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Global Oil Trends and Their Geopolitical Impact on the Middle East

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Abstract

Key trends in the global oil market are causing the replacement of the old energy world order that is no longer sustainable with a new one whose fundamental structure is not yet determined. The Middle East is the main arena where the global struggle to determine the outcome of this transition is being waged. Israel should pay close attention because of its special situation in the Middle East and because its adversaries hold most of the world's remaining oil.

Rapid non-OECD economic growth is driving a persistent surge in oil demand that is straining the global production capacity, while at the same time, oil reservoirs outside the Middle East are being emptied out faster than those within. Therefore, the balance of power in the oil market is shifting away from the buyers as more economies become more dependent on Middle Eastern oil.

But energy watchdogs warn that unless it is urgently and comprehensively reformed, the Middle Eastern oil sector's inherent instability, opacity, and fragmentation could critically constrain its ability to support future global economic growth, resulting in severe oil shortage and global crisis.

Consequently, the newly emerging energy world order contains a conjunction of two contradictory ordering principles. One is competition between buyers to secure oil supplies in a market where producers hold greater power. The other, collaboration between buyers and producers to fundamentally restructure the Middle Eastern oil market, where the buyers exercise sufficient influence, or the producers sufficient foresight, to implement an extensive process of reform and liberalization in a region that is not used to either one.

Saudi Arabia is enhancing its ability to resist US pressure on reform by extending its strategic ties with China, which is desperate for oil, and with Russia, which wants to align production interests. Riyadh is moving away from the US-Saudi alliance that had formed the cornerstone of the old energy world order, to a more diversified structure of alliances. **Iran** is deploying its growing leverage to fracture the US-imposed sanctions against it by signing strategic bilateral deals with Japan, India, and most notably, China, that contain strong economic development components. Teheran's recent LNG mega-deal with Beijing has effectively immunized it against UN Security Council action on its nuclear program, and moved it closer to the Shanghai Cooperation Organization.

China's energy-security strategy is consistent with the competitive ordering principle because it is driven by an overwhelming need to quickly ramp up energy imports and a predisposition to maintain better control over supplies through bilateral agreements. The Chinese footprint in the Middle East is getting deeper and wider, particularly in Iran and in Saudi Arabia, where China is adopting a more assertive posture towards the US. **India** is also building up its presence in the Middle East, particularly in Iran, where it is becoming increasingly competitive with China.

Washington's democratization strategy in the Middle East is basically consistent with the oil-sector reformation agenda. The US is deploying the reformative approach to rehabilitate Iraq's oil industry, while it encourages Saudi Arabia and other Gulf states to adopt it too. **The EU** favors oil-sector reformation through multilateral agreements, but has yet to demonstrate a unified energy-security policy. **Russia**, itself a beneficiary of the shift of power to the oil producers, nevertheless, does not want to see OPEC states grow excessively influential. Therefore it may seek to bridge the competitive and reformative agendas.

For Israel, the competitive ordering principle may carry dangerous repercussions. Unchecked, it promotes regional destabilization, weapon proliferation, terrorism, and excessive producer leverage. In a competition-dominated scenario, acute dependence drives contending world forces to do whatever is necessary to secure their own uncertain supply of oil. In contrast, the reformative ordering principle requires stability and close cooperation between regional and extra-regional powers. Therefore, weapon proliferation and terrorism are discouraged and producer leverage is reasonably contained. The motivation to resolve the Israeli-Palestinian conflict mounts, and encompasses the majority of both buyers and suppliers.

Finally, the escalating global dependence on Middle Eastern oil presents Israel with far more serious problems in its geo-strategic realm than in its own energy-security realm. To maintain its security Israel must help mitigate the oil dependence of foreign powers such as China or India. Israel must use its considerable research and development capacity to create an industry focused solely on reducing global oil dependence by developing technologies that migrate essential oil-driven functions to other fuels, including alternative fuels and other hydrocarbons, and by adapting existing fuel efficiency technologies to developing markets that are less fuel efficient. The initiative has to be planned prioritized and organized on a national scale, global in its selection of target markets and technologies, and uncompromisingly focused on short to mid-term practicality.

Objective

Key trends in the global supply and demand for oil and gas are straining existing market structures, leading to their fundamental reordering. This process is exerting great influence on the geopolitics of the Middle East, and is likely to continue doing so in the coming years.

The paper's objective is to identify those trends and characterize their influence so that the course of the main energy-related geopolitical changes in the Middle East can be better charted.

Introduction: Historical Review and Current Geopolitical Context

To understand the oil geopolitics of the Middle East and the manner of their present and future interaction with trends in the global oil market, it is important to consider the key events that shaped them into their present form. The 1973 oil embargo was such an event, and following the crisis it precipitated, a strategic US-Saudi axis emerged as the cornerstone of the global oil trade regime. This regime was to last through the end of the 20th century. During the final years of that century, the US-Saudi alliance began to deteriorate.

The Oil Weapon and the Saudi Guardianship

Those who propagate the issue of supply insecurity, the dangers of import dependence, and the perceived instability of the Arabian Gulf are ignoring realities. ... Regardless of crisis, disruption or sudden surge in demand, the kingdom stands ready to respond **H.E. Ali I. Al-Naimi, Saudi Oil Minister, 1999**ⁱ

Between 1969 and 1973, global oil demand rose by an astounding 34%. To meet it, the world's production capacity was strained to its limits, and its spare capacity was worn to insignificance. Most of the world's incremental oil supply came from 5-10 supergiant Middle Eastern fields that were years away from peaking, and could still ramp up production². But US domestic production peaked around 1970 and by 1973 had clearly begun its decline, leaving the country without the

¹ Speech at the Center for Strategic and International Studies, Washington D.C., December 8, 1999.

² Matthew R. Simmons, *The Oil World: 1973 Compared to 2000*, Simmons and Company Energy White Paper, 2001

spare capacity that had previously helped it sidestep events such as the 1967 embargo. With its import-dependence having grown from 19% in 1967 to 36% in 1973, and with no spare capacity, the US suddenly became very vulnerable to disruptions in supply.

On October 17th 1973, the Organization of Arab Petroleum Exporting Countries (OAPEC) declared an oil embargo on the US and Holland, as punishment for supporting Israel in the Yom Kippur War. In addition, they threatened to reduce their remaining oil output by another 5% each month until Israel is forced to pull back to its pre-1967 borders. Soon, the price of oil quadrupled, factories were forced to cut production and lay their workers off, and before the year was out, the non-communist industrialized world careened into a deep, decade-long recession.

For a time, oil producers appeared to hold the upper economic hand. But when the industrialized world finally emerged from recession it was using a lot less oil a lot more efficiently. Furthermore, less of this oil now came from the Middle East³, because high oil prices encouraged more cost-intensive exploration and production projects in places like the North Sea, Russia, Colombia, Alaska, and the Gulf of Mexico. The market was hit with a glut and oil prices plummeted to pre-1973 levels. OPEC's market share was slashed from 55% of global production before the embargo to 28% in 1985. Thus, amidst bickering between its members over their shares in a dwindling revenue stream, OPEC's once formidable power crumbled.

The oil weapon had backfired, and this painful lesson was well internalized by the Gulf 's producers. The Saudis discarded their role as reluctant leaders of the challenge to the West, and skillfully repositioned themselves as its faithful oil stewards. The former instigators of the great oil shock now deployed their unique spare producing capacity to guard against future disruptions and smooth over any rough patches in global oil supply. The "special relationship" between the US and Saudi Arabia, where the Americans provide safeguards to the Saudi regime in return for reasonably-priced oil, was resumed, and buttressed by Iran's alarming transformation into a radical, militant Islamic theocracy.

True to their commitment, the Saudis diligently safeguarded the stable supply of cheap oil. The perceived ultimate failure of the oil embargo on one hand, and the apparent robustness and liberalization of the post-seventies oil market on the other, led the vast majority of energy experts to conclude that neither OPEC, nor its members, will ever again be able to use the oil weapon for

³ In this work the term "Middle East" refers also to Iran and to Egypt.

holding the rest of the world hostage. In fact, US sanctions on Iraq, Iran, and Libya, showed that the oil weapon could be pointed in the other direction too.

The Saudis' oil stewardship became a cornerstone of the global economy, and they guarded it jealously. The assurance and prosperity their efforts brought were well received in the West. By managing oil prices "the Kingdom", said cynical observer James Schlesinger, "worked hard to keep us tranquilized".

Oil Rivalries in an Emerging Multi-Polar World

Oil ... is no longer a commodity to be bought and sold within the confines of traditional energy supply and demand balances. Rather, it has been transformed into a determinant of well being, of national security, and of international power. **Robert E. Ebel, Director, Energy and National Security, Center for Strategic and International Studies, 1999**

In the last decade of the 20th Century, the US emerged as a sole global superpower. Responding to Saddam Hussein's invasion of Kuwait in 1990, it demonstrated its hegemony by leading a broad coalition that included several Arab countries to repel Iraq from Kuwait and eliminate its threat to the vital oil fields of Saudi Arabia.

But in asserting its responsibility to secure the global flow of oil, the US had unwittingly helped set in motion a chain of events that would, a decade later, result in an appalling strike to its very heart, and lay bare the schism at the core of the US-Saudi alliance; the alliance that had kept the global oil machine humming for the past three decades.

Two years after the 9-11 attacks would see the US occupying Afghanistan and Iraq, being warily eyed by two rising powers: fast-developing China alarmed at having a competitor's hand move closer to the spigot that could shut down its economic miracle, and the crystallizing European power, more oil dependent than ever, painfully split and sorely aware of its lack of a unified energy or foreign policy that could enable it to be appropriately responsive to the quickly changing geopolitical reality.

Alert to the increasing geopolitical significance of governing the production and transit of oil, Russia, an older power, tightened its relationship with Kazakhstan, home to most of the Caspian Sea oil reserves, and moved to gain greater national control over its own oil and gas reserves. It capitalized on mounting US-Saudi distrust to fortify its own relationship with Saudi Arabia, as

did China. By consolidating its power in the oil market, Moscow is also seeking to contain US hegemony and promote a multi-polar world order.

As global powers, both old and new, maneuver to define their realms, oil is their ultimate prize and potent tool. Those who secure sufficient supplies can fuel economic growth and wield political power. Those who lack access to oil will falter.

Part I: Global Oil Trends

The key trends below – that have emerged in the oil industry over the last few years – are fundamentally changing or about to be changing the global oil market and thereby the energy world order. In a dynamic that is reminiscent of the one that preceded the 1973 oil crisis, they merge to endow Middle Eastern producers with greater strength within a market permeated with volatility and grave uncertainties that cast doubt on its competence to sustain global economic growth. The buyers' imperative is to maintain a sufficient and reasonably priced oil supply by stabilizing the market, improving its transparency, and reforming it, so that it uses its increasingly strained resources more efficiently.

Global demand – rising and shifting its balance from West to East:

Consumption of energy is symptomatic of the emergence of economic and political power. China has emerged. **S. Chandler, Asian Development Bank, 2004**

Wherever satellite dishes and cell towers sprout over mud, brick, or thatched roofs, people are coming to demand this consumer lifestyle as an entitlement. **Peter I. Bijur, Texaco, 1999**

In 20 years the world will need 50% more oil than it does now (IEA 2004; AOE 2003)⁴. Two thirds of the increased demand will come from non-OECD countries, primarily China and India, whose economic growth is projected to be 6%-7% per year and 7%-8% per year respectively.

During the first eight months of 2004, the Chinese economy sped ahead of projections at 9.7% growth, inducing China to import 40% more oil than it did during the same period in 2003, a year which itself saw a 31% rise in oil imports. As highway systems are built and wealth grows, car sales in China are rising at 18-20% year over year, or more than a five-fold increase per decade. Barring a global economic crisis, China, which has committed its resources and infrastructures to an energy-intensive economy, is expected to continue driving strong oil demand growth, as will populous India and Indonesia.

⁴ Unless otherwise noted, throughout this paper, oil and gas statistics are retrieved from World Energy Outlook 2004 (International Energy Agency), Statistical Review of World Energy 2004 (British Petroleum), and Annual Energy Outlook 2004 (Energy Information Administration, US Department of Energy)

Approximately 70% of oil demand is needed for transportation, while another 30% is mainly used for petrochemicals such as plastics and asphalt, agriculture, heating, and electricity. Therefore, unless mainstream auto technologies become dramatically more fuel-efficient in the near or mid-term – an eventuality most analysts do not anticipate – the future demand for oil may offer little flexibility.

Global supply – increasingly concentrated in the Gulf Region:

In the world of energy the Middle East is King. Saudi Arabia is the King of Kings. **Matthew R. Simmons, Stanford GSB Seminar, 2004**

The IEA (International Energy Agency) and the US DOE (Department of Energy) expect most of the extra oil needed to fuel this growth to come from the Middle East: To meet the global 50% production growth by 2020, Middle Eastern oil production is expected to increase by 75%, Gulf production by 80% and the Saudis will have to double their oil production.

This plan is based on the expectation that petroleum reservoirs in the Gulf-area will last longer than those in other parts of the world. In 2004 68-70% of the world's proved oil reserves were located in the Gulf region and in North Africa. In 20 years this figure is expected to be 83% and rise progressively thereafter.

However, the IEA report emphasizes that to meet their production goals Middle Eastern oil exporters must extensively upgrade the infrastructure of their oil and gas sectors. To do this, the report states, they must remove barriers to foreign participation both downstream and upstream, and mobilize vast investments by affecting substantial economic and legal reform and liberalization in their respective countries.

Global dependence – persisting in developed countries and spreading to developing countries:

The punch line is simple...we will be dependent [on the Middle East] for decades to come. We can't make this go away with fantasies about other energy sources...or by exaggerating the role of smaller oil powers. We have one vital strategic interest in the Middle East: energy exports.
Anthony H. Cordersman, The US and the Middle East: Energy Dependence, Demographics, and the Myth of Oil Wealth, 2002

General dependence: Oil fulfills 38% of the world's energy needs today, a level it is expected to maintain through 2025. In the vital transportation sector, oil accounts for 90% of energy use.

Natural gas is the fastest growing primary fuel, and its use is expected to double in the same time window. Improved transport, demand, and trading infrastructures are vastly enhancing its geopolitical visibility and importance.

The IEA expects serious environmental concerns to permit only a moderate rise in the use of coal, and foresees a continued decline in the use of nuclear energy because of negative public perceptions – although recent record oil prices may reverse this particular trend. The use of renewable energy sources (e.g. solar, hydrothermal, biogenic and wind) is expected to increase but maintain low overall impact on the general energy map. Barring an unanticipated technological breakthrough, no source of energy is projected to replace oil and gas, particularly in the transportation and petrochemical sectors.

Import dependence: Analysts predict that by 2020, China will have to import 75% of the oil it uses, while India imports 92%. 80% of Chinese oil imports and 85% of Indian oil imports will reportedly come from the Gulf region unless they succeed in diversifying their supplies. Also, by 2015, analyses show, only 10% of Gulf oil will flow to Western markets while 75% flows to Asia.

In the EU demand is expected to remain roughly constant, but oil imports will rise from 76% to 90% of total oil consumption by 2020 because of decline in North Sea output. The US imports from the Middle East will rise from 10% in 2004 to 35% in 2025.

In brief: oil will remain the world's most important source of fuel. Western economy will remain highly dependent on oil and Asian economy will become more dependent. Both will become dramatically more dependent on Middle Eastern oil. To fuel their growth, developing Asian economies will have to secure for themselves most of the extra production expected from Middle Eastern producers. For Gulf producers – Asia becomes by far their largest customer.

Market volatility – may persist because of strained capacity and geopolitical instability:

The international oil industry has begun a period of fundamental change. Signals of supply rigidity abound. [It is up to producers now] to recognize these new circumstances and quickly come to terms with them. **Adrian Lajous, Head, Oxford Institute for Energy Studies, 2004**

At the close of 1999, a barrel of oil was sold for \$20, and the balance of opinion among analysts stated it would remain at this level through 2010 or dip even lower. Since then, even as oil prices moved ever higher, the expectation for oil to return to “recent historical figures” persisted. In 2004, the world’s supplies of oil were severely strained as unrelenting demand sent prices to record highs. Spare global capacity that has been quietly declining for a number of years was reportedly drained to negligibility, causing the market to become sensitive to localized shocks such as the instability in Iraq and Nigeria, the oil workers strike in Venezuela, the Yukos affair in Russia, and Hurricane Ivan in the Gulf of Mexico.

Most analyses suggest that the oil industry’s supply shortage is mainly a consequence of political strife, particularly in the Middle East, combined with under-investment in E&P (exploration and production) and in refineries following the 90s’ low prices. The IEA and DOE expect prices to fall back to the low thirties as OPEC output grows, and large projects in the FSU and West Africa come online between 2005-2008. But several other analysts project higher prices in view of factors such as the continuing instability in the Middle East, the apparent willingness of consumers (e.g., China and Japan) to pay a premium above market prices for locking in long-term supplies, the dollar weakness, and unexpectedly severe depletion in non-Gulf region reservoirs.

Considering the imperfect record of the IEA and DOE in predicting price trends, the conclusion is that regardless of short-term declines, future prices are highly uncertain, and are likely to remain volatile and event-sensitive because of low spare capacity and strong demand. The success or failure of OPEC efforts to build up spare capacity during 2005-2006, particularly in sweet rather than in sour crude, will indicate whether prices can be stabilized in the mid-term or not. Substantial price and supply uncertainties may strongly induce buyers to seek supply security through strategic long-term deals. Higher volumes of oil sold at relatively high prices are likely to continue endowing Middle Eastern producers with large financial surpluses.

Global Reserves: Critical uncertainties prevent reliable energy planning

Owing to the current turmoil in oil markets, a number of analysts have raised the specter of the world soon running out of oil. This concern emerges periodically in large measure because of the inherent uncertainty of estimates of worldwide reserves. **Alan Greenspan, October 2004**

Over the last 20 years, the size of oil discoveries has fallen off dramatically. We are finding more fields than in the '60s and '70s, but they're much smaller. We're producing three barrels of oil for every one barrel of oil that we find. **PFC Energy, 2004**

In its authoritative 2004 World Energy Outlook, the IEA used ultimate recoverable reserve estimates⁵, reported in the US Geological Survey Petroleum Assessment 2000, to predict that oil production is likely to peak and begin terminal decline close to 2037. However, the USGS calculation of 3012Gb ultimate recoverable reserves and the IEA's methodology have been challenged by a minority of energy experts who assert that a realistic figure for ultimate reserves is closer to 2000-2300Gb, and peak oil production is likely to occur far sooner – perhaps even imminently.

Peak oil production marks the stage where the global reservoir – that is the sum of all of the world's discovered and yet to be discovered individual reservoirs – is depleted to such a degree, that oil coming from new wells can no longer compensate for the diminishing production from existing wells, and total global production begins an inexorable decline. The implications of peak oil production can be profound, and massively destabilizing to economies that are still oil-dependent when it occurs. Therefore, estimating its timing is crucial.

Most industry experts accept the IEA's calculation of peak oil production circa 2037 as the most authoritative estimate, and many expect that new E&P technologies and improved efficiencies on the demand side will push this date out even further, especially if the price of oil increases. The minority view of an imminent peak is largely dismissed as unnecessarily alarmist; another in a sequence of past predictions of global peak oil production that have not materialized. But recently, as global demand soared and non-OPEC non-FSU production remained flat – despite years of rising oil prices and enhanced exploration – an increasing number of leading experts have moved closer to the pessimists' position suspecting that even price and technology-enhanced E&P cannot continue to offset depletion for very much longer. Respected industry analysts PFC Energy recently predicted global production peak in 2016. Leading industry financiers, Simmons and company, place it between 2005-2010. The view emerging among this group is that the global supply difficulties of 2004 are a foreshock of the global production peak era.

The caliber of expertise on the two sides of contemporary production peak debate is such that neither should be ignored. The differences of opinion do not necessarily reflect a difference in

⁵ Ultimate recoverable reserves are the sum of the oil already produced in the past (approx. 950Gb at the end of 2004) and the oil that is likely to be produced in the future.

analytic competence, but rather, the inherent unknowns of the oil industry, especially regarding the size of the world's reserves. In a recent and intriguing analysis, Matthew Simmons, the president of Simmons & Company, and a former advisor to President Bush and to Vice President Cheney, presented indirect evidence he gathered from Saudi petroleum engineering papers, that suggest the great oil fields of Saudi Arabia are already in advanced states of depletion – either declining or very close to doing so. The Saudis strongly reject Simmons' analysis, and claim to have sufficient reserves to help support the global oil economy through 2050 and beyond. But they provide no conclusive evidence to support their assurances because Saudi Arabia – like several other key producers – withholds detailed production data as a matter of strategic policy.

Other substantial questions and lack of data add to the uncertainty in global proven reserves and to the even greater uncertainty in future reserves, yet to be booked. The IEA and the EAI, and most industry experts, expect future discoveries of more than 1200Gb from new discoveries and from improved efficiencies in existing fields. The more pessimist group of analysts argue that not much oil remains to be found because most of the world's oil comes from a few very large fields – most of which have already been discovered long ago because of their large size – and that new technology rarely adds substantial reserves any more; rather, it exploits existing ones faster. This is why, they say, oil discoveries have been declining in the past four decades.

In conclusion: Most respected energy agencies and leading analysts agree that with proper resource management, the world's economy has enough oil for at least the next three decades. However, a minority opinion of equally respected experts, who anticipate a far earlier onset of peak oil production, must not be dismissed because the differences between their estimates and mainstream estimates mostly reflect genuine gaps and uncertainties in our knowledge of present and future reserves, rather than flawed concepts or methodologies. Since this minority assessment cannot be dismissed, then it must be considered with great attention by energy and policy planners, because of the immense potential impact of an early production peak on the world's oil-dependent economies.

As the world's energy market becomes further strained, there is an emerging consensus among industry planners, whether they subscribe to the optimistic or the pessimistic scenario, that reliable reserve data is urgently needed to facilitate better energy planning, so that the global oil industry can be streamlined and made more efficient, and to reduced the exposure to oil supply

shortage. Thus, the risk of continued opacity of critical oil reserve data is becoming unacceptable, and the pressure on oil producers to allow more transparency is likely to increase.

Part IV: The impact of global energy trends on the Middle East – emerging strategies of principal actors

Escalating dependence is driving major high-stake importers, notably China, Japan, India, and the EU, to seek closer relations with oil exporters and wedge themselves into the cracks propagating through the US-Saudi axis of oil supply, or the so-called “special relationship”. The ensuing competitive pressures, welcomed by the Saudis, Iranians, and other suppliers, inflict further damage on the axis, threatening the supply security and physical stability it provides, and in doing so, further motivating the buyers to establish their own bilateral channels to the suppliers. This dependence-driven positive feedback mechanism has strongly accelerated following the aftermath of 9-11 and the invasion of Iraq, to which it was coupled. It is redrawing the geopolitical map of the Middle East.

Saudi Arabia: the unraveling of the special relationship

Sino-Saudi rapprochement is expected to hasten and deepen ... Saudi Arabia could possibly begin looking to the Chinese for those economic, security and political needs it now garners from the U.S.
Nawaf E. Obaid, The Sino-Saudi Energy Rapprochement: Implications for US National Security, US Department of Defence, 2002

Saudi Arabia is the world’s leading oil producer at 9.5 million barrel a day – more than 11% of the global total – and reportedly the only one with significant spare capacity. With 264 billion barrels – roughly 25% of the global total – its proven oil reserves are by far the world’s largest, and its 226 trillion cubic feet (tcf) of natural gas are the fourth largest.

Strains on the US-Saudi relationship: Following the 1990 Gulf War, the legitimacy of the Saudi regime was weakened, and repeatedly challenged by Islamic revivalists, because it had let US troops protect it openly and operate from its territory. By the end of the 90s, internal pressures, antagonistic to Saudi dependence on the US, combined with the growing Asian demand for oil, to accelerate a process of rapprochement between Saudi Arabia and China. Popular sentiment over the second Intifada provided both Islamic revivalists and the Iraqi regime with an additional lever for destabilization, further straining US-Saudi ties. Days before 9-11,

Crown Prince Abdullah spoke of a possible end to the special relationship: “A time comes” he said “when peoples and nations part. It is time for the United States and Saudi Arabia to look to their separate interests. [Those] governments that don't feel the pulse of their people and respond to it will suffer the fate of the Shah of Iran.”⁶

The option for Saudi Arabia and the US to superficially patch up their differences and go on as before was eliminated on 9-11, when fundamental incompatibilities and enmities underlying the special relationship were laid bare by the calamitous events of that day.

In the following weeks, the unsettled Saudis tried to rehabilitate the special relationship and demonstrated their continued commitment to their American allies by quietly shipping them 9 million barrels of oil, reneging on their commitment to OPEC to cut production. But the internal Saudi strains, which had now come under American scrutiny and criticism, persisted, and were further aggravated during 2003 and 2004 by the US-led invasion of Iraq.

Diversification of strategic and economic ties: With American pressure to accelerate Saudi reform adding to internal strains, and Asian and European governments seeking a closer relationship with Riyadh because of their growing oil dependence, or in Russia's case, because of its need to align interests in the oil market, the dynamic that worked against the US-Saudi axis before 9-11 has now picked up its pace. Consequently, Saudi Arabia is reforming its strategic and oil-based relationship structure, from the old US-Saudi axis, to a more diversified multipolar hub-and-spokes model, based on bilateral agreements, that would let it hedge against further deterioration in its relationship with Washington, and capitalize on the shifting balance of power in the oil market both economically and politically.

This shift was clearly expressed in March of 2004 when, amid considerable fanfare, the Saudis extended exploration and production privileges to foreign companies for the first time in decades. The companies they selected for this landmark gas deal were China's Sinopec, Russia's Lukoil, Italy's ENI, Spain's Repsol, and (a few months earlier) Anglo-Dutch Shell and French Total. The ringing exclusion of American companies raised eyebrows throughout the industry. In September 2004, Riyadh and Beijing signed a memorandum of understanding regarding oil cooperation and regular political consultations between the countries, bolstering their emergent alliance. Last year, during his historic visit to Moscow, Crown Prince Abdullah signed agreements with Vladimir Putin on Russian-Saudi oil cooperation, indicating that the two oil powers want to move

⁶ Letter to George W. Bush, August 29th 2001

closer, to avoid misalignment and competition that could be damaging to both. Monitoring whether arm sales follow is key to an assessment of how the Saudi-Russian relationship develops.

Even as Saudi Arabia takes steps towards establishing a multipolar hubs-and-spokes foreign relationships structure, it must be remembered that the US is by far the most dominant of the spokes, with China a fast rising but still distant second, and Russia a possibly emergent third. Scenarios that could accelerate this process include US failure in Iraq and escalating dependence of global powers on Middle Eastern oil.

Risk of nuclear proliferation: Increased deterioration in US-Saudi ties, especially in scenarios with escalating international competition over access to oil, may further provoke Riyadh to seek nuclear arms. Experts speculate that Saudi Arabia may become the first nuclear power to purchase, rather than develop, nuclear weapons. The Saudis have been showing increasing interest in the Pakistani nuclear weapons program⁷, which according to some intelligence reports they helped fund with the expectation of gaining preferred access later. In this context, media reports of an October 2003 deal between Saudi Arabia and Pakistan to barter oil for nuclear know-how must be noted⁸. Beijing forms a third side in the nuclear dealings between Riyadh and Islamabad, having provided nuclear-capable ballistic missiles to the Saudi Arabia and nuclear weapon technology to Pakistan.

Inside Saudi Arabia: Ever since Iran's Islamic revolution in 1979, the possibility of a radical-Islamic takeover in Saudi Arabia was considered to be one of the greatest threats to global energy security. These concerns have grown over the past few years – especially following 9-11 and its aftermath – because of Saudi Arabia's escalating social and demographic hardships, and because of the rising influence of radical Islam.

Traditionally, high oil prices helped the Saudi regime buy popular short-term stability through spending on public projects, on subsidies and welfare, and on enhancing the Saudi security apparatus. This practice, although ultimately self-defeating to its economy and society, is nevertheless being practiced again in Saudi Arabia, as a stopgap against popular discontent. But social discontent may be harder to contain than before because, regardless of local regime-sponsored comforts, proliferation of modern communication devices will expose the Saudi

⁷ Ze'ev Schiff, *Weapons of Mass Destruction and the Middle East: The View from Israel*, Baker Institute Working Papers, 2003

⁸ For example - *Pakistan-Saudi Trade Nuke Tech for Oil*, Arnaud de Borchgrave, UPI, October 20th 2003

population to a wide set of inflammatory external issues – such as the US presence in Iraq, the Israeli-Palestinian conflict, and the ideas of international revolutionary Islam.

Processes of liberalization and democratization, promoted by the US and by the international organizations WTO and IMF to build long-term stability and prosperity in Saudi Arabia, may slow down, as they have in the past whenever high oil prices bought the naturally change-resistant Saudi regime levers for short-term stability. US influence in Saudi Arabia will be tested by its ability to promote the reforms.

Lessons learned during previous oil-driven boom-and-bust cycles, of the need to modernize and diversify the Saudi economy, will probably remain partially realized as the Saudis continue to build up their petrochemical and upstream oil industries, but resist fundamental structural change.

Iran: Moving closer to the Shanghai Cooperation Organization and to India

Arabs and Iranians, who together possess two thirds of the world's proven oil reserves, [should] take advantage of this new international power line-up. Make friends with China and India. ... for the first time in decades, [Arabs and Iranians] are in a position to change the rules of the oil game.

Youssef M. Ibrahim, former Energy Editor of the Wall Street Journal and Managing Director of Strategic Investment Energy Group, Special to Gulf News, January 2004

At 942.2 tcf, Iran has the second largest gas reserve in the world behind Russia (1659.1 tcf) and ahead of Qatar (909.6 tcf). It is ranked fifth in oil reserves with 90Gb, although recent discoveries of more than 38Gb announced by Abdul Hassan Khamooshi, Iran's Minister of Petrol, may, if verified, position it second behind Saudi Arabia and ahead of Iraq. Iran may also offer the most economically attractive route for the Caspian's oil and gas exports.

The Iranian energy sector has long operated in maintenance mode, with no substantial investment in development, and therefore suffers from poor infrastructure that limits its production capacity. This stemmed from the turmoil and xenophobia that followed the Shah's ouster, from Iran's traditionalist and unwieldy bureaucracy that forbade foreign investment (until the buy-back law was implemented in 1995), and from the American 1992 Iran Non-Proliferation and 1995 Iran-Libya Sanctions Acts (INPA and ILSA), that penalized any international company investing more than \$20 million a year in Iran's oil and gas industries.

Historically, the sanctions proved effective, and despite the initiation of the buy-back mechanism, foreign investments in Iran's oil and gas sector remained a modest \$15-20 B total between 1995 and the beginning of 2004.

Iran's growing leverage: Even as apprehension over Teheran's nuclear program grew in 2004 – the demand created by Asia's overwhelming thirst for oil prompted more and more international companies, including Brazil's Petrobras, Anglo-Dutch Shell, and Spanish Repsol, to ignore American censure and seek contracts in Iran.

In February of 2004, Japan disregarded strenuous American opposition and stared China down to secure development of the supergiant (27 billion barrels) but very low quality and expensive-to-produce Azadegan field near the Iran-Iraq border.

Then, on October 30th 2004, China and Iran stunned observers when they signed the so-called "Deal of the Century" – a 25-year \$100 B agreement for LNG supplies and for oil exploitation in Yadavaran – that is likely to increase by another \$50-\$100 B in oil contracts, driving the total to \$150-\$200 B. Within a week of the signing, Foreign Minister Li Zhaoxing declared that China's position is that Iran's nuclear program must not be referred to the Security Council, compromising US-led efforts to halt Iran's uranium-enrichment drive. Washington, in the grip of national elections, remained quiet on what in retrospect could prove to be a defining event.

Iranian officials hope that in view of the new mega-deal, Moscow, to avoid being excluded by the cementing relationship and oil partnerships between Beijing and Teheran, forgoes its past reluctance for joint oil and gas projects with Iran. The deal promotes Iran's long-standing wish to move closer to the Shanghai Cooperation Organization as a basis for opposing American influence in Central Asia and the Middle East. The Iranians also anticipate that India, with which they have signed a strategic partnership in 2003, will gain confidence by China's lead and implement joint projects such as the 2,670-kilometer "Peace Pipeline" agreement of 1993.

Iran is positioned once more as an important energy power, and may seek increasing alignment with Russia, the Gulf States, and other producers to promote its hard-line approach of cutting production to maintain high oil prices.

Russia: Emerging energy superpower

While Europe was sleeping -- and America fought in Iraq -- the Kremlin has taken a major step toward monopolizing the transit of Caspian energy resources. **M. Socor, Institute for Advanced Strategic & Political Studies, WSJ, 2003**

Russia holds the world's largest known natural gas reserves at 1680 tcf – almost a third of the global total. With 60 billion barrels, Russia has the eighth largest proven oil reserve in the world, although some analysts suggest the true figure may be twice as high. It is the world's largest exporter of natural gas, at roughly 6.5 tcf per year, and second largest producer of oil at 8.4 million barrels per day with exports of 4.65 mbpd in 2003.

Under Vladimir Putin, Russia is emerging as a major energy powerbroker. By asserting authority over its partially privatized energy industry, Putin has fashioned Russia's energy sector into his foremost tool in pursuing economic and foreign policy goals. Lukoil, Gazprom⁹, and Transneft stand out as powerful agents of Russian global policy particularly in strategically sensitive places. The Kremlin's crackdown on Yukos, that was planning to build a large pipeline to Chinese Daqing, effectively ended the challenge to Transneft's monopoly in the sensitive region. Russia enhanced its economic and political standing in CIS countries by using preferential oil and gas pricing and monopolizing their gas imports. On the Caspian front, in January 2004, Putin and Nazarbayev agreed that Kazakhstan oil exports, the largest in the Caspian region, would flow to Europe using Russian pipelines. A similar agreement was signed on June 2004 with Turkmenistan, holder of the Caspian's largest gas reserves (although Turkmenistan is developing alternative LNG facilities). Russia thus contained US influence in this sensitive perimeter area, and further augmented its influence on the global oil and gas market. However, the recent disputed elections in the Ukraine could test Moscow's plans, as most of the pipes exporting Russian and Caspian gas to Europe pass through Ukrainian territory. Also, with the opening of the Baku-Tbilisi-Ceyhan pipeline in mid-2005, Russia loses control of 50 million tonnes of Caspian oil per annum.

Russia in the Middle East: In the Middle East, non-OPEC Russia is strengthening its cooperation in the oil and gas sectors with Saudi Arabia and with Iran to improve alignment on production levels and price controls among the major producers – an effort extended outside the Middle East to Venezuela, OPEC's largest producer outside the Gulf. Russia adds then to its reserves, and to its reputation as a stable and reliable supplier, also considerable command over

⁹ Gazprom and Rosneft will merge in 2005 to create the largest government energy company in Russia.

exports out of the Caspian region, and influence with major OPEC producers, to position itself as a leading energy power.

The Russians and the Saudis have a number of common interests that are fueling their developing relationship, the importance of which was illustrated in September of 2003, when Crown Prince Abdullah became the first Saudi ruler¹⁰ to visit Moscow since 1932. The Russians would like the Saudis to withdraw support from Chechen separatists, and the Saudis, who feel less comfortable in their relationship with the US want to open a channel to powerful Russia. Both sides are positive about routing the Saudi money, which was pulled out of the US banks and placed in European banks, to Russian investments. But overwhelming all other interests – the dependence of the Russian and Saudi economies on oil revenues underlines the mutual need for the world’s two largest exporters to coordinate their production policies and extend their relationship to other spheres as a measure against a mutually-damaging misalignment. The memory of the US-planned and Saudi-executed oil market flooding and consequent price crash in 1984-1985 that devastated the Soviet economy is not something either side is going to forget, or probably want to see repeated.

Recently, it became clear that Russia is promoting its well-developed oil technology as a solution to the infrastructure troubles plaguing Middle Eastern producers such as Libya, Iraq (with US participation), and primarily – Iran. This type of cooperation makes good business and strategic sense provided Russian oil companies do not lose their vitality because of the Kremlin’s increasingly centralized approach.

Russia’s presence in Middle Eastern oil geopolitics is increasing. Iran and Saudi Arabia are likely to be a focus of its attention, especially in view of their tightening relationship with China. Russia will also continue to take interest in Iran and Turkey as oil and gas transit states. Unless its position vis-à-vis the US becomes more confrontational, Russia will also seek to enhance cooperation with the Americans on the development of Iraq’s oil industry.

China: Driven by dependence

Global power shifts happen rarely and are even less often peaceful. Washington must take heed: Asia is rising fast, with its growing economic power translating into political and military strength. The West must adapt – or be left behind. **James F. Hoge Jr., Foreign Affairs, 2004**

A key driver in China’s relations with terrorist-sponsoring governments is its dependence on foreign oil to fuel its economic development. This dependency is expected to increase over the coming decade. **U.S. Economic and Security Review Commission, 2002**

¹⁰ Although

Just over a decade ago, China ceased being a net exporter of crude oil, when the swift growth of its massive economy met the geological reality of reservoir depletion in its giant Manchurian oil fields. Inward-looking China, where energy self-sufficiency was elevated to state ideology, had to open its door and look for oil outside.

By 2003, China became the world's second largest oil consumer and third largest importer, while this year, in 2004, it accounted for 60% of the incremental global oil trade, breathing fear of supply shortfall into a strained and jittery market. China's industrial production was hit several times this year with power blackouts, and electricity and oil were rationed – underscoring the energy challenges it faced. In twenty years, China will use almost twice the amount of oil it does today, and import more than three times as much. More than 70% of its oil imports will come from the Middle East.

Unfortunately for China, its international oil companies, CNPC, SINOPEC, and CNOOC, are latecomers to a market where, in general, the big easy pickings are long gone. Their foreign competitors are well entrenched, and vastly more experienced, but China's oil companies must still compete and grow their shipments fast enough to feed its roaring industrial furnace. For this reason, Chinese oil companies are uncharacteristically partnering up with foreign companies, breaking further with the Mao-esque principle of self-sufficiency, as China leads an aggressive and desperate sweep to secure oil sources wherever it can, but especially in the region holding the most upside capacity – the Middle East. The search to secure energy supplies for its future economic growth is the one effort, above all others, that is leading China's foray into modern globalization, and forms the de-facto prime directive of Chinese foreign policy.

To establish better control over its oil supplies, China adopted an approach whereby it partners with local or foreign companies on production projects that are Chinese-owned.¹¹ Intelligence reports have claimed that among the Chinese staffing these projects, many have significant military and security background and probably serve in security-related functions.

China in the Middle East: To help its companies overcome their competitive weaknesses, China has often opted to go where others will only reluctantly follow, and buy oil from pariah states such as Iran, Sudan, and Saddam-ruled Iraq. These oil and gas-based deals have been linked to weapon sales and technology transfers that include dual-use and biological chemical and nuclear WMD technologies. The deals are often embedded within a wider collaborative context,

¹¹ Reverse Globalization: China's International Energy Policy, Y. Shichor, *Politika*, 2003-2004

for example, construction and engineering projects, and are also supplemented with diplomatic support, as was the case when China helped block international censure of Sudan over Darfur and Iran over its suspected nuclear program. China also signed several contracts with Iraq, before Saddam Hussein's overthrow, that are now essentially frozen. The US has criticized China often and harshly over its proliferating activities.

China's oil and gas deals with pariah states in their wider context – including proliferation – appear to be driven by a desperate need for energy combined with a sense of competitive disadvantage in securing oil, and not by ideological or strategic motives. China is not thought to expressly want to destabilize the Middle East, or unnecessarily anger the US, its most important trading partner.

Still, China has become increasingly nervous about the post 9-11 US military buildup in the Middle East and in Central Asia. In this context, China's recent "Deal of the Century" with Iran, beyond its energy-transactional aspects, must emphasize the stake China has in the region.

Looking forward, China's deepening energy dependence is an important factor that could drive it into increasingly assertive opposition to US regional interests.

China is focusing special efforts on building strong relationships with Saudi Arabia and with Iran – the Middle East's two largest oil producers. Riyadh is feeling insecure about its relationship with Washington, therefore it sees several key advantages in friendship with Beijing: China is an important nuclear power and a permanent member of the Security Council. It has shown it can chart an independent course in matters of oil supply security, even against US interests. Its strong economic growth provides attractive investment opportunities for Saudi petrodollars. Furthermore, it is not likely to press Riyadh for inconvenient internal reforms. Iran, a charter member of the Axis of Evil, certainly appreciates these same qualities.

In September 2004, Riyadh and Beijing signed a memorandum of understanding regarding oil cooperation and regular political consultations between the two countries. In October 2004 the \$100 billion "Deal of the Century" was signed between China and Iran. Beijing's footprint in the Middle East has suddenly become much deeper and wider.

United States: Reforming the global energy market

For the world as a whole, oil companies are expected to keep finding and developing enough oil to offset our seventy one million plus barrel a day of oil depletion, but also to meet new demand. By some estimates there will be an average of two per cent annual growth in global oil demand over the years ahead along with conservatively a three per cent natural decline in production from existing reserves. That means by 2010 we will need on the order of an additional fifty million barrels a day. So where is the oil going to come from?" **Richard Cheney, 1999**

America faces a major energy supply crisis over the next two decades. The failure to meet this challenge will threaten our nation's economic prosperity, compromise our national security, and literally alter the way we lead our lives. **Secretary of Energy Spencer Abraham, March 2001**

The US is by far the largest oil consumer in the world at roughly 21 million barrels per day, or a quarter of the global total. To mitigate risks to its energy security, the US imports its almost 12 mbd of oil from more than 60 different countries – limiting dependence on Middle Eastern oil to 11-12%. But, as the balance of supply continues to shift to the Middle East, analysts predict that American imports from the region will rise to 35% by 2025.

The US has long considered itself a guardian of global energy security that it deemed as essential to the world's stability and prosperity, and to its own. For this reason, maintaining oil-supply security in the Gulf remained a key goal of US foreign and energy policies through successive administrations. In the past thirty years, its alliance with Saudi Arabia, the world's most powerful producer, formed the cornerstone of the world's energy order.

But circa 2000, concerns arose that the old energy order was about to run into serious hardships. Asian oil demand was strong and projected to keep on rising. Global supply, suffering from depletion in mature reservoirs and from years of under-investment and poor long-term planning, showed price and spare capacity strains. Inventories were low. Non-OPEC non-FSU production was flattening out and the balance of power in the global oil market was shifting back to the Middle East and OPEC. In some respects, market conditions began to uncomfortably parallel those that preceded the 1973 oil crisis¹²

Furthermore, sanctions on Iraq, Iran, and Libya, were inhibiting those countries from building the E&P infrastructure needed for them to meet global demand, thereby placing greater pressure on other producers, and creating supply bottlenecks for years to come. Just as the oil producers' weapon had backfired following the oil crisis of the 70s, so now the buyers' sanctions against the

¹² 1973 Compared To 2000: An Energy White Paper, Matthew Simmons, May 1, 2000

pariah oil producers – their reverse oil weapon – were also backfiring. Elsewhere in the Gulf, previously depressed oil prices and poorly performing economies also led to under-investment in oil and gas infrastructures, raising serious concerns for endemic oil shortages in the future.

To make matters considerably worse, the “special relationship” between the US and Saudi Arabia was threatening to unravel. The Gulf was seething with social discontent and religious fervor, a hotbed for an increasingly radical anti-Americanism that was promoted and leveraged by the Iraqi regime and by Islamic fundamentalist organizations, and embodied most ominously by groups such as Al Qaeda. With the rising importance of the Gulf to global oil supply, the converging attention of foreign powers added the threat of competition and potential arms proliferation to this explosive mix.

The background of the Administration that took office at the Whitehouse in November 2000 was such that it was keenly aware of these grave and festering troubles that placed American and world energy security at risk.

The policy-setting Cheney Report of 2001, and the studies that informed it¹³, concluded that the US must integrate and reform the global oil market through strong international alliances that would promote freer trade and investment frameworks, and better long-term planning, so that the market becomes more efficient and capable of supporting the mounting global demand.

But even as the US was planning to restructure the global energy market, the critical weakness and deterioration of its most important alliance was maliciously exposed by the 9-11 attacks perpetrated by Al Qaeda – an organization that was paradoxically an unintended product of the Saudi-American alliance, and had now set out to destroy it.

Post the 9-11 calamity, US strategy in the Middle East and in Afghanistan is driven by the premise that democratization and economic liberalization provide the only cure to the region’s many illnesses and dangers – such as its chronic instability, and its exporting of radical terrorism. This approach, if successful in stabilizing the Gulf region, is consistent with the energy-market restructure plans recommended by the Cheney task force.

¹³ Key among these may be: Strategic Energy Policy – Challenges for the 21st Century, Paper of An Independent Task Force Sponsored by the James A. Baker III Institute for Public Policy of Rice University and the Council of Foreign Relations. Edward L. Morse, Chair; Amy Jaffe, Project Director

The US is reforming its strategic bilateral energy-security relationship with Saudi Arabia and diversifying it into a multilateral where Saudi Arabia is increasingly supplemented by Qatar (which holds the world's third largest gas reserves), Iraq, Kuwait, and other oil producers. By de-emphasizing Saudi Arabia, Washington has more freedom to press Riyadh on reform because it is less dependent upon it. At the same time, the lowered US profile in Saudi Arabia, (e.g., by the 1993 redeployment of troops from Saudi Arabia to Qatar), reduces the friction that has threatened Saudi stability since the end of the 1990 Gulf War.

Iran remains a problem, especially as it leverages its vast oil and gas resources to introduce differences of interest between the US and its European, Indian, and Japanese allies, as well as China and Russia. Iran's support of terrorism and its nuclear weapon program is in direct contradiction to the US imperative to stabilize the Middle East.

Across the gulf, and particularly in Iraq, the US is promoting structural reforms in the oil sector to provide facilitate the flow of wealth to wider sections of the population, providing them with a stake in its success, and to facilitate outside investment. To promote economic diversification and stability, the US is encouraging stabilization funds to help prevent the well-known boom-and-bust cycles that plague oil-dependent economies. The US is pressing for increased transparency in the industry to facilitate better planning and long-term inventory management – goals that cannot be achieved if fundamental data on reserves and production is not made available.

The US in Iraq: Iraq serves as a trial case for the American strategy of reform and democratization. Therefore the Americans have a vital interest in the success of the Iraqi oil industry, which must be revitalized and harnessed to support the rebuilding of the country. The US is actively encouraging foreign investments in the Iraqi oil sector. In Kirkuk and in the southern regions, American and Iraqi officials are cooperating closely to get oil projects back on line. While Iraqi officials are given a measure of autonomy by the Americans, the important strategic decisions are still made in Washington; for example, the decisions to let the UK, Russia, Japan, and Turkey participate in development projects, but for now, keep France and China out.

Recognizing the reliance of Iraq's US-shepherded democratization on the rehabilitation of the Iraqi oil sector, insurgents are leading a campaign of economic terrorism by sabotaging oil pipelines and attacking foreign oil workers. Thus far, the attacks on oil pipelines cost the Iraqi economy billions in direct repair and loss of export costs¹⁴, and perhaps more importantly, have

¹⁴ US Department of Energy, Iraq Country Analysis Briefs, 2004.

kept away significant foreign investment and expertise that are crucial to the rebuilding of Iraq's oil infrastructure.

The battle over Iraq's oil sector will remain key in determining the final outcome of the US foreign and energy-security policies in the Gulf. As the difficulties in stabilizing Iraq persist, the US is likely to make an exerted effort to mend its relationship with Saudi Arabia and appeal to potentially friendly Arab regimes and to Arab public opinion.

Part III: The impact of global energy trends on the Middle East – other important actors

The EU is in the process of forming a common energy security policy; a task complicated by the different energy dependencies, and therefore different exposures to risk, of its various members: Veteran importers such as France and Germany, who rely on imports from the Middle East, and for whom energy security is also about gas; recently accepted Eastern European importers, who depend on Russian oil; and oil producers such as the UK.

The present European approach relating to the Middle East is to foster closer relations with major producers, and promote their modernization stabilization and reform through economic, diplomatic, and cultural cooperation. To facilitate this objective, and increase its regional influence, the EU also seeks to enhance its diplomatic prestige and further its influence by participating in the Middle East peace process, and as mediator in other regional disagreements. The planned accession of key transit-state Turkey to the EU could provide it with access to the Caspian region, to Iran, and to Iraq. Because of its still cumbersome processes and fragmented perspectives on energy security, the EU, as a united entity, may achieve its energy security goal more effectively in a stable and predictable environment, and less effectively in a dynamic and unstable environment – as demonstrated during the Iraq war.

Japan imports 90% of its oil from the Middle East and its efforts to secure Russian oil are not likely to significantly reduce this dependence. Japan, that deployed 500 troops to Iraq, was recently granted permission to develop Iraqi oil and gas fields.

This past year, more than ever, tensions resulting from Japan and China's competition for oil supplies rose to boiling point, centering on the issues of the Angarsk-Daqing pipeline, the Azedegan oil field in Iran, and the gas-rich Chunxiao shelf in the East China Sea. In November, a Chinese nuclear submarine intruded into Japanese waters near the disputed gas field, prompting Japan to launch two destroyers to meet it. Strong protests were issued on both sides.

The tension between Japan and China, besides illustrating the seriousness with which these two giant consumers view their supply security, may have also helped push Japan closer into conformity with Washington's Middle East policy over the course of 2004. After signing the

Azadegan deal with Iran in February of 2004, and angering the Americans, it now appears that energy relations between Japan and Iran have grown a little cooler, especially following Japan's troop deployment to Iraq. This was perhaps alluded to by Iranian Petroleum Minister Bijan Zanganeh, who stated in November that: "Japan is our No 1 energy importer due to historical reasons... but we would like to give preference to exports to China".

In view of its difficulties with Iran, although it continues to court it, Japan increasingly considers a closer relationship with Saudi Arabia as a top priority.

India's oil imports are projected to rise from 70% in 2004 to 92% by 2020 mostly from the Middle East. India is only now seriously formulating an energy security policy. Concerns over excessive dependence on the Middle East are driving India to seek new sources in the Caspian, in South East Asia, in Egypt, in Syria, and in Africa – primarily in Sudan and Nigeria,

Iran is negotiating to become a major gas supplier to India within the context of their wider strategic relationship. The competition between India and China in Iran and in Sudan is becoming more open, and is expected to escalate.

Due to concern over increased presence by foreign powers in the Indian Ocean and Persian Gulf, because of the depletion of oil sources outside the Middle East, India is reportedly "Adopting a new naval doctrine that calls for building a nuclear ballistic missile submarine and a blue water fleet able to project power into the Gulf and beyond"¹⁵. Recently, India Iran and Oman held another round of joint naval exercise in the Gulf.

India's increasingly strategic relationship with Iran has caused concern in Israel, especially regarding cooperation on military technologies.

On a side-note – a potentially interesting project, possibly with symbolic significance, is the so-called Peace Pipeline, intended to carry gas from Iran to India through Pakistan. The long-anticipated project is seen as a confidence-building win-win endeavor for the two bitter rivals to embark on together, and may ultimately enhance their interdependence. The proliferation of energy transit-routes in the Middle East and Central Asia may create similar opportunities for other countries, including Israel.

¹⁵ India's New Naval Ambition: Plan for Blue-Water Force Includes Ballistic Missile Sub, Vivek Raghuvanshi, Defense News, June 7 2004

International terror groups:

You steal our wealth and oil at paltry prices because of your international influence and military threats. This theft is indeed the biggest theft ever witnessed by mankind in the history of the world **Osama bin Ladin, Letter to the American people, 2002**

Al Qaeda and other radical Islamic groups identify the oil industry as both an ideologically and a strategically preferred target in their war on the West's economic power.

The sprawling infrastructures of the oil and gas industry offer a range of very-high-impact targets for terrorist attacks. For example, an attack targeting the Abqaiq processing plant, the Ras Tantara port, or the East-West line's pumping station, with means that are available to terrorist groups, can disrupt the flow of Saudi oil for months, resulting in severe oil price shocks that could greatly harm world economies¹⁶.

A successful attack using an explosive-laden boat on a supertanker passing through the Strait of Hormuz (88% of Gulf region oil exports), or the Strait of Malacca (80% of Japan's, South Korea's and Taiwan's oil imports), could seriously disrupt the world's oil economy for weeks. In an October 2002 Al Qaeda attack foreshadowing this scenario, an explosive-packed dinghy struck the French supertanker Limburg off the coast of Yemen, breaching its hull.

Increasingly, major oil pipelines offer an easy opportunity of attack for small autonomous saboteur groups because of their length and exposure. Attacks on Iraqi oil pipelines by anti-American insurgents are proving to be detrimental to the rehabilitation of Iraqi oil production.

In Iraq and in Saudi Arabia, Islamic militants attacked foreigners working for the oil industry. Examples include the attacks in Yanbu and Khobar on May 1st and May 29th of 2004 respectively, and the beheading of American engineer Paul Johnson on June 19th 2004. This method of terrorism is effective in Iraq that relies on foreign professionals to rebuild its oil sector. In Saudi Arabia, the dependence on foreign oil professionals is low and restricted to strategic rather than operational expertise, thereby limiting any short-term impact of this type of terrorism on Saudi production.

¹⁶ Terror's Next Target, Gal Luft and Anne Korin, The Journal of International Security Affairs, December 2003

Looking forward, the oil industry is likely to remain a prime strategic target of international terrorism and the volume of attacks could well rise. Especially attractive targets are: Saudi Arabia, because of its unique importance to the global oil trade, its political instability, and its symbolism in Islam; Iraq, because of its key role in US regional strategy, and because of its instability; and the major sea trading routes because of their low policing and the high potential impact of a successful attack.

Part IV: Special Levers Available to Arab and Iranian Oil Producers

The major oil producers can leverage their rising power in the oil market to attain geopolitical objectives using a vast array of techniques and methods whose specifics are mostly outside the scope of this work. But the three levers highlighted in this chapter are closely related relatively to the oil market and warrant a separate discussion.

We do not rule out the possibility of pricing our crude oil exports in euros. That would be interesting for our European partners. **Vladimir Putin, 2003**

Bilateral deals: With oil dependence projected to rise, major consumers are seeking long-term bilateral deals with producers, even under terms that favor the producers. China and Japan, for example, are so desperate for oil supply security that they are willing to make territorial concessions to Russia, in return for access to its oil – surrendering demands that had plagued their relationships since the Second World War.

Because of the strengthening bargaining position of Arab and Iranian producers, the bilateral deals they sign provide a powerful vehicle to attain political and strategic capital, that may in the hands of irresponsible governments serve to undermine regional stability.

Bilateral agreements are usually far more than contracts to buy and sell oil – they are placed in the context of wider economic and political understandings and cooperation. Thus they allow oil suppliers to exploit the buyers' dependence on oil to press for political goals. In extreme instances, the opacity of bilateral deals also opens a door to the barter of restricted technologies and to weapons proliferation. The reported October 2003 pact by Saudi Arabia and Pakistan to exchange free or cheap oil for nuclear know-how is an example.

Another troublesome aspect of large bilateral oil deals is that it leaves less “free” oil for the open market, thereby increasing the susceptibility of the world's economies to disruptions in supply.

Reemergence of the oil weapon:

The growing power wielded by major oil suppliers, especially through the mechanism of strategic bilateral deals, evokes the oil embargo weapon that was deployed against industrialized economies in 1973-74, and had since been thought obsolete. But it is less crude, more focused and sophisticated, and it is sheathed and used without the swagger that prevailed in the seventies. There are a growing number of voices, notably in Iran and the Saudi religious body would like to re-deploy the oil embargo and recapture the sense of empowerment it had endowed them with. The likelihood of this actually coming to pass is small for now, for various reasons, one of which is the US army parked in Iraq, another is questionable unity amongst OPEC members, and another is the effectiveness of using more subtle and discreet mechanisms, such as strategic bilateral deals, to deploy the political and strategic power of oil. But as the oil-dependence of consumer nations grows – and consistently high prices lend confidence to Arab and Iranian producers that high demand is here to stay – we may see at least some of the old swagger reemerge.

The Petro-Euro:

More reasoned voices, many of whom are no less hostile to US interests, have suggested an altogether different form of economic warfare: switching the oil currency from petrodollars to petro-euros: Studies have shown that an OPEC implementation of this switch would trigger a rapid 20-40% devaluation of the dollar, setting off mayhem in the already debt-ridden American economy.

The first oil producer to discard the petrodollar was none other than Saddam Hussein, who in November 2000 announced that henceforth Iraq would sell all its oil in Euros. Later, in 2003, the Saudis – angered by American policy in the Gulf – have reportedly raised the switching option for examination by OPEC, while other officials, in Euroland and Russia, more motivated by economic benefit than by political animosity, have also shown keen interest.

Several analyses have concluded that OPEC will not switch to petro-euros because the price of the switch would be too high. But further dollar devaluation, or spiraling tension in the Gulf, may render those conclusions false. One way or another, the option, or threat, of dropping the dollar as preferred oil currency is a factor of such magnitude, that it cannot be ignored. Related to this issue is Iran's euro-based oil bourse, scheduled to open its gates in 2005-6. Teheran's bourse is backed by the Saudis, as well as by other top producers, who want to gain more control over oil trading – but also want to temper American power.

Part V: The impact of global energy trends on the Middle East – Specific points for Israel

We can foresee a world that has grown increasingly and perhaps excessively dependent on the gulf region for its energy resources and for the performance of its economies. The Middle East will thus become the cockpit of contending world forces--a potential tinderbox. **James Schlesinger, 1989**

Global oil demand is hitting a fevered pitch at the same time that reservoirs around the world are finally running low, leaving a greater and greater proportion of the remaining oil in the deepest part of the puddle: The Middle East. Consequently, the world's mounting competitive pressures for oil are converging on one of its least stable regions. Israel's sensitive position in the Middle East behooves it to carefully monitor and be responsive to this situation, and in particular to the following issues:

Increased foreign presence, regional instability, proliferation

The presence of foreign powers such as China, Russia, India, Japan, and the EU in the gulf region is rising. The Chinese presence is potentially the most destabilizing because China is more desperate for oil and has fewer inhibitions about cooperating with pariah states and proliferating WMD technologies. Increased oil revenues may well lead to proliferation of conventional arms in the Gulf and among Israel's neighbors, as well as increased funding of terrorist organizations such as the Hizbullah and Hamas by Iran and groups within other regional oil producers.

Continued or escalating scarcity of oil supply could unleash competitive pressures that will significantly destabilize the Middle East.

Gulf oil producers in stronger bargaining position

The increasing dependence of a diverse set of powerful global actors on Gulf region oil strengthens the producers' geo-economic and geopolitical leverage, and is likely to continue doing so, to an even greater degree, in the foreseeable future.

Italy's lobbying to remove the EU weapons embargo on Libya, and China's announcement that it will oppose Security Council sanctions on Iran over its nuclear program serve as examples.

Growing motivation by multiple players to advance on Israeli-Palestinian peace

The Israeli-Palestinian conflict is viewed as a potent agent of destabilization and radicalization in the Middle East. More countries, that are growing increasingly dependent on the reliable supply of Middle Eastern oil, will therefore attribute greater importance and urgency to resolving this conflict. The US, needing to stabilize its own situation in Iraq and gain more credibility in Arab eyes, will devote substantial effort to this matter.

Potential opportunities for regional energy cooperation

The proliferation of energy transit-routes in the Middle East may present opportunities for Israel to become an integral part of the global energy network. The Ashkelon-Eilat pipeline could be such an opportunity. Joint regional energy projects could promote interdependence between Israel and its neighbors.

Practical Suggestion: Israel should develop energy efficiency and alternative energy technologies

The escalating global dependence on Middle Eastern oil presents Israel with far more serious challenges in its geo-strategic realm than in its own energy-security realm. The geopolitical impact of China's urgent oil dependence can be far more problematic to Israel than its own dependence, which can probably be satisfied in Russia or on the international spot market.

Therefore, to maintain its own national security, Israel has to help other powers solve their oil-dependence problem.

By deploying its substantial R&D capacity, Israel should take a leading role in developing and commercializing energy efficiency technologies and alternative energy solutions, particularly for sectors that are oil-intensive, such as the transportation sector, and in markets where efficiencies can be greatly improved, such as the Asian market.

The approach has to be brutally practical, the goals preferably short to mid-term, and the focus solely on technologies that promote the replacement of oil by any fuel that is not oil – including gas, coal, and tar sands – in addition to renewable fuels such as wind, solar, biogenic, and hydrothermal.

Israel should also seek to participate in the large-scale hydrogen economy initiatives that were launched by the US and by the EU.

Israeli companies should seek to adapt energy efficiency solutions already operational in industrialized countries, to developing markets such as China and India. In this particular endeavor, innovative application and commercialization could be more important than technological innovation.

Oil-dependence is emerging as one of the top problems for large economies. Israel can benefit both strategically and economically by helping to address this challenge.

This effort has to be planned prioritized and organized on the national level and with the highest priority.