Chapter 8

The Rise of the Post-Soviet Petro-States: Energy Exports and Domestic Governance in Turkmenistan and Kazakhstan

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The future prospects for Kazakhstan and Turkmenistan are presumed to be better than the prospects for most post-Soviet states, since they are fortunate to have two of the most desirable commodities in the world: oil and gas. Oil is the most important internationally traded commodity—both in terms of value and volume. It would seem to follow, then, that possessing oil offers hope to a state that it also will have wealth and power. Hydrocarbons have indeed captured the lion's share of foreign and domestic investment in Turkmenistan and Kazakhstan, and both investment—and the returns that will follow—are expected to increase in the coming years. But even as Turkmenistan and Kazakhstan are beginning to enjoy signs of success in the international oil arena, their domestic economies and political structures are already beginning to show some of the classic negative side effects of becoming "petro-states," nations which are defined and to an increasing extent structured by their role as oil/gas exporters.

In spite of the perception that oil is a source of wealth for nations and can be an engine for development, the actual history of political and economic development in petro-states has not been one of success. In the words of one analyst, OPEC "is never far from disaster . . . partly because it's a cartel of mostly undemocratic, mostly impoverished nations that can balance their budgets only if oil prices stay above $25 a barrel."[1] In spite of the original goal of the OPEC states to "sow the oil wealth" and encourage development that would last after their oil monies ran out, OPEC members on the whole now suffer double-digit inflation, cost overruns on vast public projects, insolvent banking sectors, and a collapse of agricultural and manufacturing sectors in those states that have them.[2] Most experts in the political economy of energy agree that being an oil exporting state is associated with certain pathological development tendencies, including lack of transparency, lack of separation of powers within the government, a conspicuous lack of equitable distribution of wealth and power, high levels of state debt, and a "permanent tendency toward rent seeking by state officials."[3]

Kazakhstan and Turkmenistan both already exhibit some "petro-state" tendencies. Are the classic political and economic instabilities of petro-states unavoidable? What are the larger global security ramifications if Turkmenistan and Kazakhstan continue to fail locally, while succeeding—or at least capturing market share—in global energy markets? This chapter begins with an overview of the classic problems of the petro-state. It will review the political and economic trends in Kazakhstan and Turkmenistan associated with their increasing reliance on energy exports, and conclude with the potential security implications of these developments.

The Problem of the Petro-State

One commonly known impact of oil booms in countries that have other, non-oil industries is Dutch Disease, so-called because of the unexpected impact the discovery of North Sea gas had on the Dutch economy. The discovery of gas caused the relative strength of the guilder to increase dramatically. This, in turn, made Dutch-manufactured products non-competitive, causing unemployment and inflation within the country. The nation found itself unexpectedly impoverished by its riches in natural gas. The Dutch experience has been replicated in many other countries. In sum, newfound success in oil or gas tends to take a toll on all other industrial sectors within a country. Persistent Dutch Disease can cause domestic resources to shift away from traded commodities, such as manufactured goods and agriculture, toward non-traded goods, such as services and transportation.[4] This is not inevitable, but aggressive state policies are needed to protect against such effects.

Kazakhstan has been studying the problem of Dutch Disease since the early 1990s, and has made an effort to learn from Norway's successes in particular. However, Kazakhstan may have chosen to focus on the wrong petro-state pathology: a single economic effect rather than the political-economic interactive effects. Evidence from Turkmenistan and

Kazakhstan suggests that if Dutch Disease is a factor, it is but one of many pathologies and perhaps one of the lesser challenges these states are likely to face as they increasingly embrace energy exporting.

In 1979,[5] (during the second oil crisis of the 1970s) one of OPEC's two founders, Juan Pablo Perez Alfonzo, said about the oil in his native Venezuela: "It is the devil's excrement. We are drowning in the devil's excrement."[6] Within a few years the oil boom had caused dramatic, unanticipated economic and political problems in Venezuela, nearly destroying the government and the economy. In her book, *The Paradox of Plenty: Oil Booms and Petro-States*, Terry Lynn Karl examines Venezuela as a classic example of a state that found oil booms holding it captive to a particular path of underdevelopment, rather than providing the hoped-for resources that would serve as an engine for wider development.

Karl notes that the capital-deficient oil exporting states of Algeria, Indonesia, Iran, Nigeria, and Venezuela—although otherwise very dissimilar—evolved along the same lines following the oil booms of the 1970s. She demonstrates that these states followed a common trajectory in which the policy environment first became "petrolized," serving the interests of the oil industry, but not the larger state. Vested private interests, once entrenched, reinforced the further petrolization of the state. Increasingly, the state relied on "the progressive substitution of public spending for statecraft," and state capacity became even weaker. In the final, weakest stage, oil booms actually had "pernicious effects," leading to the economic decline and destabilization of the regimes.[7] This grim picture suggests that oil is a hidden curse, rather than a blessing, for a developing state. Why does oil appear to have the effect of weakening the state that relies upon it?

First of all, Karl makes the point that all her case states are "late developing" states, ones that were on the periphery of an already established global trading system. Boundaries were given them by colonialism, rather than established through conflict or negotiation by the states themselves. As a result, these states experienced oil booms before they had strong national identities or administrative structures. More important, these states depended on revenues from export rather than revenues from taxation. In states that tax a commodity, such as oil, instead of taxing their people, the state fails to develop a basic accountability link: government spending tends not to become an issue for public consideration.[8] The net result of reliance on export revenues is that the state is largely free to build a "no taxation, no representation" system of governance.[9] The state tends not to develop a coherent budgeting system, and since revenues are closely tied to fluctuations in the price of energy exports, annual revenues are highly unpredictable. Instead of building a coherent public bureaucracy (the origins of most government bureaucracies are in taxation), the petro-states tend to engage in uncontrolled public spending. In years when oil revenues are less than expected, the promise of oil enables them to borrow. During times of high revenues, the public perception that oil booms should mean new benefits for all often leads the state to extend subsidies and take on expensive projects which cannot be abandoned when oil prices fall. Further complicating the problem of fiscal governance, oil booms can throw the entire petro-state economy into hyperinflation, causing the state to go further into debt even when revenues are at their highest.[10]

The limited capacity of a fledgling or weak state makes it more easily captured by the strongest interests within the state—the energy interests. Absent transparent democratic institutions, oil interests become the only actors invited by the government to develop business policies, and hence become the only non-state (or parastatal) voice that the government hears. This means that the government increasingly tends to favor the energy industry over time, and that politicization of the industry is inevitable.[11] Limited state capacity also makes it impossible for the state to put in place policies to protect against the economic effects of Dutch Disease. In the absence of strong policy measures to diversify the economy, oil tends to crowd out other sources of national productivity and state revenue, pushing the oil exporting state further along the trajectory Karl describes.

The Post-Soviet Petro-State?

If we apply Karl's definition of the "petro-state," four post-Soviet states qualify: Azerbaijan, Russia, Kazakhstan, and Turkmenistan. In each case, the oil and/or oil and gas sector is at the center of the state's economy, accounting for a high share of total exports and a high share of gross domestic product (GDP).[12] For Kazakhstan, oil and oil products constituted 52.8 percent of exports in 2002.[13] For Turkmenistan, gas constituted 57 percent of exports in 2002 with oil accounting for an additional 26 percent.[14] Karl divides the oil exporting countries into "capital deficient oil exporters" and "capital surplus oil exporters." Her analysis focuses on capital deficient oil exporters, which have larger populations, smaller reserves, and lower per capita incomes than the capital surplus oil exporting states. She asserts that capital deficient oil-exporting states feel their oil dependency more acutely because "their opportunities are so clearly bounded."[15]

At present, Kazakhstan and Turkmenistan are capital deficient oil exporters by this definition,[16] possessing skilled labor forces and relatively diversified economies. They have been net importers of capital and appear to be capable, in the mid term, of absorbing all the revenues from energy market booms. In terms of reserves to population ratios and gross national product (GNP) per capita levels, (measures Karl uses in dividing capital surplus and capital deficit oil exporting states), they are also comparable to Algeria, Indonesia, Iran, Nigeria, and Venezuela, all capital-deficient case states according to Karl.[17] Table 8–1 shows these states in comparison with key OPEC members.

Table 8–1. Examples of Oil/Gas Exporting States[18]

State Type: (Capital Surplus or Capital Deficient)	Oil Reserves (billion bbls)	Nat Gas Reserves (trillion cubic feet)	Population (millions)	Oil Reserves per capita (billion bbl per million persons)	GNI per Capita (US$)
Capital Deficient					
Russia	60.000	1680.00	144.8	0.4140	1,750
Kazakhstan	9.000	65.00	14.9	0.6040	1,350
Azerbaijan	7.000	30.00	8.1	0.8642	650
Turkmenistan	0.546	71.00	5.4	0.1011	950
Iran	89.700	812.30	64.7	1.3860	1,680
Venezuela	77.800	148.00	24.6	3.1626	4,760
Capital Surplus					
Saudi Arabia	261.800	224.700	21.4	12.2336	8,460
Iraq	112.500	109.80	23.8	4.7269	--
Kuwait	96.500	52.70	2.0	48.2500	18,270
Libya	29.500	46.400	5.4	5.4629	--

All reserves estimates from Energy Information Administration, World Crude Oil and Natural Gas Reserves, Most Recent Estimates," from
PennWell Corporation, Oil & Gas Journal, Vol. 100 No. 52 (Dec 23, 2002), can be accessed at: http://www.eia.doe.gov/emeu/international/
reserves.html
World Development Indicators 2003, World Bank
Gross National Income per capita, World Development Indicators 2003, World Bank

Turkmenistan and Kazakhstan both reject the suggestion that they are developing economies, preferring the World Bank term "economies in transition." They do have some characteristics that differentiate them from typical developing countries: high literacy, full electrification, and an industrial infrastructure (albeit decaying in many places). Yet although the distinction between transition economy and developing economy can be analytically useful, Turkmenistan and Kazakhstan also share important characteristics with developing states that are relevant in examining oil export dependency: lack of transparent democratic institutions, a post-colonial legacy of limited state capacity (in the Soviet era, all critical decisions were made in Moscow), bloated public bureaucracies, and incompetent budgeting systems.

Both Turkmenistan and Kazakhstan have made fundamentally different choices about the ownership of their oil resources and the appropriate role of the state. In a sense, they are the most-different cases of post-Soviet petro-states. Is the petro-state model useful given the considerable differences? What, if anything, can be learned from the experiences of the OPEC states that might be applicable to both Kazakhstan and Turkmenistan? Sovietologists may be troubled to see the pathologies of Turkmenistan and Kazakhstan explained in oil terms, since non-oil exporting post-Soviet states share some of the most significant pathologies of corruption and imploding state capacity. The question of interest here is how, if at all, these states have managed to use their new-found oil wealth to offset the difficulties of transition from Soviet rule to independence, and how the exploitation of hydrocarbons is likely to shape their futures.

The OPEC states, like Kazakhstan and Turkmenistan, had to overcome social capital deficits to achieve independence and international economic power in their post-colonial era. In some important respects, OPEC states have failed to establish strong governments with internal and external legitimacy. Might there be a resource-driven model for post-Soviet transition that can draw usefully from their experience? This chapter will examine elements of similarity and difference in Turkmenistan and Kazakhstan, with an eye towards highlighting what a petro-state based analysis can contribute to understanding the evolution of post-Soviet governance.

The Case of Turkmenistan

Turkmenistan is the post-Soviet state most nearly resembling an OPEC-style petro-state. One also could observe that it is, perhaps, the post-Soviet state most nearly resembling the pre-perestroika Soviet Union. The "Sedar" (Great Leader) and "Turkmenbashi" (Father of the Turkmen), President-for-Life Saparmurat Niyazov, was a Communist Party boss in the 1980s, and had significant differences with Gorbachev over the desirability of reforming the Soviet system. After the collapse of the Soviet Union, Niyazov took his own Republic, renamed the Communist Party the Democratic Party (now the only legal party in Turkmenistan), and set out to preserve a Soviet-style authoritarian welfare state in a post-Soviet world. Mixing Soviet experience with classic OPEC enthusiasm for state ownership, state welfare, and state interventionism, Turkmenistan appears to have moved further along Karl's petro-state trajectory than the other Caspian states.

Political Factors in Turkmenistan

Politically, Turkmenistan is a highly authoritarian state. The Kalkh Maslakhaty (The People's Council) and the Mejles (Parliament) are not permanent legislative bodies; instead they are convened annually or at the pleasure of the President. There is virtually no free press. In 2002, the Special Representative of the Organization for Security and Cooperation in Europe (OSCE) summarized the situation in Turkmenistan by saying there existed an "absolute lack of any freedom of expression . . . unseen in the OSCE region since the establishment of the organization."[19] Turkmenistan has been described as a "sultanistic regime," a category of regimes first named by Max Weber, and characterized by personal rule, large-scale corruption, and manipulation of fear and rewards.[20] The key political aspects of Turkmenistan today include nation-building (that is, establishing a strong Turkmen identity among citizens), demographics, and Turkmenistan's international relations.

Nation-Building

The project of nation-building in a post-colonial state is a critical task for preserving identity and security. In Turkmenistan, nation-building has been helped somewhat by the fact that Turkmen constitute 78.5 percent of the population.[21] This population is divided among five key tribal/clan groups, which comprise the five welayats (oblasts) of Turkmenistan. Some scholars believe that divisions among these groups are possibly important faultlines.[22] In an effort to build a collective national identity, Niyazov has incorporated the symbols of each of the five key clans in the flag. His symbol for the nation, the five-headed eagle, also emphasizes this unity in diversity.

Russians were previously the largest ethnic minority in the country, but are currently second with an estimated 5.2 percent.[23] Turkmenistan's recent unilateral abrogation of the dual-citizenship pact with Russia means that Turkmenistan no longer recognizes dual citizenship and this has forced citizens to choose (and has raised significant protest in Russia). However, it also has had the desired effect of limiting the ability of expatriate Turkmen to mount opposition movements from abroad. Currently, the largest ethnic minority is Uzbek, at 9.8 percent.[24] The ethnic Uzbeks are a matter of some concern, as they are geographically concentrated near Bukhara, and have more cultural and geographic ties to Uzbekistan than to their own distant capital of Ashgabad.

Niyazov has made some aggressive efforts toward building a common national identity. As of 2000, Turkmen is the only state language and Cyrillic letters have been eliminated systematically from public view. The state is attempting forced assimilation through actions such as requiring Turkmen national dress in all schools even for non-Turkmen students.[25] The entire nation has adopted the president's book, *Ruhname*, for use in schools at all levels. First published in October 2001, this book is part history, part religion, and part mythology, placing the Turkmenbashi at the center of development of the Turkmen state, and Turkmenistan at the center of the history of mankind. In spite of the sometimes-absurd elements of the President's cult of personality, discernable popular discontent remains low.[26] In OPEC states and elsewhere, large-scale prestige projects are almost always justified in terms of nation-building, and increasing the pride of citizens in their government. In Turkmenistan, prestige projects abound. Niyazov has overseen the construction of a new monument every year since independence, the most recent being a statue in honor of his book.

Population

Although popular discontent remains low, and services relatively high, the number of citizens to supply is growing. Population explosion is a pattern typical of the OPEC states and markedly untypical of the post-Soviet states. Population explosion, coupled with rising expectations of that population, could make sustaining the level of state subsidies increasingly difficult over time, as has been the case in OPEC states. Curiously, in spite of the fact that the population is clearly growing rapidly, it appears that Turkmenistan is over-reporting its growth.

The Turkmen government claims a population of 5.73 million, an estimate that the United States has modified to 4.6 million.[27] Beneath the dubious state statistics, there is evidence that the state is having trouble providing its citizens with full services. Although Turkmenistan's absolute poverty level is lower than other Central Asian states—approximately 7 percent in 1998—mortality indicators are worse. At the same time, some state services have been reduced, most significantly in education. Compulsory schooling is now nine years, down from eleven, and free university education has been abolished. Evening classes also have been eliminated at the university level.[28]

International Relations

Key characteristics of the evolution of Turkmenistan in its first decade of independence include state weakness in international relations and extreme concentration of wealth and power in the hands of the President-for-Life. Turkmenistan espouses "positive neutrality towards all states," an official state policy registered with the United Nations. In practice, positive neutrality has been a means for Turkmenistan to avoid alliances and remain isolationist in all matters, except those dealing with the export of gas. This isolation is seen as necessary for the success of the socialist experiment at home.

Turkmenistan's geographic situation as a landlocked, gas exporting state, poses some persistent challenges. The pipelines built in the Soviet era all run through Russia, giving the Russians a near-monopoly on transit. Although Turkmen gas mixes in the pipes with Russian gas, Russia has ordered that all Turkmen gas be sold to the "near abroad," which means the states of the former Soviet Union. This policy, in place since 1994, forces Turkmenistan to collect from states with high payment arrears, such as Ukraine. It also affords Russia the luxury of being able to say to successor states that it is unable to trade gas debt for political favors. The only existing non-Russian line to which Turkmenistan has access is the Korpeje-Kord Kuy pipeline, a small gas line which runs from Turkmenistan to Iran. This line was opened in 1997 during a period when Turkmenistan had halted gas exports to Russia, due to Russia's lack of payment deliveries.[29]

However, other export routes are possible. The prospective future pipeline which holds the most attraction for Turkmenistan is the Trans-Afghan pipeline, a line which would originate in Turkmenistan and then extend across Afghanistan (avoiding Iran), continue to Pakistan, and possibly end in India. The Asian Development Bank currently is conducting a feasibility study on this project, based on a similar project that had been designed before the Taliban came to power in Afghanistan. Turkmenistan's enthusiastic pursuit of this pipeline has been an irritant to Russia, as has Turkmenistan's decision not to join a "Eurasian Alliance of Gas Producers," which Russia attempted to form in 2002. At that time, Turkmenistan noted that it preferred to engage in bilateral trade.[30] Since then, Turkmenistan has been securing long-term contracts with former Soviet republics, most notably Ukraine. Turkmenistan also has secured a favorable rate for its gas from Russia, although Russia persists in paying nearly half the amount in barter.[31]

In spite of the need to access as many markets as possible and the fact that Turkmenistan's share of offshore resources in the Caspian Sea is considerable under any agreement, Turkmenistan has contributed significantly to the stalling of development in the Caspian Sea.[32] Turkmenistan's position in the Caspian Sea dispute has been inconsistent. Its current position is that it "favors division of the seabed and water surface with a condition to keep 20 miles zones (sic) for free navigation."[33] Yet at times, Turkmenistan has supported Iran's position—that the sea should be managed as a lake, or divided evenly among the states. Under the median line approach to the Caspian, Turkmenistan would receive 18 percent, rather than the 20 percent it would be entitled to under an even division.

The key issue for Turkmenistan is a set of disputes with Azerbaijan over a field they both claim in the Caspian, called Kyapaz or Serder. The case has been referred to the International Court of Justice (ICJ), and some expect their decision to resolve the dispute.[34] Until this issue is resolved, the extent of Turkmenistan's reserves is difficult to determine—which accounts, in part, for the wide disparity of estimates among sources. However, the disagreement is also said to be connected to the personal rivalry between Niyazov and Azeri former President Heydar Aliyev.[35] It may be the case that a resolution will be possible, now that Aliyev has passed the presidency to his son. Only a negotiated solution is possible; no scientific precedent has been set on how to objectively determine if a body of water is a lake or a sea. The decision of which body of law applies must be made by the states themselves.

Economic Factors in Turkmenistan

Turkmenistan has a statist, highly indebted economy. Its currency remains unconvertible, and hence the legal and black-market exchange rates have a great discrepancy. By Turkmen reporting, real GDP has exceeded 1989 levels since 2001; if true, Uzbekistan and Turkmenistan are the only former republics with this level of success.[36]

Structure of the Economy

During the era of OPEC's rise to power, optimism concerning state-led development was high. It was believed that the state would "allocate oil windfalls . . . in such a way as to optimize popular satisfaction."[37] In OPEC states, state ownership of a majority of the oil industry continues to be a necessary component of membership. Turkmenistan resembles OPEC states in its economic structure, in that the state owns an overwhelming majority of the oil and gas industry. However, state ownership in Turkmenistan is even more extensive than in most OPEC states, since the government owns and manages all land and industrial structures. In fact, the state has used its gas wealth to prevent transition away from Soviet-style welfare authoritarianism.

Turkmenistan is proud that it is the one former Soviet republic that has not attempted to follow an International Monetary Fund (IMF) program for economic restructuring.[38] Rather than succumb to the "Washington consensus" as to the appropriate sequencing of economic transition, Niyazov has instead pursued an older (and largely discredited) development strategy—import substituting industrialization (ISI), and is financing this ISI strategy with natural gas exports. Turkmenistan has continued to invest in infrastructure, including non-oil infrastructure. In addition to the natural gas supply mentioned earlier, railways and motorways also are under construction, and a rail link was opened with Iran in 1996.[39]

The price of Niyazov's "socialism in one country" has been an increasing reliance on gas and oil for state revenues. The statistics in Table 8–2 end with 2001, the last year for which full data is available, but indicators suggest that Turkmenistan's reliance on hydrocarbon exports is continuing to increase. This means that the state is increasingly bound to hydrocarbon revenues, hence, increasingly hostage to fluctuations in price and increasingly likely to be responsive to the needs of only one industrial sector: oil and gas.

Table 8–2. **Energy as a Percentage of Exports**

	1998	1999	2000	2001
Turkmenistan	54.7	63.7	79.8	82.9
Kazakhstan	34.9	38.0	50.2	58.1
Russia	36.7	38.9	62.9	61.0

IV Energy data are aggregated somewhat differently for Russia. Estimated from tables in (EIU Russia), including mineral products and
chemicals. Data from EIU Turkmenistan, and The Economist Intelligence Unit, Kazakhstan Country Profile 2003, and Russia Country Profice 2003, The Economist Intelligence Unit Limited, (Henceforth EIU Kazakhstan, EIU Russia), London: 2003

As is common among petro-states, Turkmenistan has suffered from persistent problems with taxation; personal income tax accounts for only seven percent of revenues. Of this amount, approximately 68 percent of revenues collected are in money, with the remainder paid in barter of goods and services.[41] Most tax revenues are from value added taxes (VAT) and profit tax. The central bank, which had some limited autonomy from 1997 to 1999, now has none. Since the dismissal of its pro-reform director in May 1999, the Bank's role is confined to printing money to cover budget deficits and extending credit to state owned companies.[42] Even strong advocates of State Oil Funds for Azerbaijan and Kazakhstan concede that, in a state as strongly presidential and non-transparent as Turkmenistan, a fund would be unable to have any positive impact.[43]

Investment Climate

Turkmenistan has sought to attract foreign investment, but the perception that the business environment is unfavorable and the legal and regulatory systems non-transparent have caused investors to forgo most opportunities. The size of the shadow economy in Turkmenistan is estimated as 60 percent of the official GDP, which is in the upper half of Central Asian economies.[44] As is typical in petro-states, political power is closely intertwined with the hydrocarbons sector. President Niyazov is said to approve all contract awards personally.[45] Another indicator of the flow of energy and power is that the President's son, Murad Niyazov, is an owner of an offshore firm, registered in Cyprus, which is responsible for receiving payments for gas consumed by Ukraine.[46] The government has a reputation for shifting policies and demanding changes in already existing contracts, at the whim of the President. Consequently, Turkmenistan has one of the lowest private sector-to-GDP ratios in the region, estimated by the European Bank for Reconstruction and Development (EBRD) to be 25 percent.[47] Of an original list of 4,300 small enterprises and 280 medium-sized enterprises supposedly available for privatization, only 200 of the smaller and six of the medium had been sold by June 2000.[48] Even the oil and gas enterprises have trouble attracting investment.[49]

A key barrier to investment remains the lack of transparency of all government statistics. Uncertainty about the population of Turkmenistan already has been mentioned. There is also uncertainty about as basic an issue as whether Turkmenistan possesses the eleventh largest proven gas reserves in the world[50]or the fifth largest.[51] With such information being self-reported,[52] Turkmenistan's statistics in all sectors continue to be regarded as highly suspect. GDP is similarly difficult to estimate. EBRD, using a weighted average of official and unofficial exchange rates, arrives at the figure of $538, while the Economist Intelligence Unit, by estimating purchasing power parity, proposes $2574 as a more accurate reflection.[53]

Corruption, a standard feature of petro-states, is a definite problem. In spite of the high level of authoritarianism, corruption is widespread and borders are notoriously porous. In addition, Turkmenistan has a reputation for being a significant transit point for trafficking in narcotics and arms.[54]

Debt

Hydrocarbon industries dominate the economy, while the second largest industrial sector—construction—is financed largely by Niyazov's enthusiasm for prestige projects. As a result of large-scale subsidies, prestige projects, and state mismanagement of the economy, Turkmenistan already qualifies as a highly indebted country under World Bank classifications.[55] In contrast to the Russian experience (where windfalls in oil were immediately used in part for debt reduction), Turkmenistan appears to be continuing along a path of increasing indebtedness.

Table 8–3. **Debt as a Percentage of GDP**

	1997	1998	1999	2000
Turkmenistan	50.6	64.6	NA	NA
Kazakhstan	19.2	27.3	36.2	36.4
Russia	31.5	65.6	89.0	61.7

Data from (EIU Turkmenistan), (EIU Kazakhstan), (EIU Russia), Reference Tables from the appendices

Part of the debt can be accounted for by problems in 1997, when Turkmenistan ceased exporting gas during disputes with Russia about non-payment. But this does not fully account for the sheer magnitude of debt as shown in Table 8–3. High spending on domestic subsidies is typical of petro-states. It is estimated by a former Iranian Finance Minister that subsidies in the Persian Gulf ran as high as 10 to 20 percent in some years of the 1970s and 1980s.[57] Turkmenistan follows in this tradition. Domestic energy consumption is highly subsidized. Every citizen has a free natural gas quota, and far more households are connected to gas now than were 10 years ago. By 1999, fully 92 percent of households were connected, up from 40 percent in 1990.[58] This demonstrates a significant state commitment to expanding subsidies. In Turkmenistan a driver pays 400 manat (two cents) for a liter of gasoline, which is less than half the 1000 manat (four cents) he would pay for a liter of bottled water.[59]

The World Bank estimates that currently in Turkmenistan, 21 percent of GDP is spent on subsidies for oil and gas alone.[60] One side effect of this high level of energy subsidies is that consumption of energy per unit of GDP is estimated to be 13 times the U.S. level, making Turkmenistan the least efficient in a region of relatively inefficient countries.[61] Although energy is the most significant sector in terms of government subsidies, water is also heavily subsidized, which has important implications for the viability of agriculture in Turkmenistan.

Threats and Patterns of Governance

The governance strategy in Turkmenistan is one familiar to many OPEC states: following the "no taxation, no representation" model, the state is failing to establish competence in taxing or budgeting. A complete lack of transparency has made even the most basic statistics suspect, yet—based on the promise of hydrocarbons—the international community remains willing to lend money where it is unwilling to invest. President Niyazov has relied on hydrocarbon revenues to support a high level of uncontrolled public spending. In years of low gas export revenues, he has been willing to assume vast national debt in an effort to keep his people from experiencing a decline in their Soviet-era living standard. In effect, President Niyazov has implemented—for the time being—the system that Brezhnev attempted to apply to the whole Soviet Union: use of energy export revenues as a substitute for economic reform.

The key threats to Turkmenistan appear to be continued high debt levels and the complete absence of an apparent line of succession. The debt will be inherited by any subsequent government, even one that decides to make less of a commitment to state subsidies. The lack of an apparent successor (Ministers who attain too high a level of visibility are sacked, and the Parliament is generally regarded as being laughably weak) almost ensures that chaos will follow in the wake of the "Great Leader's" passing. Due to Russian and Iranian interests in the stability of the gas fields in Turkmenistan, a period of chaos in Turkmenistan could leave both Russia and Iran tempted to intervene.

The Case of Kazakhstan

Key characteristics of the evolution of Kazakhstan in its first decade of independence include continuing state weakness and limited state capacity, as well as increasing concentration of wealth and power in the hands of a few. Like Turkmenistan, it can be classified as a "sultanistic regime,"[62] a state that runs on highly personalized leadership, corruption, fear, and systematic rewards. In three significant areas—ownership, geography, and demography—Kazakhstan differs from the typical petro-state. Kazakhstan's approach to ownership reflected the post-Soviet pessimism about state-led development. Instead of considering oil revenues as belonging to "the nation as a whole," as do all the OPEC member states,[63] Kazakhstan has chosen to allow privatization and an unusually high level of direct international investment in extraction and development of the oil sector. In March 2002, in recognition of the openness of its market, Kazakhstan became the first CIS country to be granted a "market economy country" status by the United States.[64]

Political Factors in Kazakhstan

Kazakhstan is nominally democratic, but in reality it is a highly presidential, authoritarian state, though much more open and pluralist than Turkmenistan. The Senate (upper house) and the Majilis (lower house) are permanent legislative bodies, although they typically rely on leadership from the Ministries and Presidential apparat. Key opposition leaders are in exile, and political parties other than those supportive of the President do not tend to endure. Members of President Nursultan Nazarbaev's extended family own substantial stakes in promising private and parastatal industries. Key political aspects of Kazakhstan include the task of nation-building (that is, establishing a strong Kazakh identity among citizens), demographic information, and Kazakhstan's international relations.

Nation Building

Nation-building in a post-colonial state is a critical task for preservation of identity and security. Like many late-developing states, Kazakhstan faces significant challenges in its efforts towards nation-building. With the collapse of the Soviet Union, it inherited boundaries that do not reflect a polity with strong national loyalties or identity. In fact, Kazakhs, who constitute 53.4 percent of the population,[65] only achieved the status of an absolute majority in Kazakhstan following independence. Russians make up the largest minority ethnic group, with 30 percent of the population. Ukrainians and Uzbeks make up the next largest minorities with 3.7 and 2.5 percent, respectively.[66] The state was not unified by a struggle for independence. Rather, independence was thrust upon it when the Kazakh President and Communist Party Chief Nursultan Nazarbaev failed in his long-standing efforts to negotiate a compromise between Gorbachev and Yeltsin to prevent the Soviet Union from collapsing. With the onset of independence, Nazarbaev became the leader of a state with limited capacity to govern. Under the Soviet empire, all bureaucracy in the Soviet-era capital of Almaty was designed to require direction from Moscow.

In OPEC states and elsewhere, large-scale prestige projects are almost always justified in terms of nation-building, and some do increase the pride of citizens in their government. In Kazakhstan, the key prestige project has been construction of the new capitol city, Astana. Although the reason for moving the capitol is oft-debated, it probably was done for a mix of reasons, including an effort to better integrate the northern portion of the country, a desire to bring the center of power closer to Russia, and a desire of President Nazarbaev to create a new post-Soviet city to his own specifications, in the region of his own clan.

Population

Kazakhstan's demography and declining population appear to pose something of an opportunity to the state. In contrast to most OPEC states, which experienced dramatic population growth with their prosperity, the Kazakh government is more concerned about stemming population decline. The 2000 census delivered the unwelcome news that the population since independence had declined from 16.1 million in 1989 to 14.8 million. Much of the decrease can be attributed to emigration. A disproportionate share of emigrants have been ethnic Russians, which has caused a "brain-drain" of some key skills. At the same time, however, this has enabled ethnic Kazakhs to become a majority in their own territory for the first time since the 1920s.[67] Declining population eventually may lead to a shortage of manpower and other challenges, but it does spare Kazakhstan the classic developing petro-state challenge of meeting the rising expectations of a burgeoning population.

International Relations

Kazakhstan's geographic situation poses some persistent challenges for the country. As a landlocked, oil-exporting nation, distant from all its prospective consumers,[68] Kazakhstan is faced with the strategically critical choice of how to bring its oil to market. As in the case of Turkmenistan, this geographic factor forces the government to commit to long-term export strategies. The pipelines built in the Soviet era all run through Russia, giving the Russians a monopoly on transit of Kazakh oil. Russia has allocated irregular space in its pipelines to Kazakhstan since independence, consistently favoring Russian oil. In an effort to create a pipeline just for Kazakhstan, the Caspian Pipeline Consortium (CPC) was founded in 1993 and the pipeline opened in the summer of 2001. This pipeline also runs across Russian territory, but is owned by a mixture of state and private actors. However, problems with Russia over transit fees and privileges have persisted. In just one example, Russia is seeking to extend access to the pipeline to non-shareholders at shareholder rates.[69] Until an alternate route is constructed that does not cross Russia, Kazakhstan will remain reliant on Russian goodwill to get its oil to market.

Non-Russian possibilities for the future export of Kazakh oil do exist. China, for one, has expressed interest in an eastbound pipeline. Yet Russian-Kazakh trade relations remain fairly positive due to the power asymmetry between the states. Since September 11, the United States has encouraged Russia to make good-faith agreements with Kazakhstan to discourage the Kazakhs from moving more towards OPEC's sphere of influence. Kazakhstan and Russia, together with Belarus, Kyrgyzstan, and Tajikistan, are striving for a "harmonization of legislation" as a component of an eventual free trade zone. This movement towards harmonization gives Kazakhstan the opportunity to avoid capacity building. It also means that Kazakhstani legislation, in many sectors, is based very closely on existing Russian laws. Critics claim that the harmonization amounts to "legislation by white-out." It also ensures that weaknesses in Russian laws will most likely be passed on to the other four states.

One aspect of Russian-Kazakhstan cooperation has been on the Caspian Sea issue.[70] Kazakhstan consistently has supported the Russian position. When the positions of the other littoral parties remained unchanged after several years of negotiations, Russia and Kazakhstan were the first to sign a bilateral agreement in 1998, which marked borders on the seabed in keeping with the "Median Line" solution.[71] One cost to Kazakhstan of the Caspian Sea dispute that remains unresolved is that several pipeline options cannot be pursued without a resolution. The United States has expressed interest in Kazakhstan joining the Baku-Tbilisi-Ceyhan pipeline currently under construction. While the government of Kazakhstan expresses interest in each new option, at present no non-Russian routes are under construction.[72]

Economic Factors in Kazakhstan

Kazakhstan has an open economy. The currency is fully convertible and has been relatively stable since 1998. Real GDP has yet to exceed 1989 levels, but Kazakhstan is the only Central Asian state to have attained a GNP of over $1,000 per capita.[73] Kazakhstan also has a relatively small shadow economy, estimated at only 39 percent of its official GDP.[74] Wealth is very unevenly distributed, however, with 26 percent of the population below the poverty line.[75] Due, in part, to the high level of foreign investment, the UN Human Development Index ranks quality of life in Kazakhstan as the highest in Central Asia and the Caucasus.[76]

Structure of Economy

Kazakhstan, like most post-Soviet states, came to independence with a profound skepticism about the state's role in all sectors of social and economic development. Turkmenistan, in which the state retained control of most sectors, was the exception rather than the rule. In Kazakhstan, the state made little effort to cushion its population from the economic impacts of the Soviet Union's collapse. Instead, in the early years of independence, the population (like that in many other post-Soviet states) had their expectations dramatically reduced, even as oil production was beginning to provide windfalls to the state and elites.

Kazakhstan received enthusiastic support from international financial institutions and from the oil interests for its early decision to privatize most of the economy, including the oil sector. This privatization had the positive effect of preventing the state from sharply expanding, as happened in OPEC states during oil booms. Instead, Kazakhstan's oil industry rapidly became dependent on foreign investment; in the first quarter of 2002, foreign investors underwrote 80 percent of oil production.[77] Foreign investment was attractive initially because it had the short-term effect of providing emergency revenue in the wake of the Soviet collapse. Privatization was used to fill the budgetary gap, particularly during the time period of 1996 to 1998.[78]

Because of the dramatic opening of its industry to foreign investment as well as the simultaneous privatization of the domestic energy sector, by 1998 Kazakhstan was the largest per capita recipient of direct foreign investment in the Commonwealth of Independent States (CIS).[79] Yet in retrospect, the rush to privatize is sometimes regretted. As the state enjoys more success in oil exports, the government on several occasions has expressed a desire to renegotiate its contracts with foreign investors, many of which it now feels were not designed sufficiently in its favor.

Although the government is reluctant to improve its capacity in terms of its ability to tax or provide services, it has not been immune to the temptation of "prestige" projects. Such projects are a hallmark of petro-states and the new capital of Astana is a classic example. A richer and more established state, Germany, opted in recent years to move its capital slowly to Berlin, in order to reduce the cost. By contrast, government ministries in Kazakhstan were ordered to relocate to Astana within a year of the presidential announcement designating the new capital. Converting a small, provincial town in the Virgin Lands of the steppe into the nation's capital has been an expensive project, and a top investment priority for the government. Construction in Astana is estimated to have cost at least $500 million by 1999, not including the power and water infrastructure that was sorely needed.[80] In addition to direct government projects, oil companies, both foreign and domestic, also were expected to contribute to the President's new city. Luong estimates that Kazakh oil alone has spent $25 to 30 million in improvements in Astana.[81]

The Kazakh state also has failed to address the issue of taxation. State revenues declined to 20 percent of GDP by 1995, and dropped by an additional six percent in 1996. By 1997, the government acknowledged that it had been failing to collect taxes effectively, and created a new State Revenues Ministry. This Ministry was tasked with responsibility for fiscal policy, tax regulation, and customs. Tax revenues, as a percentage of GDP, continued their decline in 1998.[82] This lack of success is best explained by the government's conviction that it can rely primarily on oil and gas revenues; in 1998, it borrowed money rather than improving tax collection methods. The lack of success in raising tax revenues for the federal budget also may be explained by the simple fact that the State Revenues Ministry, like most lucrative Ministries, is headed by a relative of the President and has the power to determine the type and level of taxes applicable to each new oil contract. These contracts must be made directly with the government, each is unique and each is reviewed by President Nazarbaev.[83]

With the failure of other forms of taxation, increasing reliance on oil for state revenues has been inevitable. Energy exports constitute an increasing share of all exports in Kazakhstan, rising to the current level of 58.1 percent of total exports (see Table 8–2). Although energy as a percentage of exports remains lower in Kazakhstan than in Turkmenistan, the rates of increase are similar; Kazakhstan's reliance increased 23.2 percent from 1998 to 2001, only slightly less than Turkmenistan's increase of 28.2 percent during the same time period. Again, increased reliance means the Kazakh state is increasingly hostage to fluctuations in price and export levels, and the state is therefore increasingly likely to be responsive to the needs of the oil sector alone. One very good sign in Kazakhstan is the establishment of a new State Oil Fund, designed to provide consistent funding to the social sector. This is an oft-recommended strategy for improving the fiscal competence of petro-states.[84] Its success, however, depends on it being run in a transparent manner.

Investment Climate

Although privatization may have limited expansion of the state, it has not begun separating money from power. The presidential family remains vital to all oil deals, and the President himself is the principal partner of a number of major energy companies operating in Kazakhstan. The link between economic and political outcomes is both typical of petro-states and reminiscent of the former socialist systems.[85] It also leads inevitably to corrupt practices on the part of the foreign oil companies attempting to do business in Kazakhstan, as evidenced by the investigation of Exxon Mobil, said to be the largest U.S. investigation of alleged bribery abroad under the Foreign Corrupt Practices Act.[86] The level of corruption at the highest levels is widely recognized: in June 2000, a bill in parliament assured the President and his family lifetime immunity from charges of corruption.[87]

Kazakhstan has managed to put a spin on privatization that is a curious inverse of the tendency of the petro-state to expand. Instead, multinational corporations operating in Kazakhstan were asked, in the early crisis years, to assume certain social costs—in lieu of paying taxes. Hence, companies took on tasks such as paying back wages, building roads, and funding schools. Such participation had the short-term effect of making the regions more welcoming to foreign investment, but the long-term effect has been to deprive the federal government of revenues (tax exemptions were offered in exchange for these services at the local level). This practice also has served to trap the foreign companies into running Soviet-style "company towns," rather than devolving the management of such towns to local, elected authorities. The predictable consequence of such schemes, as Luong notes, has been "to place both the responsibility and the blame for local socioeconomic conditions on foreign investors rather than on government officials."[88]

A similar strategy was pursued when the insolvent electricity sector was sold to foreign investors; the government was able to direct the inevitable citizen hostility about higher tariffs towards the foreign investors and away from the state. The Belgian electricity company, Tractebel, is under investigation in Belgium for allegedly paying $55 million in bribes to its Kazakh business partners. Apparently, the money bought Tractebel very little, since regulators refused to raise the electricity rates, the life of the chief Tractebel representative has been threatened, and Tractebel ended up selling its holdings to a state company for $100 million—about half the amount it had invested.[89]

Debt

With the inability to tax or provide social services, coupled with presidential fondness for the new capital city, it is not surprising that Kazakhstan's external debt is rising. Although Kazakhstan's debt as percentage of GDP (36.4 percent in 2000—see Table 8–3) seems low compared to Turkmenistan (64.6 percent in 1998 and rising), in absolute terms Kazakhstan, by 1997, had accumulated the third largest debt among former Soviet republics, following Russia and Ukraine. As early as 1996, the state was spending almost 10 percent of its budget on debt service, while cutting back on domestic social programs.[90] A local journalist estimates that public expenditures by 1998 were running a half to a third of pre-independence levels.[91]

Threats and Patterns of Governance

Although a much weaker—and less ambitious—state than Turkmenistan, Kazakhstan also appears to follow the "no taxation, no representation" model familiar to OPEC states. Kazakhstan has failed to establish competence in taxation or budgeting. Transparency and high levels of corruption remain problematic. Rapid privatization was a short-term solution to offset the costs of collapse of the Soviet Union, but the one-time influx of revenues did not solve the deeper problems. In an effort to protect the weak state, without making efforts to strengthen its competence, Kazakhstan apparently has relied on a strategy of privatizing and using that privatization to shuttle blame for government deficiencies to foreign investors.

Kazakhstan does have some characteristics that may enable its development to depart from the classic petro-state pattern. Privatization is an encouraging sign, offering the potential of some market controls on government behavior. The State Oil Fund, if properly managed, may provide some fiscal discipline. The demographic decline of Kazakhstan suggests it will not be subject to the kind of social pressures caused by dramatic population increases in OPEC and other states such as Iran, Nigeria, and Indonesia.

However, if we match the evidence from Kazakhstan with Karl's trajectory, it appears that Kazakhstan has more in common with the "petrolization" trajectory than not. "Petrolization," that is, "a process by which states become dependent on oil exports and their polities develop an addiction to petrodollars,"[92] does appear to be under way. The state has not yet moved to dramatic public spending, but neither has it improved its state capacity or bureaucratic competence. Instead, the state appears to be capturing oil rents without accepting obligations to its people. This may be the first of the anticipated "pernicious effects," which will lead to economic decline and destabilization of the regime, but it is too early to say. For the moment, Kazakhstan watchers are more concerned that, as Luong notes:

> if current trends continue, Kazakhstan will emerge as a quasi-state – that is, one with international legitimacy but without the domestic capacity to generate sufficient revenue, address basic social problems, and promote even minimum levels of economic growth.[93]

As Kazakhstan continues to increase reliance on oil exports, and continues to fail to develop bureaucratic competence, one troubling trend is that, as a state with significant oil reserves, it can continue to borrow money in the international community. It thereby avoids structural changes and ensures that future generations will inherit substantial debt, as well as incoherent political and bureaucratic structures. Another troubling trend is that economic success in oil has not motivated the state to increase its provision of social goods, in spite of having acquired the resources necessary to do so. Public expectations for state support remain low. Instead of taking an OPEC-style approach toward "sowing the oil wealth," elites, and particularly the presidential family, have treated their own state as a colony to be exploited. This, in the end, will constitute the greatest threat to stability.

Petro-State Pathologies

An analysis that fails to take petro-state behavior into account may simply conclude that the problem in Turkmenistan is too much state, whereas the problem in Kazakhstan is not enough. A petro-state based analysis, on the other hand, offers some insight into the similarities of these states and their problems. Given the trajectory of oil-led development in other states, we cannot assume that the problems of either state will recede as they develop. Instead, we should expect that the transition to truly strong states will simply not occur here. Karl notes:

> That the petro-state depends on revenues generated by a depletable commodity, that this commodity produces extraordinary rents, and that these rents are funneled through weak institutions virtually ensure that the public sector will lack the authority and corporate cohesiveness necessary to exercise effective capacity.[94]

Kazakhstan and Turkmenistan are best understood as states tempted by the "no taxation, no representation" model characteristic of OPEC states. Because there is wealth to be had, and because all decisions are political, rent seeking by state officials promises to be a permanent tendency.[95] The states have not developed coherent budgeting systems or public bureaucracies—and wealth from hydrocarbon revenues means that they may indefinitely delay in these tasks. The two have different spending patterns, but both have been free to borrow against the future, since the international community has faith in the value of the energy resources, even if not in the wisdom of the states managing it. Early evidence suggests that the energy interests within the states are already capturing the state, and that these interests do not serve the cause of expanding democracy. In both states, although evidence of Dutch Disease is difficult to separate from the problems inherent in moving away from Soviet economies, there is evidence that other sectors continue to be pushed out by the oil sector, and that the state is falling further into disrepair in spite of increased wealth.

A petro-state based analysis offers a useful framework for outlining what is likely to happen to these states, and what trends should be most closely monitored. It is also useful in explaining how the future of the energy-rich post-Soviet states (including Russia and Azerbaijan as well as Turkmenistan and Kazakhstan) is likely to differ politically, as well as economically, from other post-Soviet states.

Global Security Implications

The centrality of hydrocarbons to the economies of Turkmenistan and Kazakhstan should not be confused with their significance to international energy markets. The resources of Central Asia represent incremental not large additions to the potential world supply. They may be significant at the margins, but the proven reserves suggest that these resources will be more important to the region and for would-be importing states such as Turkey and Pakistan, than to world markets overall. What these resources do represent are new avenues that could support diversity of supply, the possibility of new oil and gas supply routes to regions currently facing energy deficits, and new opportunities for investment for hydrocarbon companies long locked out of Middle East development.

There is little doubt that, in spite of important gains in efficiency, rising standards of living necessitate rising energy needs in the developing world. Hence, world demand for energy will continue to increase. The International Energy Agency predicts that world oil demand alone by 2010 will be 90 million bbl/day, which is 17 percent greater than present.[96] The age of oil is not yet past, nor is the boom and bust cycle that has characterized oil markets. The age of gas has barely begun, as European states establish policies that make gas an attractive source of energy. Turkmenistan and Kazakhstan offer the promise of an alternative to OPEC. The risks, however, are evident.

In the case of Turkmenistan, its resemblance to OPEC states is already striking. The high debt levels, over-extension of the state, absence of a line of succession, as well as the strategic sensitivity of its location, all make it difficult to argue that reliance on Turkmenistan for resources is in any way more sound than reliance on the OPEC states. In the case of Kazakhstan, one cannot be too sanguine about the ability of privatization to offset the pathologies associated with petro-states. Even if assets are nominally privatized, Kazakhstan remains a state politicized in the manner of other petro-states. Western states and investors should not be so enamored as to forget that:

> private sectors are just as rent-seeking as political authorities in oil-exporting countries, and systematically pressure these authorities to funnel oil money in their direction to finance inefficient and unproductive activities.[97]

A climate in which a wealthy state remains weak, accepting little obligation to provide social benefits for its population, is not superior to an over-extended state with limited capacity, and no more secure.

The possible regional and global implications of petrolization of either Kazakhstan or Turkmenistan need to be examined in a security context—especially if oil booms in an era of increasing scarcity actually have the "pernicious effects" of economic decline and regime destabilization. If diversification from OPEC sources leads to expanding the number of states with OPEC-like instabilities, the problem of avoiding petrolization should receive the active attention of both the oil importing, as well as exporting states.

Notes

[1] Justin Fox, "OPEC Has a Brand-New Groove," *Fortune*, October 14, 2002, 115.

[2] Terry Lynn Karl, "Crude Calculations: OPEC Lessons for the Caspian Region," Chapter 3 in *Energy and Conflict in Central Asia and the Caucasus,* Robert Ebel and Rajan Menon, eds. (Maryland: Rowman & Littlefield Publishers, 2000), 35.

[3] Terry Lynn Karl, *The Paradox of Plenty: Oil Booms and Petro-States* (Berkeley and Los Angeles: University of California Press, 1997), 63.

[4] See Jahangir Amuzegar, *Managing the Oil Wealth: OPEC's Windfalls and Pitfalls* (London and New York: I.B. Tauris & Co, 2001), 19-21, for a fuller discussion. Amuzegar is more skeptical of the economics of Dutch Disease than most analysts. He asserts that the Dutch Disease effect does not necessarily hold in countries with high unemployment.

[5] During this crisis, the price of oil jumped from $13 to $34 per bbl.

[6] Qtd. in Karl, *Petro-States*, 4.

[7] Karl, *Petro-States*, Chapter 1.

[8] See Karl, *Petro-States,* Chapter 3 for a full discussion of the importance of a citizen tax base.

[9] The application of "no taxation, no representation" to oil states is frequent in the literature. Its origins are unclear.

[10] The OPEC states have seen debt increase with each oil boom. See tables in Karl, *Petro-States*, appendix.

[11] See Karl, *Caspian*, 39.

[12] The World Bank uses 10 percent of GDP and 40 percent of total merchandise exports to classify a mineral economy. Karl applies the same formula to classify an oil economy. See Karl, *Petro-States*, Chapter 1. At the present time, Azerbaijan is the most reliant of the four on oil exports, at 90 percent of exports in 2002.

[13] *CIA World Factbook*, section on Kazakhstan.

[14] Ibid., section on Turkmenistan.

[15] Karl, *Petro-States*, 18.

[16] Karl has postulated that Kazakhstan may become a capital surplus state in the future, since it is more sparsely populated, and additional reserves are likely to be discovered (see Karl, *Caspian*, 29). However, Kazakhstan's population is large by capital surplus state standards: Iraq, with its 1973 population of 10.41 million, is the most populous of the capital-surplus states. In spite of its limited oil reserves, Turkmenistan is presumed to have the fifth largest gas reserves in the world. Given its sparse population, it may become a capital surplus state. At the moment, however, its export routes and options are sufficiently constrained that it is not functioning as a capital surplus state.

[17] Karl, *Petro-States*, Chapter 2.

[18] For a similar chart of non-FSU countries, see Karl, *Petro-States*, 18.

[19] Quoted in *Turkmenistan Country Profile 2003* (London: The Economist Intelligence Unit Limited, (Henceforth EIU Turkmenistan), 2003), 16.

[20] See Tanya Charlick-Paley, with Phil Williams and Olga Oliker, "The Political Evolution of Central Asia and South Caucasus: Implications for Regional Security," Chapter 2 in *Faultlines of Conflict in Central Asia and the South Caucasus: Implications for the US Army*, Olga Oliker and Thomas S. Szayna, eds., RAND Document Number MR-1598-A, 2003, 13-14.

[21] Thomas Szayna, "Potential for Ethnic Conflict in the Caspian Region," Chapter 6 in *Faultlines of Conflict in Central Asia and the South Caucasus*, Olga Oliker and Thomas S. Szayna, eds. (California and Washington DC: RAND, 2003), Table 6.8.

[22] See Nancy Lubin, "Turkmenistan's Energy: A Source of Wealth or Instability?" Chapter 6 in *Energy and Conflict in Central Asia and the Caucasus,* Robert Ebel and Rajan Menon, eds. (Maryland: Rowman & Littlefield Publishers, 2000).

[23] Szayna, Table 6.8.

[24] Ibid., Table 6.8.

[25] EIU Turkmenistan.

[26] Ibid.

[27] Ibid., 12.

[28] Ibid., 13 and 20.

[29] Lubin, 108.

[30] "Turkmenistan Undecided on Whether to Join Eurasian 'Gas OPEC'" Interfax News Agency, Petroleum Report, July 24, 2002.

[31] The current price, $44, is actually more than Turkmenistan would be likely to get from Western users, but Russia is currently paying half the amount in barter. Industry experts, personal interviews, Sept. 2003.

[32] In a condominium agreement, all littoral states would have an equal share in the lake's resources, regardless of the extent of their coastline, and would confer with each other on activities taken in the lake. Under a sea agreement, the littoral states would have exclusive economic zones and

free passage under the Law of the Sea. For a detailed discussion of the Caspian Sea issue, see Gawdat Bahgat, "Splitting Water: The Geopolitics of Water Resources in the Caspian Sea," *SAIS Review*, Vol. XXII, no. 2 (Summer-Fall 2002).

[33] "Caspian Legal Regime," summarized by the International Center for Caspian Studies, <http://caspiancenter.org/info_sp.shtml>.

[34] *CIA World Factbook*, Turkmenistan.

[35] See Martha Brill Olcott, "Regional Cooperation in Central Asia and the South Caucasus," Chapter 7 in *Energy and Conflict in Central Asia and the Caucasus,* Robert Ebel and Rajan Menon, eds., (Maryland: Rowman & Littlefield Publishers, 2000).

[36] EIU Turkmenistan, 25.

[37] Amuzegar, 14.

[38] EIU, Turkmenistan, 21.

[39] Ibid., 16.

[40] Data from EIU Turkmenistan, and The Economist Intelligence Unit, *Kazakhstan Country Profile 2003*, and *Russia Country Profile 2003* (London: The Economist Intelligence Unit Limited, (Henceforth EIU Kazakhstan, EIU Russia), 2003).

[41] EIU Turkmenistan, 22.

[42] Ibid., 8.

[43] Svetlana Tsalik, "The Hazards of Petroleum Wealth," Chapter 1 in *Caspian Oil Windfalls: Who Will Benefit?,* Svetlana Tsalik and Robert Ebel, eds. (Washington, DC: Central Eurasia Project, 2003), 12.

[44] Phil Williams, "Criminalization and Stability in Central Asia and South Caucasus," Chapter 4 in *Faultlines of Conflict in Central Asia and the South Caucasus*, Olga Oliker and Thomas S. Szayna, eds. (Washington, DC: RAND, 2003), Table 4-1.

[45] Lubin, 114.

[46] Centrasia, Daily Report 29 November, Russian-language Central Asian news site, at: <www. centrasia.ru>.

[47] EIU Turkmenistan, 18 and 22.

[48] Ibid., 22.

[49] Dragon Oil from UAE and Monument from the UK are involved in exploration--a small list, compared to activity in other post-Soviet, energy-rich states.

[50] EIU, Turkmenistan.

[51] CIA *World Factbook*, Turkmenistan.

[52] This is also because Turkmenistan prefers to count reserves that are in a Caspian Sea area where their ownership is disputed by Azerbaijan.

[53] EIU Turkmenistan, 20.

[54] See Lubin. Also see Williams.

[55] EIU Turkmenistan, 36.

[56] Data from EIU Turkmenistan, EIU Kazakhstan, EIU Russia; Reference Tables from the appendices.

[57] Iranian Finance Minister Jahangir Amuzegar, cited by Karl in *Caspian*, 36.

[58] EIU Turkmenistan, 16.

[59] Interviews, taxi drivers in Ashgabad, October 2003.

[60] EIU Turkmenistan, 16.

[61] Ibid., 16.

[62] See Charlick-Paley.

[63] See Amuzegar, Chapter 1.

[64] Embassy of the Republic of Kazakhstan, "Kazakhstan in Brief," June 2002.

[65] Szayna, Table 6.5.

[66] Ibid., Table 6.5.

[67] EIU Kazakhstan, 15.

[68] As Karl notes in *Caspian*, 33, Kazakhstan, Turkmenistan and Azerbaijan are the only oil exporting states without sea access.

[69] EIU Kazakhstan, 21.

[70] Russia has long supported the notion of free passage, with clear allocation of seabed rights. (This is usually known as the Median line solution). For a full discussion, *see* Bahgat SAIS.

[71] A median line solution would divide the Caspian Sea in accordance with the Law of the Sea treaty. See earlier section on Turkmenistan's international relations issues for an explanation of the median line debate.

[72] As noted, the Baku-Tbilisi-Ceyhan route is a non-Russian route, but for Kazakhstan to connect with it will require construction of undersea lines in the Caspian.

[73]Abraham S. Becker, "Some Economic Dimensions of Security in Central Asia and South Caucasus," Chapter 3 *Faultlines of Conflict in Central Asia and the South Caucasus: Implications for the US Army,* eds. Olga Oliker and Thomas S. Szayna, RAND Document Number MR-1598-A, 2003.

[74] Williams, Table 4-1.

[75] *CIA World Factbook*, Kazakhstan.

[76] Williams, 74.

[77] EIU Kazakhstan.

[78] Pauline Jones Luong, "Kazakhstan: The Long-Term Costs of Short-Term Gains," Chapter 5 in *Energy and Conflict in Central Asia and the Caucasus,* Robert Ebel and Rajan Menon, eds. (Maryland: Rowman & Littlefield Publishers, 2000), 80.

[79] Luong, 88.

[80] Ibid., 84.

[81] Ibid., as of 1999.

[82] Ibid., 85.

[83] Karl, *Caspian*, 46.

[84] See Tsalik for details

[85] Karl, *Caspian*, 40

[86] Steve LeVine, "US Bribery Probe Looks at Mobil-Firm's Role in Payments to High Kazakh Officials is Under Investigation," *Wall Street Journal*, April 23, 2003, A2.

[87] Charlick-Paley, 18.

[88] Luong, 90.

[89] Douglas Frantz, "Generating Much Heat but no Kazakh Profits," *The New York Times*, May 13, 2001, start page 3.8.

[90] Luong.

[91] Cited in Luong, 87.

[92] Karl, *Caspian*, 37.

[93] Luong, 80.

[94] Karl, *Petro-States*, 58.

[95] Ibid., 63.

[96] International Energy Association, International Energy Agency, *World Energy Outlook 2000*, The International Energy Agency, Paris: 2000. See website: www.iea.org/

[97]Karl, *Caspian*, 37.