OIL POLITICS AND INTERNATIONAL LAW

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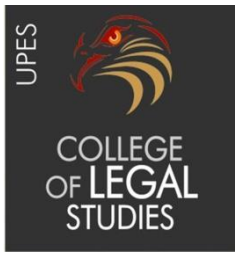

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CERTIFICATE

This is to certify that the research work entitled **"OIL AND INTERNATIONAL POLITICS"** is the work done by **VATSAL KISHORE** under my guidance and supervision for the partial fulfilment of the requirement of B.A., LL.B. (Hons.)/B.B.A., LL.B. (Hons) degree at College of Legal Studies, University of Petroleum and Energy Studies, Dehradun.

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DECLARATION

I declare that the dissertation entitled **OIL AND INTERNATIONAL POLITICS** is the outcome of my own work conducted under the supervision of Mr. **Rajkumar**, at College of Legal Studies, University of Petroleum and Energy Studies, Dehradun.

I declare that the dissertation comprises only of my original work and due acknowledgement has been made in the text to all other material used.

Signature & Name of Student

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ABBREVIATIONS

¶	Paragraph
§	Section
AK	Alaska
AAA	Agricultural Adjustment Act
API	American Petroleum Institute
ASCM	Agreement on Subsidies and Countervailing Measures
ASEAN	Association of South East Asian Nations
BBL	Barrel
BP	British Petroleum
CF	Compare
CD	Compact Disk
DVD	Digital Video Disk
ENV	Environment
EU	European Union
FOR	Forward/Forwarded
GAIL	Gas Authority of India Limited
GATT	General Agreement on Trade and Tariff
GATS	General Agreement on Trade & Services
GOM	Group of Ministers
GSP	Government Selling Price
HA	Hawaii
ID	Ibid
IEA	International Energy Agency
IMF	International Monetary Fund
IMO	International Maritime Organization
JPA	Joint Plan of Action
JR	Junior
MARPOL	International Convention for the Prevention of Pollution from Ships

MERCOSUR	Southern Common Market
MCX	Multi Commodity Exchange
MHI	Mitsubishi Heavy Industries
NAFTA	North American Free Trade Agreement
NASDAQ	National Association of Securities Dealers Automated Quotations
NYMEX	New York Mercantile Exchange
OECD	Organization for Economic Cooperation and Development
OILPOL	International Convention for the Prevention of Pollution of the Sea by Oil
OPEC	Organization of Petroleum Exporting Countries
OSP	Official Selling Price
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
OTC	Over the Counter
POL	Political
REV	Review
SMX	Singapore Mercantile Exchange
TOKOM	Tokyo Commodity Exchange
WTO	World Trade Organization
WTI	West Texas Intermediate

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1. INTRODUCTION

'*Revolution*' is perhaps the most versatile and seasonably intriguing event that affects almost every dimension of human existence, exposing it to unravelled possibilities and subtle surprises in the tedious process of evolution. A revolution may be *social* – thereby affecting the society to shred the orthodoxy borne by its earlier generations, it may also be *political* – posing a threat to the reigning ruler or the entire ruling regime for a change, other possible contours of a revolution may be, cultural, economic, technological, scientific etc., which in one or the other way provide a breakthrough to the human existence for looking beyond the settled "possible". It has taken a plethora of revolutions of all these forms to shape the world in the form as it exists today.

At a time when the world was in the throes of war and political chaos, a discovery was made, which was to define the forthcoming era in more than countable possible ways. It was not exactly the discovery of oil and gas that made quite the mark around this period; their presence was already known to the mankind, but the umpteen dimensions of its possible use and that too as such an efficient source of energy was unknown to the people.[1] The extent of its value chain, which touches almost every aspect of human life, was the throttle. This throttle combined with the urge of industrial production eked out a massive revolution, which was to set a new landmark in the global economic paradigm as the Second Industrial Revolution.[2]

The Second Industrial Revolution was based on the development of new found fuel energy sources, such as mineral oil and electricity. These energy sources were used to generate the power needed to drive industry. Among the emerging new fuel sources, gas was also put to use. It is clear that the rapid rate of path breaking inventions (macroinventions) slowed down after 1825, and picked up steam again in the last third of the century. The great path breaking inventions in energy, materials, chemicals, and medicine described below were crucial not because they themselves had necessarily a huge impact on production, but because they

[1] *See* DANIEL YERGIN, THE PRIZE: THE EPIC QUEST FOR OIL, MONEY & POWER 35, (2008) [hereinafter "The Prize"]

[2] *See* Joel Mokyr, *The Second Industrial Revolution (1870-1914)*, http://faculty.wcas.northwestern.edu/~jmokyr/castronovo.pdf, *Also see* Study.com, *The Second Industrial Revolution: Timeline & Inventions*, http://study.com/academy/lesson/the-second-industrial-revolution-timeline-inventions.html

increased the effectiveness of research and development in microinventive activity.[3] Settlers used oil as an illuminant for medicine and as grease for wagons and tools. Rock oil distilled from shale became available as kerosene even before the Industrial Revolution began. Soon the U.S. rock oil industry boomed as whale oil increased in price owing to the growing scarcity of that mammal. Samuel Downer, Jr., an early entrepreneur, patented "Kerosene" as a trade name in 1859 and licensed its usage. As oil production and refining increased, prices collapsed, which became characteristic of the industry.[4] Since the modest beginnings of the oil industry in the mid-19th century, petroleum has risen to global prominence. Initially, kerosene, used for lighting and heating, was the principal product derived from petroleum. However, the development of drilling technology for oil wells in mid-19th century America put the petroleum industry on a new footing, leading to mass-consumption of petroleum as a highly versatile fuel powering transportation in the form of automobiles, ships, airplanes and so on, applied to generate electricity, used for heating and to provide hot water supplies. The usage of fossil fuels has been increasing in step with economic growth. Fossil fuels were prerequisites for the birth of a new industrial civilization that transformed our world.[5] It has almost become impossible to even consider a life without oil in the present era: Within our daily lives oil is used almost everywhere: Every year, 18 million tonnes of crude oil are processed into synthetic materials in Germany. Oil within our materials: 40 percent of all textiles contain oil; for functional clothing this may be as much as 100 percent. Oil within our leisure activities: 40 billion liters of oil a year are used to make CDs and DVDs. Oil helps us relax: A single sofa contains 60 liters of oil. The world consumes almost 14 billion liters of oil each day. This affects us all, making oil the most revolutionary product of all times.[6]

Oil is a natural resource with tremendous potential to impact various political and economic mechanisms. The term oil sword is used to refer to the price setting power of the world's largest oil exporter, Saudi Arabia while the country with highest oil production volume, Russia is called the energy superpower despite a score of domestic and international malfunctions in its autocratic oligarchy. Secret negotiations between governments that own nationalized oil production companies, multinational distributors like ExxonMobil or Shell, and governments of the largest oil consumer nations like the US or China cast speculations

[3] *Id.* at 2
[4] History, *Oil Industry*, http://www.history.com/topics/oil-industry
[5] MHI-Global, *History of Fossil Fuel Usage Since the Industrial Revolution*, https://www.mhi-global.com/discover/earth/issue/history/history.html
[6] Wintershall, *Oil Can Do More*, http://www.wintershall.com/en/company/oil-and-gas/oil-can-do-more.html

that some *arcanum imperii* are conspired around this essential resource that influences the very livelihood of billions of people around the world.[7]

From being an economic commodity like any other, oil evolved into a *political economic commodity* around 1970s with the establishment of institutions like OPEC and International Energy Agency; established in the wake of the ripe politics between the Middle East and Western nations.[8] The turbulence further transformed into the demand for the New International Economic Order, which was in a way an effort to reclaim global income from private Western corporations. These developments are followed by a long chain of other numerous political twists and turns, which have dramatically created a new dimension of oil based politics.

It's rare to see that a product so uniquely important for the global economy goes majorly unregulated in the international market. In spite of, wars having been fought to control the global oil market and the geopolitical trend still indicating oil as a major factor for brimming commotion and strife on a global scale, the prevalence of arbitrariness attached to it in different forms such as – cartelization, disregard of environmental protection measures, trade in oil, imposition of unilateral sanctions etc. discerns the lack of conscious effort by the States in developing international law to address these concerns.

The nexus between international law and oil politics has been drawn for long; however, to the dismay of the international community, law is yet to seep in constructively in the feature of oil politics, bringing in reasonable satisfaction of interests for all the nations. Taking stock of the history of oil conflicts, existing discontentment and legal void and the future apprehensions in the oil market, the dissertation seeks to explore the possibility of placing international law in context of oil politics for an energy secured cohesive future.

2. THE OIL STRUGGLE: HISTORY OF OIL, POWER AND POLITICS

The true history of oil is significantly different from what is popularly believed of its discovery and further exploration.[9] It was not the United States in 1859, where oil was discovered for the first time in history. Instead, if we were to peek deep into the ancient

[7] Bülent Temel, *From Value to Power: The Rise of Oil as a Political Economic Commodity*, http://www.tek.org.tr/dosyalar/TEMEL-OIL-POWER-2012.pdf [hereinafter "Value to Power"]
[8] *Id.* at 6
[9] E.R. Crain, *A True History of Oil and Gas Development*, https://www.spec2000.net/freepubs/TrueHistory.pdf [hereinafter "True History"]

dimensions of oil history, then oil shows itself up for the first time way back in 6th Century BC, when the army of Kir II, the first Shah of Achaemenid Empire (present Iran), used Absheron oil in weapons of fire to invade castles and cities. Following that, the presence of oil has been traced on various occasions – the description of oil pits near Babylon by Herodotus, use of flaming torches by Alexander the Great, Marco Polo's record of collection of oil at the shores of Caspian Sea, lighting up of the Streets of London lit by coal oil etc. However, the exploration and development of one of the first wells that produced oil was performed in Ohio, in 1814. Moving ahead, J.D. Rockefeller finally founded an oil refining company in Cleveland. By the end of 1877, Rockefeller's company Standard Oil controlled 90% of American refining.[10] Joseph de la Roche d'Allion reported seeing oil seeps in what is now New York state in 1632. Gas seeps were reported as early as 1622, also in New York. Peter Pond was the first non-native to report the discovery of oil in Canada in 1778 in the Athabasca oil sands in northeast Alberta. Azerbaijan claims the first drilled well in the modern era at Bibi-Heybat, a suburb of Baku on the Caspian Sea, in 1846. The first drilled oil wells in Europe were located near Bucharest in Romania in 1857 but Poland makes the same claim for 1854 at Bobrka. The completion of the first commercial oil well in North America occurred in 1858 at Oil Springs, Lambton County, Ontario and was quickly followed by more oil at Petrolia, Ontario. The man's name was James Miller Williams, who had taken over a bankrupt operation. This was a hand dug well and the first drilled wells came in 1860. Some of these flowed up to 7000 barrels per day, often before anyone thought to build a storage pit or tank. Some of the early oil flowed down creeks to be wasted in the Great Lakes, but it had been doing that for eons before, from natural seepage.[11]

A. "ROCK OIL" AND "BUSINESS"

For the first time ever, oil exploration was speculated as a business possibility by George Bissell, a New York lawyer, and James Townsend, president of a bank in New Haven. The two American citizens had contracted Benjamin Silliman, Jr., a distinguished professor of chemistry at Yale University to undertake an outside research project for a total fee of $526.08, to explore into the future of a substance, then known as "rock oil". Rock oil, they knew bubbled up in springs or seeped into salt wells in the area around Oil Creek, in the isolated wooded hills of Northwestern Pennsylvania. There, in the back of beyond, a few barrels of this dark, smelly substance were gathered by primitive means – either by skimming

[10] Geo Help Inc, *History of the World Petroleum Industry*, http://www.geohelp.net/world.html
[11] TRUE HISTORY *supra* n. 9

it off the surface of springs and creeks or by wringing out rags or blankets that had been soaked in the oily waters. The bulk of this tiny supply was used to make medicine. The business speculation involved was that the rock oil could be exploited in far larger quantities and processed into a fluid that could be burned as an illuminant in lamps, which could give a considerable challenge to the reigning "coal-oils". They believed that, if they could obtain it in sufficient quantities, they could bring to market the inexpensive, high quality illuminant that mid-nineteenth-century man so desperately needed. They were scoffed at for this dreamy scheme, yet the persevered to lay the basis for a new of mankind – the age of oil.[12]

Bissell knew that amounts of rock oil were being used as folk medicines to relieve people from headaches, deafness, rheumatism, worms etc. – and to heal wounds of horses and mules. Bissell knew that the viscous black liquid as flammable. Seeing the rock oil sample at Dartmouth, he conceived, in a flash, that it could be used not as a medicine but as an illuminant. His intuition that he can make a business out of this very liquid became the guiding principle of his life.

Armed with Silliman's report, which gave a highly promising outlook of the "rock oil" industry, the group went on to raise the necessary funds, launching the Pennsylvania Rock Oil Company. The company reaped hefty profits in the following years, becoming one of the richest enterprises ever.[13]

B. RISE OF OIL AS A POLITICAL ECONOMIC COMMODITY

Although petroleum was known to mankind since 2000 BC, its use other than medicinal purposes can be traced back to the mid-19th Century. When a Polish pharmacist named Ignacy Lukasiewicz invented a process to distil the combustible hydrocarbon liquid called kerosene from petroleum (crude oil), oil emerged as a cheaper alternative to whale oil as a fuel for lighting. Oil exploration and extraction became a major economic activity throughout the world, predominantly in the Eastern Europe and the Caucuses. Later discoveries in Ohio, Pennsylvania, Oklahoma and Texas in the late 19th Century were followed by others in Persia –today's Iran, Kuwait, Qatar and the United Arab Emirates in the early 20th Century. Internal combustion engine technology, rise in commercial transportation and increasing use of plastic further fueled drilling activities to explore, extract and refine petroleum in the following decades.

[12] THE PRIZE *supra* n. 1 at 3, 4
[13] *Id.* at 6

Oil's increased significance during the first half of the 20th century introduced oil companies as the new behemoths of the Western industrial establishment. A drilling company established in Ohio in 1870, Standard Oil, grew to be the world's largest refiner and one of the most expansive business conglomerates. The company's wide spread operations in practically every area of the oil industry – from exploration to drilling, extraction to refining, led to charges of monopolistic behavior in the following years. In 1911, the US Supreme Court found Standard Oil guilty of breaking the Sherman Antitrust Act, which prohibited applying high prices to consumers and low prices to competitors by using affiliated companies. In a rather unprecedented move in American industrial history, the court ruled that Standard Oil had grown too large to sustain fair competition in the oil industry, and ordered it to be split into 34 companies. Three of these newly formed companies called Baby Standards later became Exxon, Mobil and Chevron, and Standard Oil's founding President John Rockefeller became an industrial icon in the Western World.[14]

Later, in the years, a project was initiated with the support of the Government in the name of Model-T with the purpose of accelerated oil's transformation from an industrial support product into a primary household consumption item. The project promoted Ford's Model-T as the world's first automobile that was a personal transportation item for the middle class. The government's endorsement of gasoline run automobiles led to the emergence of oil industry as a privileged segment of corporate America and a perception of essentiality in the common American mind.[15]

Oil became the most instrumental source of revival for Western Europe from the disaster of the World War II. During the 24 years following the war, oil consumption grew by fivefold globally, doubled every 6.5 years outside the North America. In this "Golden Age", oil passed coal to become the world's primary energy source, the Persian Basin beat the United States as the top provider of oil to Europe, and the US turned from a net exporter into a net importer of oil.

Between 1930 and 1960, seven largest distributors in the global petroleum business established a discreet cartel, which was later called Seven Sisters. Having recognized the tremendous economic potential oil represented, they set up agreements with the Middle Eastern producers to buy crude oil at preset prices, and sold it around the globe at

[14] VALUE TO POWER *supra* n. 7
[15] *Id.*

international market rates. With the help of this lucrative scheme and an insatiable global demand for energy; BP, Shell, Exxon, Mobil, Gulf, Texas Oil and Chevron have grown to be some of the largest corporations in the world today. The average annual revenue in this group of companies is higher than the gross domestic products of 149 of the 181 countries in the world today.[16]

In 1960, major oil producing countries realized that the global demand for oil was price inelastic, which meant that they had been giving up substantial income by engaging in price stabilization deals with oil distributing companies. They started their own cartel under the name OPEC (Organization of Oil Exporting Countries) in an effort to take a larger share of the global energy pie and reclaim their power to dominate the industry. Each of the twelve members of the union agreed to restrain its production with a certain quota in order to curb the role of non-production actors in price determination process. Restricting oil output allowed OPEC to control international per barrel crude oil prices, and emerged as an instrument of soft power with economic as well as political consequences.

1973 marked a pivotal point, on which oil began to transform from an economic resource into a political economic commodity. The Arab members of OPEC (called OAPEC or Organization of Arab Petroleum Exporting Countries) joined forces and cut down their supply in response to the US support for Israel against Egypt, Syria, Jordan and Iraq during the Yom Kippur War. Drastic cuts increased oil prices from $3 to $12 a barrel, which led to a contraction in global output, and stagflation in the US and Canada. Crude oil prices doubled once in 1974 and once again in 1980. The US Government, at the peak of its international power, had to step back as a result of the economic pressure imposed by the six month long embargo. The 1973 crisis spelled the emergence of oil as an economic sanction tool deployed to accommodate political agendas.[17]

A following shock in 1979 deepened the perceived political power of oil producers as it made clear that the remedies imposed after the 1973 crisis by oil importing nations against the threat of oil politics were ineffective. Establishing an international institution to control the global energy market (IEA or International Energy Agency), replacing oil with domestic substitutes, increasing taxes on oil, implementing energy saving programs, and reducing energy subsidies were all proven to be futile ideas. Western economies were hit by yet

[16] Saman Sepehri, *The Geopolitics of Oil*, 26 INTL. SOCIALIST REV., http://www.isreview.org/issues/26/oil_geopolitics.shtml
[17] VALUE TO POWER *supra* n.7

another episode of supply side politics with significant economic consequences that year. As the Iranian Revolution replaced President Reza Pahlavi with theocratic revolutionist Ayatollah Khomeini, sociopolitical turmoil in this country resulted in a 4% reduction in Iran's oil exports, and drove oil prices up above the 20$ line. The unstable 1970s reaffirmed the power of oil politics, and oil producing countries carried out a movement called New International Economic Order and nationalized their oil industries in an effort to reclaim global oil income from private Western corporations.

These events have established the value of oil as the most sought after commodity of the era, which can shape the economic fates of countries around the globe. It has become more and more apparent that *if you want to rule the world you need to control the oil. All the oil. Anywhere,*[18] making it a sublimely apt and greatest political economic commodity ever.

C. OIL POLITICS, PRICING AND POWER PLAY

Political power attached to oil derives from the pricing mechanism in international energy markets. In the four main mercantile exchange markets where oil instruments trade (NYMEX-New York, SMX-Singapore, TOKOM-Japan and MCX-India), bids on crude oil prices are determined out of three aggregate factors:

a) *Economic factors* such as futures trading, global demand and supply, technology and knowhow, capacity utilization rates, prices of other commodities like natural gas or propane, and global economic growth,
b) *Environmental factors* such as climatic conditions, proximity of newly found extraction plants to markets, and the quality of the extracted petroleum, and
c) *Political factors* like the political use of oil supply, laws and regulations in oil producing and consuming countries, and the quantity of oil kept in international reserves.

An instigator of financial speculation on oil is a common perception that economic odds point to a bullish future for the oil industry. Projections for global oil demand are strongly upward, and oil substitutes are too cost ineffective to develop and popularize in our time. As an essential element of most of the sectors in the global economy, demand for oil is price inelastic, and political instability in oil producing regions raises oil's value even further. Such a strongly bullish outlook in a financial market with a heterogeneous power distribution

[18] *See* MICHEL COLLON, MONOPOLY: L'OTAN Ă LA CONQUĚTE DU MONDE (2000); KEVIN ETTA, A DREAM OF NIGERIA: CRITICAL PUBLISHED ESSAYS 42 [hereinafter "Monopoly"]

creates a moral hazard. Financial markets that trade oil instruments are largely influenced by a small number of large financial firms. These companies, like Vitol whose holdings that make 11% of the futures contracts in New York Mercantile Exchange were investigated by the SEC for speculation, can enter trades that are large enough to influence price movements in the market. When these companies bet on a substantially higher price for a future date, they initiate a self-fulfilling prophecy, with which prices actually increase as a result of a common belief in higher prices regardless of whether or not that belief is substantiated by economic fundamentals. This speculative mechanism, which benefits speculators and producers in the oil industry to the expense of the larger economy, spells the need for increased regulations in the international energy markets.

Capacity utilization has been another element that feeds speculators' positive outlook on the future of oil. The capacity utilization rates of OPEC and its largest-producer Saudi Arabia between 1980 and 2005 indicate that the capability of the supply side to decrease prices has been diminishing. While oil producing countries used less than 70% of their production capacity in the 1980s, they have been extracting within the range of 80% to 100% since the 1990s.

The second major determinant of oil prices is nature. A standard measure called API gravity, which shows petroleum's weight in comparison to the weight of pure water, and the sulfur content determine the commercial usability of extracted petroleum. Such natural 11 formations are largely created by environmental conditions such as a warm winter that typically leads to higher grade petroleum. Oil industry factors in nature as an unpredictable component of the oil pricing mechanism.

The changing place of oil in global economy advances a third factor of oil pricing whose impact has become too large to be considered within the margin of error postulated in the traditional model: politics.[19] Contrary to the popular opinion, leading players in the international price-determination game today are governments, not corporations. Total production of the world's largest private oil company ExxonMobil is a mere 3.1% of the global production, and combined market shares of the five largest private oil companies is only 12% of global output.[20] While 85% of the oil reserves in the world were controlled by

[19] Igor Mautinovic, *Oil and the Political Economy of Energy*, Energy Policy 27/11 (2009): 4254
[20] James D. Hamilton, *Understanding Crude Oil Prices*, Working Paper #14492

large distributors like Exxon Mobil, Shell or BP in the 1970s[21], today 65% of confirmed oil reserves in the world are within the borders of only five countries, all of which have autocratic leaderships with nationalized oil extraction companies: Saudi Arabia, Iraq, United Arab Emirates, Kuwait and Iran.[22] The spread of resource nationalism signals that international relations is evolving into an unorthodox game, at the core of which lies oil interests.[23]

3. GLOBAL OIL MARKET AND INTERNATIONAL LAW

A. GLOBAL OIL MARKET: AN OVERVIEW

Oil is the world's dominant fuel (at 33% of current global primary energy consumption), but it has been losing market share since the 1970s. The pace of oil's market share erosion mirrors the price cycle—oil lost share rapidly in the 1970s and early 1980s when prices where high; lost share slowly from the mid-1980s to the late 1990s when prices were low; and accelerated again when prices began to go up over the past decade. Oil has lost market share globally for 11 consecutive years, and oil's share of U.S. energy consumption is near the lowest levels ever recorded. Demand has grown, but predominantly outside the OECD, with non-OECD countries accounting for 47% of global consumption, up from 25% in 1970 (OECD consumption has fallen by 3.6 Mb/d or 7% since 2005.). Sectorally, oil consumption is dominated by transport (more than 50% of global consumption and roughly 60% of OECD consumption); oil has lost significant market share in the power and industrial sectors. As with other fuels, demand and supply have been impacted over the years, primarily by the rate and distribution of global economic growth, but also by technological change (such as the emergence of nuclear power or advances in deepwater exploration, development, and production capability); competition from other fuels (cheap natural gas currently, especially in North America); and government policy (such as consumption taxes/subsidies, fuel efficiency standards, and resource nationalism).[24]

On the supply side, OPEC holds a heavy majority (77%) of global proved reserves, but has not gained market share—indeed, OPEC's market share in 2010 (42%) was well below the

[21] MONOPOLY *supra* n. 18 at 4252

[22] Leonardo Maugeri, *Time to Debunk Mythical Links between Oil and Politics*, The Oil & Gas Journal 101/48 (2003)

[23] Joseph Stanislaw, *Power Play: Resource Nationalism, the Global Scramble for Energy and the Need for Mutual Interdependence*, Deloitte (2008)

[24] Mark Finley, *The Oil Market to 2030 – Implications for Investment and Policy*, http://www.bp.com/content/dam/bp/pdf/Energy-economics/Energy-Outlook/The_Oil_Market_2030.pdf

47% share seen in 1970 (OPEC's global share peaked at 51% in 1973). Outside of OPEC, production continues to increase despite mature declines in the North Sea, Mexico, parts of the U.S., and elsewhere: Output has grown in recent years in Russia and Central Asia; the deepwaters of the U.S. GoM, West Africa, and Brazil; and in the oil sands of Alberta. In addition, onshore production in the U.S. has begun to increase due to innovations in the development of shale resources (both oil and natural gas-related liquids); biofuels have been another key source of liquids supply growth (primarily the U.S. and Brazil—both enabled by rising oil prices in recent years with the U.S. also receiving a boost from tax credits and mandates).[25]

The dynamics of the current oil market involve four major interdependent areas of uncertainty: geostrategic risks, macroeconomic fluctuations, the nature of resource risks, and the uncertainty of current and future oil-production capacity. At this point, about all that is certain about the forces shaping the world's energy supply is that the global energy market is unpredictable and that recent oil prices have been high and volatile. In four years, the price per barrel of oil has increased by roughly 108 percent. Rigorous, transparent, and credible analysis, however, can improve our understanding of the forces at play and provide policymakers and analysts with the tools necessary to forge sound energy policy based on real-world realities and risks.[26]

The six major petroleum producing regions (the Middle East, Africa, Asia and the Pacific, Europe and Eurasia, North America and Latin America) face major production and resource uncertainties. It is clear that the geostrategic risks facing these regions have tangible implications for both their energy sectors and the global petroleum market. The geopolitical and military implications are hard to quantify. But it is clear that the risk premium of these uncertainties will be affected by the following key geostrategic challenges, all of which could have direct and indirect effects on the global energy market:[27]

- ✓ The stability of oil and gas exporting nations
- ✓ Terrorism in the Gulf and the security of oil facilities
- ✓ Proliferation of weapons of mass destruction
- ✓ Embargoes and sanctions

[25] *Id.*
[26] ANTHONY H. CORDESMAN, KHALID R. AL-RODHAN, 28 THE GLOBAL OIL MARKET: RISKS & UNCERTAINTIES 1:1
[27] *Id.*

- ✓ Ethnic conflicts and sectarian strife

Like all economic forecasts, predicting supply, demand, and prices of crude oil involves significant uncertainty. Predicting the oil market is notoriously difficult, and constant updates and additions to the models are needed. Amidst all this, several key factors influence the oil market, and each involves major uncertainties and unknowns:

a) The long-term elasticity of oil and gas supply

Major debates exist over the size of proven, possible, and potential resources' rates of discovery, development and production costs, oil fields' life spans, and the impact of advanced technology.

b) The overall health of the global economy

The influence of prices on the global economy is all too clear in many ways. Sustained high oil prices have a marked negative effect on economic growth in oil-consuming states and tend to slow global economic growth. In addition, low economic growth in industrialized nations and consuming nations causes a decrease in demand for oil and hence lower oil prices.

c) The rise of new economic powers

In recent years, the oil market has experienced an unexpected increase in demand from countries in Asia such as China and India. Emerging Asian and Middle Eastern economies also are driving the high demand for oil. According to the International Monetary Fund (IMF), this surge from emerging economies could account for 40 percent of the increase in oil demand in 2004.

d) Lack of investment

These pressures and uncertainties add to the economic risk premium, causing oil prices to rise further. Moreover, though higher oil prices may provide incentives for private and public investment in the oil industry, the lack of geopolitical stability and an inability to predict how long high oil prices will continue prevent many from investing in these areas. Meeting the kind of massive surges in the demand for oil projected in recent studies will require massive investments to build new infrastructure and finance new technologies.[28]

[28] *Id.* at 4-6

High commodity prices are back. Benchmark West Texas Intermediate (WTI) crude oil prices, after flirting with all-time highs near $150 per barrel in July 2008, plummeted in a spectacular fashion to lows near $30 per barrel by the end of the year. Yet within six months, oil prices strongly rebounded. Today, they are nearing $70 per barrel again. Such extreme price highs and volatility, albeit unusual, can place severe pressure on the U.S. and global economy. Consumers are burdened with steeper food, gasoline, electricity, and heating bills. Higher energy prices can also drive inflation, with broader economic consequences. Some may welcome volatility when it means that prices are falling, but volatility is bad for the overall economy: it introduces business uncertainty to many industries exposed to commodity price risk, such as automobile manufacturers, airlines, farmers, mining companies, and refineries. The uncertainty deters the private sector from making needed investments in infrastructure and equipment, thereby destroying jobs and weakening the drive toward energy conservation and efficiency.[29] Many observers have been quick to note that rapid rise and volatility of energy and other commodity prices has coincided with a remarkable surge in activity in commodity financial derivatives. Financial open interest (the number of outstanding contracts) in benchmark WTI crude oil contracts on the New York Mercantile Exchange (NYMEX) rose from the equivalent of 700 million barrels of oil in 2000 to over 3.3 billion barrels at its peak in 2008. These numbers do not reflect growth in the even larger and unregulated market for over-the-counter (OTC) commodity swaps. In response, many politicians and market commentators have blamed financial "speculators" for causing the energy crisis, pointing to the coincidence of this growth in market activity, the proliferation of investment, and the rise in prices. As a result, they have called for stricter regulation of commodity financial activity. Already the U.S. government has responded on multiple fronts within Congress and the executive branch, culminating in the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.[30] The act mandates the centralized clearing of standard OTC contracts and the empowerment of the CFTC and the SEC to provide margin, capital, and reporting requirements for all designated market participants.

But commodity markets are globally integrated and international policy coordination is required for effective market regulation. French president Nicolas Sarkozy intends to use his

[29] The scale of the economic burden has led some to argue that the oil price shock was a critical contributor to the 2007 U.S. recession. *For example*, see James D. Hamilton, *Causes and Consequences of the Oil Shock of 2007–08*, 2008 Brookings Institution conference paper.

[30] *See* Dodd-Frank Wall Street Reform and Consumer Protection Act, https://www.sec.gov/about/laws/wallstreetreform-cpa.pdf

leadership in the upcoming Group of Twenty (G20) meeting in Cannes to push for improved regulation and supervision of commodity markets.

a) Oil Pricing

Until the late 1950s, the international oil industry outside the United States, Canada, the USSR and China was characterised by the dominant position of the large multinational oil companies known as the Seven Sisters or the majors. The host governments did not participate in production or pricing of crude oil and acted only as competing sellers of licences or oil concessions. In return, host governments received a stream of income through royalties and income taxes.

Each of the Seven Sisters was vertically integrated and had control of both upstream operations (exploration, development and production of oil)[31] and to a significant but lesser extent of downstream operations (transportation, refining and marketing). At the same time, they controlled the rate of supply of crude oil going into the market through joint ownership of companies that operated in various countries. The vertical and horizontal linkages enabled the multinational oil companies to control the bulk of oil exports from the major oil-producing countries and to prevent large amounts of crude oil accumulating in the hands of sellers, thus minimising the risk of sellers competing to dispose of unwanted crude oil to independent buyers and thus pushing prices down.

The oil pricing system associated with the concession system until the mid-1970s was centred on the concept of a posted price, which was used to calculate the stream of revenues accruing to host governments. Spot prices, transfer prices and long-term contract prices could not play such a fiscal role. The vertically and horizontally integrated industrial structure of the oil market meant that oil trading became to a large extent a question of inter-company exchange with no free market operating outside these companies' control. This resulted in an underdeveloped spot market. Transfer prices used in transactions within the subsidiaries of an oil company did not reflect market conditions but were merely used by multinational oil companies to minimise their worldwide tax liabilities by transferring profits from high-tax to low-tax jurisdictions. Because some companies were crude long and others crude short, transactions used to occur between the multinational oil companies on the basis of long-term contracts. However, the prices used in these contracts were never disclosed, with oil

[31] In 1950 the majors controlled 85% of the crude oil production in the world outside Canada, USA, Soviet Russia and China

companies considering this information to be a commercial secret. Oil-exporting countries were also not particularly keen on using contract prices as these were usually lower than posted prices.

Thus, the calculations of the royalty and income tax per barrel of crude oil going to the host governments had to be based on posted prices. Being a fiscal parameter, the posted price did not respond to the usual market forces of supply and demand and thus did not play any allocation function. The multinational oil companies were comfortable with the system of posted prices because it maintained their oligopolistic position, and until the late 1960s OPEC countries were too weak to change the existing pricing system.

Between 1965 and 1973, global demand for oil increased at a fast rate with an average annual increase of more than 3 million b/d during this period (BP Statistical Review 2010). Most of this increase was met by OPEC which massively increased its production from around 14 million b/d in 1965 to close to 30 million b/d in 1973. During this period, OPEC's share in global crude oil production increased from 44% in 1965 to 51% in 1973. Other developments in the early 1970s, such as Libya's production cutbacks and the sabotage of the Saudi Tapline in Syria, tightened further the supply-demand balance. These oil market conditions created a strong seller's market and significantly increased OPEC governments' power relative to the multinational oil companies. In September 1970 the Libyan government reached an agreement with Occidental in which this independent oil company agreed to pay income taxes on the basis of increased posted price and to make retroactive payment to compensate for the lost revenue since 1965. Occidental was the ideal company to pressurise: unlike the majors, it relied heavily on Libyan production and did not have much access to oil in other parts of the world. Soon afterwards, all other companies operating in Libya submitted to these new terms. As a result of this agreement, other oil-producing countries invoked the most favoured nation clause and made it clear that they would not accept anything less than the terms granted to Libya. The negotiations conducted in Tehran resulted in a collective decision to raise the posted price and increase the tax rate.

In September 1973, OPEC decided to reopen negotiations with the companies to revise the Tehran Agreement and seek large increases in the posted price. Oil companies refused OPEC's demand for this increase and negotiations collapsed. As a result, on 16 October 1973, the six Gulf members of OPEC unilaterally announced an immediate increase in the posted price of the Arabian Light crude from $3.65 to $5.119. On 19 October 1973, members

of the Organization of Arab Oil Producing Countries (less Iraq) announced production cuts of 5% of the September volume and a further 5% per month until the total evacuation of Israeli forces from all Arab territory occupied during the June 1967 war is completed and the legitimate rights of the Palestinian people are restored. In December 1973, OPEC raised the posted price of the Arabian Light further to $11.651. This jump in price was unprecedented. More importantly, the year 1973 represented a dramatic shift in the balance of power towards OPEC. For the first time in its history, OPEC assumed a unilateral role in setting the posted price. Before that date, OPEC had been only able to prevent oil companies from reducing it.

The oil industry witnessed a major transformation in the early 1970s when some OPEC governments stopped granting new concessions[32] and started to claim equity participation in their existing concessions, with a few of them opting for full nationalisation.[33] Demands for equity participation emerged in the early 1960s, but the multinational oil companies downplayed these calls. They became more wary in the late 1960s when they realized that even moderate countries such as Saudi Arabia had begun to make similar calls for equity participation. In 1971, a Ministerial Committee was established to devise a plan for the effective implementation of the participation agreement. OPEC's six Gulf members (Abu Dhabi, Iran, Iraq, Saudi Arabia, Qatar, and Kuwait) agreed to negotiate the participation agreement with oil companies collectively and empowered the Saudi oil Minister Zaki Yamani to negotiate in their name. In October 1972, after many rounds of negotiations, the oil companies agreed to an initial 25% participation which would reach 51% in 1983. Out of the six Gulf States, Saudi Arabia, Abu Dhabi and later Qatar signed the general participation agreement. Iran announced its withdrawal early in 1972. Iraq opted for nationalisation in 1972. In Kuwait, the parliament fiercely opposed the agreement and in 1974 the government took a 60% stake in the Kuwait oil company and called for a 100% stake by 1980. 100% equity participation in Kuwait was achieved in 1976 and Qatar followed suit in 1976-77. Equity participation gave OPEC governments a share of the oil produced which they had to sell to third party buyers. It led to the introduction of new pricing concepts to deal with this reality. As owners of crude oil, governments had to set a price for third-party buyers. The

[32] As early as 1957, Egypt and Iran started turning away from concessions to new contractual forms such as joint venture schemes and service contracts. In 1964, Iraq decided not to grant any more oil concessions

[33] Nationalisation of oil concessions in the Middle East extends well before that date. Other than Mossadegh's attempt at nationalisation in 1951, in 1956 Egypt nationalised Shell's interest in the country. In 1958, Syria nationalized the Karatchock oilfields and in 1963 the entire oil sector came under the government control. In 1967, Algerisation of oil companies had already begun and by 1970 all non-French oil interests were nationalized. In 1971, French interests were subject to Algerisation with the government taking 51% of French companies' stakes

concept of official selling price (OSP) or government selling price (GSP) entered at this point and is still currently used by some oil exporters. However, for reasons of convenience, lack of marketing experience and inability to integrate downwards into refining and marketing in oil-importing countries, most of the governments' share was sold back to the companies that held the concession and produced the crude oil in the first place. These sales were made compulsory as part of equity participation agreements and used to be transacted at buyback prices. The complex oil pricing system of the early 1970s centred on three different concepts of prices: the posted price, the official selling price, and the buyback price. Such a system was highly inefficient as it meant that a buyer could obtain a barrel of oil at different prices. Lack of information and transparency also meant that there was no adjustment mechanism to ensure that these prices converge. Thus, this regime was short-lived and by 1975 had ceased to exist.[34]

The collapse of the OPEC administered pricing system in 1986-1988 ushered in a new era in oil pricing in which the power to set oil prices shifted from OPEC to the so called market. First adopted by the Mexican national oil company PEMEX in 1986, the market-related pricing system received wide acceptance among most oil-exporting countries and by 1988 it became and still is the main method for pricing crude oil in international trade. The oil market was ready for such a transition. The end of the concession system and the waves of nationalisations which disrupted oil supplies to multinational oil companies established the basis of arm's-length deals and exchange outside the vertically and horizontally integrated multinational companies. The emergence of many suppliers outside OPEC and more buyers further increased the prevalence of such arm's-length deals. This led to the development of a complex structure of interlinked oil markets which consists of spot and also physical forwards, futures, options and other derivative markets referred to as paper markets. Technological innovations that made electronic trading possible revolutionised these markets by allowing 24-hour trading from any place in the world. It also opened access to a wider set of market participants and allowed the development of a large number of trading instruments both on regulated exchanges and over the counter.

Physical delivery of crude oil is organised either through the spot (cash) market or through long-term contracts. The spot market is used by transacting parties to buy and sell crude oil

[34] Bassam Fatouh, *An Anatomy of the Crude Oil Pricing System*, (Oxford Institute for Energy Studies, 2011), http://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/03/WPM40-AnAnatomyoftheCrudeOilPricingSystem-BassamFattouh-2011.pdf

not covered by long term contractual arrangements and applies often to one-off transactions. Given the logistics of transporting oil, spot cargoes for immediate delivery do not often take place. Instead, there is an important element of forwardness in spot transactions which can be as much as 45 to 60 days. The parties can either agree on the price at the time of the agreement, in which case the sport transaction becomes closer to a 'forward' contract.[35] More often though, transacting parties link the pricing of an oil cargo to the time of loading. Long-term contracts are negotiated bilaterally between buyers and sellers for the delivery of a series of oil shipments over a specified period of time, usually one or two years. They specify, among other things, the volumes of crude oil to be delivered, the delivery schedule, the actions to be taken in case of default, and above all the method that should be used in calculating the price of an oil shipment. Price agreements are usually concluded on the method of formula pricing which links the price of a cargo in long-term contracts to a market (spot) price. Formula pricing has become the basis of the oil pricing system. Crude oil is not a homogenous commodity. There are various types of internationally traded crude oil with different qualities and characteristics. Crude oil is of little use before refining and is traded for the final petroleum products that consumers demand. The intrinsic properties of crude oil determine the mix of final petroleum products. The two most important properties are density and sulfur content. Crude oils with lower density, referred to as light crude, usually yield a higher proportion of the more valuable final petroleum products such as gasoline and other light products by simple refining processes. Light crude oils are contrasted with heavy ones that have a low share of light hydrocarbons and require a much more complex refining process such as coking and cracking to produce similar proportions of the more valuable petroleum products. Sulfur, a naturally occurring element in crude oil, is an undesirable property and refiners make heavy investments in order to remove it. Crude oils with high sulfur are referred to as sour crudes while those with low sulfur content are referred to as sweet crudes. Since the type of crude oil has a bearing on refining yields, different types of crude streams fetch different prices. The light/sweet crude grades usually command a premium over the heavy/sour crude grades. Given the large variety of crude oils, the price of a particular crude oil is usually set at a discount or at a premium to a marker or reference price. These references prices are often referred to as benchmarks.

[35] Although spot transactions contain an element of forwardness, they are considered as commercial agreements under US law and are not subject to the regulation of the Commodity Exchange Act.

b) Environmental Safeguards

Oil pollution of the ocean comes from shipping activity and offshore oil production. Sea-bed activities on oil exploration and production constitute a relatively small part in the general amount of the pollution of marine environment with oil. The principal cause of marine pollution with oil is shipping. Traditionally shipping is considered to be "a polluting industry". The world's tanker fleet counts approximately 7000 vessels with cargo capacities between 76000 and 175000 tons. Usual shipping operations, especially transportation of oil by tankers and accidents, result in the dumping of around 600000 – 1750000 tons of oil into the ocean per year. Due to the use of pipelines for petroleum products, oil transportation with tankers decreased significantly. However, the incidents with this type of vessels and the occurred oil spills occur constantly. The last oil pollution incident, which gained publicity and attention of the mass media, happened in October 2011 off the New Zealand's coast. The grounding off of the tanker "Rena" and the followed oil leaking caused the environmental disaster. This oil spill seriously damaged wildlife, including penguins, seals, dolphins, whales and rare sea birds (New Zealand oil spill ship captain charged, 2011).[36]

It must be stressed here that the oil spills and individual catastrophes are very spectacular, but the scientific research demonstrates that pollution from other sources damages the marine environment more. Furthermore, it should be noted that a small amount of oil is constantly seeping in the seas being assimilated into the ocean environment. Many chemicals carried at sea are intrinsically far more harmful to the marine environment. Although the impact of the oil pollution constitutes only a small part of a general pollution to the maritime environment, the consequences of oil spills and oil wastes are extremely damaging for marine landscape and ocean's inhabitants. Spilled oil is very toxic. It can be lethal to adult animals even in relatively low concentrations. It may also cause physiological or behavioral disruptions of species. Oil spills also cause death through the prevention of normal feeding, respiration and movement functions not only of ocean wildlife, but also of marine life at the sea shore. Particularly dangerous oil spills are for birds. Oil spill can lead sometime to the tainting of fish and shellfish. Sometimes one can feel the consequences of the oil spills through the oily taste or smell to the seafood. An oil spill directly damages not only animals, plants and corals, fisheries, but also affects human activity in the area of fisheries through damaging of fishing boats, fishing gear, floating fishing equipment. Oil spills affect not only the ocean

[36] Ekaterina Anyanova, *Oil Pollution & International Marine Environment Law*, http://cdn.intechopen.com/pdfs/38092/InTech-Oil_pollution_and_international_marine_environmental_law.pdf

space around them, but also shorelines, open waters and the seabed; wetlands; corals. They also damage fisheries and coastal amenities. Especially vulnerable for the potential damage is the area of shorelines. The caused damage is unpredictable and does not depend on the size of the oil spill. It depends rather on the closeness to the shoreline and vulnerability of the area. For example, a 9 000-ton diesel fuel spill from the "Tampico Maru", in the Baja California in 1957, damaged over 10 km of coastline. On the other hand, 10 000 tons of crude oil discharged by the "Argea Prima", in Puerto Rico in 1962, caused very little actual damage. The oil spill of 476 000 tonnes of crude oil, caused by the Ixtoc I oil platform blowout in the Gulf of Mexico, had caused relatively little damage. The damage from the "Argo Merchant" grounding in 1976 and oil spill of 50 000 tons were very serious. The oil spill of 40 000 tons by the VLCC "Exxon Valdez" in especially vulnerable area of Prince William Sound in Alaska, in 1989, resulted in an ecological disaster and very long and costly clean-up operations. The same phenomena were observed during the Iran-Iraq and Iraq-Kuwait military actions and resulted oil spills. The oil spill with "Atlantic Empress" with loss of almost 300 000 tons of crude oil in 1978 in the Atlantic Ocean did not cause any significant impact on economy, but seriously damaged an offshore ecosystem around the site of the catastrophe.

In the international law in the course of time a comprehensive regulatory regime on prevention of marine oil pollution (particularly oil spills) was developed. Special attention was paid to the regulation of marine oil pollution by shipping (Salter & Ford, 2001), so the existing rules cover mostly vessel-source pollution. The most effective instruments in the marine environment protection are regional treaties. Almost all regional treaties include a general obligation for signatory states to prevent, reduce and control all forms of maritime pollution. In the Helsinki convention[37] and the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention)[38] one can find more concrete clauses like the precautionary concept, polluter pays concept, best available technology, and best environmental practice. However, the elaborated rules need to be enforced and complied with. A closer co-operation and sharing of informational resources within the international community is urgently required, especially in the cases of conventions and their amendments ratification.

[37] Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992. http://www.helcom.fi/Convention/en_GB/text/

[38] Convention for the Protection of the Marine Environment of the North-East Atlantic, 1992. http://www.ospar.org/html_documents/ospar/html/OSPAR_Convention_e_updated_text_2007.pdf

B. OIL AND INTERNATIONAL LAW

a) Oil and the WTO

The rules of the GATT were negotiated almost 65 years ago from today, when the world energy demand was a fraction of what it is today as were the energy prices.[39] While energy has always been a crucial factor in geopolitics, at that time liberalising trade in energy was not a political priority. The industry was largely dominated by state run monopolies and thus governed by strict territorial allocation. International trade in energy resources and products was heavily concentrated, cartelised and controlled by a few multinational companies. This was the reason behind the GATT and the WTO, not dealing with energy as a distinct sector.[40]

It was felt that general rules, including the disciplines on state trading, could adequately address trade in energy. Also, no special agreement on trade in energy has emerged in any of the sectorial agreements that have been drawn up since the Kennedy Round. Yet since basic WTO rules are applicable to all forms of trade, they also apply to trade in energy goods and services.[41]

Traditionally, the energy industry has not distinguished between energy goods and energy related services. This is because energy services were perceived as a value added to energy goods which could not be dealt with separately. Privatisation and liberalisation of the sector led to market reform which resulted in a conceptual separation of goods and services trade. Hence, the need for a clear legal framework to address this distinction emerged. Oil and solid fuels such as coal clearly fall within the category of goods; they are easily stored and traded across borders. Crude oil is treated as a global commodity and has been traded internationally since the 1860s. Trade in crude oil represents the key link between the two poles of the industry: upstream and downstream, and crude oil prices give signals to both.[42] The same applies to natural gas. It is traded across borders via pipelines and although it can be stored in its gaseous form, it is increasingly being liquefied for the purposes of transportation to remote regions and for storage. It is commonly understood that under the WTO rules, production of energy goods comes within the scope of the General Agreement on Tariffs and Trade

[39] M.A. Adelman, *World Oil Production & Prices 1947-2000* 42-2 THE QUARTERLY REV. OF ECON. 170
[40] *Id.*
[41] O. Nartova, *Trade in Energy Services under WTO Law: The Impact of Competition Policies*, University of Bern (2009); S. Matteotti, *Oil Supply Management Practices of OPEC under the World Trade Organization Rules and the National Competition Laws*, University of Bern (2010)
[42] Energy Charter Secretariat, *Putting a Price on Energy: International Pricing Mechanisms for Oil and Gas* (2007) 67

(GATT), while energy related services, including transmission and distribution, fall under the scope of the General Agreement on Trade in Services (GATS).[43]

International trade in energy resources and products traditionally was heavily concentrated, cartelised and controlled by a few multinational companies. Hence the rules of the General Agreement on Tariffs and Trade (GATT), and now the World Trade Organization (WTO), do not deal with energy as a distinct sector. It was felt that general rules, including the disciplines on state trading, could adequately address trade in energy. However, certain features of the energy sector make it different from other industries in many ways and we submit existing WTO rules do not appropriately address all the needs of energy trade today. Ensuring security of supply and addressing climate change mitigation, creating an effective incentives mechanism to reduce CO_2 emissions are the first priorities.

The interface of trade and climate change mitigation and adaptation is at the heart of contemporary legal developments in energy law. Yet, the challenges of climate change are merely the tip of the iceberg of unresolved and controversial issues relating to the status of energy in international law. The picture is one of fragmentation with multiple instruments involved. The bulk of regulation comes under domestic law and the role of regional and global law in addressing energy and secure production and supplies has remained unclear and unsettled. Doctrines of multi-layered governance have hardly been applied to the sector.

Different and competing forms of energy are therefore subject to strongly divergent international rules, depending on whether they qualify as a good or a service. The same applies to the operation of trade remedies, in particular because of the absence of disciplines on subsidies in services. Moreover, existing disciplines on subsidies in goods may not be suitable to address a distinction between renewable and non-renewable energy under GATT and the Agreement on Subsidies and Countervailing Measures (ASCM). The Agreement on Agriculture again offers different disciplines. It thus makes a fundamental difference whether a product is classified as an industrial or an agricultural product.

There are also unresolved and basic issues related to competition policy and thus about the relationship of WTO law and OPEC as a producer organisation. The crucial question is whether oil exporters, when they join the WTO, will still be able to support oil prices through the regulation of oil production, or whether they could face challenges on the basis of

[43] WTO, *Energy Services: Background Note by the Secretariat*, S/C/W/52 (1998), ¶ 36

GATT/WTO rules and provisions.[44] WTO law disciplines on government procurement seek to facilitate market access and level the playing fields in purchases of goods and services by governments. The current rules on government procurement both within and outside the WTO do not systematically address the linkage to green procurement. There is therefore controversy as to what extent Members are entitled to condition government procurement in the light of goals set out in the Kyoto Protocol.

WTO law thus leaves a number of basic incoherencies and open questions. They were partly addressed in the papers and the doctoral projects of Individual Project No. 6 of the NCCR Trade Regulation and at the World Trade Forum 2007. The main findings are discussed within the following agenda for reform.

Energy requires an integrated approach and does not lend itself to sectoral negotiations, depending upon different forms of energy applied to competing energy sectors. The sector encompasses fossil and non-fossil fuels and energy including oil, gas, coal, wood, electricity, and renewable sources of energy production (solar, wind, wave and tidal), as well as biofuels. All these forms of energy should be subject to the same rules and thus conditions of competition. The production and transmission of energy is a complex operation which often involves both goods and services. It also entails technology and thus is affected by intellectual property rights. The sector shows a high level of governmental involvement which calls for coherent rules on competition and government procurement.

b) Regional Arrangements: NAFTA, MERCOSUR AND OPEC

The current creation and formation of regional trading and economic blocks falls into a time period which is characterised not only by the disintegration of "real socialism" and the decline of the hegemonic role of the USA, but by the quickly growing processes of internationalisation and globalisation of products, and the flow of capital and finances. Various tendencies overlap one another, although the assertion of one over the other is not discernible. Globalisation and the stretching out of free trade (GATT, WTO) run parallel to transcontinental block-building (EU, NAFTA, ASEAN, etc.). "The world economic order is characterised by a dual process of protectionism and free trade, or rather, by regionalism and multilateralism".[45] Since the second half of the 80s, in Latin America also, the revitalisation or inauguration of cases of economic integration can be observed: MERCOSUR (Brazil,

[44] H.Abdallah, *Oil exports under GATT and the WTO*, OPEC Review 29(4) (2005), 267
[45] EVA LAVON, DAS NORDAMERIKANISCHE FREIHANDELSABKOMMEN (NAFTA) 29 (FEG, 1994)

Argentina, Uruguay, Paraguay), the "Group of the three" (Mexico, Venezuela, Colombia), the "Andean Pact" , including Peru, Bolivia, Ecuador, Colombia and Venezuela and the signing of many bilateral trade agreements.[46]

OPEC was formed in September 1960 by five oil-producing developing countries (Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela) with the objective:

> …to coordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers.[47]

At that time, the international oil industry – outside the USA, Canada, the USSR, and China – was characterized by the dominant position of the large multinational oil companies known as the 'Seven Sisters'.[48] Host governments did not participate in the production or pricing of crude oil, acting only as competing sellers of oil concessions, and in return they received a stream of income through royalties and income taxes.

i. *North American Free Trade Agreement (NAFTA)*

The North American Free Trade Agreement (NAFTA) has been in effect since January 1, 1994. Signed by President George H.W. Bush on December 17, 1992, and approved by Congress on November 20, 1993, the NAFTA Implementation Act was signed into law by President William J. Clinton on December 8, 1993 (P.L. 103-182). NAFTA continues to be of interest to Congress because of the importance of Canada and Mexico as U.S. trading partners, and also because of the implications NAFTA has for U.S. trade policy. This report provides an overview of North American trade liberalization before NAFTA, an overview of NAFTA provisions, the economic effects of NAFTA, and policy considerations.[49]

A legacy of NAFTA is that it has served as a model for other FTAs that the United States later negotiated and also for multilateral negotiations. NAFTA initiated a new generation of trade agreements in the Western Hemisphere and other parts of the world, influencing negotiations in areas such as market access, rules of origin, intellectual property rights, foreign investment, dispute resolution, worker rights, and environmental protection. The

[46] DIETER BORIS & KRISTINE HIRSCHKORN, THE NORTH AMERICAN FREE TRADE AGREEMENT: CONSEQUENCES OF NEOLIBERAL MARKET STRATEGIES FOR MEXICO AND CANADA 4 (FEG 1996)
[47] OPEC, *Our Mission*, www.opec.org/opec_web/en/about_us/23.htm
[48] The Seven Sisters comprised Anglo-Persian Oil Company (now BP); Gulf Oil, Standard Oil of California (SoCal) and Texaco (now Chevron); Royal Dutch Shell; and Standard Oil of New Jersey (Esso) and Standard Oil Company of New York (Socony) (now ExxonMobil)
[49] *See* M. ANGELES VILLARREAL & IAN F. FERGUSSON, NAFTA AT 20: OVERVIEW & TRADE EFFECTS 4-5 (Congressional Research Service, 1914) 2014, https://fas.org/sgp/crs/row/R42965.pdf

United States currently has FTAs with 20 countries. As with NAFTA, these trade agreements have often been supported or criticized on similar arguments related to jobs.[50]

The concept of economic integration in North America was not a new one at the time NAFTA negotiations started. In 1911, President William Howard Taft signed a reciprocal trade agreement with Canadian Prime Minister Sir Wilfred Laurier. After a bitter election, Canadians rejected free trade and ousted Prime Minister Laurier, thereby ending the agreement. In 1965, the United States and Canada signed the U.S.-Canada Automotive Products Agreement that liberalized trade in cars, trucks, tires, and automotive parts between the two countries.[51] The *Auto Pact* was credited as a pioneer in creating an integrated North American automotive sector. In the case of Mexico, the government had been implementing reform measures since the mid-1980s, prior to NAFTA, to liberalize its economy. By 1990, when NAFTA negotiations began, Mexico had already taken significant steps towards liberalizing its protectionist trade regime.

The Agreement as well as Clinton's side agreements for environmental and labour standards contain the following elements:

a) Successive and asymmetrical reduction of tariffs between Mexico and the USA/Canada for the increasingly larger percentages of goods and services crossing the borders.

b) Liberalisation of capital transfers, partial liberalisation of corporate investment rights for banks, granting of insurance rights in the respective partner states (after 6 years).

c) Full equalisation of foreign and domestic investment.

d) Rules for determination of origin which define if, for example, a product produced in Mexico is classified as a Mexican product or - in case too great of a share of the unfinished products and components originate from a foreign country - as a foreign product.

e) Special exemptions for individual branches and sectors (e.g., the textile sector and agriculture sector; confirmation of the continuation of state monopolies in electricity and oil sectors in Mexico).

[50] *Id.* at 5

[51] The Canada-United States Automotive Products Agreement removed tariffs on cars, trucks, buses, tires, and automotive parts between the two countries. NAFTA effectively superseded this agreement.

f) Problems of labour mobility were predominantly ignored; exemptions concerning the liberalisation of reciprocal migration are limited to the highly qualified labour force.

g) The agreement contains detailed concepts about the institutionalised settlement of conflicts.[52]

For the United States, NAFTA was an economic opportunity to capitalize on a growing export market to the south and a political opportunity to repair the sometimes troubled relationship with Mexico. At the same time, NAFTA was seen as a way to support the growth of political pluralism and deepening of democratic processes in Mexico and as part of the long term response to chronic migration pressures.

In addition, US officials hoped the regional talks would spur progress on the slow-paced Uruguay Round of multilateral trade negotiations, while providing a fallback in the event that those talks faltered. NAFTA reforms promised to open new doors for US exporters – who faced Mexican industrial tariffs five times greater on average than US tariffs – to a growing market of almost 100 million people. US officials also recognized that *imports* from Mexico likely would include higher US content than competing imports from Asia, providing an additional benefit. Increased Mexican sales in the US market would in turn spur increased Mexican purchases from US firms.[53]

Energy trade is an important component of the North American economy. Each NAFTA country relies importantly on its neighbours to buy or sell energy resources to fuel regional economic growth. Though each of them produces substantial amounts of oil and gas, the region as a whole is a small net energy importer – primarily due to large-scale US oil imports. Canada and Mexico together supply about one-third of total US oil imports. Canada also accounts for the bulk of US imports of natural gas and electricity.[54]

Oil trade has long been a key component of North American Economic Integration. Although prices are volatile, oil accounts for about 7 percent of intra-NAFTA trade, of which US imports from Canada and Mexico represent the major share. The value of total US oil imports from NAFTA partners was $56 billion in 2003. The United States imports more petroleum

[52] NAFTA *supra* n. 46 at 7
[53] Institute for International Economics, *NAFTA Revisited: Achievements and Challenges*, http://www2.hawaii.edu/~noy/362texts/NAFTAoverview.pdf 58-60
[54] *Id.* at 396

from Canada (2.1 million barrels per day) than from Saudi Arabia (1.8 mmb/d); Mexico is a close third with 1.6 mmb/d.

ii. Southern Common Market (MERCOSUR)

Since its creation in 1991, the MERCOSUR has conceived of regional integration as the fastest way of advancing the process of economic development with equity, in an international context characterized by consolidation into large economic blocs. The process of trade liberalization is a complex phenomenon that includes unilateral opening, multilateral negotiations, and plurilateral preferential agreements. MERCOSUR's agenda over the next few years will include hemispheric negotiations on the Free Trade Area of the Americas (FTAA), potential separate negotiations with the United States in the "4+1" format (the United States plus the MERCOSUR countries), multilateral negotiations within the framework of the WTO, and ambitious negotiations with the European Union. In South America, MERCOSUR has incorporated Bolivia and Chile as "associated" countries, and has proposed negotiating a free trade area with the countries of the Andean Community of Nations (CAN).

The progress that the MERCOSUR countries made in their own integration process has been a positive contribution to the progress of their external negotiations, since the member countries demonstrated their ability to negotiate, and this increased their credibility. However, in the last few years, these countries have had internal problems that have led to delays in completing their customs union; this has damaged the bloc's credibility and affected its power to negotiate externally.[55]

Although MERCOSUR'S external strategy is the result of compromise among diverse national interests, the bloc as a whole has been able to present a common front in the main negotiations on its agenda (WTO, FTAA, European Union). In particular, it is important to highlight the countries' common position on the question of agricultural protection in the developed countries. As far as the FTAA is concerned, the MERCOSUR countries agree on the importance of gaining access to the US market, and on the premise that the FTAA will be beneficial only if the United States effectively opens its market.[56]

[55] FERNANDO LORENZO & MARCEL VAILLANT, MERCOSUR AND THE CREATION OF THE FREE TRADE AREA OF THE AMERICAS 3-5, (Woodrow Wilson International Center for Scholars, 2014)
[56] *Id.* at 5

Among the participating nations, the oil and gas industry in Argentina differs greatly from the rest of the countries in the region. While Argentina shows an increasing trend toward free market, in the rest of the region this sector continues to be dominated by government-owned companies.

Brazilian Petrobras is the largest oil and gas company in the region and, with the exception of state-owned PDV in Venezuela, the largest in South America. The Brazilian government has expressed its intention of placing limitations on this monopoly, but how this will be achieved has yet to be defined.

Bolivia has initiated the privatization process of YPFB, the state-owned oil and gas company, through the capitalization of business units.[57]

iii. *Organization of Petroleum Exporting Countries (OPEC)*

Among these existent regional arrangements, OPEC is the most robust regional arrangement of some of the richest oil and gas producing nations, which has brought a paradigm shift in the oil and gas market since its inception. Popularly known as the *Seven Sisters* group, OPEC has made a crucial impact on the pricing mechanism in the market.

Around its beginning, each of the Seven Sisters was vertically integrated and had control of both upstream operations and, to a significant but lesser extent, downstream operations. At the same time, they controlled the rate of supply of crude oil going into the market through joint ownership of companies that operated in various countries. Such vertical and horizontal linkages enabled the multinational oil companies to control the bulk of oil exports from the major oil-producing countries and to prevent large amounts of crude oil accumulating in the hands of sellers, thus minimizing the risk of sellers competing to dispose of unwanted crude oil to independent buyers and thus pushing prices down. At the heart of the concessions system was the concept of a 'posted' price, which was used by the oil companies to calculate the stream of revenues accruing to host governments. Being a fiscal parameter, the posted price did not respond to the usual market forces of supply and demand and thus did not play any allocation function. The formation of IPEC in 1960 was an attempt by member countries to prevent the decline in the post price and thus for most of the 1960s, OPEC acted as a trade union whose main objective was to prevent the income of its member countries from falling.

[57] T.J. Hammons, N. de Franco & L.V. Shertoli et al., *Energy Market Integration in South America*, http://web.ing.puc.cl/power/paperspdf/integration.pdf

In between 1965 and 1973, global demand for oil increased rapidly, with an average annual increase of more than 3 mb/d. Most of this demand increase was met by OPEC countries, which increased their share in global crude oil production from 44 percent in 1965 to 51 percent in 1973. These oil market conditions created a strong sellers' market and significantly increased the power of OPEC government relative to that of the multinational oil companies. In September 1970, the Libyan Government concluded an agreement in which oil companies agreed to pay income tax on the basis of an increased posted price and to make retrospective payments to compensate for the lost revenue since 1965. As a result of this agreement, other oil producing countries made it clear that they would not accept anything less than the terms granted to Libya. The negotiations conducted between OPEC and the multinational oil companies in Tehran in 1971 resulted in a collective decision to raise the posted price and increase the tax rate.[58]

Following that, OPEC has made gradual and *in tandem* shifts with the changing market scenario in pricing and administering mechanisms. Although, over the years, OPEC membership has increased (12 members now)[59], OPEC's share of global production remained relatively stable for most of the 1990s and 2000s, increasing slightly to around 43 percent in 2011. This share of output is relatively small compared to the size of its reserves, which stood at more than 8- percent of the world's proven reserves in 2011. What gives OPEC its prominence, however, is its dominant position in the international trade of crude oil, where OPEC's exports constituted around 60 percent of the world's crude oil exports in 2011, with the share expected to rise as oil demand growth shifts to oil-poor Asia. Furthermore, spare capacity is concentrated in OPEC, particularly in the three Gulf Cooperation Council (GCC) member states (Saudi Arabia, Kuwait, and the UAE), with Saudi Arabia holding the bulk of the world's available spare capacity. This has allowed Saudi Arabia to act as a swing producer, filling the gap at times of oil supply disruptions and adjusting its output to balance the market.[60]

[58] The decisions are known as the "Tripoli-Tehran" Agreements
[59] *See* OPEC, *Member Countries*, http://www.opec.org/opec_web/en/about_us/25.htm
[60] Bassam Fattouh & Lavan Mahadeva, *OPEC: What Difference Has it Made?*, http://www.opec.org/opec_web/en/about_us/25.htm

As Amuzegar's description of OPEC implies,[61] the only effective way to understand the mechanization of OPEC is to see it in action. The acts of OPEC clearly show the limits of its purposes.[62]

OPEC has not integrated its Members' economies, but has coordinated their policies concerning oil production.[63] Since the Third Conference in 1961, OPEC has sought to develop a uniform production policy;[64] however, in 1971, the Twenty-third Conference finally resolved to hold back a joint production program.[65] While the OPEC Economic Commission[66] acknowledges that the failure to unite the Members' various petroleum policies is a threat to OPEC's existence, the Conference has resisted imposing any formal plan of production control.[67] The absence of a system of uniform production may lead to future trouble if oil consumption drops,[68] because a decrease in demand may result in price reductions.[69] Although no formal production policy has ever been implemented, OPEC has created informal production controls through the principle of supply and demand. OPEC's most visible function is to set price guidelines.[70] While OPEC does not force its Members to observe these suggested prices, the five states -Venezuela and the four major Persian Gulf producers-who control 72 percent of the total OPEC production have maintained close adhesion to OPEC's price policy.[71] The other Member states must bring their prices in line with the five major producers in order to remain competitive, and in the past higher prices have been driven back into conformity with OPEC guidelines by this process.[72] It follows that over-production by one state can be curtailed if the major producers slightly increase

[61] AMUZEGAR, THE OIL STORY: FACTS, FICTION AND FAIR PLAY, 51 FOREIGN AFF. 684 (1973)
[62] "OPEC is a limited-purpose alliance of governments bent on maximizing their medium-term monetary returns from oil." This quote points to two factors in OPEC's operations: its limited economic purpose and its deference to state sovereignty. A third factor is the metamorphosis of OPEC from a defensive group to a dynamic economic power. OPEC ANN. REP. 58 (1977).
[63] Z. MIKDASHI, THE COMMUNITY OF OIL EXPORTING COUNTRIES: A STUDY IN GOVERNMENTAL COOPERATION 96 (1972)
[64] OPEC Res. III.26 (1961)
[65] OPEC Res. XXIII.133 (1971)
[66] The Economic Commission is a separate research body within OPEC, working in conjunction with the Economics Department.
[67] *Cf.* F. WYANT, THE UNITED STATES, OPEC, AND MULTINATIONAL OIL 95 (1977) (use of pricing policy as an alternative to formal production controls)
[68] Comment, *Cartel Pricing in the International Energy Market: OPEC in Perspective*, 54 ORE. L. REV. 643, 663-64 (1975)
[69] *See* Levy, *World Oil Cooperation of International Chaos*, 52 FOREIGN AFF. 690, 710 (1974)
[70] There are three types of pricing: (1) posted price-a legal fiction used by exporters to calculate royalties and tax forms from companies who produce and keep the oil, (2) buyback price-applied to oil produced by the companies, but owned by exporters through participation agreements, then bought by the companies, and (3) open-market price-applied to participation oil not bought back or to oil sold on the open market
[71] *Infra* n. 88 at 99
[72] *Id.*

their production while maintaining lower prices: the smaller state would be faced with an economically destructive surplus. It seems that as long as these five states dominate production and remain moderate with respect to following OPEC price guidelines,[73] OPEC can continue to present a consistent production policy to the consumer states, assuring them of a supply of oil at a "fair" price.[74]

OPEC has made substantial external gains in the international petroleum industry.[75] The industry is based upon the concession system, which has influenced OPEC's actions. In its first ten years, major successes were accomplished in two pricing areas. First, a new method of royalty payments was established in 1963 called "expensing royalties," which changed royalty payments from a credit to an expense for the purposes of taxes.[76] Second, the 55 percent tax rate on net income of oil company operations within Member states was established in 1971.96 The net effect of these changes has been a substantial increase in revenues to the Members as compared to revenues derived from the old system of credit royalties and "50-50 revenue sharing." These two gains in the pricing area seem to indicate the power of OPEC when it does act as a unified body. OPEC's power is based upon its ability to retaliate against or to reward the conduct of its consumers, both governments and private companies.[77] Retaliatory measures include embargoes, regulation of operations, controlling foreign investments of oil proceeds, discriminatory price-fixing, and altering politico-military alliances.[78] Rewards, on the other hand, include special concessions and cooperations in investments.[79] These tactics have been utilized successfully in the past,

[73] Iran, traditionally a moderate on oil policies because of ties with the United States, is now a question mark both for its production ability and for its policies.

[74] "Fair" is a relative term. OPEC's conception of a fair price might be substantially different than that of the consumer states

[75] *Infra* n. 94 at 81

[76] The Conference, in 1962, passed three resolutions in order to meet a continued drop in petroleum prices. OPEC Res. IV. 32, IV. 33, IV. 34 (1962). OPEC had not tested its strength as an organization until this time, but resistance from the oil companies to individual state action caused OPEC to try its power of collective action against the companies. OPEC, however, did not act as an autonomous body, calling instead for joint action among its Members. Id. By the Fifth Conference, when a three-member committee was authorized by OPEC to continue negotiations with the oil companies, sufficient progress had been made so that the measures called for in Resolution IV.32 would not be necessary. OPEC Res. V.40 (1962). Nonetheless, further resistance by the companies to "expensing royalties" caused OPEC to call for a boycott on granting new oil rights until the companies acceded to the new pricing system in all member states. OPEC Res. X.63 (1965), OPEC Res. XI.72, Res. XI.73 (1965). The expensing royalty negotiations were carried out for the most part by individual states; however, it seems that the success of these negotiations was due to the potential power that collective bargaining could bring. It was the first victory for OPEC, which discovered that the mere threat of retribution could shatter the once immovable company resistance.

[77] AMUZEGAR, OPEC IN THE CONTEXT OF THE GLOBAL POWER EQUATION, 4 DEN. J. INT'L & POL'Y 221, 227 (1974)

[78] *Id.*

[79] *Id.* at 228

although they have greater power when used merely as a deterrence or an inducement.[80] Of course, these weapons are effective only in a market situation in which demand exceeds supply,[81]and only if the Members act as a unified body.[82]

4. GLOBAL OIL MARKET AND UNILATERAL SANCTIONS

Since its origin in the nineteenth century, the international petroleum industry has operated, and learnt to operate, in often highly politically charged environments. The competence in identifying, assessing, and managing such political risk has always been: and is likely to be in the future: an essential factor of corporate and managerial competitiveness in this industry. Political risk reflects the exposure of the technical and business approach to the industry to the often much more volatile, less forecastable, and less manageable events in the political sphere: as contrasted to the supposedly more rational sphere of commercial decision-making. Politics sometimes specifically targets and hits the petroleum industry not only due to its strategic character, large capital investment, and public visibility, but also because the industry's global nature, imbued with foreign elements resented in nation states, makes it a very suitable target. But politics can also hit the petroleum industry rather accidentally, in particular when this industry is in the way of conflicts between states, between conflicting ideologies, or within a country, between ethnic groups or classes that hate each other. Political risk shows up in many faces. As national and global politics evolve, old faces may reappear and new faces are certain to emerge. The political risk of the 1960s and 1970s was nationalisation in all its forms;[83] instability of the legal and fiscal framework, high transaction cost, and the weak force of the institutions of law are key facets of political risk in the former Communist countries.[84] These are the two faces of political risk originating from weak participants in the international economy. But there are also significant political risks created in the developed economies, including environmental regulation, both in substance and as a

[80] *Id.*
[81] D. RUSTOW & J. MUNGO, OPEC: SUCCESS AND PROSPECTS 94 (1976)
[82] Z. MIKDASHI, THE INTERNATIONAL POLITICS OF NATURAL RESOURCES 52 (1976)
[83] *See* Thomas W. Waelde & George Ndi, *Stabilizing International Investment Commitments: International Law Versus Contract Interpretation*, 31 TEX. INT'L L.J. 215 (1996); Andrew Seck, *Investing in the Former Soviet UnionHs Oil Industry: The Energy Charter Treaty and its Implications for Mitigating Political Risks*, in THE ENERGY CHARTER TREATY: AN EAST-WEST GATEWAY FOR INVESTMENT AND TRADE 110 (Thomas W. Waelde ed., 1996)
[84] *See* Thomas W. Waelde & James L. Gunderson, *Legislative Reform in Transition Economies: Western TransplantsEA Short-cut to Social Market Economy Status?*, 43 INTL. & COMP. L.Q. 347 (1994), reprinted in MAKING DEVELOPMENT WORK: LEGISLATIVE REFORM FOR INSTITUTIONAL TRANSFORMATION AND GOOD GOVERNANCE (R. & A. Seidman & T. Waelde eds., 1999); Thomas W. Waelde, *Foreign Investment in CIS Oil and Gas and its Implications for Other Countries*, OPEC BULLETIN (July/Aug. 1994), at 16

pretext for domestic protectionism,[85] and economic sanctions. Economic sanctions, as a form of political risk of current and possibly growing significance, that originate in the developed world and in particular in the United States.

There is a substantial amount of political science literature focusing on the effectiveness of sanctions. The history of the economic sanctions under the League of Nations (powerless to stop the Italian invasion of Ethiopia) created a pervasive sentiment that, different from the very grand ambitions of the League,[86] economic sanctions rarely succeeded. The major study by Hufbauer and Schott[87] analysed over one hundred economic sanctions (primarily U.S.-originated) and came to the conclusion that there were some successes, though these were in the past when U.S. economic power was comparatively dominant. The findings on effectiveness are not very surprising and indicate what a common sense observation of contemporary history would indicate as well: The larger the economic power of the sanctioning country or countries relative to the target country, and the more comprehensive, sudden, and seriously enforced the sanctions, the greater the sanctions effectiveness in reaching their foreign policy goal (usually to modify the behaviour of the target country toward the norms of behaviour prevalent in the sender country). Large countries, countries that have time to adjust their economic system to sanctions, and countries with a very effective repressive regime tend to be less sensitive to such sanctions. Sanctions by the United States alone have less of an effect than multilateral, United Nations-sponsored sanctions where the major economic powers and the neighbouring countries of the target all act together. Sanctions based on serious political will and energetically enforced are more effective than sanctions which are reluctantly adopted by a government responding to domestic pressures. Modern political science analysis of sanctions has advanced from the model of the target state as a monolithic actor weighing rationally the costs of sanctions versus the benefits of maintaining the incriminated behaviour. The modern approach, while still incorporating the rational actor model, pays attention to the internal structure of the target society and tries to influence the ruling elites to change their behaviour, either by rational self-calculation of their own self-interest in the face of prospective or existing

[85] Thomas W. Waelde, Environmental Regulation Under the Energy Charter Treaty, in ECONOMIC DEVELOPMENT WITH A HUMAN FACE 223 (Friedl Weiss et al. eds., 1997), http://www.cepmlp.org/journal

[86] U.S. President Woodrow Wilson stated: "A nation that is boycotted is a nation that is in sight of surrender. Apply this economic, peaceful, silent, deadly remedy and there will be no need for force. It is a terrible remedy. It does not cost a life outside the nation boycotted, but it brings a pressure upon the nation which, in my judgment, no modern nation could resist."

[87] GARY CLYDE HUFBAUER & JEFFREY J. SCHOTT, ECONOMIC SANCTIONS RECONSIDERED: HISTORY AND CURRENT POLICY (1985); MICHAEL P. MALLOY, ECONOMIC SANCTIONS AND U.S. TRADE (1990)

sanctions or by mobilising their interest in survival in the face of popular opposition hopefully engendered by the impact of sanctions.[88]

Unilateral sanctions are usually imposed by an individual state which resorts to unilateral sanctions as a primary tool of foreign policy with an objective to modify the targeted country's behaviour. These sanctions are imposed by a state through application of its national legislation, which are prima facie extra-territorial in nature and against the established principles of jurisdiction under international law. The doctrine concerning extra-territorial application of national legislation though not well settled, the basic principle in international law is that all national legislations are territorial in character. Hence, the unilateral sanctions and extraterritorial application of national legislation violates the legal equality of States, and principles of respect for and dignity of national sovereignty and non-intervention in the internal affairs of the State. Application of unilateral sanctions violates basic principles of Charter of the United Nations and certain other important legal instruments. It imposes suffering and deprivation on innocent citizens of other countries, especially mass human rights violations and deprives them from their right to development and self-determination.[89]

Sanctions are usually explained by formal foreign policy reasons. The image is of the state as a monolithic unit rationally pursuing its high policy objectives: this is projected by preambular language into legislation and apparently largely accepted within the epistemological apparatus of both political scientists and international lawyers. But it is clear that there is a significant domestic policy element in US sanctions. What is the implication of such domestic factors forcing international economic sanctions onto the international petroleum industry and its strategies? Oil companies need to know whether sanctions – apparently incompatible with a liberal global economy – are on their way out or represent a new and emerging form of state power captured, engineered and employed by the domestic pressure groups in the United States, using the leverage of US economic and political power for their often quite narrow and specific political and ideological ambitions. Finally, what does this mean for the international oil and gas industry?

[88] William A. Kerr & James D. Gaisford, *A Note on Increasing the Effectiveness of Sanctions*, 28 J. WORLD TRADE 169 (1994).

[89] Rahmat Mohamad, *Unilateral Sanctions in International Law*, http://ilcc.eu/Editor/UploadFiles/PDF/Abstracts%20of%20Presentations%20at%20the.pdf

There is a substantial amount of political science literature focusing on the effectiveness of sanctions. The history of the economic sanctions under the League of Nations created a pervasive impression that, in contrast to the very grand ambitions of the League[90], economic sanctions rarely succeeded. The authoritative survey by Hufbauer and Schott analysed over a hundred economic sanctions and came to the conclusion that there were some successes, though these tended to be in the past hen US economic power was more dominant than it is today. The findings on effectiveness are not too surprising; they confirm what common-sense observation of contemporary history indicates:

- ✓ The larger the economic power of the sanction-sender country (or countries), the more comprehensive, sudden and seriously they are enforced, and the smaller, more dependent and weaker the target country, the greater the effectiveness of economic sanctions in reaching their foreign policy goal – usually to modify the behaviour of the target country towards the norms of behaviour prevalent in the sender country.
- ✓ Large countries, countries that have time to adjust their economic system to sanctions, and countries with a very effective repressive regime tend to be less sensitive to such sanctions. US-alone sanctions have less of an effect than multilateral, UN sponsored sanctions where the major economic powers and the neighbouring countries of the target all act together.
- ✓ Sanctions based on serious political will and energetically enforced are – who would be surprised? – more effective than sanctions which are reluctantly adopted by the Government to respond to domestic pressures.[91]

A. UNILATERAL SANCTIONS AND IRAN

Unilateral U.S. sanctions have been increasingly applied in the Gulf, though they have largely failed to bring about desired changes of behaviour on the part of targeted countries such as Iran and Iraq. This has led many regional experts to argue that sanctions, once tools of policymaking, now constitute de facto U.S. policy in and of themselves.[92]

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[90] US President Woodrow Wilson said: 'A nation that is boycotted is a nation that is in sight of surrender. Apply this economic, peaceful, silent, deadly remedy and there will be no need for force. It is a terrible remedy. It does not cost a life outside the nation boycotted, but it brings a pressure upon the nation which , in my judgment, no modern nation could resist'

[91] JOHN V. MITCHELL, COMPANIES IN A WORLD OF CONFLICT: NGOS, SANCTIONS AND CORPORATE INDUSTRY 117-120, (The Royal Institute of International Affairs, 1998)

[92] Atlantic Council of the United States & The Middle East Institute et. al, *U.S. Challenges and Choices in the Gulf: Unilateral U.S. Sanctions*, Policy Brief #10, http://www.stanleyfoundation.org/publications/archive/RAPPgulfj02.pdf

a) Sanctions and their Landscape

Japan and South Korea are two countries for which sanctions presented special problems due to their past dependence on Iranian oil imports as well as both countries energy needs. Japan and South Korea acceded to US-led unilateral sanctions, but these decisions only came after strong encouragement from the United States. Both countries have issued statements supporting sanctions and upholding the US policy of preventing Iran from obtaining a nuclear weapon.

Both nations have implemented some unilateral sanctions themselves in 2010, mainly against oil and natural gas investment, a ban on transactions with some Iranian banks, and blacklisting companies and people associated with the nuclear program. Japan and South Korea have preferred to abide by US sanctions rather than instituting similar sanctions themselves.

Initially, both nations had substantial commercial and energy ties to Tehran and were hesitant to endanger their economic and energy interests. Japan and South Korea both used Iranian oil as a large part of their energy resources amounting to roughly 10% of their crude oil. Tehran warned in October 2012 that full sanctions implementation by Iran's few remaining energy partners may force the country to stop exporting oil altogether, "If you continue to add to the sanctions we (will) cut our oil exports to the world…We are hopeful that this doesn't happen, because citizens will suffer. We don't want to see European and U.S. citizens suffer."

The United States currently maintains sanctions on Iran, Iraq and Libya, as well as sanctions on Syria (based largely on its designation by the State Department as a state sponsor of terrorism) and on Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates and Yemen under the Foreign Relations Authorization Act for 1994 and 1995.[93] U.S. sanctions on Iran are unilateral, though some other countries also maintain sanctions on Iran. By contrast, U.S. sanctions on Iraq and Libya are a combination of unilateral sanctions and international sanctions imposed by the United Nations. A lifting of UN sanctions would not

[93] This act specifies that the United States may not provide defense materials to countries enforcing secondary and tertiary aspects of the Arab League boycott of the state of Israel, which call for discrimination against U.S. and other foreign firms that wish to do business with both Israel and boycotting countries. However, the arms embargo provisions of this act have been waived by the President every year since its inception for all the countries of the Gulf except Iran and Iraq. This is because the Gulf Cooperation Council announced in September 1994 their non-adherence to the secondary and tertiary aspects of the boycott (a decision that Kuwait had announced previously). In 1996, both Oman and Qatar ended boycott enforcement and established reciprocal trade arrangements with Israel. Yemen formally renounced observance of the secondary and tertiary aspects of the boycott in 1995.

imply an end to U.S. sanctions (as demonstrated by the suspension, since 1999, of only UN sanctions on Libya).

Some U.S. sanctions began at the time of the U.S.-Iran hostage crisis of 1979-1981 in the form of Carter Administration executive orders blocking Iranian assets held in the United States. The assets were unblocked by subsequent Orders when the crisis was resolved in early 1981 under the "Algiers Accords." The Accords established a "U.S.-Iran Claims Tribunal" at the Hague continues to arbitrate cases resulting from the 1980 break in relations and freezing of some of Iran's assets. Major cases yet to be decided center on hundreds of Foreign Military Sales (FMS) cases between the United States and the Shah's regime, which Iran claims it paid for but were unfulfilled. A reported $400 million in proceeds from the resale of that equipment was placed in a DOD FMS account and may remain in this escrow account, although DOD has not provided CRS with a precise balance. In addition, about $50 million in Iranian diplomatic property and accounts remains blocked—this amount includes proceeds from rents received on the former Iranian embassy in Washington, DC, and 10 other properties in several states, along with related bank accounts.[94] Including Iranian assets blocked under Executive Order 1399 of February 2010, discussed below, about $1.95 billion in Iranian assets is blocked, according to the 2013 "Terrorist Assets Report."

Some of Iran's assets have been held against legal judgments ordering Iran to compensate U.S. victims of Iranian-backed terrorism. Recent terrorism-related judgments include those in favor of the families of the 241 U.S. soldiers killed in the October 23, 1983, bombing of the U.S. Marine barracks in Beirut. About $8.8 billion has been awarded in eight judgments against Iran for that bombing, which was perpetrated by elements that formed Lebanese Hezbollah. The Algiers Accords appears to have precluded compensation for the 52 U.S. diplomats held hostage by Iran from November 1979 until January 1981.[95]

In order to understand the pressures Iran faced before the agreement and would face if it failed and the US and EU reacted with the strength they showed after 2011, it is necessary to understand just how dependent Iran is on petroleum and gas exports. Regardless of what Iranian officials may say, petroleum exports make up the bulk of Iran's revenues, and are highly vulnerable to sanctions, embargoes, or military attacks. Iran's economy is simply not sufficiently diversified that it is able to withstand a large drop in oil exports. The Iran-Iraq

[94] USDT, *Annual Report to the Congress on Assets in the United States of Terrorist Countries and International Terrorism Program Designees*, http://www.treasury.gov/resource-center/sanctions/Documents/tar2010.pdf
[95] Jennifer K. Elsea, *Suits Against Terrorist States by Victims of Terrorism*, CRS Report: RL31258

War, sanctions, years of mismanagement, badly structured state intervention, and endemic corruption have taken their toll on the Iranian economy. As per the CIA estimates Iran only had a per capita income of around $13,300 in 2011 – even before the US and Europe imposed new and far more draconian sanctions. Iran's per capita income then ranked 34th in the world and was by far the lowest rank of any major oil producer in the Gulf, except Iraq. Iran also had an unemployment level in excess of 15%, and youth unemployment somewhere between 20-30% when acute underemployment was taken into account. Some 18.7% of the population was below the poverty line, and Iran's middle class and business class had already suffered from years of inflation, state intervention, and government corruption.[96]

Since 1996, Congress and successive Administrations have put in place steps to try to force foreign firms to choose between participating in the U.S. market and continuing to conduct various energy-related transactions with Iran. The intent of energy sanctions has been to put pressure on Iran's economy and its leadership calculations, and to deny Iran the financial resources to further its nuclear and WMD programs and support terrorist organizations. Iran's petroleum sector is vital to the Iran state and economy—prior to the imposition of oil export related sanctions in 2012 it generated about 20% of Iran's GDP, about 80% of its foreign exchange earnings, and about 50% of its government revenue.

Iran's oil sector is as old as the petroleum industry itself (early 20th century), and Iran's onshore oil fields are past peak production and in need of substantial investment. Iran has 136.3 billion barrels of proven oil reserves, the third largest after Saudi Arabia and Canada. With the exception of relatively small swap and barter arrangements with neighboring countries, virtually all of Iran's oil exports flow through the Strait of Hormuz, which carries about one-third of all internationally traded oil. Iran's large natural gas resources (940 trillion cubic feet, exceeded only by Russia) were virtually undeveloped when ISA was first enacted. Its small gas exports are mainly to Armenia and Turkey; most of its gas is injected into its oil fields to boost their production.[97]

Section 102(a) of the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA)[98] amended Section 5 of ISA to exploit Iran's dependency on imported gasoline (40% dependency at that time). It followed legislation such as H.R. 2880 (110th

[96] ANTHONY H. CORDESMAN, BRYAN GOLD & CHLOE COUGHLIN-SCHULTE, IRAN: SANCTIONS, ENERGY, ARMS CONTROL, AND REGIME CHANGE 12-15 (Centre for Strategic & International Studies 2010) [hereinafter Iran Sanction]
[97] Kenneth Katzman, *Iran Sanctions:RS20871*, https://fas.org/sgp/crs/mideast/RS20871.pdf
[98] Public Law 111-195-July 1, 2010, http://www.treasury.gov/resource-center/sanctions/Documents/hr2194.pdf

Congress, not enacted); P.L. 111-85 that prohibited the use of U.S. funds to fill the Strategic Petroleum Reserve with products from firms that sell gasoline to Iran; and P.L. 111- 117 that denied Ex-Im Bank credits to any firm that sold gasoline or related equipment and services to Iran—initiatives that prompted Reliance Industries Ltd. of India to cease new sales of gasoline to Iran as of December 2008. (The Ex-Im Bank, in August 2008, had extended $900 million in financing guarantees to Reliance.) The provision made sanctionable:

- ✓ sales to Iran of over $1 million worth (or $5 million in a one year period) of gasoline and related aviation and other fuels. (Fuel oil, a petroleum by-product, is not included in the definition of refined petroleum.)
- ✓ sales to Iran of equipment or services (same dollar threshold as above) which would help Iran make or import gasoline. Examples of such sales include equipment and services that Iran can use to construct or maintain its oil refineries, or provision of related services such as shipping or port operations.

International sanctions on Iran's key energy and financial sectors harmed Iran's economy and arguably contributed to Iran's acceptance of restrictions on expanding its nuclear program in exchange for modest sanctions relief. The interim nuclear agreement (Joint Plan of Action, JPA) has been in effect since January 20, 2014, and extended twice (until June 30, 2015) to allow time to translate it into a comprehensive nuclear agreement. The economic pressure caused: • Iran's crude oil exports to fall to about 1.1 million barrels per day (mbd) at the end of 2013, from about 2.5 million barrels per day Iran in 2011. The crude oil exports are capped at the 1.1 mbd level by the JPA. • Iran's economy to shrink by about 5% in 2013 as Iran's private sector reduced operations and many of its loans became delinquent, and has rebounded only modestly since the JPA sanctions relief went into effect.[99]

Iran's per capita income decreased slightly to $13,100, its ranking in the world has dropped to 97th place, and the CIA estimated that its unemployment rate and youth unemployment rate remained above 15% and above 20% respectively. Inflation also rose from 22.9% in July 2012 to 23.5% in August, 2012. Inflation then continued to rise over the past year as sanctions have increased. The figure of 23.6% inflation that the CIA estimated Iran was experiencing in 2012 has increased to 31.5% according to a March 2013 report by the CBI; this is compared to 30.2% in February 2013. The EIA estimated that Iran received roughly

[99] IRAN SANCTIONS *supra* n. 96

$69 billion in petroleum export revenues in 2012, down from their previous estimate of $95 billion in February, 2012, before new sanctions were implemented.[100]

b) Sanctions against Iran Lifted

Sanctions have restricted the ability of Iran to procure equipment for its nuclear and missile programs and to import advanced conventional weaponry. However, the sanctions have not stopped Iran's provision of arms to the Assad government in Syria, the Iraqi government and related Shiite militias, Houthi rebels in Yemen, or other pro-Iranian factions in the Middle East such as Lebanese Hezbollah.

Under the Joint Plan of Action (JPA)[101], Iran has obtained sanctions relief through presidential waivers of several U.S. sanctions laws and authority under several executive orders. The core of the sanctions relief is $700 million per month in access to hard currency from oil sales, plus about $65 million per month in additional hard currency provided to educational institutions for Iranians studying abroad. The JPA caps Iran's oil exports but does not cap exports to its crude oil customers of oil products, such as condensates, and Iran appears to be increasing exports of condensates to partly compensate for the limitations on crude oil sales. The JPA suspends sanctions on Iran's auto manufacturing sector and on its sales of petrochemicals, although available data indicate activity in these sectors does not appear to be producing nearly as much revenue as was estimated. The fall in oil prices since June 2014 has additionally harmed Iran's economy, perhaps introducing an additional incentive for Iranian leaders to negotiate a comprehensive nuclear deal.[102]

B. UNILATERAL SANCTIONS AND IRAQ

Post the war in Kuwait, economic sanctions were imposed on Iraq and more importantly they were retained primarily at the behest of US and its allies in order to reduce Iraq to an insignificant power. On August 2, 1990, Iraq invaded Kuwait. Subsequently, the United Nations Security Council condemned the Iraqi invasion of Kuwait in United Nations Security Council Resolution (hereafter U.N.S.C.R.) 600, and called for the immediate and unconditional withdrawal of Iraqi forces, and the return of the Iraqi's legitimate government. On August 6, 1990, through U.N.S.C.R. 661, was levied and froze Iraqi assets, with exceptions allowed for "supplies intended strictly for medical purposes and, in humanitarian

[100] ANTHONY H. CORDESMAN, BRYAN GOLD & CHLOE COUGHLIN-SCHULTE, IRAN: SANCTIONS, ENERGY, ARMS CONTROL, AND REGIME CHANGE 12-15 (Centre for Strategic & International Studies 2010)
[101] Olli Heinonen, *Olli Heinonen on Iran's Implementation of the Joint Plan of Action*, INSTITUTE FOR SCIENCE AND INTERNATIONAL SECURITY (Mar. 25th, 2014)
[102] Kenneth Katzman, *Iran Sanctions*, CONGRESSIONAL RESEARCH SERVICE (Mar. 9th, 2015)

circumstances, foodstuffs." Thus, Iraq has accused the US of turning the United Nations Security Council (UNSC) into a tool for "fulfilling tendentious and rancorous imperialistic objectives". Even though Iraq complied with the UNSC Resolutions on most issues, but one pretext or the other was used to humiliate and subjugate Baghdad. If nothing else at least all weapons which the UN had prohibited Iraq from possessing were being totally destroyed. Despite the infringement on its sovereignty, Iraq, towards the end of October 1992 finally signed a Memorandum of Understanding with the UN for relief operations inside Iraq which was pending for some time. Moreover, Baghdad had scrupulously avoided challenging militarily the Western-imposed 'no fly zones' which are in contravention of the UN Charter.

Mr. Tariq Aziz as sent to NY in this background to get the economic sanctions lifted partially, if not entirely. The UNSC which met on November 23-24, 1992, to review Iraq's compliance of 687 and other resolutions, concluded that Iraq had only "selectively and partially" complied with the obligations placed on it by the Council. It was for the tenth time since April 3, 1991 that the UNSC decided to continue economic sanctions against Iraq on the grounds that it continues to violate UNSCRs and that it still claims Kuwait as part of Iraq. Under the ceasefire resolution, the economic sanctions are subject to an automatic review every two months. Tariq Aziz informed the UNSC that Iraq no longer possessed weapons banned by 687. He also informed the UNSC that the equipment used in manufacturing such systems had either been frozen or turned to civilian use and that Iraq had done its best to implement other provisions like returning of stolen Kuwaiti property and accounting for missing people. He also firmly reminded the UNSC that Resolution 687 must respect Iraq's sovereignty. He accused the UN commission, charged with destroying Iraqi destructive weapons, of seeking to deindustrialise Iraq. Finally, he said that the economic sanctions was causing pain and agony to the Iraqi people and claimed that the Council's plan to allow Iraq to sell oil and use part of the oil revenues to purchase food and medicine, would infringe Iraqi sovereignty and security.[103]

The sanctions banned Iraq's exports of oil. At a subsequent stage, the UNSC was prepared to permit only $2 billion or more in oil sales for Iraq. However, Iraq continued to export oil to Jordan. Jordan contended that the funds that Iraq would receive for the oil would instead be used to pay off Iraq's debt to Jordan. However, Jordan made no commitment about refraining from new loans to Iraq. This measure helped Jordan contend that it had abided by the letter of

[103] AFTAB KAMAL PASHA, IRAQ: SANCTIONS AND WARS 85-90 (Sterling Publishers 2003)

the sanctions while violating its spirit; Jordan imported Iraqi oil to repay old Iraqi debts, while extending new loans to Iraq in a transaction that amounted to the same thing as paying Iraq directly for the oil.[104]

In 1950 Iraq's oil revenue contributed 3 percent of Iraq's GDP. By 1980, thanks to a combination of higher prices and larger output and export, its contribution reached 56 percent of GDP. But in 1990 the share of oil revenue has plummeted to 12 percent of GDP and to 4.5 percent in 1995. During the nearly same half century real per capita GDP (in 1980 prices) increased from $654 in 1950 to $4219 in 1979 only to collapse to $485. Another way of appreciating the change in Iraq's oil fortunes is to trace its receipts of oil revenue which rose from a mere $20 million in 1950 to $26.3 billion in 1980 to collapse to $461 million in 1995.

The evolution of some of Iraq's important oil indicators are shown as follows:[105]

Oil Revenue, Oil Output, Gross Domestic Product and Population 1960-1995

Year	Oil Revenue ($ billion)	Oil Output (million barrels per day)	GDP ($ billion in 1980 prices)	Population (million)
1960	.3	.97	8.7	6.9
1970	.6	1.5	16.4	9.4
1980	26.3	2.6	53.9	13.2
1985	10.1	1.4	31.7	15.3
1990	9.5	2.1	16.4	18.1
1995	.5	.74	6.5	20.4

While exploring the possible reasons behind such downfall indicated in the above tabled, a series of policies both internal and external combined appear to have given rise to the Iraqi case. Four sets of policies can be identified as responsible.

[104] Iraq Sanctions (IRAQSANC), http://www1.american.edu/ted/iraqsanc.htm

[105] Government of Iraq, *Annual Abstracts of Statistics*; OPEC, *Annual Statistical Bulletin*; Central Bank of Iraq, *Annual Report*; International Monetary Fund, *International Financial Statistics Yearbook*; United Nations, *National Accounts Statistics: Analysis of Main Aggregates*, 1980-1989; United Nations, *Statistical Yearbook*.

These include: 1) the decision by the Iraqi government to initiate the 1980-1988 war with Iran, 2) the militarization of the economy, 3) Iraq's invasion of Kuwait and the ensuing 1991 Gulf war and 4) the UNSC sanctions regime which has been in effect since 1990.

C. UNILATERAL SANCTIONS AND RUSSIA

Over the past one year, the United States and the European Union have coordinated efforts through sanctions and trade controls to respond to Russian activity in Crimea and Ukraine.[106] There is a high level of consistency between the sanctions and trade controls to include a similar approach to: asset freezes; controls on financing directed at the oil, gas, energy, and defense industries; restrictions on access to capital markets; controls on goods and services for the Russian military and other military end users in Russia; and controls on certain dual use items.[107] However, there continue to be some nuanced differences between the two approaches, including variance in the persons subject to asset blocks, differences on the controls applicable to imports and investments in infrastructure, and how the specific prohibitions are implemented by the respective government agencies.

a) Sanctions by the United States

The U.S. sanctions on Russia are focused on the financial services, energy, and defense industries. The sanctions contain a variety of targeted prohibitions that have increasingly expanded the scope of the sanctions program, to include:

- ✓ Designating or blocking certain Russian individuals and entities, and an important change in the Office of Foreign Assets Control ("OFAC") policy on entities owned by blocked persons
- ✓ Limiting the availability of debt financing for certain Russian financial institutions
- ✓ Prohibiting the provision of goods, services, and technology in support of certain activities relating to the exploration or production of oil or gas in Russia, its claimed maritime area, or "extending from its territory"
- ✓ Restrictions on the supply of certain items (a) to the Russian military or other military end-users in Russia; and (b) for use in oil or gas exploration or production in Russia, including Arctic offshore locations or shale formations

[106] *See* BBC News, *Ukraine Crisis: Russia & Sanctions*, http://www.bbc.com/news/world-europe-26672800, "The US and EU have imposed an array of sanctions on Russian individuals and businesses in response to the annexation of Crimea and the crisis in eastern Ukraine. These sanctions are unique in themselves given their targeted approach towards earmarked Russian citizens and businesses."
[107] *Id.*

- ✓ Restrictive licensing policies for export activities involving Russian-made defense articles (including spacecraft) and defense articles intended for end-use in Russia.[108]

The sanctions include both economic measures administered by OFAC and export controls administered by the U.S. Department of Commerce, Bureau of Industry and Security ("BIS"), and the U.S. Department of State, Directorate of Defense Trade Controls ("DDTC").

i. *Sanctions by OFAC*

On July 16, 2014 and September 12, 2014, OFAC issued a series of Directives imposing targeted sanctions upon key elements of the Russian economy. Each Directive governs activities between U.S. persons (to include any person within the United States) and those persons listed on the Sectoral Sanctions Identifications ("SSI") List. The SSI List is organized according to the four Directives.[109]

The four Directives are as follows:

- ✓ Directive 1 targets the financial services sector of the Russian economy. This directive prohibits engaging in transactions in, providing financing for, or otherwise dealing in new debt with a maturity of longer than 30 days, or equity for persons identified on the SSI List under Directive 1.
- ✓ Directive 2 targets Russia's energy sector of the Russian economy by prohibiting transactions in, provision of financing for, and other dealings in new debt with a maturity of longer than 90 days for persons identified on the SSI List under Directive 2. Equity for persons identified on the SSI List under Directive 1.
- ✓ Directive 3 targets the Russian defense and related material sector by prohibiting all transactions in, provision of financing for, and other dealings in new debt of longer than 30 days for persons identified on the SSI List under Directive 3.
- ✓ Directive 4 expands on the sanctions targeting the Russian energy sector by prohibiting "the provision, exportation, or re-exportation, directly or indirectly, of goods, services (except for financial services), or technology in support of exploration or production for deepwater, Arctic offshore, or shale projects that

[108] *Id.*
[109] USDT, *Sectoral Sanctions Identification List*, http://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/ssi_list.aspx

have the potential to produce oil in the Russian Federation, or in maritime area claimed by the Russian Federation and extending from its territory" that involve any person identified on the SSI List under Directive OFAC has also issued General Licenses authorizing certain transactions relating to derivative products (relevant to SSI List entities under Directives 1-3) and a short wind-down period (relevant to Directive 4).

ii. Commercial and Dual-Use Controls (the Export Administration Regulations)

On August 6, 2014, BIS amended the Export Administration Regulations ("EAR") to include the "Russian Industry Sector Sanctions" as section 746.5. These sanctions impose a license requirement for the export to Russia of certain items if the exporter, reexporter, or transferor knows that the item "will be used directly or indirectly in exploration for, or production of, oil or gas in Russian deepwater (greater than 500 feet) or Arctic offshore locations or shale formations in Russia, or are unable to determine whether the item will be used in such projects." The items subject to this license requirement include items classified under the following Commerce Control List ECCNs: 0A998, 1C992, 3A229, 3A231, 3A232, 6A991, 8A992, 8D999, as well as EAR99 items identified in Supplement No. 2 to Part 746. BIS also established a policy of denial for such license applications. BIS further imposed a license requirement (subject to a policy of denial) for all exports, reexports, or transfers to Russia of items subject to the EAR if intended, in whole or in part, for a military end use or military end-user in Russia.

iii. Military/Defense Controls (the International Traffic in Arms Regulations)

On March 27, 2014, DDTC placed a hold on the issuance of International Traffic in Arms Regulations ("ITAR") licenses for the export of defense articles and defense services to Russia. Subsequently, on April 28, 2014, DDTC changed its hold on licenses to a policy of denial for defense articles or defense services to Russia or occupied Crimea. DDTC also began the process of revoking existing licenses for defense articles and services. DDTC is currently reviewing defense article export licenses on a case-by-case basis to determine the export's contribution to Russia's military.[110]

[110] LEIGH T. HANSSON, MICHAEL J. LOWELL & DAVID MYER ET AL., OVERVIEW OF THE EU AND US SANCTIONS ON RUSSIA 1-4, (ReedSmith, 2014)

b) Sanctions by Europe

Following Russia's absorption of the Crimean peninsula, the EU has introduced restrictive measures against Russia in three successive stages which have been periodically revised. The most recent regulation (revision), adopted on 18 December 2014 (Council of the EU, 2014a), updated the decision of 23 June 2014 (Council of the EU, 2014b) by mainly prohibiting EU investment, services and trade flows to Crimea and Sevastopol[111]. Having expanded from the individual to the sectoral level, the current sanctions policy towards Russia is aimed at the following targets:

i) private entities and individuals via visa bans and freezes on assets;
ii) financial markets by banning long-term EU loans for the five main state-owned banks (Sberbank, VTB, Gazprombank, Vnesheconombank (VEB) and Rosselkhozbank);
iii) the energy sector through restrictions on Rosneft, Transneft and Gazprom Neft activities; and
iv) the defence industry by means of blacklisting Russian 'dual-use' (civil and military) technology manufacturers, such as the 'Saiga' producing Kalashnikov rifles.[112]

On 6 August 2014, in response to the restrictive measures undertaken by the EU (and the US and its allies), the Russian Federation imposed a one-year embargo on the imports of meat, fish, cheese, fruit, vegetables and dairy products not only from the EU and the US, but also from Australia, Canada and Norway.[113] Prior to the embargo, the EU's agricultural food exports to Russia stood at €11,864 million, accounting for 10% of total EU agri-food world exports.[114]

It seems that the EU has already inflicted the maximum damage it can by applying the overarching sanctions policy – the *hard-power* tool or at least the hardest tool of the soft power at the EU's disposal. Conversely, the Kremlin's retaliatory options are not limited to the ban on EU agricultural imports.[115]

[111] *See* Council Joint Staff Working Document (EC) No. SWD(2014) 300 final/2 of 11 August 2014
[112] TATIA DOLIDZE, EU SANCTIONS POLICY TOWARDS RUSSIA: THE SANCTIONER-SANCTIONEE'S GAME OF THRONES 2-5, (CEPS, 2015)
[113] *Id.* at 4
[114] *Id.* at 5
[115] *Id.*

The sanctions in their entirety have blown the generally stable economy of Russia to shambles. The U.S. sanctions are designed to effectively "shut off" Russian oil conglomerates from oil exploration projects, in a move aimed squarely at Russia's $425 billion-a-year petroleum industry. This projection was even affirmed officially by a senior Obama administration official[116]. The sanctions prohibit U.S. companies from exporting goods, services, or technology to support five Russian energy companies in exploration or production for Russian deepwater, Arctic offshore, or shale projects that have the potential to produce oil. The Russian energy companies hit by the sanctions include Gazprom, Neft, Lukoil, Surgutneftegas and Rosneft. European companies have also been prohibited in the same fashion under mirroring sanctions.

As a result of the sanctions, the fall of the Russian currency has come *in tandem* with the falling oil prices, as if the entire economy has become dependent upon this one single commodity.[117] This is extremely painful for the Russian economy. Although the falling ruble offsets the damage to a net oil exporter that falling oil prices inflicts, Russia suffers badly from Dutch disease because of the dominance of tis energy industry, which means that other sectors are relatively undeveloped and many items – including essential foodstuffs – are imported. Inflation is now rising fast and the Central Bank of Russia may be forced to raise interest rates again soon, inflicting further damage on an already fragile economy.[118]

Source: Forbes.com

[116] Brett Logiurato, *Obama May Have Just Dealt a Crushing Blow to Russia's Oil Exploration*, BUSINESS INSIDER, Sep. 12, 2014, http://www.businessinsider.in/Obama-May-Have-Just-Dealt-A-Crushing-Blow-To-Russias-Oil-Exploration/articleshow/42387743.cms

[117] Frances Coppola, *Oil, Sanctions and Russian Politics*, FORBES, Jan. 1, 2014, http://www.forbes.com/sites/francescoppola/2014/12/01/oil-sanctions-and-russian-politics/

[118] *Id.*

The CBR's deputy governor has signalled that a price of $60 a barrel is being budgeted for, which would be a considerable hit to Russia's public finances, whereas the current prices are still lingering below that.[119]

Until now, unilateral economic sanctions have played out to be the most effective instrument of oil politics, with the Western nations using them single-handedly to drive the oil-rich economies under their thumb. The ramifications of these sanctions are now springing beyond the Middle-East into Russia, whose robust oil and gas market is being aimed to be taken down by the Western superpowers.[120]

5. OIL POLITICS AND INTERNATIONAL OIL REGIME

Politics is a dicey ubiquitous instrument of tricks and tactics, which marks its presence in almost every sphere involving fame and fortune. Its presence in the oil market becomes all the more justified given oil's exemplary worth as a commodity, for which, countries are ready to stake their diplomacy with a prospective view of securing long term benefits.

The field of energy-related international relations is a large one, encompassing not just the international trade in fuels (notably oil and gas) but also the global diffusion of energy technologies and practices. The regulatory rules include the various mechanisms at the International Energy Agency (IEA) initiated by oil importers in the wake of the Arab oil embargo for coordinating responses to interruptions in oil supply; the regime also encompasses the provisions in OPEC that aid coordination by oil producers. Those two oil-focused trading arrangements have formed the main (yet often conflicting) sets of rules in the regime.[121]

Though highly disparate, the varied regulatory activities are partially interlocking and, with time, have come to constitute a meaningful global regime for energy. In some areas the regime has a modest effect on behavior; in other areas it is weaker and ill-formed. By contrast, to date essentially all analysis of regulatory regimes on energy-related matters has

[119] The current crude oil price in the market is $50.34, *See* Oil-Price.Net, *Crude Oil and Commodity Prices*, http://www.oil-price.net/

[120] Susan Heavey, *U.S., U.K. Agree Sanctions to Remain on Russia*, REUTERS, Jan 16, 2015; *See* Paul Ivan, *EU's Sanctions Against Russia – The Need for Clear Goals*, http://www.epc.eu/documents/uploads/pub_4285_eu_s_sanctions_against_russia.pdf

[121] David G. Vector, Sarah Joy et al., *The Global Energy Regime*, http://www.princeton.edu/~smeunier/Victor%20et%20al%20Energy%20Regime.pdf

focused on traditional regimes for which there is a single core set of rules, usually enshrined in a treaty or other formal agreement.

It's apparently visible that the existing interlocking has already created a disparate regulatory system. It has emerged and evolved in a distinctive pattern. Most elements of the regime have arisen as a response to some widespread dissatisfaction with the status quo—such as the disruptions in western economies following the Arab oil embargo or the disruptions in expected revenues in OPEC members following the periodic collapse of their cartel discipline. The responses have been designed to rectify the dissatisfaction, often with no larger strategic vision or clear evaluation of whether the response will be effective. The architects of these responses put them into place and then learn from practical experience which arrangements actually affect behavior. They also learn about conflicts between regime elements, and much of the evolution in the regime occurs through the process of resolving those conflicts at the "joints" of each rule set.

Over the last 50 years that control has shifted, and so has the structure of the international oil and gas trading relationships. Where oil and gas resources used to be controlled by a small handful of companies operating worldwide that largely served the interests of energy-importing nations, since the early 1970s through nationalizations and accidents of geology those resources now lie mainly in the hands of national oil companies (NOCs) that are controlled by illiberal states. These states have gained immense wealth from their control over these resources—not just from the sheer value of the resource but also because their illiberal character has allowed them to coordinate the development and marketing of energy resources in a way that liberal democratic states would find exceptionally difficult.

The broad trend of modernization of economy has affected the interests of key actors in three ways. First, it helps to explain a general decline in sensitivity to energy prices among the most advanced industrialized nations. While total consumption of all major primary sources has increased, the economy has become much more efficient and flexible in utilizing energy in the production of income. As economic sensitivity to oil shocks has dampened so has the interest in collective action to organize an effective response. Second, economic modernization has favored electricity as an energy carrier, which has led to a bifurcation in energy systems—with oil concentrated increasingly for transportation (where it has no significant rivals) and other energy sources (including oil) for the generation of electric power, where the existence of rivals has allowed for competition and the concentration of

power plants allows for relatively easy control of environmental emissions. Third, the rise in wealth and shift to services (away from manufacturing) that accompanies economic modernization has sharply increased the demand for environmental protection and the availability of resources to spend on fixing such externalities of energy systems.

A. CONTROL OVER RESOURCES AND MARKETS

Until the early 1970s there was little sustained concern about the formal international regulation of energy markets. Only in the area of nuclear power, the first globally managed energy technology, did the major powers establish an institution (the International Atomic Energy Agency, IAEA, formed in 1957) whose original purposes were to advance a technology and apply some highly limited safeguards against its misuse.[122] The energy business, for the most part, was autarkic.[123]

The lack of much regulation, in part, reflected that the vast majority of energy consumed for all purposes was also produced within the borders of the key nations that had the authority to establish an international regime. Until the 1970s there was almost no international trade of coal and natural gas. A few electric systems relied on uranium, much of it supplied either locally or through bilateral arrangements with some oversight from the IAEA.

Of the major fuels, oil was the only one traded internationally in large quantities. Yet there were no sustained pressures to regulate the flow of oil. The exporting countries that were the largest sources of oil were focused on extracting rents through the production agreements they had with producer firms, not the larger and more daunting task of manipulating the oil trade itself. The importing nations benefited from the fact that most oil trade was controlled by several large integrated international oil companies—all of them western in orientation and some actually owned by important western governments. Although dependence on imported oil was high—notably in some countries, such as Britain, France, Germany, Italy and Japan that produced essentially none of their own—there was no organized pressure for collective action to reduce vulnerability in case of an interruption. Such concerns were academic except in wartime (during which formal regulatory regimes probably would be ineffective anyway). Moreover, the two countries that exerted the greatest influence on the international system—the United States and the Soviet Union—did not have much incentive to pursue regulation. In 1970 the United States produced three-quarters of the oil it consumed

[122] International Atomic Energy Agency, *Resource Control: Atoms for Peace*, https://www.iaea.org/newscenter/focus/nuclear-safety-action-plan
[123] *Id.* at 19

and, more importantly, the dominant factor in setting U.S. oil prices was the decision-making by the Texas Railroad Commission. Spare capacity in the U.S. meant that prices formed, in effect, within the U.S. rather than on the global market. The Soviet Union pursued an autarkic policy and was a small net oil exporter (mainly to other states in the Soviet sphere). By the end of the 1970s the control over resources had clearly shifted. Geological depletion had reduced the capacity of the U.S. to rely on its own production and its own regulators to set prices. The central role of the Texas Railroad Commission on U.S. prices had effectively disappeared by 1971 with the full utilization of U.S. oil production capacity. U.S. production of oil peaked in 1972 and has declined substantially since then. Even as oil production within the territory of western nations stagnated, total consumption continued to rise as oil occupied a greater role throughout the energy system. Not only was it prized for transportation, but in nearly all OECD nations oil also accounted for a significant share of electricity production. In many, oil was also used for heating and to this day is used as a petrochemical feedstock.

Those same nations that accounted for a growing share of world oil supply pursued a series of nationalizations that were the culmination of a long series of efforts by these host governments to shift a larger fraction of the rents into their coffers and away from the western oil firms. Those efforts included forced renegotiation of royalty arrangements, reductions in allowable cost sharing, and eventually nationalization. In the 1960s most of the countries of the Middle East created NOCs; as Arab nationalism began to gain ground, there were growing calls to nationalize the concessions held by western companies. By 1976, the host governments of the region (through their NOCs) had taken control of essentially all the oil operations within their boundaries. The state now dominated the sector although in some cases foreign companies continued to play a role, usually in service of the NOCs. The nationalizations not only reflected these countries' desire to maximize rents but also to gain more direct control over investment and operational decisions. Only in the early 1970s could the cartel substantially alter world prices, which was the combined effect of OPEC controlling more than half of world production along with the politically galvanizing event of the Yom Kippur war, which focused the Arab members of OPEC on the need for a collective response. The success of their cartel action (measured as a sharp rise in price and as a political effect in the west) focused subsequent efforts to hold the cartel together as a permanent and effective body.

B. INTERNATIONAL OIL PRICING REGIME

a) Earlier Pricing Regimes

Before 1973 the concepts of 'posted prices' and 'tax-paid costs' were commonly used in relation to the liftings of oil companies from oil-exporting countries. By definition a posted price is that which a seller or a buyer makes public in some conventional way to give notice that she/he is prepared to accept or to offer a certain sum for a barrel of crude oil or a tonne of petroleum products. In the past US refiners used to post at the gate of their plant the price at which they were prepared to buy a barrel of crude oil on a given day. In the old concession system which prevailed in the OPEC region until the early 1970s posted prices acquired a fiscal meaning. They were used to compute the ad valorem royalty and the tax on notional profits per barrel produced. No other concept – such as spot prices or long-term contract prices – would have been suitable for the purpose of tax computations.[124]

Around 1950s and 60s the companies that were crude 'long' – such as Gulf or British Petroleum – sold oil to the Sisters that happened to be 'short' under long-term contracts. There were therefore contract prices whose values reflected the relative bargaining power of the two parties of an agreement. These prices were not disclosed, always kept under the seal of commercial secrecy. It is known, however, that in most cases they were lower than posted prices. Finally, in any industry which consists of vertically integrated, multinational corporations, transactions between subsidiaries or different departments of the firm are recorded at transfer prices. Transfer prices need not reflect economic prices or acquisition costs. Their setting is strongly influenced by the objective of tax optimisation which seeks to reduce as far as possible the worldwide tax liability of the company. Here again, but in a different way, transfer prices like posted prices have a fiscal dimension. But the room for manoeuvre that imaginative accountants had in the 1950s and 1960s has continually been reduced by the increasing awareness of tax authorities. In short, we had a pricing regime in the pre-1973 period where allocative functions of prices were not properly performed, if at all, by the various concepts used.[125]

A structural transformation of the world petroleum industry began to occur in the early 1970s when some governments claimed equity participation in the companies' concessions. In some

[124] *Id.*
[125] *Id.*

cases the participation moved in steps starting at 25 per cent. In one or two other instances governments opted with full nationalisation.[126]

Participation led to the introduction of new price concepts. First, governments had to set a price for the sale of their oil to potential third party buyers. Thus entered the concept of an official or government selling price variously referred to in the literature as OSP or GSP. Secondly, governments found it convenient at the beginning of the transition from one regime to another (that is around 1974) to sell their own oil to the very companies which produced it in the concessions. Thus entered the concept of buy-back prices.

The complex regime that emerged in 1974 involved distortions because the barrel could be acquired by the same company at three different prices (taxpaid cost, discounted GSP or buy-back). In certain instances, it could compete against the government in external markets since some of its oil was acquired at less than the GSPs at which the government was seeking to sell its own oil. That regime was therefore short-lived and barely survived beyond the beginning of 1975.[127]

Thereon, and until the ending of 1985 the pricing regime involved the setting of a reference price by the Conference of OPEC Oil Ministers. The reference, or marker, crude was Arabian Light 34o API. In this system OPEC countries retained their GSPs for their particular crudes but these were determined in relation to the marker price taking into account differences in quality and in location. In other words the GSP for a particular OPEC crude was equal to the reference price plus or minus a differential. The setting of these differentials needed to be changed at short intervals because varying market conditions continually altered the relative prices of crudes. This proved to be a nightmare for OPEC. Attempts by the Organization to set the differentials were not always successful. And when member countries did set themselves differentials for their own crude varieties they were tempted in the increasingly slack conditions of the early 1980s to use them to discount prices and increase their export volumes at the expense of other OPEC countries.

The pricing regime of that period was thus dichotomized in more than one way. This gave rise to inevitable tensions forcing OPEC to lower their reference price on a number of occasions. OPEC in its attempts to defend the administered part of the regime, that is the

[126] Bassam Fatouh, *An Anatomy of the Oil Pricing System* 4-5, (Oxford Institute for Energy Studies, 2010), http://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/04/comment_01_09_10.pdf
[127] ROBERT MABRO, THE INTERNATIONAL OIL PRICE REGIME 5-10, JOURNAL OF ENERGY LITERATURE (2005)

level of its marker price, found its export volumes being reduced in a dramatic way. The pricing regime could not withstand the formidable competitive pressures due to the combined impact of huge increases in non-OPEC output and decreasing world oil demand. The price collapse in late 1985 led to the introduction of a new concept: netback pricing. Put simply netback pricing means that the buyer of crude oil will pay for it on the basis of ex post realizations. Negotiated formulae between governments of OPEC exporting countries and companies wishing to lift their oil defined the set of petroleum products that the refiner was deemed to produce, the proportions in which they will be produced (the yield), the price concepts for these products that will be used to compute the Gross Product Worth, the notional refining costs, the relevant freight data and the time lags to be taken into account.

The netback pricing system provides the company with a guaranteed refining margin. Companies can thus afford to compete in the petroleum product markets for even if product prices should collapse their refining margins remain intact. Oil-exporting countries, on the other hand, used netback pricing as a competitive tool in the crude oil market. The inevitable result was the dramatic price fall of 1986 which forced OPEC countries to abandon netback pricing. The current price regime was then born.[128]

b) Current Pricing Regime

The size, scope, and complexity of global crude trade are unique among physical commodities. Currently more than 80 million barrels of oil are produced and consumed everyday. Beyond the scale of trade in oil, the strategic importance of oil and the crucial role that it plays in the economy make it a commodity like no other.[129] The current spot markets have been developed since the early 1970s. At the beginning they were aimed at fine-tuning oil demand and supply and covered not more that 3-5% of international oil trade. In the 1980s, rising oil production from non-OPEC areas went into the spot markets.[130] Key benchmark grades, West Texas Intermediate (WTI), Brent and Dubai / Oman, emerged, and served as the reference for crude of similar qualities and locations. Previously the role was played by Arabian Light under OPEC's official selling price system. Spot transactions are mainly conducted by telephone or computer network between two parties. It is an over-the-counter (OTC) market as opposed to an exchange.

[128] Energy Charter Secretariat, *Putting a Price on Energy: International Pricing Mechanism on Oil and Gas* 68-80, http://www.encharter.org/fileadmin/user_upload/document/Oil_and_Gas_Pricing_2007_ENG.pdf
[129] *Id.* at 3
[130] *Id.* at 5

Spot markets do not necessarily have trading floors. The term 'spot market' applies to all spot transactions concluded in an area where strong trading activities in one or more trading products take place. The main spot markets or trading centres for crude oil are Rotterdam for Europe, Singapore for Asia and New York for the United States. Their benchmarks are: Brent, Dubai and WTI. At the same time, futures markets have also developed in Western countries. These arose from a desire on the part of oil companies to reduce risk in light of high price volatility. Developments in information technology, developments in financial theory and a political climate favouring markets over government administrative guidance led to the creation of financial derivative markets, including futures and options. The New York Mercantile Exchange (NYMEX) and the International Petroleum Exchange (IPE) are two major financial markets for oil. World oil prices are led by these markets.[131]

The problems with spot markets of marker crudes are

(1) They are very thin. Since in most cases the production of marker crudes has been declining significantly over time the markets have become increasingly illiquid. Some attempts have been made, however, to mitigate the problem for Brent. On the other hand, the ANS market was so narrow as to lead to its abandonment as a marker crude.

(2) In thin or essentially illiquid markets the number of price quotations for actual transactions is by definition very small. The quotes are far apart and their incidence may be very irregular. But spot quotations if they are to be used in pricing formulae for reference purposes, must arise at least on a daily basis, or in any case in a fairly regular flow. In the absence of a sufficient number of actual price quotes, the system relies on daily assessments made by price reporting agencies such as Platt's or Argus for example. But how reliable are assessments? They involve subjective judgments that are as good or as bad as the assessor's abilities and skills. And they are vulnerable to manipulations by those who provide views about prices to the assessor.

(3) Thin markets can be more easily squeezed than very liquid ones. Pipeline crudes are more easily squeezed than waterborne ones especially when the ownership of storage tanks is concentrated. In the former case the squeeze is operated by reserving delivery time, in the latter one has to buy cargoes carrying 500,000 or 600,000 barrels. My impression is that the

[131] *Id.* at 6

sums of money that may do the trick for pipelines is smaller than the amounts needed to mount a squeeze for a waterborne crude.

(4) In Brent we have a chain of markets[132] – dated, 15-day physical forward and futures. But there are also derivatives such as the CFDs (Contract for Differences) that have been used in trading strategies involving a prior build-up of a large CFD position and a squeeze in the physical market. The linkage ensures that the CFD intervention realises profits while the squeeze causes losses. If the strategy is implemented skilfully, the profits are greater than the losses. Any significant price change in one market that is part of the chain influences price movements in the other markets.

For some of these (and other) reasons most exporting countries have replaced dated Brent by the IPE futures price (BWAVE) and spot WTI by the NYMEX price of the contract for light sweet crudes. As mentioned earlier they have also abandoned ANS. There has been no change in practice as regards Dubai/Oman for obvious reasons. So Brent, WTI, Dubai/Oman etc. remain the marker crudes but the relevant prices of the first two are taken from what is in essence a market of financial instruments. The arguments that led those exporting countries who had decided to take reference prices in the futures markets are, first, that the volume of transactions in the New York and London Exchanges are so large that squeezes and manipulations are almost impossible. Secondly, since futures prices are posted by the Exchanges as soon as bids are recorded they are those of actual transactions and not numbers assessed by some agency on the basis of subjective information gathered here and there. Thirdly, both the volumes of daily transactions and open interest are published. There is therefore accurate and almost immediate information on both prices and market liquidity.

Long-term contracts are still widely used. OPEC countries in the Middle East sell their crude exclusively to refiners through long-term contracts, which usually have contract duration of one year with renewal clauses. The pricing formulas in the long-term contracts are linked to benchmark grades. There are no long-term fixed-price contracts, which existed between the two oil crises in the 1970s and prior to that time.

Looking into the oil market, increases in oil consumption are closely linked to economic growth. Wherever economies are growing, oil demand growth is taking place – China, India, the Middle East and the US. Global oil demand is expanding at around 1 MBD every year.

[132] Investing.com, *Brent Oil Futures: Interactive Chart*, http://www.investing.com/commodities/brent-oil-advanced-chart

The year 2004 saw a particularly strong increase in demand – 3.2 MBD. On the supply side, there is an ongoing debate called 'peak oil theory'. One school claims that oil production will soon peak and that the consequences for the world economy will be severe. Others consider that the peak oil production will still be a moving target for some time, as new reserves become recoverable due to exploration and improvements in technology. The United States Geological Survey (USGS) considers that there are enough remaining petroleum reserves to continue current production rates for another 50 to 100 years. OPEC's 12 member countries produced 36% of the world's production in 2005, but hold 78% of oil reserves. OPEC ministers meet every three months to discuss production levels. In 2005, non-OPEC production remained unchanged from the previous year, compared to a 1 MBD growth in 2004. Ethanol and biodiesel are two main biofuels which are used as transportation fuel. Growth in biofuel production in 2005 and 2006 is a clear example of a supply and policy response to high oil prices. The refining sector faces many challenges. Refineries in industrialised countries have been running at around 90% of capacity for more than a decade. Nonetheless, it is difficult to expand or upgrade refineries in the industrialised countries, due to environmental regulations and local opposition. This results in increases in product imports and expansions in refining capacities outside of the industrialised countries. Furthermore, refineries were suffering from low margins. In addition, new, more stringent fuel specifications have come into force, and there is an increasing mismatch between product demand, which is shifting toward lighter products, and crude quality, which is becoming heavier.

C. INTERNATIONAL OIL POLLUTION AND MARINE ENVIRONMENT REGIME

The transportation of oil across the world is majorly performed using container ships or pipelines, which use the ocean waters for establishing their connectivity. Frequent transportation of oil using ships and the pipelines beneath the oceans leaves the water masses prone to disasters caused by any accident, leakage or sabotage. Such incidents have been quite common in the past – The Amoco Cadiz (March, 1978), Torrey Canyon (March, 1967), Braer (January, 1993)[133] are infamous for the huge damage they caused to the marine environment.

The problems involving oil tankers concerned the carriers from the beginnings because this type of scale transport was accelerated during a very short time. The weather, the

[133] National Geographic Channel, *Oil Tanker Disasters*, http://natgeotv.com.au/tv/salvage-code-red/oil-tanker-disasters.aspx

geographical conditions and other objective factors play an important role in maritime accidents. The real environmental catastrophes were caused by shipping accidents involving large oil tankers, following which, the quantities discharged from vessels have exceeded 50 000 tonnes, reaching about 287,000 tonnes, as in the Atlantic Empress tanker. The Atlantic Empress was a Greek oil tanker that was involved in two large oil spills. The spills together are the third largest oil spill on record and the largest ship-based spill. On July 19, 1979, during a tropical rainstorm, the ship collided with the Aegean Captain, off Trinidad and Tobago, spilling 287,000 metric tons of oil. The damage incurred from the collision was never completely remedied, and while being towed, the Atlantic Empress continued to spill an additional 41 million gallons (all together being 276,000 tons of crude oil) off Barbados. The Aegean Captain also spilled a large quantity of oil from her tanks. The Atlantic Empress sank in deep water and her remaining cargo solidified. The spill from the two ships fortunately never came ashore. By comparison, the infamous Exxon Valdez spill ten years later only saw 37,000 metric tons of oil released.[134]

The biggest disasters in maritime transport are the Erika tanker accidents (in 1999) and Prestige (2002). From these tanks have leaked about 22,000 and 20,000 tons of oil, from each ship, into the sea, causing immense damage to the environment, fisheries and tourism industry.[135]

Observing such frequent accidents causing a threat to the marine environment, a comprehensive regulatory regime on prevention of marine oil pollution was developed. Regulation of marine oil pollution by ships was yet given special attention, so the existing rules cover mostly vessel-source pollution.[136]

The first ever international convention on oil pollution was adopted in 1926 by the International Maritime Conference in Washington. This document however could not be ratified. Because of the significant pollution especially of the Atlantic Ocean during the World War II (military operations with submarines, torpedoes etc.), since 1945 the issue of oil pollution became very acute and more and more important. Marine pollution particularly with oil is not clearly regulated in any particular global environmental convention. This form

[134] Ramona Bejan, *Research Regarding the Causes of Maritime Disasters to Oil Tankers in Order to Enhance Maritime Safety*, 2 MAR. TRANSP. & NAVIGATION JOURNAL 45, 45-48 (2010)
[135] *Id.*
[136] OIL POLLUTION *supra* n. 36

of pollution is considered in some of the international legal documents. The provisions of the international conventions on this issue are, however, relatively limited.

a) ***Stockholm Declaration***

The Declaration on the Human Environment[137] and Action Plan[138] were adopted at the United Nations Conference on the Human Environment.[139]. Both the documents contained special sections on marine pollution.

Principle 7 of the Declaration avers that the states shall take all possible steps to prevent pollution of the seas by substances that create hazards to human health, harm living resources and marine life, damage amenities or interfere with other legitimate uses of the sea.[140] Principle 22 further addresses the issue of liability and compensation for marine pollution damage making the states cooperate further in order to develop rules of international law. The Action Plan consisting of 109 recommendations proposes to address pollution by means of the environmental assessment, environmental management and supporting measures.

UNEP also adopted the "regional seas action plans" for the issues of marine environment protection. The organization monitors pollution in some of the regional sea areas. It was an idea followed with the view that the transboundary problems of the oceans or environmental protection of any particular sea could be better managed from a regional basis.[141]

b) ***UN Convention on the Law of Sea***

United Nations Convention on the Law of the Sea (UNCLOS)[142] also deals with different aspects of ocean matters including marine environment protection. The protection of marine environment during the offshore development of oil is reflected in Art. 207, regulating the protection of marine environment against pollution from land-based sources. Art. 208 regulates protection of the marine environment from sea-bed activities under their jurisdiction. Art. 208 (4) stresses the need to reach a compromise in this respect on a regional

[137] UNEP, *Declaration of the United Nations Conference on the Human Environment*, http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503
[138] U.N. Econ. & Soc. Council [ECOSOC], United Nations Conference on the Human Environment, *Action Taken by the Conference*, U.N. Doc. A/CONF.48/14/Rev.1 (June, 1972), http://www.un-documents.net/aconf48-14r1.pdf
[139] HUMAN ENVIRONMENT *supra* n. 135
[140] ACTION PLAN *supra* n. 136
[141] OIL POLLUTION *supra* n. 36
[142] United Nations Convention on the Law of the Sea (1972), http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

level, what should be considered as a recognition of necessity to solve this problem on the regional level. Art. 213-214 contain the enforcement rules for the mentioned provisions.

Art. 235 establishes the liability of the states for their international obligations concerning the preservation and protection of marine environment. Art. 235 (2) requires the states to ensure the possibility to obtain compensation or other relief in case of the damage caused by the pollution.[143]

c) OILPOL'54

International Convention for the Prevention of Pollution of the Sea by Oil (OILPOL) was adopted in 1954 at London. It became the first international treaty dealing with oil pollution.

It was addressing the discharge of oil and oily wastes into the water. OILPOL'54 prohibited the intentional discharge of oil and oily mixtures from certain vessels in specified ocean areas. The ballast discharges have to be made in the permitted areas with a special record in an oil record book. This book shall be inspected at regular intervals. The enforcement of the convention had to be fulfilled by the flag state.

The Convention became a significant achievement at that time. In the preamble of the later adopted MARPOL convention it is stressed that OILPOL was the first multilateral instrument to be concluded with the prime objective of protecting the environment. The preamble of the MARPOL also appreciates the significant contribution, which the OILPOL has made in preserving the seas and coastal environment from pollution.

d) MARPOL and Intervention Convention

The "Torrey Canyon" accident that occurred due to human error – where 120000 tonnes of crude oil was spilt – gave enough reason for the States to recognize the danger of a major oil spill to the coastlines.

The vast magnitude of damage nudged the State towards the development of environmental legislation connected with such incidents occurring at the sea. The occurred incident accelerated the formation of MARPOL convention and in 1973 the International Convention for the Prevention of Pollution from Ships (MARPOL) was adopted to cover pollution by oil, chemicals, harmful substances in packaged form, sewage and garbage.[144]

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[143] OIL POLLUTION *supra* n. 36

[144] International Convention for the Prevention of Pollution from Ships (MARPOL), Nov. 2, 1973, MEPC 190 (60) 194(61)

Also, the International Maritime Organization adopted the International Convention relating to Intervention on the High Seas in Cases of Oil Pollution casualties done at Brussels on 29 November 1969 (Intervention Convention)[145], enabling a government to take action, if an accident in international waters threatened its coastline with pollution. It stresses the need to protect the interest of people against the consequences of a maritime casualties resulting in oil pollution. Measures of an exceptional character taken in order to protect the environment on the high seas are admissible. These measures do not affect the principle of freedom of the high seas.[146]

The Convention, in its Article I, grants a permission to take such measures on the high seas as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat of pollution of the sea by oil in cases of a maritime casualty or acts related to it against vessels which pose a threat to their coastlines.[147] The Convention has been criticized both for allowing too much discretion to coastal states and for limiting the rights of such states to take action.

The civil liability regime for marine oil pollution was the first international liability regime to broaden compensation obligations beyond personal injury and property damage provisions to environmental impairment, and has served as a model for liability rule development for the carriage of dangerous goods, the maritime carriage of hazardous and noxious substances, and revisions to civil liability provisions for nuclear damage.[148]

The adoption of International Convention on Civil Liability for Oil Pollution Damage (CLC) 1969[149] depicted a concerted international effort to facilitate consistent treatment of oil pollution damage claims across national legal systems. CLC 1969 places liability for oil pollution damage squarely on the registered owner of the ship from which the oil escapes or is discharged: this liability is strict in the sense that the claimant only has to demonstrate that (s)he has suffered damage as a result of the spill, removing the then prevalent need to prove shipowner negligence. The intent here was to facilitate prompt, equitable compensation payments to victims for damage suffered in the territory, including the territorial sea, of any contracting state. To aid this, ships carrying more than 2000 ton of persistent oil as cargo are

[145] IMO, International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Nov. 29, 1969, 970 U.N.T.S. 211.
[146] OIL POLLUTION *supra* n. 36
[147] *Id.*
[148] Michael Mason, *Civil Liability for Oil Pollution Damage Examining the Evolving Scope for Environmental Compensation in the International Regime*, 27 MARINE POLICY 1, 1-2 (2003)
[149] IMO, International Convention on Civil Liability for Oil Pollution Damage, Nov. 29, 1969

required to carry appropriate liability insurance. For owners of oil-carrying vessels the new burden of strict liability was mitigated by the limitation of their liability under CLC 1969 (up to 133 Special Drawing Rights for each ton of a ship's gross tonnage, capped by a maximum of 14 million Special Drawing Rights for each incident): claimants are only able to breach that limit—and sue for more—if the incident is a result of the 'actual fault or privity' of the owner. Furthermore, the shipowner avoids any liability if the damage is (i) attributable to acts of war or exceptional natural phenomena; is wholly caused either (ii) by an act of omission of a third party done with the intent to cause damage or (iii) the negligence or other wrongful act of an authority in its function of maintaining navigational aids.[150]

The 1971 Fund Convention[151] (entry into force October 1978), sharing a strict liability and compensation ceiling framework (limited to 30 million Special Drawing Rights—including shipowner liability payments), established a statutory system compelling oil cargo interests in contracting states to pay a levy, calculated on the basis of their national share of international oil receipts, towards the International Oil Pollution Compensation (IOPC) Fund 1971. In operation until May 2002, the IOPC Fund 1971 provided compensation for oil pollution damage not fully available under CLC 1969 because of the responsible shipowner being exempt from liability or being financially incapable of meeting compensation obligations or, alternatively, that the damage exceeded the limits of shipowner liability. Up to 31 December 2001, the 1971 Fund had approved the settlement of pollution damage claims arising out of 98 incidents, amounting to over £280 million in total compensation payments.

Abruptions had started emerging in the 1980s, though, within the international oil pollution liability regime. Oil cargo interests argued that shipowners' limited liability was lagging behind rising damage mitigation costs and inflation, pushing the compensation burden for major spillages onto the oil importers. In contrast, CLC 1969 contracting states with sizeable tanker interests (e.g. Greece, Korea, Liberia) were expressing alarm at incidences of national courts breaking shipowner rights to limit liability under the convention, undermining in their view both the economic viability of their shipping industries and the much vaunted equity of application of CLC 1969. An International Maritime Organization (IMO) diplomatic conference in London in 1984 reviewed the liability and compensation provisions of both CLC 1969 and the Fund Convention 1971, adopting significant increases in both shipowner

[150] *Id.* at 2
[151] IMO, International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Dec. 18, 1971

liability and the IOPC Fund 1971 compensation ceiling, although the former was linked to a narrowing of the conditions under which the shipowner could lose the right to limit liability—a significant concession to shipping interests. Concerns had also been raised by contracting states at the London Conference about a growing number of substantial claims for environmental damage compensation allowed by national courts under the international liability regime. Here delegates identified a convergence of flag state (shipping) and coastal state (environmental protection) interests in redefining the parameters of liability for oil pollution damage to standardize cover of transnational environmental harm. The agreed amendments featured the explicit inclusion of environmental impairment as constitutive of pollution damage under CLC and the extension of the geographical scope of both liability conventions beyond the territorial seas of contracting states to cover their exclusive economic zones (EEZs) (or equivalent) and the costs of measures wherever taken to prevent damage to their national maritime areas.[152]

The FUND Convention is expertly administered by the International Oil Pollution Compensation Fund Secretariat in London. This fund is an intergovernmental organization established by States. Any state which accepts the FUND Convention automatically becomes a member of the International Oil Pollution Compensation (IOPC) Fund.[153] The FUND is financed by a levy applied to individuals and corporations dealing with the import and export of oil in contracting states. The convention also introduced a compulsory liability insurance requirement for ship owners.

e) ***Scope of Environmental Liability***

The spatial delimitation of oil pollution liability under the international conventions has always deferred to the sovereign rights of contracting states: CLC 1969 (Article II) and the Fund Convention 1971 (Article III) both apply only to pollution damage caused or impacting on the territory, including the territorial sea, of member states. At the time of the original conventions, there was no international consensus on the breadth of the territorial sea, which militated against the uniformity of geographical application of the liability regime. Article 3 of the LOS Convention 1982 set the limit of the territorial sea of a state at 12 nautical miles, which is now widely accepted as the international norm, although both CLC 1992 and the Fund Convention 1992 do not refer to the 12-mile limit in deference to the autonomy of state

[152] CIVIL LIABILITY *supra* at 146
[153] Oil Funds, *Oil Reporting & Contributions*, http://www.iopcfunds.org/about-us/what-we-do/oil-reporting-and-contributions/

maritime claims. Nevertheless, at the 1984 IMO London conference on maritime liability and compensation, developing states successfully lobbied for an amendment to the oil pollution liability conventions to recognize the EEZ rights accorded to coastal states by the LOS Convention (Part V): these entitlements extend up to 200 nautical miles from the baseline from which the breadth of the territorial sea is measured (Article 57). The broadening of the geographical scope of the liability conventions was reinforced at the 1984 conference by international agreement clarifying that the liability conventions cover measures, wherever taken, to prevent oil pollution damage within a territorial sea or EEZ.

6. CONCLUSION

Oil is a global commodity that is pertinent to billions of lives far and wide today. It makes a significant wellspring of national wage for nations that deliver it. It is crucial for developed countries as it backs their advanced quality and consumerist lifestyle they have gotten to be reliant on. Developing nations need oil to develop their mechanical limit as options are excessively wasteful and tedious to supplant with oil on a substantial scale. Poorest nations need to utilize oil as a part of request to raise their expectations for everyday comforts by improving financial action, which likewise prompts expanded shopper interest for oil.

The narrative of oil on the planet history complies with the solutions of neoclassical financial matters. Generally as what Alfred Marshall and his followers hypothesized in the late nineteenth Century, higher costs urge makers to create more and buyers to purchase less. Inspirations of makers who try to offer their items over a certain sum at every yield level, and those of shoppers who might not be willing to spend over a certain sum meet at a harmony purpose of cost at every yield level. This is the point where downward-sloping curve from the demand side intersects with the upward-sloping curve from the suppliers, pointing the intrinsic determination of price in the market. The current picture of the global oil market resembles one, in which supply is approaching an end while demand is increasing ever faster. In a market with high capacity utilization rates, reproduction costs and price inelasticity of demand, economic prospects have few chances but being upward.[154]

Accordingly, oil's hypertrophic economic value is likely to continue to influence the political stage in the 21st Century. Many governments whose national economies are rapidly becoming dependent to oil will continue to feel pressured to adopt policies that are congenial

[154] VALUE TO POWER *supra* n. 7

to oil-producing governments with dissonant international aspiration. Chinese government develops cozy relationships with Iranian, Saudi Arabian, Nigerian and Sudanese governments in expectation of securing oil supply for its increasing thirst for oil as a result of rapid industrialization. It offers to build infrastructure (a railroad, airport and telecommunications system in the Nigerian case) as well as stock shares in Chinese blue-chip companies in exchange for a guaranteed supply and delivery of oil.

Iran and Russia find most of the European Union to be less enthusiastic about countering their foreign policies due to the fact that European countries increasingly need natural gas and oil from Iran and Russia, and European firms are expanding their business volume with in these countries. Many governments are more reluctant to confront Iran's nuclear weapons program as the country is a major oil exporter that produces 2.5 Million barrels of crude oil a day. China used its veto power in the UN to block international intervention with the human rights abuses and genocide in Darfur at a time when it accelerated its oil investments in Sudan to extract and transport oil to China.

Worldwide distribution of oil reserves suggests that the monetary investments of the world's biggest economy that delivers one fifth of the worldwide yield might, later on, be subordinated to political premiums of the legislature that is responsible for it. Nine of the ten countries that have larger reserves than the US (Canada is the only exception) are American adversaries that would not refrain from policies hostile to the United States.

Oil's greatest impact on civilization could be more abstract than economics or politics. Its transformation from an economic resource that boosts industrialization to a political economic commodity that shapes behaviors of governments is a testimony to the impropriety of a vision of capitalism that is based solely on short-term self-interest. Blinded by a radical ideology that embraces prosperity above everything else including social responsibility and environmental sustainability, American political establishment for the last century violated the principle of diversification to control systemic risk, and promoted oil as the sole backbone of American industry. Increased dependence to oil over the last 50 years mutated into formidable political power to the global actors who can influence oil prices.

Today, entanglement of the oil industry with governments is a well-rooted that institutionalized the subjugation of the public interest in favor of the private one. In his account of the discovery of oil in North Dakota in 1951, political scientist Robert Engler noted that tremendous economic growth that followed the extractions in the state led to a

form of commercial government that saw promotion of business interests rather than controlling them for the welfare of the society as its primary mission. With the discovery of oil deposits in North Dakota, private companies flocked in the state to extract and sell the valuable resource. The speed by which they developed facilities, technologies and institutions were so fast that the rural people and politicians of the state often only followed the private companies in their quest for more business. These companies transformed the social, economic and political institutions of the state remarkably well, and mutually-beneficial arrangements between private businesses and government became a norm in the political climate of the day.

On the last note, monetary essentials like developing world populace, expanding industrialization, low substitutability, high value inelasticity and high limit use demonstrate that oil will keep on remaining as a politically-charged product that difficulties national security, vote based system and welfare over the globe in the years to come. It will prevail as a medium that grants special privileges to companies in the oil industry, influences national governments to conduct foreign policies favorable to oil interests, and strengthens moral decay by means of social and environmental irresponsibility. This prospect raises oil to the ranks of a truly phenomenal natural resource that influences any political economic outcome with irreversible certainty. With its political as well as economic significance, oil is an empirical support for the classical economists who used the term “political economy” instead “economics” in order to foretell about the political ramifications of economic phenomena.

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