

Will Iran Meet China's Energy Demand?

The Effects of Globalisation on the Energy Demand Allocation and on the Strengthening of Iran's Market Power

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Table of Contents

Introduction.....	3
1. Iranian balance between globalisation and tradition.....	4
2. The international oil market: reserves, production and consumption	7
3. The Middle East and the oil market’s geopolitical relevance.....	11
4. The issue of oil reserves: the Iranian case.....	15
5. Natural gas and its growing geopolitical relevance.....	18
6. The framework of China’s energy demand.....	24
7. Chinese companies operating in the energy sector.....	26
8. Strategic Chinese reserves.....	28
9. Sino-Iranian energy agreements.....	29
10. Iran: a geopolitical regional power with a global geoeconomic role...	32
Conclusions.....	36

Introduction

The energy market does not consistently follow the precepts of mainstream economic theory. Though all markets are associated with power-based relations implemented on various geographical scales, primary energy sources are the most exposed to strong political influence. Moreover, the architecture of energy security geography has so far been controlled by the West.¹

Hence, the analysis of energy relations between a leading regional power like Iran and a global economic power like China must look beyond the simple law of demand and supply, taking into account both social and political factors that strongly influence public actors' economic decisions.

A study of Iran's role in the global scene can commence from the country's multiple relations - both established and not - with countries belonging to the international community. The complex relational network formed with neighbouring states that have always been forced to test their strength with Iran is doubtless an interesting starting point, despite these relations' regional nature. Contacts between Iran and China, instead, reveal global alterations in both economic and power balances. The international community's interest in the Islamic Republic of Iran basically issues from the latter's ability to be both an essential resource in the international geo-energy scene and a rising regional power.

This paper analyses Iran's potential as energy supplier for a group of countries and its skill to operate internationally towards its rise as regional power by means of strategic agreements - either explicit or implicit - with countries, such as Russia and China. Analysis has focused on the latter, since the Middle Empire is an essential actor in both the new global geo-economic and geo-political balances.

China's growth rate, investing capacity and foreign policy are about to enable the country to achieve results, whence others have failed. Suffice to think of the relations China has successfully built with many African and Middle Eastern countries, whereas the United States and the West, at large, have failed to implement long term energy policies designed to ensure an essential development factor in the 21st century - energy security.

Some territories' comparative advantage in hydrocarbon production² is clear and has been proved by estimates³ on available subsoil reserves. Concerning both the production of oil and gas, Iran prides in a considerable advantage, compared to other countries that can count on reserves that

1 Suffice to think, among other things, of the location of other oil varieties used to establish the international price (Brent and WTI) and to those of international energy stock exchanges (London and New York).

2 We must distinguish the oil market from the gas one because, for technical reasons, they have entirely different operating modes. The most relevant feature in understanding the diversity between oil and gas is transport. Difficulties in transporting this hydrocarbon have led some countries to only adopt oil for energy generation.

3 Estimated reserves are highly controversial, since expectations and, hence, also the price of hydrocarbons, are based on them.

are either smaller or centre only on one type of hydrocarbon. The Islamic Republic is an immense reserve of gas and oil too.

China needs considerable amounts of both oil and gas. This demand generates a rise in the global demand, which, considering the high price standards and fewer discoveries, endows countries that have reserves with new power (HIRO, 2007). As Hiro's article argues, oil is an essential factor in defining international relations and, Iran has particularly benefited by this situation, since it is in a position to continue its nuclear programme, despite sanctions applied by the Security Council.⁴ Iranian oil exports are growing and proceeds can subsidize both food and fuel, despite the lack of an internal economic policy. At the same time, Iran needs international political backing, liquidity to implement the regime's economic policies, consumer goods and a partner for its nuclear policy. China can be the ideal partner sought by Iran, whose feasible assets for the negotiation table are increasing and, which sees the Middle Empire as an ally in the fight against western hegemony. Iran will clearly not be the only ally, since the Middle Empire looks to Africa and South America with interest and pragmatism (HIRO, 2007). An extensive policy based on strategic differentiation has commenced.

1. Iranian balance between globalisation and tradition

The change in the international economic scene - that has witnessed the rise of new economic powers triggered by progress resulting from comparative advantages issuing first from the availability of production factors and, only subsequently, from the acquisition of innovative technologies⁵ directly affects even a country with an oil-based economy, like Iran.

Iran is not new to economic internationalisation. For instance, over a century ago, during the tobacco revolt, the country rebelled against the hegemony of a certain western company that planned on controlling the market even at the time.

Many developing economies (i.e. Iran) lack the know-how required to use private/public capital to develop coordination projects with other parties, instead of resorting to credit from western governments (MOHAMMADI, 2003). New globalisation processes offer a broad spectrum of opportunities. Besides facilitating access to various supply and outlet markets, economy successfully follows accelerated growth tracks (compared to a situation of autarchy) by increasing flexibility (i.e. the option of entering into joint-ventures and partnerships with foreign companies that can contribute fresh capital and know how).

4 See the UN 1747 (2007) Resolution, which applies sanctions against Iran, exhorting it to comply with the former resolutions 1696 and 1737 dated 2006.

5 We must recall the primary role played, both in the past and today, by state structure in promoting new growth tracks and in optimising the comparative advantages present in the country.

In a mainly state-controlled autarchic economy, whose inflation is approx. 16%, unemployment rate is 15% and the per capita GDP does not exceed USD 8,700 (CIA),⁶ it is hard to either remove or merely limit the population's endogenous drive towards change, whether it is linked to the society's Islamic radicalisation or whether it draws close to other ideologies, such as the wealthy West's neoliberalism.

Social disparity, which allows 20% of the population to hold 80% of the country's wealth, has resulted in 12 million Iranians living below the poverty threshold; hence, social issues are multiplying. The lack of infrastructures and increased drug addiction are doubtless signs of multifaceted social problems. The challenging task of reconciling free market principles and the Islamic principles of Iranian theocracy can be clearly noticed. (MOHAMMADI, 2003)

Understanding Iran's skill in meeting these stressful situations is this analysis' starting point. But Iran is not merely a passive actor in the globalisation process. As Fred Halliday stressed (2003), the Islamic Republic can contribute originally to the international changes we are witnessing by developing a clearly recognisable and distinguished anti-hegemony policy in the Islamic world's politics and culture.

The economic policy pursued from the 1960s to date has not allowed the implementation of a transition towards an economy that could differentiate itself by not depending totally on oil. Over 80% of current exports centre on oil, while traditional goods, like carpets and pistachio nuts, are only marginally exported.

An economy based on the proceeds of oil and which plays almost only a distributional role prevents both the growth of essential sectors for a country's economic security and activity differentiation that should facilitate transition when changes occur in the oil paradigm.

As Rifkin rightly declares (2002), societies that do not prepare for the transition risk a vertical crash; hence, the need to make the most of existing resources, while concurrently preparing for the transition to ensure that it is as least painful as possible.

Hence, with considerable oil and gas reserves at its disposal, Iran will play an increasingly relevant role on the international geopolitical chessboard. The focus of many countries, first numbering China, is drawn to the Muslim theocracy to establish long term strategic agreements, but there is no room for all. A battle conducted most likely with financial and political tools to obtain privileged agreements can be expected. Which parties will profit by the privileges remains to be seen.

6 See <https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html> .

Halliday correctly stresses that oil allows Iran not to be concerned about speedily modifying the country's economic, productive and educational framework,⁷ subsequently not disrupting the regime's internal political balance (HALLIDAY, 2003).⁸ Dependence on this commodity has been enhanced by the population's exponential growth – it has doubled since 1979,⁹ reaching 65 million inhabitants (CIA). Besides oil, as we shall see in detail further on, the country's exports centre on traditional sectors, such as carpets and pistachio nuts, but direct foreign investments are very low in sectors other than oil and gas.

Though it is not the focus of this paper, we cannot fail to mention the political globalisation faced by the Islamic Republic of Iran in recent years. A debate commenced on the future of the revolution and the role of the state, both economic and social, especially after the 1997 presidential elections when the reformist Khatami rose to power. The discussion conducted within power circles and in society is still charged with proposals, as proved by the many websites dedicated to the latest problems faced by the Iranian civil society. Pro-globalisation and anti-globalisation factions clash in a social fabric that is characterised by a radical theocratic regime, which is inclined to influence all free speech and thought options. Those who consider globalisation as an opportunity for a country that feels the strength of its natural and cultural resources clash with those who look upon these new processes as the western world's interference and cultural aggression (HALLIDAY, 2003) against a millenary culture.

Doubtless economic globalisation does not reach beyond the controversial cultural and political globalisation process that is already underway. A country that has always fought foreign interference and, which has developed a strong anti-hegemony personality can hardly open up to the latest neoliberal patterns to develop its economy (STIGLITZ, 2003). This is not necessarily an evil. Rather, considering the Chinese development model, which, centred on the State, is considerably encouraging private capitalism, China is a worthy example for the Iranian state. Globalisation also brings controversial aspects that can destabilise various countries. It is hard to deny the fact that, besides the previously mentioned positive points, increased international connections necessarily lead to a state's reorganisation; they can be shocking to local cultures and influence economic and social stability.

The ongoing battle against both imperialism and the arrogant approach adopted by the industrialised west to create a world that is more just with equal distribution of wealth lets us presume that there is a new development track. Iran is growing through a track of its own,

7 Unlike other Asian countries, where transformation processes have already been implemented, Iran's schooling and university system has not undergone basic changes, thus carrying on its function of protective social cushion against foreign stimuli.

8 Inefficiencies are not only adopted by the current regime, but they were perpetuated from the time of the *Shah*.

9 To be precise, the CIA's estimated population in July 2007 was 65,397,52, <https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html>.

concurrently pursuing new alliances with countries that have a different approach to third party countries.

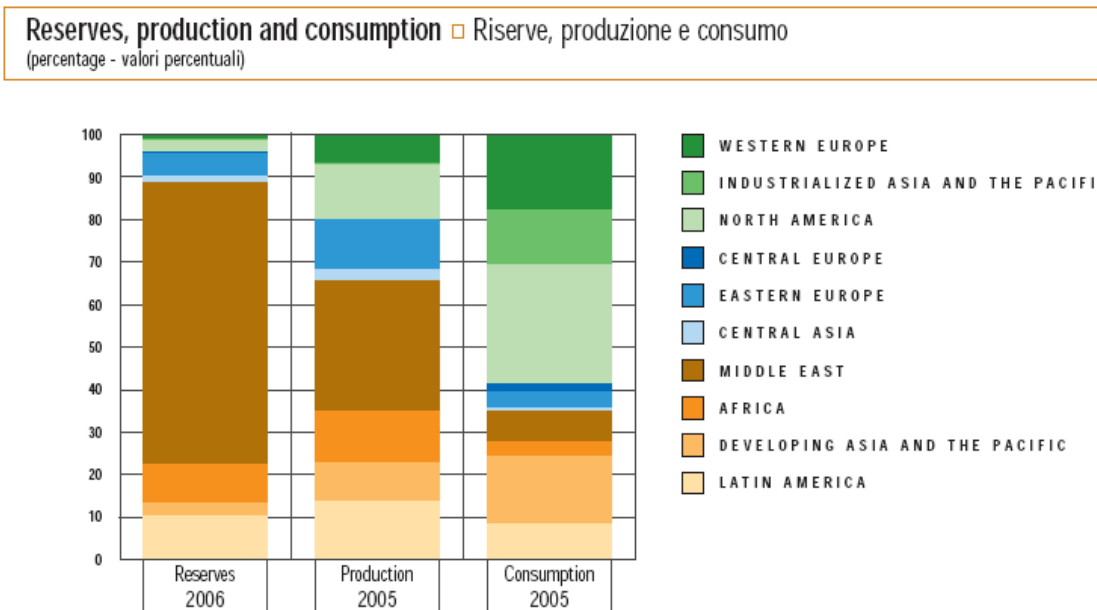
For this and other reasons that we shall enlarge on, China is one of the Islamic Republic's main partners, an ally who, despite different ambitions, is adequately reliable to ensure new growth prospects based, doubtless, on oil, but open to new development tracks and paradigms. China can offer Iran what it needs: access to markets, technology and the capital required to sustain the economy's growth and development.

2. The international oil market: reserves, production and consumption

Before analysing the Chinese energy demand, we must first remark on the international oil market, which is the most important from a geopolitical and energy perspective, compared to gas and coal. We must however recall that recent decades have witnessed a steady rise in these sources.

The main oil reserves are concentrated in the Middle East (66%), Latin America (10%), Africa (9%) and Eastern Europe (5.4%), followed by developing countries¹⁰ in the Asian-Pacific area (3.1%), North America (3%), Central Asia (1.5%) and Western Europe (1.3%).

As revealed by the graph, which compares oil reserves, production and consumption, macro-regions where oil production is highest are also those that have the largest reserves, excepting North America, which, despite its small reserves (it ranks sixth), ranks third in the classification of oil producers.



Source: O&G. *World Oil and Gas Review 2006*, ENI.

¹⁰ Hereinafter called DCs.

A totally reverse geography surfaces when this data is considered along with consumption data. Major oil consumers (North America 28%, Western Europe 18%, DCs in the Asian-Pacific area 16%, industrialised Asian countries 12%) generally have the least remarkable resources and the lowest production levels (in this case too North America is an exception concerning production). This data is of the utmost geopolitical relevance: the difference between reserve and consumption-based geography is, in fact, the main condition that defines the alliances and projections, which influence the dynamics of world order.

This clearly stands out from the analysis of leading countries involved in this asymmetrical balance between production and consumption.

First twenty countries for production

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
First twenty	56,912	57,895	59,374	61,247	62,054	60,446	62,499	62,705	62,365	64,918	67,871	68,832
Saudi Arabia	8,886	8,922	8,913	9,131	9,174	8,590	9,065	8,819	8,556	9,774	10,135	10,589
Russia	6,347	6,168	6,035	6,115	6,122	6,158	6,504	7,017	7,661	8,488	9,230	9,482
United States	8,641	8,615	8,585	8,652	8,370	8,096	8,084	8,068	8,032	7,828	7,663	7,291
Iran	3,662	3,702	3,718	3,671	3,705	3,572	3,760	3,775	3,510	3,959	4,148	4,221
Mexico	3,144	3,067	3,284	3,410	3,495	3,345	3,450	3,560	3,585	3,789	3,825	3,760
China	2,841	2,986	3,116	3,189	3,193	3,186	3,229	3,297	3,390	3,410	3,485	3,617
Venezuela	2,661	3,018	3,219	3,473	3,405	3,094	3,220	3,137	2,915	2,627	2,923	3,042
Canada	2,274	2,399	2,458	2,572	2,673	2,560	2,723	2,727	2,858	2,996	3,089	3,040
Norway	2,693	2,902	3,233	3,280	3,139	3,139	3,346	3,419	3,333	3,264	3,189	2,964
United Arab Emirates	2,514	2,493	2,568	2,644	2,668	2,411	2,592	2,535	2,369	2,671	2,748	2,864
Nigeria	2,013	2,039	2,254	2,382	2,199	2,059	2,160	2,223	2,116	2,285	2,513	2,598
Kuwait	1,921	1,934	1,912	1,951	1,926	1,768	1,880	1,838	1,726	1,995	2,171	2,258
Algeria	1,286	1,301	1,397	1,430	1,431	1,377	1,436	1,486	1,521	1,793	1,921	2,080
Brazil	926	943	1,056	1,142	1,248	1,356	1,451	1,531	1,716	1,802	1,791	1,985
United Kingdom	2,709	2,794	2,810	2,736	2,842	2,927	2,705	2,534	2,496	2,282	2,057	1,834
Iraq	531	555	582	1,162	2,127	2,536	2,582	2,377	2,032	1,335	2,010	1,833
Libya	1,390	1,432	1,442	1,483	1,533	1,438	1,471	1,427	1,381	1,488	1,614	1,728
Kazakhstan	407	423	454	522	525	613	718	812	961	1,045	1,213	1,266
Angola	492	639	691	710	733	748	745	739	897	879	988	1,245
Indonesia	1,573	1,565	1,648	1,590	1,546	1,472	1,380	1,384	1,309	1,208	1,158	1,133
Rest of the World	10,725	11,236	11,597	11,994	12,211	12,381	12,770	12,755	12,759	13,009	13,371	13,435
World	67,636	69,131	70,972	73,241	74,265	72,827	75,269	75,460	75,124	77,927	81,242	82,268

Source: *O&G. World Oil and Gas Review 2006*, ENI.

The period 1994 - 2005 witnessed a significant increase in production, which rose from 67,636 to 82,268 (thousand barrels a day) - slightly lower than the rise in international consumption. Over the same period, data on the increased Russian production on the international total (from 9.4% to 11.5%), on the reduced United States' one (from 12.8% to 8.9%) and on the increased production "of the rest of the world" (specifically, of all producing countries that do not

rank amongst the first ten), reveals that, while Russia acquires increasing relevance in international production-based geography and the USA concurrently reduce their relative importance, most of the upsurge in production recorded during the past 11 years was increasingly sustained by countries that do not rank among the first ten international producers (notice, for instance, the role played by Nigeria, Algeria, Libya and Kazakhstan).

Russia, which is the second international oil producer (the first for natural gas) and the seventh for oil reserves, develops strategic relevance in the current international scene once again (STROUPE, 2004). And the United States and China's growing interest proves it. In fact, it is no mere chance that Russia fights its feeling of being encircled by increasing state control of its oilfields through Gazprom and, subsequently, of negotiable margins with foreign partners. The situation generates both Russia's need to pursue a balanced position between China, Europe and the USA, and Putin's recent stand against a unipolar order (see Putin's speech in Moscow on 10 February 2007, during the conference on national security).¹¹

Returning to context analysis, we can glean more information from absolute values. Approx. 40% of the absolute increase in international production results from the increased production of countries like Iraq, Brazil, Kazakhstan, Algeria, Angola (which joined the OPEC on 1 March 2007), Nigeria, Kuwait and Libya, while another 35% can be entirely attributed to Russia and Saudi Arabia.¹² This data leads to some considerations.

We must first stress the increasing relevance of leading Middle Eastern (Iraq and Kuwait), African (Algeria, Angola and Nigeria) and, South American (Brazil in the first place) producers; their importance can be interpreted as a consequence of US and Chinese strategies designed to diversify supply sources of fossil fuel. China and the USA have, in fact, witnessed an exponential rise in oil consumption and, concurrently, in the degree of dependence on foreign countries.¹³ If, between 1994 and 2005, the USA have increased their consumption by 3,148 thousand barrels a day (shifting from almost 18 to over 21 million) and they have reduced domestic production, China has recorded a 3,594 thousand barrels a day (from 3 to almost 7 million) increase in consumption without significantly increasing internal production, during the same period.

11 Russia's position grew stronger during the G8 held in 2007, when Putin fiercely criticised the United States' project for an antimissile shield (with installations envisaged in the Czech Republic and in Poland), concurrently proposing the shield's shared creation in the radar installation in Gabal, Azerbaijan. That location would be ideal, if Iran were the danger, otherwise it would seem that the Cold War had not come to a close for the USA.

12 Lastly, minor countries that do not rank among the first twenty producers cover the remaining 25%.

13 Over the period 2001-2005, dependence on oil importation increased from 50% to 60% in the USA (IEA, *Annual Energy Outlook*, 2007) and, from 31% to 50% in China (EIA, *Country Analysis Brief*, 2006).

First twenty countries for consumption

The first twenty countries in the world □ Primi venti paesi del mondo
(thousand barrels/day - migliaia di barili/giorno)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
First twenty	53,200	53,981	55,604	57,015	57,278	58,930	59,642	59,973	60,416	61,672	63,979	64,607
United States	17,974	17,978	18,565	18,902	19,198	19,817	19,999	19,969	20,089	20,370	21,075	21,122
China	3,003	3,283	3,621	3,947	4,076	4,289	4,553	4,673	5,022	5,576	6,433	6,597
Japan	5,584	5,577	5,681	5,700	5,531	5,676	5,570	5,487	5,408	5,501	5,353	5,408
India	1,522	1,671	1,781	1,917	2,015	2,222	2,312	2,308	2,388	2,473	2,612	2,630
Germany	2,883	2,882	2,922	2,917	2,923	2,838	2,772	2,815	2,722	2,679	2,650	2,603
Russia	2,925	2,734	2,573	2,505	2,445	2,503	2,621	2,632	2,564	2,508	2,590	2,574
Canada	1,766	1,819	1,870	1,956	1,942	2,027	2,027	2,043	2,082	2,208	2,294	2,279
Brazil	1,673	1,781	1,899	2,038	2,111	2,165	2,168	2,154	2,126	2,044	2,143	2,181
South Korea	1,840	2,008	2,101	2,255	1,917	2,084	2,135	2,132	2,149	2,175	2,149	2,169
Mexico	1,934	1,819	1,789	1,854	1,949	1,957	2,036	2,009	1,950	1,949	1,970	2,052
Saudi Arabia	1,307	1,316	1,417	1,436	1,518	1,554	1,577	1,621	1,677	1,772	1,886	2,009
France	1,865	1,919	1,949	1,969	2,040	2,029	2,001	2,052	1,983	1,999	1,977	1,968
United Kingdom	1,833	1,815	1,851	1,803	1,791	1,794	1,758	1,723	1,719	1,751	1,827	1,817
Italy	1,869	1,942	1,920	1,934	1,941	1,891	1,854	1,837	1,870	1,873	1,881	1,812
Spain	1,119	1,189	1,199	1,266	1,356	1,396	1,433	1,492	1,505	1,542	1,573	1,603
Iran	1,197	1,181	1,229	1,264	1,261	1,262	1,303	1,357	1,376	1,381	1,477	1,569
Indonesia	827	848	946	1,016	964	1,007	1,107	1,139	1,171	1,170	1,247	1,258
Netherlands	764	767	761	793	802	828	855	894	898	919	947	1,024
Taiwan	691	736	740	761	784	838	830	879	910	942	974	1,002
Thailand	623	717	791	783	713	751	734	758	806	840	921	930
Rest of the World	15,259	15,738	16,101	16,547	16,921	16,940	16,842	17,168	17,458	17,590	18,325	18,685
World	68,459	69,720	71,705	73,561	74,198	75,870	76,484	77,141	77,874	79,262	82,304	83,292

Source: O&G. *World Oil and Gas Review 2006*, ENI.

We must especially highlight the role played by Iraq and Kuwait, where the world's third and fourth largest oil reserves¹⁴ are based, respectively (after Saudi Arabia and Iran),¹⁵ but which also record the highest reserves and production ratio (surpassing the United Arab Emirates, Iran and Venezuela).

3. The Middle East and the oil market's geopolitical relevance

We believe that the central geographical, political and strategic role played by the Middle East is unquestioned, despite the analysis conducted by Fadhil Chalabi (Executive Director, *Centre for Global Energy Studies*) in 2004 on the decline of industrialised (OECD) countries' dependence

¹⁴ It is however hard to obtain reliable data on the various reserves. Many estimates on Middle-Eastern reserves have been reviewed at a lower rate by Colin Campbell, the world famous British geologist. We must however say that data on crude oil reserves is, in practise, extensive and often divergent, also because expectations, alliances and various agreements are based on circulating estimates. See MARQUEZ, 29 April 2004.

¹⁵ These countries are the focus of competing Chinese and United States alliance systems.

on Middle Eastern oil.¹⁶ The necessary geographical differentiation of energy strategies does not alter the Middle East's relevance. By first observing this analysis' limits, we can easily substantiate both the geopolitical and energy-based role played by the Middle East in the framework of *power shift* dynamics.

Chalabi correctly proves that OECD countries' dependence on the Middle East drastically diminished between the oil shock periods 1973 and 2002 (from 41% to 10% in Western Europe and, from 63% to 38% in Japan). The West reacted to nationalisation and high prices enforced by the OPEC by increasing energy efficiency and investments in high cost oilfields.¹⁷ The Middle East's production quota in the international total thus dropped from 48% to 38% between 1978 and 2002, concurrently implying a generalised change in the geography of energy (increasingly complex and characterised by the steady rise in production and in exports from Russia, the Caspian Sea and Africa).

However right, Chalabi's considerations have many limits. In the first place, Chalabi does not say that though energy efficiency has increased¹⁸ in the most industrialised countries (more significantly in Europe than in the USA), primary energy consumption has also steadily increased, thus cancelling the advantages of increased energy efficiency. Moreover, we also notice a mistaken interpretation of energy forecasts and related geopolitical variables. According to the latest production data, instead of declining, the Middle East has slightly increased its quota on the international total (from 30% in 1994 to 30.7% in 2005) – thus proving the ongoing decline envisaged by Chalabi wrong – and, the energy bond between Persian Gulf and East and South East Asian countries (with China heading the list) has grown exponentially (as Chalabi himself highlighted) and continues to grow beyond levels predicted by IEA projections (till 2030) in 2002. Chalabi deemed such forecasts over optimistic.¹⁹ Forecasts have proved to be wrong, but due to underestimation, rather than overestimation. Today, in fact, we are aware that China's demand has already reached 7 million barrels a day, four years ahead of IEA forecasts, and that new projections predict that it will reach 12 million barrels a day in 2020 (specifically 10 years before the 2002 forecasts). From 2002 to 2006 China's dependence on the Middle East has increased from 4% to 60% and seems to know no rest.

Chalabi's analysis has the credit of having detected the upheaval in the geography of energy as a consequence of the new OPEC policies established in the '70s. But it mirrors an overall

16 The mentioned analysis was written for the "Rome Energy Meeting" held on 26-27 April 2004. It was later published by the Middle East Economic Survey, *The World's Waning Energy Dependence On Gulf Oil*, Vol. XLVII, n. 18, 3 May 2004 (www.mees.com).

17 In the North Sea, the Caspian Sea, Russia, South America and Western Africa.

18 Amount of primary energy used to produce one GDP point.

19 According to this expert, the Asian crisis in the '90s proved the fragile nature of Chinese growth and, in a broad sense, of the Asian macro-region.

geopolitical change that cannot only be interpreted in market terms. Hence, the direction of the change does not limit the geopolitical-energy role played by the Middle East, whose partial detachment from the West in terms of energy dependence is rather a sign of the new relations focused on balance of power between the West and the East. The downsizing of the Middle East's relative weight and the change in the overall energy framework must, in fact, be viewed considering the extensive change in balance in the geography of power. The Middle East remains the latter's main barometer, thus explaining both the reasons for the United States' conflicts,²⁰ and China's new role. Moreover, the dollar's devaluation, compared to the euro, spreads the idea in the OPEC framework of fixing some oil contracts in euro to respond to the dollar's decline: hence, the need to increase oil prices to counterbalance any loss in the purchase power calculated on the basis of the tacitly fixed crude oil prices expressed in euro (TURK, 2004).

We must generally note that China's relations with Saudi Arabia and Iran are growing in relevance and closeness from a geographical, economic and political perspective, whereas the United States' relations in the Middle East are losing stability: on the one hand the historical alliance with Arabia shows signs of weakening;²¹ and, on the other hand, Iran is one of the most expressly anti-western and anti-American countries in the world; many authors believe that the USA are considering the prospect of launching a military campaign against it (MIRAK – WEISSBACH, 2007; HERSH, 2005, 2006; KLARE, 2005). This recalls events in Iraq, where the USA implemented their unilateral decisions by undertaking a highly destabilising war in 2003.²² In this case, as could occur in Iran, the goal is to control flows towards major US competitors - specifically Europe and East Asia - that most depend on the Middle East.

The overall situation is highly unstable and competitive: the global oil demand is steadily rising,²³ especially driven by China and other Asian powers, while the highly diversified supply suffers the lack of investments in exploration and refining (SARKIS, 2004; SAPELLI, 2006). On the other hand, leading producers number Saudi Arabia, Russia, and Iran, which are China's main suppliers of crude oil. And, while tension grows between the USA and these countries, leading to open conflict in some cases, China is forming alliances that, starting from energy demands, are becoming stronger from a political and military perspective.

20 Let us consider the United States' conflicts in the region in a broader sense, since the energy factor's relevance grows as its bonds with the global political and financial system are revealed.

21 This country has, for example, dropped from first to fourth place as US supplier – after Canada, Mexico and Venezuela.

22 It has temporarily dropped production below levels reached between 1998 and 2001.

23 From over 67 million barrels a day in 1994 to 85.77 million barrels a day estimated for 2007.

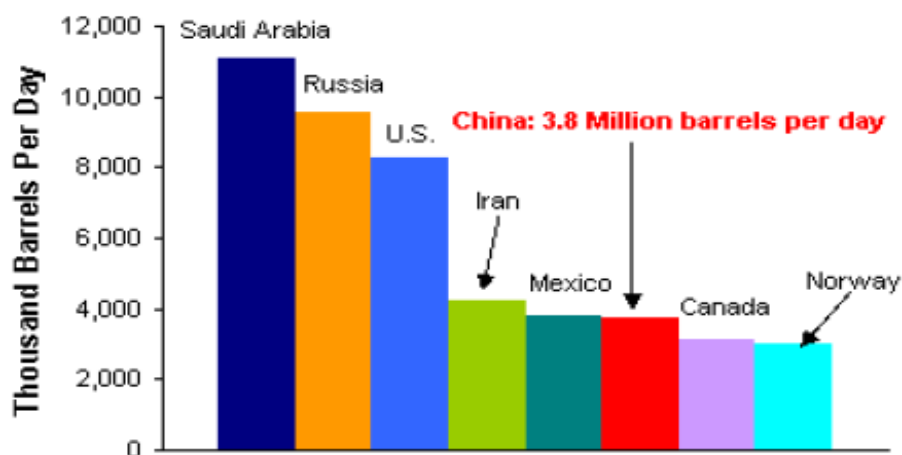
Global Oil Demand by Region

(million barrels per day)

	Demand		Annual Change			Annual Change (%)		
	2006	2007	2005	2006	2007	2005	2006	2007
North America	25.35	25.74	0.14	-0.16	0.38	0.5	-0.6	1.5
Europe	16.20	16.20	0.04	-0.02	0.00	0.2	-0.1	0.0
OECD Pacific	8.47	8.45	0.10	-0.12	-0.02	1.2	-1.4	-0.2
China	6.98	7.35	0.18	0.37	0.38	2.8	5.6	5.4
Other Asia	8.87	9.04	0.16	0.10	0.17	1.8	1.1	1.9
Subtotal Asia	24.32	24.84	0.44	0.35	0.53	1.9	1.4	2.2
FSU	3.91	3.93	0.05	0.11	0.02	1.3	2.8	0.5
Middle East	6.45	6.77	0.32	0.33	0.32	5.6	5.4	4.9
Africa	2.94	3.01	0.08	0.07	0.06	3.0	2.4	2.1
Latin America	5.20	5.28	0.13	0.11	0.08	2.7	2.1	1.6
World	84.38	85.77	1.20	0.78	1.39	1.5	0.9	1.6

Source: International Energy Agency, *Oil Market Report*, 13 February 2007.

Top World Oil Producers, 2005



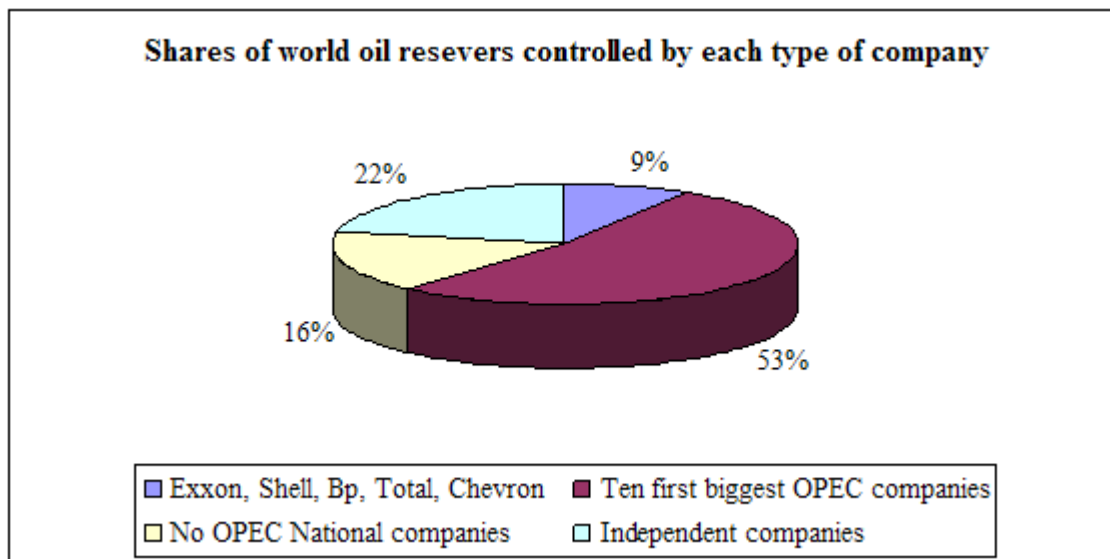
Source: EIA, *International Petroleum Monthly*

The geopolitical and geostrategic relevance of the oil market's framework also depends on the fact that it is a strongly state-run sector: the reserves of the eight leading state-run companies in OPEC countries seem to be 662 billion barrels vs. 57 billion barrels produced by the eight leading private companies (SARKIS, 2004).²⁴ In recent years this imbalance has grown with the rise in prices and the unstable and changing structure of international geopolitics.

With three quarters of the international oil cake handled by the public sector and only one third by the private sector, there is no doubt that the energy game will be globally played as never before in a geopolitical perspective and with new actors and new rules. State-run companies have been reorganised and strengthened, while the traditional license model that acknowledged companies the ownership of oilfields has been virtually removed everywhere, except for leading

²⁴ The "seven sisters" that ruled the market from 1914 till the first oil shock (1973) exist no more. Only three of them have survived (Exxon, Shell and Bp), and they have absorbed the other four (Texaco, Mobil, Socon and Gulf).

western countries; it has been replaced (or is being replaced) by production sharing agreements²⁵ (SÉRÉNI, 2007).



Source: Jean-Pierre Séréni, *Ritorna agli Stati il Potere sul Petrolio*, Le Monde Diplomatique-ilmnifesto, March 2007, OPEC data.

This is most likely why China, whose oil companies are state-run, operates with wide-range long-term strategies that seem to be winning (in Asia, in the Middle East, in Africa and in South America). Suffice to think that PetroChina,²⁶ SINOPEC and CNOOC operate actively in 40 countries.²⁷ Moreover Chinese companies accept to operate at a loss or with really minimum profit margins.

4. The issue of oil reserves: the Iranian case

The concept of oil reserve is a key factor in deeply understanding changes in global geo-energy and geopolitical frameworks. Energy alliances between countries that seek the utmost energy “stability” and, hence, long term alliances and advantageous conditions depend on reserves. Countries that depend on hydrocarbons will steadily seek long term alliances with countries that appreciate the rent situation resulting from the location of oilfields in their territory.

To deeply understand relations between a country that is strongly influenced by the dynamics of resource availability (i.e. Iran) and an emerging economic empire (i.e. China), it is

²⁵ The state that is associated with a foreign company establishes the conditions, production quotas, taxes, etc. and the investor accepts the exploration and development costs of an oilfield, despite the risk of finding nothing. In case of success, the investor divides the production value with the state.

²⁶ CNPC branch, whose capitalisation distanced Shell in 2006.

²⁷ While there were only 6 countries in 1999.

essential to thoroughly know the characteristics of the supply²⁸ on which most of the Islamic Republic's economic policy and intention to become a regional power and, the Middle Empire's potential growth is based.

Literature uses the term reserve in many ways and also to define various concepts. Oil reserve quantities that surface from estimates depend on a series of external factors that do not only concern the physical dimension of oilfields. The geographical location, the geology, the environmental conditions and the type of crude oil produced can define a reserve's economic relevance. Not all reserves known are exploited because they are deemed economically irrelevant at the current price and technological conditions. Prices and the technological evolution of extraction techniques and transport directly influence the amount of oil that it is deemed economically advantageous to extract; subsequently estimates on reserves vary along with these parameters.

Observers deem that most existing reserves have already been discovered, especially the giant ones, and that the option of replacing consumed oil with new discoveries exists no more. The USGS says that the global peak of new discoveries was reached in 1962 and, that we are experiencing a slow decline since then (RIFKIN, 2002).

As with all limited resources, hydrocarbons too are characterised by specific competition dynamics that take into account the fact that their depletion and the transition phase to a new energy paradigm are drawing close.

There are three types of oil reserves: *proved*, *probable* and *possible*.

Most analyses mention data concerning proved reserves where production can be implemented in compliance with economic and technological conditions enforced at the time their dimension was calculated (MAUGERI, 2001). We use the recovery rate, a percentage index that shows us the real amount that can be extracted from a reserve in current market conditions, to calculate the amount of hydrocarbons that can be recovered. The average recovery rate has steadily risen over the years, reaching 35% in 2001. As the recovery rate increases by one percentage point, the operating life of reserves lengthens by over two years (MAUGERI, 2001).

Despite converging opinions on the amount of oil extracted so far, which geologists have estimated as 875 billion barrels (RIFKIN, 2002), opinions are many and divergent concerning the amount of globally proved reserves. Many believe that the proved reserves declared by both countries and oil companies are inflated to obtain significant strategic and economic advantages. Some geologists, numbering Jean H. Laherrère, say that companies and nations attempt to alter numbers to facilitate the achievement of their political and economic goals. It is advantageous to all actors involved in the production to either declare more reserves or to add resources along with

²⁸ Extraction methods adopted in Iran can explain the balanced production of natural gas and oil, highlighting the technical advantages of using gas as an extraction tool.

reserves, specifically oilfields that cannot be exploited under current price and technological development conditions. Nations thus show their presumed strategic independence, concurrently numbering real guarantees in their portfolio.

Some observers suppose that OPEC countries overestimate their reserves to either increase production quotas to guarantee for international loans received from the World Bank and the International Monetary Fund or to obtain facilitations on the terms of loans issued by private banks for infrastructural and production development projects. It is instead supposed that energy companies overestimate their reserves to consolidate their Stock Exchange quotations (Ibid, 2002). The overall duration of reserves is influenced by many factors, among which the international increase in the consumption of crude oil is decidedly relevant, as previously mentioned. Discovering new oilfields will hardly prolong production significantly, taking into account the increased consumption of emerging economies; China stands out among these, as analysed below.

A theory that backs analysts' estimate concerning the duration of oil reserves is "Hubbert's curve", which reveals that production peaks when half the estimated exploitable reserves have been extracted (GOODSTEIN, 2004). Once this peak is reached, there is a drop in production with a Gaussian type bell-shaped distribution.

It is interesting to stress that non-OPEC producers will most likely touch the peak around 2010, while, according to the same estimates, leading OPEC producers will, instead, reach it around 2015 (RIFKIN, 2002). These peaks could be reached at a later date if the oilfield exploitation percentage increases due to an increase in the price per barrel.

The problem of better exploiting oilfields is an issue of the utmost relevance for Iran, especially considering the current prices of crude oil. There are chiefly two ways of optimising oil field exploitation - the injection of gas or liquids²⁹ and directional drilling.³⁰ These methods cause extraction costs to rise; hence, they can only be implemented when the price of crude oil can sustain them.³¹

The Middle Eastern macro-region prides in many competitive advantages on other oil producers. Reserves are only concentrated in certain areas of the world, amongst which the Persian Gulf plays a predominant role with 66% of world reserves. In this context Iran owns the world's second largest oil reserve with 11.8% of global reserves.³² Technical production costs, which are

29 The first system, which is most used in Iran, envisages the injection of gas into the oilfield: gas pushes the oil to the closest wells by penetrating into the pores of the rock. The injection of liquid, instead, acts with the principle of pressure: injected under the oilfield, it pushes oil towards the surface to facilitate extraction.

30 Directional drilling is a less expensive method than the previous ones; it consists in measuring the electric resistance of rocks surrounding oilfields to define the best route to reach it, which is allowed by directional drills.

31 4D monitoring methods affect costs by 10-15%, while injection into oilfields affect them by 50-100%.

32 The country with the largest reserves is Saudi Arabia (23.7% of world reserves). Iran is followed by Iraq (10.2%), Kuwait (9.3%) and the United Arab Emirates (8.7%).

absolutely the lowest with prices ranging from USD 2 to little over 4 a barrel, are a further competitive advantage for the Persian Gulf area. The cost of production in Iran is little over USD 4.

It is interesting to notice the reserves/production ratio, which defines the duration of reserves at current production levels by highlighting a country's strategic advantage over other producers. In Iran this ratio is 82/1, which, compared to the United States' 11/1 and Canada's 6/1, illustrates the gap's dimension. Some countries pride in even more favourable rates, like Iraq with 172/1, Kuwait with 109/1 and the United Arab Emirates with 94/1 (ENI, 2006).

Despite these numbers, the extraction of oil in Iran suffers the effects of numberless problems resulting from different factors. The national energy policy,³³ that has not been able to respond to the country's needs, and many external factors, which can especially be traced back to difficult relations with the United States, have not allowed the oil industry to get significant results. There are no American oil companies in the territory and foreign investments required to optimise the rate of exploitation of oilfields, which is very low, are still scarce.³⁴ In 1998-1999 the reduction in investments was further enhanced by the drop in prices, which, on that occasion touched USD 10-13 per barrel. Such pricing discouraged the long term investment policies of both exploring and producing companies. The effects of these decisions can still be felt, despite the relevant rise in prices that occurred in subsequent years.

5. Natural gas and its growing geopolitical relevance

The geopolitical relevance of natural gas is growing worldwide (HARTLEY *et* MEDLOCK, 2005). China, with its considerable demand for hydrocarbons, is certainly interested in this process and, though relations currently established with the Islamic Republic of Iran mainly centre on oil, they witness natural gas take on a central role.

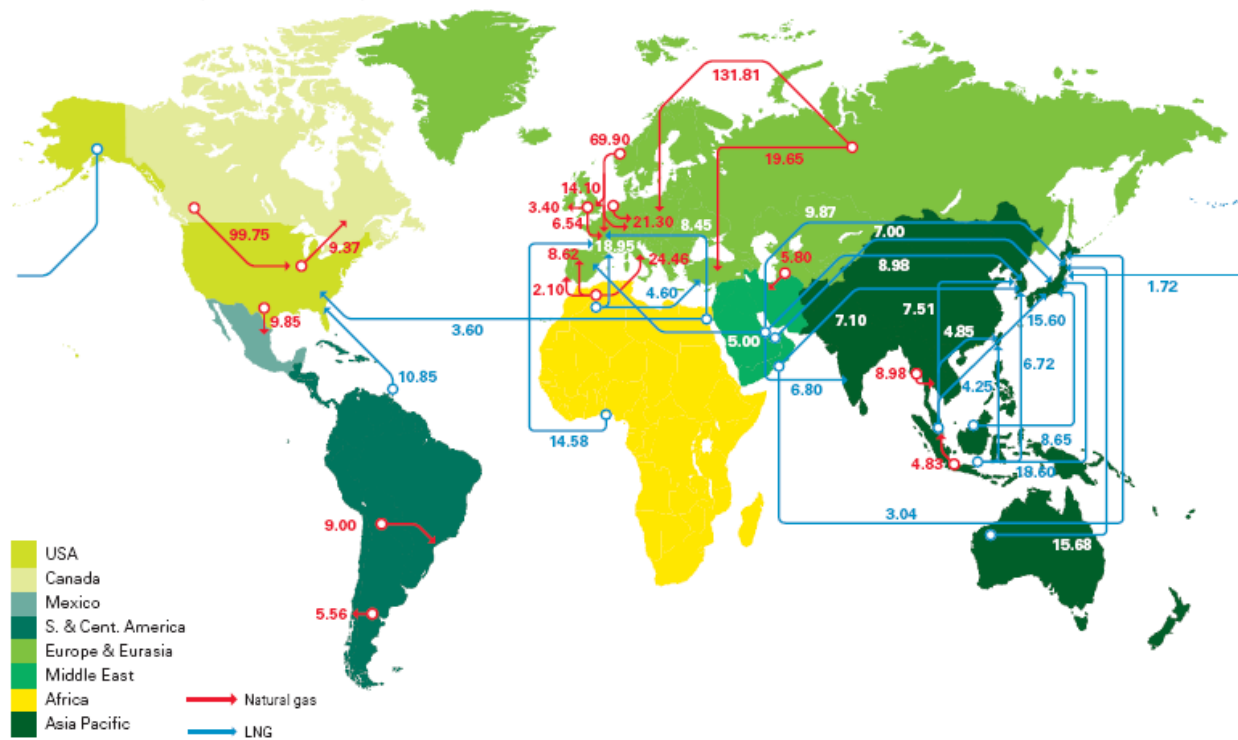
A factor that decidedly influences the market structure of gas is the transport system adopted. Natural gas can be conveyed in two ways – either by a gas pipeline or liquefied and transported by sea. Both systems need rather complex dedicated infrastructures. This technological barrier considerably influences global energy geopolitics, especially due to the problem of placing gas pipelines. This type of infrastructure ensures efficient transport for energy resources, concurrently forcing operators to face the problem of crossing territories that are often highly unstable.

³³ For instance, the fuel consumption allowance can be considered as an error due to the lack of an appropriate refining system and of appropriate redistribution of proceeds from oil exports.

³⁴ An oil field's average recovery rate is 35%; 20% could be recovered in 1970.

Major trade movements

Trade flows worldwide (billion cubic metres)



Source: *BP Statistical Review of World Energy*, June 2007.

For long distances, natural gas must be liquefied³⁵ and conveyed by sea. This process has made LNG a fuel charged with very high strategic relevance, instead of a marginal fuel that is only used in producing regions. Quantities transported by gas pipeline are still higher; in fact, 2007 records 537.06 billion cubic metres vs. 211.08 billion cubic metres carried liquefied by ship,³⁶ but many countries are studying regasification systems designed to increase the number of available sources. Europe finds regasification options interesting in view of reducing dependence on Russian, Algerian and Libyan gas.

There are however strong impediments to the construction of an infrastructural network for the effective exploitation of available gas resources. The massive investments required for the construction, both of gas pipelines and of regasification plants, curb the expansion of gas as global fuel. Moreover, the regions where reserves are located involve various problems concerning political, institutional and financial risk.

Only after having solved problems related to geopolitical balances and having found solutions for the political and financial aspects of infrastructural projects for LNG transport, can countries involved discuss agreements on natural gas supplies.

³⁵ Hereinafter, to simplify matters, both natural and liquefied gas will be called LNG (liquefied natural gas).

³⁶ See *BP Statistical Review of World Energy June 2007*,

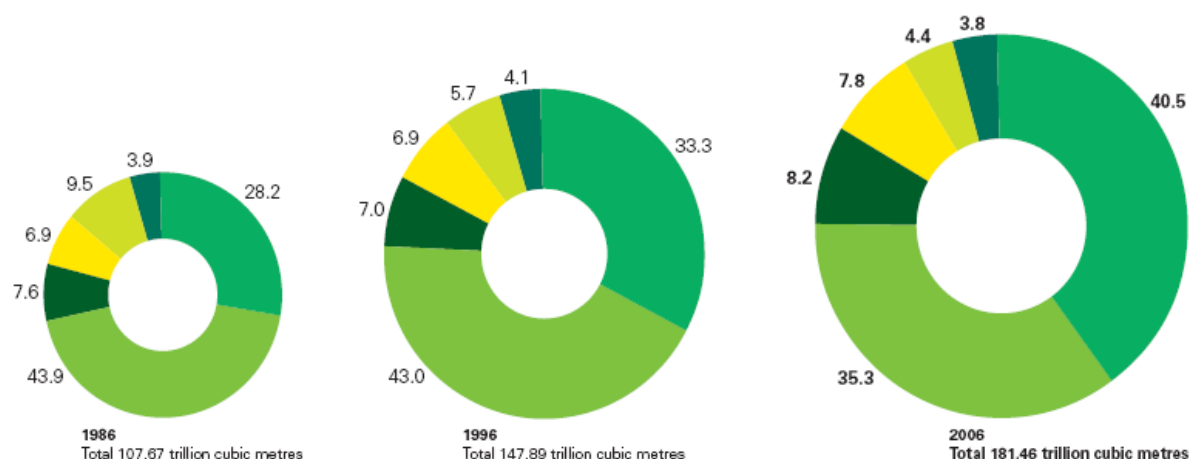
<http://www.bp.com/productlanding.do?categoryId=6848&contentId=7033471>

It is interesting to stress countries' inclination to collaborate after the creation of infrastructures. In fact, after having faced *sunk costs*³⁷ for the creation of a transport infrastructure, such as a gas pipeline, new actors will find it very hard to enter the market, while relations between the countries involved in the construction become steadier.

There are three main advantages in a country's decision to use LNG as fuel: low environmental impact, strategic differentiation of resources used and, the amount of reserves that are still available and which allow long term energy planning. These advantages lead us to believe that the consumption of gas should double (BAKER INSTITUTE, 2005) over the next thirty years. LNG should potentially beat coal as second energy resource, thus becoming many industrialised countries' primary energy resource, even outdistancing oil.

Just like oil, reserves are located far from regions where the estimated rise in demand will be highest. As we can deduce from the graph, 40.5% of estimated global reserves of gas in 2006³⁸ are located in the Middle East and, 15.5% of these is found in Iran. After the Russian Federation's 26.3%, Iran ranks second for available reserves, soon after Qatar's 14%.

Distribution of proved reserves in 1986, 1996 and 2006
Percentage



Source: *BP Statistical Review of World Energy*, June 2007.

37 These are the so-called unrecoverable costs, which cannot be sold if one decides to divest himself of an asset.

38 Data on reserves is taken from *BP Statistical Review of World Energy June 2007*, <http://www.bp.com/productlanding.do?categoryId=6848&contentId=7033471>

China too has a considerable amount of reserves – 1.3% of world reserves, whose rate of use is rising due to the increased domestic energy demand.

Concurrently taking into account the abundance of reserves, Iran's closeness to European consumption markets and, the interest in this fuel on the part of countries like China, we could presume that the Islamic Republic is a large net exporter. But this is not the case. Iran's current capacity of exporting natural gas and the economic interest to do so, considering oil prices, is practically none. Paradoxically, in 2006 Iran consumed more gas than what it produced. The national company NIOC pumps gas in the subsoil to improve the performance of oil wells both due to the price of oil and the lack of infrastructures required for its extraction and transport.

Iran's case is also significant concerning middle and long term energy planning. The use of natural gas to improve the exploitation of oil wells is doubtless a short term advantage due to the optimisation of proceeds from oil resulting from the high market price. At the same time the middle and long term advantage seems assured because reserves are not intensively exploited, except for internal consumption,³⁹ and they are hence preserved for the time when both the demand and prices will increase.⁴⁰

Considering demand, the situation is more complex to define, since potential consumers are more than the current consumers. In the case of natural gas, it is hard for the demand to self-generate without the assistance of public policies designed to encourage consumers, industrialists and families to use this type of fuel. The necessary infrastructures differ from those used for oil combustion and, it is hard to imagine that rational consumers will implement the change to either merely reduce the negative external features typical of oil or to encourage a country's energy differentiation.

After briefly analysing the market framework's technological features, reserves and their location and, Iran's role in the global offer of LNG, we should study consumer countries and, hence, possible parties interested in strategic agreements with Iran.

Over the period 1994-2004 gas consumption has internationally increased from 2,112.73 to 2,760.02 billion cubic metres.⁴¹ The leading 20 consumer countries have all experienced a considerable increase in total consumption of natural gas, excepting Ukraine. The United States are the world's leading consumer of gas, while Russia ranks first for reserves and second for consumption. In 2004 they respectively reached a consumption level of 617.36 and 418.82 billion

³⁹ Iranian gas consumption is, however, relevant as 105.1 billion cubic meters were consumed in 2006. We could compare this data with Germany, which has a larger population but better energy efficiency, thus consuming 87.2 billion cubic metres of natural gas, the highest in European countries.

⁴⁰ Such a forecast can be made due to the low number of countries that own reserves. This limitation in the offer makes a country's deviant conduct to reduce the price by increasing the amount produced more unlikely. The risk of collusion by means of a price card must be, as already stressed, high and all the offer's limitations, also numbering the use of gas for injection into oil wells, makes this collusive process more likely.

⁴¹ All data on consumption has been taken from ENI, *World Oil and Gas Review 2006*.

cubic metres. The remarkable growth experienced by gas consumption both in Iran and in China is relevant for our analysis. From 1994 to 2004 China has shifted from a consumption of 21.66 to 51.60 billion cubic metres and, Iran from 38.33 to 84.61 billion cubic metres.

Both countries are currently self-sufficient concerning internal consumption. An analysis of China and Iran's production/consumption ratio clearly reveals gas supplies' independence. In 2004 these ratios were respectively 0.99 for China and 0.97 for Iran. But this ratio's sustainability doubtless differs in the two countries. Associating the growth rate of Chinese gas consumption and, hence, of production, with the amount of available reserves clearly highlights that China is at an absolute disadvantage, compared to Iran. The Islamic Republic's reserves/production ratio (i.e. 323) is absolutely second best, after Qatar. China ranks far below with a reserves/production ratio of 36. If these trends' level remains stable, we can predict that internal production cannot sustain Chinese consumption anymore and must resort to external sources and, one of the most attractive sources is doubtless Iran.

According to Stephen Blank, this type of market structure, which is far more concentrated than the oil one, tends to create various levels of collusion till it reaches the formation of a cartel (BLANK, 2007). Russia's alliance with Iran should focus on building profits and on becoming an important "diplomatic extortion" tool. The idea of creating a cartel between Iran and Russia dates back to 2001-2002, but only now have Russians decided to speak of real coordination between producers.⁴²

Russia's central role surfaces also in the previously mentioned study conducted by Baker Institute (2005). This study, entitled "*The Geopolitics of Natural Gas*", also reveals an upsurge in demand, a downward trend in production costs and in the transport of LNG towards consumption markets and, the liberalisation of markets. Analysis results and detected trends lead us to observe that the market is moving towards greater interdependence; hence, towards a structure that better resembles the oil market, rather than the current one that is mainly based on bilateral agreements.

The Baker Institute's analysis has some critical features because it has failed to give due relevance to certain factors. In the first place countries owning major reserves are inclined to consider the right to organise the offer of gas and oil as a public prerogative. In fact, oil companies, as in the case of Iran, are chiefly state-run and market adjustments towards a liberalised system cannot be forecasted. The prediction that the state will take a back seat to benefit private oil companies is rather questionable, as also the statement that infrastructural development will be increasingly linked with commercial interests, rather than with strategic ones for national energy

⁴² Blank's article stresses Russia's key role as owner of transport infrastructures and its subsequent power in controlling gas management in Central Asian republics and, in some way, in Iran too. The lack of both infrastructures and capital for their implementation is a key factor in understanding the energy-based geography of Central Asian and Middle Eastern regions.

security. Instead, the role played by states seems to be strengthened by new dynamics that are globally surfacing, especially in areas where both proved and potential reserves are most extensive. Baker Institute's analysis does not give appropriate relevance to areas that clearly prevail in terms of strategic relevance; besides, the examples mentioned are South America and the United States,⁴³ where interests related with this energy source are certainly fewer.

The Baker Institute also envisages that Middle Eastern actors will play a marginal role over the next two decades, excepting Qatar, till the demand will be high enough to allow the creation of new transport infrastructures that reach the precious European and Asian markets. In this case too the study does not take two important factors into account: in the first place China's intention not to depend entirely on Russia and its subsequent intention to directly invest in Middle Eastern countries, especially in Iran, to create the necessary infrastructures; and, secondly, we believe that the creation of a possible, and probable, cartel should be taken into account, considering the favourable structural conditions. A cartel will most likely be created (BLANK, 2007) and, combined with a controlled market structure, both connections between markets and, hence, price dynamics should entirely differ from those predicted by Baker Institute. Instead of increased liberalisation and price dependence on external factors, there would be a new relevance of bilateral and dynamic price agreements related with strategic relations between countries, rather than with market dynamics.

China's intervention as investor in Iran to increase production in exchange for international support to its nuclear policy and the supply of weapons could be another destabilising factor for Baker Institute's model. China's intention to face *sunk costs* that ensure proceeds on the lowest investments, compared to those that are deemed essential by companies operating in the free market, could overcome the access limitations suffered by Iran due to infrastructural deficiencies. This possible, and probable, financial intervention would make the collusive agreement with Russia - the other important actor in the world's geo-energy game - and, hence, the creation of a cartel⁴⁴ that envisages privileged conditions for the Chinese ally even more feasible.

43 The United States produce most of the gas required for internal consumption; the rest is mainly imported from countries like Canada, which have no geopolitical problems and with whom relations are consolidated.

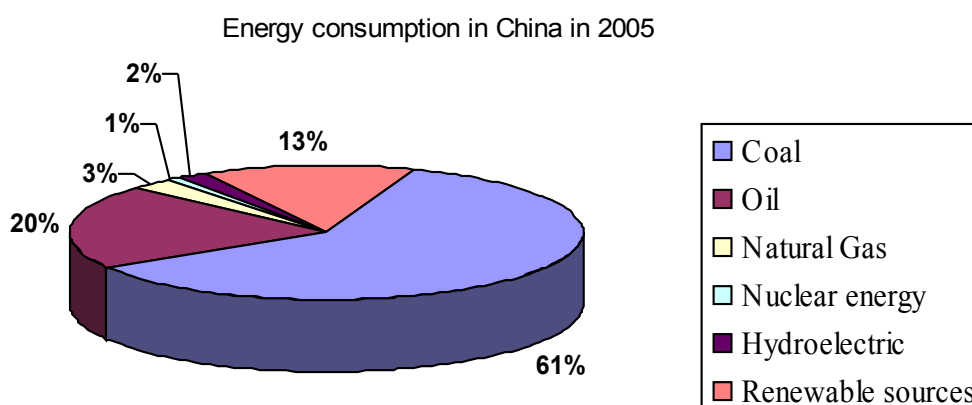
44 The first Gas Exporting Countries Forum (GECF) was held in Teheran in May 2001 to establish forms of coordination between producers.

6. The framework of China's energy demand⁴⁵

Meeting the Chinese energy demand (primary consumption) involves a division in which coal's leading role stands out,⁴⁶ followed by oil, renewable sources and, lastly, natural gas. With estimated reserves amounting to over 110 billion tons, China is, in fact, the world's largest consumer and producer of coal (many reserves have still to be exploited), distancing both the USA and Russia.⁴⁷

Though 90% of the energy demand is faced by internal production, the expansion rate of energy dependence is highly significant from 1993 to date; hence, the need to observe oil consumption dynamics in this trend.

Till the '60s, China's production of oil was limited to the non intensive exploitation of certain oilfields in its central and western provinces. Only later - when policies targeted at enhancing industrialisation were implemented - were new oilfields in the North-East (Daqing) and in the Gulf of Bohai (Kaiping and Renjiu) exploited more intensively.



Source: *Country Report Repubblica Popolare Cinese*, ENI, 2006.

Over the years, the sudden increase in oil demand was met with increasing difficulty by the domestic production capacity; hence, since 1993 – when consumption exceeded production - China has become a net importer of oil that receives supplies from abroad (purchasing, exploring and

⁴⁵ When not specified otherwise, past and present statistical data and future trends mentioned in this paragraph have been taken from: 1) *Country Analysis Brief* on China (August 2006) processed by the Energy International Administration (EIA) of the United States of America (this data was, in turn, taken from other sources, especially numbering the *Oil and Gas Journal*), and, 2) *Country Report Repubblica Popolare Cinese*, ENI, 2006.

⁴⁶ The central role played by coal is justified by the existence of a thermoelectricity generating facility fuelled by coal for 83%.

⁴⁷ The growth trends of coal production and consumption, which virtually overlap from 1984 to date, have followed a mainly positive trend, excepting the decrease that occurred from 1997 to 2000.

producing oil). From 1993 to 2000 the Chinese oil demand has increased by 90%, while internal production has concurrently grown only by 15%.⁴⁸

In a few years China has become the world's second greatest consumer of oil – after the United States – and the third oil importer, covering over 12% of the world's oil demand. All this data roughly indicates China's relevance in the world oil market and, subsequently, in related geopolitical balances.

Compared to the internal production of 3.62 million barrels/day, China's current oil demand amounts to approx. 7 million barrels/day (with an estimated increase of 500 thousand barrels/day in 2006, 38% of the rise in the world's oil demand). ENI projections predict that this demand will increase by almost 100% in 2020 – with a far more rapid growth than that of the United States. Chinese energy dependence on the world will, hence, expand exponentially, also considering the fact that, to judge by the reserves/production ratio, Chinese oilfields are estimated to have 14 years of life. If China currently imports almost 50% of all the internally consumed oil, it is envisaged that the quota of oil imports will rise to 80% in 2030.

Natural gas consumption is, instead, far less significant than oil. Despite this, the use of this source is increasing gradually and, it is estimated that from 56 billion cubic metres consumed in 2005 the demand will rise to 90 billion cubic metres in 2010 and approx. 156 billion cubic metres in 2020 (with an average yearly 7% increase). Part of this demand will be met by importations, considering that the gas sector seriously lacks infrastructures for production, transport and national distribution. Despite ambitious government programmes to increase gas consumption, there however remains the difficulty to find international capital to implement these infrastructures (especially due to prices controlled by the *Planning Development Commission*). Concerning importations, many projects are being developed by the construction of regasification plants.⁴⁹

The growth in industrial production, the expansion of transports and of residential and service sectors are the main causes for the increased demand for oil⁵⁰ and natural gas (that will also be used to develop power generation).⁵¹ Suffice to think that in 10 years China will become the second world market for cars (approx. 30 million cars circulate today) and that according to some estimates the number of cars will rise to 130 million in 2030 (LEVERETT et BADER, 2005).

48 Internal production growth rates were moderate and inclined to slow down from 1.8% (1986-1997) to 1.1% yearly average (1997-2003).

49 The CNOOC's terminal in Guangdong is operative, while others are being constructed in Fujian, Zhejiang, Tianjin (always by CNOOC) and, Jiangsu/Rudong (PetroChina). China is also studying on site liquefaction of coal, which would then be conveyed by pipelines to power stations. If this process is implemented, forecasts on the increase in gas consumption could be basically reviewed.

50 A significant contribution will also be given by the expected replacement of traditional biomass (especially wood) with oil products in the residential sector (especially in the poorest areas).

51 We must mention that 94% of the power demand is covered by thermoelectric power plants that run on coal and by hydroelectric power plants.

To provide for its current energy consumption level, China must control the flows it will increasingly depend on in the near future to ensure a geographically solid supply network based on ever extensive and diversified flows.

From an energy perspective, the Chinese projection in the world is recent, but it has already stretched from the Middle East to Central and South Asia and, from South East Asia to Africa and Latin America.

In 2006 Angola became China's main supplier of crude oil, distancing Saudi Arabia, which dropped to second place, followed by Iran, Russia, Oman, Equatorial Guinea and Yemen. Moreover, variations in the amount of oil imported between 2005 and 2006 prove that all mentioned countries have increased their quota of exports to China, excepting Yemen.

In short, China is focusing on obtaining greater control of hydrocarbon routes in the Arabian Sea through the influence exercised on Iran, Pakistan and the Andaman Sea by means of its naval base on the Coco Islands (to the south east of Myanmar). India is, instead, less dynamic because it is partly blocked by the discussion concerning two oil and gas pipelines. One should lead from Turkmenistan to Pakistan (backed by the USA and Russia) and another should run from Iran to South East Asia (especially opposed by the USA in an anti-Chinese move).

7. Chinese companies operating in the energy sector⁵²

The 15th and 16th Chinese Communist Party Congresses, held respectively in 1997 and 2002, commenced a series of important reforms to separate administrative and commercial functions and to privatise many state-run companies. Among other things, these reforms led to China's admission to the WTO in November 2001 and the addition of provisions defending private property to the Constitution in March 2004.

Concerning the energy sector, in 2005 the Chinese government decided to establish the *National Energy Leading Group*, an institution that, headed by the Prime Minister, is designed to coordinate and schedule the country's energy policies, backed by the activities of the *Chinese Institute of International Studies*.⁵³

The reorganisation and partial liberalisation process have, in fact, also influenced the energy sector: tariffs associated with the importation of capital goods were reduced and the retail market of oil products was opened to foreign competition.

⁵² When not specified otherwise, past and present statistical data and future trends mentioned in this paragraph have been taken from: 1) *Country Analysis Brief* on China (August 2006) processed by the Energy International Administration (EIA) of the United States of America (this data was, in turn, taken from other sources, numbering especially the *Oil and Gas Journal*) and, 2) *Country Report Repubblica Popolare Cinese*, ENI, 2006.

⁵³ A think-tank formed by academics, political and military leaders and entrepreneurs assigned to discuss the country's strategies.

In the '90s the oil sector experienced considerable transformations in terms of organisation and corporate proprietary frameworks. CNPC (China National Petroleum Corporation), SINOPEC (China Petroleum and Chemical Corporation) and CNOOC (China National Offshore Oil Corporation) are the result of vertical integration strategies between state-run companies. Partly listed in the New York and Hong Kong Stock Exchanges and, in the case of Sinopec, in the Shanghai Stock Exchange (between 2000 and 2002), these three oil companies operate mostly in specific areas and sectors, despite being generally involved in multiple activities.

The CNPC, the largest and most active from a transnational perspective, operates in the sector of *upstream* activities.⁵⁴ However, 1999 witnessed the decision to unbundle its core business, thus creating PetroChina, which is currently the fifth oil company in the world for capitalisation.⁵⁵ Onshore activities were assigned to PetroChina, while offshore ones for the development of LNG terminals were given to CNPC. SINOPEC, instead, operates mainly in the east and south of the country - specialised in downstream activities (refining and distribution), it is the second producer of oil and gas in the country (after PetroChina); moreover, it is enhancing its internal activities to the same degree (refining and exploration) as the foreign ones.⁵⁶ The CNOOC, formed in 1982, deals especially in offshore oilfields and regasification terminals.

Between 2000 and 2002 all these state-run companies made some early offers for public purchase and, they have only partly been privatised, considering that the government holds tightly on to its majority shares. Shares sold to foreign companies (ranging from 15% for CNPC and SINOPEC to 27% for CNOOC) do not, however, give foreigners decision-making powers in corporate governance.

From an overall perspective, China uses its main companies to face an unprecedented international projection in the energy field. But, we must say that emphasis on Chinese companies' international role (especially CNPC and CNOOC) is not justified by the overall need that is directly met by these companies (specifically, their net foreign production). These external activities' contribution to importation - calculated in mid-2005 - was 300 thousand barrels a day, 8.5% of total oil importations. We must, however, make a couple of considerations. On the one hand Chinese oil companies' massive energy projection only dates back to a few years, hence, we can presume that their real relevance and contribution to importation will grow; on the other hand, we must not

54 Exploration and extraction of oil and gas, especially in the country's north-west and northern regions.

55 In 2004 PetroChina's economic and financial performance totally exceeded that of ENI.

56 CNCP and SINOPEC are starting to cooperate towards the construction of distribution networks and to improve refining capacity.

underestimate the implicit geopolitical value of these companies' actions in the world. Overall dependence on foreign countries (i.e. almost 50% of Chinese oil consumption) suggests that corporate presence in countries from which crude oil is conveyed to China strengthens bilateral and regional alliances, which can ensure reliable supplies (clearly in view of more substantial integration).

The coal production sector is also undergoing radical reorganisation.⁵⁷

8. Strategic Chinese reserves

Strategic Chinese oil reserves are still a weak point for national energy security, especially in the light of growing dependence on importations (third country in the world). The 5th Five-Year Plan (2000-2005), in fact, envisages the construction of strategic structures linked to the national energy network to collect oil in case supply flows should cease. The programme envisages creating four sites in three provinces in the east and north-east of the country: two in Zhejiang (Ningbo and Daishan), one in Shandong (Huangdao) and lastly, another in Liaoning (Dalian). But times have lengthened and, only in 2004 did the government approve the construction of the four planned plants⁵⁸ (EIA, 2006). Feeding operations on the first site, which has a capacity of 32 million barrels (equivalent to less than two weeks of oil importations), commenced only early in 2007 with over a year's delay on the schedule.⁵⁹

The main reason for the slow implementation of strategic reserves is that China must pay attention not to cause sudden oil price fluctuations with its actions,⁶⁰ in a regime of rather high oil prices in recent years, which has made the creation of strategic reserves more costly.

Another problem related with the difficulty of creating strategic reserves arises from the rigid state control of the prices of refined oil products; this has negative repercussions on the refining and petrochemical sectors. Hence the need, between 2006 and 2007, to adjust the internal price system to the international one, especially to meet the requirements of companies like Sinopec, which have, for example, lost important profit margins (also recording some absolute losses), despite the considerable state allowances received. The necessary provisions, which have already been formally adopted, envisage a new system in which national oil prices will converge towards international ones, while consumers must sustain larger price increase margins on imported

57 The Chinese coal industry was traditionally fragmented into large and small State mines. It has been estimated that China still had 28 thousand mines in 2005 and that it closed down 20 - 50 thousand mines over the previous years. In February 2006 the Chinese *National Development and Reform Commission* (NDRC) disclosed a reorganisation plan for the sector to drastically reduce fragmentation, forming 5 or 6 large conglomerates, and to close down all small mines by 2015. The reference model is the company Shenhua Group, the country's largest coal producer.

58 Little over 100 million barrels that cover 30 - 90 day supplies.

59 Interview to Zhu Hongren, Assistant Director of the Department for Economic Operations, China Daily, 30 January 2007.

60 Interview to Chen Deming, Vice Minister of the NDRC, Chinanews, 21 April 2007.

oil (CHINA DAILY, 30 January 2007). In this case too, taking a pragmatic middle course should meet the requirements of oil companies' competitiveness, concurrently encouraging lesser state control on the prices of consumption oil products, which cannot be allowed to freely fluctuate without considering the population's social and economic conditions.⁶¹

Details of projects centred on strategic reserves, especially concerning times and capacity, are highly contradictory, to judge by statements issued by Chinese press office executives. It is hard to say whether they are always mistakes. We are, in fact, speaking of a strategic issue that leads Chinese leaders to release information cautiously, also in the light of the fact that the construction of strategic reserves has commenced so late and is very limited, compared to the US, Japan and other countries. The latest forecasts predict that in 2010 China's effective strategic oil capacity will be equivalent to 30 days of importations (CHINANEWS, 21 April 2007), compared to, for example, the 90-120 days of the United States' reserves.

The diversified geography of Chinese supplies is partly linked to the formation of strategic reserves. In fact, it seems that from August 2006, three million barrels of Russian oil have been imported for this purpose, just as most oil produced by the CNPC in Sudan (CHINA INDUSTRY NEWS, 17 October 2006). The ambitious goal of counting on a 90-day strategic availability of imported oil in 2015 can however be reached, and even anticipated by 5 years, only if Saudi Arabia⁶² will decide to produce an extra 500 thousand barrels/day for Beijing for the next three years (BHADRAKUMAR, 2007). From this perspective, this highly relevant strategic implication makes the Sino-Saudi axis relatively more important than the Sino-Iranian one. And, considering Saudi concern for Shiite expansionism in the region, China must skilfully handle its strengthened relations with Iran on the one hand, while concurrently seeking balanced relations with the US and Israel, on the other.

9. Sino-Iranian energy agreements

The bond between China and Iran is rooted in history, which has, in both cases forged a dual feeling of pride and anger - the pride of being heirs of ancient civilisations and the anger for having suffered the humiliation of colonisation perpetrated by Western European powers. These deep feelings have overcome the radically different developments in the respective political systems - one Communist (from 1949) and, the other Muslim (from 1979).

The Sino-Iranian axis is, however, sustained by growing material interests, which are both ideologically and culturally facilitated by a common vision of the world, according to which the

61 The Secretary General of the NDRC declared that the new method is based on the prices of Brent, Dubai and Minas quality.

62 Specifically, the only one able to produce oil at significantly higher levels than its OPEC quota.

United States' unilateralism would threaten the possibility of restoring balance to international geography of power in a multipolar sense.

From the 1979 Iranian revolution till 2003, Iranian importations of goods and services from the USA and Great Britain almost dropped to zero due to the dual closure of the West towards this new theocracy, and vice versa. Importations from China, instead, concurrently experienced a forward leap especially from 1991 onwards. In 2003, for example, goods from China corresponded to almost 10% of Iranian importations vs. 2% in 1991. During this commercial exchange, Iran was in a condition of deficit till 2000, when it became active through the surplus achieved by oil exports (GARVER, 2006).⁶³ We are speaking of the world's second consumer of oil – China - and second owner of known reserves, Iran.

Oil importations from Iran to China have, in fact, grown exponentially (rising from almost 10 thousand tons in 1988 to over 12 million tons in 2003), placing Iran among China's leading suppliers of oil (PRC CUSTOMS STATISTICAL YEARBOOK, 2004). Political visits, both official and unofficial, organised in the early '90s focused on extending energy cooperation between the two countries. Looking beyond the mere sale of oil, China's repeatedly declared goal was to concretise greater involvement in oil development projects (surveying, drilling and extraction). Anyhow, China had to show that it had developed an appropriately updated technology in the oil industry.

Iran had long established profitable cooperative relations with European and Japanese companies, but they were interrupted by both the 1979 revolution and the Iraq-Iran war. After the war, western companies won back their space, but China rightly believed that it could count on the extended family and cultural connections on the one hand, and on European and Japanese violations of US restrictions (1996 Iran-Libya Sanctions Act) on the other. In 2000, after Teheran announced its decision to grant Japanese companies preferential rights over one of the world's largest unexploited oilfields (Azadegan, at the Iraqi border), CNPC and Sinopec signed some important contracts with the National Iranian Oil Company (NIOC) to drill and explore important natural gas and oilfields.⁶⁴ 2004 was another important year for two reasons: 1) the conclusion of exhausting negotiations with Japan for the development of the huge oilfield in South West Azadegan;⁶⁵ and, 2) the draft of two important contracts signed between NIOC, China's Zhuhai Zhenrong and Sinopec (GARVER, 2006). The first concerns the purchase of 2.5 million tons of LNG a year for 25 years,

63 Most Chinese oil imports were later paid by exporting Chinese capital goods.

64 In a broad sense, we must remember that the Iranian market has opened up more since a law was enforced in 1987 allowing NIOC to enter into "buy back" agreements with both foreign and local companies. These agreements envisage that the company, which faces the expense of developing an oilfield is guaranteed the management of a production share that can produce rightful returns on investments.

65 Most likely also due to Iran's signing an additional protocol with the IAEA in 2003, accepting more intensive supervision of its nuclear programme.

starting from 2008 (totalling 20 billion dollars), specifically the largest purchase order of natural gas till that moment; and, the second is an even more extensive agreement that envisages the supply of 70-100 billion dollars worth of LNG (250 million tons) for the next 30 years.⁶⁶ Sinopec is also investing with a lead role in the development of the oilfield in Yadavaran, in exchange for the supply of 50-100 billion dollars worth of crude oil (150 thousand barrels/day), once the oilfield recommences operations. Moreover, Iran steadily contributes significantly towards enhancing China's refining capacity by constructing refineries designed to process Iranian oil, which has high sulphur content (Ibid., 2006).

The substantial negotiations for the supply of crude oil and natural gas to China occurred in parallel with China's statements that it is willing to back Teheran in the dispute at the IAEA. The Chinese Minister of Foreign Affairs Li Zhaoxing, for instance, thwarted the US attempt to discuss the issue at the UN's Security Council. Hence, China did not fall into line with Japan, and this explains the Iranian Oil Minister Zanganeh's statement that China will become the main target area for Iran's primary energy exports, thus replacing Japan (GARVER, 2006; LEVERETT et BADER, 2005). The strengthened geo-economic and geopolitical alliance with Iran can be deduced by these important energy agreements, by the fact that China is an important market for exports and by enhanced cooperation in other fields (partly resulting from energy agreements). China is, for instance, participating both in a great construction project for an underground railway network in Teheran, which envisages the participation of China North Industries Corporation,⁶⁷ and in the implementation of a broad band telecommunication network backed by a Chinese company specialised in optical fibre (Ibid., 2006, 2005).

Already in 1985 the two countries formed the "Committee for Commercial, Scientific and Technological Cooperation" – appointed to manage important national projects, it operates through three subcommittees. Between 1984 and 1989 the two countries signed, for example, 19 contracts (totalling 70 million dollars) for fishing, power generation, mines and dams. Chinese experts and capital goods thus started to flow into Iran in the framework of these projects, which were, however, slowed down by the war against Iraq. After the war, activities recommenced at a frantic pace and many Chinese delegations visited Iran to develop key sectors in the light industry.⁶⁸ Despite the fact that Chinese technology has taken time to overcome Iranian mistrust, Chinese capital goods finally proved to be more attractive both for the low cost of products per product unit (including qualified and financial assistance) and, for employment (labour intensive technologies

66 The related construction of a gas refinery in Bandar Abbas has also been envisaged.

67 NORINCO – the largest industrial conglomerate.

68 In 1993 a first loan granted from the Bank of China to the Bank of Iran was followed by others for the construction of an underground railway network in Teheran, the creation of cement industries and, in a broad sense, to back state enterprises focused on exports (especially hydrocarbons). In mid-2004, 41 Chinese companies were present in Iran with their representative officers to follow approx. 50 joint venture projects amounting to 1 billion dollars.

that are functional towards Iranian urbanisation processes) and geopolitical reasons (GARVER, 2006).⁶⁹

Increasingly intensive relations with Iran are one of the factors the USA are most concerned about due to the close link between energy, political and military alliances. Beijing has, in fact, both sold and scheduled to sell missiles and missile technology to Iran. This matter concerns both the Islamic Republic and the entire region. US concern over this alliance was clearly stated in a report drafted by a Security Work Group at the Congress. The report declared, for instance, that an anti-ship cruise missile launched by the Hezbollah against Israel during the recent war in Lebanon was designed by the Chinese, a “Silkworm” (GIACOMO, 2006).

10. Iran: a geopolitical regional power with a global geoeconomic role

By analysing relations with China, we can define the main critical points the Islamic Republic has to face to establish itself as geopolitical regional power, a role it feels it can perform in the Middle Eastern macro-region. Geopolitically, this central role already held by Iran through its influence over countries, such as Lebanon and Iraq, is consolidated by its position in the world’s energy-based geography. As previously observed, Iran is concurrently an essential reserve of both oil and gas and, this makes it especially attractive for those who need these resources. Relational difficulties with the United States have led to the creation of a privileged channel with China, the other main global competitor for energy resources.

A purely energy-based interpretation can be misleading concerning the role of Iran’s regional power, though this perspective cannot be entirely neglected. Decisive factors in Iran’s level of achieved and potential power in the macro-region in question are others. The presence of Shiite majorities, both in the Islamic Republic and in countries, such as Iraq, Lebanon, Oman and Bahrain, and significant minorities, in Arab countries, such as Pakistan, Afghanistan, Kuwait and Saudi Arabia, are the clear sign of direct influence in a region characterised by the strong and genuine contrast between Shiite and Sunnite populations (RUBIN, 2006).

Holding the balance of power in the Middle East, however, requires the backing, or at least the consent, of some of the most influential neighbouring powers (Russia and Pakistan). An actor who must, for instance, be kept under close observation to understand Iran’s role in the world’s power and energy geography, is Russia.

Between 1989 and 1991 both China and Iran planned on strengthening their relations with the Soviet Union. However, as this option failed due to the disintegration of the USSR, the

⁶⁹ China is more reliable as it is not inclined to interfere in internal political issues.

conditions were created for the construction of a Sino-Iranian axis. Following the capitulation of Khomeini's isolationism, Iran decided to focus on economic growth and to enter into closer cooperation with eastern countries (China, in the first place), while China drew strategically close to Iran to fight western criticism concerning Tiananmen and possible interference in its internal affairs. The break out of the 1st Gulf War and the growing Iranian and Chinese feeling that the unipolar order that guided the USA was strengthened, gave a decided twist to this alliance's consolidation (GARVER, 2006).

China's total willingness to cooperate with Iran in the military sector and, the subsequent possible implementation of nuclear and missile programmes would have allowed China to make the advancement of programmes depend on the US attitude in Asia and, especially, on US internal policy. Hence the feeling of mutual threat: the USA looked with suspicion on the Sino-Iranian axis, which it deemed as deeply anti-western, while China and Iran perceived that American expansionism was becoming increasingly dangerous after the fall of the USSR (which was the only super power that could limit its goals of global hegemony).

Despite the enhanced energy, commercial and technological bonds, China has, to date,⁷⁰ pursued an equidistance strategy towards Iran.⁷¹

Concerning the nuclear issue, Iran enjoys this unavoidable alliance, especially after China withdrew its support to Russia in the Middle East (where the Kremlin has fewer geopolitical-energy interests). Broadly speaking, we can say that Chinese action was legally far more respectful and consistent than US and British action, as we can deduce from the words of the Iranian ambassador in Italy, Abolfazl Zohrevand,

... not only was the goal of non proliferation - the focus of Art. 2 of the NPT - not implemented, but by equipping the Zionist regime with nuclear weapons, the United States and Great Britain have given this International Pact its death blow. Another issue arises from Art. 4 of the NPT concerning undersigning countries' support to the development of civil nuclear activities. In fact, this backing is not only offered, but countries like Iran, which are active in the framework of the Treatise and Agency Statute, are not in a position to implement the rights sanctioned by the Treatise itself, especially the supply of nuclear technology

70 This was carried out during Olmert's visit (he was welcomed to Beijing with all the due State honours on 10 January 2007), during which China forcefully declared that it wanted to exercise more pressure on Iran. China has thus the imperative duty to defend its international image and, it cannot especially stake its strategic interests in the Middle East. It is, for example, essential for China to focus on Saudi Arabia's capacity to provide large quantities of oil in the short term, to increase strategic reserves and refining capacity and, concurrently, to ensure long term agreements with Iran. For a more detailed analysis, see BHADRAKUMAR, 2007.

71 Between 1997 and 1998 (the years of the Asian crisis) China decided to distance itself from Teheran. This tactical decision to ensure partial estrangement and not breakage was designed to play the "Iran" card at the right time. In fact, China could not afford to adopt either an aggressive or irresponsible attitude towards the international community (GARVER, 2006).

for civil purposes; this situation has generated a sort of technological apartheid. (University of Teramo, January 2007)

As Russian power resurfaces, a geostrategical axis has been created between China, Iran and Russia to share the same need to heal the unbalances produced by the United States' unilateralism (DOMENACH, 2003; GARVER, 2006). Iran thus becomes one of the most important parties for Russian and Chinese strategies and, vice versa. However, despite its considerable contractual power, the Islamic Republic holds a subordinate role in the more extensive games played by other Asian powers, while China appears to be a more powerful actor.⁷² In a broad sense, China's military cooperation with Central Asian countries, Russia, Iran and, various African and Latin-American countries can be interpreted as a strategy designed to perfect alternative spaces to US dominion.

Viewing India along with these powers reveals a highly dynamic scene in which all actors involved seem committed to increase the degree of interconnection in the Asian continent. Cooperation is growing both in Central and South Asia, as witnessed by the many combined military drills, multinational energy projects and, in the case of Central Asia, by the fact that India, Pakistan and Iran have decided to participate as observers in the framework of the *Shanghai Cooperation Organization* (SCO). Moreover, Central Asia remains an area that attracts important strategic appetites for the control of energy infrastructures that cross it and of existing oilfields that have yet to be developed.⁷³

It is, hence, to be hoped that, along with the world's leading hydrocarbon producers and consumers, Asia will start seriously thinking of constructing an energy-financial system that is autonomous and independent from the institutional, commercial and military system produced by the USA in recent decades. The Iran-Pakistan-India gas pipeline, which is both financially and geographically consistent, is hindered by US pressure in the area.

By gaining autonomy, Asia would have better guarantees concerning both price and geopolitical stability.⁷⁴

India is a weak link in the chain due to Washington's pressure, but, despite this, the road to the construction of Asian energy architecture is open. There are, in fact, all the conditions to form a more united and autonomous Asian market.⁷⁵ If this were to occur, we would concurrently witness a change in the international financial system, also considering the fact that Asian countries are

72 It can pursue its geopolitical ambitions thanks to its highly significant quantitative and qualitative economic performance, the associated development of military technology (missiles, satellites, nuclear) and diplomatic skills – the typical cards of a leading power that enable it to play an increasingly important role in the international scene.

73 In the light of this, we can say that China has acquired an important position in the Central-Asian region, also by taking over Petrokazakistan, a match it won against India. With this important operation, China has established itself in the Turgaj basin, taking possession of the region's most important refinery (Shimkent).

74 Having perceived the great transformations in progress, Saudi Arabia has started touring China, India and Malaysia.

75 We could surmise, for example, that South Korea will start participating in the construction of a solid Asian transport system, that China and India are developing their own strategic reserves and that Iran and Russia are planning on creating autonomous stock exchanges for oil.

thinking of better diversifying their large dollar reserves - over 3 thousand billion dollars (YUAN, 2005; VARADARAJAN, 2006).

Iran realises the need to establish relations with a China that is expanding its influence to every part of the world, especially to developing areas (the Middle East, Africa and Asia) where we can best notice the symptoms of changes in global power-based geography. The “world system’s” new balance that leans towards the East is, in fact, closely related with the opportunity to create a more complex energy supply infrastructure, which is being defined in Asia and, which facilitates the consolidation of bonds between China and other major powers (India, Russia, Iran) and, between China and highly strategic geo-economic and energy areas (ASEAN and Central Asian Republics). The oil pipelines that have been built and those under construction, which link China with the Caspian Sea, Russia and South East Asia are the practical signs that a new energy architecture, in which Iran plays an essential role - as observed - has been defined. This occurs in a context of very high pressure and tension, especially with the USA, who at times openly seek to hinder the implementation of the directrices required to ensure greater Asian energy autonomy (the Iran-India-China oil pipeline). These operations have a remarkable geopolitical relevance, as they influence the energy market’s control system, which is still in the hands of western powers, and, through this route the reference international financial system. Hence, gaining greater control of oil flows required to sustain world economy’s growing integration requires a multilateral regional action that can lead to the subsequent control of the prices of energy-generating raw materials. At the end of the day, all the underlying agreements and implications analysed express the complex and structured dynamics of the geography of power.

As US hegemony, which is still exercised through Europe and Japan’s consensus and legitimisation, weakens, a potential Chinese hegemony is being constructed (it is no mere chance that the country’s energy-based geopolitics are charged with geostrategic military implications) and seems to match up to the competition with the project “New American century”, which is still in progress and envisages “dominion without hegemony” (GUHA, 1992; ARRIGHI, 2005).

Both the Chinese and the United States’ action must, hence, be analysed by studying the repercussions of their international actions at a regional level, where tensions, alliances and the reasons for actions undertaken by the various states-actors are best revealed, and not in terms of interests and international perspectives (looking beyond the most important interstate integration and competition processes). This approach has motivated our interest in both Iran and its relations with China.

Conclusions

This paper highlights the importance of regional analyses in the field of international relations, in an attempt to respond to the requests of actors who have most contributed in this sense (NYE, 1971; BUZAN, 2004; HURRELL, 2007).

By adopting a multiscalar approach in an attempt to merge national and interregional levels in Asia and the Middle East, we have specifically ascertained the degree of strategic “compromise” between two important states - Iran and China – considering their energy-based complementary features (besides policies and strategies). This need for compromise issues from having noticed the important geo-economical and geopolitical changes induced by globalisation dynamics.

The “natural” dynamism that is a historically intrinsic part of anthropic systems has undergone an acceleration triggered by the last technological revolution (which Castells called “informationalism”), producing a widespread and flexible social division of labour and production processes. This occurred and was encouraged by a new historical phase characterised by the end of the Cold War and the commencement of a new expansion phase of capitalism. These processes, which this paper does not analyse, but which are extensively documented by extensive and heterogeneous literature (we wish to mention HELD-McGREW, 2000; GILPIN, 1987; CASTELLS, 2000; HARVEY, 1990; STIGLITZ, 2002), later produced interesting phenomena, such as economic growth, industrial development and, the rise of political power in many Asian countries and regions. The analysis is inserted in this highly dynamic scenario, which also witnesses the altered energy supply geography. The energy demands of first and second generation recently industrialised countries have, in fact, extended the demand, thus driving countries involved, numbering China and Iran, to develop diversified supply strategies. The analysis focused on oil, natural gas and the related agreements has allowed to reveal the dependence of industrialised world on fossil fuel, the politicisation of the oil market, which is under tight state control, and the superimposition of both the energy market and the global financial one. We are aware of the gaps resulting from having left out social and religious factors, which are doubtless relevant, but they lie outside the terms of this analysis.

Hence, in a completely new scene, compared to the age of colonialism, a regional analysis centred on the strategies of leading states-actors (such as those mentioned), enables us to perceive that the world’s new geopolitical balance leans towards the East.

Iran has based its energy policy on three high profile competitive factors. Being the second oil and gas reserve in the world and, rising concurrently to regional power that can regulate events in the Middle East, are the foundations on which Iran seeks to build its role concerning global energy geopolitics. Moreover, the role of regional power is strengthened by the availability of an

advanced nuclear technology. As previously mentioned, a country's energy policy is not established irrespective of international agreements based on power factors. Iran's implementation of an effective economic policy greatly depends on the relations it can establish with countries that are most influential in the Middle Eastern macro-region. Hence, relations with China have assumed primary relevance - that exceeds Japan and Europe - in strategic plans for an energy policy designed to strongly influence the future progress of international markets.

The gas exploitation policy is closely related with the civil nuclear energy development policy. Its immense reserves will be a card Iran will doubtless be able to play at an appropriate future date. Now the game centres on oil. Considering current market prices and the nearing depletion of reserves, gas will doubtless play a central role in the energy strategies of leading consumer countries, which are already preparing to ensure appropriate supplies at prices that are still convenient.

Despite agreements signed with China and Japan, Iran is not interested in exploiting its gas reserves, except to inject gas in the subsoil to improve the rate of oil well exploitation. Infrastructural deficiencies for the transport of gas are doubtless another drawback for an immediate, and probably not so unintentional, delay in launching the product on the market.

The third element that completes the Iranian energy puzzle is nuclear energy. The intention to continue a civil nuclear policy that is not free from proliferation for military purposes, which this analysis has not taken into consideration, is in line with the status of regional power. This could lead to the exportation of oil and gas, which are currently allocated for internal consumption.

On completion of this analysis, we can say that Iran's physical endowments will enable it to remain a focal point China will be forced to turn to. The Chinese policy of equidistance towards the Islamic Republic can be resized in so far as the international context and the Iranian regime's decisions will allow it. We must however say that China will, anyhow, be forced to maintain strong bonds with Iran, irrespective of the currently adopted multipolar approach, due to this country's massive reserves of hydrocarbons, compared to the rest of the world.

If a new transport system will be created and controlled by Asian countries, Iran too will be able to diversify its supplies, thus depending less on Japan and China.

It looks like the story between the regional power and the economic empire will develop towards a new pragmatic model of international relations between two hydrocarbon supplier and consumer countries.

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