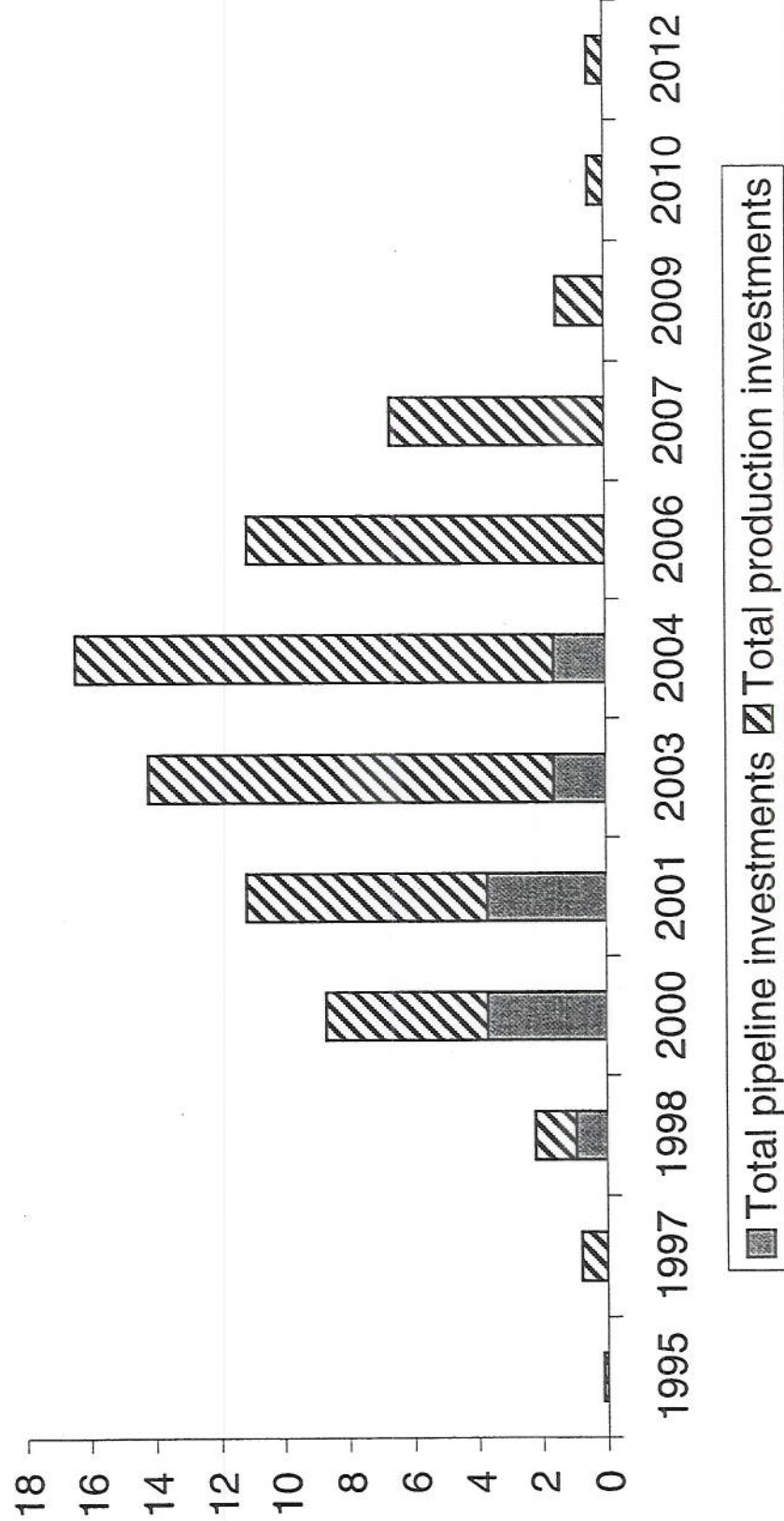
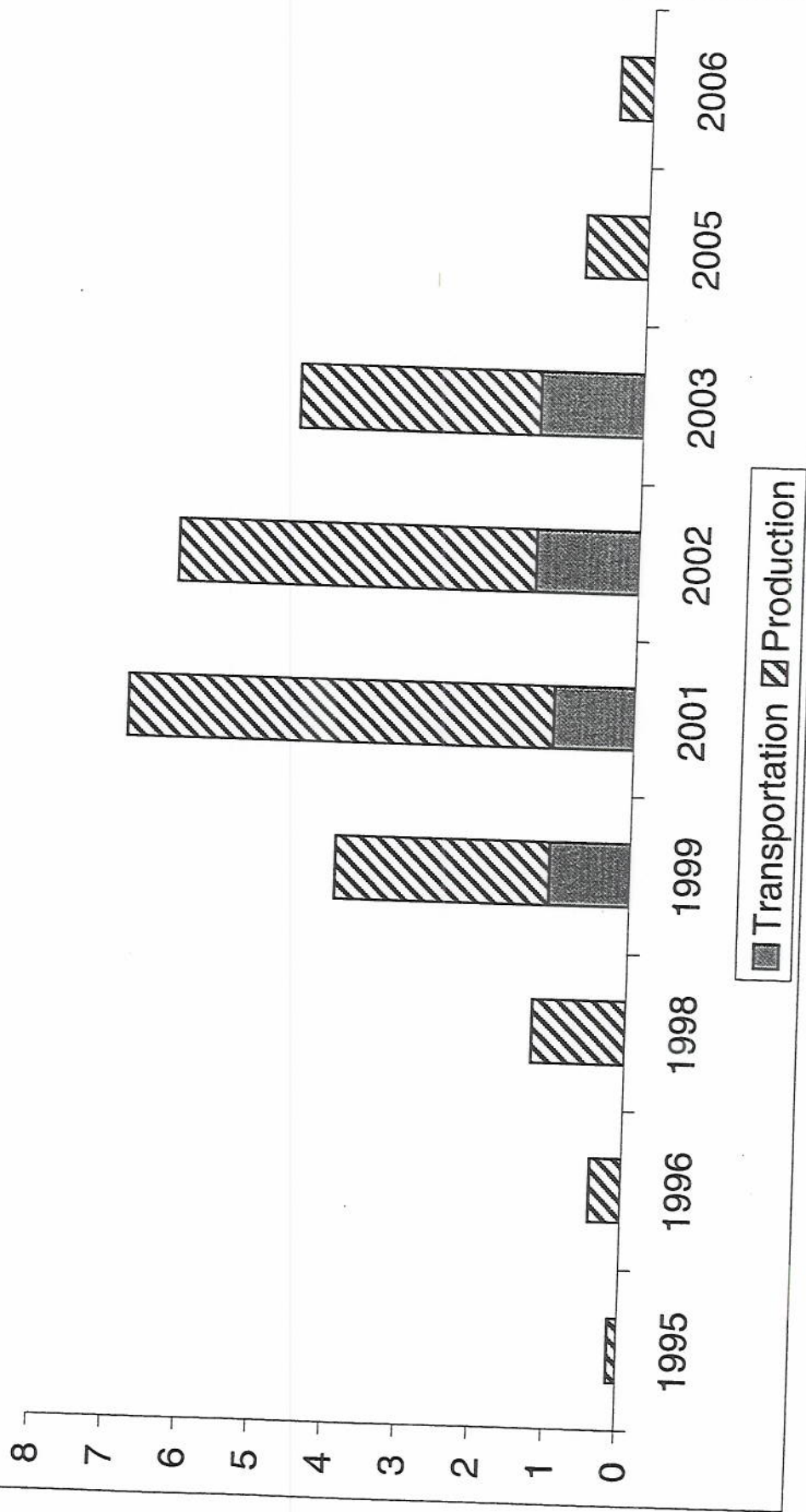


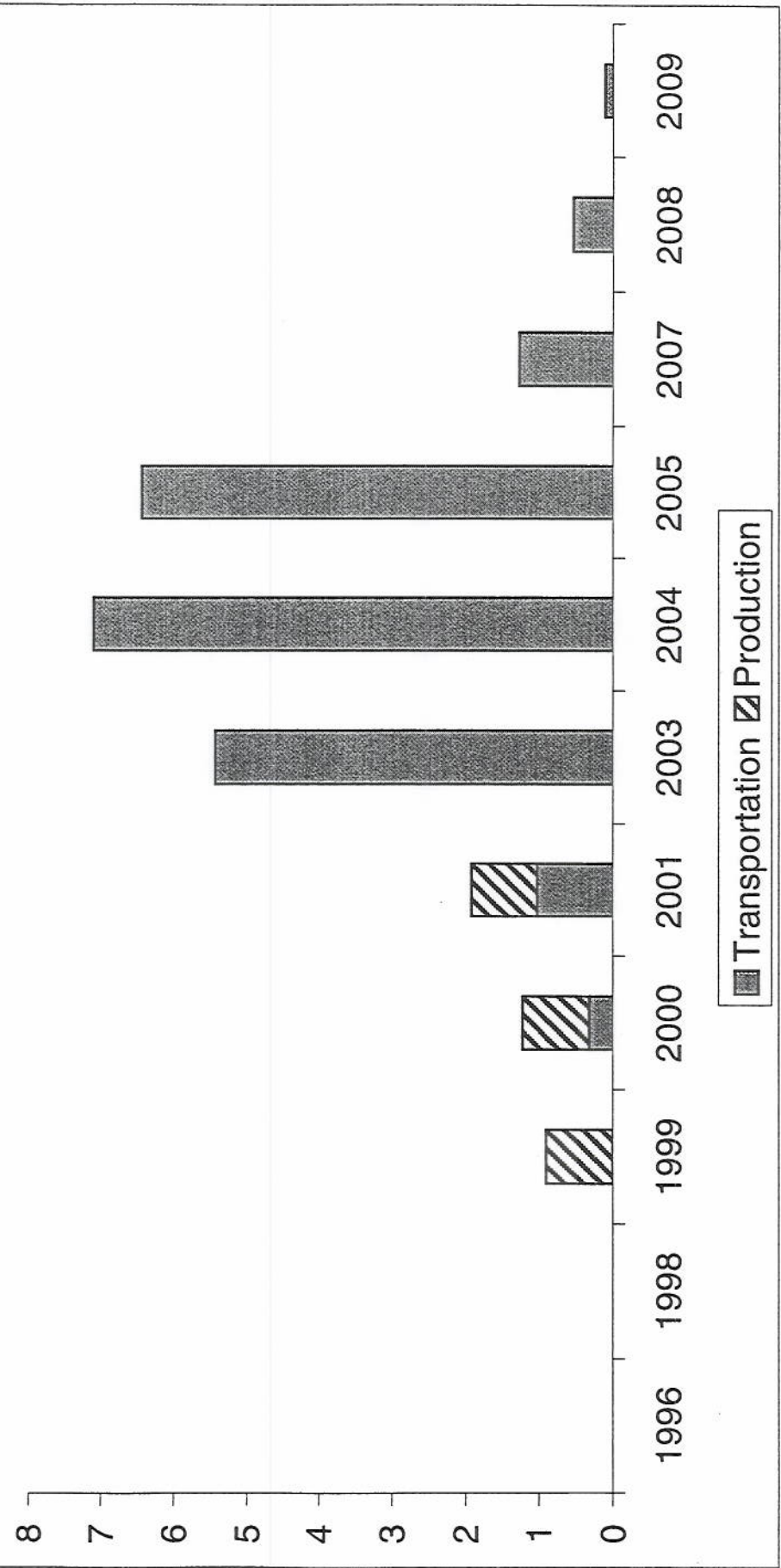
Figure 21. Scenario 2: Evolution of Investment Demand – Production and Transportation of Caspian Oil, and Competing Russian Projects (\$ billion)



**Figure 22. Scenario 3: Investment Demand
Outlook: Azeri Oil Production and Transportation
(\$ billion)**



**Figure 23. Scenario 3: Investment Demand
 Outlook: Kazakh Oil Production and
 Transportation (\$ billion)**



**Figure 24. Scenario 3: Investment Demand
 Outlook: Caspian Oil Production and
 Transportation (\$ billion)**

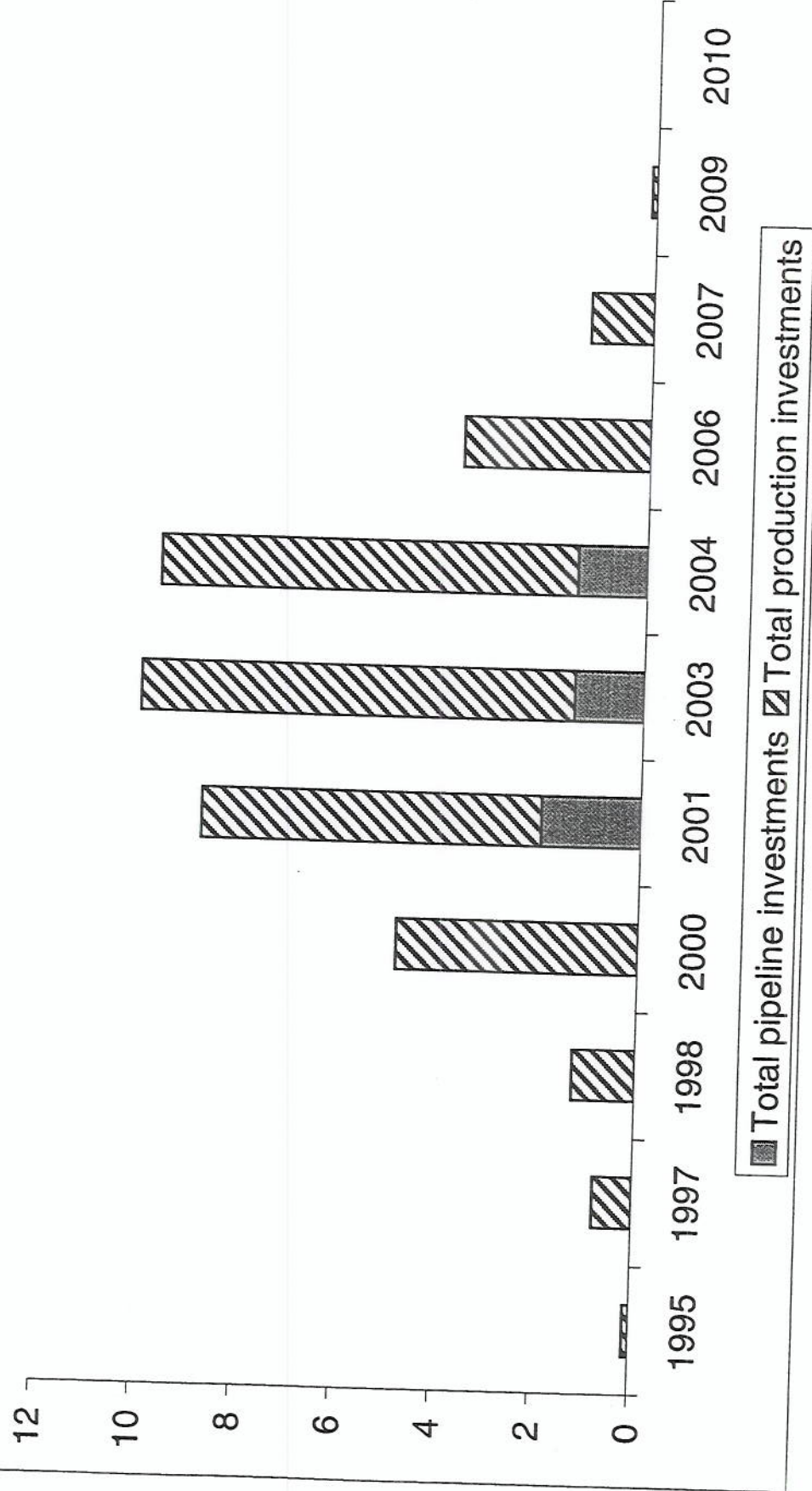
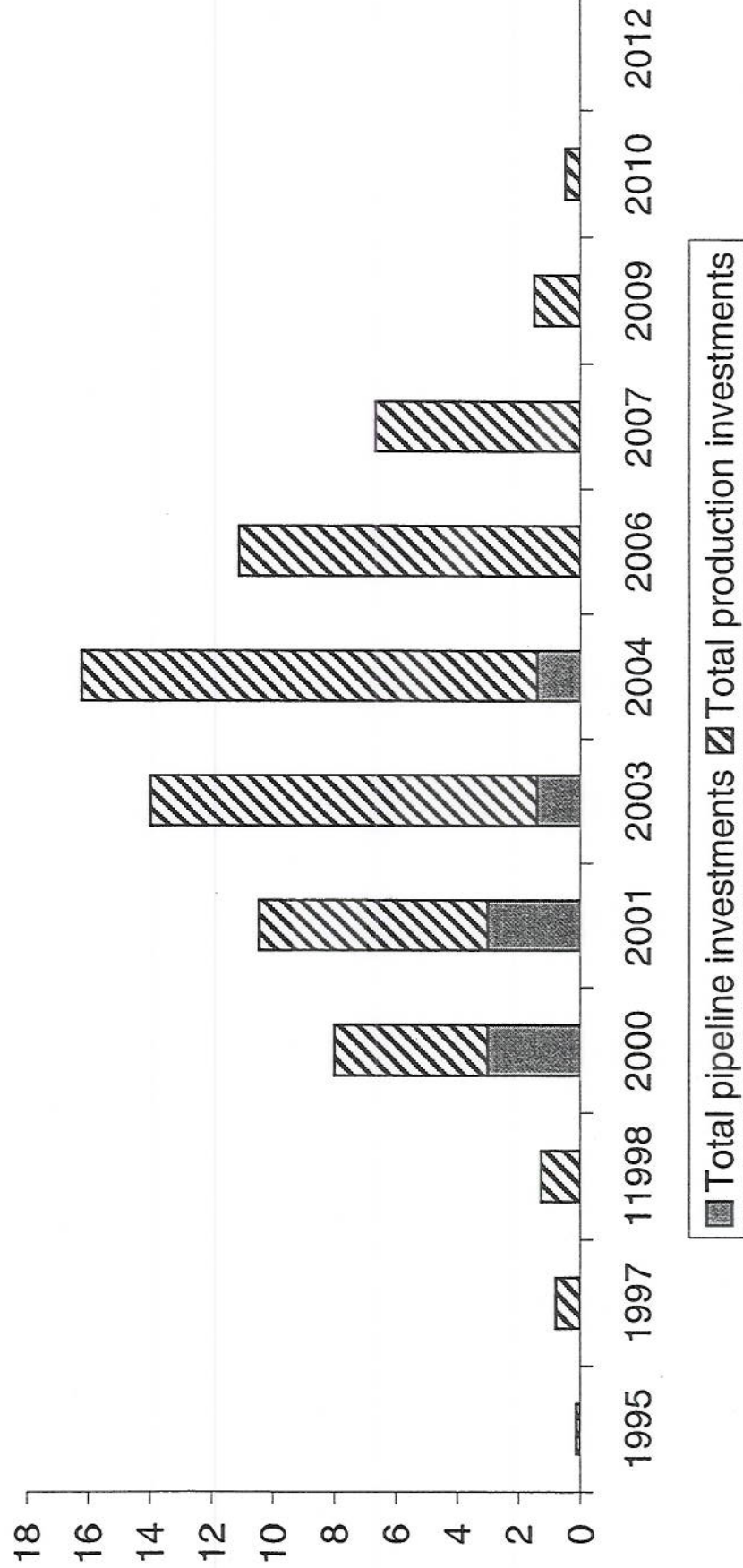


Figure 25. Total Investments in Production and Transmission for New Caspian and Russian (Timan-Pechora and Sakhalin 1, 2) Projects (\$ billion)



UNDERLYING TABLES FOR FIGS. 3 – 25 (.XLS)

Figure 3. Caspian Oil Capacity Outlook (Phase I Development) with New Competitive Russian Oil Projects (million t)

	1997	2000	2003	2006	2009	2012	2016	2019	2022	2025	2028
Russia	0	0	5.768	38.77	52.05	28.69	13.68	11.73	8.509	5.029	3.473
Kazakhstan (+ offshore)	0	0.393	36.1	65.45	115	121.5	114.4	89.81	96.18	83.52	6.545
Kazakhstan (onshore only)	0	0.393	36.1	65.45	114.5	114.5	88.36	45.81	26.18	13.52	6.545
Azerbaijan	0.12	11.03	25.31	46.71	62.15	64.51	47.96	32.38	20.79	11.83	3.834
Total (onshore + offshore)	0.12	11.42	67.17	150.9	229.2	214.7	176	133.9	125.5	100.4	13.85
Total (onshore)	0.12	11.42	67.17	150.9	228.7	207.7	150	89.92	55.48	30.38	13.85
Caspian (onshore)	0.12	11.42	61.4	112.2	176.7	179	136.3	78.19	46.97	25.35	10.38

Figure 4. New Azeri Projects: Oil Production Capacity Outlook (million t)

	1997	2000	2002	2005	2007	2010	2013	2015	2018	2021	2023	2026	2028
AMOK	0.12	11.03	15	35	35	33	27	17	10	4.693	3.612	1.5	0
Karabakh	0	0	0.024	2.168	2.948	6.879	6.879	6.486	5.307	2.752	1.965	0.922	0.71
Dan Ulduzu-Ashrafi	0	0	0.033	3.035	4.127	9.631	9.631	9.08	7.429	3.852	2.752	1.291	0.994
Shah-Denis	0	0	0.071	4	8.845	15	20.64	19.46	16	12	10	5	2.13
Total	0.12	11.03	15.13	44.2	50.92	64.51	64.15	52.02	38.74	23.3	18.33	8.714	3.834

Figure 5. New Kazakh Projects: Oil Production Capacity Outlook (million t)

	1997	1999	2002	2004	2007	2009	2012	2014	2016	2019	2021	2024	2026	2029
Tengiz	0	0	16.92	16.93	46.05	53.73	53.73	49.12	41.45	21.49	15.35	7.205	5.545	2.303
Karachaganak	0	0	8.213	8.216	22.35	26.07	26.07	23.84	20.11	10.43	7.449	3.496	2.691	1.117
Other	0	0	10.94	10.95	29.78	34.74	34.74	31.76	26.8	13.9	9.926	4.658	3.585	1.489
Offshore					0.5	7	16	26	44	60	70			
Total onshore	0	0	36.08	36.1	98.17	114.5	114.5	104.7	88.36	45.81	32.72	15.36	11.82	4.909
In Total	0	0	36.08	36.1	98.17	115	121.5	120.7	114.4	89.81	92.72	85.36		

Figure 6. Oil Capacity Outlook: New Russian Projects for Timan-Pechora and Offshore Sakhalin Island (million t)

	1993	1995	1998	2000	2003	2005	2007	2010	2012	2014	2017	2019	2022	2024	2026	2029
Sakhalin 2	0	0	0.631	1.975	5.93	4.748	3.139	1.726	1.342	1.283	0.931	0.574	0.435	0.291	0	0
Sakhalin 1	0	0	0	3.357	22.57	31.54	25.26	14.31	9.178	7.136	6.625	4.952	2.927	2.312	1.547	0
Timan-Pechora			0	0	5.768	18.05	44.31	43.39	28.69	18.61	12.26	11.73	8.509	5.249	4.513	2.659

Figure 7. Oil Incremental Demand Outlook for Eastern Hemisphere (1995 – 2015)

	2000	2005	2010	2015
Incremental Demand in Europe	30	54	79	109
Changes in European Demand	0	-30	-80	-130
Incremental Demand in Asia	153	357	535	748
Changes in Asian demand	-15	-25	-40	-45

Figure 8. Full Cycle Costs of Crude Oil Production Worldwide vs. First-Phase Caspian Development (US\$/bbl)

	Caspian	W. Texas	North Sea	Gabon	Indonesia	Libya, Malaysia, Mexico, Nigeria, Oman, Venezuela	Abu Dhabi (onshore)	Saudi Arabia	Iran
Maximum	4 25	19 35	20 12	15 7	8 10	5 10	3.75 2	1 1	1 1
Minimum	3 20	17 18	12 10	9 6	5 5	3 6	2.5 1	0.5 0.5	0.5 0.5

	Iran	Kuwait	Libya, Malaysia	Alaska, USA	Egypt	Western Texas
Maximum	1 2	5	7	12	19	
Minimum	0.5 1	3	6	10	17	

Figure 9. Cost of adding one barrel of peak daily crude oil production capacity – OPEC vs. Caspian ('000\$, CGES & IEA)

	Iraq	Kuwait	Saudi Arabia	Qatar	Iran	UAE	Ave.	Venezuela	Gabon	Libya	Nigeria	Indonesia	Algeria	Ave.	Azerbaijan	Kazakhstan	Ave.
1993-95	0.5	2	2.5	4	6	6	3.5	5	6	8	12.5	13	15	9.9			
1995-2000	1	3	4	6	8	7	4.8										
1995-2005															11.6	13.15	12.38

Figure 10. Approximate Cutoff Prices for Oil of Individual Caspian States for Various Supply Routes (\$/t)

(4 – Azeri, 7 – Kazakh)	1	2	3	4	8	9	5	7	6	10
Revenue (15% of costs)	7.703	10.64	7.65	9.3	11.69	11.55	8.7	19.05	13.04	12.27
Handling, port charges	3.5	4.55	0	6	4.55	5	0	0	7.5	6
Sea movement costs	7.9	4.85	6	8	11.38	10	6	0	14.4	4.8
Pipelining costs	20.95	42.5	26	29	43	43	25	100	38	44
Production costs	19	19	19	19	19	14 19	27	27	27	27

Figure 11. Caspian Crude CIF Prices for European and Asian markets by Supply Route (\$/t)

	1	2	3	4	5	6	8	7	9	10
Oil Price – \$105/t										
Supplies to Europe										
Supplies to Asia										
Taxable zone	45.95	23.47	46.35	33.7	38.3	5.065	15.38	-41.05	16.45	10.93
Income (15% of costs)	7.703	10.64	7.65	9.3	8.7	13.04	11.69	19.05	11.55	12.27
Handling, port charges	3.5	4.55	0	6	0	7.5	4.55	0	5	6
Sea movement costs	7.9	4.85	6	8	6	14.4	11.38	0	10	4.8
Pipelining costs	20.95	42.5	26	29	25	38	43	100	43	44
Production costs	19	19	19	19	27	27	19	27	19	27

Figure 12. Cutoff Price Implications: Feasible Framework for Caspian Oil Supply to Europe and Asia (\$/t)

30	30	36	30	30	30	30	30	30	42	20	
58.65	59.0525	66.7	71.3	81.535	89.6195	99.935			88.55	94.07	146.05
million t/y											

Figure 13. Demand for Investments in New Oil EP Projects in the CIS (\$billion)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Russia	0	0	0	0.145	0.64502	1.6325	3.904	6.467	7.494	7.372	5.404	3.852	1.376	0.485	0.209	0	
Kazakhstan		0	0	0	0	0.32408	1.023	2.497	5.431	7.092	6.427	3.284	1.269	0.538	0.111	0	
Azerbaijan	0.129	0.438	0.8	1.274	2.901	4.533	5.79	4.86	3.244	1.248	0.85	0.456	0	0			
Total production investments	0.129	0.438	0.8	1.274	2.901	4.85708	6.813	7.357	8.675	8.340	7.277	3.740	1.269	0.538	0.111	0	
Total production investments	0.129	0.438	0.8	1.274	2.901	15.00276	7.458	8.989	12.57	14.80	14.77	11.11	6.673	4.391	1.488	0.485	0.209

Figure 14. Scenario 1: Investment Demand Outlook: Azeri Oil Production and Transportation (\$ billion)

	1995	1996	1998	1999	2001	2002	2003	2005	2006
Production	0.13	0.439	1.274	2.901	5.79	4.86	3.244	0.85	0.456
Transportation			0.95	0.85	1.1	1.1			

Figure 15. Scenario 1: Investment Demand Outlook: Kazakh Oil Production and Transportation (\$ billion)

	1999	2000	2001	2003	2004	2005	2007	2008	2009
Production	0	0.324	1.024	5.431	7.092	6.427	1.269	0.539	0.112
Transportation	0.9	0.9	0.9						

Figure 16. Scenario 1: Investment Demand Outlook: Caspian Oil Production and Transportation (\$ billion)

	1995	1997	1998	2000	2001	2003	2004	2006	2007	2009
Total pipeline investments	0	0	0.95	2	2	0	0	0	0	0
Total production investments	0.13	0.8	1.274	4.857	6.814	8.675	8.34	3.74	1.269	0.112

Figure 17. Scenario 1: Evolution of Investment Demand – Production and Transportation of Caspian Oil, and Competing Russian Projects (\$ billion)

	1995	1997	1998	2000	2001	2003	2004	2006	2007	2009	2010	2012
Total pipeline investments	0	0	0.95	3	3	0	0	0	0	0	0	0
Total production investments	0.13	0.8	1.274	5.003	7.459	12.58	14.81	11.11	6.673	1.488	0.485	0

Figure 18. Scenario 2: Investment Demand Outlook: Azeri Oil Production and Transportation (\$ billion)

	1995	1996	1997	1999	2000	2001	2002	2004	2005	2006
Production	0.13	0.439	0.8	2.901	4.533	5.79	4.86	1.248	0.85	0.456
Transportation				0.85	1.1	1.1	1.1			

Figure 19. Scenario 2: Investment Demand Outlook: Kazakh Oil Production and Transportation (\$ billion)

	1996	1998	1999	2000	2001	2003	2004	2005	2007	2008	2009
Production			1.6	1.6	1.6	1.6	1.6				
Transportation	0	0	0	0.324	1.024	5.431	7.092	6.427	1.269	0.539	0.112

Figure 20. Scenario 2: Investment Demand Outlook: Caspian Oil Production and Transportation (\$ billion)

	1995	1997	1998	2000	2001	2003	2004	2006	2007	2009
Total pipeline investments	0	0	0.95	2.7	2.7	1.6	1.6	0	0	0
Total production investments	0.13	0.8	1.274	4.857	6.814	8.675	8.34	3.74	1.269	0.112

Figure 21. Scenario 2: Evolution of Investment Demand – Production and Transportation of Caspian Oil, and Competing Russian Projects (\$ billion)

	1995	1997	1998	2000	2001	2003	2004	2006	2007	2009	2010	2012
Total pipeline investments	0	0	0.95	3.7	3.7	1.6	1.6	0	0	0	0	0
Total production investments	0.13	0.8	1.274	5.003	7.459	12.58	14.81	11.11	6.673	1.488	0.485	0.485

Figure 22. Scenario 3: Investment Demand Outlook: Azeri Oil Production and Transportation (\$ billion)

	1995	1996	1998	1999	2001	2002	2003	2005	2006
Transportation				1.1	1.1	1.4	1.4		
Production	0.13	0.439	1.274	2.901	5.79	4.86	3.244	0.85	0.456

Figure 23. Scenario 3: Investment Demand Outlook: Kazakh Oil Production and Transportation (\$ billion)

	1996	1998	1999	2000	2001	2003	2004	2005	2007	2008	2009
Transportation	0	0	0	0.324	1.024	5.431	7.092	6.427	1.269	0.539	0.112
Production			0.9	0.9	0.9						

Figure 24. Scenario 3: Investment Demand Outlook: Caspian Oil Production and Transportation (\$ billion)

	1995	1997	1998	2000	2001	2003	2004	2006	2007	2009	2010
Total pipeline investments	0	0		0.2	2	1.4	1.4	0	0	0	0
Total production investments	0.13	0.8	1.274	4.857	6.814	8.675	8.34	3.74	1.269	0.112	0

Figure 25. Total Investments in Production and Transmission for New Caspian and Russian (Timan-Pechora and Sakhalin 1, 2) Projects (\$ billion)

	1995	1997	1998	2000	2001	2003	2004	2006	2007	2009	2010	2012
Total pipeline investments	0	0	0	3	3	1.4	1.4	0	0	0	0	0
Total production investments	0.13	0.8	1.274	5.003	7.459	12.58	14.81	11.11	6.673	1.488	0.485	0

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