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Energetická bezpečnost a americká geopolitika Blízkého východu

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Abstrakt

Dekády spolupráce USA s ich blízkovýchodnými partnermi prišli k prevratu. Bridlicová revolúcia, vzniknuvšia v roku 2008, priniesla Spojeným štátom americkým doteraz nepoznanú mieru energetickej nezávislosti. Bridlicová revolúcia vytvorila bezprecedentný nárast nekonvenčných ekonomicky výhodne ťažiteľných rezerv v USA. Predpokladá sa, že v priebehu najbližších dvoch desaťročí sa Spojené štáty americké zmenia čistých dovozcov energetických surovín and čistých vývozcov. Vyvstáva otázka ďalšieho zahranične-politického smerovania Spojených štátov. Jadro neistoty leží v otázke, či energetická nezávislosť zmení zahraničnú politiku voči blízkemu východu, poprípade či nezávislosť spôsobí izoláciu Spojených štátov. Cieľom tejto práce je skúmať dopad bridlicovej revolúcie na energetickú bezpečnost Spojených štátov amerických a jej implikácie pre budúcu geopolitiku voči blízkemu východu. Hlavnou otázkou pre výskum je, či bridlicová revolúcia vôbec zmení geopolitiku USA a ak áno, ako bude táto geopolitika vyzerať. Nakoľko domáce ceny ropy sa tvoria na základe svetových cien ropy a nakoľko schopnosť blízkovýchodných partnerov dodávať na svetové trhy obrovské množstvá ropy v priebehu niekoľkých mesiacov je unikátna, dokonca aj po bridlicovej revolúcii bude podstatné pre Spojené štáty pokračovať v spolupráci s blízkovýchodnými partnermi. Hojnosť energetických zdrojov však podnecuje Spojené štáty americké používať ich rezervy v prospech ovplyvňovania globálneho diania.

Abstract

Decades of cooperation between the United States and its Middle Eastern partners have come to a turning point. The 2008 Shale Revolution has brought the United States heretofore unknown scale of energy independece. The Revolution has created an unprecedented increase in United States' unconventional cost-effectively extractable energy reserves. It is estimated that within next two decades the United

States should change from net importer of hydrocarbons to net exporter. There is a lot of speculation, whether due to possible energy independece, the foreign policy towards its Middle Eastern partners would change and whether the United States would isolate itself. Aim of this work is to explore the impact of the Shale Revolution on energy security of the United States and its implications for future geopolitics towards the Middle East. The main question to be explored is whether it would change United States' geopolitics at all and if yes, how would it look like. Since domestic oil prices are based on global energy prices and since Middle Eastern partners are unique in their capability of supplying global energy markets with large quantities of oil in the long run, even after the Shale Revolution it will be essential for the United States to continue its cooperation with its Middle Eastern partners. Nevertheless abundance of energy resources instigates the United States to use its reserves to shape global affairs.

Klíčová slova

USA, geopolitika, Blízky východ, energetická bezpečnosť, bridlicová revolúcia

Keywords

US, geopolitics, Middle East, energy security, Shale Revolution

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V Praze dne 10.5.2016 Eva Vaculíková

Poděkování

Na tomto místě bych ráda poděkovala mému školiteli PhDr. Vít Střítecký, M.Phil., Ph.D. mé mámě a všem kamarádům za pomoc a podporu při tvořbe mé diplomové práce.

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Introduction

Decades of cooperation between the United States and its Middle Eastern partners have come to a turning point. The Shale Revolution of 2008 has brought the United States heretofore unknown scale of energy independece on energy resources' imports. The Revolution has created an unprecedented increase in global energy supplies, which poses question of further direction of the United States' domestic and foreign policies. In this work attention would be directed towards its long-lasting energy partners in the Middle East. There is a lot of speculation, whether due to possible energetic independece, the foreign policy towards its Middle Eastern partners would change or whether the United States would totally isolate itself from the Middle East.

According to International Energy Agency the change should be sharp. The United States should become energetically independent by 2030 and North America, understood as economic coalition of Canada, Mexico and the United States, should become an independent hub by 2035. Between 2010 and 2015 United States' oil production has expanded by 81% and its gas production by 35%. The interesting question is, whether this fact makes the country so energetically secure that it can isolate itself totally from its Middle Eastern partners, with which it has cooperated for decades. On which basis was the partership established? Would it be altered with the United States' Shale Revolution? What would be new possibilities for the United States' geopolitics and foreign policy towards rest of the world and the Middle East? This work would research the thesis how would the Shale Revolution influence United States' Geopolitics towards the Middle East.

To understand all the questions plethora of different views concerning the issue from different perspectives must be used. Firstly plurality of articles concerning United States' geopolitics towards the Middle East would guide towards analysis of major reasons for cooperation with the Middle Eastern partners predominantly after 1989. Secondly since the Shale Revolution is quite actual topic economic articles for study of current situation would guide towards understanding of energetical security and role of the Shale Revolution in it. Thirdly literature on current political and economic possibilities towards the Middle East and United States' possibilities would be inquired.

To examine the possibilities and tools of foreign policy towards the Middle Eastern countries after the Shale Revolution firstly reasons for cooperation with the Middle Eastern countries must be investigated, secondly scale of energy security in current situation and foreign policy possibilities must be assessed and thirdly foreign policy towards the Middle East after the Shale Revolution will be assessed and if possible new foreign policy opportunities would be investigated. To answer the thesis how would the Shale Revolution influence United States' geopolitics towards the Middle East I propose hypothesis that in case that the Shale Revolution would cause energetical independence of the United States in 2030, it would broaden its possibilities in the sense of potential usage of energetical weapon towards whichever state, but it wouldn't alter partnership with Middle Eastern countries, since their vast oil potential would be still necessary for United States' energy security.

The diploma thesis would be based on qualitative one case study research with usage of congruence method. On basis of qualitative study of foreign policy towards the Middle Eastern countries after 1989, analysis of the reasons for American interference in the Middle East would be developed. Elkind's economic model will provide basis for assessment of scale of energy security of the United States after the Shale Revolution. In the first part analysis of reasons for United States' interest in the Middle Eastern process would be assessed. In the second part estimation of the level of energy security of the United States after the Shale Revolution based on Elkind's model would be deduced. In the end motivations for the United States' interest towards the Middle East would be compared to weaknesses of energy security of the United States before and after the Shale Revolution. If the motives for interference in the Middle Eastern region would be of the same nature as the energy security weaknesses, it will be concluded that the impetus for United States engagement in the Middle East is based on its energy security needs. Therefore it is supposed that all actions taken in history of the United States, as studied on the policies of George H. W. Bush, Bill Clinton and George W. Bush, wil be in accord with United States' energy security weaknesses. Certainly the impetus for United States' engagement would be studied with usage of control variables in opposition to energy security motives hypothesis. Assessment of future foreign policy orientation will be then estimated based on the result of comparison.

The article is divided into four parts, which provide back-up information and guide towards development of the results: The Shale Revolution, Geopolitics towards the Middle East, Theory of Markets and Energy Security and Geopolitics towards the Middle East after the Shale Revolution. The first chapter, The Shale Revolution, introduces what kind of change has emerged with the advent of the Shale Revolution and what are the prospects for future of the United States. The second chapter, Geopolitics towards the Middle East, describes briefly engagement of the United States in the Middle East during the Cold War and then thoroughly the development after 1989. This part intentionally omits the Obama Administration analysis due to its topicality therefore due to lack of distant academic researches. Only current development is mentioned. The third chapter, Theory of Markets and Energy Security, describes mechanism of global energy price creation and the core Elkind's theory, which establishes four parameters for assessment of energy security of a country. The fourth chapter, Geopolitics towards the Middle East after the Shale Revolution, on basis of Elkind's model analyses the level, strengths and weaknesses of United States energy security after the Shale Revolution and deduces the implications for foreign policy in general and in relation to the Middle East.

1. The Shale Revolution

The Shale Revolution has come to light gradually with techniques for extraction that have been finally, after numerous experiments, invented and with investors taking courage to finance new business plans financed. The Shale Revolution has profoundly altered prognosis for United States' energy independence, what in this context means increase in energy security as well. The possibility of net export is predicted only in 2030, if all the conditions would continue as expected. Energy independence gives the United States new freedom in foreign policy, predominantly to partners, on which it depends, thus posing question of further geopolitical foreign policy direction. This chapter is firstly going to introduce evolution of the Shale Revolution, uniqueness of its invention, reasons for its emergence in 2009 and its economic and geopolitical consequences and secondly it is going to delineate economic and environmental doubts cast upon its development towaards energy resource independece in the future.

The United States has been a net importer of oil and gas and is likely to remain in coming decades, what most of all implies security concerns. Security uneasiness is rooted in its need of oil as a means for functional military, transportation and economic needs. Before 2008 the United States has reached its historical lows in hydrocarbon production, however with advent of the Shale Revolution advancements are more or less expected, depending on the source of predictions. According to the IEA forecasting the United States might become the largest producer of total liquid fuels, but unlikely in close decades. Net imports cover 30% of consumption in comparison to 60% in the last decade. The United States still has remained the world's largest gross importer of crude oil, even though China is the largest net importer. Crude imports of heavy and sour oil come from Canada, which provides the largest share of supply, Mexico, Venezuela and the Middle East. Light, sweet oil. imported from West Africa, North Africa and from the North Sea, is geting displaced by tight oil production. Crude exports are restricted by law. Companies have to apply for export allowance and might become one, if state considers it in accord with its current energy security policy. The policy might change if domestic crude prices diverge from international[1]. Even though the United States still remains net importer of the crude oil and some of conditions that look favorably might

1 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>, p. 7.

change in coming decade, forecasts for the United States look promising with outlook of possibly becoming the largest oil and gas exporter.

1.1 The beginning and course of the Shale Revolution

United States used to be net importer, but 2008 has dramatically changed prognosis for its future, since according to some studies, it looks like it is going to be energetically independent within next decades with possibility of being a net exporter in the future. In 1990 shale gas has come without any great openings with 10% of total United States' production. However potential of this resource has come to light only in 2007. Production has been dramatically changed as combination of hydraulic fracking and horizontal drilling was proven successul in 2008. In 2009 shale gas share climbed up to 40% of total production. As a result United States' reserves have escalated from 177 trillion cubic feet (tcf) in 2000 to 245 tfc in 2008, becoming equivalent to half of Qatari proved reserves. The reserves may supply domestic demand for another 90 years, measured by 2009 demand levels. Amount of reserves are actually predicted to rise since other shale plays are being constantly found[2]. The 2010 MIT Study "The Future of Natural Gas" supposes that the level of reserves, based on previous experience, is going to rise. Shale gas production of five largest plays should have been doubled by 2015 and trippled by 2030[3]. Shale Revolution has brought a significant change both to global and United States' domestic energy market. Shale Revolution is understood as an energy technology revolution that allows the United States and the world to come out of energy resources' scarcity, to greater energy security, to accelerated economic growth and to cleaner fuels globally[4]. Year 2008 has altered outlook for United States future in sense that now it knows it has reserves that are expected to suffice for next 90 years with prospects that its energy security, its growth and its environmental commitments are going to grow steadily in course of next decades.

The shale plays are not present solely in the United States, but the Shale Gas Revolution has began right here. It is not a conicidence, but matter of convenient natural, legislative, industrial and exploratory environment altogether. Geologically the

2 YERGIN, Daniel. America's Natural Gas Revolution; *Wall Street Journal* [ProQuest] Nov 3, 2009, ISSN: 00999660, Dow Jones & Company, Inc., p.3. [cited on 25/7/2016]. Available from: <http://search.proquest.com/docview/399129199?accountid=15618>, p. 1-2.

3 DEUTCH, J. The Good News about Gas: The Natural Gas Revolution and its Consequences. *Foreign Affairs*, January 2011, 1, p. 82-93, p. 85.

4 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 5.

United States have large plays and technically availabile drill core data for sweet spots searching. Legislative incentives supporting development of shale gas are the 1980 Energy Act, which guarantees tax credits and covers 70% of costs needed for drilling of a well, the 2005 Energy Act protects water for fracking, property rights give the right to dispose with well to the landowner, producers have a right to access to existing pipelines and overall the United States' 'commodity supply gas market provides owners of the well with price transparency and high supply and demand. Industry is suited for desirable economic environment by domination of small ‘momma and poppa’ enterprises, by dynamic and highly competitive industry and by licensing of large territories with vague commitments that is needed for plays. The state has supported research for the Shale Revolution since 1982 by governmental funding for research and development and by dissemination of the knowledge[5]. The Shale Revolution in the United States has not began by coincidence, but by solicitous work of both state and private companies. While state has contributed to progress by provision of suitable legislation, by creation of highly competitive industry, by environment of liberal market economy and by research, private companies on the other hand have taken the challenge and exerted effort to use given conditions in favor of their business.

The extraction became successful and extended, when various combinations of half-century-known drilling methods have proved successful and their efficiency is rising. Some companies in the area of Barnett Shale in Texas were technically experimenting with ways how to get plentiful gas out of inaccessible shale. Two methods have been used: horizontal drilling and hydraulic fracturing, so called fracking. Horizontal drilling is a method known since 1947, by which instead of purely downstraight drilling, after reaching certain depth, the drilling goes horizontally in order to cover broader area of the resource-bearing formation. Hydraulic fracturing is on the other hand a method, where mixture of water and sand is injected under high pressure into the rock, creating thus multiple fracturing, through which gas can leak in great-enough volumes into the well. After successful invention the double technique has subsequently spread into 48 US states' shale plays such as Louisiana, Arkansas, Pennsylvania, British Columbia and New York[6]. Shale gas drilling technology,

5 STEVENS, Paul. The 'Shale Gas Revolution': Developments and Changes. August 2012. Chatam House, London. p. 12. [cited on 25/7/2016]. Available from: <https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/bp0812_stevens.pdf>, p. 9.

6 YERGIN, Daniel. America's Natural Gas Revolution; *Wall Street Journal* [ProQuest] Nov 3, 2009, ISSN: 00999660, Dow Jones & Company, Inc., p.3. [cited on 25/7/2016]. Available from:

productivity, efficiency and flow management are considerably progressing. Drilling time has fallen from 30 to 10 days per well and decline and initial production rates have improved[7]. In the wake of 2008 invention of combination of horizontal drilling and hydraulic fracturing, the United States began first Shale Revolution in the world, with prospects of more effective production techniques.

The word plays means natural gas resource area, which can be categorized by geological features of the reservoir. While conventional gas comes from separated, well-defined reservoirs with permeability larger than a determined quantificated limit. Other three types of reservoirs are called unconventional, characterized by low permeability and including "tight" sandstones, coal beds and shales. The shale plays are formed by 100-200-feet-thick, widespread areas full of various sedimentary rocks. Shale is a source rock for the conventional reservoirs' gas. Gas that hasn't broken away from the rock is kept in strata in three possible manners: adsorbed on the surface of the rock, as free gas in fissures or as free gas in the pores of the rock[8]. Peter Stevens defines unconventional gas as one that „ … *is sourced from accumulations with large spatial dimensions and indistinctly defined boundaries existing more or less independently of the water column*"[9].

As the effect of Shale Revolution, the United States has radically increased the production of unconventional oil and gas in a period of past eight years. In a period of the last three years, the United States was able to add more oil to global markets than Kuwait, United Arab Emirates, Mexico or Nigeria. The Energy Information Administration, an independent U.S. statistics and analysis institution, concludes that the shale energy resources would be able to last for another 92 years for domestic comsumption. While between 2008 and 2013 the United States' GDP growth accounted for 1.2%, output of oil and gas production was able to at 4.7% per annum. The

<http://search.proquest.com/docview/399129199?accountid=15618>, p. 1.

7 EPRINC. Natural Gas Industry Fakes the Moon Landing, *EPRINC Briefing Memorandum* [online]. July 1, 2011, [cited on 25/7/2016]. Available from: <http://eprinc.org/pdf/EPRINC-NaturalGasMoonLanding.pdf>, p. 8.

8 JACOBY, Henry D., O'SULLIVAN, Francis M. and PALTSEV, Sergey. The Influence of Shale Gas on U.S. Energy and Environmental Policy. *MIT Joint Program on the Science and Policy of Global Change. Report No. 207.* [online]. November, 2011, [cited on 25/7/2016]. Available from: <http://globalchange.mit.edu/files/document/MITJPSPGC_Reprint_12-1.pdf>, p. 3.

9 STEVENS, Paul. The 'Shale Gas Revolution': Developments and Changes. August 2012. Chatam House, London. p. 12. [cited on 25/7/2016]. Available from: <https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/bp0812_stevens.pdf>, p. 2.

Revolution was able to produce nearly 1% growth of the US GDP annually. Cumulatively such a growth accounts for nearly 40% of overall GDP growth between 2009 and 2014[10].

"*Since 2008, the United States has increased its oil production by 4.1 million barrels per day, an increase of 81 percent. In 2014, the United States became the largest producer of liquid fuels in the world. In natural gas, the United States is on track to be a net exporter by 2020, largely due to the shale gas revolution.*[11]"

In 2007 the 'United States Potential Gas Committee determined 47.4 tcm of unproven U.S. gas reserves. It is 20 years. The predictions of United States' Energy Information Administration project that shale gas as a ratio of domestic gas production will have grown to 46% by 2035. Success in increase of amount of gas can be presented by prices on domestic markets. Prices in 2010 at Henry Hub were less than $5.00 per million British thermal units (MMBTU) despite historic height of demand. According to the EIA in 2011 the prices sunk to $3.95 per thousand cubic feet and in February 2012 even to $2.46. Government supported research and development of low-permeability operations, broadening it gratis[12]. The innovations have revolutionalized the U.S. energy outlook to be the fastest growing oil and gas producer. Shale plays and wells are productive, but it has to be kept in mind that they need continual investment. In comparison to other mining locations, wells in the United States are relatively low-risk, high-reward and investment-friendly, what is caused by politically stable legislative and market conditions[13]. It is not only the technological innovation of experimenting companies in the Barnett Shale. It is the technological progress, governmental support for innovation, free private capital and a well-set legal environment that have enabled a unique environment for Shale Revolution to také place rightly in the United States.

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10 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 7.

11 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 7.

12 STEVENS, Paul. The 'Shale Gas Revolution': Developments and Changes. August 2012. Chatam House, London. p. 12. [cited on 25/7/2016]. Available from: <https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/bp0812_stevens.pdf>, p. 2-3.

13 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>. p. 5-6.

1.2 Doubts cast upon the Shale Revolution

Even though forecasts look promisingly, doubts about growth have to be kept in mind in order to be able to take the big picture of future of the States objectively. Major suspicions point at state administration decisions, uncertainty of investors' decisions, at economic prospect of the United States, unpredictable environmental disasters or consequences and opposition of civil society. Part doubts about future of U.S. exports are cast upon uncertainty about regulatory review process and business lucrativeness of creating liquefaction terminals. Since the whole Shale Revolution is bulit upon private-led business initiative that was not initiatied lead or managed by the state, decisions on development and research is in hands of commercial sphere. Economic growth slowdown may hamper building of new production and transportation facilities. For example due to these causes development of shale capacities has been slowed down in 2012 to 2014[14]. Incentives to business, such as tax advantages or other kind of economic stimuli may dampen those cases of setbacks, but statehood based on liberal market cannot constrain substantially commercial sphere. Economic growth is dependant on legislature and market conditions that state creates, but economic cycles of growth and recession are in tune with global economy. First of most widespread arguments for criticism of positive predictions is grouped around microeconomic private-led doubts around their way of business direction and around macroeconomic prospects that cannot be forseen as they were not in 2008 crisis.

A possibility of market functioning failure as caused by December 2014 to August 2015 slowed down advance, disempowered current major oil proprietors (such as OPEC states), but would not stop the progress of the Revolution. Increase in American supplies on global markets caused international oil price collapse. In the period from mid-2011 to mid-2014 the Brent international crude oil benchmark was floating between $105 and $110 per barrel. Shale Revolution supply boost dived the prices into $45 to $65 per barrel. Since November 27, 2014 countries such as Saudi Arabia, Kuwait or the United Arab Emirates have lost their power to stabilize global prices by supply by themselves. For the United States such a development would accelerate industry restructuring, but would not stop the Shale Revolution as such[15]. Oil

14 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>. p. 8-9.

15 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 8.

shocks on markets generally bring about changes such as restructuring of the industry, drives towards new technologies or experiments in commodity substitution, but would not challenge the need for transport and other, which reinforced demand in the long run until given time, as was the case of 1970s' oil shocks. Such a development may start investments into new private-led researches to curb costs for enterprises and to maximize profits, but discovery of new technologies or new substitutes, such as cost-effective and energetically-stable renewable energy resources. Oil shocks, such as the one in 2014 to 2015 have the power to restructure industry or redirect current trends, but would not stop the need for energy resources in the short term.

Second significant argument spins around environmental concerns: either around questions of environmental consequences of mining or around unpredictability of global warming. By 2010 environmental effects were a strong case against fracking, underpinned by moratoria, studies and civil protests[16]. Most of opponents are concerned about water pollution in aquifers. Nevertheless proponents argue that gas-bearing and water-bearing layers are separated by thousands vertical feet with gas layers being the lower one. Pollution from surface must be, as with other industries, regularly cared for and in fact fracking needs less water than other types of energy production technologies[17]. Fracking involves injecting chemicals into the rock to decompose it, thus possibly contaminating the environment. Companies used to refuse to name them as a part of commercial confidentiality, even though now some declare them. Many operations were done without proper environmental impact assessment. 'The Fracking Act' should guarantee divulging of chemicals. Water from fracking may contain materials from rocks in vicinity such as radioactive material or heavy metals, thus it is essentially needed to get disposed of them to avoid contamination. Regulations are needed and existing have to be reinforced. Impurities may come from poor well completion. Moore in 2012 affirmed clean bill of the shale gas technology under transparent regulations. In comparison to conventional gas drilling even more energy is necessary and more CO_2 may get released. 2011 study by Mr. Wood working for the Tyndall Centre concluded that only 0.29–2.9% more CO_2 emissions are released than by

16 STEVENS, Paul. The 'Shale Gas Revolution': Developments and Changes. August 2012. Chatam House, London. p. 12. [cited on 25/7/2016]. Available from: <https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/bp0212stevens.pdf>. p. 3-4.

17 YERGIN, Daniel. America's Natural Gas Revolution; *Wall Street Journal* [ProQuest] Nov 3, 2009, ISSN: 00999660, Dow Jones & Company, Inc., p.3. [cited on 25/7/2016]. Available from: <http://search.proquest.com/docview/399129199?accountid=15618>., p. 2.

conventional production and none methane leakages are released. Mr. Hultman came to the conclusion that for generation of electricity the GHG impacts of shale gas are minimally, by 11%, higher than those of conventional gas. In comparison to coal they are significantly lower[18]. Fear of public opinion is not so solid. In tune with history public opinion might change quickly, when audience would grow to understand shale gas as a new cheap source of energy as arose in the past with the case of LNG[19]. Fracking, as every other way of mining, has unfortunately negative impacts on environment, but civilization decided to need energy resources. According to studies presented above, if regulations are going to be developed and well reinforced, shale gas in comparison to other energy resources is going to be cleaner. Renewables are unfortunately still not enough researched to compensate for traditional sources. It is difficult to anticipate natural disasters. In case that an important factory, transit route, well or any other facility essential to company with a large market share or significantly connected to the business as such would be destroyed or broken, business might stagnate or halt. It is essential that government and business sphere would understand possible hampers to their economic well-being so that they would prevent them from becoming if possible or smooth up consequences at least. The Shale Revolution might not reach its dreamt off verge or might be dampen by administration, by private-led decisions about shale business, by state prosperity or by weather fallouts, but on basis of positive or negative speculations about haphazard events one cannot predict accurate form of future course of events.

History of energy mix usage has stayed for decades relatively stable, what increases the probability of this trend remaining the same in favor of shale gas and oil procurers. Global energy mix is for a long time relatively stable: coal, oil and gas create 80% of energy supplied, despite recent developments in innovations of renewable energy resources' utilization. RWE under current technology, costs and policies would remain with minimal share. Even though used, the core problem of biofuels, wind and solar energy is insuffucient energy storage capacities. Coal is abundant and widely used, nuclear energy could be used only moderately. After explosion of Fukushima in 2011

18 STEVENS, Paul. The 'Shale Gas Revolution': Developments and Changes. August 2012. Chatam House, London. p. 12. [cited on 25/7/2016]. Available from: <https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/bp0812_stevens.pdf>. p. 5-7.

19 JAFFE, Amy Myers. *How Shale Gas will Rock the World* [online]. May 10, 2010, [cited on 25/7/2016]. Available from: <http://www.wsj.com/articles/SB10001424052702303491304575187880596301668>, p. 2.

there is a rhetorical trend of avoiding this kind of power usage. On the contrary ambiguities in energy forecasts create geopolitical uncertainties and energy revolution, disruptive technologies, economic developments, policies, disasters, changes in environment can impact energy mix and supply and demand of concrete resources[20]. Development of energy mix is likely to stay the same. Nevertheless there is still probability of change in case that trends, discoveries or unforseeable events would come along. If no revolutionary technology would be discovered, as wanted and researched in field of renewable energy resources, or no catastrophe or other disasterous event in the world or in homeland would happen, which would limit current reserves, there is a high probability that shale gas and oil is going to earn much for the United States' economy and that the Shale Revolution is going to have many positive geoeconomic and geopolicital consequences for it.

The question that stays unanswered is how would the Revolution change American way of thinking and American geopolitical thinking. The possibilities are indefinite. One of possible scenarios is American isolationism from global markets, another is continuing engagement with global scene, concretely with the Middle East. If the United States, as predicted by the International Energy Agency, would gain its energy independence by 2030, it would have even possibility to use new source of energy as an energy weapon to reach its geopolitical goals. The kind of weapon might have been used in December 2014, when oil prices reached a three-year low of $60–65 per barrel, against Russia to undermine its economy in case of persuation in negotiations over Ukraine. Such a weapon could be a useful means to follow own foreign interests, support allies or undermine foes.

20 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>, p. 1.

2. Geopolitics towards the Middle East

"*Any attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States. It will be repelled by the use of any means necessary, including military force.*"

Jimmy Carter[21]

Unites States' foreign policy has been firmly interlinked since Roosvelt's encounter with Saudi Arabian founder Abd al-Aziz Ibn Saud in 1945. Main question for research of current political implications of the Shale Revolution for foreign policy towards the Middle East stays what were the main reasons for such a cooperation and if they have changed due to higher energetical security independence. United States' foreign policies and doctrines, whether Truman, Eisenhower, Nixon, Carter or Reagan, have all identified control of Middle Eastern oil as central to national interest[22]. One can thus understand the period as a one long war with the American national security goals of regional security, protection of oil and American-friendly oil producers, in which policy makers link security to militarization[23]. The question is what were the main incentives for understanding the Middle East as a core national interest for maintenance of national security. In this chapter I would like to analyze whether such interests were retaining of global oil prices, trade and military outreach through friendly authoritarian regimes in unstable region.

Beginning of Middle Eastern and United States cooperation started in 1930s, when geologists working for Standard Oil of California discovered commercial quantities of oil on the eastern shores of Saudi Arabia. In 1945 President Franklin Delano Roosevelt hosted Abd al-Aziz Ibn Saud, the founder of Saudi Arabia, in Egypt. On the meeting Middle Eastern oil has been definively interwoven with American national security. The meeting anchored strategic relationship, in which Saudi Arabia

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21 CARAPICO, Sheila and TOENSING, Chris. *The Strategic Logic of the Iraq Blunder.* [online]. Summer 2006, [cited on 25/7/2016]. Available from: <http://www.merip.org/mer/mer239/strategic-logic-iraq-blunder>.

22 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 216.

23 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 217.

agreed to exchange supply of oil to global markets for American protection. The protection was further broadened to the whole Persian Gulf and its oil flow[24].

Throughout the last decades relationship with Middle Eastern Arab countries has continually developed and changed. What were the main variables for which the geopolitics of the Middle East have been established and carefully maintained? The question is answered in this chapter firstly by brief analysis of the United States' foreign policy during the Cold War, secondly by more abundant analysis of events after 1989 separated into three presidential terms of United States' Administrations and situation in the Middle East nowadays. The Obama Administration has been ommited due to the fact that it has not ended yet and due to the fact that is the most current presidential term. Even though there are some analysis, they do not assess the period from distant perspective and there are not many of them who examine the period profoundly because of its actuality. Through analyses of Administrations before and after 1989 this chapter searches for the main reasons of United States' engagement in the Middle East.

2.1 The United States and the Middle East during the Cold War

Even before the British withdrawal in 1970s, the relationship with governments of oil-producing states were unstable. Local governments were protesting against dominating Western oil companies' owners and their unfair, low, pricing. As a result the The Organization of the Petroleum Exporting Countries (OPEC) has been created to agree on common output placed on global energy markets so as to raise the oil prices. In 1970s the pressure was so high that many of them, including Saudi Arabia, nationalized oil output.[25] Nevertheless closely maintained relationships with Saudi Arabia and Gulf states have endured and military interventions in the region have regularly repeated, which points to commitment towards the region in spite of high economic and political costs. Analysis in this chapter is going to develop the opinion that such a commitment has been cultivated because of strategical energetically economic grounds. Such a vast piece of history deserves a thorough investigation, but for the sake of targeted analysis of current United States' economic foreign relations' possibilities towards the Middle

24 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 171.

25 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 211-212.

East the chapter is going to point only to the most essential characteristics of the relations, which could determine geopolitical grounds of tight connection to the region.

In 1970s, in the period after British withdrawal from the region, pattern of Persian Gulf regimes' militarization by the United States has led to destabilization and to unsteady balance of power rather than to regional stabilization. In 1960s, after United Kingdom's decision to end up imperial presence in the region, the United States became afraid of power vacuum in the strategically important region. United States' vast weapon sales therefore flew into the region to establish military order. Militarization accelerated turmoils: domestic unrest, invasions of one state against another and local civil wars. Empowerment of American surrogates (client states that would do the bidding for the United States) through militarization and two-pillar strategy has ended up in shaky stability and in a need to project power of the United States directly. As United States military Allies have not bear their burden in foreign security area, the United States decided to strengthen Iran and Saudi Arabia as pillars in the regional strategy through militarization as a main strategy. Support for authocratic regimes was proved by CIA's coup, which overthrew elected Iranian Prime Minister Mohammed Mossadeq in favor of authocratic Mohammed Reza Shah Pahlavi returning back[26]. Cold War's two-pillar strategy of stabilization of the region by military and foreign policy support of Iran and Saudi Arabia ended up in period of instability, which is so typical of the region as we know it nowadays.

The United States' Gulf policy and its relationship with oil producers were so significant that the States let them conflict even with its relation to strategical partner in the region – Israel. In 1973 Yom Kippur War, in which Egypt and Israel have seized the Sinai Peninsula and the Golan Heights, the United States helped to re-equip Israel after the initial siege. Arab countries have been infuriated. The step ignited them to seize direct control over Western oil conglomerates, thus final ability to dictate amount of oil production coming to global markets and global oil pricing. American policy-makers have struggled with the fission. In the end will to keep both sides of the conflict as partners have led it to reestablish its Arab relations by devotion to peace in the Middle

26 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>. p. 212.

East[27]. The pattern of devotion to Middle Eastern Arab – Israeli peace is a mirror for the commitment towards the region.

The nationalization of Western oil companies has firstly irritated the United States, because companies protected relations with Arabs since Roosvelt, but after first wave of shock it has decided to engage with Middle Eastern states through common weapon trade. In pre-nationalization era, the West has practiced direct control over oil companies, with United States government supporting it with some of its employers being on the companies' payrolls, as for instance on Aramco's[28]. In 1950s and 1960s nationalization of Arab oil companies was actually understood as a threat to United States' interests in the Gulf. In 1970s Western companies control over Gulf oil has ceased, but partnership with authoritarian regimes has continued, with which they engaged through arms trade and surrogating American interests. The United States was convincing Saudi Arabia, Kuwait, Iran and other producers to spend their money in the West, precisely in American weapons. Between 1970 to 1979 the United States commited more than $22 billion in arms sales to Iran and something less than $3.5 billion to Saudi Arabia. Even though the nationalization has undermined the American-Arab relations, the weapon trade has deepened them. The convergence of both private and political weapon and oil interests had forged political partnership with the Middle Eastern regimes[29]. Economic, particularly oil, interests have developed and were partly substituted by more closely interwoven partnership through common security goals through military trade.

United States' and Soviet militarization combined with growing dictators' assertivness to one another and complicated domestic and regional politics resulted in conflicts, where one state threatened another. Examples of such strifes were conflicts among the Gulf states or the case of Iran-Iraq War. Gulf states moreover sought security through further militarization, which was procured by the United States' companies. The Soviets on the other hand were commited to sell another $10 billion in weapons to Iraq.

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27 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 210-211.

28 According to Jones's America, Oil, and War in the Middle East Aramco has been a conglomerate of American oil producers Chevron, Texaco, Exxon, and Mobil.

29 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 211-212.

Between 1975 and 1979 Iran, Iraq and Saudi Arabia have made one-quarter of global arms purchases.[30] High level of militarization in combination with authoritarian assertivness to each other has led to turbulences in the region.

The soaring oil revenues that came in 1980s were largely spent on modernization, development and social services, by which autocrats mistakenly hoped to appease potential restiveness. Amount of discontent was not negligible since majority of rulers came to power through conquest and foremost alliances with imperial powers. The social policy and modernization tactics, by which leaders wanted to buy their people, have in real neither legitimized the regimes nor tranquilized the opposition to regimes' practices and to authoritarian rule. Unrest in both countries led to regime violence. Saudi Arabia however kept its practices milder than Iran with its highest number of death penalties in the world. Massive protests took place in Saudi Arabia in November 1979. Firstly in Eastern Province Shiites protested against Saudi rule and predominantly against their status as second-ranked citizens. Secondly and simultaneously rebels, opposing royal Al Saud family, occupied the Mecca Grand Mosque for two weeks until being pushed out by Saudi and French special forces. The gravest uprising against the authoritarian shah in 1979 was however in Iran. Iranian revolution entombed the two-pillar American strategy. Since 1979 Iran has become enemy of the United States. Local authoritarian surrogates have proved politically weak to safeguard United States interests in the region, what after 1979 Soviet invasion of Afghanistan incited President Carter's willingness to use direct military force to keep stability, instead of two-pillar partnership.[31] Trust towards closest Middle Eastern allies, Saudi Arabia and Iran, in partership with goal of regional stability creation has proved itself viable only for limited epoch of history.

Iraqi dictator Saddam Hussein in 1980 decided to invade Iranian oil facilities as a solution to weak Iraqi economy. It has proved suitable for the United States in a sense that the two most militarized regimes were containing each other from further conflicts in their vicinity. Factors, which prompted the decision, included alluringly possible

30 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>. p. 213.

31 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>. p. 213.

victory over revolution-weakened Iran, distraction of or winning over potential domestic opposition and fear of upcoming regional instability. It was Hussein's paranoia coupled with fear coming out of regional arms race and militarization of oil that created the environment for his aggression. Hussein in fact thought that a war would resolve the problem of regional instability. Claiming otherwise, for many United States policy makers the Iran-Iraq War proved advantegous in a way that both most militarized regimes in the region were slowed down and pro tempore staved off other regional conflicts[32]. Therefore the United States supplied weapons, intelligence and money to both the countries. Iran-Iraq War in 1980s was a result of security dilemma in the Middle East, in which two most militarized regimes have weakened each other in favor of strengthening other regional or global actors, as was the United States.

2.2 United States and the Middle East after 1989

After breakdown of the Soviet Union, the United States was left the only superpower in the world. Domino of successful anti-communist revolutions in Eastern Europe and Gorbachev's Perestroika and reconciling policy towards its former rival in combination with Soviet economic attrition stemming out of decades-long arms race has culminated to the point, when the Soviet Union has disintegrated. It did not mean solely loss of power of one state, but it meant change in the global political system from bipolar to unipolar. The transformation brought almost unlimited power for the United State on one hand, but a necessity to prove hegemonic abilities to domestic as well as global audience in economic, political as well as military sense on the other hand. Saddam Hussein's idea of offensively attacking its neigboring Kuwait was just the kind of substantial event, in which international society expected from the United States to demonstrate it.

2.2.1 The George H. W. Bush Administration

The turning point of the Soviet disintegration has altered United States' geopolical stance of containment towards the Middle East into foreign policy of direct interventions in the region, when deemed unavoidable and appropriate. Even though primary foreign policy interests of the United States included stability of the Middle Eastern region, during the Cold War it did not want to practice direct military power in

32 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>. p. 213- 214.

its strategically vital region in search for its foreign policy objectives. The United States have constrained itself to peacekeeping operations and diplomacy due to prevention of bipolar military or nuclear conflict or war. With breakdown of the Soviet Union the United States, under leadership of the President George H. W. Bush, has come with a New World Order to project American hegemonic power globally, which included possibility of direct military interventions this time[33]. With new unipolar global political system, with the United States being its only hegemon, new era of direct limited military interventions in the Middle East has approached.

In the wake of Hussein's agression George H. W. Bush has devised a policy of The New World Order with objectives of democratization and peace in new global political system. Primarily it aimed to provide global security, stability, but with possibility of using force as it is written in the 1991 National Security Strategy: „*Despite our best efforts to deter conflict, we must be prepared for our interests to be challenged with force, often with little or no warning. The Gulf crisis was ample evidence that such challenges will not always be small or easily resolved*“[34]. It has recognized globalization as an unstoppable trend that has brought about new non-state actors, such as regional and transnational organizations with power of global impact. Organizations that have been formed had not brought only positive effects for the United States. Such groups were terrorist organizations, drug trafficking cartels, renegade regimes or groups of regimes with the aim of conventional, nuclear, chemical or biological proliferation[35]. The United States has chosen the new approach with aims such as cooperative multilateralism, defense and security arrangements. Desire to avoid conflict and costs of it led to multilateral and collective defence and military cooperation[36]. Furthermore the 1993 National Security Strategy confirms the commitment to promotion of democratic and liberal-economic formation of global peaceful cooperation with leadership of the United States. Therefore the National Security Strategy promotes particularly these main national security interests and

33 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 52.

34 National Security Strategy of the United States [online]. August 1991, [cited on 25/7/2016]. p. 37, Available from: <http://nssarchive.us/NSSR/1991.pdf>, p. 32.

35 National Security Strategy of the United States [online]. August 1991, [cited on 25/7/2016]. p.37. Available from: <http://nssarchive.us/NSSR/1991.pdf>, p. 14-17.

36 National Security Strategy of the United States [online]. August 1991, [cited on 25/7/2016]. p.37. Available from: <http://nssarchive.us/NSSR/1991.pdf>, p. 13.

objectives: „*Open, democratic and representative political systems worldwide*“, „*An open international trading and economic system which benefits all participant*s“ and „*An enduring global faith in America — that it can and will lead in a collective response to the world's crises*“[37]. The Gulf War thus came in place in 1991 to show off that the United States is a global superpower, which can lead the the world hegemonically in tune with its democratic, liberal-economic and multilateral aims.

Situation after the Iran-Iraq War has driven Iraq to grievous economic situation and the Persian Gulf to political instability. The state of affairs proved manacing to maritime oil trade, finally forcing the United States' military in to stay. When in 1986 Kuwait requested protection from Iran, the United States has plunged into the war. Since then Iran has been understood as a principal rogue state in the region. After the end of Iran-Iraq War Iraq ended up mired in debt, thereby facing domestic political and economic disaster. Hussein tried to re-establish its oil industry to get back on a way of prosperity. Its neigbors have however requested their debts back, while others, such as Kuwait, have supplied excessive oil to markets to drive prices down and to ruin dangerous neigboring regime. Hussein decided to resolve the economic problems once again by military invasion on August 2, 1990[38]. Unstable political situation in the region and wrecked economic situation in Iraq has lead quick-tempered Iraqi leader to reckless invasion of Kuwait in order of balancing national debt after almost decade-long exhausting war.

In 1990 Hussein decided to wage war against Kuwait, but unfortunately, since this time the United States has responded by direct military operation and further economic sanctions. Hussein made the decision with intention of gaining one of the biggest oil reserve territory to bolster wrecked Iraqi economy. A Pentagon planning document has identified militaristic Third World's nationalist regimes being the main threat to Pax Americana. Iraq has been high on the list due to its attempt to acquire missiles, weapons of mass destruction and due to its willingness to challenge Israel. Once Iraq made the invasion, the confrontation came into focus[39]. Furthermore fear of

37 National Security Strategy of the United States [online]. August 1991, [cited on 25/7/2016]. p.37. Available from: <http://nssarchive.us/NSSR/1991.pdf>, p. 3.

38 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 215.

39 HINNEBUSCH, Raymond. *The international politics of the Middle East.* Manchester: Manchaster University Press, 2003. p. 258. ISBN 0 7190 5345 5, p. 217.

Iraq filling in regional superpower vacuum by acquisition of Kuwaiti oil and jeopardizing Saudi Arabian, has steered the United States into short-term, but full-blown, large-scale and victorious Operation Desert Storm on January 16, 1991. It did so by proclamation of the National Security Directive 45, which asserted willingness to protect its allies by military force. In a hundred hours it did so and met targets described in the National Security Directive 45, which were withdrawal of Iraqi forces, restoration of Kuwaiti government, protections of Americans and stability in the Persian Gulf[40]. In wake of the events the United States has chosen to contain both Iraq and Iran from threating the Persian Gulf for another decades. Iraq was stopped additionally by deteriorating sanctions that further squeezed money out of Iraqi economy. Even though the sanctions appeared to have been aimed at weapons of mass destruction, it was pursued in order to push through regime change in Iraq[41]. After this aggressive and injudicious Hussein's step the United States has decided to put him on a list of rogue unwanted dictators and has imposed sanctions and military intervention upon his regime.

Reserves of oil were the main stake in the Gulf War, since large amounts of these were central to guarantee global oil prices. Both Saudi Arabia as well as the United States wanted to keep control of vital resources, central to global liberal economy, in unmodified state. On one hand U.S. proportion of global oil reserves has declined from 34% in 1948 to 7% in 1972, its share of world's oil production decreased from 20% in 1972 to 10% in 1991 and concurrently its imports have risen from 12% to 50% of its consumption in 1970-1991. On the other hand in 1990 only 12.5% of United States' oil consumption was imported from the Gulf with Iraq and Kuwait selling only 7% altogether. The main stake was again guarantee of access of the biggest global oil reserves to energy markets. Moreover intimidated Saudi Arabia was crucial to global prices on spot market, since it ensured 21% of global exports. If Iraq had annexed Kuwait, it would have dictated prices of Western imports. Iraqi intimidation of Saudi Arabia was the main lever to influence global oil prices. It threatened to politicize trade by oil weapon - misuse of oil export in order to gain favorable policy from importers. In

40 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 56-57.

41 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 215-216.

this case it wanted to press United States' for favorable policy in Arab-Israeli conflict. The United States were furthermore afraid of petrodollar recycling termination[42]. The main stake that the United States may have lost in the Gulf War were the access of oil reserves of Saudi Arabia to global energy markets, which were jeopardized by war approaching from the north.

Not only Middle Eastern oil reserves as the source of global markets' stability were central to United States' interests, but recycling of petrodollars as source of national income, discounted oil prices and international trade flow belonged to main aims to be protected as well. Recycling of petrodollars was a trade deal, in which oil-producing countries that had national surplus, accrued oil revenues in Western banks and purchased Western arms through them. If Saddam had gained control over oil reserves, the deal between the United States and the Gulf monarchies would have probably ceased, thus it would have probably stopped arms trade and price moderation of imported oil. The United States could not have allowed to an aggressive and uncontrolled regime control over largest oil reserves. It would rather wage quick war to safeguard that reserves stay under friendly and security-dependent regimes[43]. As it was proclaimed in the Meridan House Address, the United States wanted to keep an active role in formation of Middle Eastern stability by assisting in Arab – Israeli conflict and by providing security for in oil rich Persian Gulf states. It wanted to protect its Gulf partners by provision of temporarily defense and selling arms until the Gulf Cooperation Council, the GCC, is able of self and collective defense[44]. Recycling of petrodollars, discounted oil prices and fluent international trade flow to endure under friendly monarchs rather than under quick-tempered and economically irresponsible Hussein's rule came as other motivations for the United States to go to war.

Creation of Middle Eastern coalition with Saudi Arabia, Syria and Egypt was crucial to implementation of United States' intervention. Without support of the coalition the solution to Hussein's aggression would be formed differently. Saudi Arabia was concerned about its oil fields and general national security in face of the invader.

42 HINNEBUSCH, Raymond. *The international politics of the Middle East.* Manchester: Manchaster University Press, 2003. p. 258. ISBN 0 7190 5345 5 p. 214-215.

43 HINNEBUSCH, Raymond. *The international politics of the Middle East.* Manchester: Manchaster University Press, 2003. p. 258. ISBN 0 7190 5345 5 p. 214-215.

44 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 60-61.

On the other hand it was afraid to lose strategic partership with the United States and its protection, particularly in instable Middle Eastern vicinity. The grave situation impelled it to grant territorial base and financing for intervention. *"The driving factor in the Saudis' perceptions was that being weak and rich in a dangerous neighbourhood, they could not do without an external protector and to deny the US the access to their territory it was demanding could well cost them American protection"*[45]. Saudi Arabia, safeguarding its wealth and security, became key partner in the 1990 Gulf War.

Egyptian participation in intervening coalition contributed to Arab public support in exchange for financial aid to bankrupting country. Both the countries took care of management of Arab public reaction. President Mubarak positioned Egypt as a 'moderator' of Arab system, which on one hand enjoyed American confidence and on the other Arab leadership. His motivation was substantially anchored in Egypt's economic dependence, since it was in such a grave economic situation that indebtedness was leading to the way of bankrupcy. Egypt was endowed by foreign aid, as that from the United States, on which it became increasingly dependant. Hussein's confrontation of the United States and Israel therefore threatened its vital economic interests. In reciprocity to Mubarak's help in the war, he was given historically unprecedented debt forgiveness[46]. For the sake of evasion from Egypt's bankrupcy Mubarak has decided to cooperate with the United States and its coalition by public advocacy of the Gulf War.

Syrian interests were on the other hand rather political and security-related. Since Iraq is a neigboring country, it has posed a military threat to Syria, which Syria must have averted. Since Iraq was Syrian main rival in Pan-Arab leadership, Syria wanted to balance it geopolitically. At last but not at least contention with Israel over Golan Heights occured misfortunately. Syria needed United States' affection, as of Arab-Israeli peace settlement mediator. Partership with it appeared to be one of the very ways how it may have gained the Heights back[47]. Syria has aimed by Arab public backing of intervention border security and regional balance of power to its favor.

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45 HINNEBUSCH, Raymond. *The international politics of the Middle East.* Manchester: Manchaster University Press, 2003. p. 258. ISBN 0 7190 5345 5, p. 212-213.

46 HINNEBUSCH, Raymond. *The international politics of the Middle East.* Manchester: Manchaster University Press, 2003. p. 258. ISBN 0 7190 5345 5, p. 213.

47 HINNEBUSCH, Raymond. *The international politics of the Middle East.* Manchester: Manchaster University Press, 2003. p. 258. ISBN 0 7190 5345 5, p. 213.

Invasion of Kuwait has been conceived on one hand as a challenge to United States' world order in a region of global interest and on the other hand as a good opportunity to demonstrate its determination to protect the Persian Gulf, to ensure deepening of relations for business purposes and to locate its military bases in the Gulf. After the Cold War United States positioned itself in the role of world unipolar hegemon. All of Cold War doctrines have defined control of Middle Eastern oil as central to national interest. The war has become an opportunity for the United States to show its hegemonic indispensability for protection of oil against threats of the Third World. By victory it has futhermore ensured that Gulf reserves would stay under its protection. War has brought the opportunity to demonstrate U.S. engagement and protection of its client regimes as well as an opportunity to deter other troublemakers. Moreover it has assured that petrodollars would flow through U.S. firms and that military-industrial complex could continue its spending. Both of the steps have empowered flow of capital and U.S. competitiveness. Since 1970s the Pentagon attempted to position its bases in the Gulf, which was then denounced by Arab countries due to their domestic reasons. With the invasion the occasion to build its bases in this part of the world has come[48]. By Gulf interference the United States meant to and have achieved demonstration of its hegemonic abilities and commitment to Persian Gulf's protection.

Gulf war has served the United States by many purposes: it brought opportunity to show off its military power, to substantiate further military spending and to consolidate its hegemonic position in uni-polar system. Part of American and interntional audience has doubted U.S. military power and thought in to be in decline. Particularly the Vietnam syndrome was especially important to overcome. Pentagon decided to use unrestrained firepower and high-tech capabilities to assure American audience that international policing could be cheap and with minimal casualties. By fast and stringent approach, victory in the Gulf War showed off the United States' military strength of unchallenged superpower instead. It was the Sovet Union's demise from global competition and lack of opposition to the U.S. projection of military power that facilitated U.S. intervention. The collapse of the Soviet Union in combination with Gulf War victory finally boosted international reputation and self-confidence of U.S. elites

48 HINNEBUSCH, Raymond. *The international politics of the Middle East.* Manchester: Manchaster University Press, 2003. p. 258. ISBN 0 7190 5345 5, p. 215-217.

that Pax America could be imposed against lingering Third World resistance[49]. The War in the Persian Gulf has served its original purpose: it proved United States to be global hegemon with victorious military capabilities to domestic as well as to international audience.

2.2.2 The Clinton Administration

Democratic administration of President Bill Clinton that intermitted the conservative rule of Bush the senior and Bush the junior has practiced more peaceful foreign policy. Bill Clinton in his two presidential terms from 1993 to 2001 practiced dual containment of Iraq and Iran and advanced the Arab-Israeli peace process. Clinton moved causiously towards the Middle East by promotion of social and political change in the region. After failure of humanitarian mission Restore Hope in Somalia, were U.S. troops were forced to kill[50], he responded with PDD-25, which restricted mission participation under the United Nations and supported it only in case of serving U.S. interests and realistic aims[51]. The Directive underlined plans to use the UN as core of foreign policy. Between the two military-oriented Bush Administrations Bill Clinton has used softer foreign policy tools such as diplomacy and he had used it multilaterally.

Clinton has followed his peaceful and democratic methods in foreign policy in relation to U.S. Middle Eastern partners and in relation to Middle Eastern peace process as well in order to achieve prosperous domestic economy by opening up the international possibilities for trade. President accented compatibility with Middle Easter culture and democracy and differentiated Islamic culture from terrorism. Under support for democratization, capitalism and peace he had understood case-by-case solutions of the Middle Eastern problems. The lack of another superpower and military presence in the Gulf allowed the United States to push forward the Arab-Israeli peace process and to push forward economic possibilities for domestic prosperity. In 1994 Jordan and Israel signed the Treaty of Peace Between the Hashemite Kingdom of Jordan and the State of Israel. It allowed to lay foundations for and to advance the democratization

49 HINNEBUSCH, Raymond. *The international politics of the Middle East.* Manchester: Manchaster University Press, 2003. p. 258. ISBN 0 7190 5345 5, p. 218.

50 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>. p. 66-67.

51 Presidential Decision Directive, PDD-25 [online]. [cited on 25/7/2016]. Available from: <http://fas.org/irp/offdocs/pdd25.htm>.

process[52]. He has declared that "peace has to produce benefits", under which he explained to international audience that for him peace is means of economic stability and prosperity. The process has aimed to be done by showing benefits of cooperation with the West and by denoucing terrorism and claiming common human values[53]. Power vacuum in the Middle East has opened up space for Arab-Isreali peace process and for promotion of economic ties and trade opporunities in the region. Clinton has used the challenge to his favor, initiated peace process and promoted peace as a means for mutual economic growth.

The United States needed to halt 'backlash states' as Iran and Iraq, which disposed with major oil reserves. This Clinton's Administration aim was published by National Security Advisor Anthony Lake in Foreign Affairs under title "Confronting Backlash States" in March 1994. The objective of Dual Containment policy was to contain and eventually integrate the backlash states into international community "*to establish a favorable balance of power, one that will protect United States interest in the security of our friends and in the free flow of oil of stable prices*". Thus major problems were perceived to be threats to security, such as proliferation and the fact that the backlash states controlled 65% of the world's oil reserves[54]. Due to United States' will to balance the Middle Eastern region in favor of its allies and due to stabilization of global oil prizes, Clinton has decided to contain both Iraq and Iran.

Iraq and Iran were in grave situation due to antagonistic relations with their neigbors, with the United States, with themselves and in the wake of sanctions imposed by the United Nations. In comparison to the Cold War, when the United States contained the states by strengthening one adversary over another, during Clinton's term it did it through its regional allies Egypt, Turkey, Israel and Saudi Arabia and through the United Nations' support by imposition of sanctions. The U.S. military, present in Saudi Arabia, Kuwait and Bahrain and southern and northern no-fly zones in Iraq since the 1991 War, and the Persian Gulf states kept Iraq and Iran under control. Moreover neither could both the states rely on another superpower nor on themselves since the

52 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>. p. 67-68.

53 President Bill Clinton, "Remarks to the Jordanian Parliament," (October 26, 1994) in Amman, Jordan: Weekly Compilation of Presidential Documents, from <http://www.findarticles.com/p/articles/mi_m2889/is_n43_v30/ai_16476946>.

54 LAKE, Anthony. Confronting Backlash States. *Foreign Affairs,* 1994, vol. 73, no. 2, p. 45.

Iran-Iraq War took place. Iran was furthermore weakened by Iraq's victory in the war and Iraq was weakened by its defeat in the 1991. The United Nations supported opposition to the states by further sanctions[55]. Since the International Atomic Energy Agency, or the IAEA, found out that Iraq was developing nuclear weapon, Clinton and the United Nations backed economic sanctions and weapons of mass destruction, or WMD, inspection[56]. Iraq and Iran have found themselves in a situation, where their proliferation endeavor and antagonistic relations to their neigbors have led them without support amidst circle of adversaries: the Gulf states, the United States, one to another and the United Nations.

Unfriendly behavior and suspicions about ownership of WMDs by Iraq led the United States and the United Kingdom to bombardment of it. Madeleine Albright on March 26, 1997 proclaimed support to overthrow Hussein's regime and to integrate Iraq into international community through cooperation with the United Nations, democratization, enhancement of human rights, rejection of terrorism and moderation of military size[57]. After refusal of presidential palaces inspection and of cooperation with the UN, Clinton left diplomatic course and together with the Great Britain began Operation Desert Fox, a four-day bombing of Iraq defenses. In unipolar system this could have been done without multilateral cooperation and without worrying about regional balance-of-power[58]. Clinton's foreign policy was pragmatic case-by-case, and flexible with usage of increased military and reliance on economy. In relation to Middle East he had supported long-lasting Gulf allies and undertook quick operation Desert Fox and diplomatic containment of Iran and Iraq in favor of the Gulf's upper hand in Middle Eastern balance of power.

2.2.3 The George W. Bush Administration

President George Walker Bush was a realist and an unilateralist and ended off the global peace broker image of the United States beginning with the war against terrorirsts in Afghanistan and other rogue states. Bush began his administration by

55 LAKE, Anthony. Confronting Backlash States. *Foreign Affairs,* 1994, vol. 73, no. 2, p. 48-49.
56 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 72.
57 ALBRIGHT, Madeleine K. Speech on Iraq [online]. March 26, 1997. [cited on 25/7/2016]. Available from: <http://secretary.state.gov/www/statements/970326.html >
58 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 74.

exploring the idea of a ballistic missile defense system, by rejecting the Kyoto Protocol, and by backing out of the International Criminal Court[59]. After 9/11[60] foreign policy was characterized by one obsession - war on terrorism. Bush searched for WMDs in Iraq, but since he has not found any, he emphasized the overthrow of brutal Hussein's regime and democratization[61]. Bush believed that "*preeminent military, economic, and political power of the United States was conductive to peace and welcomed by other states*"[62]. Democracy had to bring human rights (freedom of religion, speech, assembly, association, press) and accountability (impartial justice, rule of law, resist corruption, limit government to protect civil society)[63]. On September 20, 2001 speech Bush claimed to wage war with Al Qaeda, but will end when every terrorist would be defeated. He proclaimed hostile every regime, which harbored terrorists[64]. Bush Administration gave ultimatum to Taliban and on October 7, 2001 Bush announced military Operation Enduring Freedom in Afghanistan. The United States defeated the Taliban government and disrupted Al Qaeda network successfully. On Decemeber 11, 2001 he broadened the war to stop rogue states from obtaining WMD[65]. In unipolar world the United States was able to take on a global mission and use unilateral methods to achieve its policy. President Bush has done so openly with militaristic approaches beginning by successful war in Afghanistan against Al Qaeda terrorists after 9/11.

George W. Bush declared the Second Iraqi war to be war against a rogue state. The rogue state is a state that uses violence against its own nation and misuses national resources for personal profit of the ruler, shows disregard for international law and international treaties, threatens neigboring states, develops weapons of mass destruction,

59 Papp, Johnson, and Endicott 2005, p. 218 through Ward, Brandon M. The shift in United States foreign policy in the Middle East since 1989. p. 79.

60 9/11 were terror attacks on the World Trade Center towers, the Pentagon, and Somerset County, Pennsylvania. In response to 9/11 Bush began war in Afghanistan and haunted Al-Qaeda and Osama bin Laden, who has acknowledged leadership of this attacks.

61 Papp, Johnson, and Endicott 2005, p. 225 through Ward, Brandon M. The shift in United States foreign policy in the Middle East since 1989. p. 80.

62 MELANSON, Richard A. *American foreign policy since the Vietnam War: the search for consensus from Nixon to Clinton*. 3rd ed. Armonk, N.Y.: M.E. Sharpe, 2000. ISBN 0765602733. [cited on 25/7/2016]. Available from: https://books.google.cz/books?id=jxDEJZGEruoC&pg=PA87&source=gbs_toc_r&cad=4#v=onepage&q&f=false p. 352.

63 BUSH, George W. *President Speaks On the War Effort To the Citadel Cadets* [online]. December 11, 2001, [cited on 25/7/2016]. Available from: <http://www.whitehouse.gov/news/releases/2001/12/20011211-6.html>.

64 BUSH, George W. *Address Before a Joint Session of Congress* [online]. September 20, 2001, [cited on 25/7/2016]. Available from: <http://www.whitehouse.gov/news/releases/2001/09/20010920-8.html>.

65 BUSH, George W. *President Speaks On the War Effort To the Citadel Cadets* [online]. December 11, 2001, [cited on 25/7/2016]. Available from: <http://www.whitehouse.gov/news/releases/2001/12/20011211-6.html>.

sponsors terrorism, rejects human rights and hates the United States. According to National Security Strategy 2002 Iraq is such a state. It develops not only chemical, but nuclear and biological weapons of mass destruction, too. In the document it is written that these claims were proved by evidence, which had been acquired during the Gulf War[66]. In 2002 Bush has presented the 'axis of evil' constituted by North Korea, Iran, Iraq and its terrorist allies to own WMD[67]. He has stated to use preventive attacks on threats before they present danger. In The National Security Strategy of the 2002 United States of America is also written that "*we will actively work to bring the hope of democracy, development, free markets, and free trade to every corner of the world*"[68]. Unipolarity meant for Bush that he can do preemptive warfare to the Axis and terrorists without any constraints. The instability is threatening and breeding terrorism and there is need to protect oil reserves[69]. On basis of these definitions and confirmations presented in the 2002 White House National Security Strategy the Second War in Iraq has began.

Bush's main asserted goal was to democratize through war on rogue states, which after non-compliance with the UN SC Resolution 1441 ended up in the Second Iraqi War. VETA In 2002 Bush junior increased pressure on Iraq demanding entry of UN weapons inspectors, compliance with the UN SC resolutions and denoucing terrorism[70]. According to Bush's Remarks at the United Nations General Assembly in 2002 Hussein was not to be trusted since he broke all of the UN resolutions and since he was harboring Al Qaeda terrorists. Liberty of Iraqi people was to be a strategic goal. Free and open societies do not threaten with cruelty and mass murder. If Hussein would not comply with UN SC resolutions, action against Iraq would have had to be taken to overthrow Hussein[71]. Bush wanted Afghanistan, Iraq and Palestine to be leaders in the

66 National Security Strategy of the United States of America [online]. JSeptember 2002 , [cited on 25/7/2016]. p. 35. Available from: <http://nssarchive.us/NSSR/2002.pdf>.p. 18.

67 BUSH, George W. *State of the Union Address* [online]. January 29, 2002, [cited on 25/7/2016]. Available from: <http://www.whitehouse.gov/news/releases/2002/01/20020129-11.html>.

68 National Security Strategy of the United States of America [online]. JSeptember 2002 , [cited on 25/7/2016]. p. 35. Available from: <http://nssarchive.us/NSSR/2002.pdf>.p. p.4.

69 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 83-84.

70 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 84.

71 BUSH, George W. *Remarks at the United Nations General Assembly* [online]. September 12, 2002, [cited on 25/7/2016]. Available from: <http://www.whitehouse.gov/news/releases/2002/09/20020912-1.html>.

Middle Eastern democratic change. Bush was clear to strike, if Iraq would not "*disarm, fully, and peacefully*" and he "*used nominal diplomatic and multilateral methods to attempt to resolve issues within the region it believed threaten the United States and its global vital interests*" [72]. Saddam did not comply with the UN SC Resolution 1441 by refusal to disarm. On March 19, 2003 Bush stated beginning of military Operation Iraqi Freedom with aims to remove Hussein from power, to destruct WMDs and to free Iraqi citizens. Within a year the United States captured Baghdad and Hussein and but has not found any WMDs. In the wake of this information, Bush was focusing human rights violations[73]. The policy has shifted since the Cold War due to U.S. power position in the unipolar system to offensive militaristic foreign policy methods to establish international order through democratization[74]. Bush has declared war against the Iraq due to its refusal to comply with the United Nation's resolution, which demanded Iraqi disarmament.

As Craig Toby Jones has written in his article America, Oil, and War in the Middle East the Iraq War was only longer and more devastating latest stage of long-lasting strategy concerning oil in the Middle East. The War was a consequence of 9/11 terrorist attacks, as it is in the National Security Strategy 2002 proclaimed, but to insist on this cause as the primary one, leads to omittance of history. Oil producers have been militarized for four decades, oil reserves were reason for multiple confrontations within the period and encounters in Iraq have long history. Regarding this information, it is unreasonable to separate present from history, which created it[75]. As Carapico and Toensing have ironically noted: "*the greatest military power in world history hastily launched an ill-conceived invasion because of intelligence failures and wishful fantasies of sweets and flowers … It is as if the United States had never articulated a global vision of "full-spectrum dominance," acted upon hegemonic ambitions in the Persian*

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72 BUSH, George W. *President Discusses Future of Iraq* [online]. February 26, 2004, [cited on 25/7/2016]. Available from: <http://www.whitehouse.gov/news/releases/2003/02/20030226-11.html>.

73 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 87.

74 WARD, Brandon M. The shift in United States foreign policy in the Middle East since 1989. 2006. Florida: University of South Florida. p. 116. [cited on 25/7/2016]. Available from: <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=3749&context=etd>, p. 88.

75 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html> , p. 209.

Gulf or planned for forcible "regime change" in Iraq"[76]. It is unreasonable to pick up one American step, such as 2003 Iraq War, and to believe that it has been intended on other political goals than on the that were fluently pursued throught last 70 years.

The main policy aims have been neither about direct oil fields control nor about political freedom of peoples in the region, but about protection of friendly oil-field owners and their reserves needed for maintanance of stable oil prices on global, thus United States' domestic, energy markets. Keeping pro-American regimes in power are of essential importance to the United States politics[77]. Middle Eastern region has been strategically substantial due to its localization on global supply routes, due to its energy resources' wealth and due to its unique tohubohu of politics, religion and ethnicity leading to regional and (by means of above listed universally decisive factors) even to global instability[78]. From political point of view ambitions such as terrorist eradication, pullback of nuclear security dilemma spiral or security of American Allies, such as Isreal, Saudi Arabia or Europe, stay the same independent of energy self-sufficiency[79]. It was protection of the Persian Gulf's oil monarchies rather than other motivations that has been achieved by victory in the 2003 Iraqi war.

2.2.4 Recent Development

Nowadays the Middle East stays on the verge of uncertain nature. The instability has been spread by manifold factors in last decades: multiple Western military interventions (2011 Libyan War, double Iraqi intervention or Afghan 2001 Enduring Freedom Operation), imminent Sunni-Shia conflict, which is most visibly demonstrated on Syrian or ISIL (the Islamic State of Iraq and the Levant) civil wars, geopolitics of oil, radicalized Islam groups all over the extensive region or recent Arab Revolutions under the Arab Spring (Tunisian Revolution in 2010, by which it began, spreading to Libya, Syria, Yemen, Egypt and many more Arab countries). Particularly Syria and Iraq are

76 CARAPICO, Sheila and TOENSING, Chris. *The Strategic Logic of the Iraq Blunder.* [online]. Summer 2006, [cited on 25/7/2016]. Available from: <http://www.merip.org/mer/mer239/strategic-logic-iraq-blunder>.

77 JONES, Craig Toby. America, Oil, and War in the Middle East. *The Journal of American History.* June 2012, p. 208 – 218. [cited on 25/7/2016]. Available from: <http://jah.oxfordjournals.org/content/99/1/208.full.pdf+html>, p. 209-210.

78 KHALIL, Lydia. The Middle East and Geopolitics. *Policy*, Vol. 28, No. 2, Winter 2012. p. 46-47. [cited on 25/7/2016]. Available from: <https://www.cis.org.au/app/uploads/2015/04/images/stories/policy-magazine/2012-winter/28-2-12-lydia-khalil.pdf>, p. 46-47.

79 BAZILIAN, Morgan, SOVACOOL, Benjamin and MILLER, Mackay. Linking Energy Independence to Energy Security. *International Association for Energy Economics,* 2013, p. 17.

those, which dispose with fossil fuels and are in midst of a grave war. The Middle Eastern region may transmogrify into democracy, Islamist fundalism or neo-dictatorship. Future of U.S. relations with predominantly Arab world is unsure. Breakdown of reliable dictators' regimes motivates the United States to find convenient engagement with new governments. After the Arab Spring Al-Qaeda, the violent alternative to peaceful change of regimes, has lost its success. The reform it proposes is not appealing to majority of Muslims, even though it has acquired its foothold in some, predominantly failed, states, such as in Syria or in Yemen[80]. Nevertheless the ISIL, Al-Qaeda's alternative using the same level of violent behavior, has gained power in Syria and Iraq. Since the Arab Spring prices got volatile and increased to relatively high levels, because of uncertainties culminating around unstable political situation of suppliers in the Gulf Region. Under 'Business as Usual' and 'Democracy Develops' programmes there is visible will to allure foreign investment and evolve production in private sector[81]. The United States have not only lost much of its former impact with advent of the Arab Spring and breach of their relations with authocratic rulers, but most substantially the uprisings have created political instability, which jeopardizes global supply of oil, thereby stability of global oil prices.

2.3 Reasons for engagement in the Middle Eastern affairs

Since the milestone of 1970s, when the United Kingdom has left the Middle East in power vacuum, the United States have steadily interfered in this region's affairs. There is visible core continuous reason, why the United States have sacrificed vast amounts of money and time to this region. There must be a rational explanation for such a development. It has to be of higher value than the costs rendered to it. Such reasons can be only of national security or economic interest. It does not matter much what are the declarations of politicians, they do them in order to be elected. The Middle East is globally the wealthiest region in oil and gas resources, which the United States lack. All the largest intereferences were in connection with the oil-richest states of the region. Cold War military trade was with oil-rich Saudi Arabia, Iran, Iraq and the Gulf states.

80 KHALIL, Lydia. The Middle East and Geopolitics. *Policy*, Vol. 28, No. 2, Winter 2012. p. 46-47. [cited on 25/7/2016]. Available from: <https://www.cis.org.au/app/uploads/2015/04/images/stories/policy-magazine/2012-winter/28-2-12-lydia-khalil.pdf>, p. 46-47.

81 STEVENS, Paul. The Arab Uprisings and the International Oil Markets. *Chatam House.* London. February 2013. p. 16. [cited on 25/7/2016]. Available from: <https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/bp0212stevens.pdf>, p. 2.

Two-pillar policy was based on Saudi Arabia and Iran. The United States is in the long term with high efforts interested in creation of Arab-Israeli peace, while both the partners are of high value to it. The Gulf War was endangering Kuwait and Saudi Arabia and the United States decided to go into war because of it. George H. W. Bush was containing both Iran and Iraq, who did not want to cooperate with him. Bill Clinton has practiced Dual Containment policy against Iraq and Iran and has negotiated historically first Arab-Israeli peace agreement. His foreign policy was to support domestic econoomy through international trade. George W. Bush has waged war in Afghanistan and in Iraq, again. His policy was to eliminate Iraqi WMDs that did not exist and to democratize particularly Iraq, even though all around the world, including Saudi Arabia and the Gulf hegemonies, there are authoritarian regimes. Every step taken was in tune with protection of United States Middle Eastern allies Saudi Arabia and the Gulf states. Out of all the costly sacrifices, policies and wars that were practiced in the Middle East there is not one that would not concern major oil producers and there is not one that is against to United States friendly authocratic regimes, which own oil and gas reserves.

Due to lack of large reserves of hydrocarbons the United States needs stabilization of the Middle East, needs oil-rich countries to be allied in order to stabilize global oil prices, in order to import oil to the United States and to its Allies and in order to keep Strait of Hormutz free for transition of oil. During the history of partership with the Middle East there has not been one step that would not be in tune with this aim and there is none other target that would be in accord with all the costly interventions taken. Surely other interests that were in accord with the main goal could have been added to the main policy, be it establishment of military bases, weapon trade and militarization, recycling of petrodollars, be it evidence of being a hegemon, be it promotion of international trade or be it supression of terrorism, elimination of WMDs and democratization of Iraq.

3. Theory of Markets and Energy Security

To understand the essence of future prospects the Shale Revolution might bring to the United States it is essential to understand the mechanism how global oil and natural gas energy markets work. Oil si traded on global energy markets and even though domestic oil markets exist, their prices are shaped on global energy markets as well. No domestic energy market can determine its prices by itself. Natural gas on the other hand is traded rather on regional markets, but with arrival of liquefied natural gas (LNG), even this commodity is increasingly traded in global energy markets. The regionality of natural gas trade in comparison to globalised oil trade is caused by nature of physical ability to transit the commodity to a consumer. While oil can be and is trasported by tankers through oceans and seas, natural gas used to be transported exclusively by regional pipelines. Country has access to natural gas only in case there was a massive investment in pipeline infrastructure in the past. Due to this fact natural gas pipeline might be traded only regionally, within the physical outreach of the tube. Basic difference between oil and gas trade is their global and regional nature of trade, even though differences are beginning to fade away with advent of LNG.

Due to relatively new LNG trading possibilities, gas markets are in its infancy of getting more flexible and more global. LNG market and ports ensuring liquefying of natural gas have made a difference in global natural gas markets and enabled natural gas to be traded globally, even with the areas without direct approach of common pipelines. With oncoming of LNG, markets are becoming more flexible due to possibilities to diversify sources of supply, due to opportunities to overweight the traditional pipeline system of trasnport and due to effectivity of the markets it offers. Reduced requirements for U.S. demand allows other locations, such as Europe or Asia, to trade gas in its LNG form. Europe and Asia still pay prices that are three to five times higher than in other parts of the world. American redundance and lucrative prices on other continents yield gas trade opportunity of becoming global[82]. Not only insufficient extent of pipelines decelerate the pace of global gas markets, but high transportation costs inhibit it, too. Nevertheless LNG business is still in its beginnings and the trade still comprises only small proportion of total global gas trade. Until now the gas pricing has been

82 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>. p. 4.

established, thus dependent, on oil prices. Invention of gas-on-gas pricing has began to occur nowadays. This development is therefore the reason why natural gas is traded rather regionally and why prices are formed on this level as well, even though the commerce is progressively getting global.

3.1 Creation of oil prices in global energy markets

Tempered by risk, formation of oil and gas prices is casued by clash of supply and demand of crude oil on global energy markets, however inflation, taxes and other conditions are important as well. According to the U.S. Department of Energy report made in the United States in 2010, prices of oil were based majorly on price of crude oil. Nevertheless other components of price were found to be important as well. The pri crude oil made 68% of the average retail cost of gasoline in December of 2010. Federal and state taxes were the next highest cost factor, averaging for 14% of the final price. They were followed by refining costs and profits that participated on the price by 10% and then distribution and marketing costs responsible for 8% of the price[83]. Overall emergence of oil prices depends primarily on crude oil prices, which are traded globally, even though inflation, taxes, refining, distribution and marketing costs form the price, too.

The supply and demand of global oil prices depends on a complex economic calculation of availability, cost and lightness of crude oil, height of capital investments for refineries and costs of crude-oil processing on the supply side and by number of transport-using oil consumers in the world and scale of state subsidies on the demanding side. Supply of light (better) or heavy oil is determined by viscosity. Sweet (better) or sour oil is set by impurites. Light/ sweet oil need less time to process into gasoline. Light oil used to be available, but harder to obtain, that is why prices climb. Heavy/ sour oil is widely available what causes decrease in prices. Sour oil needs higher capital investment to process lower-quality oil, but crude commodity is cheaper. The loss obtained on investment is balanced by cheaper crude oil purchase.

Demand is set primarily by number of consumers using fuel for transportation. China and India, both having population over billion, are experiencing an expanding middle class, so China is going to demand majority of production in the next decade and

83 WAGNER, Hans. What determines gas prices? [online]. [cited on 25/7/2016]. Available from: <http://www.investopedia.com/articles/economics/08/gas-prices.asp>.

India should demand the most a decade later accoring to IEA. Rising number of consumers will cause rising number of their needs for industrial products and for highways sponsored by states. The Middle East, Latin America and Africa are rising and therefore should be strong sources of demand later on, too. Growing share of Middle Eastern supply is going to be disposed to Asia with implications for current importers, geoeconomics and geopolitics[84]. Many countries are subsidizing the retail price of gasoline to encourage industrial development, to elevate consumption and to gain popularity, thus creating artificially higher demand, as described below. Demand is more elastic in the long term, disparities in supply and demand have larger impact in the short run. Inelasticity of demand causes relatively high shifts in prices, thus influencing demand not much. People are flexible in longer time. It is assessed that higher demand in the future would be balanced by higher supply[85]. It is essential to observe the trends of above-mentioned global costs, most significantly of crude oil, and its availability as well as global demand to be able to estimate future prices and present trade opportunities. For the United States, which has power in form of supply of a scarce, widely useful and utilized commodity, as shale oil or shale gas are, it is reasonable to try to influence it in order to influence domestic energy markets and domestic prices.

Inflation and taxes then establish the last part of the price. Inflation is the rate at which prices are rising and conversely at which purchasing power is falling. In the U.S. $1 in 1950 would cost about $9.30 in 2010. In 1950, gas cost about 30 cents per gallon. Adjusting for inflation, a gallon of gas should cost about $2.79. What concerns taxes, they are constantly rising: from 1.5% per gallon of gas in 1950 to 20% per gallon of gas in 2011 in the United States. Over the short term, as prices flow, demand tends to be inelastic (it doesn't change so much). Over time Mr. Hans Wagner expects movement towards lower consumption at individual, but higher on cumulative level[86]. Inflation and taxes, as the last part of price creation, are balancing supply and demand of gasoline.

Subsidies, which are used much by Middle Eastern countries, distort the real market price of oil, since it amplifies demand artificially. The United States is one of the

84 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>.

85 WAGNER, Hans. What determines gas prices? [online]. [cited on 25/7/2016]. Available from: <http://www.investopedia.com/articles/economics/08/gas-prices.asp>.

86 WAGNER, Hans. What determines gas prices? [online]. [cited on 25/7/2016]. Available from: <http://www.investopedia.com/articles/economics/08/gas-prices.asp>.

most diligent fighters against fossil fuel subsidies worldwide[87]. Fossil fuel subsidies on one hand elevate consumption, thus creating room for new suppliers and GDP growth, but on the other hand higher consumption implies more environmental problems, diminish budgets and might cause unrest[88]. Since fossil fuel subsidies expand demand and usage independently on its real market prices, for example during times of lack or abundance on the markets, they deepen climate change crisis on one hand and unnecessarily waste scarce and unrenewable resources, which jeopardizes stability of oil supply on the other hand. Such a behavior is typical for Middle Eastern states as will be illustrated on.

Unresponsible and populistic behavior of Middle Eastern countries not only endangers states globally, but jeopardizes their own resources, thereby their own treasuries and budgets. Since Middle Eastern countries used to be abundant in hydrocarbons, it began to populistically subsidize its domestic consumption. Subsidies not only misrepresent prices as a result of global supply and demand, but moreover misinform local governments about scale of domestic demand for market prices and about patterns of domestic behavior, plunder their own resources and threaten basis of their budgets on condition that country's revenues through their exports depend on it. Saudi Arabia and the United Arab Emirates have understood this misfortune. Saudi Arabia began to invest in solar program and in development of gas resources and the UAE established centre of excellence on renewables and energy efficiency, the Asdar Institute[89]. The scale of subsidies contributes to the fact that the Middle East consumes great deal of global oil demand. Problem of subsidies, as market deformation with profusion of other negative consequences, can be resolved only gradually with help of international pressure, but firstly states have to stabilize generally and then understand irrationality of their behavior.

As a result of market mechanism, no country can isolate itself from market floating, thus even the United States can't isolate itself and gain energy security. Since price of oil is dependant on global supply and demand, it is created globally. No country

87 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New Yorkm, p. 8.

88 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf> p. 5.

89 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New Yorkm, p. 18.

by itself is able to impact the price. The ability to impact global energy markets depends on the ability to mobilize and sustain massive quantity flows over time. Flooding oil markets with oil in short term, when not being able to sustain it, leads to speculators buying it cheaply and selling them costly. It is necessary to rise the global supply in long term[90]. Physical trade continues, thus political and economic ties limit the idea of isolation from global energy developments. Even in case that oil and gas would be produced by the United States sufficiently enough to satisfy domestic demand, global market and geopolitical trends would affect domestic prices and economies of trading partners[91]. Global market mechanism makes every subject dependant on global course of events, so it is with the Unites States and its domestic oil prices.

3.2 Energy Security

Understanding of energy security is central to geopolicital and geoeconomic consequences of Shale Revolution. Sovacool's assessment of energy security definitions in The Routledge Handbook of Energy Security have found at least 45 different definitions of the expression in academic and policy literature only in the period of last 10 years. In words of Bazilian's article Linking Energy Independence to Energy Security many authorities understand the term in geopolitical consequences of energy security policy constructed from the perspective of developed countries as “measures taken to reduce the risks of supply disruptions below a certain tolerable level”. The uncertainty in supply of energy resources comes from the risks related to scarcity, geographical fuel distribution and to reliability of delivery energy systems[92]. Ability of the United States to use energy weapon or to act independently on foreign policy towards the Middle East depends primarily on its energy security. If the United States is able to get energetically secure, it can act on its own, whether it is towards better relations with chosen countries or not. If case was opposite, the United States would foremost have to secure energy resources and adjust its foreign policy in accord with countries, on which it depends.

Elkind in his article 'Energy Security: Call for a Broader Agenda' understands energy security as a concept based on four major dimensions: availability, reliability,

90 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New Yorkm, p. 6.

91 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf> p. 1.

92 BAZILIAN, Morgan, SOVACOOL, Benjamin and MILLER, Mackay. Linking Energy Independence to Energy Security. *International Association for Energy Economics,* 2013, p. 18.

affordabililty and sustainability. On basis of these four elements Elkind further analyses components of elements, on which one can assess the level of energy security of a country. The components are then illustrated by potential threats, which will be specified in parentheses. Availability is in general understood as the ability of consumer to supply oneself with energy. The expression includes extensive market functioning, traders on the side of demand as well as supply, markets that physical existence of resources, sufficient amount of investments and suitable technology. This notion embraces components of physical endowment of producer countries (exhaustion of cost-effectively extractable reserves), ability to agree on terms of trade among producers, transition states and producers (policy limits on development, such as state-to-state contracts), technology of production, transportation, conversion, storage and distribution (siting infrastructure – local protests against facilities) , capital investment, legal and regulatory structures and compliance with environmental and other conditions (financial, legal and policy environments leading to sustained investment)[93].

Other conditions to be fulfilled in order to bring energy security are reliability, affordabililty and sustainability. Under the expression of reliability Elkind understands protection from disruptions and shocks in forms of diversification of sources of supply (energy mix) and of supply chains, abatement of energy demand, reserves, flexibility in case of shocks and timely trasfer of information to markets. Components of reliability include robust diversified chains (failure of systems due to inconvenient weather conditions), sufficient reserve capacities for entire chain (failure maintainance of underinvestment), long- and short-term protection from terrorism, political interruptions and weather and adequate information on global energy markets (embargoes)[94]. Affordability denotes stable and low prices in relation to national living standards. Thereby components involve minimal price volatility (forego exhaustion of cost-effectively obtained reserves), equitable prices (for local living standards), transparent pricing (no subsidies), realistic future pricing prediction as compared with current prices (excessive demand due to high energy intensity, failure to institute sound pricing) and full-cost mirroring prices (failure to incorporate environment into energy security

93 ELKIND, Jonathan. *Energy security: economics, politics, strategies, and implications*. Energy Security: Call for a Broader Agenda. Washington, DC: Brookings Institution Press, 2010. ISBN 0815769199, p. 122-123.

94 ELKIND, Jonathan. *Energy security: economics, politics, strategies, and implications*. Energy Security: Call for a Broader Agenda. Washington, DC: Brookings Institution Press, 2010. ISBN 0815769199, p. 122 and 124-125.

impacting in need for urgent response). The aspect of sustainability embraces diminishing of social, environmental and economic damage that can ensure lasting infrastructure. We divide this element into three components: low greenhouse gas emissions (support for coal-intensive industry), minimal pollution and energy systems protected from global warming.[95] Not only supply, but energy efficiency and conservation can improve sustainability of reserves, however these do not belong to the model[96]. Availability, reliability, affordabililty and sustainability as elements of energy security propose a model for mapping and improvement of current conditions. On basis of this model research on United States' energy security will be conducted in the fourth chapter.

Diversification, as a component of reliability, declines the risk of delivery failure. Diversification of supply is an important component to be understood that is why it will specifically developed here. Diversification has purposes of decreasing the risk of energy disruptions. Firstly it proposes multifold usage of energy sources, what means increase in usage of different resources for production of energy; for example not to use oil and gas only, but to use nuclear power or renewable resources of energy as well. Secondly it puts forward diversification of supply chains; if a supplier or transition facility is not able to convey resource, there must be alternative to it. Therefore it is rational to diversify sources as much as possible, even though with larger volumes of supply one can on the other hand negotiate lower prices. Even with high enough scale of diversification, one cannot predict future political situation in the delivering state. With large enough quantity of own gas and oil, the United States would not have to depend on other states' hydrocarbons, even though because of dependence on global oil and gas prices, the United States would have to cooperate with essential Middle Eastern suppliers.

The Shale Revolution has made the United States more energetically secure than it was before in availability, accessibility and affordabililty of the resources as based on Elkind's model. Between 2010 and 2015 production of oil has risen in the United States

95 ELKIND, Jonathan. *Energy security: economics, politics, strategies, and implications*. Energy Security: Call for a Broader Agenda. Washington, DC: Brookings Institution Press, 2010. ISBN 0815769199, p. 122.

96 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>, p. 3.

by 81% and of gas by 35%. On the other hand supply growth in Canada and Mexico's reforms to lure private investments, being the dominant and the third-biggest U.S. oil and gas importers respectively, gives North America potential for self-reliance by 2035[97]. The figures of production také-off are making oil and gas more available to citizens of the United States, since it means that number of supply traders, amount of resources, sufficient volume of investments, suitable technology and elligible legal framework are all more available. The nature of reliance on private business and political stability of the United States enhances the last component of availability in Elkind's model, which is extensive market functioning. With the Shale Revolution upturn energy security in sense of availability has risen.

97 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York. p. 8.

4. Geopolitics towards the Middle East after the Shale Revolution

The Shale Revolution has meaningful impact on energy security of the United States, therefore there is a need for reevaluation of foreign policy opportunities. Aim of this chapter is to analyse energy security of the United States before and after the Revolution and based on its results to propose broadening of current foreign policy. It will be done in three parts: The Middle Eastern importance for global energy prices, Energy Security before and after the Shale Revolution and Energy weapon. Firstly linkages between Middle Eastern countries and global energy markets would be introduced. Secondly analysis of United States' energy security before and after the Shale Revolution will be conducted. Based on its methodology results will be deduced. Thirdly opportunities for usage of energy weapon will be described.

4.1 The Middle Eastern importance for global energy prices

Energy markets are interdependant, thus if the United States would isolate itself from the rest of the world, it would be affected by global course of events and their consequences, but would not be able to influence them in favor of their interest at all. Therefore it is essential to cooperate with other countries to safeguard the pricing on global energy markets. It menas that only major exporters in common cooperation are able to affect the prices. Saudi Arabia, Iran, Iraq and the Gulf states have the largest oil reserves. They are able to influence the prices and already have done so repeatedly. The United States have cooperated with them for decades. Moreover in order to shift massive quantities of oil to markets, it is essentially needed to have stand-by operational spare capacities. It is Saudi Arabia that has the largest stand-by operational capacities to redirect massive quantities of black gold so abruptly. Even though the United States could be able to gain large shares on global oil and gas energy markets since the Shale Revolution, they would still need Gulf states to cooperate in common goal of price stabilization.

Saudi Arabia has been an important ally for the United States in oil price stabilization throughout the history as well as nowadays. Saudi Arabia is globally the largest oil exporter. During the Libyan war in February 2011 it has provided its spare capacity of 1 million b/d. Throughout Libyan 2013 summer turmoil it was able to aplify

its releases by 1.5 million b/d again in three months. It is able to boost its production in 30 days and last for another three months[98]. Saudi Arabian free operational capacity has repeatedly proved to be globally unique and has been used in times of crisis to decline global oil prices. Such a producing capacity is unique because no other state has so much oil to be able to have free capacity and no other state is willing to invest so vast amount of money in order to keep the back-up fields operational and use it in times of global prices. The willingness of Saudi Arabia to decrease global prices makes it an indispensabile ally of the United States in the Middle East as well as worldwide.

Not only Saudi Arabia, but the whole Middle Eastern region, predominantly OPEC countries, is vital to energy interests of the United States. Until now and in the term of next fifteen years the United States is going to stay net oil importer, even in case its reserves were going to grow substantially. It is going to import from the Middle East, since traditional suppliers, such as OPEC countries, are still commanding sizable market shares[99]. Qatar has become the biggest LNG exporter in the world, even though significance of gas has been underestimated in the region. Kuwait and the United Arab Emirates have smaller capacities in comparison to Saudi Arabia and Qatar. Out of the whole OPEC Saudi Arabia is the most prominent globally. The role of the OPEC as an organization is relatively small. OPEC production targets are ineffective. Rather we can understand it as an association of meaningful actors on oil market. Saudi Arabia has been the only member, who has restricted supply in order to boost oil prices. Cohesiveness can be weakened, if non-OPEC production growth would outpace demand growth in the short term or if increasing Iraqi or Iranian volumes would outpace Saudi Arabian dominance in the long term[100]. The OPEC is not substantial for the United States or the world as an organization, since its members have not given it significant power, but it is meaningful as an association of states, such as Qatar, Kuwait or the United Arab Emirates, with remarkable volumes of oil exports.

98 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York. p. 20.

99 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>, p. 4.

100 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>, p. 15.

Middle Eastern region is a dominant partner not only due to its massive oil resources, but due to its closeness to Strait of Hormutz, too. The United States needs its military allies and economic partners to dispose with further deliveries of oil and gas from the Middle Eastern countries. Furthermore, as illustrated by the example of Saudi Arabia above, states in the region still play undeniable role in creation of global oil prices, because of volumes of its capacities, because of its spare operational fields, low supply costs and most important of all, because of Strait of Hormutz[101]. Since through this chokepoint point circulates 20% of oil traded globally with no alternative to it, certainty of its free flow is essential to global prices as well. Since the Unites Statas' Fifth Fleet provides guard to this exclusive transport line, OPEC countries and other partners must stay assured of U.S. commitment to perceive their security. Disruption in this trasport route is unlikely, but if there was one, the market shock would boost oil prices and shipping insurance rates unprecedentedly. Such a danger is highly improbable from Iran since it uses it itself[102]. Moreover stability of one state in the region determines its close and distant neigbors' security. War in one country brings refugees, arms and unrest to its neighbors. The United States have to stay commited to region it needs in military sense in order to protect its national economic and security interests.

After reforms in Iraq, one can diversify Iranian oil, but overall nobody can predict political situation in Iraq in the future. When U.S. inspection came to Iraq in 2011, it has proposed many ideas for improvement of oil facilities. In reaction to proposals new systems were installed to load offshore, pipeline has been completed, pumps repaired and payment flew more quickly. As Sunni Muslims we excluded from power, ISIS gained popularity. In mid-2014 it was financed by theft of 47,000 b/d, obtaining $0.8–1.6 million daily. Production in the south still has its impediments: it is necessary to invest in infrastructure and technical and administrative matters. On the other hand in the north Kurds want their share of oil revenues and many facilities could not be fully functional until agreement with Kurds would be concluded[103]. Throughout

101 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>, p. 1-2.

102 INTERNATIONAL SECURITY ADVISORY BOARD. *Report on Energy Geopolitics: Challenges and Opportunities*. [online].July 2, 2014, [cited on 25/7/2016]. Available from: <http://www.state.gov/documents/organization/229409.pdf>, p. 16.

103 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 20-21.

the conflict with ISIL rebels the production in the south is relatively safe due to its belonging to Shia region, even though short-term incidents can occur. IEA predicts that Iraq could account for 60% of the OPEC reserves' growth until 2020[104]. North is furthermore endangered by political quarrels with Baghdad, Irbil and Turkey. Even though many problems have spawned in Iraq due to internal conflict with ISIS, an extremist islamist organization called Islamic State of Iraq and Syria that tries to overrule current government since June 2014, the possibilities have been created to diversify from Iran. One cannot fully predict, if Iraq in cooperation with the United States would win the war over ISIS. That is why a customer cannot be sure about Iraqi oil deliveries.

Political instability is not only matter of Iraq, but it is common for every country in the world, thereby including oil exporters in the Middle East as well. Libyan war in February 2011 has taken 1.5 million b/d of oil off the markets, which escalated prices from about $95 to $123/barrel in weeks. Suspension in summer 2013 took another 1.5 million b/d off the global markets. In the period from January 2011 to May 2014 many oil provision gaps have occurred due to international unrests. I, 2012 international inspectors have found out that Iran wanted to develop a nuclear bomb, what lead to decision to contain its oil exports from the markets. Political unrests in Sudan, Syria, Iraq, Yemen and Libya have interrupted their oil flows to the markets. Corruption and theft weakened and paused oil coming from Nigeria[105]. Whether the political reasons for oil supply interruptions are due to political instability, uncultivated political nature or international power ambitions does not matter. Such upheavals not only break oil transfers, but moreover boost prices, thus endanger affordability, as a component of energy security. Crisis were and are going to come out of colorful grounds, therefore no state can rely on single source of delivery and must diversify its energy resources in order to secure itself.

4.2 Energy Security before and after the Shale Revolution

In accord with the Elkind's model, as evolved in the third chapter, next pages develop estimation of level of United States' energy security after the Shale Revolution. As conclusion to the second chapter proposes, the motivation for the engagement of the United States in Middle Eastern affairs has been based on energy security need to have

104 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 17.

105 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York. p. 19-20.

friendly relations with the biggest owners of oil reserves. The motivation has been caused primarily by need for oil price stabilization and secondly by need for oil itself. According to Elkind's model for energy security estimation it is needed to evaluate four dimensions, namely availability, reliability, affordabililty and sustainability. Purpose of the United States' interest in the Middle Eastern region will be compared to deficits of United States' energy security before the Shale Revolution. In case that reasons for interference in the Middle East would be the same as the energy security deficits, it will be deduced that the impetus for United States engagement in the Middle East is based on its energy security needs. Then weaknesses of United States' energy security after the Shale Revolution are going to show, whether level of energy security would be high enough for the United States to act independently, without further interference in the Middle Eastern affairs. In case that level of energy independece would be high enough, the United States may use its shale oil and shale gas wealth as a geopolicital weapon in foreign policy, even though in kind of moderation. If the level would not be high enough and the United States would need its partners, it would have to restrict itself and integrate its needs into its geopolitical thinking and foreign policy. After the research on level of energy security, future policies towards the Middle East and geopolitics as such would be proposed on basis of results.

The research is gradually going to deduce the state of energy security before and after the the Shale Revolution. It is going to be based on four elements of security, namely availability, reliability, affordabililty and sustainability, and on its components as described in the third chapter, Theory of Markets and Energy Security. Deduction is going to be based on information provided in the first chapter, The Shale Revolution. The state before the Shale Revolution would be compared to United States foreign policy towards the Middle East in the period from 1989. The weaknesses of energy security will be compared to relative strengths of Middle Eastern states. If they would correspond, it would be assessed that it is the reason for engagement in the Middle Eastern affairs. If they would not correspond, it would be deduced that other factors were essential and left for further investigation. The state after the Shale Revolution would then be compared to direction of the United States' geopolitics in the past and conclusion on future would be formulated.

Firstly availability will be investigated in period before the Shale Revolution. Availability is based on physical endowment of producer countries, ability to agree on terms of trade among producers, transition states and producers, technology of production, transportation, conversion, storage and distribution, capital investment, legal and regulatory structures and compliance with environmental conditions[106]. Physical endowment of the United States has not been depleted, but the amount of resources has not sufficed for requested demand. Therefore the United States more imported than exported. Amounts of reserves were not sufficient. Ability to agree on terms were not endangered much. Most of oil came from Canada (16.3% in 2005), with which the United States have not had problem to deal with. Other reserves have come from Mexico (15.4% in 2005), which is partially politically instable, but still exports large amounts of crude oil. Something around 20% of imports came from countries of the Middle East (14.3% from Saudi Arabia and 5.2% from Iraq in 2005), which were uring political instabilities endangered, as in case of the Gulf War. Technology of production, transportation and distribution were not in significant danger. In the United States private sector operates oil business and is leading in global innovations. Private business is motivated by profits and thus is leader in the field of innovations. Capital investment, legal, regulatory and environmental conditions did not hamper the business significantly in a way that the United States would need assistance or that business growth would be limited by its environment. Availability of energy sources was secure with exception of physical endowment of country. The United States had reserves of shale gas and shale oil, but were not able to extract it.

Availability of energy resources has dramatically altered after the Shale Revolution in three components: physical endowment, technology of production and compliance with environmental conditions. The amount of cost-effectively extractable sources has remarkably changed. Majority of shale gas reserves and shale oil reserves have become accessible with prognosis of lasting for another 90 years and with prediction for the United States of becoming even a net exporter within next two decades. This progress may be hampered by economic recession or stagnation, therefore is not certain, but nowadays domestic prices have declined and business is flourishing just because of abundance of hydrocarbons in the United States. Technology of

106 ELKIND, Jonathan. *Energy security: economics, politics, strategies, and implications*. Energy Security: Call for a Broader Agenda. Washington, DC: Brookings Institution Press, 2010. ISBN 0815769199, p. 122.

extraction and production has evolved to higher efficiency, thus ensuring more security. As every other way of mining, shale gas extraction has its environmental consequences, but gas is still relatively cleaner than coal that could be used instead. Energy security after the Shale Revolution has improved in comparison to the state before in terms of availability of its energy resources. If no significant economic problem arises in unconventional hydrocarbon business, United States can be deemed relatively energy secure after the Shale Revolution.

Isolationism in gas markets would dampen domestic availability, but the key doubt lies in the question, whether supply in the United States would be absorbed by domestic demand and if it would motivate to further extraction or whether its production would be stopped. On basis of the choice the Department of Energy in the United States would allow or not allow export of the product, thus isolate domestic gas markets or let them interfere abroad. Expensive transition of LNG is central to accessibility of the product in the world. Until August 2015 the Department has permitted 14 companies to export out of the Free Trade Agreement states gas that can reach 140 billion cubic meters per year[107]. For exporters and global energy markets it is useful to support U.S. gas production, securing global availability of the product. Everything depends on incentives to supply more and to promote investments in infrastructure and policies to stop monopolies. Isolationism as decided by the Department of Energy would discourage to do so.

Element of reliability embraces components such as protection from supplies' disruptions in form of diversification of supply sources (so called energy mix) and of supply chains, as sufficient reserves, as long- and short-term protection from terrorism, political interruptions and weather and such as adequate information on global energy markets (e.g. embargoes)[108]. Diversification of resources can be all the time more abundant. In 2005 crude oil imports were distributed in these figures: Canada 16.3%, Mexico 15.4%, Saudi Arabia 14.3%, Venezuela 12.2%, Nigeria 10.5%, Iraq 5.2%[109].

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107 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 10.

108 ELKIND, Jonathan. *Energy security: economics, politics, strategies, and implications*. Energy Security: Call for a Broader Agenda. Washington, DC: Brookings Institution Press, 2010. ISBN 0815769199, p. 122and 124-125.

109 MONGABAY. Middle East oil less important than African oil for US [online]. [cited on 25/7/2016]. Available from: <https://news.mongabay.com/2007/02/middle-east-oil-less-important-than-african-oil-for-us/>.

There could have been more suppliers, but it is visible that the United States have diversified much. What concerns the energy mix, in 2007 coal has generated 48% of energy, natural gas 22%, nuclear power stations 19%,hydropower 6% and renewables 3%[110]. The energy mix was quite heterogenous, but we can see that almost half of energy was produced by environmentally unfriendly coal, which is high percentage of energy mix. The component of sufficient reserves understood as sufficiently maintained and financially supported chains in case of the United States should not be a problem. New pipeline connecting with Canada is built and since the United States is relatively rich country, there should not occur any unreliabilities in this way. The political situation of United States is stable. Adequate information about markets are available. Element of reliability was quite secure in 2005. The level of suppliers' diversification was high. Energy mix has been from large part, 48% dependant on coal, but other energy resources were quite steadily layed out.

Figures from 2015 are strongly impacted by the Shale Revolution. Firstly the imports are set out differently concerning the countries. In 2015 the United States has more relied on their long-term politically stable neigbor, Canada. Canada participated in crude oil exports by 40%, Saudi Arabia by 11%, Venezuela by 9%, Mexico by 8% and Colombia by 4%[111]. Petroleum imports have declined to 24% of total U.S. petroleum consumption, what is the lowest number since 1970[112]. The energy mix has altered substantially in favor of natural gas and renewables, making it more environmentally friendly. Coal participates by 33% on energy mix, natural gas by 33%, nuclear power stations by 20%, hydropower by 6% and other renewables by 7%[113]. In comparison to situation before the Shale Revolution, energy mix has been revised in favor of natural gas. It is observable that the United States has decided to favor its long-lasting politically stable neigbor, Canada, even though it decreased its supplier diversification

110 UNION OF CONCERNED SCIENTISTS. Change in U.S. Electricity Generation Mix, 2007 – 2013 [online]. [cited on 25/7/2016]. Available from: http://www.ucsusa.org/sites/default/files/images/2015/03/energy-graphic-natural-gas-gamble-electricity-mix-2007-vs-2013_0.jpg

111 U.S. ENERGY INFORMATION ADMINISTRATION. How much petroleum does the United States import and Export? [online]. [cited on 25/7/2016]. Available from: <http://www.eia.gov/tools/faqs/faq.cfm?id=727&t=6>.

112 U.S. ENERGY INFORMATION ADMINISTRATION. How much oil consumed by the United States comes from foreign countries? [online]. [cited on 25/7/2016]. Available from: <http://www.eia.gov/tools/faqs/faq.cfm?id=32&t=6m>

113 U.S. ENERGY INFORMATION ADMINISTRATION. What is U.S. electricity generation by energy source? [online]. [cited on 25/7/2016]. Available from: <https://www.eia.gov/tools/faqs/faq.cfm?id=427&t=3>.

significantly by this step. Nevertheless the total petroleum imports have declined to its lowest levels since 1970, therefore it is visible that the United States has become more energy secure in 2015 than it was before.

Affordability depends, as described in the third chapter, on global supply and global demand of oil and gas, thus it is of core value not to isolate the United States, but to engage in the Middle Eastern turmoil to stabilize the prices and to develop international trade. In times of Middle Eastern turmoil either in Syria and Iraq or otherwise, it is needed to stabilize the region, saveguard Israel and Middle Eastern peace against Islamist extermism. If it is not done so, prices rise uncontrollably, since consumers are fearing lack of commodity on markets and buy it for prices they assume to be lower than in future. Supply of commodity may decrease due to production dropouts in regions of turmoil. Since demand rises in comparison to supply commodity is becoming more precious and its price rises. Moreover such unrest could endanger Strait of Hormutz, a chokepoint for 85% of oil transitions worldwide, thereby causing strategic implications for global security and global energy markets. As Carlos Pascual has written in The New Geopolitics of Energy: By every 10% decrease of global oil price a 0.2 % increase of global GDP occurs. When the Gulf Coast and the northern Midwest export oversupply lighter crude oil, heavier crude oils are imported for processing. Such exchange of materials in the end leads to international trade and economic growth of the United States[114]. Political instability in the Middle East would decrease supply of oil on markets, therefore boost the prices. Such a development leads to increase of prices even on local markets, such as the United States's, since according to the creation of prices described, global demand and supply are the basis of oil prices worldwide. Furthermore stabilization of the Middle East not only brings peace to U.S. allies such as Israel, Saudi Arabia or others, but multiplies international trade, thereby United States' economy. Peace intervention in the Middle East is of core value for U.S. energy security, since affordability of energy resources is central part of the definition and since volumes of Middle Eastern oil on global markets not only lower oil prices, but moreover intensify United States' growth.

Affordability is by Elkind's model decomposed into minimal price volatility, equitable prices, transparent pricing, realistic future pricing prediction as compared with

114 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 8 - 9.

current prices and full-cost mirroring prices. As it was described in the paragraph above minimal price volatility and equitable prices are dependant on global prices. If there is political instability anywhere in world, where major supplies occur, the prices are rising. It is necessary to cooperate with other suppliers, and supplying countries to stabilize the prices. There are no hydrocarbon subsidies in the United States, so pricing is done transparently on markets. Other countries, such as Middle Eastern, subsidise prices of oil, that is why the United States globally oppose and undertake actions against these market distortions. The last two components of realistic future pricing prediction and full-cost mirroring prices are ensured by market mechanism. Private owners of oil and gas extraction and production companies are motivated by profits to be as efficient as possible. Market mechanism and highly competitive business environment does not allow companies to influence prices, since there is a possibility of consumer to choose lower-priced service or good. Energy security in sense of affordability is for every country endangered by globalization. Dependence on global oil and nowadays gas prices too, makes all customers and all countries dependant on global suppliers. Affordability with its components of minimal price volatility and equitable price need is a core weakness of United States energy security and motivates it, as well as other customers, to cooperate with major suppliers. The development before as well as after the Shale Revolution is through prism of affordability more or less at the same level of energy security. Even though due to increase in supply of gas after the Revolution prices were pressed down, affordabililty of hydrocarbons as energy generators still depends on global course of events.

After Fukushima and after 2014 to 2015 oil price collapse the global gas prices shifted downwards, making gas more affordable for the United States' residents. As specified above, natural gas prices alter predominantly regionally. Such is the case of the United States, which since 2008 began to use gas on gas indexing. 2011 Fukushima nuclear power station explosion led to boost of demand for alternatives to nuclear energy. Escalated prices lured new sources of supply, especially LNG production. Strengthened supply of gas in combination with December 2014 oil price collapse made gas prices fall downwards[115]. After the Shale Revolution production of shale gas rapidly expanded volumes of supply, which declined value of gas. Fukushima panic around usage of nuclear energy, following increase in global production as well as U.S. shale

115 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 9.

supply led to fall in gas prices, making it more affordable as part of increased energy security. After the Shale Revolution the energy security was more affordable then before, but based on this illustration, it is apparent that the United States can control global prices only partially. The incentives for development of private-led shale gas extracting company was within reach of the government, but incident in Fukushima as well as political turmoil in the Middle East are types of events that shape prices, but are out of reach of their control.

The aspect of sustainability embraces low greenhouse gas emissions, minimal pollution and energy systems protected from global warming. According to aspect of sustainability, as decomposed into these components, the United States were energy secure only partially. In 2005 48% of energy generation has come from coal, other 22% from natural gas, another 19% from nuclear power stations and only 6% from hydropower and 3% from renewables, which makes total of 9% of renewable resources power generation. Even though in comparison to the European Union the endeavor of the United States for renewables was relatively low with exceptions of some companies and some politicians, globally the ration of renewables is not catastrophic. Mainly when one considers the cost-effectivity and insufficient storage technology that is conncted with this resource. Pollution that coal industry releases is one of the biggest possible what concers the greeenhouse gas exhalates. The United States were not energy secure taken through prism of this component.

With apporoach of the Shale Revolution, the sustainability has been raised. The percentage of coal in energy mix has decreased from 48% in 2005 to 33% in 2015. The ratio of natural gas usage has increased to 33%, nuclear power generation has stayed almost at the same level of 20%, hydropower generation have stayed the same (6%) and renewables have increased by 7%. The increase in renewables does not have any connection to the Shale Revolution, but it has raised the level of security. Natural gas is more environmentally friendly than coal, even though it has its negative implications on environment. From prism of sustainability the United States are more energy secure after the Shale Revolution, but still have major defects.

The United States was before the Shale Revolution relatively energy secure with three exceptions: it did not have enough reserves internally to cover energy demand of

its citizens, it could influence prices of oil and gas only very partially. Before the Shale Revolution the United States were net importer of crude oil and of LNG. It had its suppliers so that customer demand was satisfied, but it needed to import large amounts of hydrocarbons for needs of transport and of energy generation. When resources are provided externally, more problems may arise, be it prices or transition problems, and higher prices are paid, because of transition costs. Secondly prices were and will be depandant on global energy markets. The United States must adapt to them. Reliability depends much on diversification of resources. Before the Revolution diversity of energy mix was endangered by high reliance on coal. Diversity of importing countries was colorful, what meant finely designed competitive environment of suppliers. Sustainability of resources used for energy generation was not on high level. Coal, generating high levels of greenhouse gases, made up 48% share of energy mix. Overall energy security of the United States had weaknesses of three kinds: lack of own resources, inability to influence prices internally and unsustainability of its energy mix.

In the wake of the Shale Revolution two out of three deficits have improved. Availability of shale gas and shale oil resources, the United States had, but was not able to extract cost-effectively, has occurred. Reserves became extractable and their vast quantity can be extracte. The United States has not become net exporter yet, but it can become within next two decades. The swindle is hidden in insecurity of future events. If no considerable problem occurs, the United States will become self-reliable in terms of availability, but it cannot be taken for granted. Sustainability of its resources has advanced as well. Utilization of RWE progressed from 3% to 7% share in energy mix. Natural gas, which share in energy mix has risen, produces less pollution than coal that was used beforehand. Nevertheless natural gas causes environmental pollution and has final amount of reserves, thereby it is not sustainabile source of energy. Reliability has after the Shale Revolution advanced. Energy mix has been diversified in favor of natural gas and in favor of renewables. Amount of imports has achieved its historical minimum since 1970. The United States has decided to rely on its long-lasting, close and politically stable neigbor, Canada. It has decreased diversity of importing countries, but in favor of more reliable partner. Affordability has improved, but within limits. Prices have sunk due to increased amount of supplied hydrocarbons. But prices are created on global and not domestic energy markets. In case of political instability in the state of globally dominant supplier, the prices would climb up. After the Shale Revolution

energy security of the United States has risen, but has not reached full security with availability (existence of resources), sustainability and affordability (price volatility) being the major concern.

Major weakness of the United States' energy security before the Shale Revolution was lack of energy resources and price volatility. My deduction of United States' core interest in the Middle East deduced that the main reasons for intervention were lack of its and its Allies' energy resources, oil price volatility and free transition routes. As rooted in this need all United States' policies since 1970s power vacuum were in sound with this need. Due to lack of large reserves of hydrocarbons the United States needs stabilization of the Middle East, needs oil-rich countries to be allied in order to stabilize global oil prices, in order to import oil to the United States and to its Allies and in order to keep Strait of Hormutz free for transition of oil.

After the Shale Revolution energy security of the United States has risen, but has not reached full security. Fully developed energy security is impossible, given the global market mechanism and level of technological progress nowadays. Affordability and minimal price volatility will always be dependant on global market mechanism and that is not possible to influence by a single country. Until new renewable technologies guaranteeing cost-effective production and storage of energy would be developed sustainability and ever-lasting availabilility of energy resources would never be reached, because every other resource than renewables has definite amount, thus would be depleted once if innovations would not change the trend. Because of this assumptions the United States support innovations and cooperate with other states in order to improve its energy security. Cooperation with Middle Eastern partners is therefore demanded even in state of higher energy security, when the United States are to become net exporter within decades. They need their Allies to be energy secure, they need to stabilize global energy prices and they need to import hydrocarbons until they become energy self-sufficient. Therefore it is essential for future foreign policy to continue in partership with friendly Middle Eastern countries, even in case when the United States become net exporter. With approach of energy resources' export new possibilities open. The United States may use exports as energy weapon, however it must be done in a way that it would not lose its international reputation. Next paragraph is going to introduce such opportunities.

4.3 Energy weapon

Until now the United States has been on the side of importers, but on the basis of the International Energy Agency's and the Energy Information Administration's prognosis it is probable that they would be able to use their exporting capacity as a geopolitical tool. To do so, it would be essential to understand how do the markets work. In this amount of fuels it would be possible to intervene strategically through energy markets to push American interests through. Such arbitrariness would be taken by international community with disregard, especially by the states, upon which the pressure would be applied, as in case of Russia using the tool against Ukraine in 2006 or 2009. To use shale oil and gas as geopolitical weapon, it would be essential to advance clearly, consistently and in tune with international law in long-term[116]. In comparison to short term changes in policies such an approach appears reliabile to the partners, thereby could be maintained for a long time and could bring desired results. Possible abundance of energy resources brings the United States new geopolicital tool, which might be used as a tool of foreign policy, but such a weapon must be used wisely with long-term endeavor based on exquisite knowledge of global energy markets.

Energy weapon as a geopolitical tool has to be planned in forward and has to abide by morally plausible rules to gain its power and not to hurt its actor. Since coercion is internationally undesirable, economic and political pressure has to be morally viable. The morally justified cases, in which international community would accept use of coercion, could be the cases of alternative to war or the case of international law violation. Even such examples would have to be carefully planned with realitistic policies for internvention[117] in order not to violate international law or not to give the enemy upper hand by demonstration of internationally unacceptable behavior, by which the United States' would lose its reputation generally and its moral authority in a conflict concretely. Next paragraph is going to develop Pascual's six possible ways of energy weapon usage, which could be used if United States would develop such an amount of shale gas or shale oil production that it could make politics by denial of energy resources.

116 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 8.

117 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 11.

Six national security tools, namely blockage of exports, constriction of production, flooding of markets, market starvation, assistance to friends or change of fuel mix, can provide the ways of energy weapon utilization in case of need, however such a behavior must be estimated against real factors to fulfill its purpose. Mr. Pascual has developed The Rules of Six against six market preconditions that may wreck the intent United States' energy weapon usage. Blockage of exports in form of sanctions would inhibit flow of revenues from markets, such as happened in case of Iranian crude oil exports in January 2012. Constriction of production capacity large enough to harm the „enemy“. However constriction would cause own setbacks as well: this complicated step can hamper investments, trade, economic growth of the state and raise prices. Flooding of markets is a strategy how to drive out new competitors, get share in a market or punish those with high stake in market share. The oil dumping is not forbidden internationally, so for instance if country's budget depends on revenues, this would obstruct its GDP significantly. Starvation of markets is a technique of supply deprivation in case, when dominant supplier decides to use highly dependence of its customer for its own profits[118]. Adoption of this technique abuses the weaknesses of its partner. Partner in this case would grow helpless and angry, international community would grow hostile towards trades with such an actor and may undertake steps in opposition to it, such as in case of Russia vs. Ukraine or 1973 Arab Oil Embargo. Assistance to friends in need by supplies or by technical support to develop resources is a way of underpinning allies in case of transitional emergency, such as in case of 2014 Ukraine invasion. Last tool may be used in order to support change of fuel mix into more sustainable by lowering the cost, interruptions or externalities of renewable energy resources in comparison to coal[119]. Since after the Shale Revolution the United States' have grown more secure and independent doors to new energy weapon rational usage have opened for it. Many of these have already been used against its enemies in case of emergency, such as in case of Ukraine support after Russian invasion in 2014 or in case of Iran. Nevertheless not only rational usage in peculiar instances is necessary, but rational evaluation of successful usage against reality must proceed as described in detail in next paragraph.

118 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 11.

119 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 12.

Six strategies may fail on six market preconditions or factors as follow: market scale, investment flows, coalitions, ability to sustain, speed and self-risk. Factors can be defined as information *"whether a proposed intervention can achieve the scale and longevity, mobilize the market players, and convey the political and policy clarity necessary to achieve the intended impacts"*. Large-scale market operation are harder and riskier to carry out. It could be a problem blockage of extensive exported production or starvation of considerable market. Investments can hamper intention of weapon usage by multiple ways: lack of allies' investment into energy independence pre-undermine will to help them for instance because of insufficient infrastructure, constriction of production discourages investments, but if it flows nevertheless, the production would find its ways to markets. Coalitions are paramount for each successful intervention, since every own blockage of opportunity frees opportunities for other key public or private actors, such as other states or banks or financial institutions. Ability to sustain for the long run is required in order to avoid speculations about their real impact and in order to set away potent speculators, which could neutralize the tactics. Speed influences not only effect of determination to audience, but strength of an intervention due to unpreparedness of a target. Lastly, but not leastly player must calculate with self-risk, losses in its national business and security[120i]. To handle energy weapon, the state would have to be strong enough to bear the consequences of the action on itself. Not only it has to consider investment flow retreat, moreover it has to be able to carry out large-scale interventions, it has to create coalitions with states and private sector and it has to be able to sustain in its intention for a long time and in a quick manner. If prognosis of the IEA is to be accurate and in 2030 the United States would be able to use its energy weapn due to its vast energy resources' production, it would have to gather enough knowledge to handle the risks.

Adoption and example of these tactics' usage against factors could be introduced into reality by 2012 sanction regime against Iran. The United States and the European Union aggreed upon common denial of Iranian crude oil exports (blockage of exports) in form of boycotts, insurance regulations and financial market mechanisms in order to win diplomatic war over discontinuation of a nuclear bomb creation. It was possible, because Iranian share in global markets was not too substantial (market scale was not troublesome). In 2011 Iran exported about 2.5 million barrels per day (b/d) out of global

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approximate 89 million b/d turnover. In June 2015, after prices rose to $125 per barrel in March, the United States and Saudi Arabia altogether added million b/d to drop prices back down. In cooperation with other importers (coaltion creation), such as the Europen Union, Russia, India, China, Turkey and Iraq (with overall support of the United Nations' Security Council), the coalition took 1.4 million b/d of Iranian oil off the market. Together with oil price collapse in 2014 to 2015, Iranian budget afterwards lost approximately $5.7 billion a month, which contributed to successful conclusion of negotiations and final agreement on July 14, 2015[121]. The United States have released 1 million b/d in 2012 and Saudi Arabia has delivered its free capacities. Apart from Saudi Arabia, Iraq has played important role, when it raised its oil production from 2.6 million b/d in November 2011 to 3.2 million b/d in 2012. Iraq took initiative because of its government's and private actors' firm relations with the United States[122]. Energy weapon belongs to pletora of foreign policy tools. One can assess them as mild in comparison to usage of warfare and tough in comparison to diplomatic endeavor. That is why it is internationally acceptable to use economic sanctions, energy weapon in particular, as an alternative to harder measures, when diplomatic negotiations fail. In such a case international community, as confirmed by he United Nations' Security Council resolutions and international coalition formation, accepted export blockage as a means of conduct of negotiations. Iranian example illustrated energy weapon utilization in practice, particularly how blockage of exports on a small-scale market with multilaterally supporting coalition sustaining for a long period of time sucessfully influenced politicians of Middle Eastern country showed possibilities of the United States' potential after full-blown Shale Revolution impact.

The theory of energy weapon utilization against factors depends not only on United States' initiative, but furthermore on economic and political situation of important players, what globally in energy field means the Middle Eastern. The most important actors in the Middle East are Iraq, Iran, Saudi Arabia,, Turkey, Israel, the Gulf states, Egypt and Syria. As seen in Iranian crisis 2012 without cooperation among the partners the goal of persuasion of Iran would not be reached. Common endeavor of the United States, Saudi Arabia and Iraq in spare oil capacity addition and of the Europen

121 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 14-15.

122 PASCUAL, Carlos. The New Geopolitics of Energy. Center on Global Energy Policy . September 2015. Columbia University, City of New York, p. 19-20.

Union, Russia, India, China and Turkey blocking Iranian oil exports could not be done by countries individually. As characterized above only massive quantities of oil release, reached solely by joint cooperation, can adjust flows of global demand or level of global oil prices. Therefore to practice this kind of foreign policy tool much depends on characteristics of foreign relations and on current political and economic possibilities of a particular state, even though after the Shale Revolution level of United States' independence on other states would be raised.

Conclusion

Based on Elkind's model of energy security as described in his article Energy Security: Call for a Broader Agenda, the United States was before the Shale Revolution relatively less energy secure than after its onset. Three dominant gaps in energy security have been found. The United States before the Shale Revolution did not have enough cost-effectively extractable reserves internally to cover its energy demand. Its ability to influence prices of oil and gas was limited by market mechanism, which determines prices by clash of global supply and of global demand. Its energy mix was based by 48% on environmentally unfriendly coal. After the Shale Revolution energy security of the United States has risen, but has not reached full security. Limits were based on unavailability of energy resources, on their unsustainability and on problem of price volatility.

Aim of this research was successfully fulfilled, even though further analysis can broaden and deepen the topic and thus enrich our knowledge. Its target was to compare motivations of United States' interference in the Middle East to weaknesses of energy security of the United States before and after the Shale Revolution. The motives have been found to correlate. Because of insufficient amount of own hydrocarbon reserves the United States needed its Middle Eastern partners to stabilize global oil prices, to import oil and LNG to the United States and to its Allies and to guard Strait of Hormutz. The price volatility weakness as a component of energy resources has not changed. The United States will have to cooperate with significant global oil producers in order to limit its insecurity. Due to possible export capacities the United States could be able to use them as energy weapon in order to follow their interests. For further investigation many topics may be researched. On basis of other energy security models improvements for U.S. shale oil business can be developed. Since there is a war in Iraq, it would be interesting to research its impact on oil business and on business relations with the United States. Analysis of U.S. foreign policies after the Shale Revolution towards concrete countries would be enriching. At last, but not at least the nature of international political system is changing, many powerful countries have essential impact on the Middle East. It would be intriguing to investigate relations of Russia and China towards the Middle East, particularly in relation to each other and to the United States.

Summary

Based on Elkind's model of energy security as described in his article Energy Security: Call for a Broader Agenda, the United States was before the Shale Revolution relatively less energy secure than after its onset. Three dominant gaps in energy security have been found. The United States before the Shale Revolution did not have enough cost-effectively extractable reserves to cover its energy demand. Its ability to influence prices of oil and gas was limited by market mechanism, which determines prices by clash of global supply and of global demand. Its energy mix was based by 48% on environmentally unfriendly coal. After the Shale Revolution energy security of the United States has risen, but has not reached full security. Limits were based on unavailability of energy resources, on their unsustainability and on problem of price volatility. These factors will shape foreign policy of the United States in the future, it will continue to cooperate with its Middle Eastern partners.

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