Agora Without Frontiers Volume 9 (4) 2004: 307-329

Theodore Tsakiris*

Energy Security Policy as Economic Statecraft: A Concise Historical Overview of the Last 100 Years**

Abstract: *The enhancement of energy security or energy power is defined as the control of: (I) exploitable reserves, (II) net export capacity, (III) transportation routes and (IV) pricing mechanisms (price elasticity) of hydrocarbon resources, has been a vital challenge for all nations since the complete mechanization of their armed forces and the industrialization of their economies. This paper will first, concisely analyze in historical perspective the evolving concept of energy power and energy security policy since its inception until the post-Cold War Era and it will second propose a conceptual framework on how to think about energy power and energy security policy as a form of economic statecraft drawing upon a plethora of historical examples and post-Cold War policy contingencies.*

Key Words: *economic statecraft, energy, oil, natural gas.*

---

* Ph.D.Candidate in Strategic Studies, Panteion University.

** This article is a revised version of a paper given at the conference on "From International Political Economy towards Global Political Economy" organised by the Institute of International Economic Relations, Athens on 19-21 September 2003.

"Gasoline is as vital as blood in the coming battles…a failure in the supply of gasoline would cause the immediate paralysis of our armies"

George Clemanceau, 1917[1]

"His obsession was with the oilfields of the Caucasus: "If we don't get Maikop and Grozny" he told his Generals, "then I must put an end to the war'"

Adolf Hitler, 1942[2]

"Neither war nor economics can be divorced from politics, each must be judged as an instrument, serving the higher goals of the polity. The fallacious view that economic means must imply economic ends is precisely analogous to the equally fallacious view that war has its own purposes. In this sense, Clawsewitz's dictum can and should be used to characterize economics. The concept of economic statecraft is consistent with this perspective"

David Baldwin, Economic Statecraft, 1985[3]

Even though David Baldwin's work has been of seminal importance for the academic recognition of economic statecraft as an indispensable "portfolio" of policy means in the service of a nation's strategic goals, a specific reference to the concept of energy security policy is nowhere to be found, even though hydrocarbon resources constitute a very clear "aspect of social life in terms of the production and consumption of wealth that is measurable in terms of money".[4] The enhancement of energy security or energy power was defined as the control of: (I) exploitable reserves, (II) net export capacity, (III) transportation routes and (IV) pricing mechanisms (price elasticity) of hydrocarbon resources,[5] has been a vital security challenge for all nations since

[1] D.Yergin, *The Prize: The Epic Quest for Oil, Money and Power*, London: Touchtone, 1992, p.177.

[2] B. Anthony, *Stalingrad*, London: Penguin, 1999, pp.69-70.

[3] D. Baldwin, *Economic Statecraft*, Princeton: Princeton University Press, 1985, p.65.

[4] *Ibid.*, p.32.

[5] Even though a wider definition of Energy Power could have included non-hydrocarbon forms of power such as electricity, renewable sources, nuclear energy and hydrogen based fuel cells, there are important reasons that do not justify their inclusion (I) *Electricity* is not a primary source of energy power. It is a by-product of energy resources that is primarily generated by the use of hydrocarbon resources and coal. Already in the European Union, 77% (www.eia.doe.gov.emeu/cabs/euro.html October 2002) of all electricity is generated by hydrocarbons whereas in Japan (www.eia.doe.gov.emeu/cabs/japan.html July 2003) the respective share is around 50%. In the United States (www.eia.doe.gov.emeu/cabs/usa.html May 2003) due to abundant coal reserves - currently accounting for 52% of total generation - hydrocarbon input is limited to 18%. Yet what is even more important, are the (US) Department of Energy projections estimating that due to the drastic rise of natural gas, hydrocarbon resources are expected to cover 34% of the world's electricity production by 2020 overtaking coal as the primary energy "feedstock". See Table 23 in *Energy Information Agency*, *International Energy Outlook 2003,* www.eia.doe.gov/oiaf/ieo/electricity.html, May 2003.

the complete mechanization of their armed forces and the mature industrialisation of their economies.

Apart from being a critical factor (energy power) that defined the overall power-status of a nation, energy security policy as a form of statecraft has always been a powerful foreign policy-making instrument, which has been proven to be – under specific conditions - much more effective than the use of force or the threat of the use of force in enticing or coercing a state to "do something he would not otherwise do".[6]

(II) *Renewable Forms of Energy* (hydroelectricity, wind, solar, geothermal, biomass etc.) also do not comply with the aforementioned definition not only because of their current marginal share of American (8%), European (6%) and Japanese (10%) electricity generation, but primarily due to their limited impact over the overall economic sphere. Even if tomorrow, by a miracle, all electricity was produced by renewables, oil's domination of the transportation and petrochemical sectors of the economy would still remain unaffected. In short, renewables are, and are projected to remain, marginally important covering a mere 8% of total world energy consumption by 2025. Furthermore, of that 8% nearly all is expected to refer to electricity generation. *Ibid., Figure 69*, adapted from www.eia.doe.gov/oiaf/ieo/hydro.html, May 2003.

(III) *Nuclear Generation,* even though it can be an inexhaustible source of renewable energy, can also impact only on the electricity sector, despite the fact that it also has some important military applications such as nuclear submarine propulsion. Yet, the overall disadvantages of nuclear generation - above all, radiotoxic waste control and the ever growing danger of nuclear proliferation - are leading to the steady demise of nuclear generation from 19% of world total electricity production in 2000 to a mere 12% in 2025 with an overall net growth of merely 13 gigawatts of capacity over 25 years. In addition to that, it would be academically inept to analyze nuclear power without dedicating at least half of our analysis to its potentially devastating military uses. Such an analysis, though interesting, would fall outside the framework of economic statecraft and the research objectives of this paper. Table 20 and Figures 66 to 68 from www.eia.doe.gov/oiaf/ieo/nuclear.html, May 2003.

(IV) *Hydrogen based fuel cells* is the only potentially "disruptive" technology, with regards to the cataclysmic impact its application may have on the transportation sector of the economy thereby effectively ending oil's domination in the longer term. Even though such an option is technologically attainable, the projected cost of modifying the current infrastructure in terms of distribution and refinery networks remains astronomical. According to an extensive study by the European Commission (Directorate for Energy and Directorate General for Research), "installing hydrogen at 30% of Europe's fuel stations (penetration needed for customer comfort) could cost in the order of 100-200 billion euros". See, European Commission, *Hydrogen Energy and Fuel Cells: A Vision for the Future*, EUR 20719 EN, Brussels: 2003, pp.20-21. Overall, despite the unquestionable environmental benefits of hydrogen fuel, the attainability of such a revolutionary target remains highly questionable. Even if the 2.8 billion euros committed by the European Commission over the next 10 years is actually marshaled and properly invested - and that is quite a sizable if - the overall percentage of vehicles using fuel cells by 2020 will not exceed the marginal 2% share according to the Commission's own proposed projections. See, European Commission, *Hydrogen Energy, ibid.*, p.14 and p.20.

[6] D. Baldwin, "Power Analysis and World Politics: New Trends Versus Old Tendencies", *World Politics*, Vol. 31, 1979, p.163.

The complete mechanisation of all Great Power armies during the interwar period simply made the critical nexus between the security of oil supply and war-making more emphatic and even more vital for the success of the war effort.

The Concept of Energy Power: A Concise Historical Review

Even though the aspiration of a state to control the availability of resources considered to be vital for its military and economic security is as old as Pericles" Megarean Decree[7] (431 B.C.) and the painstaking attempts of the Peloponnesian-Sicilian Navy (413-405 B.C.) to control the sea lines through which Athens imported the majority of its grain,[8] its energy - primarily petroleum - dimension was first illustrated in the aftermath of the Agadir Crisis during the late summer months of 1911. In August of that year, the newly appointed First Lord of the Admiralty decided to change the primary fuel of the British Navy from the easily accessible and politically secure "Welsh Coal" to the volatile "Persian Oil". As he perceptively recognised, "to commit the Navy irrevocably to oil was indeed "to take arms against a sea of troubles"".[9]

Winston Churchill's decision was initially met with great skepticism, yet the advantages in greater speed, maneuvering and operational range the British Fleet would gain were able to silence most of the criticism. British naval

[7] The Megarean Decree, which was considered to be one of the most important immediate causes of the Second Peloponnesian War (431-404 B.C.), stands out as one of the first examples of economic statecraft, since it aspired to keep the city of Megara out of the impending clash by denying it access to all Athenian-controlled harbours, which at the time encompassed the entire Mediterranean and Black Sea regions. Megara was of immense geostrategic importance because it commanded the passes of Geraneia, namely the only road any Spartan army had to take in order to invade Attica. As Robert Kagan has noted, "Control of the Megarid was of enormous strategic value to Athens. It made the invasion of Attica from the Peloponnese almost impossible". See D. Kagan, *The Outbreak of the Peloponnesian War,* Ithaca: Cornell University Press, 1969, pp.80-81. In case Megara did not comply with the Athenian demand, the destruction of the Megarean economy would have delivered a serious blow to the Spartan League's economic reserves in general, thereby limiting the available resources necessary to finance an ambitious naval program. The Megarean blockade would unavoidably affect the other commercial cities of the League, namely Sicyon and Corinth. As Kagan recognised, "However dependent on imports the Peloponnesians may have been, there can be no doubt that their economic prosperity would have been severely damaged if these areas were cut off from markets in the Aegean, Asiatic, and Hellespontic areas by Athenian domination". D.Kagan, *The Archidamian War*, Ithaca: Cornell University Press, 1974, p. 29. On the Megarean Decree see also R.Gilpin, "Peloponnesian War and Cold War", in R. Lebow - B. Strauss (eds.), *Hegemonic Rivalry from Thucydides to the Nuclear Age,* Boulder: Westview Press: 1991, pp.35-36.

[8] B.Strauss - J.Ober, *The Anatomy of Error: Ancient Military Disasters and Their Lessons for Modern Strategists,* New York: St. Martin's Press, 1990, pp.68-69.

[9] D.Yergin*, The Prize: The Epic Quest for Oil, Money and Power,op.cit.,* p.12, W.Jensen, "The Importance of Energy in the First and Second World Wars", *Historical Journal*, Vol.11,1968), pp.538-554, R. Hough, *The Great War at Sea, 1914-1918,* Oxford: Oxford University Pess, 1983, pp.295-301.

mastery during World War I exemplified by the battle of Jutland (1916) proved Churchill right. The German navy, which was still based on coal, was unable to challenge the wider operational range of the British High Seas Fleet. Even if it had won at Jutland, it would have been forced to remain around its major area of refueling that was none other than the German and central European coal mines. Its lack of speed and maneuvering flexibility significantly undermined its ability to overcome the British blockade in the North Sea and forced it to remain effectively "harbor-locked" for the rest of the War.[10]

The revolutionary decision of the British government to re-build the foundation of its "naval supremacy upon oil"[11] inextricably connected the security of oil supply –primarily in terms of physical availability - with the conduct and preparation of war as it has been repeatedly manifested in several seminal military and diplomatic events of World War I such as:

(i) the French Taxi "Armada" of General Gallieni in 1914 that helped to stop the German onslaught towards Paris during the First Battle of the Marne.[12]

(ii) the Anglo-French Sykes-Picot Agreement of 1916 and its latter undermining by the British conquest of Mesopotamia in 1917 and 1918 that precipitated the demise of the Sévres Treaty (1920).[13]

(iii) the German offensive against the oil fields of Ploesti in 1916 without which as General Ludendorff latter admitted Germany "would not have been able to exist, much less carry on the war".[14]

(iv) the advent of tactical aerial bombardment that was instrumental in effectively curtailing the German onslaught after the initial breakdown of the British Front in March 1918 and most importantly.

(v) the launching of Germany's unrestricted submarine war (January 1917) whose prime target was to stop the refueling of the Allied forces in the Western Front with American Oil that then covered 67% of world production and

---

[10] Yergin, *ibid.,* p.12.

[11] B. Liddell Hart, *A History of the World War, 1914-1918*, London: Faber and Faber, 1934, pp.110-122.

[12] W.Stivers, *Supremacy and Oil: Iraq, Turkey and the Anglo-American World Order, 1918-1930,* Ithaca: Cornell University Press: 1982, M.Kent, *Oil and Empire: British Policy and Mesopotamian Oil, 1900-1920*, London: Macmillan, 1976.

[13] D.Yergin*, The Prize: The Epic Quest for Oil, Money and Power*, *op.cit.,* p.180. John Keegan also notes that the conquest of Ploesti's oil fields, which the Germans were able to exploit only up to 80% of their 1916 production capacity - due to extensive Allied destruction - provided Germany with "a million tons of oil and two million tons of grain, the resources that made possible…the continuation of the war into 1918". See J. Keegan, *The First World War,* New York: A.Knopf, 1999, p.308.

[14] W.Jensen, "The Importance of Energy in the First and Second World Wars", *op.cit.,* pp.543-548. American oil supply to Europe covered 25% of total U.S. production that amounted to nearly 70% of world petroleum production at the time, thus making America the "oil pipeline of democracy". It was administered by the U.S. Fuel Administration and the Inter-Allied Petroleum Conference, D.Yergin*, The Prize: The Epic Quest for Oil, Money and Power*, *op.cit.,* pp.176-179.

Apart from being a critical factor (energy power) that defined the overall power-status of a nation, energy security policy as a form of statecraft has always been a powerful foreign policy-making instrument, which has been proven to be – under specific conditions - much more effective than the use of force or the threat of the use of force in enticing or coercing a state to "do something he would not otherwise do".

(vi) the emergence of the "tank" as the major component that penetrated the Lundendorff line, and ended the "Great War" through the allied victory in the battle of Amiens in August 1918.[15] The complete mechanisation of all Great Power armies during the interwar period simply made the critical nexus between the security of oil supply and war-making more emphatic and even more vital for the success of the war effort, as it has been exhibited by some of the War's most important events such as:

(i) the U.S. oil embargo that precipitated the Japanese attack on Pearl Harbor.

(ii) German U-Boat attacks against U.S. petroleum convoys across the Atlantic and U.S. submarine attacks against Japanese oil tankers across the South China Sea that succeeded in paralysing the Japanese war economy by 1944.

(iii) the dramatic expansion of strategic air bombardment and above all

(iv) Hitler's grand design for the conquest of Caspian and Persian Gulf oil resources that precipitated his attacks against Soviet Russia - particularly the push towards the Volga and the Caspian Sea - as well as Rommel's Afrikan Corps Campaign in 1941-1943.[16] Petroleum's strategic significance further increased during the Cold War as it went "hand in hand" with the emergence of Air Power all the way from the fueling of strategic B-52s to the development of missile propulsion systems. Unfortunately, its political volatility also increased commensurably as the center of oil power was transferred from America to the Persian Gulf States. The historical evolution of the Middle East, whose borders were artificially carved in order to serve Franco-British oil interests primarily in

[15] Apart from Yergin's four chapters (Ch.16 – Ch.19) on WWII of which his analysis of Hitler's strategic goals is the most erudite, D.Yergin*, The Prize: The Epic Quest for Oil, Money and Power*, *ibid.*, pp.334-350, the prominent work on the nexus between oil security and the course of the Second World War is R.Goralski - R.Freeburg, *Oil War: How the Deadly Struggle for Fuel in WW II Meant Victory or Defeat*, New York: William Morrow, 1987. For more on the oil rationale behind Hitler's Stalingrad and Caucasus offensive see, A.Beevor, *Stalingrad*, Harmondsworth: Penguin, 1998, pp.63,69-70, 77, 81, 117, and 124.

[16] The prominent works on this aspect of oil diplomacy and its long-term strategic implications include D. Fromkin, *A Peace to End All Peace: Creating the Modern Middle East, 1914-1922*, New York: Henry Holt & Co, 1989, E. Kedourie, *England and the Middle East: The Destruction of the Ottoman Empire, 1914-1921*, London: Bauer and Bauer, 1956.

and around present day Iraq,[17] did nothing to refute Churchill's worries regarding the inherent geopolitical risks associated with foreign oil dependence. The violent demise of European Colonialism (Suez Fiasco of 1956) and the emergence of the Arab-Israeli confrontation during most of the Cold War merely re-enhanced the validity of Churchill's conclusion back in 1911.

Yet what led to the current unavoidable dependency of the world economy on petroleum - and increasingly on natural gas - was the result of post-conflict reconstruction and peace time economic development. The inter-war period that witnessed the popularisation of automobile ownership on both sides of the Atlantic as well as the steady utilisation - primarily in the United States - of oil as a feedstock for electricity generation and heating, was but the mere prologue of the frantic rise in oil demand that followed in the aftermath of the Second World War.

The first three decades of the Cold War coincided with a period of unprecedented economic growth as Europe and Japan were able to resurrect their economies out of the rubbles of the World War. This economic resurrection that was primarily underpinned by America's financial assistance, was also founded on the dual pillar of cheap and available oil flowing from the Persian Gulf, Venezuela and of course the United States, which had been - apart from the arsenal - the "petroleum lifeline of democracy" during the Second World War. During that period the US controlled around 2/3 of world oil production and possessed a surplus capacity equal to around 30% of its actual production rate. That surplus capacity in combination with increased convoy protection won the Battle of the Atlantic and fueled the rest of Allied War effort in Europe as well as parts of the Russian advance in the Eastern front.[18] During these 30 years oil not only consolidated its overwhelming dominance over the entire transportation sector of the economy, but expanded its hold over the economic sphere by deposing coal as the primary source for electricity generation, heating and industrial use.

As domestic coal became rarer, dirtier and more expensive, petroleum became cheaper, more environmentally friendly and more efficient in terms of its energy intensity, since you needed less oil to produce the same amount of

---

[17] That surplus capacity which was mobilised under the Petroleum Administration for War, headed by Harold Ickes" as Interior Secretary, in combination with Roosevelt's Lead-Lease formula (March 1941) that legitimised its transshipment across the Atlantic, fueled Britain's "finest hour" and eventually helped to turn the tide of war in Europe. As Daniel Yergin notes, "the extra-capacity, a result of the federal-state prorationing system set up in the 1930s, turned out to be an invaluable security margin, a strategic resource of immense significance. Without it the course of World War II might well have been different", D.Yergin*, The Prize: The Epic Quest for Oil, Money and Power*, *The Prize*, *op.cit.*, p. 371. For an official overview of the US oil contribution to the Allied Cause, see J. Frey - C. Ide, *A History of the Petroleum Administration for War, 1941-1945*, Washington D.C: Government Printing Office, 1946.

[18] D.Yergin*, The Prize: The Epic Quest for Oil, Money and Power*, *ibid.*, pp. 541-545.

Oil not only consolidated its overwhelming dominance over the entire transportation sector of the economy, but expanded its hold over the economic sphere by deposing coal as the primary source for electricity generation, heating and industrial use.

heat or electricity you could produce by using coal. The speed of the conversion to a hydrocarbon based economy was indeed phenomenal. In 1955, coal covered 75% of Europe's total energy needs and more than half of Japan's energy demand. Within almost 15 years these vital statistics were completely reversed. By the late 1960s, oil covered 70% of Japanese energy needs whereas coal made up about only 7%. In 1972, oil covered 60% of European energy demand, and coal a mere 22% from the 75% it had a mere 17 years ago. This transformation meant that between 1948 and 1972, demand for oil had increased 15 times over in Europe and 137 times over in Japan.[19]

Unfortunately, the price for continuous growth proved to be the "sin" of complacency. What went largely unnoticed during this "golden" period is that by 1972, most of the pillars that heretofore had guaranteed the security of the West's oil supply and consequently underpinned its economic security, prosperity and thereof technological advantage vis-à-vis the Soviet Bloc, had been overwhelmed by the combined force of three factors:

(I) *The American surplus capacity production - defined as the untapped volume of oil that could be brought into the world market within 30 days and sustained for a period of 90 days - had effectively ceased to exist*. Ever since the establishment of the U.S. Fuel Administration in 1917, American spare production from the states of Texas, Oklahoma and Louisiana constituted a vital security reserve that could be called upon each and every time the industrialised West was faced with a disruption of oil imports from the Middle East, as had happened primarily during the cut off of Iranian production by Mossadeq in 1951, the Suez Crisis of 1956, and the first OPEC oil embargo during the Six-Day War between the Arabs and the Israelis in 1967.

America's insatiable domestic demand for oil, combined with low prices and much higher production costs compared to the fields of the Middle East, had minimised its ability to act as the "last line of defense" for the economies of the Free World. By 1968, the U.S. State Department officially warned its European Allies during an OECD meeting in Paris that "American production would soon reach the limits of capacity. In the event of an emergency there would be no security cushion".[20] At the advent of the oil crisis, America was

[19] *Ibid.*, p. 568.

[20] R. Casillas, *Oil and Diplomacy: The Evolution of American Foreign Policy in Saudi Arabia, 1933-1945*, New York: Garland Publications, 1987.

itself dependent on foreign oil for 36% of its needs. By 1991, it would have become a net oil importer, whereas in 2003 American net oil imports would have accounted for nearly 60% of total demand.

(II) *The demise of American surplus capacity indicated a dramatic transfer of power in the world's energy system* whose center of gravity moved rapidly from the Gulf of Mexico to the Persian Gulf and North Africa - primarily Libya - which by 1971 covered 30% of European oil imports. Within merely a decade since its inception in 1960, OPEC production accounted for almost 2/3 of incremental demand, (13 out of 21 million barrels).[21] This development meant that the exploitable reserves and net export capacity parameters of energy power – both in terms of "upstream" (production/exploration) costs and surplus capacity - were moving out of the Free World's immediate control. The fact that Western oil companies controlled at least 50% of the pricing mechanisms in conjunction with OPEC states, while owning and operating the majority of the latter's reserves, created an air of illusionary complacency. That perception was sustained despite the complete nationalisation of Iranian assets in 1951, (then OPEC's second biggest producer) and the 51% nationalisation of all foreign assets by Libya in 1971 (then OPEC's third largest producer).

(III) *OPEC states were also more willing and more able to use the "oil weapon"*. Despite the careful crafting of US-Saudi relations that gave effective control of the Kingdom's oil industry to the American run, operated and 50%-owned Aramco consortium,[22] the political toll of America's policies in the Middle East had gravely undermined that delicate construction. The toppling of Mossadeq's government in 1953,[23] the Suez Fiasco of 1956, Eisenhower's anti-Nasserite policies throughout the 1950s, and above all the American support for Israel during the 1967 war, which overwhelmingly humiliated Arab prestige, had closely identified Washington with what most Arabs perceived as neo-colonialism, imperialism and philo-semitism. In addition to that, the complete withdrawal of British troops from the Persian Gulf states in 1971 left a critical balance of power vacuum in a region that at the time covered 32% of OECD oil demand and held 58% of economically exploitable reserves.

Saudi Arabia's participation in the 1967 embargo, which failed due to the existence of the American surplus capacity, the Tehran Agreement (February 1971) that for the first time recognised a minimum 55% government take from the Western companies" trading profits, and the landmark "participating agreement" (October 1972) that partially (25%) nationalised Saudi Arabia's oil

---

[21] N.Kemp, *Abadan: A First-Hand Account of the Persian Oil Crisis*, London: Allan Wintage, 1953 and N.S., Fatemi, *Oil Diplomacy; Powder Keg in Iran*, New York: Whittier Books, 1954.

[22] D.Yergin, *The Prize: The Epic Quest for Oil, Money and Power*, *op. cit.*, pp. 577-587.

[23] R.Lieber, *Oil and the Middle East War: Europe in the Energy Crisis*, Cambridge, Mass: Center for International Affairs, Harvard University Press, 1976.

By 1975, with the complete nationalisation of the Saudi, Kuwaiti and Venezuelan oil industries that ended the era of concessionary practice, an oligopoly of Third World, yet primarily pro-Western countries owned 2/3 of the world's exploitable reserves, almost 50% of its oil production and the near entirety of its surplus capacity.

industry,[24] clearly indicated the ever increasing willingness and ability of OPEC states to use the "oil weapon" whenever they got the chance to do so. The 1973 (October-December) oil embargo, apart from provoking the most severe Transatlantic crisis of the Cold War era,[25] revolutionised the global energy market by completing the transfer of the energy power's center of gravity away from Anglo-American control.

By 1975, with the complete nationalisation of the Saudi, Kuwaiti and Venezuelan oil industries that ended the era of concessionary practice, an oligopoly of Third World, yet primarily pro-Western countries owned 2/3 of the world's exploitable reserves, almost 50% of its oil production and the near entirety of its surplus capacity.[26] Consequently, that oligopoly also controlled the market's pricing mechanisms and was in a position to dictate the world oil price for nearly a decade. Saudi Arabia, by merit of its exploitable reserves that amount to no less than 25% of the world's total, the cost-effectiveness of their development, which is among the highest world-wide (less than 1 $/barrel), and its command over the world's surplus capacity (around 3 million barrels per day, equal to 30% of its total production capacity), became OPEC's leading force and the ultimate arbiter of the oil market.[27]

The second oil crisis of 1979-1981 further increased the Saudi role, as the Iranian revolution (1979) and the Iran-Iraq War (1980-1988) further undermined OPEC's cohesiveness and took a substantial amount of oil out of the market. If it had not been for the mobilization of the Saudi surplus capacity such a protracted disruption during 1980-1981 would have created a second 1973. Yet what really consolidated Saudi leadership over the cartel was the utilisation (1986) of its "flooding weapon", defined as the mobilisation of surplus capacity in order to curtail the market's over-supply. This "weapon" disciplined other OPEC states and forced them to stop their over-production frenzy, stick to their collective quotas and terminate their unrestrained "pillaging" over Saudi market share.

---

[24] S.Schneider, *The Oil Price Revolution*, Baltimore: John Hopkins University Press, 1983.

[25] On the dominant role of Saudi Arabia inside OPEC, see N.Obaid, *The Oil Kingdom at 100: Petroleum Policy Making in Saudi Arabia,* Washington D.C.: The Washington Institute for Near Eastern Policy, 2000.

[26] Walter Levy, "Oil and the Decline of the West", *Foreign Affairs,* Summer 1980, pp.990-1015.

[27] U.S. Department of Energy, Energy Information Agency (EIA), www.eia.doe.gov/ emeu/cabs/opec. html, April 2000.

The transfer of energy power that culminated during the two major oil crises of 1973 and 1979-1981 did not mean that the world's energy balance of power suddenly became "unipolar". OPEC's members were too geopolitically divided, too dependent on the West as an arbiter of their bilateral differences, too politically fragile internally, and above all too un-diversified economically. All of OPEC's economies succumbed to the debilitating effects of the so-called "Dutch Disease" and evolved as uni-dimensional economic "organisms", which after the price plunge of 1986 basically substituted their "sky is the limit" policy of the 1973-1981 period for a pricing policy founded upon the premise of stability and concomitant revenue predictability.

The second flooding of the oil market by the Saudis in 1998, as a reaction to Venezuela's unrestricted "quota busting" and the undermining of the Saudi position as the top exporter of oil to the US market, further enhanced the need for pricing stability. This necessity was exemplified in OPEC's unprecedented decision to officially establish a 22-28 $/barrel price band mechanism in March 2000.[28] In reality, during the 30 years since OPEC's first successful embargo, OECD states have been able to partially increase their energy security by reducing their import dependence on the Persian Gulf, as well as the overall dependence of their economies on oil. The emergence of Alaskan and Northern Sea reserves combined with the galloping rise of Soviet/Russian production during most of the 1980s, and its more modest return since 1999, enhanced import diversification.

Apart from the coordination of strategic stockpiles through the International Energy Agency (1974), and the greater political stabilisation of the Middle East via the pacification of Israel's relations with Egypt (1979) and Jordan (1993), as well as the establishment of a US balancing role at the epicenter of the Persian Gulf Security system, OECD's greatest gain over this 30-year period has been its ability to partially rebalance the pricing parameter of energy power. This was primarily achieved via concentrated state policies of demand control. Increased oil taxation and conservation efforts in Europe and Japan (CAFE and SAVE programs), combined with rapid technological progress in the automobile, heating, industrial and domestic usage sectors have lessened petroleum's hold over the economy. More efficient electrical appliances and more fuel-efficient cars contributed to the limitation of petroleum's share in terms of its Total Primary Energy Supply (TPES), from around 60% in 1973 to 43% in 2002 for the European Community/European Union Economies,[29] and from around 70% in 1970 to around 50% in 2001 for the Japanese economy.[30]

---

[28] See www.eia.doe.gov/emeu/cabs.euro.html, October 2002.

[29] See www.eia.doe.gov/emeu/cabs.japan.html, July 2003.

[30] J. Mitchell - K.Morita, -N.Shelley - J.Stern, *The New Economy of Oil: Impacts on Business, Geopolitics and Society,* London: Royal Institute of International Affairs, 2001, p.18 and p. 91.

The second oil crisis of 1979-1981 further increased the Saudi role, as the Iranian revolution (1979) and the Iran-Iraq War (1980-1988) further undermined OPEC's cohesiveness and took a substantial amount of oil out of the market.

Yet, ironically enough, petroleum's relevant decline in terms of TEPS has not meant the severing or even weakening of our global economic dependence on hydrocarbon resources. On the contrary, the global economy's dependence on hydrocarbons has indeed increased since 1973 due to the strategic rise of natural gas. The rise of natural gas as a preeminent factor (21%) – roughly equal to coal - of the energy fuel mix has been a combination of two dynamics:

(a) the need for lessening the overall dependence of the economy on oil by shifting away from the use of petroleum in the industrial and commercial sectors of the economy and

(b) the rise of the environmentalist movement. The combination of these two factors, coupled with significant developments in energy efficiency, "fueled" the spectacular worldwide rise in natural gas demand that increased by 80% over the 1980-2000 period and is projected to nearly double by 2020 giving natural gas a near-30% share of TPES. This share is currently second only to oil, which "remains the largest single source of primary energy occupying between 35% and 40% of the total".[31]

In the case of the Eurozone, natural gas already surpasses coal by far as the second component of TPES, covering 22% of total energy needs as opposed to coal's 16% share. The standard long-term projection is that natural gas will cover 29% of total energy needs by 2025, winning significantly at the expense of nuclear energy, which is expected to decrease from its 15% share in 2000 to a mere 6% of TPES needs during the same period.[32] Overall, the prospective rise in natural gas demand is expected to derive from the drastic rise in the demand for electricity. This is particularly true for Europe where, as noted by a recent International Energy Agency study, "the rapid progression of natural gas in the power generation sector is the main factor [for demand growth]".[33]

It is indeed projected that NG will more than double its input in the field of electricity generation by the end of the decade - from 15% in 2000 to 32% in 2010 – while, according to the Commission's Green Paper: "Extrapolating market trends, expectations in 2020-2030 are that almost half of electricity will be produced by natural gas (40%), i.e. 45% of the natural gas consumed [as

[31] European Commission, Directorate General for Energy and Transport, *Green Paper: Towards a European Strategy for the Security of Energy Supply,* Luxemburg:Office for Official Publications of the European Communities, 2001, p.4.

[32] *Ibid.*

[33] International Energy Agency-IEA, *Regulatory Reform: European Gas*, Paris: OECD, 2000, p.26.

opposed to 15% in 2000]".[34] Apart from the fact that natural gas reserves (a) are usually exploited as a side-effect of oil exploration (associated gas), and (b) are primarily (68%) located in politically volatile regions (36% in the Persian Gulf and 31% in Russia), the natural gas industry is very distinctive in many aspects:

(I) Its supply-demand dynamics are primarily regionally based. Nearly 75% of all traded natural gas volumes are transported via long distance pipelines. Only 25% is traded in liquefied form (Liquefied Natural Gas/LNG) via $ 2-3 billion LNG tankers and attached (de)-liquefaction facilities. Consequently, the pricing mechanism is equally regionalised, dependent on the level of market liberalisation. North American prices are based on spot-market short-term dynamics, whereas the European and Japanese/ASEAN markets are based on long-term (up to 20-25 years) "take-or-pay" supply contracts where the price is primarily set by the producer in relation to its projection of the average price of NG sold over the "life span" of the contract.

What this means is that despite Russia's overwhelming dominance in terms of world reserves (31%), production (25% of world total) and net exports (36.24% of world total), Moscow does not even hold a position at least as equipotent to that of Saudi Arabia over the world oil market. Since there is no world market for NG, Russia currently has zero influence over the pricing and physical availability of NG in the Japan/ASEAN region, which is primarily covered via LNG imports from Indonesia (6.27% of world exports) and Malaysia (4% of world exports), as well as in the North American region where Canada (20% of world exports) is the sole exporter and the US the sole significant importer.[35]

(II) The development horizon of natural gas schemes is even greater than that of respective oil projects. The development of natural gas reserves - especially those which are not associated with oil exploration and production - is much more expensive compared with oil development costs. This is explained partly due to their geographic location off-shore (Norway/Iran/Qatar) and near the Artic Pole (Norway/Russia), and partly due to the non-existence of a global capacity LNG fleet, which becomes commercially viable

---

[34] Estimated by the author via data provided in EIA's Country Analysis Briefs (CABS) website, regarding the Top 10 natural gas exporting countries in 2001, available at www.eia.doe.gov/emeu/cabs. Countries are ranked by share of exports and dates of latest CABS updates accessed at December 13, 2003: (1) Russia: 36.24% (November 2002), (2) Canada: 20% (July 2003), (3) Algeria: 11.36% (January 2003), (4) Norway: 9.73% (June 2003), (5) Indonesia: 6.27% (April 2003), (6) Netherlands: 5.4% (June 2003), (7) Malaysia: 4%, (8) Qatar: 2.7% (October 2002), (9) UAE: 2.38% (December 2002), (10) Australia: 1.86% (May 2002).

[35] For the break-even transportation cost estimates between pipelines and LNG tankers/platforms, International Energy Agency/IEA, *The IEA Natural Gas Security Study*, Paris: OECD 1999, pp. 47-49, and interview of the author with Andrei Konoplianik, Deputy Secretary General of the Energy Charter Secretariat and former Russia Dep. Minister for Energy, in Berlin, 1.7.2003.

Despite Russia's overwhelming dominance in terms of world reserves (31%), production (25% of world total) and net exports (36.24% of world total), Moscow does not even hold a position at least as equipotent to that of Saudi Arabia over the world oil market.

only if compared to very long (over 4,000-7,000-km) and very high export capacity pipelines of 10 to 20 Billion Cubic Meters per year, [hereafter BCM/y]).[36]

(III) Therefore, natural gas supply contracts which would take 20-25 years to fully materialise, acquire a much higher degree of political risk premium compared to the oil market which is traded on a daily and monthly basis. The political and sovereign (nationalisation) risk is much higher and almost impossible to accurately predict for a period equal to the life span of any long-term supply contract, something that is even more important when considering that almost 70% of the world's exploitable reserves inhabit its most geopolitically volatile regions, namely the Middle East and the former Soviet Union. In addition to that, as Professor Takamichi perceptively notes, "The long lead-time associated with mega resource development projects means that investors are also taking long-term market price risks. There is the possibility that market prices will fall below the assumed prices of commodities in the initial feasibility study of the projects".[37]

Energy Security Policy as Economic Statecraft

From this concise analysis on the evolution of energy power we can deduct the following caveats when thinking about its practical utilisation within the framework of economic statecraft:

(I) *Energy power can be fungible*. The theory of economic statecraft was based upon the fundamental belief of social-power theorists,[38] like Robert Dahl, Abraham Kaplan and Harold Lasswell, that "political, military and economic resources may not be fungible. That is, the resources that enable you to entice or coerce someone to do something in one [power] area may not enable you to get the same person (or others) to do the same thing in another [power

[36] M. Takamichi, *Japan's Energy Strategy, Russian Economic Security and Opportunities for Russian Energy Development: Major Issues and Policy Recommendations*, James A. Baker III Institute for Public Policy, Rice University, May 2000, at www.rice.edu/projects/baker/Pubs/workingpapers/jescgem/ jesres9.html

[37] D. Baldwin, "Interdependence and Power: A Conceptual Analysis", *International Organization*, Vol. 34, No.4, 1980, pp. 471-506, R. Dahl, "The Concept of Power", *Behavioral Science*, Vol. 52, 1958, pp.205-215, H.Lasswell- A. Kaplan, *Power and Society*, New Haven: Yale University Press, 1986.

[38] G. Shambaugh, *States, Firms and Power: Successful Sanctions in United States Foreign Policy,* New York: State University of New York, 1999, p.11.

area]…because not all actors assign the same value to particular military, economic or political resources".[39] Even though the social power thesis is correct in refuting structural realism's quantitative conceptualisation of power,[40] it does not address the ability of energy power to dramatically influence state or corporate choices across a variety of issues, i.e., the Arab oil embargo did not merely manage to have a devastating inflationary impact on OECD economies (economic impact), it also managed to:

(a) provoke the most severe intra-NATO rift (diplomatic impact) up to the second Iraqi War in 2003, and
(b) objectify US diplomacy in terms of pressuring Israel to reach a mutually beneficial compromise that returned the entire Sinai Peninsular to Egyptian control and led to the 1974 Sinai II and 1979 Camp David agreements (geopolitical / military impact).

In that sense, energy power can also be characterised as asymmetric since the aforementioned consequences of the 1973 embargo occurred despite the fact that OPEC's Arab producers had only a fraction of the combined political, economic and military power of the OECD states. In the same fashion, the US oil embargo against the Anglo-French alliance of 1956 did not merely manage to drain the latter's financial fluidity that was partially responsible for the devaluation of the pound (economic impact), it also succeeded in ending the era of european colonialism in the Middle East (geopolitical impact) by forcing its most powerful NATO allies to humiliatingly evacuate their forces from the Suez Canal. In the case of contemporary Russia, this fungibility is also quite evident. As Celeste Wallander aptly puts it: "Energy for Russia, therefore, appears to be truly a great-power asset because it provides the wealth that sustains the economy, balances the budget, funds national defense, and provides strategic leverage over the country's smaller neighbors.[41]

(II) Partly as a consequence of its "fungibility", energy power as an aspect of economic statecraft is the most important of all "traded commodities"

---

[39] Structural / "Waltzian" Realism's conceptualisation of power in quantitative terms is based on the thesis that more power, particularly military power, produces *ipso facto* more security, regardless of the way it is managed, the perceptions it creates and the targets it aspires to achieve. Social power theorists primarily define power in relational/strategic terms purporting that power exists only in terms of what it can achieve relative to the target it has set to accomplish.

[40] E. Rummer – C. Wallander, "Russia: Power in Weakness?", *The Washington Quarterly,* Vol. 27, No. 1, Winter 2004, p.59.

[41] The only possible alternative to suggest would be silicone as the basis of micro-chip and semiconductor technologies that in turn form the basis of our ever more digitised global economy, yet silicon by itself means nothing since coal is needed to produce "impure" silicon structures that would act as conductors for electricity. Without electricity, chips and semiconductors are useless. In addition to that, electricity is becoming more and more dependent on hydrocarbon resources, primarily natural gas.

Energy Power as an aspect of Economic Statecraft is the most important of all "traded commodities" potentially utilised as a policy tool.

potentially[42] utilised as a policy tool, given the fact that:

(a) Hydrocarbon scarcity (actual or perceived) in terms of reserves, physical supply, or control over main transportation routes, can constitute, and has repeatedly constituted, an immediate (Gulf War-1991) or strongly conducive *casus belli* (i.e.: Second Gulf War-2003, Nazi invasion of Soviet Russia, Japanese attack against Pearl Harbor) as well as a condition significantly enhancing the possibility for war (i.e.: repeated Greek-Turkish Crises - especially those of 1973 and 1987 - over purported Aegean oil reserves; potential Southeast Asian conflagration involving Chinese claims over purported oil reserves in the South and East China Seas, highlighted in the Nansha/Spartly and Senkaku/Diaoyou disputes).[43]

(b) Petroleum is - for the foreseeable future, up to 2020 - irreplaceable as a transportation fuel. Even if we accept the hypothesis that by 2015 economies of scale would have made Hybrid Electric Vehicles (HEV) competitively marketable, all these pioneering models - like the Toyota Prius, the Honda Insight or the still developing General Motors diesel/electric hybrid - remain dependent on petroleum whenever their batteries run out.[44] Yet again, even if we move to exclusively electric-based cars, this transformation would still constitute a by-product of electricity generation, and electricity generation is increasingly becoming more and more dependent on natural gas. So oil may lose part of its dominance over the transportation sector, but it is highly unlikely that it will lose its dominant position well beyond the 2020 horizon.

(c) Natural gas is - for the foreseeable future - the only environmentally viable and economically attainable choice for electricity generation, demand for which is only bound to increase (340% for the industrialized world and

---

[42] E.Strecker-Downs, *China's Quest for Energy Security*, MR-1244-AF, Santa Monica,Cal:RAND: 2000, pp.43-52 and R. Manning, *The Asian Energy Factor: Myths and Dilemmas of Energy, Security and the Pacific Region*, Houndmills: Council on Foreign Relations Palgrave, 2002, pp.187-202.

[43] "Outlook for Technological Breakthroughs in Fueling the Transportation Sector", in Baker Institute Study N.10, *Emerging Technology in the Energy Industry and Its Impact on Supply, Security, Markets and the Environment*, Rice University, March 1999, available at www.rice.edu/projects/baker/. The study concludes that, "The rise in transport fuel demand will represent almost 60 percent of the total rise in global oil demand between 1995 and 2020, driven in part by economic developments in countries such as China and India. By 2020, gradual erosion of oil's share may begin to develop as more environmentally friendly engines and generators proliferate in industrial countries".

[44] For the link between the digitisation of the economy and the rise in electricity demand see J. Mitchell - K.Morita, -N.Shelley - J.Stern*, The New Economy of Oil: Impacts on Business, Geopolitics and Society*, *op.cit.*, p.23 and D. Jhirad, *The Evolution of Power Generation Technologies*, Washington D.C.: Georgetown University, Science, Technology and International Affairs Program (STIA), November 2001.

740% for Asia's developing economies over the next 20 years).[45] The Energy Information Agency's macroeconomic projections presented in its 2003 International Energy Outlook, prognosticates that the hydrocarbon share of global electricity generation will increase from 25% (of which NG is 18.7%) in 2000 to 28% (of which NG is 21.8%) in 2010 and 34.1% (of which NG is 30.4%) in 2020, surpassing coal as the primary energy feedstock[46] In Europe and Japan, this transformation is expected to come much earlier than the US due to the comparatively much smaller coal reserves of the two other pillars of the industrialised world.

(d) The overwhelming majority of oil and natural gas resources are - and for the foreseeable future will remain - controlled in terms of economically recoverable resources, production, surplus capacity, net exports and pricing mechanism by an oligopoly of states whose center of gravity lies in the planet's most geopolitically volatile regions, primarily the Greater Middle East (Persian Gulf and Caspian Sea) and to a certain extent Russia. In 2000, Persian Gulf states controlled 67% of exploitable reserves, 23% of production, 32% of net exports and nearly all of existing surplus capacity that is crucial for ultimately controlling the price mechanism.

Given the projected decrease of Alaskan and Northern Sea reserves, it is projected that by 2020 the Persian Gulf will control 39% of total production and merely the same amount of export capacity.[47] It would monopolise all available surplus capacity and would do so at an overwhelmingly competitive rate in terms of both operating (from 0.99 to 1.49 $/barrel) as well as production costs (from 2.5 to 4.8 $/barrel for "green"/new fields and from 0.57 to 1.70 $/barrel for "already developed" reserves).[48]

In terms of natural gas, Russia is the dominant player. Russia controls around 31% of the world's natural gas reserves and is the world's biggest producer (20.8 TCF in 2000), as well as net exporter of natural gas, with a total net capacity of 6.7 TCF/year in 2000, which is expected to rise to 7.5 TCF/y by 2005-2006. Natural gas accounts for approximately 20% of the state's total export revenues and 25% of federal tax revenues. Even though the Persian Gulf controls 36% of world reserves, only Iran (2.3 TCF of production /14.8% of

---

[45] EIA, *International Energy Outlook 2003,* www.eia.doe.gov/oiaf/ ieo/electricity.html

[46] *Ibid.,* Table 23.

[47] S.Nunn - J.Schlesinger, *The Geopolitics of Energy into the 21st Century, Volume 2: Supply-Demand Outlook, 2000-2020,* Washington DC: CSIS Panel Report, 2000, pp.25-27 and 32-33 and A.Cordesman, *The Shifting Geopolitics of Energy: Fuel, Choice, Supply and Reliability in the early 21st Century,* Washington DC: CSIS, 2001, pp.9-11, 15, 19-24, 31-32.

[48] EIA, Office of Oil and Gas, *Oil Production Capacity Expansion Costs for the Persian Gulf,* Washington D.C: January 1996, p.1. Comparative costs for Alaska, the North Sea and the Caspian Sea can be as much as 8-12 times higher.

In its cooperative form energy security policy has primarily taken the form of oil and natural gas subsidies that are used as an incentive for the harmonisation of foreign policy goals between the sender and the targeted state.

reserves), Saudi Arabia (1.86 TCF of production/4.1% of reserves), the UAE (1.4 TCF of production/3.9% of reserves) and Qatar (1.16 TCF of production/ 9.2% of reserves) are significant producers. Yet, apart from the last two there is no other significant exporter.[49]

The UAE and Qatar, export less than 1 TCF of LNG to Japan and South Korea, and cover nearly 20% of Japanese LNG demand, the rest being supplied by ASEAN countries, primarily Indonesia (32%) and Malaysia (20%). Yet the important issue in terms of supply diversification, particularly for the European Union and APEC, is that most of the region's incremental production - with the exception of Qatar and the UAE - may not be available for exports since the strategy of nearly all players - including Iran (14.8% of world reserves) – is to "expand natural gas use domestically so that as much oil as possible can be exported".[50]

(III) The oil and natural gas industry has not followed the typical model of economic liberalisation and remains firmly under state control, despite the establishment of a global market for crude oil and a slowly globalising market for LNG. Even though this sounds quite paradoxical given the fact that Exxon Mobil, Shell and BP constitute archetypes of the modern multinational corporation, which operates world-wide and occasionally clashes vehemently with state policy, the bulk of the oil industry is state-owned, state-administrated or both. Exxon Mobil, Shell and other Fortune 500 corporations are traders of energy. They may produce and consume energy, but they do not own the reserves they produce and above all they – corporations - do not set the price. Almost all major oil exporting states are monopoly or near-monopoly owners of their domestic oil and natural gas industry, and that is a fact of life in countries as politically diverse as Saudi Arabia, Venezuela, Kuwait and Norway.

Even in OECD states, governments can still heavily influence the decision-making process of energy corporate giants, either through sanctions, taxation, red-tape, and quota impositions or primarily via the extension of a financial safety cushion through:

[49] See Table 41 of EIA, Annual International Energy Outlook for 2003, www.eia.doe.gov/oiaf/ioe/nat'gas, Washington D.C.: GPO, May 2003.

[50] T. Moran, "Lessons in the Management of International Political Risk from the Natural Resource and Private Infrastructure Sectors: Overview", in T.Moran (ed.), *Managing International Political Risk*, Oxford: Blackwell: 1998, pp.70-85.

(a) a variety of international institutions (i.e. European Investment Bank, EBRD, Interamerican Development Bank/IBD, World Bank/International Financial Corporation/IFC and the Multilateral Investment Guarantee Agency/MIGA that is also under the control of the World Bank)[51]
(b) national export-credit guarantee agencies like the U.S. Eximbank, the Japanese Ministry of International Trade and Industry/MITI, the British Export Credit Guarantee Department/EGCD and the French COFACE (Companie Française d'Assurance pour le Commerce Extérieur) and
(c) state controlled political-risk insurance organisations such as the US Overseas Political Insurance Corporation/OPIC, the British Export Credit Guarantee Department/EGCD, the French (COFACE), and the German (TREUARBEIT).[52] Gaining some form of the above three state-influenced or state-guaranteed funds can be crucial for the eventual success or even launching of major energy and infrastructure projects in many Third World or developing states where the majority of the world's hydrocarbon resources are situated. Such investment guarantees can divide and thereby mitigate risk among investors, and increase dependence of the developing states on the donor OECD countries that command the resources of intergovernmental bodies like the World Bank's MIGA and IFC branches.

Such insurance is becoming more and more important not only because after 1990, 80% of the world hydrocarbon potential was opened for "business" in contrast to a mere 35% before the collapse of Communism,[53] but also because that hydrocarbon potential is situated in more remote and hard-to-develop areas. This is particularly true regarding long-term (20-25 years) lead-time natural gas development projects, especially since a recent IEA study notes that "55-60% of Russia's remaining natural gas reserves are currently classified in the "hard-to-recover" category".[54] Therefore, energy security constitutes a critical weapon in the arsenal of economic statecraft. It is a vital policy-making tool that can be used either:

---

[51] For the importance of National Export Guarantee programs for energy (resources and infrastructure) development in the developing world, A. MacDonald, "Challenges in the Financing of International Oil Receivables", in T. Moran, (ed.), *Managing International Political Risk, ibid.*, pp.120-124 and L. Powers, "New Forms of Protection for International Infrastructure Investors", in T. Moran, (ed.), *Managing International Political Risk, ibid.*, pp.125-137.

[52] A. MacDonald, "Challenges in the Financing of International Oil Receivables", in T. Moran, (ed.), *Managing International Political Risk, ibid.*, p.120.

[53] IEA*, Energy Country Profile: Russia 2002*, Paris: IEA/OECD, 2002, p.34.

[54] W.Bodie, *Moscow's Near Abroad: Security Policy in Post-Soviet Europe*, McNair Paper 16, Washington DC: Institute for National Strategic Studies, National Defense Univeristy, June 1993 and R. Menon, "After Empire: Russia and the Southern "Near Abroad", in M. Mandelbaum (ed), *The New Russian Foreign Policy,* New York: Council on Foreign Relations, 1998, pp.100-166.

Ouite often, successful implementation of sanctions depends on the willingness of politically allied governments to comply with the extraterritorial nature of many of these measures and oblige their respective companies to do so.

(a) as an incentive/cooperatively (i.e. oil and gas sold at preferential prices in return for diplomatic/ military policy harmonisation, preferential access/ licensing to resource development contracts, preferential access to infrastructure transportation, technological cooperation in order to increase energy efficiency or decrease oil/energy intensity (US-EU Hydrogen Research Programme/June 2003), state-sponsored investment guarantees, favorable taxation as an investment incentive, direct Aid, granting MFN status, etc.) or

(b) as a disincentive/coercively (i.e. embargo, sanctions, licensing denial, quotas manipulation to reduce price elasticity, political/security destabilisation so as to impede security of supply or infrastructure development, punitive exclusion from tenders, black list inclusion in terms of denying financial guarantees etc.) to dictate/influence the political/security or economic behavior of a state or corporate actor in the international arena. Some forms of energy security "statecraft" such as access to contracts, transportation/pipeline infrastructure and state-sponsored government guarantees, can be either cooperative or coercive dependent on who is awarded preferential access.

In its cooperative form energy security policy has primarily taken the form of oil and natural gas subsidies that are used as an incentive for the harmonisation of foreign policy goals between the sender and the targeted state. The most current characteristic example is the heavily subsidised prices of natural gas and oil sold by Russia to its present "Near Abroad" zone - particularly the Ukraine, Georgia, Armenia and Belarus - in order to "coordinate" their diplomatic/military agenda and keep them well within their sphere of influence.[55] Other examples include Soviet subsidies of Chinese oil needs during their strategic honeymoon of the 1950s that later created severe energy shortages following the Sino-Soviet split of the 1960s, as well as Chinese subsidising of Japanese oil needs throughout most of the 1970s and 1980s that successfully helped to curtail Japanese interest to finance the development of Russian oil and gas resources in the Soviet Far East.

As Strecker-Downs rightfully observes, "The Chinese leadership was afraid that the development of these resources would strengthen the transportation and communications infrastructure in Siberia and enhance the Soviet Union's

[55] R.Keld, "China's "Resource Diplomacy" and National Energy Policy", in R.Keith (ed.), *Energy Security and Economic Development in East Asia*, London: Croon Helm, 1986, pp.17-78.

ability to attack northeastern China, the country's industrial heartland and region of greatest strategic vulnerability".[56] Additional examples include Iraqi oil smuggling and subsidising of prices towards Egypt and Syria for most of the 1990s, as well as the Saudi oil "donation" for the otherwise limited needs of the Taliban government in Afghanistan before the terrorist attacks of September 11th. In terms of preferential access to development contracts, America's exclusion of Russian and Franco-German companies from the reconstruction of the Iraqi oil sector in preference of Anglo-Saxon and "New Europe" firms is quite illustrative of this point.

Other forms of cooperative engagement can be found in Japanese investments in the Chinese oil upstream sector (both off-shore and in the Tarim Basin) that have included government-guarantee loans in excess of $ 10 billion since 1979. Even though these off-shore Japanese investments constitute a mere 2% of the country's overseas oil production, they carry a strong geopolitical message and are motivated "by a larger strategic goal of accommodating China's burgeoning energy needs with the aim of mitigating potential Chinese aggressiveness and strategic competition for resources".[57] In the same yet reverse fashion, increasing Japanese FDI involvement in the development of the Sakhalin oil and gas projects since 1993[58] is directly linked to the Russian-Japanese détente and underpins a greater strategic approach that "has a complex logic in which energy plays a central role in geopolitical calculations. Japan seeks better ties to Russia in order to balance China".[59] In its coercive form, apart from the "celebrated" cases of oil embargos, energy security policy usually takes the form of oil and natural gas sanctions directed to impede domestic energy companies from developing the resources of a geopolitical competitor or adversary (actual or prospective), since such a development would enhance its military and diplomatic clout. US unilateral sanctions against Iran and Libya (the 1996 ILSA Act)[60] and UN sanctions against Iraq (1990-2003) are clear-cut examples. Sanctions can also take the form of secondary sanctions targeting the technological equipment (pipeline

---

[56] E.Strecker-Downs, *China's Quest for Energy Security*, *op.cit.*, pp.43-52 and R. Manning, *The Asian Energy Factor: Myths and Dilemmas of Energy, Security and the Pacific Region, op.cit.,* pp.187-202.

[57] See www.eia.doe.gov/emeu/ cabs/russproj.html.,November 2002.

[58] R. Manning, *The Asian Energy Factor: Myths and Dilemmas of Energy, Security and the Pacific Region, op. cit.*, p. 160.

[59] For an analysis of ILSA, G. Shambaugh, *States, Firms, and Power*, *op.cit.*, pp.184-202. For a comprehensive overview and updated analysis of US-imposed energy sanctions, see the relevant web pages of the Department of Energy at www.eia.doe.gov/emeu/cabs/sanctions.html and the Department of the Treasury that is responsible for the imposition of all forms of sanctions regime at www.treas.gov/offices/eotffc/ofoc

[60] A. Blinken, *Ally Versus Ally: America, Europe and the Siberian Crisis*, New York; Praeger: 1987.

In terms of natural gas, Russia is the dominant player. Russia controls around 31% of the world's natural gas reserves and is the world's biggest producer.

tubes, compressors, turbines, refinery equipment) necessary for the construction of energy infrastructure. All US and UN sanctions against Iran, Iraq and Libya over the 1980s and 1990s included specific provisions targeting infrastructure development-related material under the liberally defined category of "dual-use" technologies.

Quite often, successful implementation of sanctions depends on the willingness of politically allied governments to comply with the extraterritorial nature of many of these measures and oblige their respective companies to do so. Frequently, when energy security concerns are involved, allied governments have not only failed to comply with the sender's demands - the sender being almost exclusively the US- but have in cases actively fought against US policy goals to the point of ordering their respective governments to defy US unilateral sanctions imposed against states like Iran and Libya as well as French, British, German and Italian corporations.

For example, during the Trans-Siberian Pipeline embargo (1980-1984), which constituted the third most severe Transatlantic crisis of the Cold War, after the American oil embargo against Britain and France (1956) and the Arab embargo of 1973, French, British and German governments ordered their respective gas-turbine producers - some of whom were using US produced equipment, such as Dresser-France, John Brown Engineering, AEG-Kanis - to move on with the execution of their contracts regarding construction of the Yamal-Pipeline main natural gas pipelines, currently covering 25% of EU natural gas demand[61].

In terms of quotas, the imposition of domestic quota production so as to protect America's surplus capacity by Eisenhower in 1959 and its subsequent annulment by Nixon in 1971, represents a benign form of "coercive" energy statecraft. In addition to that, OPEC's quota mechanism that underpins - in combination with the Saudi surplus capacity - the world's oil market system, is another evident example of quota utilisation as a form of policy-making. Furthermore, the emergence of improved energy efficient technologies that reduce the OECD's dependence on hydrocarbon resources can also be

[61] See "BTC Financing Agreement to be Signed in Early February", *FSU Oil & Gas Monitor*, Week 3, 21/1/2004, p.10-11, International Financial Corporation, "Financiers Sign Investments in Caspian Oil and Pipeline Projects", 3/2/2004, www.ifc.org/news/ 02032004. See also W.Irwin, "Political Risk: A Realistic View Toward Assessment, Quantification and Mitigation", in T.Moran (ed.), *Managing International Political Risk*, *op.cit.*, pp.57-69. On the Sakhalin financing see Andrei Konoplianik, *Russia and the Energy Charter Process*. Paper presented at a Conference on Energy Issues in Euro-American Relations and the influence on Russia, organised by the German Institute for International and Security Affairs SWP, Berlin: 29/6/-1/7/2003, page 8.

interpreted as a form of indirect "coercion" towards OPEC, so as to refrain from returning to its "sky is the limit" pricing policies of the 1973-1981 period.

Finally, as oil and, particularly, natural gas projects are becoming more and more expensive to develop and acquire larger lead-times and greater inherent political and pricing risks, the role of state-credit guarantees becomes more important than ever before. The higher the political premium of an investment, the higher the ability of state actors to utilise their financial ability in order to influence the materialisation or - in view of unavailable alternative supplies - the pace of materialisation regarding major resource and infrastructure development projects throughout the 1990s. The Baku-Tbilisi-Ceyhan pipeline would have never moved beyond the drawing board if it had not been for unrelenting US government pressure to assure debt-finance guarantees (70% debt financed) by its own export-guarantees agencies, as well as the eventual EBRD and IFC resources. In the same fashion, the Sakhalin 2 (80% debt financed) project would have never got off the ground without Japan's MITI credit-endorsement.