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PRIVATIZATION IN THE INTERNATIONAL PETROLEUM INDUSTRY: THE INTERPLAY BETWEEN POLITICS, ECONOMICS, AND RELIANCE

John E. Rhea*

INTRODUCTION

Since the discovery of oil, world power brokers have fought over the price, production, and control of the once vast and still vital natural resource. Some allege that the recent occupation of Iraq is motivated by the control over oil supplies in the Persian Gulf. This view suggests that recent military operations in Afghanistan and Iraq are in truth, strategic precursors for the eminent wars to procure oil. Yet, the critical discussion, in this writer’s opinion, should contemplate how the world will function without oil and how civilization will come to terms with the fact that fossil fuels as an energy resource are no longer an inexhaustible resource. In the very near future the world will experience an energy crisis and a shock to economic systems much like that experienced in the 1970s and mid-1980s. Only this time, the end of production will not be the result of any unilateral exercise of sovereign power. Instead, the crisis will result from an actual worldwide depletion of fossil fuel resources. Some predict that petroleum resources will peak by the year 2020 and that by the year 2080,

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1. See generally DANIEL YERGIN, THE PRIZE: THE EPIC QUEST FOR OIL, MONEY AND POWER (1991). Daniel Yergin’s THE PRIZE, is widely known as one of the most prolific accounts of the power, politics, and economics that has existed within the petroleum industry since its inception. Yergin provides a comprehensive overview of petroleum explorations and the interactions between governments and multinational companies. Yergin’s book also provides an in-depth analysis of petroleum price and production and its impact domestic and international policies.


3. Engdahl, supra note 2; see also Savinar, supra note 2.


5. For purposes of this discussion, “petroleum” refers crude oil and natural gas. The petroleum industry is also referred to as the “oil and gas industry.” The term is synonymous with fossil fuels, hydrocarbons, and non-renewable resources. But in the international energy context, petroleum primarily refers to oil and gas.

6. Geological surveys, according to THE WORLD ENERGY OUTLOOK, estimate that oil production will peak in either 2010 or 2020, resulting in 2.3 trillion barrels of recoverable reserves. See THE WORLD ENERGY OUTLOOK, 44-148 (Int’l. Energy Agency ed.,1998) reprinted in ERNEST SMITH ET AL., INTERNATIONAL PETROLEUM TRANSACTION 18, 19 (2d ed.2000); see also, Appenzeller, supra note 4, at 90.
petroleum resources will be completely exhausted. The grim reality that crude oil is indeed a finite resource places a real threat to the way of life of developed countries and will drastically impair world economies. Currently, the world consumes over thirty billion barrels of oil per day (bpd). The United States alone consumes approximately ten billion bpd and by 2025, U.S. consumption is expected to balloon to nearly thirty-five billion bpd. As world populations and demand grow at a faster rate than production, the global energy outlook becomes disastrous.

Dr. M. King Hubbert, discussed infra, alerted the world in 1950 that petroleum was a finite resource and that the production of conventional oil would reach its peak between 1970 and 1980. At which point we would have used half of all the recoverable oil that ever existed on our planet. This alarming information has likely been known to previous administrations. Surely the Bush Administration, through the eyes of Vice President, Dick Cheney, is well aware of the impending crisis. For instance, Cheney, a former Halliburton executive, stated during a speech to the International Petroleum Institute in 1999 that: "by the year 2010 we [the world] will need on the order of an additional 50 million bpd." It is further estimated that by 2020 the world will require 120 billion bpd for economic growth. Rather frighteningly, for oil-dependent countries, a mere 10 to 15 percent shortfall between demand and supply can trigger an enormous economic crisis. In short, in apocalyptic fashion, life as we know it will cease as world oil supplies come to an end.

Be clear that there is no feasible replacement for oil. An end to world reliance on fossil fuel based energy in the form of renewable energy or other alternative energy sources is at best a supplement but more realistically a theoretical fantasy. In most cases, oil is required to develop these alternatives to oil. For example, oil is required in the mining and extraction of the hard rock minerals required to

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8. Savinar, supra note 2.
9. bpd references the phrase, "barrels per day."
10. Savinar supra note 2; see also, THE WORLD ENERGY OUTLOOK, supra note 6, at 18-19.
11. THE COMING OF GLOBAL CRISIS, PEAK OIL, supra note 7; see also THE COMING OF GLOBAL CRISIS, HUBBERT PEAK, supra note 7. Other scholars, including Dr. C.J. Campbell predicted that world depletion would begin in 1999. See THE COMING OF GLOBAL CRISIS, PEAK OIL, supra note 7.
12. THE COMING OF GLOBAL CRISIS, PEAK OIL, supra note 7; see also THE COMING OF GLOBAL CRISIS, HUBBERT PEAK , supra note 7.
15. Savinar, supra note 2.
16. Id.
17. Id.
develop solar power. Moreover, recovering "oil" from oil shale also requires the use of crude oil to convert the oil shale into a usable product. Additionally, the promise offered by fuel cells is questionable due to limited global reserves of platinum. Thus, despite efforts to develop alternative energy resources, petroleum remains the world's primary source of energy.

In this writer's view, energy companies, heads of states, and the major power brokers of the primary consuming countries, should realize that reliance on oil suppliers with hidden political agendas and narcissistic international policies like those of Saudi Arabia and the Persian Gulf, can no longer be entrusted to bear the sole key to the future of the energy market place.

It is not surprising that, in the last three decades, strategic efforts have commenced to globalize the petroleum industry under the auspices of privatization. Hence, privatization of the international petroleum industry serves as an economic alternative to the power and control exercised by producing nations over this vital commodity. In that sense, by privatizing the petroleum industry, multinationals and importing nations, regained control over the world energy market.

Several theories account for the rationale behind the privatization of the international petroleum industry, most of which propose that the decline in socialist regimes and profit maximization are the driving forces behind energy privatization trends. This writer contends, however, that two political and economic factors drive global petroleum privatization. First, and arguably the most significant driving force behind the privatization of the international petroleum industry, is the need for consuming countries to decrease their reliance on the Organization of Petroleum Exporting Countries (OPEC) and the Middle

18. Id.
19. Id. (quoting Dr. Walter Youngquist, who further contends that oil derived from oil shale is not actually crude oil).
20. Savinar theorizes that a single hydrogen fuel cell require 20 grams of platinum. With only 7.7 billion grams of proven platinum reserves, the approximate 700 million internal combustion engines on the road today, would require annual replacement, excessive costs, and would become exhausted in a relatively short period of time. Savinar, supra note 2; but see William Vincent, Hydrogen & Tort Law: Liability Concerns Are Not A Bar to Hydrogen Economy, 25.2 ENERGY LAW JOURNAL 385, (2004). Vincent espouses that hydrogen is the most abundant element in the universe and hence hydrogen fuel cells will ultimately become a common fuel source.
21. Alternative energy such as nuclear power, solar energy, and hydro- power do not have the present capacity to replace petroleum resources as the primary energy needed to generate electricity fuels and automobiles worldwide. ERNEST SMITH ET AL., INTERNATIONAL PETROLEUM TRANSACTION 4 (2nd ed. 2000); see also WORLD ENERGY COUNCIL, SURVEY OF ENERGY RESOURCES: CRUDE OIL AND NATURAL GAS LIQUIDS (2001) at http://www.worldenergy.org/wec-geis/publications/reports/ser/oil/oil.asp (last visited Apr.5, 2005).
23. OPEC is the acronym for the Organization of Petroleum Exporting Countries; the 11 member countries are: Saudi Arabia, Kuwait, Iran, Iraq, Venezuela, Nigeria, Indonesia, Libya, Algeria, Qatar, and the United Arab Emirates. OPEC, THE ORGANIZATION OF THE PETROLEUM EXPORTING COUNTRIES (OPEC) BRIEF HISTORY, at http://www.opec.org/aboutus/history/history.htm (last visited Apr. 5, 2005).
East. By developing foreign investment activities with Non-OPEC producers, western entities exercise greater control and participation in the market, thereby stabilizing the market, increasing capital revenue, and securing future economic growth. Second, is the economic disparity within the petroleum producing countries, which consists of three sub-factors: the absence of economic diversity, the economic burden of external debt owed by host countries, and primarily, the exclusive economic reliance on petroleum revenue by producing nations.

Historically, the threat to the security of fossil fuel resources, as triggered by the 1973 Saudi-led Oil Embargo, is significant in the analysis of privatization in the international petroleum industry. Additionally, conflicts and unstable government regimes in OPEC member nations are also considerable factors in the surge to develop foreign direct investment (FDI) with non-OPEC producers. This discussion attempts to demonstrate that privatization, in the international petroleum sector, is a necessary vehicle to avoid reliance on OPEC and the Middle East. And as such, it is a reflection of political strategies, aimed at securing rapidly depleting energy resources. And secondly, that privatization is also an economic necessity for producing countries whose excessive reliance on petroleum revenue has left them vulnerable to the very foreign control which many anti-globalists protest.

This discussion begins with an analysis of importing nations' reliance on foreign supplies. Next, a brief historical account of foreign investment in petroleum producing countries follows, which includes the demise of the traditional concessions and the shift of power over price and production. The historical approach serves as insight into current anxieties surrounding reliance on Middle Eastern oil.

Central to this discussion is the impact of the 1973 Oil Embargo and the driving forces behind the modern trend of privatization in the world oil market and the development of the Organization for Economic Co-Operation and Development (OECD) as a response to the formation of OPEC. The totality of which resulted in the shift by consuming countries from reliance on OPEC member countries as a means to economic stability. Finally, this article provides an analysis of the economic disparity and economic reliance on petroleum revenue by host countries, which ultimately makes those nation states more apt to seek foreign direct investment as a means to spark economic growth.

I. PRIVATIZATION: A VEHICLE TO AVOID OPEC RELIANCE

A. Hubbert Peak Oil

Since much of this discussion references the end of fossil fuel resources and the political and economic reactions thereof, adequate analysis of the transition from state-owned enterprises to privatization, requires some treatment of the end of the oil age. The Hubbert Peak or Peak Oil, as it is often referred, is a theory developed by geologist, Dr. M. King Hubbert in the 1950s. Hubbert's theory is represented by a bell-shaped curve depicted on a typical linear graph. Hubbert
predicted that between the time of the first production of oil in 1860 and the end of oil in 2050, a collision between world supply and world demand would result in a peak of world oil supplies.25

The Hubbert Peak was estimated to occur between 1970 and 1980, whereby, half of all proven reserves of conventional oil would have been used.26 Hubbert’s bell-curve demonstrates that when conventional oil has peaked, the total resources that were ever and will ever be available for production will be known.27 Once the peak occurs, production will decline until the resource is completely depleted.28 Although Hubbert’s prediction that U.S. reserves would peak in the 1970s proved to be accurate,29 new geophysical studies estimate that (globally) Peak Oil will more likely occur in 2020.30

The World Energy Outlook estimates that ultimate recoverable reserves are roughly 2.3 trillion barrels.31 Dr. C.J. Campbell of Petroconsultants estimates that the global ultimate is 1750 Gb. And since there haven’t been any significant discoveries in the past two decades, this means that after 2020, production will begin its decline.32 Hence, for each year that world populations increase, the possibilities of locating new accommodating supplies will become less and less likely.33

Is it possible then, that U.S. military activity in Iraq and Afghanistan is merely a camouflage to ensure security over future energy resources? Several scholars have proposed that the competition for world oil supplies will be carried out through actual war.34 Such positions support the proposition that American military instillations established during Desert Storm near Saudi Arabia, the present occupation of Afghanistan, near the Caspian Sea, as well as the military presence in Iraqi, are but preliminary maneuvers to prepare for the destined military battles for the last drop of oil.35 Since the aftermath of Peak Oil will likely result in catastrophic global crisis,36 the argument for strategic military operations may not be completely far fetched. However, a more practical theory, as this discussion asserts, is that energy resource strategists opted for controlling participation and influence over the global energy markets, in the form of petroleum privatization.

25. See THE COMING OF GLOBAL CRISIS, HUBBERT PEAK, supra note 7.
26. Id.
27. Id.
28. Id.
30. THE WORLD ENERGY OUTLOOK, supra note 6 at 18-19.
31. Id.
32. THE COMING OF GLOBAL CRISIS, PEAK OIL, supra note 7; see also THE COMING OF GLOBAL CRISIS, HUBBERT PEAK, supra note 7; see also SMITH ET AL., supra note 21, at 20-22.
33. See Ross supra note 29, at 1.
34. See id. at 4; see also Engdahl, supra note 2; see also Savinar, supra note 2.
35. Ross, supra note 29.
36. See THE COMING OF GLOBAL CRISIS, PEAK OIL, supra note 7; see also THE COMING OF GLOBAL CRISIS, HUBBERT PEAK, supra note 7.
B. The History of Global Petroleum Transactions

This section attempts to shed light upon the historical factors which led to the geopolitical conflicts between importing nations and exporting nations over petroleum resources. Likewise, this section seeks to demonstrate that the historical encounters between petroleum dependent states and producing states are the fundamental mainspring for the modern trend toward petroleum privatization.

Privatization at its purest form can be traced back to the early exploration and concession agreements beginning in the late 1800s with the Royal Dutch Company. The first concession agreement occurred in 1901 when William D’Arcy was granted a concession agreement by the Shah of Persia to explore 500,000 square miles in search of oil. In 1925, D’Arcy’s concession agreement with Iraq became the model upon which future concession agreements were based. During the first half of the twentieth century, seven multinational oil companies known as the “Seven Sisters” set price and production levels providing minimal control and low financial compensation for host countries. Much like modern privatization models, early concession agreements involved foreign capital and technology used to explore and develop petroleum resources from passive host country participants. Arguably, these contractual arrangements were representative of the imbalance of power that persisted in the industry and in our view, laid the foundation for future conflict between importing nations and exporting nations.

C. The Demise of Concession Agreements

Following World War II, the shift of oil production from North America to the Middle East began to define international roles between importer and exporter nations. And as a growing demand for oil occurred in the United States, oil became the greatest factor in Middle Eastern politics. Although multinational companies continued to dominate the petroleum industry between 1945 and 1971, gradually, a changing of the guards in the international petroleum industry became eminent. The Joint Agreements between the majors and the producing nations became extinct by 1984. The subsequent loss of market share, once held by the seven multinationals, was accompanied by

39. GAO, supra note 37, at 9.
40. Id.
42. See id.
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the demise of joint producing agreements. Countries such as Qatar, Iraq, and Kuwait, after acquiring technology and capital procured through their partnerships with Western multinationals, began to rely less on foreign participation and began to demand control over their natural resources. Adding to this dynamic was the end of Colonialism and the exercise of sovereignty over a nation state's natural resources. The U.N. General Assembly Resolution §1803 of 1963, providing for Permanent Sovereignty Over Natural Resources, gave nations a sense of self reliance and dominion over their petroleum resources.

The demise of the traditional concessions agreement began in the early 1940s when producing countries became discontent with the existing arrangements of the concessions agreements. In 1943 Venezuela began to impose taxes against the petroleum countries in addition to receiving royalty payments. In 1950, a profit sharing agreement between Saudi Arabia and Arabian American Oil Company (ARAMCO), gave Saudi Arabia 50 percent of the profits, as opposed to per-barrel royalties. In 1973, Saudi Arabia acquired 25 percent of ARAMCO, 60 percent in 1974 and full ownership in 1980.

The demise of the concessions agreement occurred mostly by negotiation, yet in some cases producing countries regained control through expropriations or nationalization. Consequently, by the late 1970s nearly all Middle Eastern oil and petroleum resources in North and West Africa became nationalized or otherwise state-owned.

D. The Birth of OPEC

Armed with U.N. sanctioned sovereignty over their petroleum resources and liberated from exploitive concessions agreements, producing countries asserted their influence over the world oil market. Producing countries sought to increase revenue by increasing production rather than increasing the price of oil, while multinationals sought to maintain prices. What ensued was a battle over what the price should be and who should set that price. This battle over the price and

45. Id.
46. See generally, THE ARABS, supra note 41; see also SMITH ET AL., supra note 21, at 55-60.
48. GAO, supra note 37, at 14, 17.
49. Id. at 15.
50. Id. at 15.
52. GAO, supra note 37, at 18-19; see generally Stephen A. Zorn, Unilateral Action by Oil-Producing Countries 9 FORDHAM INT’L L.J. 63, 90-94 (1985-1986). Under President Cárdenas’ leadership, Mexico expropriated its petroleum sector and created PEMEX; see also SMITH ET AL., supra note 21, at 386.
54. See generally YERGIN, supra note 1, at 514-23.
55. Id.
production of oil culminated in the establishment of OPEC in 1960.\(^{56}\) Ironically, America’s Interstate Oil Compact of the 1930s became the model for OPEC price and production policies.\(^{57}\) The primary goals of the five founding members of OPEC: Saudi Arabia, Kuwait, Iraq, Iran, and Venezuela, were to control price and production levels.\(^{58}\) By 1973, the Saudi-led OPEC entity had grown in power and influence.\(^{59}\) This writer contends that with the major producing markets in the Gulf region being state-owned, the Western countries feared the implications of reliance on the Gulf region.

**E. Western Reactions to Price and Production Wars**

The “Oil Crisis” of 1973 and 1985 raised new anxiety to the already existing power struggle between world powers and producing countries. For example, in 1973, in the aftermath of the Arab-Israeli War, Saudi Arabia reduced production causing a decline in OPEC output.\(^{60}\) Non-OPEC members capitalized on the opportunity and created inflated “spot prices” making the price of oil increase dramatically.\(^{61}\) Then in 1985, a Saudi-led OPEC flooded the market, making the price of oil drop substantially.\(^{62}\) Hence, the need to stabilize and diversify the petroleum market became paramount. These events and their economic implications, created the need to regain control over the petroleum industry through privatization.

History reveals that in the last thirty years following the Saudi-led Oil Embargo of 1973, there has been a surge toward privatization and exploration in Non-OPEC markets.\(^{63}\) The 1973 Oil Embargo created a threat to the security and future of fossil fuels as an energy resource throughout the world, and subsequently justified a shift from market reliance on OPEC producers. Exploration and production (E&P) investors vigorously began to develop new resources and new E&P ventures in un-mature markets and with Non-OPEC members.\(^{64}\)

The Saudi Oil Embargo crippled the American economy and created an almost permanent psychological fear of reliance on Middle Eastern oil.\(^{65}\) In the United States economic strategies diverted economic growth and led to economic

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56. See Bernard Taverne, *Petroleum, Industry and Governments: An Introduction to Petroleum Regulation, Economies and Government Policies*, 110-12 (1999); see also GAO, supra note 37, at 17; see also Economides & Kronman, supra note 53, at 43.
57. Yergin, supra note 1, at 257, 259.
58. GAO, supra note 37, at 17; see also Taverne, supra note 56, at 110.
59. GAO, supra note 37, at 17-18; see also Taverne, supra note 56, at 110-11.
61. See Adelman, supra note 60, at 111-12; see Yergin, supra note 1, at 712.
64. See id. at 16,17.
depression through 1983. Clearly, the 1973 energy crisis shook the world market and forced policy makers to reassess existing energy policies. For example, in the wake of the increased political power of OPEC, both the Carter administration and the Nixon administration, developed national energy policies aimed at becoming independent of Middle Eastern oil.

As such, privatization became the vehicle through which to avoid reliance on Middle Eastern oil. The world conflict over price, production, and demand burdened the world oil market and further led to OPEC’s loss of its controlling share of the market. OECD nations began to rely less on OPEC production as substitute suppliers from non-OPEC countries emerged. For example, in 1985 non-OPEC production reached a high of 71 percent of the total world oil market and in 2003 accounted for 62 percent of world oil production. The increase in non-OPEC production between 1973 and 1983, although contributing to the uncontrolled flow of petroleum to the market, also displaced the cartel influence over production and price. This surge for a competitive global market place is reflective of the importing country’s desire to preserve energy security and reduce reliance on OPEC supplies.

F. Modern Privatization Trends

Fossil fuels will account for 95 percent of global energy demand through 2020 and oil importing countries dependence upon Middle East supplies will increase until and unless alternative sources are developed. As fewer discoveries of giant fields are made it is likely that major consuming countries will once again be reliant on Middle Eastern oil supplies. For instance, three oil discoveries made in the last two decades, in Norway, Brazil, and Columbia are estimated to produce roughly 200 thousand bpd. These reserves will not meet the predicted additional 50 million bpd consumption rate needed to meet new demands. Thus, Middle Eastern reserves in Kuwait, Saudi Arabia, Abu Dhabi, and Iraq, will likely be sought to meet world demand. Hence, the fact that reliance on Middle Eastern

66. See Adelman, supra note 60, at 114.
68. Id., ch.6 at 20-27.
69. YERGIN, supra note 1, at 718.
70. Attempts by the OPEC cartel to dictate price and production was circumvented by spot market suppliers, which provided market stability. Adelman, supra note 60, at 119-121; see also YERGIN, supra note 1, at 714.
72. Verleger, supra note 44, at 132-35.
73. See THE WORLD ENERGY OUTLOOK, supra note 6 at 46.
74. See Engdahl, supra note 2; see also SMITH ET AL., supra note 21, at 27-28.
75. See Engdahl, supra note 2.
76. See id.
77. Id.
oil supplies is unavoidable, it follows that the political power struggles over price and production are those challenges that Western importing countries seek to avoid by privatizing world oil markets.

The uncertainty of price stability in the twenty-first century raises further concern for Western reliance on the Middle East.\(^7\) Such conflicts work to the disadvantage of western importing countries. Therefore, continued strategic private development in non-OPEC markets, such as Canada, Russia, and Mexico, should top the list of priorities for the current administration. Transnational investment policy changes are reflective of the paradigm shift away from state participation and toward privatization.\(^7\)

The geo-politics of privatization requires a distinction between OPEC producers and non-OPEC producing countries. Control over petroleum resources in OPEC countries are typically held by government bodies such as State Owned Enterprises,\(^8\) while in most non-OPEC nations the industries are not state owned.\(^8\) Further, non-OPEC countries are seemingly more receptive to privatization, thus making foreign direct investment (FDI) ventures with non-OPEC countries more favorable.\(^8\) Moreover, government controlled sectors tend to use petroleum resources for political leverage rather than merely a tradable commodity.\(^8\) Such practices conflict with international economic norms and the rule of law.\(^8\)

**G. A Globalized Energy Market Reduces Reliance on OPEC**

Reliance on Middle Eastern oil supplies has long been a concern of the United States and other importing countries, namely Western Europe and Japan.\(^8\) As the historical accounts of the 1973 Oil Embargo attest, prior to petroleum privatization, Western economies have been vulnerable to cartel influences. A recent poll conducted by the Hudson Institute and pollster Frank Luntz indicate that most Americans want to decrease reliance on Middle Eastern oil.\(^8\) In fact, since September 11, Americans have become increasingly aware of the link between oil and politics.\(^8\) The Hudson-Luntz poll indicated that 83 percent of Americans agree that “reducing our dependence on foreign oil must be a top priority for the next administration”\(^8\) and that the majority of Americans favor

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78. SMITH ET AL., supra note 21, at 49.
80. Economides & Kronman, supra note 53, at 42-43.
81. NON-OPEC, supra note 71.
82. See generally Foss, supra note 63, at 34-36.
83. Sovereign interests have been replaced by market-based economies. See e.g., Foss, supra note 63, at 34-35.
87. Id.
88. Id.
reducing reliance on foreign oil over cheaper gasoline prices. The Hudson-Luntz poll seems to indicate that many fear that reliance on Middle Eastern oil jeopardizes national security and compromises the War on Terrorism.

Recent counter-terrorism campaigns have left many with the belief that Arab producing countries will respond to the War on Terrorism by launching an embargo or drastically raising oil prices. Such fears are reminiscent of the anxiety felt during the 1973 Oil Embargo. Yet, fears that the War on Terrorism will affect an embargo are unwarranted. The interface between national security and energy security should not cause such alarm because the advent of a globalized energy market has displaced the control of OPEC with a competitive energy marketplace. In a globalized petroleum industry, the Middle Eastern producing countries can no longer dictate price and production without causing their own economic suffrage. Globalization of the international petroleum industry, therefore, creates a competitive global energy market place and results in equitable economic security and mutual economic vulnerability for both producing countries and importing countries alike. In short, producing countries must sell oil supplies to sustain their own economies and can ill afford to allow politics to interfere with their economic stability. It follows that a globalized energy market provides freedom to pursue national security policies without fear of a Middle Eastern oil embargo or energy crisis.

The globalization of the petroleum industry means the dispersing of power over production and diversity among resource suppliers, resulting in a competitive market place whereby one cartel can no longer control the fate of the world market. As such, globalization reduced U.S. reliance on Middle Eastern oil and created competition among oil-producing countries. The modern trend toward globalization of the petroleum sector stems from the privatization of non-OPEC markets during the later decades of the twentieth century. Prior to the emergence of petroleum privatization, OPEC member states had a stronghold on world supply and production which left importing countries vulnerable to both energy and economic crisis.

89. Id.
90. Id.
92. Id.
94. Id.
95. Id.
96. Losman, supra note 91.
97. Richardson & McLarty, supra note 93.
98. Id.
99. See generally Foss, supra note 63, at 11-17.
100. See generally id. at 18, 25-26 (discussing the impact of OPEC decision-making regarding price and production, on the world market. Foss further asserts that Non-OPEC markets defuse the once dominant position of the cartel).
Privatization is a rapidly growing phenomenon and touches many once nationalized or state-owned core industries. Between 1988 and 1993, nearly three thousand state-owned enterprises in over ninety-five countries were transferred to private ownership. Yet unlike the privatization of a country's telecommunication system or water purification system, the privatization of a nation's petroleum industry is seldom without political significance. Most oil producing countries hold strong nationalistic ties to their petroleum resources, making the transfer of ownership to private companies a reluctant national process.

Privatization is but one facet of a global economy, yet without private ownership or at least significant private participation, Western nations are left without recourse and are vulnerable to host government influences. Not surprisingly, multinational oil companies and Western states, interact with host country governments in manners that have less to do with economic transactions as they do with the geopolitics of petroleum. Geopolitical interactions with host countries have historically been disruptive to the world market and in some cases, resulted in severe economic crisis. In this author's view, the intensity of geopolitical interactions around downstream activities is precisely the motivation for the evolution of international petroleum privatization.

H. Primary Petroleum Consumers

The shift from OPEC reliance is most prevalent amongst the primary petroleum consumers. The OECD, for example, was formed by Western countries in response to the influence of the OPEC cartel. The OECD nations and the United States, consume the majority share of the oil market and as such, the function of Western economies greatly depends upon the availability and stability of fossil fuel resources. In 1999 Western countries accounted for 63 percent of the world's oil consumption, 70 percent of which is imported from beyond its borders. OECD countries privatized their own once state-owned petroleum enterprises, making petroleum privatization in OECD countries a model for the subsequent demise of public ownership of core industries. Countries such as Norway, the United Kingdom, Canada, and Italy are exemplary of early petroleum privatization. In an effort to avoid reliance on OPEC and the Middle East, OECD nations sought to form economic alliances with non-OPEC producing

101. GLOBALIZATION OF ENERGY MARKETS, supra note 22, at 4.
102. See id.
103. Economides & Kronman, supra note 53, at 41, 42.
104. Id.
105. The Organization for Economic Co-Operation and Development (OECD), formed the International Energy Agency (IEA), aimed at taking measures to reduce its members' dependency on the import of oil and to promote replacement by other energy sources. TAVERNE, supra note 56, at 121; see also, SMITH ET AL., supra note 21, at 5-6; see also Waelde, supra note 79, at 212-13.
106. OECD nations include the United Kingdom, France, Italy, Canada, Spain, Norway, and initially the United States. Moreover, Western Countries and OECD are referred to interchangeably. See TAVERNE, supra note 56, at 35; see also SMITH ET AL., supra note 21, at 5.
107. Id.
108. See generally GLOBALIZATION OF ENERGY MARKETS, supra note 22, at 3-12.
109. Id.
nations in Latin America and CIS countries.\textsuperscript{110} By implementing policies and practices of privatization in non-OPEC markets, OECD countries were able to encourage host governments to reassess the efficiency of state operated petroleum sectors.\textsuperscript{111} In recent years, OECD nations implemented privatization efforts in the Former Soviet Union, China, and Latin America, resulting in a competitive pool of suppliers.\textsuperscript{112} These privatization efforts proved to be a successful alternative to reliance on OPEC oil and forced Saudi oil supplies to remain competitive with the global market. Meanwhile, the Bush Administration and Mexican President Vincente Fox have forged an alliance, which may bring increased private investment in Mexico's tightly held state-owned market.\textsuperscript{113}

Similarly, non-OPEC countries like Norway and Russia have become viable competitors in the globalized market, and thereby enhanced an efficient petroleum industry and improved the overall security of energy resources.\textsuperscript{114} As the world's third largest oil exporter, Norway and the world's second largest oil producer, Russia, these countries have almost completely privatized their industries.\textsuperscript{115} Both are cooperative with international bodies in the effort to modify local statutes which once prohibited the exercise of private ownership.\textsuperscript{116}

These privatization efforts are significant in the advent of growing world demands. The United States is the most mature oil basin in the world, but the disparity between consumption and production has forced the United States into a net importing nation.\textsuperscript{117} The United States is the world's number one consumer of crude oil while, historically, Japan and Russia followed respectively.\textsuperscript{118} Recently, however, China has emerged as a major consumer and will join the United States and Japan as one of the world's largest petroleum consumers.\textsuperscript{119} In 2003, China surpassed Japan as the second largest oil importer next to the United States.\textsuperscript{120} Additionally, the growing middle class and rapidly growing economies in India and China place a competitive demand on world supplies.

\textsuperscript{110} Id. CIS Countries refers to the Commonwealth of Independent States (CIS).
\textsuperscript{111} See generally OECD, PRIVATISING STATE-OWNED ENTERPRISES: AN OVERVIEW OF POLICIES AND PRACTICES IN OECD COUNTRIES (2003).
\textsuperscript{112} Several countries including Canada, France, Argentina, Italy, Bolivia, and Peru have policies that facilitate the privatization of their petroleum resources. See generally GLOBALIZATION OF ENERGY MARKETS supra note 22, at 3-20.
\textsuperscript{113} Richardson & McLarty, supra note 93, at 2.
\textsuperscript{114} See id.
\textsuperscript{115} GLOBALIZATION OF ENERGY MARKETS, supra note 22, at 3-12.
\textsuperscript{116} See id.
\textsuperscript{117} Appenzeller, supra note 4, at 89.
\textsuperscript{118} Id. at 89.
\textsuperscript{119} Id. at 92.
\textsuperscript{120} Engdahl, supra note 2, at 4.
As such, it will be difficult for future production rates to accommodate the growing demand. China, for example, consumes 20 percent of total OECD energy.121 Together, India and China make up 2.5 billion of the world population.122 Clearly, the security of oil supplies will rapidly become a priority for both governments.

However, the security of oil supplies is exacerbated by the geographic localities of several Western powers. Western Europe and Japan, for example, are geographically situated near present and former state owned petroleum producers and thus are greatly impacted by OPEC market fluctuations.123 Arguably, these nations sought to secure imports through the formation of multilateral agreements. The 1994 Energy Charter Treaty, for example, was created to encourage petroleum trade between OECD and CIS countries.124 As a result, the Energy Charter Treaty provides alternative petroleum suppliers for OECD countries and therefore less reliance on Persian Gulf oil.

A similar trend exists in U.S. foreign policy. Prior to the Saudi Oil Embargo, the United States maintained an exorbitant reliance upon OPEC imports. Since then, the United States has diversified its imports.125 From 1978 to 1990, Saudi Arabia was primarily the top importer to the United States.126 With the emergence of private markets in Venezuela and Canada, reliance on imports from Saudi Arabia decreased. In 1997, the top suppliers of oil to the United States were Venezuela, Canada, and Saudi Arabia, respectively.127 Presently, Canada has emerged as the largest supplier of oil to the United States128 followed by Saudi Arabia, Venezuela, Mexico, Nigeria, and Iraq respectively.129 Canada’s proven reserves have been enhanced by including oil sands reserves in the estimates of total Canadian crude oil reserves, thus placing Canada second only to Saudi Arabia at 178.9 billion bbls.130 Clearly, the Canadian private market places economic pressure on OPEC members to circumvent the seepage of political ideologies into market performances. Similarly, Canada has demonstrated her loyalty as an exporting trade partner with the United States. In 2001, 99 percent of Canadian crude oil exports were sent to the United States.131

121. Id.
122. Id.
123. SCHURR & HOMAN, supra note 85, at 23, 31.
124. Energy Charter Treaty 1994 signed by Western nations, Eastern European Countries and members of the Community of Independent States (CIS), recognizes sovereignty over natural resources but discourages nationalization. SMITH ET AL., supra note 21, at 5-6; see also Waelde supra note 79, at 212-13.
125. THE ENERGY LAW GROUP, supra note 67, ch.1, at 10.
127. THE ENERGY LAW GROUP, supra note 67, ch.1, at 11.
129. See Losman, supra note 91, at 1.
130. Lucas, supra note 128, at 405.
131. Id. at 407.
Currently, the Persian Gulf accounts for 27 percent of the world's oil supply and holds over 66 percent of the world's proven reserves. In an effort to avoid Middle Eastern geopolitics and market disruption, importing countries anticipate that new reserves will be found in the Caspian Sea. The Caspian Sea is believed to hold the world's third largest petroleum reserve and once unlocked could dramatically reduce Western dependence on the Persian Gulf. The United States and other Western countries hope to develop economic and political alliances with the CIS countries of the Former Soviet Union as a means to develop the vast potential of the Caspian Sea reserves. The Caspian Sea has become a central focal point within the last fifteen years by Western capital, technology, and diplomacy aimed at reducing reliance on the Middle East. Kazakhstan, holds the Caspian Sea region's largest crude oil reserves, and is second only to Russia in net exports from the region. This explains the multitude of Western FDI ventures that have persisted in that area.

Yet, others argue that the Caspian basin will not replace the need for Persian Gulf oil. Recently, the Persian Gulf held roughly 600 billion barrels of oil and 1,600 trillion cubic feet of natural gas, whereas the Caspian basin only holds 28 billion barrels and 243 trillion cubic feet of natural gas. Moreover, Caspian Sea production rates are expected to reach only four million bpd by 2015 as compared to forty-five million bpd produced stemming from OPEC countries.

Still, multinational oil companies have spent the past two decades attempting to develop new oil fields that could potentially replace existing mature basins. Between 1996 and 2002, major oil companies invested approximately $560 billion in attempts to increase daily production. Unfortunately, however, no significant discoveries have occurred in over two decades. When the Hubbert Peak begins to drastically effect economies, the private sector may begin to force the hand of the National Forest Service by seeking to develop the reserves in the Artic National Wildlife Reserve (ANWR). Yet, developing ANWR will not solve the

132. Lunev, supra note 65.
133. See id. (asserting that Caspian oil will help lower the cost of any disruption from the Gulf); see generally, Waelde supra note 79, at 191, 197, 210 (discussing the legislative challenges and promise of petroleum investment in former socialist countries, referred to as CIS countries).
134. Lunev, supra note 65.
135. Id.
136. Id. The Commonwealth of Independent States (CIS) includes: Russia, Asebajin, Kazakhstan, Uzbekiastan, and Turkmenistan.
140. Id.
141. CASPIAN SEA, supra note 137.
142. Engdahl, supra note 2, at 3.
143. Id.
144. Id.
145. Savinar, supra note 2 at 4.
problem. ANWR only contains ten billion barrels of oil, which merely equates to one year of current U.S. consumption. Likewise, the development of oil shale and tar sands are not yet economically efficient because of the amount of energy required to develop those resources. Geologist, Dr. Walter Youngquist, informs us that: "although US oil shales hold recoverable oil equal to more than 64 percent of the world’s total proven reserves, all attempts to get this oil out of the oil shale have failed economically. Furthermore, the oil may be recoverable but the net energy recovered may not equal the energy used to recover it." 

I. Alternative Theories for the Modern Trend Toward Privatizing the Petroleum Sector

Some scholars contend that other market forces lead to modern privatization that have less political implications than this discussion asserts. One view is that venture capitalists sought increased profit returns through FDI projects in un-mature basins. Still others view privatization as market reform. Another contention is that the emergence of natural gas as a viable resource has altered future reliance on crude oil generally. Possibly the strongest argument is that privatization efforts is a direct result of a significant increase in available technology. New methods of gathering seismic data as well as innovative production technologies have led to new discoveries and more production. Likewise, the increase in technological exploration methods, led to more possibilities of E&P ventures in historically difficult geographic regions such as the Caspian Sea and the Former Soviet Union. Thus, foreign investors are less reluctant to pursue E&P ventures in non-traditional reserves.

Others argue that in the thirty years following the Oil Embargo, the shift from OPEC was due to a decline in OPEC production quotas, thus reducing profits. And that new reserves in non-OPEC regions would yield more favorable economic return. Economists contend that low production levels and lack of resource exploration contribute to investor’s abandonment of OPEC regions. Yet, collectively, OPEC members continue to hold the largest proven reserves in the world. Saudi Arabia alone has the highest production capacity.

146. Id.
147. Excerpt of geologist, Dr. Walter Youngquist reprinted in Savinar, supra note 2.
148. Foss, supra note 63, at 14.
149. Id.
150. Id.
151. Id. at 22-25.
152. Id. at 12-13.
154. See id; see also Foss, supra note 63, at 13.
155. See generally id., at 17, 27-28.
156. See generally, Economides & Kronman, supra note 53, at 41-46.
158. See TAVEINE, supra note 56, at 67-68.
159. See id.
Comparatively, OPEC and the Middle East far surpass most non-member states in reserves and production capacity with the Former Soviet Union, China, and Mexico as the few exceptions.¹⁶⁰

Competing theories espouse that privatization stems from the decline of socialism and the endorsement of free enterprise as a means to advance a nation’s wealth.¹⁶¹ This theory is supported by the rapid growth in international trade through the globalization of world economies.¹⁶² Thus, it is urged that the emergence of a global economy, coupled with the end of major socialistic regimes, laid the foundation for the privatization of the energy market.¹⁶³ Also, inefficiently managed state-owned enterprises discovered that international competitiveness was a key factor in a nation’s ability to generate wealth.¹⁶⁴

These alternative theories suggest that a historic change in attitudes toward state ownership and a desire to become more internationally competitive drove the evolution of privatization.¹⁶⁵ Such may be the case for developed countries and for countries whose national revenue is not dependent upon the export of oil. Yet, for oil rich countries whose national identity and economy are defined by the production and sale of oil, the analysis is quite different. In fact, in major producing countries, nationalistic views and state ownership are emphatically supported and explain why OPEC countries have resisted privatization trends.

Unlike globalization generally, privatization of the petroleum industry is not a creature of profit maximization or market reform whereby western nations are driven by an unquenchable thirst for capitalistic gains. Instead, the historic geopolitical power struggles reveals that petroleum privatization coexists within political structures and strategies aimed at securing nationalistic interests. It is clearly a direct result of the 1973 Saudi-led Oil Embargo and the adverse unilateral decision making of Middle Eastern sovereign powers. Where its effect may be competitive market facilitation, petroleum privatization is a reflection of Western energy polices aimed at reducing reliance on Middle Eastern oil and thereby securing oil supplies. Furthermore, allegations that globalization imposes capitalistic ideologies upon transition economies are not central to the discussion of a global energy market. Far more is at stake here. Capitalistic ideologies serve only as an infrastructure to implement the economic mechanisms of petroleum privatization.

Petroleum as an energy resource has far greater significance than other global commodities.¹⁶⁶ Because the dominant source of world energy is petroleum, the absolute dependence of modern economies on fossil fuels will be greatly impacted by the end of oil.¹⁶⁷ Worldwide dependence on non-renewable fossil fuels is
reflected in the daily uses and consumptions existing among industrial societies. For instance, transportation, electricity, heat, plastic products, agricultural production, and other commercial distribution networks are all petroleum dependent. In short, every facet of modern life in industrialized societies is powered by petroleum products.

J. Iraq and International Conflicts

Beyond the politics of price and production, conflicts and social instability within OPEC member states further exacerbated the need to decrease reliance on OPEC suppliers. Politics is often pervasive in international petroleum transactions that involve sovereign state ownership of the minerals. Political risk assessments involving expropriation, unilateral host government actions, and production must occur to ensure protection of foreign investments. Iraq, under the leadership of Saddam Hussein, has frequently threatened world production, with a plethora of unilateral decisions which affected world supplies and foreign relations. U.S. relations with Iraq were amenable during the 1980 Iraq-Iran war. Yet, these relations collapsed during the 1991 Persian Gulf War.

The affect that Iraqi governmental instability has on the market is demonstrative of need for private participation in producing countries. For instance, during the Iraq-Kuwait conflict and the subsequent Persian Gulf War of 1991, several Kuwaiti oil fields were set afire, thus disrupting world oil supplies. Fortunately, alternate suppliers eventually provided relief for the loss of production during the Gulf conflict. The ambitions of Saddam Hussein to become the world's leading oil power is indicative of the unstable nature of global transactions involving Middle Eastern producers. If the invasion of Kuwait had been successful, Saddam Hussein arguably may have developed the financial capacity to develop a formidable nuclear weapon. The implications of which, would have dramatically altered the balance of world power. Additionally, the loss of Iraqi production manifested by the U.N. plan and the imposed international sanctions meant a shortage that other OPEC and non-OPEC countries must bear.

168. Id.

169. See generally id.; see also Savinar, supra note 2, at 2.

170. See Yergin, supra note 1, at 14-15; see also The Energy Law Group, supra note 67, ch. 1 at 7-8; see also Appenzeller, supra note 4, at 80-88.


172. Id.

173. In the 1970s, Iraq formed alliances with the then Soviet Union. Economides & Kronman, supra note 53, at 43.

174. Id.

175. Id.

176. See generally Foss, supra note 63, at 26.

177. Yergin, supra note 1, at 12.

178. Id.

179. Id.

180. Foss, supra note 63, at 26-27.
More recently, allegations of corruption surrounding the “Oil for Food Program” in Iraq cause further market disruption in that it may further hamper the re-entry of Iraqi pre-war production levels.\(^{181}\)

Clearly the use of oil as a political weapon, along with the economic instability resulting from price battles, internal conflicts, and instability within OPEC nations, created an impetus for western nations to develop new markets to rely.\(^{182}\) Yet despite the cartel’s attempt to dictate price and production, the world endured the 1973 and 1985 crisis through the use of standby suppliers and demonstrates that there are sufficient reserves to meet world demand with less reliance on OPEC.\(^{183}\) As such, present privatization in non-OPEC nations increases the vitality and stability of the oil market. Despite the inevitability that non-OPEC producers will dry up,\(^{184}\) increased technology will one day unlock the vast resources of the Caspian Sea, creating sufficient relief for OECD nations located near that basin.\(^{185}\)

In the years to come, natural gas will replace crude oil as the primary hydrocarbon resource.\(^{186}\) And although natural gas deposits are not concentrated in OPEC regions, a vast amount of natural gas occurs there.\(^{187}\) No conclusion should be reached that a return to reliance on OPEC nations is inevitable for natural gas purposes. Instead, since most OPEC countries lack the requisite technology or capital to develop their natural gas resources, most will rely on some form of privatization to initiate production.\(^{188}\) Similarly, the abundance of natural gas in the United States will offset the potential for a Middle Eastern monopoly over natural gas production.\(^{189}\)

In summary, the private petroleum sector will continue to seek innovative strategies to secure energy supplies and increase private participation in traditional markets, and thereby reduce Western reliance on OPEC influence. The means by which are subject to debate, yet privatization efforts have demonstrated that a globalized energy market places pressure on otherwise unilateral geopolitical strategies to conform to an equalized and cooperative world market.

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181. See generally Claudia Rosett, Exposing the Rot Behind Oil for Food, NAT’L POST, Mar. 3, 2005, at A19; see also Bill Nichols, Oil For Food Chief Undermined Integrity of U.N., USA TODAY, Feb. 4, 2005.
182. See Foss, supra note 63, at 34-35.
183. See id.
184. Non-OPEC reserves are rapidly reaching maturity. Id. at 17.
185. See e.g., Frank C. Alexander, Jr., Caspian Petroleum Transportation and Contractual Challenges, in INTERNATIONAL OIL & GAS VENTURES: A BUSINESS PERSPECTIVE 365 (George E. Kronman, Don B. Felio & Thomas E. O’Connor eds., 2000).
186. See Foss, supra note 63, at 22-25.
187. See TAVERNE, supra note 56, at 69-70, tbl. 2.20.
188. See Foss, supra note 63, at 13.
II. PRODUCING COUNTRIES: ECONOMIC RELIANCE & VULNERABILITY

Privatization, along with economic globalization, exists along an intensely polarized continuum, between sovereignty and private ownership, separating private sector outlooks and anti-globalist rhetoric. In the case of petroleum privatization, the intersection of national sovereignty and globalization collide along a variety of geo-political lines enmeshed with energy demands and economic power. Thus, countervailing camps are often uncompromisingly opposed to each other. And motives and ideologies of respective counterparts are emphatically conclusive. Considering that 99 percent of the world’s oil stems from only forty-four countries, twenty-four of which are past their peak, including the United States, Russia, and the United Kingdom, Part II of this discussion examines the socioeconomic norms and viewpoints of producing countries in reaction to the encroachment of petroleum privatization.

A. Privatization and Economic Reliance

In addition to the geopolitics steering Western countries away from their reliance on Middle Eastern petroleum, the second critical factor driving international petroleum privatization is born within the producing countries themselves. That factor is the exclusive economic reliance on petroleum revenue by producing nations.

Depending upon which vantage point petroleum privatization is viewed, the economic disparity among producing nations could have several implications. One might perceive that privatization exploits economically vulnerable states, or that it is an imperialistic cloud over sovereign resources. Others may view the trend as an economic opportunity for transition economies. Whichever the chosen perspective, present economic stagnation, emphatically leaves producing countries vulnerable to foreign ownership and in need of foreign investment to promote economic growth.

For petroleum producing countries, the threat of petroleum privatization is less a creature of imperialistic globalization, but rather a product of national debt, economic disparity, and above all the producing countries’ excessive reliance on petroleum export revenue.

B. Privatization Defined

Privatization is a capital venture in a market-driven economy by profit-seeking companies who enter national economies and replace state ownership and control with private ownership and control. These profit-seeking companies are typically representative of Western countries and foreign to the nation state.

In her article The Selling of Argentina: Is the Path to the First World Privatized?, Carla Davidovich outlines factors that suggest both the benefits and burdens of privatization. She suggests that privatization: (i) increases efficiency

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190. Savinar, supra note 2.
191. SMITH ET AL., supra note 21, at 379.
of the industry; (ii) reduces the government’s role in the economy; (iii) maximizes use of natural resources; and (iv) introduces capital flow to the government and increases technological capacity. However, she also notes that privatization creates: (i) an increase in unemployment; (ii) decrease in the power of labor unions; (iii) the states loss to all future revenue; and (iv) fosters public resentment of foreign ownership.

Privatization, as a form of market facilitation, clearly coexists with private economic mechanisms, yet has implications of denationalization and trade liberalism that often conflict with sovereign interests.

C. Fear of Privatization

Anti-globalist fear that privatization of the petroleum industry is an implication of a loss of sovereignty over natural resources, deregulation of national policies, and a reduction in state revenue. The views of world bodies concerned with the trend of privatization were reflected at two international conferences. The International Conference on the Impact of Globalization on Middle East Oil & Gas Industry, sponsored by the National Iranian Oil Company (NIOC), held on July 23, 2003, discussed the effects and implications of the World Trade Organization, deregulation, and the impact of privatization on the Middle Eastern Petroleum Industry. In April 2004, the University of Maryland held a symposium titled, Globalization and Nigerian Oil that discussed among other things, the international political economy and international negotiations.

These international conferences reflect a concern that privatization implies a return to imperialistic conditions previously experienced in the first half of the twentieth century. Furthermore, many fear that privatization affects a retreat from national identity and self-determination. Moreover, because most producing countries were at some point under imperial or colonial rule, privatization increases domestic resentment of foreign intervention and control.

From the host country perspective, privatization often means a loss of sovereignty. Under the umbrella of economic globalization, privatization asserts pressure for the deregulation of markets, economic sectors, and national borders. It entails a transformative process of the state, which extends well beyond the loss of power. As such, privatization installs private actors and thereby affects denationalization. Keep in mind, however, that most of the major petroleum

193. Id.
194. Id.
198. Davidovich, supra note 192, at 168.
199. Sassen, supra note 197, at 109-10.
200. Id. at 110.
201. Id. at 111.
producers; Saudi Arabia, Kuwait, Iraq, Abu Dhabi, Mexico, Venezuela, and Nigeria have resisted full scale privatization. In fact, most of the producing nations maintain a state-owned enterprise system whereby all royalties, revenue stemming from the petroleum industry, go directly to the central or federal government. As one writer states: "most state-owned petroleum enterprises have remained immune to privatization trends." In fact, many former communist countries and some Latin American countries restrict foreign investment projects to Joint Venture agreements with a national oil company.

D. Privatization and the Loss of Sovereignty

There are different ways to view the effects of privatization on state-owned petroleum enterprises, primarily because there are different methods of privatization, all of which do not lead to a complete loss of state control, participation, or revenue. Obviously, most sovereign nations are resistive to the implications of a Total Sale of Assets (TSA) and Acquisition model. Other models such as the Joint Venture and the Lease and Management Contracts prove more palatable to some producing countries with transition economies.

The TSA model is best exemplified by the Argentina projects. Argentina privatized its petroleum industry in 1993. The oldest-state owned petroleum company in Latin America, Yacimientos Petrolíferos Fiscales (YPF), was sold to a Spanish company Respol. In 1993, Argentina’s natural gas company, Gas de Estado (GdE) was sold and divided into ten private companies few of which occurred through employee buyout programs. In return, the Argentine government received over $22 billion. In 2003, a Brazilian company, Petrobas, acquired a majority stake in Perez Companc, another large oil company in Argentina. By the end of 2003, Argentina’s entire petroleum industry had become privatized.

Other forms of privatization, which often have fewer implications of foreign dominance and serve as beneficial economic mechanisms for transition economies, include the Joint Venture agreement. The Joint Venture model, which is

204. GLOBALIZATION OF ENERGY MARKETS, supra note 22, at 7.
205. Id. at 37-55.
206. Id.
207. SMITH ET AL., supra note 21, at 383.
208. Id. at 384. See also, ENERGY INFORMATION ADMINISTRATION, ARGENTINA, COUNTRY ANALYSIS BRIEF, (2005) available at http://www.eia.doe.gov/emeu/cabs/argentna.html [hereinafter ARGENTINA].
210. ARGENTINA, supra note 208.
211. PRICE WATERHOUSE, DOING BUSINESS IN NIGERIA 33, 34 (1994).
essentially a partial sale of assets, provides investment opportunities for foreign investors while simultaneously supporting economic and technological growth among host countries.212

For example, Joint Venture agreements account for 95 percent of Nigeria’s crude oil production.213 One such Joint Venture agreement involves the development of the West African Pipeline, entered into by the Nigerian National Petroleum Company (NNPC), Shell and ChevronTexaco.214 ChevronTexaco holds 36 percent interest, Shell 18 percent, Ghana Volt River Authority 16 percent, and the NNPC 25 percent.215 The project serves multiple purposes. On the one hand, it rids Nigeria of its gas flaring dilemma, which results in traumatic environmental and health problems.216 Secondly, the West African Pipeline will spark economic growth for Nigeria and ECOWA member states.217

Other major producing countries appear open to limited levels of foreign investments. For example, Mexico PEMEX and Venezuela PDVSA have provided limited opportunities for foreign direct investment.218 Neither state appears willing to provide opportunities with any resemblance to the Argentine model.

The PEMEX, NNPC, and PDVSA contracts appear to serve the interest of both sides of the debate. Each allows foreign investors the opportunity to expand economic ventures while simultaneously increasing the financial viability of the nation. Similarly, because many producing countries lack either the technology, capital, or expertise to develop or expand the production of their petroleum resource, private foreign investment is a means to utilize the resources, and thus, create a capital base for the country.219 Under the PEMEX, NNPC, and PDVSA model, nations are able to maintain sovereignty over their resources and maintain

212. Id.
215. Id.
217. ECOWA, the Economic Community of West African States, includes Chad, Cameroon, Togo, Ghana, Nigeria, and other West African countries. WEST AFRICAN GAS, supra note 214.
219. SMITH ET AL., supra note 21, at 55; see also GLOBALIZATION OF ENERGY MARKETS supra note 22, at 3-12.
state participation. In addition, these models further allow the host countries to increase their technical and managerial skills, which can ultimately lead to self reliance and a self sufficient state-owned company.  

E. Debt and Economic Disparity

In the wake of the privatization era, one of the greatest dilemmas facing producing countries is the ability to satisfy insurmountable foreign debt. In a declining economy foreign debt is possibly the single most crucial factor which incites a producing country to privatize its petroleum industry. Largely because in a state-driven economy the government revenue has the responsibility of sustaining all aspects of national needs.  

Export revenue is distributed among social and economic programs including, health, education, and other core industries, making it difficult to balance the demands of competing economic burdens.

Foreign debt owed by many of the producing countries to the World Bank or foreign governments, stem from receipt of foreign aid, export credits, loans from other governments and IFC loans. External debt poses a serious problem for producing countries because (i) the loan must be repaid in hard currency, (ii) the country must pay debt servicing cost, (iii) historic debt relief and debt rescheduling programs only prolong the life of the loan thereby increasing the total amount paid over a period of time, and (iv) debt export ratios are often disproportionate, creating financial dilemmas in declining economies.

Producing countries, like other Lesser Developed Countries, must repay their foreign debt in hard currency. This is a difficult task when a producing country’s debt export ratio is disproportionate. When export revenue is down or stagnant, the ability to pay debt servicing costs puts a daunting strain on the national economy. Therefore, many producing countries seek alternative repayment methods such as debt rescheduling. This alternative, however, increases the total amount needed to satisfy the loan and hence debt increases. Faced with this financial dilemma, along with the responsibilities for the overall economic and social well-being of the state, governments often seek privatization as a means to satisfy foreign debt and increase economic growth.

220. Doing Business in Nigeria, supra note 211, at 33-34.
222. Id.
223. The Third World Debt Crisis, New Internationalist Magazine (1998) [hereinafter The Third World Debt Crisis].
226. See The Third World Debt Crisis, supra note 223; see also Shah, supra note 225.
227. See The Third World Debt Crisis, supra note 223; see also Shah, supra note 225.
228. Privatization was a vehicle by which Argentina, for example, reduced foreign debt, reduced inflation and provided the government with a large influx of capital. See Davidovich, supra note 192, at
For instance, prior to privatization, Argentina was in steep economic crisis, with foreign debt in excess of $45 billion.229 The backlash of the economic crisis in 1980 left Argentina crippled with foreign debt. In 1985, Argentina began privatizing its core industries.230 In 1991, President Memem’s “Argentina Plan” opened the state-owned petroleum sector to foreign direct investment ventures.231 From the earnings made through completely privatizing state-owned enterprises, Argentina reduced its foreign debt by twelve billion dollars.232

When a government no longer has the resources to sustain or develop their state-owned enterprises and experiences a decline in export revenue, the potential to default on foreign loans becomes apparent. Mexico, for example, defaulted on its loan with the World Bank in 1982 due to a decline in export revenue and profit.233 In 1993, the government adopted a Foreign Investment Law, aimed at encouraging foreign investment in Mexico’s petroleum industry.234

Another example is seen in Nigeria, which has $30 billion in foreign debt.235 Recently, the president of Nigeria, Obasanjo, made a plea to the international community to cancel its foreign debt. Obasanjo insisted that debt relief was not sufficient, that his country was in a state of economic depression, and the only solution is debt cancellation.236

Discussions condemning the World Bank, IMF, and the HIPC237 programs are beyond the scope of this discussion, but have thematic relevance bearing on the decision to privatize a core industry when faced with insurmountable foreign debt. In many cases, a country allocates more of its revenue to debt servicing costs than they are able to allocate to social and economic development programs.238 Hence, when faced with looming foreign debt and debt servicing costs, a country is increasingly unable to sustain state-owned enterprises. Accordingly, privatization is often the sole economic solution.

165-66.
229. Id. at 157.
230. SMITH ET AL., supra note 21, at 384.
231. Id.
232. Davidovich, supra note 192, at 164.
233. See Shah, supra note 225; see also SMITH ET AL., supra note 21, at 387.
234. See ROCKY MOUNTAIN MINERAL LAW FOUNDATION, MATERIALS ON INTERNATIONAL PETROLEUM TRANSACTIONS 387 (2d ed. 2000).
237. HIPC is an acronym for “Heavily In-debt Poor Countries” initiative.
Nigeria is a prime example. Despite the fact that Nigeria is the world’s eighth largest oil producer, the largest petroleum producer in Africa, and the fifth largest U.S. supplier, Nigeria is among the poorest countries in the world. Nigeria has four oil refineries: Port Harcourt I & II, Warri, and Kaduna, and in 1999 the four refineries combined operated at less than 38 percent capacity. In 2003, the four refineries reportedly operated well below their utilization capacity. Kaduna operated at 31 percent capacity, Warri at 48 percent, and Port Harcourt I & II at 60 percent utilization capacity. Consequently, Nigeria functions as a net importer state. Unmercifully, imported refined oil is purchased in hard currency. Traditionally, downstream activities were reserved to the state. But the lack of investment capital needed to revive the four refineries forced Nigeria to enter into Joint Venture agreements with Shell and other multinationals. Presently, Nigeria has a privatization plan, offering 51 percent foreign ownership in her petroleum sector and in some cases 100 percent private ownership. Such decisions conflict with the historic exercise of unilateral sovereign prerogatives and directly correlate with the burdens of external debt.

Other producing countries with large external debt include: Qatar with $15.4 billion, Mexico with $150 billion, Venezuela with $38 billion, Indonesia with $131 billion, and Iraq with $120 billion. As long as producing countries lack the economic capacity to reduce external debt, the potential for foreign direct investment as a means to stimulate state economies remains an unavoidable reality.

F. Reliance of Oil Revenue: An Imbalanced Economic Strategy

Each producing country has its own unique geopolitical paradigm by which they participate in the international petroleum industry. Some have common threads of colonial or imperialistic rule. Others have transition stages of military

240. Id.
243. Id.; see also, Aluko Mobalaji, Fuel Subsidy, THE MORNING REPORT (July 9, 2003).
245. Id.
247. See VIATON, supra note 242.
249. THE WORLD FACT BOOK, supra note 235.
rule and democratic rule. Others are plagued with war. Yet, all share one common denominator: their absolute reliance on petroleum revenue.\footnote{250} \n
Hence to refer to producing countries as "oil rich countries" is a misnomer, as few of the producing countries have any other significant export resources and many are ranked among the poorest countries in the world.\footnote{251} In a state-driven economy, the reliance on a single source of revenue, dictated by fluctuations in the petroleum market has dramatic results. As one scholar suggests: "When the price of oil falls it creates real pain. They [producing countries] have to feed and give welfare to their people, the same as Western countries."\footnote{252} \n
In the typical producing country the state owned petroleum company, generates 70 percent or more of its annual export revenue.\footnote{253} For instance, in Nigeria petroleum revenue accounts for 95 percent of its federal revenue. In Venezuela, petroleum accounts for one-third of its GDP, 80 percent of its export earnings, and more than 50 percent of government revenue. In Kuwait petroleum revenues comprise 95 percent of their export revenue and 80 percent of the government revenue. Petroleum makes up 85 percent of Qatar’s export earnings and 70 percent of government revenue.\footnote{254} This list is not exhaustive, but representative of the extent to which producing countries rely on petroleum revenue. \n
Reliance on single export revenue, in a state-driven economy, when viewed in relation to population growth and budgetary restraints, places producing countries in a uniquely vulnerable economic position. Petroleum, being the most actively traded commodity on the world market, is highly susceptible to market fluctuations.\footnote{255} Hence, the unpredictable nature of the petroleum market can have an adverse impact on an exporting countries economy.\footnote{256} In a given month, the unstable petroleum markets, resulting from fluctuations in demand, production, and price, can cause sporadic and declining petroleum revenues; thus, causing economic demise among petroleum countries. And since petroleum countries are concentrated in regions with low per capita income growth rates,\footnote{257} the economic status of most producing countries does not avail itself to total reliance on the revenue generated by petroleum.\n
\footnote{250}{According to Tony Scanlan, of the British Institute of Energy Economics, OPEC countries cannot afford to treat oil as just another commodity. \textit{OPEC: The Oil Cartel in Profile}, Feb. 12, 2003, BBC NEWS, at http://new.bbc.co.uk/hi/business/3768971 [hereinafter BBC, The Oil Cartel].} \n\footnote{251}{Id.} \n\footnote{252}{Id. (quoting Tony Scanlan).} \n\footnote{253}{When averaged, the World Fact Book and Energy Information Administration export revenue data reflect that petroleum revenue makes up 70 percent of the country’s export revenue. \textit{See The World Fact Book}, supra note 255.} \n\footnote{254}{Id.} \n\footnote{255}{\textit{Oil Markets Explained}, July 14, 2003, BBC NEWS [hereinafter BBC NEWS].} \n\footnote{256}{BBC, The Oil Cartel, supra note 250; \textit{see generally} BBC NEWS, supra note 255.} \n\footnote{257}{ANTHONY H. CORDESMAN, CENTER FOR STRATEGIC & INT’L STUDIES, \textit{Oil Crash & Oil Boom} (2001); \textit{see also} DAN BEN-DAVID, ET AL, WORLD TRADE ORGANIZATION: SPECIAL STUDIES, \textit{Trade, Income Disparity and Poverty} 2, tbl.1a (2003). Latin America, the Middle East, North Africa and West Africa have populations living on less than $2 per day. \textit{Id.} at tbl. 1b.}
G. Economic Growth Through Economic Diversity

In light of the assertions that liberalism is a tool which brings wealth to the wealthy nations and market exploitation of the poorer nations, one concept is clear. Those nations which have grown faster have: (i) diversified their economy, (ii) practiced liberalism, and (iii) developed an industrial market, which in turn resulted in manufactured exports. This section does not dispel or support theories of global trade regulations or liberalization. Here, the attempt is merely to demonstrate how trade positively impacts economic growth.

This discussion suggests that producing countries should examine the economic strategies of export led economies, particularly that of developing Asia. Combined, developing Asia accounted for 18.5 percent of exports among developing countries in 1990. Similarly, developing Asia held 59 percent of the share of exports to the world and 67 percent among developing countries in 1990. Developing Asia has since been the largest exporter among developing countries. Increased export earnings are largely due to exportation of manufactured goods and refined merchandise, while other non-manufactured primary products account for only 20 percent of their overall exports. By contrast, international exports have fallen in the oil producing regions such as, Africa, the Middle East, and Latin America. In fact, the Middle East and Africa have not expanded their share of merchandise exports and export few manufactured goods.

On average, the highest growth rates were recorded in high-tech categories, whereas resource based products were among the lowest. Petroleum countries with low exports of non-petroleum products, may explain why these countries experience economic growth rates below the global average. Without manufactured merchandise to place on the market, reliance on petroleum revenue exacerbates the need to stimulate economic growth through privatization.

H. Globalization and Trade Leverage

In the wake of liberalism, reciprocal trade barriers are now being relaxed, allowing opportunities for developing countries to actualize trade income in the world market. In the 1990s, trade liberalization has resulted in high instances of economic growth for those countries with internal strategies and resources to

259. *See MARC BACCHETTA & BUIR BORA, WORLD TRADE ORGANIZATION, INDUSTRIAL TARIFF LIBERALIZATION AND THE DOHA DEVELOPMENT AGENDA 1,2 (2003).*
260. *Id. at 3.*
261. *Id.*
262. *Id.*
263. *Id. at 3.*
264. *See id.*
265. *Id. at 2.*
266. Out of 144 developing countries, only 54 countries recorded an export expansion above the global average, while 90 developing countries recorded below average growth. *BACCHETTA & BORA, supra* note 259, at 3.
capitalize on the free market access. Hence, the implications under a global trade environment have the potential to increase national income and thus reduce economic disparity.

The theory that a Global Trade system will be mutually rewarding and thereby spark economic growth, questions whether open trade policies promote economic growth. According to T. Ademola Oyejide, "[t]hose that do grow used trade opportunities. Those that created trade barriers declined." If the key to alleviate poverty is through economic growth, and, if the key to economic growth is in having an export led economy, then it follows that in order for producing countries to sustain economic growth they must develop competitive export products.

To withstand further vulnerability to petroleum privatization and to create economic growth, producing countries need to develop internal economic infrastructures that facilitate an export-led economy. Internal economic infrastructures work to increase local consumption of products made within national borders, and also provides an outward mechanism for transnational activity.

Admittedly, issues of non-reciprocal market access and protectionism impact the capacity of developing countries to fully participate in global markets. Yet, petroleum countries, unlike other developing countries, have decades of transnational exposure and should be able to effect negotiation and terms. Additionally, producing countries possess a vital export and should be able to accomplish leverage through existing mechanism. Despite the challenges of a rules-based system, petroleum countries, need take to heed to the proposition that there is a link between trade and economic prosperity. Although many socioeconomic realities contribute declining economic conditions, global trade arguably increases a countries earning capacity. Hence, the question of export diversity hinges on economic resources and national trade policies.

III. GLOBALIZING THE PETROLEUM MARKET: GOOD FOR WHOM?

A. Privatization: A Mutually Beneficial Policy Choice

Privatization as both a political and economic strategy provides mutually beneficial outcomes for petroleum countries and consumers. Yet, full scale privatization, whereby a nation liquidates 100 percent of its petroleum industry, is likely more beneficial to the foreign investor, and merely achieves short term goals for the petroleum country. For example, Argentina liquidated all of its core industries, yet defaulted on its $145 billion dollar loan in December 2001, and in 2004, Argentina’s external debt stood at $155 billion. Other methods of

267. Oyejide, supra note 258.
268. Id.
269. See id.
270. BACHETTA & BORA, supra note 259, at abstract. The issues for LDCs are the degree of effective market access granted by developed countries, and the high levels of protectionism faced in developing country markets.
271. Conrado Ramos, Challenges Posed by an Argentina Post-Default Scenario, CHIOKE.ORG. at
privatization seem to serve the interest of foreign investments as well as nationalism. First, transition economies are able to capitalize on the influx of technological and managerial expertise. These countries are then, theoretically, able to increase their participation in global markets. Thirdly, foreign investment allows undercapitalized economies to develop unutilized natural resources. Fourth, producing countries are introduced to Westernized business strategies, which if subsequently applied, help further their capacity to develop economic infrastructures and overall economic performances.

For importing nations, the globalization of the energy market has affected market facilitation and market stability. As a policy choice, privatization served to decrease anxieties surrounding the exercise of cartel influence on price and production. Yet given the unavoidable return to reliance on Middle Eastern oil supplies, the question is whether the Middle East will act as a stable supplier of petroleum at market driven prices.

**B. The Collision Between Geopolitics and Declining Fuel Supplies**

In the wake of the end of the Oil Era, the question is whether disruptive geopolitical encounters will yield to the urgency of petroleum depletion, or will unilateral decision making once again dictate market stability. In the coming decades, the clash between nationalistic views, global economic trends, and increased energy demands, will bring to the fore, an "epic quest" for control over world oil supplies. This quest for remaining oil supplies will result from the increasing awareness of the finite nature of already declining oil resources. Similarly, increased global demand will heighten the already intense battle to secure oil imports.

To avoid international conflict, multilateral efforts should be exercised in resolving hierarchical relations between consumption demands and sovereign interests. International legislative bodies such as the United Nations and the International Court of Justice must play a formidable role in the development of international strategies aimed at increasing equitable relations among competing national interests. Moreover, international energy policies which contemplate less dependence on liquid petroleum will assist in circumventing global confrontations.

Although recent history reinforces pessimistic outcomes, multilateral cooperation is imperative in circumventing global crisis. Clearly, petroleum resources will be the focal point of international policies in the coming decades. As such, any multilateral energy plan implemented by global powers must address...
nationalistic concerns as well as Western economic objectives. Failure to do so will only exacerbate an already critical situation. In short, global responses to the eminent global energy crisis need not be antagonistic but instead reflective of modern sociopolitical awareness and aptitude.