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Economics of the Caspian Oil and Gas Wealth

Companies, Governments, Policies

Yelena Kalyuzhnova
To the memory of my late grandparents and parents:
Alexandra and Nikolai, Galina and Grigori
## Contents

*List of Tables, Figures, Boxes and Maps*  viii  
*Foreword*  xi  
*List of Abbreviations*  xiii  

**Introduction**  1  

**Part I  The Economics of Caspian Hydrocarbon Development**  5  
1. Economic Development and Resource Dependence  7  
2. The Management of Hydrocarbon Wealth: National Oil Funds  44  

**Part II  The Impact of the Operating Companies**  67  
3. Major Oil and Gas Projects  69  
4. Companies and Governments  92  
5. Developing Local Content  136  

**Part III  Models and Policies for the Future**  169  
6. Production, Revenues and Transparency  171  
7. Policies for Sustainable Development  194  

*Conclusion*  220  
*References*  232  
*Index*  242
List of Tables, Figures, Boxes and Maps

Tables

1.1 Average shares of contribution of the oil and gas sector in the Caspian economies to GDP and export, 2002–2007 8
1.2 Growth rate of per capita GDP, % per year 11
1.3 Kazakhstan and Azerbaijan: oil and oil products in total export, %, 2002–2005 11
1.4 Advantages and disadvantages of resource-rich economies 13
1.5 Granger’s causality test results: p-values for the null of no Granger causality 16
1.6 Key socio-economic indicators for Azerbaijan, Kazakhstan and Turkmenistan, 2006 19
1.7 Main indicators of inequality of income distribution in Kazakhstan 21
1.8 Were you satisfied 10 and 20 years ago? (based on 2006) 23
1.9 Summary of the four most frequent reasons for being happy 20 years ago, by age group 24
1.10 Which of the words stated below reflect your personal feelings about living in Azerbaijan more precisely? 26
1.11 Poverty indicators in the Caspian Sea region 28
1.12 Income, imports, energy use and energy import in Caspian region, 2005 31
1.13 Daily production by countries, thous. bbl/day 40
2.1 Comparison of rules for accumulation and use of the national funds of Azerbaijan and Kazakhstan 46
2.2 Summary statistics of the perceptions of the NFRK influence on the population’s standards of living 62
3.1 Proven oil and gas reserves in the Caspian Sea region 72
3.2 Costs of production by different producers 73
3.3 Major oil development projects by companies’ involvement 75
3.4 Shares by companies, PSA for development of Azeri, Chirag and Guneshli oil fields 82
3.5 Impact of the major oil and gas projects on the Caspian economies 90
4.1 Expansion in existing businesses, % of capital 96
4.2 History of BP in Azerbaijan 102
4.3 Investment plans 104
4.4 Structure of assets of KMG (six sectors, 39 organizations) 113
4.5 Main indicators of Atyrau Refinery functioning 118
4.6 KMG oil transportation, present and future 119
4.7 Sovereign rating history 132
4.8 Business constraints in Kazakhstan and Azerbaijan (2002) 134
5.1 Levels of jobs in the oil and gas industry 150
5.2 Types of contracting strategies and local content factor 153
5.3 Possible areas of employee concern 159
5.4 Breaches of Code of Conduct, 2006 159
6.1 The shares between SOCAR and the contractor 181

Figures

1.1 Caspian Sea region: foreign direct investments, 1994–2006, US$ mln 8
1.2 Azerbaijan, Kazakhstan and Turkmenistan: principal exports, %, 1998–2003 12
1.3 Respondents’ opinion regarding social and political development in Azerbaijan 25
2.1 Funds of the SOFAZ and the NFRK, 2000–2006, US$ mln 52
2.2 Percentage of Kazakhstani population, by educational level, who are not aware of the existence of the NFRK 61
4.1 Foreign direct investment, net flows (BoP, current US$) 93
4.2 Composition of maximization of shareholder wealth by company 94
4.3 Burun field: historic production profile 108
4.4 KMG: current assets 114
4.5 Comparison of NOCs’ degrees of autonomy from the state 123
5.1 Industry, value-added, % of GDP 137
5.2 Action and influence in developing local content 143
5.3 National content pie 146
5.4 Successful project components 151
5.5 Legislative framework for the sustainable growth of local content 155
5.6 Compliance investigation process 158
5.7 TCO: supply chain management – functional organization chart 161
5.8 Project life-cycles in the oil and gas industry 166

Boxes
1.1 Iran and its interests in the Caspian Sea region 8
1.2 Assessment of well-being by Kazakhstani citizens 22
2.1 New rules of NFRK 59
3.1 Oily Rocks 77
4.1 The experience of Bridas in Turkmenistan 99
4.2 Lessons from the Petrobras experience 120
5.1 Some examples of social projects 144
6.1 Tax models in Kazakhstan 176
6.2 PSA to develop the ACG fields 180
6.3 Azerbaijan: Coalition to Improve Transparency in the Extractive Industry 185
6.4 SOCAR financial relations with the Azeri government 187
7.1 Caspian Sea major pipelines – strategic attractions and transport hurdles: companies and governments 201
7.2 Kazakhstan: diversification of the economy through cluster development in non-extraction sectors of the economy 209

Maps
3.1 Major oil fields and pipelines in the Caspian Sea region 76
3.2 Major gas fields and pipelines in the Caspian Sea region 84
4.1 Burren Energy in Turkmenistan 107
Foreword

The writing of this book has been a crucial experience in my life. When I started it in 2005 I was very excited because the topic of Caspian oil and gas is particularly interesting and challenging. I felt privileged: having access to information on the region, and to the companies working there, knowing so many experts, academics and practitioners. But I never could have imagined that writing this book would also help me through a period of my life that was marked by the tragic death of my parents. In dedicating this book to them, as well as to my late grandparents, I am acknowledging a small part of the huge debt that I owe to them. It was a very difficult period, but throughout it I was blessed with the people who support me. I would like to thank Mikhail Kalyuzhnov, Yelena Kondrashova, Vladimir Amvrosyev, Vadim Chernykh and Botagoz Kulakbayeva for their friendship and understanding during this period.

I was fortunate to have the cooperation of many people in writing this book. All my requests for interviews with governments and companies were greeted favourably. I would like to thank Burren Energy, KazMunaiGaz, SOCAR (State Oil Company of Azerbaijan Republic) and Petrobras for giving me such valuable insights into their work. I am grateful to Terry Adams, Anton Artemyev, José Sergio Gabrielli, Atul Gupta, Anvar Gasimov, Malcolm Harrison, Kairat Kelimbetov, Julian Lee, Finian O'Sullivan, Jean-Yves Pitarakis, Richard Pomfret, Yurii Shokamanov, Marla Valdes and David Woodward for their interviews, helpful suggestions and encouragement.

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I am especially grateful to Maxwell Watson for his talent in guiding me through the style and substance of the book: without his input this book would never have seen the light of day.
Foreword

My special thanks goes to my friend and colleague Barbara Sofocli for her tremendous support at the final stage of completing this project.

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Finally, I would not have succeeded in writing this book, nor in going through the difficulties of my life, if Andrei had not been next to me – my main support, my only family.

Yelena Kalyuzhnova
Reading, UK
List of Abbreviations

ACG  Azeri, Chiraq and Guneshli (oil fields)
ADB  Asian Development Bank
AIIOC Azerbaijan International Operating Company
API  American Petroleum Institute
ARKS Agency of the Republic of Kazakhstan on Statistics
bbl  barrels (of oil)
bcf  billion cubic feet
BH   'Bird in Hand' rule
bIn  billion
BoP  balance of payments
BTC  Baku-Tbilisi-Ceyhan (pipeline)
CAPEX capital expenditures
CEAS Centre for Euro-Asian Studies
CEO  chief executive officer
CEP  Caspian Environment Programme
CFO  chief finance officer
CGES Centre for Global Energy Studies
CIS  Commonwealth of Independent States
CITIC China International Trust and Investment Company
CNCP China National Petroleum Corporation
CPC  Caspian Pipeline Consortium
CPI  Corruption Perception Index
CTC  Caspian Training Center
CTR  Caspian Technical Resources
CTTC Caspian Technological Training Centre
E&C  engineering and construction
E&P  exploration and production
EBRD European Bank for Reconstruction and Development
EITI Extractive Industries Transparency Initiative
EMV  expected monetary value
EPC  engineering procurement construction
EU   European Union
EVP  executive vice president
FDI  foreign direct investment
FEED front end engineering design
FERF  Foreign Exchange Reserve Fund
List of Abbreviations

FIC  Foreign Investors' Council
FPSA  Final Production Sharing Agreement
FSU  Former Soviet Union
FT  *Financial Times*
GC  Granger causality
GDP  gross national product
GOST  gosudarstvennyy standart
HR  human resources
HSE  Health and Safety Environment
IMF  International Monetary Fund
IOC  international oil company
IPE  International Petroleum Exchange
IRR  internal rate of return
ISO  International Standards Organization
JVA  joint venture agreement
KBTU  Kazakh British Technical University
KCO  Kazakhstan North Caspian Operating Company
KGM  KazGerMunai
KMG  KazMunaiGaz
KPA  Kazakhstan Petroleum Association
KPO  Karachaganak Petroleum Operating BV
KZT  Kazakh tenge (currency)
LCI  Local Content Indicator
LNG  liquefied natural gas
MDGs  Millennium Development Goals
mln  million
mmbtu  million British thermal units
mmscfd  million standard cubic feet per day
MoU  Memorandum of Understanding
mtpa  million tonnes per annum
NCCER  National Center for Construction Education and Research
NFRK  National Fund of the Republic of Kazakhstan
NGO  non-governmental organization
NOC  national oil company
NPV  net present value
OGDF  Oil and Gas Development Fund
OPEC  Organization of Petroleum Exporting Countries
OPEX  operating expenditures
OSCE  Organization for Security and Co-operation in Europe
OTP  operations training plant
PFD  Parsons Flour Daniels
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>PIH</td>
<td>Permanent Income Hypothesis</td>
</tr>
<tr>
<td>PSA</td>
<td>Production Sharing Agreement</td>
</tr>
<tr>
<td>PSC</td>
<td>Production Sharing Contract</td>
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<tr>
<td>RCA</td>
<td>regional comparative advantage</td>
</tr>
<tr>
<td>SFDOG</td>
<td>State Fund for the Development of the Oil and Gas Industry and Mineral Resources</td>
</tr>
<tr>
<td>SGI/SGP</td>
<td>Sour Gas Injection/Second Generation Project</td>
</tr>
<tr>
<td>SME</td>
<td>small and medium-sized enterprise</td>
</tr>
<tr>
<td>SOCAR</td>
<td>State Oil Company of the Azerbaijan Republic</td>
</tr>
<tr>
<td>SOE</td>
<td>state-owned enterprise</td>
</tr>
<tr>
<td>SOFAZ</td>
<td>State Oil Fund of the Azerbaijan Republic</td>
</tr>
<tr>
<td>SPPRED</td>
<td>State Programme of Poverty Reduction and Economic Development</td>
</tr>
<tr>
<td>tcf</td>
<td>trillion cubic feet</td>
</tr>
<tr>
<td>TCO</td>
<td>Tengizchevroil</td>
</tr>
<tr>
<td>VAR</td>
<td>vector autoregressive</td>
</tr>
<tr>
<td>VAT</td>
<td>value-added tax</td>
</tr>
<tr>
<td>WKO</td>
<td>Western Kazakhstan Oblast</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organization</td>
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