refuelling Distillers' road tankers at Hull chemical site	303
32	in the 1950s	365
53	'Treat it rough!' Advertisement for Geon PVC in 1957	366
	Petula Clark, the film and TV star, at the wheel of her car in	300
5 T	the 1960s. The upholstery, interior trim and hood were all in	
	Geon PVC leathercloth	367
<i></i>		367
33	Assembly line for Bex-Bissell carpet cleaners in the plastics	
	fabrication works of the British Xylonite Company at	260
- /	Highams Park, London, in 1961	368
36	Night view of BP Chemicals' Baglan Bay site, South Wales,	200
	in 1969	389
	BP's Mercury computer in 1963	406
58	Extract from Robert Horton's notes on BP's Operational	422
	Research Directing Group meeting on 9 November 1971	422
59	Alfred Champagnat, pioneer of BP's proteins-from-oil process,	
	at the Lavera refinery in France	426
	Making proteins from oil: the breeding of yeast on gas oil	428
61	,	
	and Maurice Banks, one of BP's two deputy chairmen,	
	examining apparatus used in microbiological research at	
	Epernon, France, in the mid-1960s	431
62	Oil company negotiators W. P. Tavoulareas (Mobil), John E.	
	Kircher (Continental) and Lord Strathalmond (BP) leaving the	
	Iranian Ministry of Finance in serious mood during the	
	negotiations between OPEC and the oil companies in Tehran	
	in 1971	460
63	OPEC negotiators, Saadoun Hamadi (Iraq), Jamshid	
	Amouzegar (Iran) and Zaki Yamani (Saudi Arabia), looking	
	cheerful during the negotiations between OPEC and the oil	
	companies in Tehran in February 1971	461
64	Lord Strathalmond, for the oil companies, and Jamshid	
	Amouzegar, for OPEC, shake hands after signing the Tehran	
	Agreement in February 1971	462
	-	



	List of illustrations	xvii
65	King Faisal of Saudi Arabia with President Sadat of Egypt during Sadat's visit to Arabia in 1972	475
66	BP's chairman and chief executive, Sir Eric Drake, with British Prime Minister, Edward Heath, at BP's head office, Britannic	
	House, London, in June 1973	482

All the colour plates and most of the illustrations are from the BP Archive (University of Warwick), the BP Photographic Library (London) and the BP Chemicals Photographic Section (Saltend, Hull). The other text illustrations were reproduced by kind permission of Associated Press (no. 29); Hulton Getty (nos. 10, 11, 26, 28 and 65); the Trustees of the Imperial War Museum, London, (nos. 12 and 13); Francisco R. Parra (nos. 22, 23, 24 and 25); Shell UK Ltd (no. 9, from the Shell-Mex & BP archive, c/o the BP Archive); and United Distillers & Vintners (no. 55).



Maps, graphs and diagrams

Maps

3.1	Arteries for the flow of Middle East oil to Western	page 78
	Europe on the eve of the Suez crisis, 1956	
3.2	The rearrangement of international oil movements in the	
	Suez crisis, 1956	86
4.1	The seven giant oil fields in the Middle East that produced	
	94 per cent of the Company's crude oil in 1950	103
4.2	Nigeria: Shell-BP's concessions and exploration	111
4.3	Libya: BP's concessions and the Sarir oil field	116
4.4	Colombia and Trinidad: BP's exploration and production	
	interests	123
4.5	Canada, scene of the Albertan oil boom and BP's search for	
	giant oil fields	127
8.1	Alaska: locating the Prudhoe Bay oil field	187
8.2	The North Sea: opening up a new oil province	198
10.1	The Consolidated and Burmah-Shell areas, and territories	
	under British sway at the end of World War II	255
10.2	BP's and Sohio's US refineries and markets, 1970	274
	Cranho and diagrams	
	Graphs and diagrams	
0.1	The oil majors' shares in the big four Middle East oil concessions, 1950	7
1.1	The Company's sources of crude oil production, 1950–1954	25
	The Company's refining throughputs, 1950–1954	28
	BP's refining throughputs by location, 1950–1955	46

xviii



	Lists of maps, graphs and diagrams	xix
2.1	BP directors' responsibilities, 1960	63
	Impact of the Suez crisis on BP's marine bunkering business, 1956–1957	90
4.1	The Company's share of the world's published proved oil reserves, 1950	101
4.2	BP's and competitors' deep test drilling in Libya to September 1959	117
6.1	The majors' comparative crude oil production by area, 1961	144
	Crude oil production of Middle East countries and Libya,	
	1957–1970	173
	BP's and competitors' estimated recoverable oil reserves, 1971	204
	The majors' shares of world oil reserves, 1971	205
	Oil discoveries by BP and the rest of the oil industry, 1900–1975	208
	BP's and world's oil reserves:production ratios, 1930–1975	210
	BP's exploration expenditure, 1952–1975	212
8.6	BP's and competitors' exploration expenditures as percentages	242
0.7	of their total capital expenditures, 1970	213
	BP's estimated recoverable oil reserves, 1909–1978	214
	The majors' comparative crude oil production, 1950–1970	221
	The majors' comparative refinery runs, 1950–1970	222
	The majors' comparative products sales, 1950–1970	223
9.4	The majors' comparative products sales in Western Europe	225
0.5	as percentages of their worldwide sales, 1969	225
9.3	The majors' market shares in main products in Western	227
0.7	Europe, 1963–1970	227
9.6	Oil companies' market shares in the UK retail gasoline	233
0.7	market, 1955–1970 Market shares of gasoline brands in the UK, 1955–1968	235
	Oil companies' market shares in India, 1963–1969	259
	Oil companies' market shares in South Africa, 1960–1972	262
	BP's refining capacity at wholly and partly owned refineries,	202
11.1	1950–1975	281
11 2	The BP Group owned tanker fleet, 1950–1975	295
	BP's sales and profits, 1950–1970	301
	BP's share price and dividends, 1950–1970	302
	The majors' comparative profitability, 1955–1970	303
	The majors' comparative debt ratios, 1955–1970	305
	BP's capital expenditure and finance, 1961–1972	314
	BP's head office staff numbers, 1950–1968	327
	British Hydrocarbon Chemicals' plants at Grangemouth, 1960	355



XX	Lists of maps, graphs and diagrams	
14.2	British Hydrocarbon Chemicals' production, 1951–1960	356
14.3	BP's and Distillers' main alliances in chemicals and plastics,	
	1 January 1963	364
15.1	British Hydrocarbon Chemicals' production, 1961–1965	376
15.2	Oil companies ranked by chemical sales, 1967	387
16.1	Simplified illustration of supply programming in a small	
	integrated oil company	395
16.2	Running a multinational by computer: operations covered	
	by BP's Five Refinery and Central European linear	
	programming models, c. 1964	408
16.3	Data flows between BP departments, 1966	413
19.1	Acts of expropriation by less developed countries, 1960–1985	487
20.1	Four phases in BP's history, 1909–1975	491
20.2	Oil demand and BP's refining capacity in Western Europe,	
	1950–1975	497
20.3	The growth of unused capacity in Western European refining:	
	BP and all refiners 1965–1975	498



Tables

0.1	The oil majors' rankings among the world's largest industrial firms, 1956	page 2
1.1	The Company's products shortfall after nationalisation in Iran	24
	The Company's profits, 1950–1954	37
3.1	BP's crude oil liftings from the Middle East in the Suez crisis,	
	1956–1957	87
5.1	BP's dividends to ordinary shareholders, 1950–1960	135
5.2	BP's profits, 1955–1960	137
6.1	Oil revenues of the main Middle East oil-producing states, 195	8 146
8.1	BP's and competitors' estimated crude oil finding costs	
	(excluding USA), 1963–1970	206
11.1	BP's wholly and partly owned refineries, 1950–1975	282
11.2	The majors' comparative strengths and weaknesses, 1970–1972	2 289
13.1	BP's executive directors, 1956–1975 (selected years)	320
13.2	BP's non-executive directors, 1960–1975	325
14.1	British Hydrocarbon Chemicals' plants at Grangemouth,	
	1951–1960	353
14.2	British Hydrocarbon Chemicals' profitability, 1951–1960	357
15.1	British Hydrocarbon Chemicals' profitability, 1961–1965	375
15.2	BP Chemicals' UK profitability, 1967–1974	390
16.1	Growth of BP's oil operations, 1958–1968	396
20.1	The oil majors' rankings among the world's largest industrial	
	firms in 1970, compared with 1956	493

xxi





Preface

This book is the sequel to two earlier volumes on the history of BP. The first, written by R. W. Ferrier, was *The History of The British Petroleum Company: Volume I, The Developing Years*, 1901–1932 (Cambridge University Press, 1982); the second, which I wrote, was *The History of The British Petroleum Company: Volume II, The Anglo-Iranian Years*, 1928–1954 (Cambridge University Press, 1994).

Breaking with precedent, I avoided calling this book Volume 3 because I did not want to imply that it was best approached by reading the earlier volumes first. People with different interests should, I felt, be able to approach this book from whatever angle suited them, and via whatever literature they chose, undeterred by the thought that they had first to undergo a specific initiation process. The book, therefore, has a free-standing title and can be read either on its own, or as a sequel to the earlier volumes.

A large cast of people contributed to the book in diverse ways and are owed more recognition and thanks than these acknowledgements can convey. They include several researchers, who dug deeply into rich veins of state records, corporate archives and personal papers, sifting out and helping to analyse the most valuable material. Depending on individual circumstances, they worked part time or full time, short term or long term, on a variety of assignments. I would particularly like to thank Frances Bostock for her work at the Public Record Office; Valerie Johnson for her research on management cultures, marketing, photographs and maps (drawn by Malcolm Barnes, cartographer); Christine Shaw for her contribution to the chapter on nutrition and Jenny Ward for delving into the relations between the oil companies and OPEC. They and I were helped by archivists, librarians and others at institutions too numerous to be acknowledged individually. Special thanks are, however, due to the staff of the BP Archive.

xxiii



xxiv Preface

While the primary sources are rich, this book also draws on the published work of many authors in many fields and countries. The extent of their contributions is apparent in the notes and references that follow the text, and they are listed in the bibliography.

Still others have contributed, not with the written word, but by allowing me to call upon their memories, or by making suggestions on those parts of the text covering matters in which they were involved, or of which they have special knowledge. A list of those who have helped in these ways would be too long to include here, and they are therefore shown under interviews in the select bibliography.

I would like to thank, in addition, the members, past and present, of the BP History Committee, who read successive drafts of the book and offered welcome comment and advice. They were Rodney Chase, Professor Donald Coleman, Dr Chris Gibson-Smith, Lord Greenhill of Harrow, Professor Geoffrey Jones, Professor Peter Mathias, Professor Paul Stevens and Lord Wright of Richmond.

These people, and others unmentioned, have helped to make the book better than it otherwise might have been. BP has funded this book, but I alone am responsible for any errors, and for all interpretations and judgements.



Abbreviations

ADMA Abu Dhabi Marine Areas Ltd
AGIP Azienda Generale Italiana Petroli
AIOC Anglo-Iranian Oil Company
Aramco Arabian American Oil Company
ARCO Atlantic Richfield Company
BHC British Hydrocarbon Chemicals

bpd barrels per day BPX BP Exploration

BRP Bureau de Recherches de Pétrole

CDPD Central Developmental Planning Department

CENTO Central Treaty Organisation

CESP Central European Supply Programme CFP Compagnie Française des Pétroles

CIVO Centraal Instituut voor Voedingsonderzoek

Conoco Continental Oil Company
CSS Consiglio Superiore della Sanita
DCL Distillers Company Limited

DEA Deutsche Erdöl AG

DEUCE Digital Electronic Universal Calculating Engine

DUMA Dubai Marine Areas Ltd ENI Ente Nazionale Idrocarburi

ERAP Entreprise de Recherches et d'Activités Pétrolières

ERSP European Refineries Supply Programme

FNCB First National City Bank

FPSC Foreign Petroleum Supply Committee GRAM Group Resource Allocation Model ICI Imperial Chemical Industries

XXV



xxvi List of abbreviations

ICT International Computers and Tabulators
IMR Integrated Marketing and Refining
INOC Iraq National Oil Company

IOP Iranian Oil Participants
IPC Iraq Petroleum Company
ISS Istituto Superiore della Sanita

JPDC Japan Petroleum Development Corporation

KOC Kuwait Oil Company LAM Local Area Model LP Linear Programming

MEEC Middle East Emergency Committee

MSG Manpower Study Group
NIOC National Iranian Oil Company
NPRI Net Profits Royalty Interest

OEEC Organisation for European Economic Co-operation
OELAC Oil Emergency London Advisory Committee
OPEC Organisation of Petroleum Exporting Countries

OPEG OEEC Petroleum Emergency Group

OR Operational Research

ORDG Operational Research Directing Group
ORPDG Operational Research Policy Directing Group

OSAC Oil Supply Advisory Committee

p. pence

PCD Petroleum Chemical Developments

ppm parts per million

S&D Supply and Development
SFPBP Société Française des Pétroles BP
SGHP Société Générale des Huiles de Pétrole
SLIM Simplified Linear Integrated Model

SMBP Shell-Mex and BP

Socal Standard Oil Company of California
Socony Standard Oil Company of New York
Sohio Standard Oil Company of Ohio
Standard Oil (NJ) Standard Oil Company (New Jersey)

Tapline Trans-Arabian Pipeline
TAPS Trans Alaska Pipeline System
TNO Technische Nederland Organisatje

TRC Texas Railroad Commission

UAE United Arab Emirates
UAR United Arab Republic



List of abbreviations xxvii

UGP Union Générale des Pétroles

UK United Kingdom UN United Nations

UOP Universal Oil Products

US United States

VLCC Very Large Crude Carrier



A note on the text

COUNTRY NAMES

Some of the country names used in the period covered by this book have gone out of use, and others will no doubt follow. To preserve historical context, the country names that appear in this book are generally those which were current at the time of the events described, with later names following in parentheses. For example, Rhodesia, which adopted the name Zimbabwe in 1980, is shown as Rhodesia (Zimbabwe).

Although the retrospective use of modern names is generally avoided, an exception is made in the case of Persia, which adopted the name Iran in 1935. This country is mentioned frequently in the text, sometimes in historical generalisations which cut across the change of name in 1935. The name Iran has therefore generally been used throughout the text, except in quotations, in which the original wording is unchanged.

COMPANY NAMES: THE OIL MAJORS

Three of the majors – Royal Dutch-Shell, Socal and Gulf Oil – held to the same names throughout the period covered by this book. The other four adopted new names: Anglo-Iranian became British Petroleum in 1954; Socony-Vacuum became Socony Mobil in 1955, and changed again to Mobil in 1966; the Texas Company became Texaco in 1959; and Standard Oil (NJ) became Exxon in 1972.

For the most part, these changes are reflected in the text, which (as with the country names) uses names that were current in their historical context. An exception is made in the case of British Petroleum, which until 1954 was called first Anglo-Persian, then Anglo-Iranian. To avoid the confusion that might be caused by frequent switching between these names, 'the Company' is generally used for the period up to 1954, and thereafter BP.

xxviii