



THE JAMES A. BAKER III
INSTITUTE FOR PUBLIC POLICY
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*UNLOCKING THE ASSETS: ENERGY AND THE FUTURE OF CENTRAL
ASIA AND THE CAUCASUS*

OIL AND GAS LINKAGES BETWEEN CENTRAL ASIA AND CHINA
A GEOPOLITICAL PERSPECTIVE

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LIST OF ABBREVIATIONS

BP	British Petroleum Company
CASS	Chinese Academy of Social sciences
CNPC	China National Petroleum Corporation
E&P	Exploration and Production
EIA	Energy Information Agency
EOR	Enhance Oil Recovery
EU	European Union
FSU	The Former Soviet Union
IEA	International Energy Agency
NATO	North Atlantic Treaty Organization
OPEC	Organization of Petroleum Exporting Countries
R/P	Reserves/production rate
REL	Regional Energy Linkages
TPAO	Turkey Petroleum Corporation
WS	World System
WPS	World Petroleum System
Tcm	Trillion cubic meters
bcm	Billion cubic meters
bcf	Billion cubic feet
Mt	Million tones (per year)
mb/d	Million barrels per day

EXECUTIVE SUMMARY

Archimedes (287-212 BC), preeminent Greek mathematician and inventor, once said that he can move the world with a lever on a fulcrum. He never received the lever, but the critical place to stand now is Central Asia along with the Caucasus region. A professor of history put it this way when he was addressing Central Asian issue (Seigle, 1997).

For centuries, Central Asia has been the crossroads of the world. It is between four civilizations that have controlled or been controlled by Central Asians. Traditionally, the civilizations that controlled this region could exert influence on the other parts of the world (Seigle). Some political scientists placed Central Asia in a context of centrality of the World System with several logistic nexuses and critical routes to the regions surrounded (Frank, 1996). Therefore, it should not surprise us that the Great Game has been played in the region for centuries and continues today.

Different from historical conquest, the energy linkages between Central Asia and neighboring major economies have been enhanced ever since the breakup of the Former Soviet Union in 1991. Early studies on Central Asia focused mainly on the regional conflicts, energy investment and transportation to European and the Indian subcontinent markets. Little calculation was given to the logistic nexuses and energy linkages between the region and its eastern neighbors until the mid-1997 when China National Petroleum Corporation (CNPC) outbid Amoco, Texaco, and Unocal to win two tenders in Western Kazakhstan. Thereafter, mass media began to publish commentaries on Chinese westward movement and possible consequences. "Watch out for China", "China joins the Great Game " and the other similar tones have been widely heard. Some go to extremes, speculating on the potential Chinese threat to the world.

This paper is dedicated to a better understanding of oil and gas linkages between Central Asia and China and sequential implications. The author's message is threefold.

1. Chinese growing economic momentum, coupled with its energy vulnerability, has led the country to look westward for additional resources. Considering the fact that Central Asia enjoys prolific hydrocarbon resources while China has huge energy demands, there is no doubt about

the economic and geopolitical importance of Central Asia to China. What China needs to do now is to build a bridge to link Central Asian resources with its consuming markets (Simmons, 1997). The key element is a regional energy linkage, which is a new visionary way to China's evolving energy situation (Xu, June 1997).

2. Considering the costs of transportation infrastructure inside China and the comparison between foreign and home oil replacement costs, it makes sense for China to move farther westward to maximize benefits from Central Asia and neighboring regions. At the same time, China will have to bear a huge expense of overseas expansion and high risks, both economic and geopolitical, accordingly.

3. China cannot ignore the new Great Game played in Central Asia and the Caucasus region. All major powers have their varying motivations and advantages to gain by exerting their influence on the landlocked region. China, advantageously positioned on the border of Central Asia, sees an opportunity to broaden its geoeconomic role in the region and beyond to become a more important geopolitical force. At the turn of the century, China will give higher priority to market penetration and aggressive diplomacy. Further alliances and geopolitical goals in Central Asia, Middle East and Russia will be explored. However, the benefits to China will depend on effective management of uncertainties and the status of Beijing's geopolitical strength.

1. INTRODUCTION

The collapse of the Soviet Union in 1991 created a geopolitical vacuum in Central Asia and the Caucasus, which has been attracting worldwide attention. Russia, the West and other major powers are closely studying hydrocarbon resources in the region.

China's role in the region was largely ignored until the mid-1997 when two things happened.

On June 4, 1997, Kazakh government announced an oil deal with the China National Petroleum Corporation (CNPC) which has promised to invest US\$ 4 billion in the Aktyubinskneft enterprise over the next 20 years, with USD 585 million to be invested from 1998 to 2003, in return for a 60% share in the company. The deal also includes an ambitious plan for a 3,000-km pipeline to China's Xinjiang autonomous region (*Dow Jones News*, July 1997).

After several delays, the Kazakh government opened the results of an international tender for its Uzen oil field. The Kazakhstani official news agency reported in July that the CNPC had been awarded the exclusive right to negotiate for a contract to develop oil with Uzenmunaigaz, the second largest oil field in the country after Tengiz. Kazakh officials confirmed the news on August 1 (Delay, *New Europe*, August 1997).

Following this "contract of the century" in September, western media including The Wall Street Journal, Los Angeles Times, and Petroleum Intelligence Weekly began publishing commentaries on the events and their implications. Chinese involvement in Central Asia has attracted worldwide attention and a great deal of concern. "Watch out for China", "calculation of Chinese input", "China joins the great game" and the other similar tones have been widely touted. Some warn of a Chinese threat to the world or claim to elucidate the dangers of Chinese expansion. The priority of this paper is given to oil and gas linkages between Central Asian states (principally Kazakhstan, Uzbekistan and Turkmenistan) and China, with special emphasis on the geopolitical and economic importance of the region's oil and gas to China in the next decade.

2. CENTRAL ASIAN OIL AND GAS

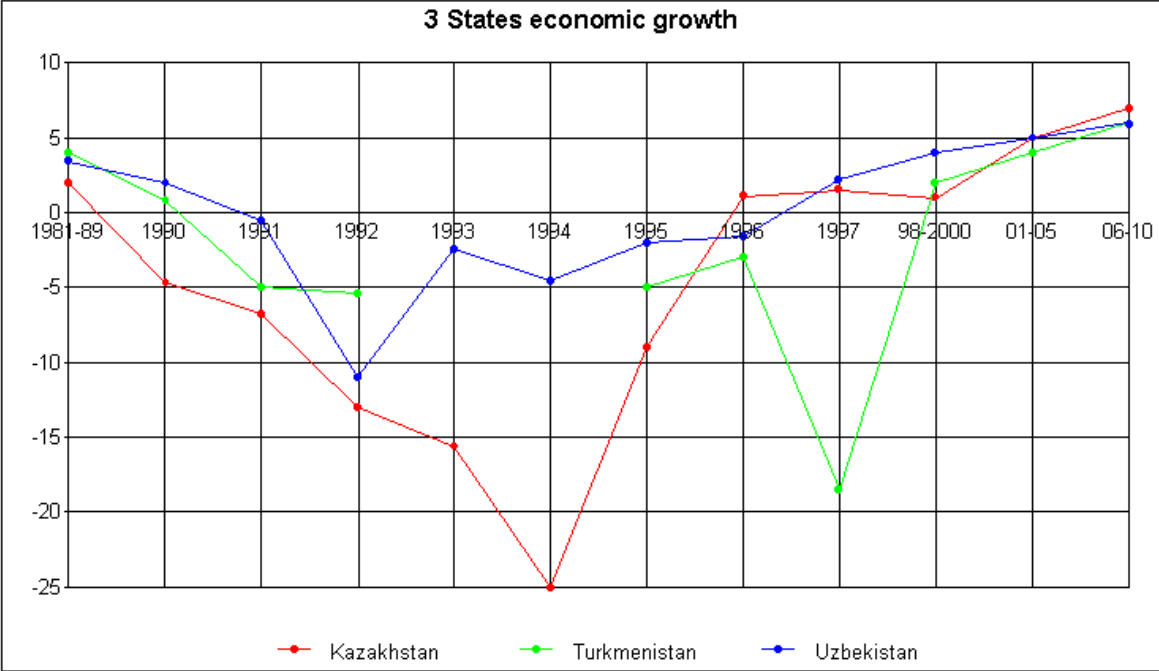
2.1. Location

Central Asia is bordered by the Caspian Sea, Siberia, Mongolia, Tibet, and the Hindu Kush. In modern parlance, the region is a typical hinterland locked by different landmasses, covering a vast territory of steppes, deserts, and mountains that is larger than Western Europe and about half the size of the United States. The economic structure and geopolitical features of the region are greatly affected by geographical factors and its connections with other parts of the world.

Based on origins of the World System (WS), Central Asia has been a focal point of WS history both as a logistic nexus among WS' regions to the east, south, and west and through the recurrent pulse of its own waves of migration and invasion into these regions (Frank, 1996). Survival of Central Asian states depends primarily on the destiny-related corridors and logistic nexuses in what is now called the Middle East, Inner Asian routes and nearby sea straits.

Not long ago, the Central Asian states (Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan and Tajikistan) were the former Soviet Republics in south. Russia had occupied the region for centuries. Since collapse of the FSU, Kazakhstan, Turkmenistan and Uzbekistan encountered a great recession, which is only just now easing, thanks to economic restructuring and growing foreign investments (Figure-1).

Figure 1



Source: The data of 1981-1995 from World Bank, that of 1996-1997 from International Monetary Fund, and that of 1998-2010 from Nudir and Faith, 1995.

2.2. Oil wealth

Based on a brief calculation of data from various sources, there would be about 8.2 billion tones oil proven reserves and 18.4 Tcm natural gas reserves (Meng, Delay, Cohen). The levels of reserves are much higher than BP statistics shown in the Table-1. By most estimates, Kazakhstan

is marked by a greater proportion of oil reserves while Turkmenistan is characterized by huge natural gas potential.

Table-1 Oil and gas proven reserves

Country Reserve Production R/P rate

Oil 1000Mt/Tcm Mt/bcm

Kazakhstan 1.1 23 47.7

Turkmenistan -- -- --

Uzbekistan 0.1 7.5 10.9

Gas

Turkmenistan 2.89 32.8 83.3

Uzbekistan 1.89 45.7 39.2

Kazakhstan 1.84 6.0 100

Source: BP Statistical Review of World Energy 1997

During the Soviet era, the Central Asia republics served as raw material suppliers to the FSU industrial centers. From the late 1960s through the 1980s, their oil and gas E&P activities were limited as Moscow favored growing Siberian output.

Once divorced from the FSU, the three Central Asian states started to realize the strategic importance of their underground resources. Resource exploration and transportation are their priorities to propel their economic and political development. Privatization is generally being implemented quickly. It is worth noting that about 75 percent of Kazakhstan's enterprises were privatized by the end of 1997. Foreign investment reached USD 3 billion. Industrial output grew 4 percent while the consumer price index was estimated to be slightly more than 1 percent in

December 1997. The inflation rate was about 11 percent in 1997, which was much lower than the planned figure of 17 percent (Batholomew). If political stability can be achieved, a steady economic growth is expected at a rate of 2 percent to 6 percent for the three states in next fifteen years (Nudir, 1995).

2.3. Challenges

It is important to note that the economic growth of the region is, to a great extent, constrained by geographical features. Landlocked in Inner Asia, the three main Central Asian states face natural challenges in gaining access to world markets. Transportation routes and corridors, both land and maritime, are key to link the world markets and the focal point of strategic concerns. The tables-2 shows us the planned and proposed pipelines from the Caspian Sea to the outside world.

Table-2a **Central Asian oil pipelines**

Oil Pipelines Planed capacity Data of the first

Northern route: 1000bbl/day operation

- Tengiz-Novorossisk 1340 1999

Baku-Novorossiik 100 early 1998

Western route:

- Tengiz-Baku 400 feasibility study

Baku-Supsa 100 late 1998

Southern route:

- Turkmenistan-Pakistan 1000 MOU

Kazakhstan-Iranian oil swaps 120 early 1997

Turkmenistan-Iran 200 proposed

Eastern route:

Kazakhstan.-China 400 feasibility study

Source: US EIA

Table-2b Central Asian gas pipelines

Gas Pipelines Planned capacity Data of the first

Northern route: bcf/year operation

- Turkmenistan-Russia N/A expansion

Western route:

- Turkmenistan-Iran-Turkey 1 Tcf/Year signed

Turkmenistan-Baku N/A proposed

Southern route:

- Turkmenistan-Pakistan 700 MOU

Turkmenistan-Iran 283 early 1998

Eastern route:

Turkmenistan-China 0.7-1 Tcf/year easibility study

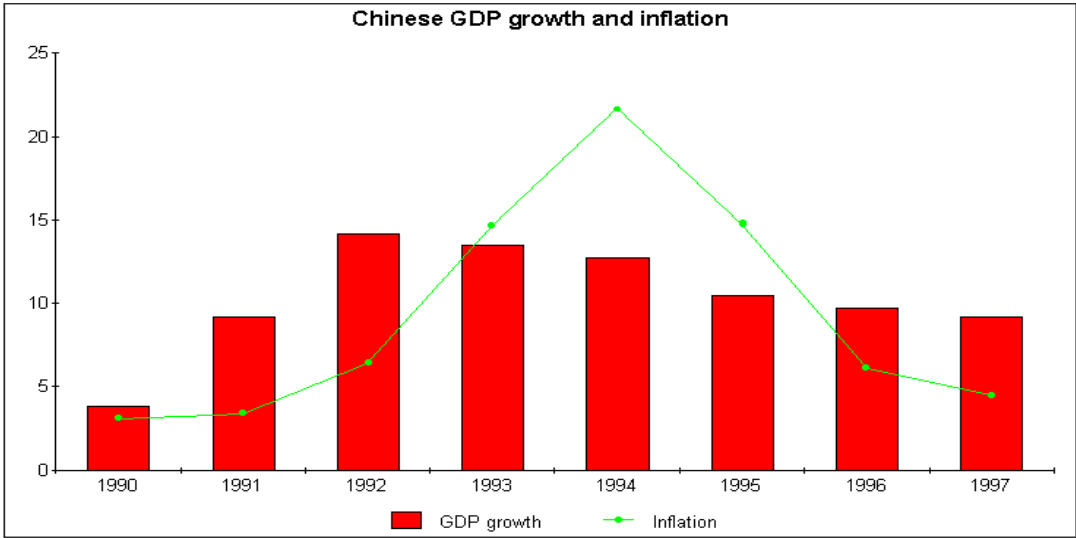
Source: *ibid.*

Currently, interactions between these states and Russia (northern line) and transportation between Central Asia and European (western line) or Indian subcontinent markets (southern line) have received worldwide attention and a great deal of concern because all these routes are facing regional conflicts and geopolitical struggles. Compared with these routes, the eastbound pipeline to China is the longest one with 6300 km in length. The Chinese route faces technological and environmental challenges. The feasibility study of the line continues. Energy linkages between Central Asia and China have been escalating, highlighting China's growing involvement in the region.

3. CHINESE WESTWARD THIRST

China is located in East Asia with a long border linking Central Asian states in west. China's 1.2 billion population represents one fifth of the world's people. China has experienced two-digit economic growth in the first half of the 1990s and leveled off to 8-9 percent with lower inflation in the last year or so.

Figure-2



Source: CASS, China's Economic Blue Report, 1997.

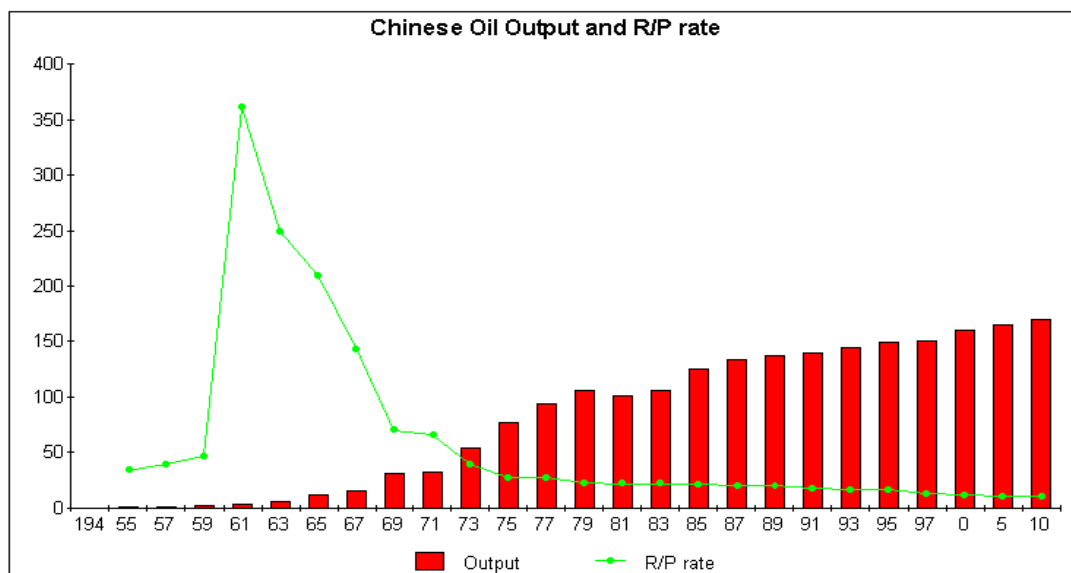
The high economic growth is expected to create energy vulnerability that would undermine the country's future development.

3.1. Resource constraint

According to Chinese latest geological survey, there are 424 basins with possible hydrocarbon deposits inside China. About 150 of them have been explored over the past four decades. As a result, about 14 billion-ton oil proven reserves (accounting for 3.7 percent of the world) and 30 Tcm gas reserves have been confirmed. Large oil deposits are found in such basins as Songliao, Bohai, Tarim, Uygur, Zhujiangkou, Pinghu (the East China Sea) and Yingehai (the South China Sea).

Chinese oil production grew rapidly from 0.12 Mt in 1949 to 100 Mt in 1978 and 150 Mt in 1997. China's reserves to production ratio peaked in 1961 and decline thereafter. However, proven reserves have lagged behind requirements since the early 1980s. The reserves to production rate has decreased substantially as newly added reserves failed to keep pace with high output rates (Figure-3).

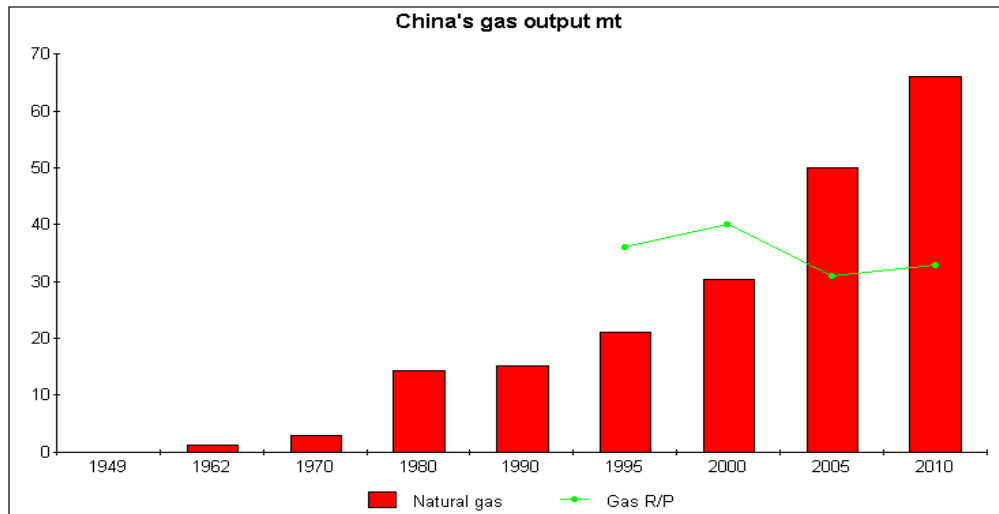
Figure-3



Source: CNPC annual report

Prospects for natural gas exploration proved brighter than that for oil. Thanks to four gas strategic areas (Sichuan, Tarim, Changqing and Yingehai), China's newly added gas reserves along with output gained steadily over the past few years and will continue to increase into the next decade. But concerns remain that there will be a deficit in natural gas supplies compared to demand.

Figure-4

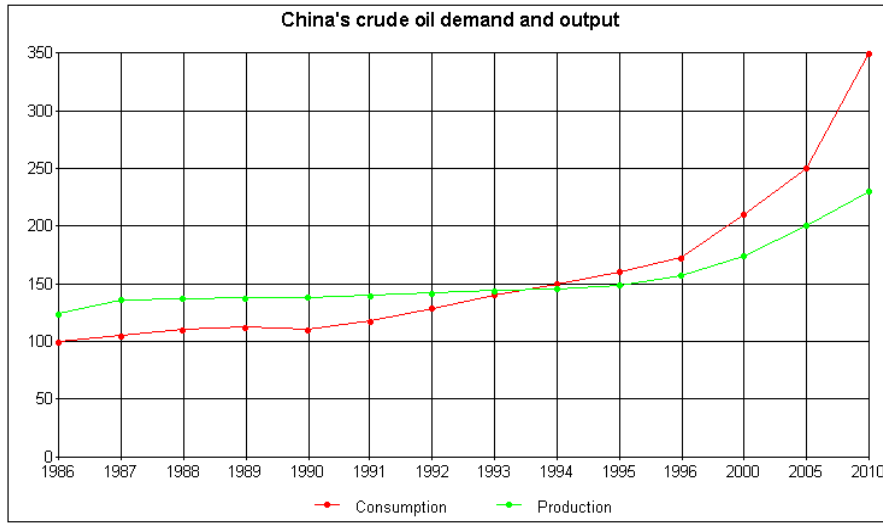


Source: Hu, 1997

3.2. Supply deficits

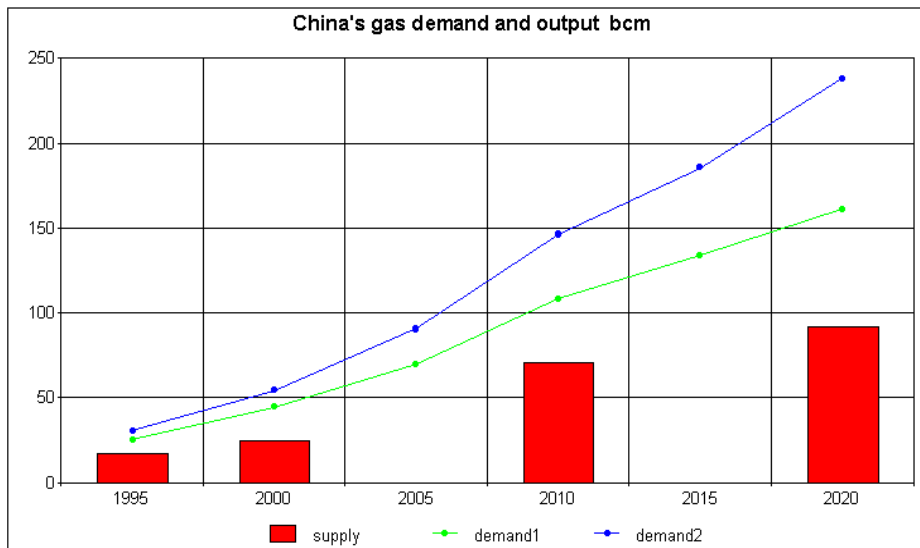
China's gross domestic product (GDP) reached 8.8 percent in 1997 and will level out 7 percent after the year 2000. The high growth, which is dedicated to making the country's GDP per capita double that of 1980 by the year 2000, as planned by Chinese late leader Deng Xiaoping, has resulted in increasing demands for oil and gas. Chinese indigenous gas and oil supplies have generally been lower than demand since 1993. The gas and oil deficits were estimated around 30 bcm (low scenario) and over 100 Mt for 2010, respectively. CNPC experts made their projections of gas demand and supply to 2020 (Figure-6) showing a growing gas gap for next two decades.

Figure-5



Source: Wan, 1996.

Figure-6



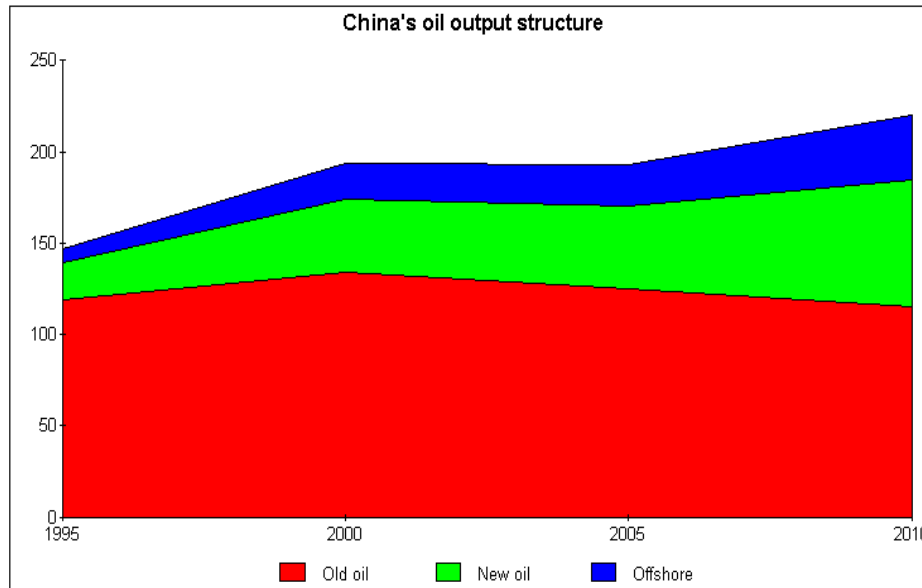
Source: Hu, 1997

3.3. Western Dilemma

Looking at its output structure, Chinese crude oil production comes largely from its existing eastern fields, called "old oil" in author's study, namely, from oil fields that have been declining

annually and will continue to do so (Figure-7). The output from western fields after 1985, called "new oil", has not grown at an expected pace to date.

Figure-7



Source: This author's estimate, 1996.

Xinjiang, in West China, is a main source of new oil. China National Petroleum Corp (CNPC), along with foreign oil companies, have invested billions of dollars on E&P activities on the region's three basins (Tarim, Junggar and Tuha) over the past decades. The result, however, has been disappointing. The target for the region's oil output to reach 40 million tons for the next decade turned out to be impossible, while the so-called pessimistic projections (that were set at to 20-25 million tons) are likely to come into reality.

Table-3 Possible Western Oil and Gas Output Mt

	1990	1997	2000	2005	2010
<i>Oil</i>					
N. W. China			30.00	40.00	
Xinjiang	10.00	16.00	20.00	a* 20.00	20.00
			B* 25.00	30.00	
			C* 30.00	40.00	
<i>Gas</i>					
	1995				
N. W. China		2.79	5.33	9.20	16.63
Xinjiang		1.46	2.32	3.06	4.54

* a, b and c stand for three scenarios to 2010. Source: Wan.

3.4. Infrastructure bottleneck

Up to 1996, China's oil and gas pipelines reached 9,253 km and 9,113 km in length. Currently, about 70 percent of crude oil production is shipped through the pipelines; the rest is moved by river and railroad combined. The problems facing China are the following paradoxes:

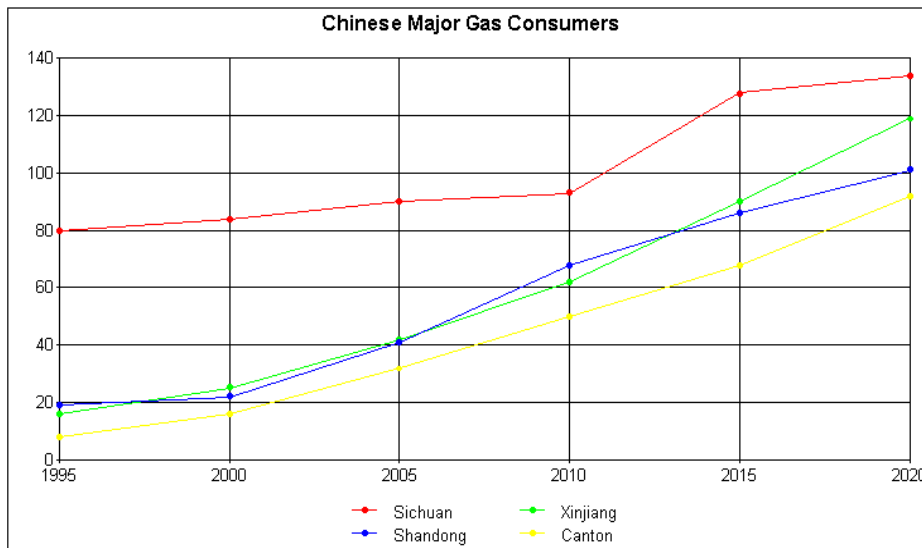
- An inadequate western output (under 30 Mt) makes construction of east-western national pillar pipelines economically impossible in the near future;
- A lack of the east-western pipeline and liquified natural gas facilities on the coastlines constitute serious bottlenecks to balance national petroleum markets between east and west, north and south.
- It is also difficult to receive large foreign resources and the huge investment and institutional arrangements required to de-bottleneck the country's infrastructure remains a big challenge given low output.

3.5. Xinjiang issue

Xinjiang, a provincial-level administrative region of China, borders on the west and northwest by Tajikistan, Kyrgyzstan and Kazakhstan, on the northeast by the Republic of Mongolia, on the east by the province of Gangsu and Qinghai, on the south by Tibet, and on the southwest by India and Afghanistan. Clearly, the region is a part of Central Asian landmass and maintains closer cultural and lingual relations with Turkic people in Central Asia. It is not a secret that Xinjiang ethnic separatism and social stability have been an internal Chinese concern for decades. Xinjiang is also a region with rich natural resources. A new challenge is that its demand for oil

and gas that was growing rapidly and will become the second gas consumer in the country after 2010 (Figure-8). Considering local demand and social stability, it is highly sensitive to transport Xinjiang’s raw material to East China.

Figure-8



Source: State Planning Commission’s Energy Institute, 1996.

All of these vulnerabilities have forced the country to move westward for the outside resources. With a serious review of these issues, CNPC unveiled a plan, in the late 1996, aimed at finding and developing 300 Mt of oil equivalent level by 2010, two-thirds from Daqing, Bohai basin, Xinjiang, Sichuan within the country, and the rest (i.e.100 Mt) from exploration or acquisitions outside China. The master plan calls for an aggressive and new visionary overseas strategy, which has been generated from debates on a new World Petroleum System (WPS) and Chinese reactions.

4. WHAT THE WPS PRESENTS?

Conventional views of world petroleum economics and politics no longer make sense in a global market. Accordingly, a single country specific approach is no longer effective. The WPS is defined as a geoeconomic system that reflects geographical distribution of oil and gas resources and connections between world demand and supply, regional logistic nexus and geopolitical

interactions in the crystal world. The followings are some respects of features and mega-trends of the WPS.

4.1. Regional integration

On the supply side, Central Asia, the Middle East and North Africa are being increasingly integrated into a Greater Middle East of oil. The oil and gas exports from Central Asia will refashion the future western European and Asia/Pacific market structure. Meanwhile country-based markets on demand side have been integrated into a Crescent with huge quests for oil and gas from the Great Middle East.

4.2. Energy linkages

Eurasian oil and gas systems are marked by geographical imbalance. Major oil and gas provinces are located in the Great Middle East and Russia while consuming centers are largely located on the European continent and Asia/Pacific rim. Considering an integrating world welfare, the balance between supply and demand requires Regional Energy Linkages (RELs), which requires transportation (roads, railroads and pipelines), communication, capital inter-flows (or cross-investment), and regional cooperation. Regional historic and logistic nexuses will contribute significantly to the REL. The energy linkages have been recognized by the industries and governments involved. For example, some oil majors such as Shell, BP, Exxon, Unocal have been consolidating their businesses in Russia, Middle East and Central Asia and then targeting emerging markets in Asian/Pacific rim. It is clear that REL is critical approach to tackle and gain from the new WPS.

4.3. Consequence

The consequences from regional integration and energy linkage are multi-fold. It has created new competition for strategic areas and transportation routes. To secure RELs in the future, regional cooperation, corporate strategic alliances and geopolitical calculations are essential (Xu, May 1997).

4.4. Where would Central Asia be in the WPS?

In geopolitical terms, Central Asia is both a hinterland and midland in Eurasian continent, which will bring Central Asian states both challenges and potential advantages. These states can't identify themselves beyond the geopolitical feature. In the context of WPS, Central Asia is in a focal region with close linkages with other surrounding regions. Survival of the states depends primarily on their position in Eurasian and accessibility to the outside world. Comparatively, Ukraine will return to the European family. Turkey is looking back to its Asian roots, as its place in the EU is unclear.

Traditionally, Central Asia is an origin of WS and central part of world political and economic system. The states of the region have to re-establish their economic and political powerdom locally. Meanwhile, thanks to the huge potential oil and gas reserves in the region, control over these energy provinces and export routes to the world markets is one of key issues for neighboring powers and other stakeholders in the WPS (Cohen, 1996).

5. WHAT ARE CHINESE REACTIONS?

5.1. What China needs to do now?

In an evaluation of Central Asia in the context of the new WPS and regional nexuses, it is in China's interests to build an energy bridge between Central Asian resources and East Asian markets (Simmons, 1997). This is a land corridor by which China could join in E&P activities in the region and ship back oil and gas resources.

At present, China has been involved in two development projects in Kazakhstan as mentioned at the beginning of the paper. Aktyubinskneft is based in western Kazakhstan and has estimated oil reserves of 483 million tons. Current annual output of crude of about 44,000 b/d (over 2 Mt per year) would be increased to 56,000 b/d and doubled by 2010. CNPC has committed hundreds of millions of dollars to enhance Uzenmunaigaz output to 72,000 barrels a day and rising in the first decade of next century. Besides E&P activities, technological support and technical services will be provided in Central Asia. Such cooperation is expected to expand in the future as long as China maintains good records.

The pipeline designed from Turkmenistan and Kazakhstan to East China was originated by Japanese Mitsubishi Corporation in 1992. The eastward pipelines (6300-km) is under study by CNPC, Exxon and Mitsubishi Corporation. China is also looking at a shorter pipeline from western Kazakhstan to Karamai in Xinjiang signed in September 1997. Under the agreement, the CNPC is to complete the construction of the pipeline by 2005. By the end of 1997, CNPC has completed an inspection of Kazakhstan's existing oil pipelines that will be used to pump crude oil to China. According to Chinese experts, a feasibility study will be finished in October 1998 and the construction of the pipeline will start in late 1998. A detailed pipeline route is to be agreed upon following the feasibility study. It is expected that the pipeline will help Kazakhstan to enter world oil markets, which will enable China to unfold her ambitious plan as well. It is China's hope that oil supply in Chinese Xinjiang could be increase to 40 Mt taking Central Asian imports into account of Central Asian imports. Therefore, construction of the west-eastern pipeline would be economically feasible. Xinjiang's refining and petrochemical industries would be boosted accordingly in the future.

5.2. What could be next?

More than 51 percent of Chinese crude oil supply was imported from Middle East in 1996. Beijing is involved in some E&P projects in Iraq, awaiting the lifting UN sanction. China has also been conducting several studies of oil and gas transportation from Western Siberia, Eastern Siberian and Russian Far East to its home market. Other E&P activities are under consideration. Among them are the following gas pipelines with USD 20 billion investments required for the next decade.

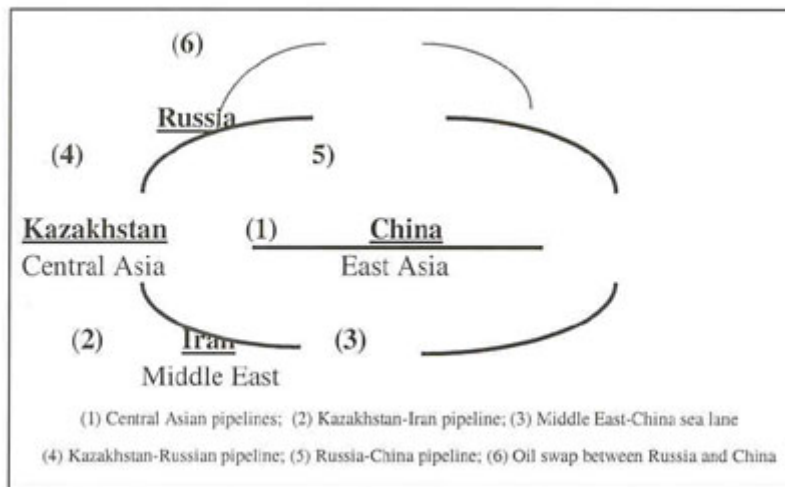
- Siberia-Shaanghai line with 5390-km in length;
- Irkutsk-Rizhao (Shangdong) with 3364-km; and
- Sakhalin- Shenyang with 2404-km.

These plans to link gas-rich Russia with the Chinese market are still under discussion (Oil & Gas Journal). Russia and China have been studying the possibility of building two pipelines: one from Russia's Irkutsk region via Mongolia to China's Shandong province on the Yellow Sea, with a possible extension to South Korea and Japan; the other from western Siberia to Shanghai

via the Xinjiang autonomous region. Sources say China has reached agreements with both South Korea and Russia. Japanese energy authorities and private firms have reportedly applied to China and Russia to join the programs. The lines would transport as much as 20 bcm/year and may take 8-10 years to complete (Bartholomew)

So what would China like to do next decade? Seemingly, Chinese activities in Central Asia, Middle East and Russia are not integrated for the time being. But the country’s activities in Central Asia may be double edged. In terms of RELs addressed above, it is highly likely for China to extend its Central Asian land routes from Kazakhstan and Turkmenistan down to Northern Iran (around 250-km in length) to reach the Persian Sea ports. As a result, the Chinese Central Asian corridor will connect her Gulf sea land as a Sino-Arabic grand passage. Also, a connection is possible from Kazakhstan to Russia. China would be willing to join a northern line transportation for its expected stake from Siberia or Russian Far East by some oil swap options between China, Kazakhstan and Russia. Consequently, Chinese routes and bridges in Central Asia, Russia and Middle East would be integrated as a grand geoeconomic space with several potential options.

Figure-9 Geoeconomic space for China



Source: Xiaojie Xu

Taking the space for granted, China would gain its greatest benefits in Central Asia and beyond. It was estimated that USD 20 billion and 7,000-km pipelines would create a sort of spinal column and rib cage of the geoeconomic space for an expected 80 Mt from possible options by

2010. As a result, the country's master plan would be materialized. Domestic resource constraint would be eased while oil and gas gaps be bridged. However, China has to be ready to face risks and uncertainties. One of these risks is the country's financing and management capability. Also, China has some weaknesses that inhibit regional energy cooperation with Central Asia and energy partnership with Russia. Strategic alliances with international oil majors are thwarted due to China's state planning regime. The risks also come from the country's lagging infrastructure. However, the most uncertain and unforeseeable variable is geopolitical competition in the region and those among surrounding nations.

6. CHINA'S ROLES

6.1. New geopolitical reality

It was Central Asia where Russia and Great British Empire unfolded the so-called Great Game in the 19th century. Now the new Great Game is played by multiple major powers around for new geopolitical stakes (hydrocarbon resource and transportation routes). The author does not think the new Game will simply revisit the old Game pattern. First of all, there is a dozen of major powers joining the game. Among them are Russia, Turkey, China, the United States, France, Britain, Japan, South Korea and Malaysia (Starr, 1997). Seemingly, no single power has capability that comes close to hegemony on the region. Although there is some evidence that Russia has a preference to reestablish its economic, political and military dominance over the region (Nuriyev, 1998), Russia has realized that its dominance, both economically and politically, no longer seems to be possible facing new realities. However, the key fact of supporting Russian reassessment of the region is energy resources and the role of Transcaucasia in the transportation of oil and gas resources to world market. With decreasing output from Siberia, Russian energy companies are moving down to the Caspian Sea as a way to replace its deposit in the future. So no party can ignore "Moscow's hand".

Due to its growing needs, US oil imports have outstripped 50 percent of its national demand and will be over 60 percent in the years to come. Meanwhile, EU countries have also demonstrated their strong requirement for multiple oil and gas resources from the Gulf, Siberia and the Caspian Sea to diversify their import sources. In addition, the western aspirations in Central Asia for a

maximum share can be interpreted as a means to execute containment of Russia in the FSU south. This does not imply that there is no competition both inside and outside the West.

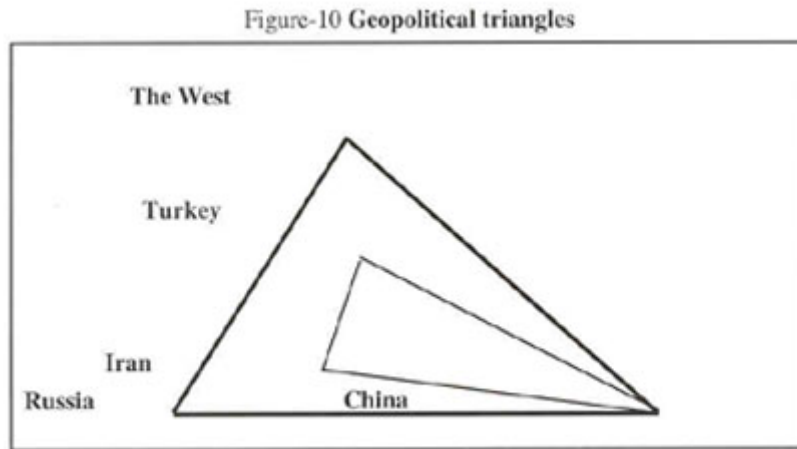
What is surprising all of us is the remarkable fact that neighboring powers or non-neighboring economic powers (South Korea and Malaysia) have become increasingly active in the competition for stakes from the region. This makes the scope of challenges facing China very complex.

It is worth noting that Turkey's economic growth of 1996 reached 6.9 percent while inflation was down to 80 percent (TPAO, 1996). Currently, about 87 percent of the country's demand depends on imports. The country enjoys a unique position culturally and geographically as a natural bridge between Caspian Sea and European market and its domestic demands. No matter whether the westward pipelines pass through the Ceyhan or through the Bosphorus Strait to the European market, Turkey is a natural bridge to the West. Iran, as a historic player of the Great Game, enjoys its economical and ideological advantages throughout Central Asia and the Caucasus region. Generally, rising domestic demand for oil will force the Islamic country to utilize its ad hoc position to bridge demand and supply between Central Asia, the Gulf and Indian subcontinent market despite US containment. Through the Iran and Afghanistan corridor, Pakistan and India could receive oil and gas resources from Central Asia. There is an overland route from Turkmenistan to the two countries. Kazakhstan-Iran oil swap is also possible to satisfy their needs. As the largest emerging market in Far East, China's future demand for oil and gas and eastern pipelines is understood, but many were surprised at the country's early intervention.

In the context of Central Asian connections with world markets, the author describes Turkey, Iran and China as an inner triangle and the West (principally the US), Russia and China as an outer triangle (Xu, June 1997). China is positioned in an intersection of the two triangles where it could interface with both Russia and the West.

- China intersects with the US through their quests for oil and gas from the Great Middle East.

- China's input in Central Asian affairs will impact Sino-Russian partnership and co-operation in future energy transportation and distribution; and
- Its relations with Russia and the US will condition China's preferences in the Central Asia.



Source: Xiaojie Xu, June, 1997

6.2. Chinese roles and preferences

Considering its goals, advantages and challenges, China would play her own role in the following respects.

- *A front player in market penetration:* China has unfolded its first phase of expansion strategy in Central Asia. Facing increasingly intensive competition, China stresses an integrated development in the pivotal region. E&P investment and pipelines are Beijing's priorities in the near future.
- *A major operator/co-operator:* China would like to be major operator/co-operator in major projects (especially E&P activities, EOR projects, pipeline construction and technical services) as well as a major partner in other projects that fits its interests. By doing that, CNPC is dedicated to being one of top 10 international oil companies in 2010. Meanwhile, strategic alliance (for example, Joint Venture between CNPC-Agip in the late 1997) is another strategy to enhance overseas penetration.
- *An important geopolitical force:* When the Great Game for hegemony over the Inner Asia unfolded in the late 19th century, China was absent and weakened by internal decline

(Mohan). With social-economic development in the past decades, China has transformed itself and grown as a major power in the world. As Central Asia has risen as a major area of strategic concern, it demonstrates enormous diplomatic agility in exploiting the nexuses between China and Central Asia. To gain the maximum benefits and mitigate risks, it is the author's opinion that China has several options in playing the new game.

1. China does not want to interfere politically in Central Asia. Rather, Chinese oil diplomacy in Central Asia, Russia and Middle East should follow an integrated approach and become more aggressive to promote maximum market penetration. To this end, China supports the Central Asian states to enhance their independence, both economically and politically, and to promote peaceful and constructive bilateral relations with these neighbors. China also aims to limit trans-border support to separatist movements in Xinjiang. China's additional term on relevant issues of course.
2. China would like to promote a balance of power in the new game in Central Asia. China and Russia could work together to counterbalance and confront the Western involvement in Central Asia. This is important to prevent the West from exerting so strong an influence on the region that China and Russia are disadvantaged. Or, it is possible that China might enhance her political ties with the West and lower her energy co-operation slant with Russia, if necessary, to reduce Moscow's meddling in the region. The goal is to enhance China's relative position as world economic and geopolitical power.
3. As mentioned above, the Central Asian corridor offers China not only a land route but also a way to expand China's geoeconomic space in the Inner Asia stretching north to the Siberia and south to the Persian Gulf. The geoeconomic space would enable China to be credited with an expected amount of Russian and Iranian natural resources to be imported to the country from different routes. In terms of these, Chinese would prefer to make Central Asia as a *Cordon Sanitaire* (conflict relief area) instead of *Shatter Zone* between China and Russia and Middle East.

7. SUMMARY

7.1. Central Asia is characterized by a dual geopolitical feature both as a hinterland and a geo-strategic midland of Eurasia. Land and maritime routes/corridors to other parts of the world are destiny-related for the region's survival and prosperity in the future.

7.2. China's westward aspirations have been driven by the country's high economic growth combined with increasing energy vulnerability. The country's westward geopolitical and economic strategy is, to great extent, generated by a visionary view of the new world petroleum system in general and emerging regional energy linkages in particular.

7.3. The importance of Central Asian hydrocarbon resources to China is Clear. (1) China has realized her potential energy interests and geopolitical importance by expanding her geoeconomic space in Central Asia in next century. (2) At the same time, it offers a historic opportunity for activities in Central Asia, Middle East and Russia to establish her geopolitical strength.

7.4. However, the primary Chinese role in Central Asia is market-oriented. Beijing's geopolitical role aims at an effective balance of power in the competition for economic expansion. Market solutions and geopolitical strategies with more than one option would be emphasized both in short and the longer term.

7.5. Although, for the time being, no one can be sure that who could win the new Game, the Chinese lever on the region is its various geographic and transportation linkages and geopolitical strength. The future transportation routes in Central Asia, Middle East and Russia, both land and maritime routes, would form a sort of spinal column and rib cage of the geoeconomic space. Whether the country would reap its benefits from the geoeconomic space to meet its national needs depends on an effective management of the future uncertainties and her geopolitical strength.

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REFERENCES

- Akimov, Aleksandr. Oil and Gas in the Caspian Sea Region: An Overview of Cooperation and Conflict. *Perspectives on Central Asia*, an electronic newsletter, Center for Post-Soviet Studies Report, Fergana Conference, May 18-20, 1996.
- Bartholomew, Charlie: *Business*, Vol98: 002, 29 January 1998, Turkistan News & Information Network.
- CASS. Chinese Economic Development with projection to 2010, *CASS Research News* (Chinese), March 15, 1994, *Chinese Economic Development Blue Report*, China Social Sciences Press, 1997
- CASS. Eastern Europe and Central Asia Newsletter, (Chinese) No. 1 to 80, 1996
- Center for Post-Soviet Studies, Caspian Oil: Trancaucasus, Central Asia and International Security, *Synopsis of International Workshop*, December 11-12, 1996
- Chew, Allen F. *An Atlas of Russian History: Eleven Centuries of Changing Borders*, Yale University Press, Revised Edition, 1976
- CNPC: *Annual Statistics*, 1996
- Cohen, Ariel. The New "Games Game": Oil Politics in the Caucasus and Central Asia. *Backgrounder* No. 1065, The Heritage Foundation, January 25, 1996
- Cutler, Robert. Turkistan-Newsletter, Volume 98-2:012, 22 January 1998
- Delay, Jennifer. *Pipeline News*, 1996 to 1997
- _____. *New Europe*, August 10-16, 1997, p41
- EIA (Energy Information Agency, USA), *International Energy Outlook*, 1996.
- Foss, Michelle Michot. email message to this author in December 24, 1997
- Frank, Andre Gunder; Gills, Berry K. *The World System History: the Centrality of Central Inner Asia, Land Routes of the Silk Roads and the Culture Exchanges Between the East and West Before the 10th Century: Desert Routes Expedition international Seminar in Urumqi*, August 19-21, 1990. New World Press, 1996
- Dow Jones News, Resourceful Competitors, *The Wall Street Journal*, July 28, 1997
- Holley, David. China's Thirst for Oil Fuels Competition, *Los Angeles Times*, July 28, 1997. Reprinting by *the Dallas Morning News*, August 3, 1997

Hu, Chaoyun. *China's Natural Gas Integrated Development to 2020* (Chinese), a study report, Petroleum Economic Research Center, CNPC, October 1997

International Monetary Funds, *World Economic Outlook*, October 1997.

Meng, Shuxian. *Country Survey: Central Asia* (in Chinese), World Knowledge Publishing House, 1997

Mohan, C Raja. China joins the Great Game 02-01-1998 , *Turkestan-Newslette: China and Geopolitics*, issue 2, 1998

Nudir, Guerer and Faith, Birol. Assessing future oil export potential in Transcaucasia and Central Asia, *OPEC Bulletin*, September. 1995

Nuriyev, Elkhan E. Regional conflicts and the new geopolitics of NATO expansion: the cases of the Caucasus, *Turkistan-Newsletter*. ISSN: -1386-6265, Volume 98-2:004-09-january-1998

O'Sullivan, Patrick. *Geopolitics*, Chapter five, Croom Helm Ltd. 1986

Oil & Gas Journal, Plans to link gas-rich Russia with Eastern Asian demand centers are progressing nicely. January 27, 1998

Parrott, Stuart: Central Asia: The Future Requires A Multilateral Security System, *RFE/RL Newlines* 20 November 1997

Sakameh, Mamdouh G.: China, Oil and the Risk of Regional Conflict, *International Association of Energy Economics Newsletter*, summer, 1996.

Sanford, William E.: "Central Asia and the Caucasus: Historical Legacies and Future Challenges", *Perspectives on Central Asia* Volume II, Number 1, April 1997, the Center for Political and Strategic Studies (the successor of former Center for Post-Soviet Studies)

Seigle, Michael: The United States has a role in Central Asia, *Turkistan-Newsletter* Vol. 97:1-121, December 30, 1997.

Simmons, Matthew: China's *Insatiable Energy Needs*, Simmons & Company, International, 1997.

Starr, Alexzander: *Turkistan-Newsletter*. Volume 98-2:002--07-January-1998.

TPAO, *Turkey and TPAO*, Ankara, 1997.

Xu, Xiaojie. China reaches crossroads for strategic choices, *World Oil*, reprinted by *PetroMin*, April 1997 and *IAEE Newsletter* Winter issue, 1997

_____, China's Looming Oil Crisis and Ways of Avoiding It, *OPEC Bulletin*, January 1997.

_____, Asian Oil and Gas: Megatrends, Balance and Geopolitics, *CBA Energy Institute*, University of Houston, June 1997; Reprinted by *Geopolitics of Energy*, January 1998.

_____, *The Geopolitics of Oil and Gas in New Century* (in Chinese), Social Science Literature Publishing House, China Academy of Social Sciences, March 1998.

_____, A Commentator's View on Regional Energy Linkages between Middle East, the Former Soviet Union and Asia, *International Energy Agency fourth Expert Meeting Synopsis (Doha)*, May 1997.

_____, Call for a Debate on Who Could Win the Game, *Turkistan-Newsletter: China and Geopolitics*, issue 2, 1998.

Wan, Jiye. *Chinese Oil and Gas Production and Future Development*, June 1996

The World Bank. *World Development Report*, 1996.