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► **To cite this version:**

Jacques Fontanel. International security and the explanations of the volatility of oil prices A geoeconomic critical analysis. Conflict Management Peace Economics and Peace Science, Indira Gandhi National Open University (IGNOU), New Delhi, India, in Cooperation with Gandhi Smriti and Darshan Samiti, New Delhi, India Economists for Peace and Security,, Jan 2010, New Delhi, India. hal-02132277

HAL Id: hal-02132277

<https://hal.univ-grenoble-alpes.fr/hal-02132277v1>

Submitted on 17 May 2019

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International security and the explanations of the volatility of oil prices

A geoeconomic critical analysis

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Geoeconomics, International Conference on Conflict Management Peace Economics and Peace Science , Jan.8-10, 2010, Sponsored by Indira Gandhi National Open University (IGNOU), New Delhi, India, in Cooperation with Gandhi Smriti and Darshan Samiti, New Delhi, India Economists for Peace and Security, Peace Science Society (International), International Center for Conflict Prevention and Management, Sydney, Australia, Binghamton University, State University of New York at Binghamton, U.S.A.

Summary : There are many explanations, such as peak oil, speculation, big “oil greed” are the main explanations. Moreover, record oil prices are due to stagnant supply (caused by institutional restrictions on production), booming demand among developing economies, and a weak U.S. dollar. The international oil security problem concerns mainly the exercise of market power by international oil exporters to raise petroleum prices. Insecurity, economic war and wars are the most important factor for the volatility of oil prices.

Résumé : Il existe de nombreuses explications, telles que le pic pétrolier, la spéculation, la grande «cupidité pétrolière». De plus, les prix record du pétrole sont dus à la stagnation de l’offre, à la forte demande des économies en développement et à la faiblesse du dollar américain. Le problème de la sécurité pétrolière internationale concerne principalement l'exercice du pouvoir de marché des exportateurs internationaux de pétrole pour augmenter les prix du pétrole. L’insécurité, les guerres économiques et les guerres sont les facteurs les plus importants de la volatilité des prix du pétrole.

Mots clés : Oil prices, dollar, peak oil, OPEC, international security, economic war

World marketed energy consumption is projected to increase by 50 percent from 2005 to 2030. Total energy demand in the non-OECD countries increases by 85 percent, compared with an increase of 19 percent in the OECD countries. World marketed energy consumption is projected to grow by 50 percent over the 2005 to 2030 period¹. Total world energy use rises from 462 quadrillion British thermal units (Btu) in 2005 to 563 quadrillion Btu in 2015 and then to 695 quadrillion Btu in 2030. Total non-OECD energy demand increases by 85 percent², as compared with an increase of 19 percent in OECD energy use.

As the erratic evolution for oil and gasoline prices in the world, it is clear that significant change is underway in global energy markets, portending major challenges for the global economy and energy security. Goldman Sachs predicts oil will reach \$200 per barrel by the end of 2008, the price predicted by Osama bin Laden in 2001. Oil prices have flirted with \$150 per barrel and remain high despite recent downward adjustments. Then, these erratic evolutions are supposed to have huge effects on the world economic development, and mainly on US economic development. Historically, oil price shocks were followed by economic downturns and inflation in the industrialized countries, with reductions of oil imports decided by suppliers, unexpected surges in demand or destabilizing inventory adjustments. Then, oil price shocks have large economic effects on industrialized countries, such as a reduction of the worker productivity with constant wages, the idleness and obsolescence of fixed capital, the transformation of consumption and saving. The total burden of higher energy prices is often heaviest for lower-income groups.

In September 2007, the Committee for Economic Development (CED) released a study entitled *Reducing the Risks from Global Imbalances*. It explained the main difficulties relating to the volatility of oil prices.

- First, the U.S. federal budget deficit and the generally low overall national savings rate lead to a persistent current account deficit³. The current account deficit can be expected to climb further once the United States recovers from the current slow growth or recessionary period.
- Second, the resulting risks of the volatility of oil price to the U.S. economy are serious. Other factors being equal, a falling dollar increases the prices of all imports, thus threatening more rapid inflation, and limiting the flexibility of the Federal Reserve to reduce interest rates. The same higher oil prices also afflict other developed non-oil-producing nations, and thus could spread the economic

¹ In the IEO2008 reference case

² in the IEO2008 reference case projection

³ At its historic peak, the current account deficit required the United States to attract roughly \$2.0 billion dollars a day to finance this deficit. Due to the weakening of the U.S. economy, and the weakening of the dollar, this need to finance the current account deficit has now dropped to \$1.5 billion per day, even with the higher price for imported oil. This amount may indeed go lower, but will continue to be significant for the foreseeable future.

slowdown around the world. The large imbalances or current account are now overlaid on the crisis in U.S. and European credit markets and a weakening U.S. economy, the risks of global financial and economic disorder are increasing as well.

- Third, the global financial crisis is another key driver behind the high oil prices. After the Federal Reserve cut the prime lending rate in August 2008 in hopes of assisting major lending institutions, investors saw this as the Fed giving up on its battle with inflation. As a result, international actors began to shift large amounts of cash away from the dollar into commodity futures markets, such as oil, in an effort to protect their investments from being devalued by inflation. As a result, increased demand in oil futures (no different than in any other commodity) has led to higher prices.

The main questions have no clear solutions. What exactly is the oil security problem, and how serious is it going forward? Why has it emerged at this point in time? Why is it so difficult for the U.S. government to take the actions needed to mitigate it? What alternative policies are effective to improve its oil security in the future? For US officials contest the usual explanations on the volatility of oil price. Today, they consider the price of oil and energy is mainly the results of geopolitical decisions and of the insecurity in Middle-East region.

I. The usual explanations on the volatility of oil price

The more convincing explanation, namely that record oil prices are due to stagnant supply (caused by institutional restrictions on production), booming demand among developing economies, and a weak U.S. dollar.

I.1. "Peak Oil"

The world has reached its maximum rate of oil extraction, and that this physical scarcity is the ultimate cause for record oil prices. The Olduvai theory of Richard Duncan postulates that the plentiful supply of energy, which facilitates the economic development of industrial civilization, is highly dependant on reliable supplies of cheap energy. The world peak energy per capita was reached 30 years ago. However, there is a rapid decline in world energy production per capita. It refers to technological limits on human ingenuity. The world currently has over 1.3 trillion barrels of proven reserves of crude oil, enough to last almost 43 years at the 2007 average world consumption rate. In 1980, proven reserves were fewer than 645 billion barrels, which at that time represented 28 years' worth of oil, given the prevailing rate of consumption. Many alarmists had declared the end of the fossil fuel era during the energy crises of the 1970s, but in the 28 years since 1980, the world has

more than doubled its proven oil reserves, and in fact has discovered oil at a faster rate than its growth in annual consumption. This has increased the world's cushion of proven reserves from 28 to 43 years' worth of oil, calculated at the 1980 and 2007 rates of consumption.

The supply is however difficult to extract from unstable countries. The "proven reserves" concept is not merely an engineering or geological one, but also an economic and political concept. The peak oil theory, however, refers not to total reserves but rather to extraction rates, i.e. how many barrels of crude per day can be delivered to the market. The evidence shows no reason for pessimism. It is true that average world output fell slightly from 84.6 million barrels per day in 2005 down to 84.5 million barrels in 2007. By itself, this fact appears to lend credence to the peak oil theory. However, world output in the first quarter of 2008 averaged 85.6 million barrels per day, an all-time record. In conclusion, the world currently has a record amount of proven oil reserves, and is extracting them at a record rate. It would be impossible to refute the peak, but it is not really supported by the Data. Today, the constraints on supply are political, not technological or physical.

I.2. Speculation

Many experts have recently testified before Congress on the role played by institutional investors, such as hedge and mutual funds, in the recent jump in oil prices. However, many economists argue that the data do not support this explanation. If oil prices were truly being held by as much as \$70 per barrel above the level justified by the fundamentals, then it follows that we would see a large surplus in the oil market. That is to say, at an overpricing of up to \$70 per barrel, producers would be delivering far more barrels to market than end users would be willing to purchase at such inflated prices. Although it is possible for speculators to induce such an outcome, it would result in a growing supply of oil inventory. There is no such pattern in the data. According to the EIA (Energy Information Administration), U.S. commercial stocks have moved within historic norms during the last two years. Faced with this awkward fact, those promulgating the speculator theory argue that OPEC producers have scaled back their output, in effect hoarding barrels under the sand, where they are not counted as part of inventories. Yet here too, the evidence does not fit the explanation. From the second quarter of 2007 through the present, OPEC output has steadily increased in every quarter, precisely when oil prices experienced their most rapid spike.

The governments and the main national industries have the responsibility to control some petroleum stocks for international security reasons, involving usually the military sector and the main national productions (See Table 1).

Table 1. Industry and Government-Controlled Petroleum Stocks in the OECD¹ Countries, End August 2009 (millions barrels)

Country	Industry	Government-Controlled²	Total
Canada	199	0	199
Mexico	47	0	47
United States ^{3,4}	1 104	724	1 828
U. S. Territories	13	0	13
OECD North America	1 363	724	2 087
Austria	21	0	21
Belgium	26	10	36
Czech Republic	6	16	22
Denmark	19	8	26
Finland	19	10	29
France	80	98	178
Germany	96	188	284
Greece	38	0	38
Hungary	5	10	15
Ireland	8	5	13
Italy	130	0	130
Luxembourg	1	0	1
Netherlands	124	12	135
Norway	23	0	23
Poland	56	8	64
Portugal	19	5	24
Slovakia	4	5	9
Spain	82	53	135
Sweden	40	0	40
Switzerland	39	0	39
Turkey	58	0	58
United Kingdom	96	0	96
OECD Europe	986	428	1 415
Australia	43	0	43
Japan	285	325	610
South Korea	78	82	160
New Zealand	8	0	8
OECD, Asia & Oceania	414	408	822
Total OECD	2 764	1 560	4 324

The US Government and Congress authorized the Strategic Petroleum Reserve⁴ (SPR) to help prevent a repetition of the economic dislocation caused by the 1973-1974 Arab oil embargo. The program is managed by the Department of Energy (DOE). The capacity of the SPR is 727 million barrels⁵, and it currently holds around 704 million barrels of crude oil. The question was whether SPR capacity should be expanded and whether the reserve should continue to be filled. During the period FY1999-FY2007, roughly 139 million barrels of royalty-in-kind (RIK) oil were added to the SPR. An estimated 19.1 million barrels was to be acquired during FY2008. The Energy Policy Act of 2005 (EPACT, P.L. 109-58) permanently authorized the SPR and permits fill only if it can be established that adding to the SPR is not placing upward pressure on prices. However, the Bush Administration continued RIK fill. Some policymakers proposed that Congress take action to halt RIK deliveries.

Congress enacted additional authority in 1990⁶, to permit use of the SPR for short periods to resolve supply interruptions stemming from situations internal to the United States. The meaning of a “severe energy supply interruption” has been controversial. In the shorter term, the government must figure out how to use the Strategic Petroleum Reserve more effectively. The Bush administration has restated the old and misguided view that the reserve should be used only for some undefined "emergency," not as a way of altering market prices. However, the statute intends use of the SPR only to ameliorate discernible physical shortages of crude oil. The Energy Policy Act of 2005 (EPACT) required expansion of the SPR to its authorized maximum of 1 billion barrels. In FY2009, the Administration is again seeking funds for this purpose, for which there still appears to be limited support. The energy security problem is fundamentally related to jumps in energy prices, and it is then a central policy objective. The reserve is a publicly provided source of supplemental supply that the private sector can bid for through options contracts like those that already exist in commodity exchanges. That approach needs to be seriously considered. Policymakers need to consider additional ways to reduce energy supply bottlenecks.

The economic cost of eliminating oil imports either by increasing domestic supplies or by reducing energy consumption would be enormous. Even the most optimistic perspectives in this report imply a huge cost to eliminate U.S. dependence on foreign oil.

I.3. “Big Oil” Greed

⁴ In the Energy Policy and Conservation Act (EPCA, P.L. 94-163)

⁵ In addition, a Northeast Heating Oil Reserve (NHOR) holds 2 million barrels of heating oil in above-ground storage.

⁶ Energy Policy and Conservation Act Amendments of 1990, P.L. 101-383

To many citizens, it seems that the ultimate explanation for high oil and gasoline prices is the greed of large oil companies. After all, they have been earning record profits precisely as citizens have been paying record prices. In fact, the causality runs in the opposite direction. There are large upfront costs to explore for new oil and natural gas deposits, drill wells, and establish the additional infrastructure necessary to bring new product to market. As the market price of oil increases, some of the variable costs increase, but much of the total cost have already been sunk at that point. Therefore, profit margins are high during periods of high oil prices, and low during periods of low oil prices. The important point is that the price of oil is set by supply and demand on the world market. If—as many cynics apparently believe—oil executives truly had the power to arbitrarily set prices in order to achieve (astronomical) profit targets, why was the price of oil roughly \$31 back in 2003? In the first quarter of 2008, the major oil and natural gas companies earned 7.4 cents in net income per every dollar in sales. This is lower than the profit margin in some other industries, such as 25.9 cents in pharmaceuticals and medicines, 17.8 cents in beverages and tobacco products, and 7.6 cents per dollar in all manufacturing. Oil companies are earning record profits because their product is in very high demand, not because they are exploiting their customers. “Big Oil” greed is not the main cause of record prices

Today’s crude oil prices are the result of a perfect storm: demand pressures on supply in both physical and financial markets, very inelastic supply and demand in the physical markets, and rapid increases in demand (relative to supply) in the financial markets. Trying to parse how much is physical versus financial is not a productive exercise. There are always bubbles in financial markets.

II. The volatility is a result of geopolitical decisions

The international oil security problem concerns mainly the exercise of market power by international oil exporters to raise petroleum prices. For much of the 20th century, the government of the United States tried to maintain a tariff on oil imports in order to protect the US petroleum industry against lower-priced competition from abroad. By the early 1970s, concern had shifted to the ability of OPEC to restrict supplies and raise prices. While beneficial to U.S. oil producers, higher world prices raise the real cost of domestic and imported oil and the purchasing power of American citizens.

The oil price volatility is mainly the consequences of the stagnant supply coupled with booming demand, the role of the weakening U.S. dollar and international insecurity with terrorism, Iran, Iraq and Afghanistan.

II.1. Stagnant Supply Coupled With Booming Demand Lead

to Record Prices.

The supply and demand equation responsible for this situation is changing quickly. When supplies go down, prices have to rise considerably to adjust demand. No matter who produces the oil, a shock to global supplies (accidental or deliberate) will send oil prices up abruptly. Notwithstanding the empirical uncertainty, three key points stand out. First, the vulnerability of the U.S. economy to oil price shocks depends on the intensity of petroleum consumption throughout the industrialized world. A shock anywhere in the world will be felt throughout an integrated world oil market. It would raise domestic prices and harm the economy because U.S. petroleum suppliers would charge the same price as other suppliers. The Bush administration favoured increasing domestic energy production to reduce dependence on foreign oil, along with some limited efforts to expand energy efficiency and alternative energy resources. It proposed to offer new tax breaks for domestic energy, including petroleum, and to open the Alaskan National Wildlife Refuge to oil exploration and production. Critics insisted for greater efforts to improve energy efficiency and to develop the long-term use of domestic renewables. Opening up ANWR can be debated on economic and environmental grounds. Increasing U.S. domestic petroleum output will do relatively little to enhance energy security, because U.S. oil production is too high-cost to affect OPEC. Moreover, it will also discourage longer-term reductions in the oil-intensity of overall economic activity. The main problem is total consumption relative to economic activity and not imports dependence. Output from ANWR could increase competition for OPEC in the medium term, but the strength of OPEC's market power remains definitely superior. However, the more efficient US energy security policy seems to be the reduction of the oil-dependent economic system.

Demand for oil is no longer driven by developed economies like the United States. China, India, other developing countries, and energy producers themselves are transforming global energy markets through their sheer size and pace of growth. Between now and 2030, China and India will account for 70 percent of the new global oil demand⁷; their combined oil imports will skyrocket from 5.4 million barrels per day (mbd) in 2006 to 20 mbd in 2030, overtaking the current combined imports of Japan and the United States.

Exporting countries' policies provide preferential treatment to national oil companies (NOCs) while denying equal access to international oil companies (IOCs). Oil-producing governments severely restrict foreign investment and access to resources. OPEC's 13 nations control 76 percent of global reserves; add Russia and the number grows to 83 percent. By contrast, the integrated oil companies, ExxonMobil, BP, Chevron, ConocoPhillips, and Shell, hold only 3.8 percent of known reserves. Additionally, as demand increases and aging oil

⁷ According to the Paris-based International Energy Agency's (IEA) "World Energy Outlook: China and India Insights,"

fields produce less, some major oil-exporting countries are switching from being net exporters of oil to net importers. Two well-known examples are Indonesia and Great Britain. In fact, Indonesia just announced it is quitting the ranks of OPEC. Algeria, Malaysia, Mexico, and Iran appear to be on this path as well. Russian oil production, which has accounted for over 80 percent of the net increase in non-OPEC oil production since 2003, is stagnant as the government insists on state ownership of the oil sector.

Equally important, plans to increase supply through exploration and production between now and 2030 are being frustrated by heightened political risks and mismanagement, including anti-competitive national energy policies in the oil-producing countries.

For US officials, despite high oil prices and diminished spare capacity, OPEC refuse to increase production beyond current levels, alleging that the "oil market is balanced" and "there is no threat to or crisis in supply." OPEC and non-OPEC exporters are accused by US officials insist on limiting the majority of new oil and gas projects to their NOCs, to neglect the development of modern natural resources legislation, court systems, transparency. They prevent increases in production and disallow necessary investment by the international oil companies. Over the next 20 years, 90 percent of new hydrocarbon supplies will come from countries that provide privileged access to national oil companies. The oil thirst is mounting in the Persian Gulf and within other major oil-exporting nations due to booming construction projects, growing populations, and government fuel subsidies, which are increasing demand for gasoline. Massive infrastructure and construction projects generate a heightened demand for emergent countries. Thus, oil prices can only go up.

II.2. The Role of the Fluctuating U.S. Dollar

Oil is a highly fungible commodity traded on a world market. As such, changes in the exchange rate between the U.S. dollar and other currencies translate immediately into the spot price of crude, quoted in U.S. dollars. Oil Prices is impacted by the Dollar. Oil prices are driven by a variety of supply and demand issues, including significant cartel-controlled production. With global oil priced in terms of dollars, significant changes in the value of the dollar also have flow-through impact on the price of oil. A historically high negative correlation between movements in the dollar and oil prices suggests that dollar weakness adds upside pressure to oil price. The weaker dollar has contributed somewhat in the short term to the high prices paid for oil and other imported commodities. As one factor, most Middle East oil exporters have continued to peg their currencies to the dollar and want, at a minimum, to maintain the real value of the prices received for their oil to finance their own imports from other regions of the world. While the falling dollar has increased speculation and helped drive up oil prices, it is the awareness of the aforementioned trends and

the exploding demand for oil that is driving investors to put their money into oil futures.

The recent accumulation of sovereign wealth in the South has raised serious concerns in the North about the risks of political interference by the South in the economies of the North and the North is making strong demands about system of management of these funds. The fundamental problem behind accumulation of foreign exchange reserves in the South, namely the profligacy of the US, gives a dominant reserve currency status of the US dollar. A multi-polar regime of reserve currencies will permit steady depreciation of the US dollar and create additional demand in the emerging markets.

Finally, crude oil markets have gone through a transformative period since 2003, with the flow of money and the behaviour of the non-commercials providing one of the key explanations for oil price behaviour. That has been made possible by huge changes in the structure of the supply-demand fundamentals. This transformative period has added a lot of depth and liquidity to oil futures, which used to be small and largely illiquid markets that only few firms used prior to that. Oil is a global hedge.

However, today, a lot of countries adopt a combination of monetary and fiscal stimulus measures that appear to have arrested precipitous downward and upward slide with short run positive effects. There are constructive responses of the global economic order. With the creation of \$250 billion of special drawing rights (SDRs), the G-20 agreed to triple the resources of the IMF to enable it to credibly respond to potential crisis requirements, in order to provide additional stimulus in the short run and to limit the countries' need to run future surpluses to fight against subsequent crises. The International Monetary Fund (IMF) has not played an active coordination role, but a supportive action mainly to the rescue of the countries that were hardest hit. The rules and procedures of the World Trade Organization reduced inevitable outbreak of protectionism in a number of countries, but some few competitive devaluations.

II.3. Insecurity and wars

In the long run, With the control of around three-quarters of the world's known oil reserves and 50 percent of the share world oil output in 2020, OPEC could be in a stronger position to exercise substantial market power. Recent technical strides in oil recovery and discoveries of new oil reserves elsewhere are unlikely to reverse this situation. And while the technological advances that have helped stabilize U.S. domestic output should continue to unfold, the United States will inevitably become more dependent on imports.

The concentration of the world's remaining oil and natural gas supplies is found in inherently unstable and unreliable producing areas. The geopolitics of energy will increasingly occupy centre stage in world affairs. Oil is a strategic resource and then a national concern for all Nations. Russia is in a strong

position among the G8 countries due to its significant oil and gas reserves. This strategic importance of oil could lead to long-dated oil futures contracts trading. Led by the US and China, consuming nations will employ more determined measures to ensure that they obtain adequate supplies of vital fuels, even with military means. The occupation of Iraq by US forces is not innocent. The permanence of a strong US army in the region is certainly not due to the restoration of democracy. All countries of this region must take care of this army, which is still in the place and can have a quick reaction to a situation that can undermine the American economical and political interests. As the USA and Soviet Union employed military tools to compete for geopolitical advantages, this strategy is developed today by USA and China in order to protect their access to overseas energy supplies in many of the same areas of the world. At the same time, the military investment is growing quickly in Russia, in order to exercise control over the transportation of energy, especially the flow of natural gas from Central Asia to Europe and the rest of Asia. There is a growing inflow of arms and military equipment in Africa, Asia and Middle East, heightening the risk of regional wars. The geopolitics of energy increases international conflicts and frictions, with a risk of complementary armament competition. A dialogue between USA, Russia, China and European Union seems useful in order to reduce the war threats.

The Persian Gulf region is the single most important source of oil for the world's economy. In 2006, the countries of the region (Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates [UAE]) produced 28 percent of the world's oil and held 55 percent of the world's crude oil reserves. The IEA World Energy Outlook 2007 noted that 16 percent of world oil demand passed through the Strait of Hormuz in 2006. It predicted that world oil production would rise from 84.6 million b/d in 2006 to 116.3 million b/d in 2030, when the proportion of the world's oil passing through the Strait would be 30.5 percent. The shipment of energy will definitely face danger, and the Americans would not be able to protect energy supply in the region." During the 1980–1988 Iran-Iraq War, both Iran and Saddam Hussein's Iraq threatened the passage of oil from the Persian Gulf. Along with al-Qaeda terrorism, Iran is the greatest current threat to Persian Gulf energy exports. The Strait of Hormuz is a chokepoint of huge importance. The challenge is to devise and implement alternative routes. Iran possesses the world's third-largest oil reserves and the world's second-largest reserves of natural gas. In addition, it is the second-largest exporter in the Organization of the Petroleum Exporting Countries (OPEC) and the fourth-largest exporter of crude oil globally. Geographically and militarily Iran dominates the narrow Strait of Hormuz, through which about 40 percent of the world's internationally traded oil passes daily. Put simply, it is a critical player in the world energy economy.

Iran sees itself as the natural hegemonic power in the Gulf and resents the presence of any non-Gulf military forces. This view explains the harassing,

although not the timing, of U.S. navy ships by IRGC launches in late 2007 and early 2008. Iranian Foreign Ministry spokesman Muhammad Ali Hosseini said: “We are against any kind of increase in the military presence of foreign forces in the region”. “We do believe that such a presence is not conducive in security and peace in the region? It could contribute to in the region.” In addition to direct military threats, Iran could take any of the following steps:

- Reduce or stop its own oil exports either as a consequence of military action or as official policy to protest U.S. or wider international action. Today, Iran is pumping 3 mbd, one half of what it did under the Shah due to the failure or the will of the mullahs' regime to attract private capital and advanced technology, and to develop a predictable oil and gas investment environment.

- The Islamic Republic's leadership also has made the Iranian energy sector the hostage of its dangerous program, which triggered international sanctions against Iran. Although U.S. and any allied forces would almost certainly score a military victory, the political outcome would be far from certain, as the U.S. experience in Iraq has shown. There is a suspicion concerning the Iranian development of nuclear weapons. When Iran to achieve that capability, the entire Persian Gulf would effectively become a no-go zone for U.S. aircraft.

- Sponsor sabotage against oil installations in other Gulf producers while denying any responsibility for such action.

- Use its diplomatic or commercial leverage to halt energy flows from neighbours with which it has joint energy ventures. Additionally, Iran has been actively seeking energy cooperation agreements with its oil and gas customers, as well as with neighbouring countries. These agreements are designed in part to weaken diplomatic unity in confronting Iran's behaviour, making sanctions less effective and a possible embargo more difficult to impose⁸.

These threats are producing a new international insecurity. In 2006, Ali Khamenei, Iranian Supreme Leader, said: “If the Americans make a wrong move toward Iran, the shipment of energy will definitely face danger, and the Americans would not be able to protect energy supply in the region.”. Iran supports terrorism and is opposed to the Middle East peace process, it undermines the U.S. position in Iraq, and seems determined to pursue a nuclear weapons program that will threaten U.S. allies in the region. To limit Iranian influence on the energy economy, the US government should adopt energy policies to exploit the Iranian vulnerabilities. There are some threats against Iran by Israel and the US to launch an attack on the nuclear facilities, if Tehran does not freeze its enrichment program.

Iraq's beleaguered government (95 % of the government revenue comes from oil exports) prepares to auction licenses to develop some of the world's richest oil fields. It is expected to produce a new crop of agreements under

⁸ Countries trading with Iran, either as purchasers of oil and gas or as suppliers, must be made aware of the implications of their trade and the fact that it will be considered an appropriate area for sanctions or financial pressure.

which the oil companies (BP, China National Petroleum Corp, Exxon Mobil, Royal Dutch Shell, Eni, Occidental of the United States, Chevron, Total) will invest billions of dollars in Iraq. A boost of the production from 2.5 million barrels a day to as much as 6 million to 12 million in the next six or seven years is expected (to compare with Saudi Arabia's output of 12.5 million barrels and Russia's 10 million a day).

Today, the Russia-Georgia conflict is analyzed as a Moscow's main goal to ensure its energy dominance in the region. With Gazprom, being the richest company in Russia (8 % of GDP and 25 % of the federal budget), Russia is faced with some rival suppliers. It tries to neutralise the threat by ensuring it acquired a stake in new projects by offering its vast oil and gas pipeline network, offering higher prices for the resources. US experts believe that part of the Russia's decision was an indication of the Russian intent to warn other potential neighbours from drawing closer to the West. The Russian policy close to Iran is considered as a threat. According to reports, the two countries discussed about economic interaction in boosting bilateral trade from 2 billion dollars to 200 billion dollars in the next ten years. Russian companies are already involved in Iranian energy projects.

With Iran, Iraq is also an important problem for oil trade. The territorial boundaries of Iraq were the result of oil. The quarrel between Iraq and Kuwait is mainly a problem of money and oil. The US military occupation is the result of the US political and strategic interests in West Asia in which oil is a dominant factor. The control of pipelines is essential for Western developed countries. Iraq sits atop the world's third-biggest known oil reserves. With the war, a third of Iraq's production capacity is off-line. The country is capable of increasing production from the current 2.4 mbd to 5 mbd and beyond within five years if the security situation is resolved⁹. However, the US government wants to reinforce its national economy and infrastructure and doesn't want to subsidizing Iraq's rebuilding on the current scale, because the Iraqi government keeps a mounting pile of petrodollars firmly tucked away in American banks¹⁰. The oil windfall is yet another example of the ongoing financial fallout of the war, which is costing the U.S. more than \$13 billion a month (not counting the future costs of caring for war veterans and replenishing military equipment). It is

⁹ In Iraq, one-quarter of the population remains jobless, and Baghdad gets only 11 hours of electricity a day. Four million Iraqis have been displaced from their homes and are urgently in need of resettlement. After five years of war, the country is still desperately in need of rebuilding.

¹⁰ A new report by the U.S. Government Accountability Office shows that Iraqi oil revenues will reach up to \$85 billion this year, resulting in a budget surplus of as much as \$50 billion. But despite all the money that is pouring in, Iraq is not taking responsibility for its own reconstruction. Instead, the U.S. military is footing the reconstruction bill. Over the last two years, while Iraq has earned nearly \$100 billion in oil revenues (and spent just \$2 billion on capital investments such as roads, water and electricity), U.S. taxpayers have plowed \$48 billion into reconstruction activities in Iraq. About half of that has gone to the oil and electricity infrastructures. But, United States invaded Iraq, and none of the work done there since is adequate compensation for the five years of suffering that the Iraqi people have endured. But at a time when the U.S. economy is weak and our own bridges, roads and airports are in desperate need of repair, there is a real question of whether we can sustain.

time for the newly solvent Iraqi government to begin helping financially (as well as militarily) to get the country back on its feet¹¹. However, the Iraqi government approves a national oil law that allow foreign company to invest.

Conclusion

There is a significant empirical link between oil price jumps and slumps in macroeconomic performance. This link is a legitimate concern for public policy. The US government proposes to increase investment, open access to the remaining oil and gas reserves, and diversify the basket of transportation fuels.

- 1) **Sufficient military force** to protect the interests of the world and US economies is necessary. The region's ability to match Iranian military force is a continuing concern, especially because of Iran's apparent preference for asymmetrical warfare—using small boats and the like, which are harder to counter. The presence of U.S. and other allied forces is crucial. On shore, security needs to be developed at countless oil and gas installations, as well as power plants, desalination plants, and military facilities that might be targets. Advances have been made, particularly as a result of threats posed by al-Qaeda, but many of these installations remain vulnerable. However, it is not fair to attribute the costly U.S. presence in the Middle East solely to the nation's high degree of oil dependence. The import reductions do not significantly reduce the costs of Middle East involvement. The U.S. presence in the Middle East seems to serve ends beyond oil security.
- 2) **The industrialized countries governments want to increase** pressure on OPEC and non-OPEC countries to level the playing field and to open access for international oil companies to develop existing petroleum reserves. The rule of law and competitive market principles and institutions should be put in place to facilitate further development of energy resources. This includes cessation of cartel-like behaviour by OPEC, which is illegal under U.S. law.
- 3) Within the Middle East, developing spare production capacity and alternative pipeline routes, and increasing the capacities of existing pipelines, should be an urgent policy priority.
- 4) **The policymakers must promote** market-based energy-saving technologies and unconventional sources of fuels worldwide. Japan and the U.S. are the world leaders in industrial and residential energy

¹¹ In particular, mechanisms need to be devised and implemented to ensure that oil money is fairly distributed across the country, and that it goes to productive investment rather than leaching away to corrupt bureaucrats and avaricious middlemen.

conservation, whereas the fast growers (China, India, the Middle East, etc) are energy inefficient¹².

- 5) Globally, the size of investable funds is so great, and the ability of managers to alter those flows so substantial, that changes in investment preferences have substantial effects on the market prices of the affected assets. Then, Congress could materially reduce the ability of financial markets to influence oil prices. If oil-producing countries do not take measures to bring down oil prices, a number of market-driven solutions will likely replace internal combustion engine cars in the next couple of decades. The U.S. automotive industry should gear up today to be a market leader in these emerging transportation technologies.

A new configuration of the world geopolitical scene appears in the world, i.e. the question of civilization clash, between Christian Western, Islamic-Arabic, Chinese and India.

Bibliography

Joseph E. Kasputys (2008), Oil, the dollar, global imbalances, and the US economy, Committee Economic Development (CED), Washington.

Walter J. Williams (2008), "Implications of a Weaker Dollar for Oil Prices and the U.S. Economy", Before the Committee on Financial Services, United States House of Representatives July 24, 2008,

Edward N. Krapels (2008), Financial Energy Markets and the Bubble in Energy Prices: *Does the Increase in Energy Trading By Index And Hedge Funds Affect Energy Prices?* Executive Summary, Testimony Before the Subcommittee on Oversight and Investigations Of the Committee on Energy and Commerce, U.S. House of Representatives, June 23, 2008

Robert Bamberger (2008), The Strategic Petroleum Reserve: History, Perspectives, and Issues, Updated June 6, 2008, Specialist in Energy Policy Resources, Sciences, and Industry Division, Washington.

Robert P. Murphy (2008), Oil Prices and the U.S. Dollar, Written Testimony of Institute for Energy Research, Before the House Committee on Financial Services, July 24, 2008, Washington.

¹² Technology is also key to oil production from unconventional sources, such as oil sands (Canada, Venezuela, Congo, etc.), oil shale, and deep water drilling, using the most environmentally friendly methods possible.