# \*\*\*Links\*\*\*

## Transportation

#### Transportation key driver of oil demand

WORLD CRISIS 2008 (“World Oil Crisis: Driving forces, Impact and Effects,” http://www.world-crisis.net/oil-crisis.html)

The demand side of Peak oil is concerned with the consumption of oil over time, and the growth of this demand. Oil Crisis - US ProductionWorld crude oil demand grew an average of 1.76% per year from 1994 to 2006, with a high of 3.4% in 2003-2004. World demand for oil is projected to increase 37% over 2006 levels by 2030 (118 million barrels per day from 86 million barrels), due in large part to increases in demand from the transportation sector.

Energy demand is distributed amongst four broad sectors: transportation, residential, commercial, and industrial. In terms of oil use, transportation is the largest sector and the one that has seen the largest growth in demand in recent decades. This growth has largely come from new demand for personal-use vehicles powered by internal combustion engines. This sector also has the highest consumption rates, accounting for approximately 68.9% of the oil used in the United States in 2006, and 55% of oil use worldwide as documented in the Hirsch report. Transportation is therefore of particular interest to those seeking to mitigate the effects of Peak oil.

With the demand growth at its highest level in the developing world, the United States is the world's largest consumer of petroleum. Between 1995 and 2005, US consumption grew from 17.7 million barrels a day to 20.7 million barrels a day, a 3 million barrel a day increase. China, by comparison, increased consumption from 3.4 million barrels a day to 7 million barrels a day, an increase of 3.6 million barrels a day, in the same time frame.

As countries develop, industry, rapid urbanization and higher living standards drive up energy use, most often of oil. Thriving economies such as China and India are quickly becoming large oil consumers. China has seen oil consumption grow by 8% a year since 2002, doubling from 1996-2006 levels. In 2008, auto sales in China were expected to grow by as much as 15-20 percent, resulting in part from economic growth rates of over 10 percent for 5 years in a row. Although swift continued growth in China is often predicted, others predict that China's export dominated economy will not continue such growth trends due to wage and price inflation and reduced demand from the US. India's oil imports are expected to more than triple from 2005 levels by 2020, rising to 5 million barrels per day.

#### Alt causes are irrelevant – transportation is the key driver of demand and prices

Ian Rutledge, 2005 [Energy economist and lectures at the University of Sheffield, Energy Consultnat, Addicted to Oil : America's Relentless Drive for Energy Security, 9-10]

If electricity generation had been the only market for oil, Melvin Conant's 1981 forecast for oil imports might have been easily achieved. In reality, of course, oil is consumed in many other ways: by households and commercial enterprises (for central heating), by industry (in steam-raising boilers, furnaces and various non-energy uses like plastics) and in transportation. But while demand for oil from the residential, commercial and industrial (including electricity) sectors has remained more or less unchanged since the 1980s, demand from the transportation sector was soaring**.**

In 1950 the share of total US oil consumption attributable to the transportation sector was 54 per cent. By 1970 it had risen to 56 per cent, by 1980 it had jumped to 60 per cent and by 1990 it had reached 67 per cent. But it did not stop there. By 2001,69 per cent of US oil consumption was accounted for by the transportation sector as a whole (including motor vehicles, aircraft, shipping and railways) and 53 per cent of total US oil consumption was accounted for by motor vehicles alone. Indeed, the rate of increase in America's consumption of motor vehicle fuels (gasoline plus diesel) was prodigious: in 1960 it was 3.76 million b/d, in 1980,7.1 million b/d and by 2001, was running at 10.1 million b/d.

The reasons for this are clear. Oil, as we have already observed, is by far the most convenient energy source for LIMMs. In the twentieth century, American capitalism emerged and rose to phenomenal prosperity primarily through the manufacture and sale of the motor car - the archetypal LIMM. Other industries played their part - steel, plastics, and of course, the petroleum industry itself; but, as often as not, these were ancillary to the motor industry. Their products constituted the derived demand which emanated from the great car and truck factories. More than any other brand names. Ford and General Motors encapsulate the achievements of US manufacturing industry in the twentieth century.

Of course most other industrialised countries are motorised in varying degrees — but to nothing like the extent which characterises American society. This is a theme we shall examine in greater detail in Chapters Two and Nine, but for the time being it will suffice to underline one simple statistic which indicates the huge gap between the USA and the other industrialised countries. Motor gasoline and diesel consumption in the USA is 2,043 litres per inhabitant. That is three times greater than Japan and two and half times greater than Germany, France and the UK.58 Moreover this is only partially the result of geography -distances travelled — because energy consumption per 1,000 vehicle/kilometres, 183 kg of oil equivalent, is twice that of France and the UK and 1.8 times greater than Germany and Japan.2\*

#### Transportation infrastructure development decreases national dependence on oil

John Robert Smith, 2012 [President and CEO of Reconnecting America, Federal Transportation Infrastructure Investment Critically Important, Reconnecting America,

1/25/12, <http://www.reconnectingamerica.org/news-center/reconnecting-america-news/2012/federal-transportation-infrastructure-investment-critically-important>]

"I appreciate the President's recognition that repairing our transportation infrastructure must be a part of any plan to make an America 'built to last.' As the President pointed out, both Republican and Democratic administrations invested in great highway projects after World War II. Those major infrastructure investments benefited everybody, as the President noted, 'from the workers who built them to the businesses that still use them today.' And now, many of those roads and bridges are in disrepair. "Today, as the nation begins to rise out of a deep recession, an investment in transportation infrastructure is critically important, including not only roads and bridges, but other modes such as trains and buses. Transportation choices for Americans are essential for reducing our dependence on foreign oil, increasing access to opportunity, and improving our quality of life. Indeed, transportation is a key component in making many of the President's other proposals work. We need transit options and intermodal links to take students to college, to transport unemployed workers to job training, and to bring employees and customers to small businesses. Quality, reliable public transportation systems are the anchors that help many communities thrive, whether they are in rural, suburban, or urban areas. “A world class transportation system can be made in America with Americans working to ensure that Americans have a way to get to work. That is a solution we can all support. As a former Republican mayor, I was pleased to hear the president's strong call not to politicize transportation construction. I encourage members of both parties to work towards a solution that will benefit all Americans."

## High Speed Rail

#### High Speed Rail Destroys Demand and Prices

Robert Cruickshank 2012 [Feb. 16, “A native Californian, Robert was born and raised in Orange County and educated at UC Berkeley. He now lives part-time in Monterey and in Seattle. He has worked in and out of government as a progressive policy wonk, communications specialist, and organizer. Robert is the former Chairman of [Californians for High Speed Rail](http://www.ca4hsr.org) and is still a board member of that organization.” “Gas Prices Threatening Economic Recovery” http://www.cahsrblog.com/2012/02/gas-prices-continue-to-rise-threatening-economic-recovery/

The only solution to rising gas prices is demand destruction. That can take two forms. Either demand is reduced by shifting to alternatives – including high speed rail – or demand is reduced by less economic activity. Without developing alternatives like HSR, reduced economic activity and a return to recession is the only option.

High speed rail depletes fossil fuel and oil dependence

Center for American Progress, 2010 [“It's Easy Being Green: Rail Transport Picks Up Speed” Center for American Progress, March 24th 2010, <http://www.americanprogress.org/issues/2010/03/ebg_032310.html>]

The United States uses 25 percent of the entire world’s oil supply despite having only 5 percent of the world’s population, and sprawling communities force people to drive even short distances. We need alternate modes of transportation to kick this oil dependence, and one alternative is high-speed rail, which offers tantalizing environmental and economic benefits. President Barack Obama, Vice President Joseph Biden, and Transportation Secretary Ray LaHood announced a strategic plan for high-speed rail last year that includes $8 billion in the American Recovery and Reinvestment Act and $1 billion a year for five years in the federal budget. Their goal is to jumpstart a potential world-class rail system in the United States. These economic incentives for a mass U.S. network of high-speed rail trains, or HSR, along existing transportation corridors could create much-needed jobs, decrease our dependence on foreign oil and fossil fuels, and significantly reduce greenhouse gas emissions.

High speed rail lowers gas prices

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The stock market started off 2012 with a strong rally, [but so did gasoline prices](http://http/www.investopedia.com/articles/07/oil_gas.asp). The January increase was listed as one of the steepest ever and had market forecasters calling for prices as high as $5 per gallon at some point in 2012. The average price of gas has yet to reach that price, based on a national average, but it could still happen if the summer driving season comes in more active than expected, or if Middle East tensions increase again. With the presidential election set for later this year, politicians are getting active in advocating ways to lower prices at the pump. Below are three ways that Obama could advocate to lower gas prices. The short-term impact might be minimal, but it could help the U.S. lower prices over time and also depend less on more volatile supplies. In March 2011, the White House released some details on a plan to secure the nation's energy future. Its first point was to expand domestic oil and gas production. Hydraulic fracturing, or fracking, is a technique that sends a mix of water, chemicals or sand into the ground to break apart rock and release gas. [Drilling for oil can be done in a similar fashion that utilizes new techniques and technologies](http://http/www.investopedia.com/articles/economics/08/determining-oil-prices.asp) that allow for the oil to be extracted from wells that were thought dry under older methods. These two methods are being combined to create a huge source of domestic [supply](http://www.investopedia.com/terms/s/supply.asp) that can help reduce dependence on foreign sources and increase supply to lower overall prices. Vehicles that run on natural gas already exist, though mass-market cars and trucks are still a ways off. Fracking techniques are still controversial and are alleged to cause earthquakes or pollute drinking water sources, but have been approved for use for the most part. The increase in domestic production is increasing supply, which can help to lower prices. Obama's energy plan detailed that in 2010 oil production reached its highest level since 2003, while natural gas reached a 30 year high. The vast increase in natural gas supplies has seriously dented prices, and firms are cutting back on production because it has become uneconomic to extract it in certain regions. The White House also touted freeing up millions of acres of federal and public land, as well as [offshore](http://www.investopedia.com/terms/o/offshore.asp) locations, for drilling. Overall, [increasing domestic supply](http://www.investopedia.com/articles/economics/11/intro-supply-demand.asp) is seen as the best approach to lower gas prices over the long haul. Of course, overseas sources, especially through [OPEC](http://www.investopedia.com/terms/o/opec.asp), will continue to account for a large percentage of supply. Securing more dependable and less volatile partners could help smooth out supply, and hopefully price swings. Overall, gas prices have risen because of huge demand increases in emerging markets such as China and India. Again, finding domestic supply increases offers perhaps the best solution. Decreasing demand could also lower gas prices. Transportation consumes an estimated 70% of that nation's gas supply, so finding ways to reduce driving could help lower demand, and eventually gas prices. Vehicles that run on alternative sources of energy, including natural gas, as well as those that run partially on electricity can also help. Obama's energy outlook cited more than 12 manufacturers of electric vehicles, many of which receive government [subsidies](http://www.investopedia.com/terms/s/subsidy.asp) to get the technology closer to mass production. Light and high-speed rail transportation could also help, if built in a cost effective manner. Smaller methods to improve efficiency and [lower demand include producing cars that are more fuel efficient](http://www.investopedia.com/financial-edge/0211/6-Simple-Car-Mods-That-Actually-Save-Fuel.aspx). Clearly, increasing domestic supply is among the best approaches to lowering gas prices over the long term. On the fringes, finding stable international supplies and lowering demand through alternative sources of energy and more efficient vehicles can also help. Any politician that continues to emphasize these approaches could engage voters and help his or her chances of election.

## Mass Transit

#### Mass transit reduces foreign oil dependency

Taylor Kuykendall, 2012 [Reporter, State Journal, “ Environmentalists: Solution to high gas prices is weaning dependence” State Journal, <http://www.statejournal.com/story/17066662/environmentalists-solution-to-high-gas-prices-is-weaning-dependence?clienttype=printable>]

Environmental groups are urging less gasoline use in response to high gasoline prices, a problem that may be easier said then done in the Mountain State. The Sierra Club hosted a conference call with the League of Conservation Voters and the Natural Resources Defense Council Friday morning. The leaders of those organizations said using less oil – through alternatively fueled vehicles or increasing use of mass transit – is one of many ways to reduce gasoline demand. The argument that higher gasoline prices reduces usage because consumers shift to walking, mass transit, biking or other means of transportation does little for rural consumers. Long distances, few mass transit services and terrain that is hardly conducive to any other means of travel often means people in rural states such as West Virginia have few choices but to continue paying higher prices at the pump. Talking about what takes Americans places – not just what fuel runs what takes them there – is essential to reducing oil dependence, said Peter Lehner, Natural Resources Defense Council (NRDC) Executive Director. "If we have transportation choices, if we can take mass transit or if we live in communities where we can walk to the subway or walk to our office, we are no longer lackeys to the oil industry," Lehner said. "The challenge is that not all American's have those choices."

## Inland Water Ways

#### Expanding inland waterways reduces foreign oil dependence

MARAD, No date [US Maritime Administration, “America’s Marine Highway Program” http://www.marad.dot.gov/documents/Marine\_Highway\_Program\_brochure\_(final).pdf]

America’s Marine Highways together consist of more than 25,000 miles of coastal, inland, and intracoastal waterways. It moves only about 2 percent of our domestic freight and is currently underutilized. Expanding the use of this valuable resource will help dramatically reduce landside congestion and offer significant opportunities to help reduce emissions, decrease oil dependence, and find alternatives to maintenance and construction costs of highway and railroad infrastructure.

## Highways

#### Highway infrastructure investment decreases reliance on foreign oil supplies

Mortimer L. Downey , 2011 [Senior Advisor @ Parsons Brinckerhoff, a construction management organization, “Do we need more highways?: A view from the front line” National Journal 5/3/11 <http://transportation.nationaljournal.com/2011/05/do-we-need-more-highways.php>]

Yes we need highways (although probably not so many new ones) and yes we need to maintain the system we have. If we are going to move the needle on energy consumption and foreign oil dependence, yes we need more well maintained and affordable transit--we can't ask people to ride services that arent there. And yes we need more bike and pedestrian facilities if we want to contribute to the livability of our cities. What's really important about the Conference of Mayors survey of their membership is that it represents views from the front lines of transportation policy and program delivery. These are the men and women, big city, small city and suburban communties who are closest to the voters and have broad responsiblities to achieve results. The recent discussions about transportation policy have emphasized the concepts of performance based and accountable delivery systems. These folks are the ones who really understand that and we should listen to them.

## Alt Energy Incentives (1NC)

#### **Increased alternative energy in transportation causes OPEC to drop the price of oil**

#### **Elass and Jaffe 10—Professors @ University of Rice**

Jareer Elass, Energy Consultant and Editor @ James A. Baker III Institute for Public Policy @ Rice University, Amy Myers Jaffe, Wallace S. Wilson Fellow in Energy Studies, James A. Baker III Institute for Public Policy @ Rice University, September 2010, “The History of U.S. Relations with OPEC: Lessons to Policymakers”

Given the scale up and timing issues, as reflected in Prince Turki's op ed, leaders from OPEC oil producing countries remain skeptical of the Obama administration's push for renewable energy development, electric cars, and the administration's initially ambitious commitment to slash U.S. greenhouse gas (01-10) emissions and support a global climate treaty. OPEC's best defense against alternative energy would be to drop the price of oil to levels that would render alternative energy as commercially unprofitable. But the producer group is not currently actively concerned about the threat of alternative energy or electrification of the transportation sector because it doesn't believe that such technologies can be scaled up commercially to a significant level within the next twenty or thirty years. OPEC' leaders are more concerned that a U.S. or global climate regime not tax or penalizes petroleum in a substantial fashion that significantly disadvantages oil-based fuel. A U.S. border carbon tax that hits all U.S. imports, including oil imports from Saudi Arabia, might be viewed as a more serious trade problem than U.S. policies to promote alternative energy. But so far, OPEC has not had to worry too much about the Obama administration moving ahead forcefully with overly ambitious energy and climate policy plans. Instead, the new administration has been hamstrung with a struggling U.S. economy. The administration's long struggle to pass major health care reform between 2009 and the spring of 2010 has dampened its chances of passing substantial climate legislation either later this year or into next year, and President Obama has also had to cope with the fallout from the weak accord produced from the December 2009 U.N. climate talks held in Copenhagen. Thus, OPEC's charge has been mainly focused on reacting to prospects that tightened fuel economy standards will curb growth in oil use in the U.S. market over time.

## Alt Energy Incentives Ext.

#### Incentives for alternative energy lower the expected future demand for oil—this causes an immediate decline in the price

Martin Feldstein, 2008 [Martin Feldstein, 7/1/2008. Chairman of the Council of Economic Advisers under President Reagan, is a professor at Harvard and a member of The Wall Street Journal's board of contributors. “We Can Lower Oil Prices Now,” The Wall Street Journal, <http://online.wsj.com/article/SB121486800837317581.html?mod=opinion_main_commentaries>]

Unlike perishable agricultural products, oil can be stored in the ground. So when will an owner of oil reduce production or increase inventories instead of selling his oil and converting the proceeds into investible cash? A simplified answer is that he will keep the oil in the ground if its price is expected to rise faster than the interest rate that could be earned on the money obtained from selling the oil. The actual price of oil may rise faster or slower than is expected, but the decision to sell (or hold) the oil depends on the expected price rise. There are of course considerations of risk, and of the impact of price changes on long-term consumer behavior, that complicate the oil owner's decision – and therefore the behavior of prices. The Organization of Petroleum Exporting Countries (the OPEC cartel), with its strong pricing power, still plays a role. But the fundamental insight is that owners of oil will adjust their production and inventories until the price of oil is expected to rise at the rate of interest, appropriately adjusted for risk. If the price of oil is expected to rise faster, they'll keep the oil in the ground. In contrast, if the price of oil is not expected to rise as fast as the rate of interest, the owners will extract more and invest the proceeds. The relationship between future and current oil prices implies that an expected change in the future price of oil will have an immediate impact on the current price of oil. Thus, when oil producers concluded that the demand for oil in China and some other countries will grow more rapidly in future years than they had previously expected, they inferred that the future price of oil would be higher than they had previously believed. They responded by reducing supply and raising the spot price enough to bring the expected price rise back to its initial rate. Hence, with no change in the current demand for oil, the expectation of a greater future demand and a higher future price caused the current price to rise. Similarly, credible reports about the future decline of oil production in Russia and in Mexico implied a higher future global price of oil – and that also required an increase in the current oil price to maintain the initial expected rate of increase in the price of oil. Once this relation is understood, it is easy to see how news stories, rumors and industry reports can cause substantial fluctuations in current prices – all without anything happening to current demand or supply. Of course, a rise in the spot price of oil triggered by a change in expectations about future prices will cause a decline in the current quantity of oil that consumers demand. If current supply and demand were initially in balance, the OPEC countries and other oil producers would respond by reducing sales to bring supply into line with the temporary reduction in demand. A rise in the expected future demand for oil thus causes a current decline in the amount of oil being supplied. This is what happened as the Saudis and others cut supply in 2007. Now here is the good news. Any policy that causes the expected future oil price to fall can cause the current price to fall, or to rise less than it would otherwise do. In other words, it is possible to bring down today's price of oil with policies that will have their physical impact on oil demand or supply only in the future. For example, increases in government subsidies to develop technology that will make future cars more efficient, or tighter standards that gradually improve the gas mileage of the stock of cars, would lower the future demand for oil and therefore the price of oil today. Similarly, increasing the expected future supply of oil would also reduce today's price. That fall in the current price would induce an immediate rise in oil consumption that would be matched by an increase in supply from the OPEC producers and others with some current excess capacity or available inventories. Any steps that can be taken now to increase the future supply of oil, or reduce the future demand for oil in the U.S. or elsewhere, can therefore lead both to lower prices and increased consumption today.

#### **Alternative energy causes Saudi Arabia to artificially deflate oil prices**

#### **Rosen 11**

Armin Rosen, “Saudi Prince Says Kingdom Could Use Low Oil Prices to Tave Off Alternative Energy Development”, Alt Transport, May 31, 2011 http://alttransport.com/2011/05/saudi-prince-says-kingdom-could-use-low-oil-prices-to-tave-off-alternative-energy-development/

Saudi Arabia, the world’s second-largest oil producer, is apparently worried that alternative energy could eventually drive them out of business. And they’re worried enough to be willing to cut into their own short-term profit margins: in an interview with CNN’s Fareed Zakaria, Saudi Prince Al-Waheed bin Talal admitted that the Saudis want to keep oil at around $80 a barrel in order to undermine the relative economic viability of alternative technologies. The Saudis exert an outsize influence on oil prices, so it matters when one of the most powerful people in the country admits that artificially depressed oil prices are better than giving western companies and governments a reason to develop or subsidize technologies that could make oil obsolete: Saudi Prince Al-Waleed bin Talal said Sunday that he wants oil prices to drop so that the United States and Europe don’t accelerate efforts to wean themselves off his country’s supply. In an interview broadcast Sunday on “CNN’s Fareed Zakaria GPS,” the grandson of the founding king of modern Saudi Arabia said the oil price should be somewhere between $70 and $80 a barrel, rather than the current level of over $100 a barrel. “We don’t want the West to go and find alternatives, because, clearly, the higher the price of oil goes, the more they have incentives to go and find alternatives,” said Talal, who is listed by Forbes as the 26th richest man in the world. As this International Business Times article explains, the cost of developing new technologies easily outstrips the cost of oil, at least in the short-term. But the price of a solar power plant or a network of electric refueling stations is front-loaded, and they begin paying off as soon as their quite significant startup costs are cleared. The Saudis are worried that even a few months of astronomical oil prices could convince companies and governments that those startup costs aren’t such a hardship after all. It makes intuitive sense that an oil-producing nation would feel threatened by the possible obsolescence of its most valuable commodity. But it’s surprising to hear a powerful Saudi prince admit that this is already something his government is thinking about, and that alternative energy factors into the Kingdom’s long-term economic calculus. Then again, if alternative energies like sand tar or electric vehicles actually did threaten oil consumption, demand for oil wouldn’t be quite as great as it currently is and prices would be depressed by basic supply and demand, instead of by royal decree. So this could be a red herring, or at least coded reassurance to investors and consumers that, for whatever reason, the Saudis won’t allow oil prices to cross a certain threshold. But this could still be a significant moment for alternative energy. Just about everyone can agree that it’s in our immediate national interest not to export trillions of dollars of economic activity to Saudi Arabia. And the Saudis are potentially worried enough about our ability to innovate to keep oil prices artificially low. This is a worry that the U.S. government, as well as the companies working on alternative energy, should be exploiting to the fullest.

#### **Alternative energy decreases the price of oil**

#### **Hochman et al 10—Professor @ Cal Berkeley**

Gal Hochman, Deepak Rajagopal, and David Zilberman, University of California-Berkeley, AgBio Forum, “The Effect of Biofuels on Crude Oil Markets”, 2010, http://www.agbioforum.org/v13n2/v13n2a03-hochman.htm

Next, we use the numerical framework to assess the impact of biofuel on fuel markets and the environment. Following that, we illustrate the environmental benefits from OPEC. There we show that with a competitive market structure, in contrast to a CON market structure, the reduction in carbon emissions due to the introduction of biofuels is an order of magnitude smaller. The Effect of Biofuel on Fuel Markets and the Environment Biofuels cause oil prices in importing countries to decline by 1.07-1.10% (Table 2). The wedge, on the other hand, increases by 1.18-1.65% (Table 2). The introduction of biofuels creates pressure to reduce prices. Oil-exporting countries mitigate this cost by redistributing benefits from biofuel to domestic fuel consumers. It reduces exports but increases domestic consumption. This ability to influence prices, however, declines as demand becomes more elastic wherever larger levels of biofuel yield more elastic demand functions.On the other hand, introducing 11.35 billion biofuel GEG to fuel markets reduces global fossil fuel consumption by 1.39-1.60 billion gallons (Table 3). At the same time, the rebound effect resulting from lower fuel prices contributes to a net increase of 9.75-9.96 billion GEG. The reduction in fossil fuels consumed increases with the supply elasticity of fossil fuels, resulting in a smaller rebound effect. However, independent of the elasticity, the introduction of biofuels offsets the reduction in fossil fuel consumption and replaces “dirty” fuel with “clean” fuel. The shift in the energy composition toward renewable energy alternatives not only forces oil-exporting countries to reduce prices, but also to reduce production.

#### **Alternative energies cause decreased oil prices and increased oil supply**

#### **Longmuir and Alhajji 07**

Dr. Gavin Longmuir, consulting petroleum engineer, petroleum appraiser, and Dr. A.F. Alhajji, associate professor of economics, 2/12/07, Oil and Gas Journal, “West should consider ramifications of its off-oil rhetoric”

Oil exporters could take Western commentators seriously and assume that oil importers will indeed reduce their demand for oil, leaving them with then-unmarketable oil in the ground. Their logical response to this threat would be to accelerate production of oil while their resources still have value. This would of course drive down the price of oil and undermine the economic feasibility of alternative energies. A collapse in the price of oil would kill several new energy technologies and ultimately increase demand for oil. In fact, the oil-producing countries might view increasing oil production and lowering prices as a logical policy to counter the anti oil policies of the governments of consuming countries. Historical data from periods of oil price collapses support this point: Low oil prices increase oil demand, decrease efficiency improvements, choke alternative energy resources, and increase waste. \* Alternatively, expecting a decline in demand for their oil, oil-producing countries might decide to reduce their planned investments in production capacity expansion and maintenance and mothball some planned projects, which would shortly lead to declining oil supplies. If new technologies do not come on line by the time oil production starts declining, the world will face a serious energy crisis, probably unparalleled in history. Reversing such a trend of declining investments would take years, despite massive increases in oil prices. This alternative is not a mere possibility: Several major projects have been mothballed in the past when the oil-producing governments deemed these projects not needed. \* If oil-consuming countries do begin to reduce their dependence on oil, major oil exporters could seek to use their now less-valuable oil within their own borders as cheap fuel with which to expand heavy industries. Instead of exporting oil directly, they could export the energy from that oil embedded in metals, chemicals, and manufactured products at prices that far undercut Western products, constrained as Western manufacturers would be by having to use higher-cost alternative energy sources. The net result would be a loss of jobs and economic strength by the West without having any impact on the overall global consumption of fossil fuels. Even if Western countries successfully replaced imported oil with indigenous alternative energy sources, they would still have to live on the same planet as oil-exporting countries, whose fragile societies would then face the loss of their main source of revenue. Energy independence for current oil importers, if somehow achieved, would aggravate political instability in oil-exporting countries. In addition, it is unclear what will happen to the world monetary system without trade in oil and the associated recycling of petrodollars. A change to a world where most industrial countries depend on their own domestic energy resources would require a major change in the global financial system. Such a change would create its own difficulties, impacting even the industrial countries.

#### Policies to reduce the demand for fossil fuels decrease prices and increase use

#### **TVHE 7**

The Visible Hand in Economics blog, “Supply Siders on Climate Change,” Nov 6, 2007 http://www.tvhe.co.nz/2007/11/06/supply-siders-on-climate-change/

Most debate surrounding climate change focuses on the best method of suppressing demand for carbon intensive technologies. However, as Hans-Werner Sinn points out at VoxEU, reductions in demand for carbon could result in perverse incentives on the supply side. In particular, the suppliers of oil, coal and other non-renewable, carbon rich resources could face an incentive to increase their rate of extraction. This arises because of the special nature of exhaustible resources: since there is a finite quantity of the resource to make profits from, the extractor tries to sell it when the price is highest. If carbon reduction policies are successful then we should observe declining demand for these resources over time. Decreasing demand will cause prices to fall and, since the extractors of oil can anticipate the price drops, they’ll try to sell as much now as possible. The increase in supply will cause prices to drop straight away which will trigger countries who have not signed up to Kyoto to consume more carbon rich fuels now. The two ways this could be avoided are to either force the entire world to conform to the same Kyoto-type standards, or to forcibly restrict the supply of carbon rich fuels. Failure to do either of these things could result in global carbon emissions actually rising as momentum builds behind the environmental movement. Sinn thinks that the only way to cope is to invest heavily in afforestation to offset the extra emissions. Given the rate of global deforestation it can only be hoped that political pressure and reputation effects will be enough to prevent cheap oil flooding the world market. Thankfully oil prices show no signs of diving since the advent of the Kyoto protocol. So far at least…

## Booster—Small Changes

#### Perception triggers the link – even small changes to US policy are perceived

Paul Roberts, 2005 [Journalist, The End of Oil, p. 95]

Within the oil world, no decision of any significance is made without reference to the U.S. market, nor is anything left to chance. Indeed, the oil players watch the American oil market as attentively as palace physicians once attended the royal bowels: every hour of every day, every oil state and company in the world keeps an unblinking watch on the United States and strains to find a sign of anything — from a shift in energy policy to a trend toward smaller cars to an unusually mild winter — that might affect the colossal U.S. consumption. For this reason, the most important day of the week for oil traders anywhere in the world is Wednesday, when the U.S. Department of Energy releases its weekly figures on American oil use, and when, as one analyst puts it, “the market makes up its mind whether to be bearish or bullish.”

#### Market is globally integrated – small changes have ripple effects

Nellesh Nerurkar, 2011 (Energy specialist, “U.S. Oil Imports: Context and Considerations” 4/1/11, <http://www.fas.org/sgp/crs/misc/R41765.pdf>]

Domestic supply disruptions can also shift trade flows. After hurricanes Katrina and Rita shut in oil production in the U.S. Gulf of Mexico, U.S. imports increased by around 0.7 Mb/d between July and October 2005. The increase was in refined products; hurricanes shut down more refining capacity than crude oil production. Crude imports fell. Supply disruption in countries that are not traditionally major sources of U.S. imports may still have significant implications for the United States because they raise the price of oil worldwide. The oil market is globally integrated, refiners can shift the crude they use, and refined products are interchangeable commodities; so a disruption anywhere can affect oil prices everywhere. For instance, the United States imported only around 0.1 Mb/d of oil from Libya in 2010. (For context, the U.S. consumed about 19.2 Mb/d in 2010.) Most of Libya’s crude supply went to Europe. But when unrest shut down Libya’s exports in February 2011, global prices rose, including prices for oil imported into the United States from elsewhere and oil produced domestically. Global supply was reduced and European refiners had to look to other oil sources, bidding up those oil prices to secure substitute supplies. 10 The price of oil may rise until it makes up for the amount of supply no longer available due to the disruption. This can occur by price rising enough that some consumers no longer demand oil and/or suppliers bring additional production to market. 11 Many oil producers and consumers are inelastic to price changes when considering how much to supply or consume, especially in the short run, so seemingly small disruptions can lead to more significant percent changes in the price of oil. Even anticipation of disruptions can contribute to higher oil prices. Buyers and sellers of oil make risk-weighted decisions now about future commercial and financial needs. Anticipated disruption risks affect the price at which they are willing to buy and sell oil. Arguably, a significant portion of the increase in oil prices from unrest in Libya, Egypt, Bahrain, and elsewhere is attributable to concerns that unrest could spread to other oil exporters in the Middle East and North Africa. For more on this, see CRS Report R41683, Middle East and North Africa Unrest: Implications for Oil and Natural Gas Markets, by Michael Ratner and Neelesh Nerurkar. Disruptions to oil production reduced supply, slowed supply growth in recent years, and created concerns about future supply. This combined with rising oil demand, resulting from rapid economic growth in several countries, as well as other financial, geologic, commercial, and political factors, contributed to the rise in oil prices during the 2000s. Some selected events that played a role in recent price developments are presented in Figure 4

Oil prices are perception based—the plan triggers a massive sell-off.

Robert Shiller, 2004 [Professor of Economics at Yale, “The perception of declining prices triggers a massive sell-off and price collapse,” The Edge (Malaysia), Lexis]

But what matters for oil prices now and in the foreseeable future is the perception of the story, not the ambiguities behind it. If there is a perception that prices will be higher in the future, then prices will tend to be higher today. That is how markets work. If it is generally thought that oil prices will be higher in the future, owners of oil reserves will tend to postpone costly investments in exploration and expansion of production capacity, and they may pump oil at below capacity. They would rather sell their oil and invest later, when prices are higher, so they restrain increases in supply. Expectations become self-fulfilling, oil prices rise and a speculative bubble is born. But if owners of oil reserves think that prices will fall in the long run, they gain an incentive to explore for oil and expand production now in order to sell as much oil as possible before the fall. The resulting supply surge drives down prices, reinforces expectations of further declines, and produces the inverse of a speculative bubble: a collapse in prices.

##  AT: Other Countries Effect Price

#### Other countries model the US and even if they don’t reduced consumption here triggers the link

Yetiv and Feld 7 [Steve A. Yetiv and Lowell Feld, Fall 2007. Professor of political science at Old Dominion University and senior international oil markets analyst at the U.S. Energy Information Administration until March 2006. “America's Oil Market Power: The Unused Weapon Against Iran,” World Policy Journal, Proquest.]

As world oil demand is projected to increase at least through 2025, some might argue that this would diminish the impact of a U.S. 3 MMBD reduction plan. This is not the case. All other things being equal, the 3 MMBD reduction in oil demand would lead to higher spare capacity and lower oil prices. Recall that we are discussing reductions from current baseline projections of future global demand, which include rising demand from China and India. These projections do not include the type reductions envisioned in our plan. Thus, one can reasonably expect the program to impact price, even under the expectation of rising global demand. In addition, the 3 MMBD plan is merely a conservative starting point for an overall, long-term strategy. Over time, the United States could continue to take action towards cutting its oil consumption, and that could spur other countries to follow suit. But even if other nations choose not to pursue similar policies, U.S. action alone would likely decrease oil prices.

#### US is the key consumer

Paul Robers, 2000 [Journalist, The End of Oil, p. 15]

But by necessity, much of this book will focus on the United States. For all that the new energy economy is an international issue, no nation will play a greater role in the evolution of that economy than ours. Americans are the most profligate users of energy in the history of the world: a country with less than 5 percent of the world’s population burns through 25 percent of the world’s total energy. Some of this discrepancy is owing to the American economy, which is bigger than anyone else’s and therefore uses more energy. But it is also true that the American lifestyle is twice as energy-intensive as that in Europe and Japan, and about ten times the global average. The United States is thus the most important of all energy players: its enormous demand makes it an essential customer for the big energy states like Saudi Arabia and Russia. Its large imports hold the global energy market in thrall. (Indeed, the tiniest change in the US energy economy – a cold winter, an increase in driving, a change in tax law – can send world markets into tailspin.) And because American power flows from its dominance over a global economy that in turn depends mainly on oil and other fossil fuels, the United States sees itself as having no choice but to defend the global energy infrastructure from any threat and by nearly any means available – economic, diplomatic, even military.

# \*\*\*Backstopping\*\*\*

## 1NC-Shell

### 1NC

#### Keeping oil prices high is key to successful transition to alternative energy

#### **IBT ‘11**

International Business Times. “Why lower Saudi oil prices kill alternative energy”. May 30, 2011. http://www.ibtimes.com/articles/154524/20110530/saudi-arabia-oil.htm

The biggest obstacle to alternative energy is money. Saudi Prince Al-Waleed bin Talal seems to understand this. In a CNN interview, he admitted Saudi Arabia wants lower oil prices because it doesn’t “want the West to go and find alternatives.” Alternative energy hasn’t taken off in the US because its development largely depends on the private sector. Currently, it’s simply cheaper buy oil from countries like Saudi Arabia, so not many private companies bother to develop alternative sources. For example, if Saudi oil average $80 per barrel in the long-term, why bother extracting oil from oil sands and oil shale if doing so cost $85 per barrel? Why turn to electric cars if the whole ordeal – the research, electric cars, and electric grid – cost more than filling up convention cars with imported fossil fuel? On the other hand, if oil skyrockets to $200 per barrel, it would make absolutely sense to develop oil sands, oil shale, and electric cars. Experts generally put the threshold at which alternative energy becomes viable at a long-term sustained price of $80 per barrel. A recent Federal Reserve research, for example, puts the figure for oil sands at $70 per barrel in 2005 terms, which translates to $77.5 in 2010. According to Al-Waleed, Saudi Arabia probably estimates the threshold to be $80 per barrel. The cost of many alternative energy sources is front-loaded. For example, once a solar farm is constructed and the electric grid is built, the cost of harvesting additional electricity becomes extremely cheap. The danger for oil producers like Saudi Arabia is that once a sustained period of high oil prices induces the Western private sector to invest the upfront costs of setting up alternative sources, the price of energy will be lowered permanently. The optimal strategy for Saudi Arabia, therefore, is to avoid a sustained period of high oil prices. For Western countries, the optimal strategy to bite the bullet, pay the upfront cost, and save money in the long-run with cheap alternative energy sources. Western capitalism, however, can be short-sighted and decentralized; if oil prices stay reasonablely low, not enough players in the private sector will have the resolve to eat the enormous upfront costs of developing alternative energy sources.

#### Renewable energy is key to avoid oil dependence, high prices and warming

#### **Baker ‘4**

Mark, RadioFree Europe, ‘World: Rise In Oil Price Shifts Focus To Use of Renewable Resources,’ June 1,

http://www.rferl.org/featuresarticle/2004/06/8a45b713-2c2e-4654-9579-e7cc4e081637.html

Some 2,900 delegates, including ministers and heads of government from 118 countries, are planning to attend the conference. In addition to the use of solar and wind energy, delegates will discuss progress in harnessing biomass, geothermal energy, and hydrogen. Proponents of alternative fuels point out that they lessen the world's energy dependence on volatile areas like the Middle East. Much of the world's oil is produced in the Persian Gulf states and the Middle East -- where the threat of a terrorist attack is greatest. This past weekend's terrorist hostage taking in Saudi Arabia alone added nearly a dollar to the price of a barrel of oil -- pushing it to almost $41 a barrel in trading today. Rising demand for oil has also pushed prices higher. The reasons behind the higher demand are a rapidly growing Chinese economy and an increasing preference of drivers in the United States and other countries for bigger, less fuel-efficient vehicles. Another strong argument in favor of alternative fuels is their effect on climate change. Fossil fuels such as oil and coal, when burned, produce carbon dioxide and other greenhouse gases suspected of contributing to global warming. Alternative fuels, on the other hand, are negligible producers of such gases. But skeptics will recall that this sudden embrace of alternative fuels is nothing new. The world reacted in much the same way in the late 1970s and early 1980s in response to the oil-price shocks of the mid-1970s. A recent study by the Paris-based International Energy Agency (IEA) shows that the amount of money spent on total energy research -- including research on alternative fuels -- peaked in 1981, reaching some $16 billion that year. By 1987, however, as oil prices eased, the amount of money spent on energy research fell by half. During the 1990s research in alternative fuels lagged even as the global economy boomed. Today, renewable energy resources contribute only about 5.5 percent of total energy supply -- scarcely unchanged from 1970. The IEA says renewable energy resources can play a role in reducing oil dependence and in helping the environment, but that governments must spend more on research and development.

#### Warming leads to extinction

#### **Burkett 8 – Professor of Law**

Maxine Burkett, Associate Professor, University of Colorado Law School, 2008, “Just Solutions to Climate Change: A Climate Justice Proposal for a Domestic Clean Development Mechanism,” 56 Buffalo L. Rev. 169, Lexis

The unparalleled scale of impact the climate crisis has had, and will continue to have, on the globe has been forecasted for almost a century. 3 Most recently, the Intergovernmental Panel on Climate Change (IPCC) has concluded that the warming of the climate system is "unequivocal." 4 With this warming comes the threat of more [\*174] extreme weather, including more intense and longer droughts than have already been observed, 5 heavy precipitation including increased intensity of tropical cyclones, 6 and hot extremes and heat waves. 7 While these changes sound merely inconvenient and perhaps costly, they have been described by the IPCC Chairman, without hyperbole, as dangers that risk "the ability of the human race to survive." 8 In the short term, these extremes will risk the survival of communities that are ill-equipped to adapt to warming as they struggle to moderate and cope with its consequences.

## Uniqueness

### Alt Energy High Now

#### Renewables now—reduced costs

Steffens 12President and CEO, Frankfurt School of Finance & Management (Uddo, June 2012, “Global Trends in Renewable Energy Investment 2012,” [http://fs-unep-centre.org/publications/global-trends-renewable-energy-investment-2012)//DR](http://fs-unep-centre.org/publications/global-trends-renewable-energy-investment-2012%29//DR). H

Reduced costs to deploy renewable energy foster the investment boom. They support and enable the transition towards a green economy. Others, often even technology-pioneering companies, suffer from increased competition in the sector. In fact, the present situation is characterised by painful disparities between the performances of different companies, and different countries, trying to benefit from the rapid transition towards renewable energies. The decline in costs of important renewable technologies is starting to challenge fossil-fuel alternatives, even without effective carbon prices or direct subsidies to the producer of renewable energy. Increasing competition has been accompanied by the bankruptcies of several significant solar manufacturers in the US and Germany in late 2011 and early 2012. Some actors have been leaving the stage of renewables, and new players are emerging. Nevertheless, the renewables sector shows all elements of a highly dynamic and vibrant industry - not only from an investment perspective. I am convinced it will offer exciting career opportunities for years to come. The new Global Trends Report provides us with the data and the reasons why.

#### Global investment in renewables is high now

Steiner 12 **–** UN Undersecretary General, UNEP Executive Director

Adam, June 2012, “Global Trends in Renewable Energy Investment 2012,” [http://fs-unep-centre.org/publications/global-trends-renewable-energy-investment-2012)//DR](http://fs-unep-centre.org/publications/global-trends-renewable-energy-investment-2012%29//DR). H

In 2011, global investment in the renewable energy sector hit another record, up 17% to $257 billion. This was a six fold increase on the 2004 figure and 93% higher than the total in 2007, the year before the world financial crisis. There may be multiple reasons driving this renewable investment, from strengthening regulatory frameworks to decreasing costs — whatever the drivers,. the strong and sustained growth of the sector is a major factor that is assisting many countries towards a transition to a low-carbon, resource efficient Green Economy This sends a strong signal of opportunity to world leaders and delegates meeting later this month at the Rio+20 Summit: namely that transforming sustainable development from patchy progress to a reality for seven billion people is achievable when existing technologies are combined with inspiring policies and decisive leadership. Furthermore, in 2011, renewable power (excluding large hydro) accounted for 44% of new generation capacity added worldwide in 2011, up from 34% in 2010. The $237 billion invested in building these green power plants compares with $223 billion of net new expenditure annually on building additional fossilfuelled power plants globally last year. So we’re certainly seeing a green growth trajectory in the power sector, even if we have quite some way to go to achieve an energy mix that is truly sustainable. With this goal in mind, in 2012 UN Secretary-General Ban Ki-moon is leading a global initiative called Sustainable Energy for All aimed at mobilising action in support of three interlinked objectives to be achieved by 2030: providing universal access to modern energy services; doubling the global rate of improvement in energy efficiency; and doubling the share of renewable energy in the global energy mix. Pushing forward on the energy agenda can assist in a defining and decisive outcome at Rio+20 including in support of the proposed Sustainable Development Goals that could be adopted in 2015. Other commitments on the table at the Summit can also assist the evolution of clean energy including governments agreeing to address the hundreds of billions of dollars worth of annual fossil-fuel subsides; expanding sustainability reporting by companies globally; and boosting sustainable procurement by central and local government. There are many areas where sustainable development is ready for a major acceleration and scaling-up—clean energy systems, by dint of their technology, the costs, the employment potential and the opportunities, are among the ripest at Rio+20.

#### The transition to renewable energies is speeding up globally

Steffens 12President and CEO, Frankfurt School of Finance & Management (Uddo, June 2012, “Global Trends in Renewable Energy Investment 2012,” [http://fs-unep-centre.org/publications/global-trends-renewable-energy-investment-2012)//DR](http://fs-unep-centre.org/publications/global-trends-renewable-energy-investment-2012%29//DR). H

The transition towards green - resource-efficient, low-emission - economies has picked up speed. New renewable technologies such as wind, photovoltaic and biofuels were introduced, developed and adopted. The capacity deployed was small and, although technologies were still expensive, overall investment levels were low. In 2011, investments in renewable energy have almost reached the level of investments in power generation based on fossil fuels. Globally, they have passed $250 billion per year, including large hydro. New business opportunities are arising and new jobs are being created. The contribution to GDP is considerable. Increasingly, clean energy is provided to industries and people around the globe.

#### 2011 record year for alt energy investment and will continue to rise

Max 2012 (John Max, associate at hydrogenfuelnews.com, june 15, 2012, Report shows renewable energy investments at an all-time high, <http://www.hydrogenfuelnews.com/report-shows-renewable-energy-investments-all-time-high/854220/>)

Renewable energy investments breach $250 billion in 2011 The report shows that renewable energy investments reached a record $257 billion in 2011, a six-fold increase from what they had been in 2004, and a 94% increase from the levels they had been in 2007. The report notes that investments in alternative energy from the U.S., India, Germany, and China were among the highest seen in the 2011 fiscal year. Investments expected to continue to grow as economic implications of alternative energy become a focus Alternative energy has come to rely heavily on the investments of both governments and the private sector. Renewable energy investments are expected to continue to grow in the coming years as more attention is placed on the economic benefits of clean energy and its associated technologies.

#### Solar venture capital funding is high now

Pleging 11

Steven, “Despite Solyndra’s Death, the future of Solar Energy is Sunny,” The Green Faction, http://www.thegreenfaction.com/2011/11/10/despite-solyndra%E2%80%99s-death-the-future-of-solar-energy-is-sunny/

I believe that the loss of industry players Solyndra, Evergreen, and SpectraWatt opens the market for more innovative solar companies to succeed with smarter tactics and mainstream products that fit into existing manufacturing models. Remember when the dot.com bubble burst in 2000 and, seemingly overnight, some companies ceased making millions hand-over-fist? Flash forward to 2011, when nearly everyone is online, Internet technology has become more accessible and fortunes continue to be made. Real innovation always finds its pot of gold. We’ve seen a considerable reduction in solar panel costs, but that is exactly why there is reason to be optimistic. Lower prices open markets that were previously barred economically. I believe most people fail to understand the solar sector. Unlike other established markets the solar industry is still a tiny fraction of the overall energy production worldwide. Solar’s competition is really fossil fuel, or in other words, the established way electricity is being generated. With subsidies long in place for nuclear, coal and gas in the U.S. along with the cheap cost of production for coal and natural gas, solar is essentially competing with that $0.10/kWh average cost of electricity in the United States and globally. It is not only wise we devote our resources toward solar technology; it is essential. We are already facing serious ramifications of fossil fuel emissions. Increases in carbon dioxide concentration along with global surface temperatures are showing a decline in agricultural yields due to climate change. , This along with melting glaciers and shifts in climate zones do not bode well for climate change stabilization without drastic efforts in greenhouse gas abatement. There are also the obvious human costs of other sources of energy, from water quality issues related to gas fracking and the loss of mountain tops and streams with coal mining to the shocking failure of the Fukushima Daichi nuclear power plant reactors in March of 2011 that has forced one hundred thousand Japanese in a twelve mile radius to evacuate. Yes, solar energy does need to arrive at end-user costs that are closer to fossil fuels, and concurrently, our research and development areas need to lead us beyond current solar PV technologies. The recent fall of Solyndra is a lesson in over-specialization but is not a damning of solar’s viability. The U.S. has 1,750 MW of PV planned for 2011 and currently employs 100,000 people, more than coal mining or steel manufacturing. Solyndra was producing a PV product that did not fit within traditional balance of system (BOS) solar industry structures. Their novel cylindrical solar modules which have a capacity to capture sunlight from 360º (if rooftops are painted white) and resist snow and dust, also required a shift in the industry as a whole in order to adopt them. Unfortunately, Solyndra’s timing was terrible, global poly-silicon supplies caught up with rising demand, going from a high of $500 per kilogram in 2008 to a mere $35 on spot markets today. Combined with a Chinese manufacturing boom, that lowered the overall cost of panels by 40 percent this year, Solyndra was unable to compete. On October 19th, seven solar PV manufacturers filed a federal trade dispute claiming China is dumping solar panels in the US below their own manufacturing cost, which likely in part, explains the 40 percent decrease in panels. Unfortunately, for Evergreen and Solyndra, that filing is too late. The United States spends almost $500 billion annually purchasing energy from other countries. About $4 billion of taxpayer money is allotted to nuclear, natural gas, and nuclear company subsidies, even when many geothermal sources are reaching or have reached, capacity. We need a better paradigm. New solar technologies can change this. The U.S. has vast regions that offer some of the sunniest places on earth, and you don’t need to live in the desert to harness solar power. New Jersey is second only to California in adoption of solar infrastructure. Despite the announcement recently that Germany will be lowering their feed-in tariffs in January of 2012, they remain 40% of the total solar market globally while receiving less average daily solar radiation than New Jersey . In the U.S., we are seeing a likelihood of long-term thin-film implementation when we develop the right technological fit. Within a few years, we expect at least a dozen markets will be economically viable without subsidies. Tariff reductions are occurring throughout Europe as the EU struggles with the Greek financial crisis. Despite this the solar market there has increased 65 percent as opposed to the 82 percent increase in 2010. While changes in policy are lowering European expectations slightly, the U.S. market is projected to increase by as much as 9 percent this year. The global solar market is expected to install 22 MW of electricity in 2011. Of course, the largest solar demands will be coming from China and India. From a purely economic standpoint, there will be no reason for China to remain with silicon when better alternatives become available. Solar PV installations in Asia grew by over 57% from 2006-2010, and 2010 showed an incredible 100% increase from 2009 and yet China still exports nearly 95% of their total PV production. However, China recently announced a national feed-in tariff program, increasing 2012 solar market projections. Many venture capitalists have established funds dedicated to launching green technology initiatives. First Solar, the largest thin-film manufacturer in the world, will see approximately $3.75 billion in revenue this year, and there are a number of solar companies emerging with very attractive growth opportunities precisely because there is so much room for improvement in terms of efficiencies and a reduction in materials costs. As with the dotcom crash, the death of Solyndra, Evergreen and others will usher in a more robust solar industry not signal the disappearance of PV as a viable alternative for future energy needs. Both companies were a tiny fraction of an enormous and rapidly growing global market. The egalitarian balance is one that will afford large-scale, global installation of solar energy panels at a price people can manage.

#### Alt energy high now- private industries are increasing investments

Business Wire 2012 (Business Wire, Market watch, the wall street journal, june 27, 2012, Braemar energy ventures closes fund 3 at 300 million maximum, <http://www.marketwatch.com/story/braemar-energy-ventures-closes-fund-iii-at-300-million-maximum-2012-06-27>)

NEW YORK, Jun 27, 2012 (BUSINESS WIRE) -- Braemar Energy Ventures announced today that it closed its third fund, Braemar Energy Ventures III, LP, at the maximum amount of $300 million on June 19, 2012. The Fund will invest in innovative venture and expansion-stage energy technology companies that serve the conventional and alternative energy markets to help deliver cleaner, cheaper, more efficient and reliable energy solutions. The Fund, which was oversubscribed and closed at an amount that is higher than Braemar's $250 million Fund II, attracted many new and returning institutional investors from the U.S., Europe and Asia. Among the larger institutions participating in the Fund were existing LP's MassMutual, Alpinvest Partners, Morgan Stanley Alternative Investments, Macquarie and GIC Special Investments -- the Government of Singapore. Existing investors were joined by new financial LPs that included Munich Re, HarbourVest, the State of Rhode Island, RIT (Rothschild Investment Trust) and Invesco on behalf of the California State Teachers' Retirement System (CalSTRS). There were also several strategic investors from the energy industry including the utility AEP (American Electric Power) and several multinational energy companies from Asia and the Middle East. "We are grateful for the continued support of our existing investors and the addition of a number of new LPs who have joined us in Fund III," said Neil S. Suslak, Co-Founder and Managing Partner of Braemar Energy Ventures. "We recognize that we are in the midst of a challenging investment environment but one which we believe, in the end, will breed great opportunities and innovation in our sector." "Although a vast space, the global energy industry is constantly evolving and technology has always been an important catalyst for creating change," said Braemar's other Co-Founder and Managing Partner, William D. Lese. "We believe that technologies that improve both the efficient use and supply of energy will continue to meet one of the most pressing needs of the 21st century and Braemar is focused on investing in innovative companies developing solutions to meet those challenges." With an investment strategy that continues the approach employed in its two prior Funds, Braemar's focus is on technology that spans the entire energy industry ranging from conventional oil, gas, and coal, markets to renewable power and fuels. "Energy efficiency continues to be a major theme in the new Fund with technology ranging from utility-scale solutions down to managing power and fuel consumption at the device level," added Dennis R. Costello, Managing Partner of Braemar Energy Ventures.

### AT: Bankruptcies

#### Despite bankruptcies, investment in clean tech is stable

Connolly 11

James, “VC: Despite Solyndra, cleantech still kind to investors,” http://www.bizjournals.com/boston/news/2011/11/01/vc-defends-cleantech-investing.html

Despite the spectacular crashes of some cleantech companies, the performance of venture capital investments in that sector has actually been on a par with the performance of investments in companies across the broader spectrum of industries, according to Venrock vice president Matthew Nordan. Nordan presented the keynote address at the Conference on Clean Energy 2011 at the Westin Boston Waterfront this morning, saying that one analysis of cleantech companies and general VC investments showed that roughly 40 percent of funds investing in cleantech were “above water”, which ranged over a three year period from “a little worse” to “a little better” in comparison with the general VC investments. Nordan, focusing his presentation to about 100 entrepreneurs and investors on trends in clean energy investing, also noted that looking at the investments that going into developing a particular technology can be deceptive. He said that once that technology is deployed and produces revenue over a period of many years the value can be many times higher than the original investment in the core technology. Looking at companies that have been funded and are ready to move into the later stages of development, such as Series C Rounds, Nordan said, “There will be unprecedented late stage requirements.” He said projections are that late stage cleantech investment will require $4.5 billion for each of the three years between 2012 and 2014. But he added that entrepreneurs that reach that stage shouldn’t worry about a shortfall. “VCs are already out raising money for that,” he said, “Growth capital will be out there with people raising money in gigantic pools.”

#### Renewable investment surging – slight upsets similar to “growing pains” in the early automobile industry

Baker 12 (Nathanael, “Renewable Energy Investments Grow to Record $253 Billion in 2011”, June 12, 2012 http://www.energyboom.com/finance/renewable-energy-investments-grow-record-253-billion-2011)

Investment in renewable energy surged again in 2011, according to two new reports issued by United Nations Environment Programme (UNEP) and the Renewable Energy Policy Network for the 21st Century (REN21). Using data collected by Bloomberg New Energy Finance, the world's authority on cleantech financing, UNEP's Global Trends in Renewable Energy Investment 2012 report found that investment in renewable energy grew 17% to $253 billion in 2011, despite an increasingly tough competitive landscape. This is a six-fold increase from the investment numbers of 2004. In relation, gross investment in fossil fuels in 2011 was $302 billion. Nevertheless, renewables continue to gain ground in the power sector. Last year, 44% of the power generated at new power installations came from renewable sources. This is up from 34% in 2010. The big winner in 2011 appears to be the solar power. The industry saw investment grow 52% to $147 billion last year, making it the most attractive cleantech sector for investors -- surpassing wind power, the long-time favourite for clean energy financiers. In response to the report, Dr. Udo Steffens, President and CEO of the Frankfurt School of Finance & Management, said: "Renewables are starting to have a very consequential impact on energy supply, but we're also witnessing many classic symptoms of rapid sectoral growth -- big successes, painful bankruptcies, international trade disputes and more. This is an important moment for strategic policymaking as winners in the new economy form and solidify. The United States offers a fantastic case study for Dr. Steffens. New national energy policy focused around developing a new energy economy is completely impossible in the short-term. Nevertheless, other policies and regulations such as the Production Tax Credit for Renewable Energy helped spur a 57% increase in renewable investments in the U.S. last year, as companies scrambled to take advantage of the expiring incentives. Renewable energy investment in the U.S. grew to $51 billion in 2011, almost returning the economic giant to the top of the list of global renewable energy investors. Only China, stands ahead of the United States. After supplanting the U.S. in 2009, China maintained its title as the world's largest cleantech financier by increasing its investments by 17% to $52 billion. Despite the influx of capital and an increase in renewable energy capacity, solar power, for example, grew by 140% in 2011, the United States felt the pain of an expanding and maturing industry as several manufacturers filed bankruptcies. Solyndra, Beacon Power, Evergreen Solar, Stirling Energy, and most recently Konarka Technologies are the most notable companies that have been forced out of the market this year. Critics, in particular, members of the Republican party, have pointed to these failings as a sign of an unstable, and deteriorating industry. Michael Liebrich, CEO of Bloomberg New Energy Finance, see the situation in a completely different light. "Right now we are seeing a lot of pain on the supply-side as prices are being compressed, but it is important to remember that installers, generators and consumers are benefiting. It is all part of the maturing of the sector." He continued, "In 1903, the United States had over 500 car companies, most of which quickly fell by the wayside even as the automobile sector grew into an industrial juggernaut. A century ago, writing off the auto industry based on the failures of weaker firms would have been foolish. Today, the renewable energy sector is experiencing similar growing pains as the sector consolidates." Both the UNEP and REN21 reports join a symphony of reports concluding the single most important catalyst to developing a robust clean energy economy is implementing strong, stable renewable energy policies.

### US Leading

#### US is ahead

#### **Hill 12**

Joshua, “US Retakes #1 Spot in Clean Energy Investment in 2011”, http://cleantechnica.com/2012/04/12/us-clean-energy-investment-in-2011-number-1/

 New research on clean energy financing in the Group of Twenty (G-20) nations released by The Pew Charitable Trusts shows that investment grew to a record $263 billion in 2011, a 6.5 percent increase over the previous year, with the United States beating out China in the race to secure private clean energy finances and investment. The U.S. attracted $48 billion in clean energy investment in 2011, a 42 percent increase over the previous year. As a result, the U.S. saw an addition of 6.7 gigawatts (GW) of wind and, for the first time, more than 1 GW of solar energy, enough to power 800,000 homes. By the end of the year, total U.S. installed renewable energy capacity topped 93 GW, second only to China, but this position will be difficult to hold with the expiry of Treasury grants and the Department of Energy’s loan guarantee programs. “In 2011, the global clean energy sector grew again, the U.S. reclaimed its lead as the top destination for private investment, and consumers reaped the rewards of significantly reduced prices for clean energy technologies, such as solar panels, which are now nearly 50 percent cheaper than a year ago,” said Phyllis Cuttino, director of Pew’s Clean Energy Program. “And yet, the yo-yo effect of U.S. clean energy policy hurts the ability of the United States to consistently compete and turn U.S.-led innovation into manufacturing, deployment, and export opportunities. Creative, stable, and transparent policies remain a critical signal to private investors.” Globally, the combination of falling clean energy technology prices coupled with growing investments saw an acceleration of clean energy generating capacity by a record 83.5 GW in 2011, bringing the global total to 565 GW. Experts believe that with solar and wind technologies becoming more cost-competitive, renewable energy will become the preferred electric generating capacity for emerging economies**.** 2011 saw G-20 investments in solar continue to rise, increasing 44 percent to $128 billion, making solar the leading technology for clean energy investment for the second year in a row. This increase offset a 15 percent decline in investments for both wind and energy efficiency in 2011. “The clean energy sector received its trillionth dollar of private investment just before the end of 2011, demonstrating significant growth over the past eight years,” said Michael Liebreich, CEO of Bloomberg New Energy Finance, Pew’s research partner. “Solar installations drove most of the activity last year as the falling price of photovoltaic modules, now 75 percent lower than three years ago, more than compensated for weakening clean energy support mechanisms in a number of parts of the world.” Overall clean energy investment continued to grow, with China attracting $45.5 billion, spurring the deployment of 20 GW of wind power, the most of any nation. Germany ranked third for the second year in a row among the G-20 members with $30.6 billion and 7.4 GW of solar power installed, while Italy attracted $28 billion and deployed a world record of nearly 8 GW of solar power. Source: Clean Technica (<http://s.tt/19dg0>)

## Internal Links

### Alt Energy Link

#### High oil price cause development of alternative energy solutions and sustainability.

#### **Zupan ‘11**

Mark Zupan, Dean, University of Rochester’s Simon School of Management. “Oil Matters”. May 24, 2011. The Huffington Post. http://www.huffingtonpost.com/mark-zupan/oil-matters\_b\_866219.html

In the long run, of course, the impact of higher oil prices on consumer and producer behavior will be more substantive. It would be hard to imagine, that is, a better impetus for the development of alternative energy solutions and greater sustainability than a prolonged period of $100-plus-per-barrel oil. When consumers and producers are given time to respond to oil price shocks they do so in creative and substantial ways. As much as we have learned to be more sensitive to our energy usage patterns since the 70s, we remain at the mercy of large short-run oil price swings that precipitate economic downturns.

#### High oil prices allow alternative energy to become economically viable – key to get corporations to invest and the public to adopt it.

#### **Chen ‘8**

Grace Chen, formerly of Haas School of Business at the University of California, Berkeley, ‘The next bubble made of renewable energy,’ InvestorTrip, http://www.investortrip.com/the-next-bubble-made-of-renewable-energy/

No sector looks as good as alternate energy, whether bio-fuels, solar panels, or high mileage cars. The boom in oil prices and a shrinking supply are pushing people towards energy friendly products, specifically energy products. High mileage cars are becoming best sellers, striking out the years of larger cars and no respect for high gas prices. But now that consumers are paying $3.60 at the pump stateside, there is a growing shift away from fossil fuels toward alternative energy. This article will make a case for an investment in alternate energy and the future of the sector. While it seems that its run may be over, as long as oil prices rise, so should the stock values of alternative energy companies. 1. Government incentives Government incentives geared toward green energy are abundant. The future growth of alternative energy, if not from the private sector, can still be guaranteed with the billions of dollars that flow to energy companies in an effort to produce energy efficient cars and fuels. All of these subsidies have to find a home, most of which find it in the pocketbooks of the new bio-tech companies. 2. Traditional energy is expensive The best thing that alternative energy has is economic worth. While alternative energy was considered ridiculous when gas prices were $1 a gallon, at $3.50+, it appears as though the public has had a change of heart. For alternative energy to ever become an important sector, it must first be economically feasible. Now that traditional energy prices are soaring, the alternate energy sector will receive more demand. 3. Mass production cuts costs Mass production of solar panels and alternative energy products is lowering the cost of production. One reason that solar panels and other green energy sources have yet to make it into the homes of consumers is because of the high production costs. Costs to produce solar panels has dropped considerably, while efficiency has increased. By 2010, the solar energy sector alone is going to be a $25 Billion a year industry. There is still much room for growth in these markets; truly, the sunny sky is the limit. 4. Growth in efficiency Much like hardware and software components, new technology forces early adopters to upgrade. Over time, the people who bought the first solar energy or bio-energy components will likely upgrade as efficiency gets better and better. We’re still in the early stages of alt-energy, thus the ability for corporations to sell to the same consumer many times is present. 5. Ethics funds love alternative energy There are many socially responsible funds geared to avoid sin stocks, such as cigarettes or alcohol companies, while investing in green energy and new technology. As the ethics investing scene grows, so will further investment in green energy, an industry many see as the solution to the future. Global warming warnings abound, and thus, there are many people who will make it a point to invest in clean tech. Get in before the rush. There are plenty of reasons to invest in clean energy, but you really only need one reason: alternative energy stocks are set to explode. We’ve yet to see what $4 gas does to the green energy sector; perhaps it will only push stock prices higher and higher.

#### High oil prices are key to alternative energy development—empirics prove

#### **Kyle 8—Professor @ Cornell**

Steven Kyle, professor of applied economics and management at Cornell University, “For Alternative Energy's Sake--Keep Oil Prices High”, Scientific American, December 2008, http://www.scientificamerican.com/article.cfm?id=keep-oil-prices-high

As oil and related energy prices soared to record highs over the past two years, interest in alternative fuels soared, too. Hybrid cars have appeared seemingly overnight, and proposals for solar, wind and other renewable technologies are being made everywhere. We need to remember, however, that all this action has one cause—high oil prices—and progress could grind to a halt if those prices fall again. It might seem ridiculous to worry about such a thing; don’t we all want to spend less on oil? And isn’t hoping for that just whistling in the dark? Not necessarily. At present, it is virtually axiomatic in the popular press that growth in demand from the U.S., China, India and elsewhere will keep oil prices high forevermore. But this common wisdom ignores the possibility of recession, or even depression, reducing demand growth to near zero, just as new drilling (mostly overseas) increases supply. Recession is already upon the U.S., and China’s economy is slowing rapidly. As Wall Street collapsed in October, oil prices dropped to around $70 a barrel. Saudi Arabia’s stated goal of maintaining a price floor of $80 a barrel or higher suddenly seemed optimistic. So what is the problem? In the short run, nothing. But sustained development of new energy sources always rests on the condition of the old ones. Coal did not arise as Europe’s main energy source until Europeans had cut down virtually all their forests for fuel, and the later switch to oil did not occur until the scarcity of coal drove its price high. In the 1970s Americans responded to high oil prices with alternative energy projects and more fuel-efficient cars. But when prices dropped in the 1980s, we threw caution to the wind—along with the energy projects. We purchased ever larger cars and SUVs and moved to ever more distant suburbs. Sure enough, now that oil prices have spiked again, we are looking at the same alternatives we had relegated to niche markets then. Today renewable technologies such as wind and solar are close to being competitive with fossil fuels. But we can say good-bye to that prospect if oil prices decline to $60 to $70 a barrel, which could easily happen in a recession, as we witnessed in October. Two years of lower prices can turn hybrid cars into a bad financial proposition for consumers, and green technology start-up companies could go bankrupt as demand for their goods dries up. Even a temporary decrease in petroleum prices would undermine the long-term development of the alternatives we all know we need. Happily, there is a solution. If investors could rely on a certain lower limit to oil prices, they would have a fixed goal to work toward for making alternatives cost-effective. Knowing the goal removes a large element of risk for entrepreneurs and their financiers, providing a huge incentive to continue development. A lower limit is easy to accomplish: the federal government has to impose a variable levy on oil to guarantee a floor price. Revenues from that tax could help fund research into alternative energy and offset adverse consequences for lower-­income people, who would be hardest hit by the sustained high expense of oil. Higher taxes? Unthinkable! That sentiment certainly rules in the current political climate. But one thing is certain: the federal government is already running a deficit on the order of $400 billion for this year, and many more billions are promised to save Wall Street; that money will have to come from somewhere. Why not a tax that benefits both the environment and the economy?

#### High oil prices drive alt energy production—supply-demand economics

#### **Stonebraker 11—Professor @ Winthrop**

Robert J. Stonebraker, Winthrop University, Demand and Supply Applied: Oil Prices, May 19, 2011 http://faculty.winthrop.edu/stonebrakerr/book/oilprices.htm

Most economists offer the same advice they gave thirty years ago: wait. High prices are painful, but they serve a very real economic purpose; they discourage consumers from using a scarce resource and encourage suppliers to produce more. In the long run higher prices will cause consumers to shift back to more fuel-efficient cars and adopt other measures of conservation. In the long run higher prices will cause firms to increase exploration and drilling to bring more supplies to the market. And, more importantly, in the long run higher oil prices will create incentives to develop cleaner and more renewable energy sources. OPEC oil ministers understand this quite well. Saudi officials often have pushed for moderation in oil prices precisely because they fear prices that rise too much too quickly will drive consuming nations to get serious about conservation and alternative energy programs. They understand that this could destroy the long-run market for oil and, in turn, damage their future economic growth.

#### High oil prices cause a shift to alternatives

#### **Hsu 11**

Tiffany Hsu, LA Times, “Interest in renewable energy may stick as oil prices surge”, March 11, 2011, http://articles.latimes.com/2011/mar/11/business/la-fi-oil-alternate-20110311

The latest surge in oil prices may help the renewable energy industry reach a turning point after years of boom-and-bust cycles long dictated by the rise and fall in gas prices. Solar, wind and biofuel investors and analysts said the latest run-up in prices caused by unrest in Libya and other oil-producing nations could lead to lasting interest in alternate sources of energy.They point to several factors converging at the same time that give the industry such hope. Public awareness and worries about climate change, pollution and dwindling resources are at an all-time high. Government funding for alternative energy projects is also on the rise. "This is a crisis that's creating a teachable moment, showing us that we're going in the wrong direction," said Denise Bode, chief executive of the American Wind Energy Assn. "People have been in this situation too many times, and once they see that the alternatives are the real deal, they'll never go back." Concerns that the country's addiction to foreign oil could pose national security risks and that the environment is fraying are stronger than ever, said Bode, who is also the former president of the Independent Petroleum Assn. of America. In California, more than half of the 1.2 billion gallons of gasoline guzzled each month come from foreign sources, according to U.S. government figures. James DiGeorgia, editor of the Gold & Energy Advisor website, said he believes that if countries such as Algeria follow Libya's political upheaval, oil prices could more than double to upward of $200 a barrel. "We've gone from a relatively secure position to a very insecure one," Jim Boyd, vice chairman of the California Energy Commission, said in a statement. "Our exposure to the vagaries and instability of the world oil market has increased by a factor of 10 since the early 1990s." Since then, the renewable energy industry has compiled a stable of high-profile supporters. President Obama said he wants 80% of the energy in the U.S. to come from "clean" sources by 2035. Former Gov. Arnold Schwarzenegger regularly visited wind and solar energy production sites cropping up throughout California. "Why should a dried-up little country like Libya with a crazy dictator play havoc with America's economy and security?" he asked at a recent summit for Advanced Research Projects Agency-Energy, known as ARPA-E, the young Department of Energy program that helps fund early-stage energy research. Various guidelines, mandates and subsidies exist to encourage green energy. California intends to have alternative energy make up 33% of the state's portfolio by 2020. The U.S. Navy plans to run half of its fleet on renewable fuel by 2020. "There's no silver bullet, but there is silver buckshot," Bode said. "Alternative energy is changing the way people look at things." It worked on Lefteris Padavos, 51, a Los Angeles photographer who put solar panels on his roof about six months ago. And because he installed the system himself, he paid just $3,000 out of pocket after government incentives.

#### **High oil prices cause the public to shift investment to alternative energies**

#### **Gelsi 12**

Steve Gelsi, MarketWatch, The Wall Street Journal, “Investors eye renewable energy as oil prices rise”, February 27, 2012, http://articles.marketwatch.com/2012-02-27/industries/31103173\_1\_cellulosic-poet-llc-ethanol

NEW YORK (MarketWatch) — Biofuel, electric cars and natural gas-powered vehicles drew attention against a backdrop of sharply higher petroleum prices from investors gathered at the Jefferies Global Clean Technology Conference. With crude oil topping $108 a barrel and average retail gasoline costing nearly $4 a gallon at the pump, analysts and clean technology company executives said renewable fuel is becoming more cost-competitive. “Once people start feeling [energy costs] in the pocketbook, that’s when people really start looking at alternatives again,” Jefferies analyst Elaine Kwei said in an interview with MarketWatch. “It has to make economic sense for people. When things start getting expensive, you look for cheaper alternatives.” Kwei said she’s been seeing investor interest around electric cars and other alternatives to petroleum; also around companies that improve energy efficiency. Companies drawing a buzz at the conference include Cree Inc. (US:CREE), a player in energy-saving light-emitting diodes, and Tesla Motors (US:TSLA), which is ramping up production of its battery-powered Model S car. “Electric vehicles are a very hot area, along with [the use of] natural gas for commercial trucks and long distance hauling,” Kwei said. “There’s great interest in converting some of those fleets out there…to natural gas.”

#### High gasoline prices causes transition to alternative energy—Obama proves

#### **Landler 12**

Mark Landler, White House correspondent for The New York Times, “In a Nod to Gas Prices, Obama Talks About Energy”, February 23, 2012, http://www.nytimes.com/2012/02/24/us/politics/obama-will-try-to-blunt-attacks-on-gas-prices.html

MIAMI — President Obama, confronted by the political perils of surging gas prices in an election year, on Thursday defended his efforts to wean the United States off imported oil, even as he conceded there was little he could do in the short run to ease the pain at the pump. Speaking to students at the University of Miami, in a swing state where gas averages $3.69 a gallon, Mr. Obama said: “Just like last year, gas prices are climbing across the country; this time, it’s happening even earlier. And when gas prices go up, it hurts everybody.” The president offered what he called an “all-of-the-above” response, based on more domestic oil production, development of alternative energy sources and stricter fuel-efficiency standards. Drawing a sharp contrast with Republicans and anticipating potential attacks on the campaign trail, Mr. Obama ridiculed his opponents for recycling a “three-point plan for $2 gas.” “Step one is to drill, and step two is to drill, and then step three is to keep drilling,” he said. This was the president’s first major effort to tackle an issue that has surfaced in the last few weeks as oil prices have been driven up by tensions in the Middle East, where Iran has threatened to retaliate against the West because of sanctions over its nuclear program. Mr. Obama seemed keenly aware of the risk posed by oil prices. A previous cycle of price increases played briefly to the benefit of Senator John McCain during the 2008 campaign, when his running mate, Sarah Palin, revved up crowds with the chant, “drill, baby, drill.” The president said that the United States is producing more oil now than at any time during the last eight years, with a record number of rigs pumping. The White House, he said, was prepared to open new areas in the Arctic Ocean and the Gulf of Mexico to exploration. But Mr. Obama warned that no amount of domestic production could offset the broader forces driving up gas prices, chief among them Middle East instability and the ravenous energy appetite of China, which he said added 10 million cars in 2010. “Anybody who tells you we can drill our way out of this problem doesn’t know what they’re talking about, or just isn’t telling you the truth,” he said to whoops from the crowd of nearly 1,500. Mr. Obama’s remarks, tinged with humor and sarcasm, were bluntly political, on a trip that included fund-raising events in Miami and Orlando. But his message was sober: neither he nor anyone else can do much about oil prices, which he said were likely to keep rising. The White House contends that the public has grown accustomed to these periodic spikes and will credit him for speaking honestly about the underlying economic realities rather than offering “gimmicky” fixes — something he eschewed in 2008. Still, with gasoline prices nationally about 12 percent higher than a year ago, Democratic political analysts believe Mr. Obama needs to get ahead of the issue quickly. Newt Gingrich, for example promised this week to bring gas down to $2.50 a gallon. “Four dollars per gallon has typically been the tipping point when people go from complacency to exasperation,” said Geoff Garin, a Democratic pollster, who notes that people have begun mentioning gas prices with increasing urgency in his focus groups. Gas prices did not figure prominently in the Republican debate on Wednesday in Arizona, where the candidates trained most of their fire on one another. But Republicans in Congress criticized Mr. Obama for not opening more federal land to exploration, and for not approving the Keystone XL pipeline. “The president would like everyone to forget that gas prices have doubled over the past three years while he consistently blocked and slowed the production of American-made energy,” a spokesman for House Speaker John A. Boehner, Brendan Buck, said in a statement. Even Mr. Obama, they noted, once referred to his “all-of-the-above” policy as a “hodgepodge.” Among Mr. Obama’s proposals are opening 75 percent of the nation’s offshore oil and natural gas resources by 2017; fuel-economy and emissions standards for trucks, vans and buses; and an administration effort to prevent bottlenecks in the oil market. Michael Levi, an energy expert at the Council on Foreign Relations, said, “Any effective energy policy is almost inevitably going to be a hodgepodge.” He credited the president with stimulating production, though he said the rejection of Keystone sent a weak signal. The American Petroleum Institute, the industry’s lobbying group, said Mr. Obama had restricted opportunities to produce more oil by shortening leases and slowing permit approvals. The president fired back, repeating his demand that Congress end subsidies for the oil and gas industries. “It’s outrageous,” he said. “Every politician who’s been fighting to keep these subsidies in place should explain to the American people why the oil industry needs more of their money.” None of Mr. Obama’s proposals were new, and some were aspirational. He said gasoline and diesel produced from algae could replace up to 17 percent of imported oil. But experts say such fuel is a long way from being commercially viable on that scale. Joking that he once bought a car for $500, Mr. Obama said that because of new fuel-economy standards, new cars will average nearly 55 miles per gallon by the middle of the next decade. Mr. Obama struck his own inadvertent blow for fuel economy, by flying to Florida on a Boeing 757 rather than a 747. The bigger 747, which usually serves as Air Force One, was in the shop.

#### High oil prices force transition to alternative energy

#### **Divine 12**

Josh Divine, senior mathematics major and a weekly columnist for The Mirror, “COLUMN: Inevitable approach to switching to renewable energy requires balance”, The Mirror, March 6, 2012 http://www.uncmirror.com/opinions/column-inevitable-approach-to-switching-to-renewable-energy-requires-balance-1.2797199#.T-tlRLV8Ao4

On the surface, it appears President Barack Obama is the bane of affordable fuel in America. After all, national gas averages were around $1.80 a gallon when he took office, and they've doubled since then. Of course, gas prices had plummeted in the last few months of the Bush administration from prices higher than now. But while gas price increases cannot be entirely attributed to Obama, he does have something to do with them. His post-BP Oil Spill actions have effectively shut down most Gulf offshore drilling, and EPA regulations largely prevent the tapping of enormous reserves of oil in Alaska. The energy debate ranges between pushing for large alternative energy strides immediately or allowing them to progress slowly as we tap domestic oil reserves. The debate has been characterized as one of special interests, but it really encompasses the majority of people and should be addressed as such. While soaring gas prices may be negligible for the top one percent, they do have an effect on the common person. Regardless of whether you believe global warming predictions are spot-on or exaggerated, the evidence is clear that fossil fuels are pollutive and non-renewable. The only question is when and how we should make the change to alternative energy. This question was brought into the limelight recently with Obama's rejection of Keystone XL and the increasing unrest in the Middle East. Republicans have been frustrated by blocks on domestic drilling and Democrats are annoyed with prospects of more oil being used as fuel. But the whole debate breaks down to one simple rule: humans respond to incentive. Businesses and individuals make decisions that are beneficial to them. Increasing oil prices leads to an increased demand for alternative energy transportation, and businesses respond in kind by working to accelerate such technologies. Though it's clear unduly burdensome gas prices would lead toward a demand for rapid advancements in alternative energy, the question is whether we want to control our demand by increasing our oil independence or allow our prices to fluctuate according to other countries' political situations. More importantly, we must ask whether we are willing to allow prices to soar in order to lead to alternative energy innovation when we're struggling with the consequences of the 2008-09 recession and unemployment rates above eight percent that a $700 billion bailout was unable to fix. Switching to alternative energy is inevitable and necessary, but how we make the switch and how many people we harm along the way is integral to the debate. It's never been about big oil or environmental alarmists. It's about our responsibility to both our landscape and ourselves, and politicians would do well to keep a comprehensive analysis in mind when dictating policy.

#### High oil costs make alternatives competitive

#### **Daily Finance 12**

Daily Finance. “Rising Oil Prices Aren’t All Bad”. 28 February 2012. <http://www.dailyfinance.com/2012/02/28/rising-oil-prices-arent-all-bad/>. Accessed 27 July 2012.

A new focus on alternatives Whether you're a fan of natural gas, biofuels, wind, solar, or any other alternative energy source, you should be happy about the rising price of oil. When oil is cheap, alternatives are the last thing consumers and [politicians have on their minds](http://www.dailyfinance.com/2012/01/25/what-obama-had-to-say-about-energy/?source=edddlftxt0860001). When oil goes up, suddenly the urgency to find alternatives increases. Whether it's Clean Energy Fuels' (NAS: [CLNE](http://www.dailyfinance.com/quotes/CLNE/usa)) natural gas highway, First Solar's solar farms in California, or the offshore wind developments that will connect to aGoogle-backed transmission system, the alternative energy industry likes high oil prices. These alternative energy sources are still relatively young in their development, and rising oil prices will help them get more funding and be more competitive with oil-based alternatives.

### AT: Link Not Reverse Causal

#### Drops in oil prices kill investment

#### **LaMonica ‘8**

Martin, ‘Clean tech rides high on oil prices, climate change,’ May 6, http://news.cnet.com/8301-11128\_3-9936876-54.html

The report doesn't identify any dark clouds on the horizon but you don't need to look very hard to find some. Oil prices have risen rapidly over the past two years, helping make more clean tech ventures financially attractive. But fuels and electricity are extremely price sensitive, as biodiesel producers have found, which means that a drop in oil prices could make some business models less viable. Although venture capital-backed companies can generate a lot of excitement and buzz, the amount of money that goes into start-ups is very small compared with corporate labs. The ability of companies like Shell, BP, Dow, and General Electric to innovate and make money in clean tech will go a long way to deciding whether these technologies--be they solar panels or biofuels--become cost-competitive with fossil fuels. The other big spender on energy-related research and development is government. Experts have long complained that funding programs for clean technologies is inconsistent, too small, or misplaced. In a recent interview, clean tech expert Peter Fusaro, the chairman of Global Change Associates, called the billions spent on the stalled FutureGen coal carbon storage project a "boondoggle." Already, we are seeing that it will be rare to find a technology that won't have some trade-offs. Witness the growing concern over the relationship that biofuel mandates have with food prices. In the past few weeks, several Republican senators, including presidential contender Sen. John McCain have called on the U.S. to ease the mandates that are driving the ethanol market. Finally, the energy sectors is highly regulated and capital-intensive, which poses challenges that small companies and their backers must contend with.

### AT Won’t Shift

#### This time is different – there will be a shift

#### **McCarthy ‘8**

Shawn, Global Energy Reporter, ‘Yesterday's buzzwords form today's essential conversation,’ The Globe and Mail, Apr 22, pg l/n

There is a nagging suspicion in the marketplace that history could repeat itself. While 2008 looks a fair bit like 1980, will 2014 offer a replay of 1986? Will the forces driving the current boom in renewable energy and demand-reduction prove as fleeting as they were a generation ago? Such fears are almost certainly unfounded. The world is undergoing a fundamental shift in energy use: astonishing demand growth from emerging markets is overwhelming the developed world's appetite; crude oil and natural gas reserves are increasingly concentrated in a few states seen as potentially hostile to the West; and - assuming the scientific consensus about climate change is accurate - there will be an expanding global effort to reduce the emissions of greenhouse gases produced by burning fossil fuels.

#### Also, past pressures were supply-driven – demand pressures ensure a shift if the price is right

#### **McCarthy ‘8**

Shawn, Global Energy Reporter, ‘Yesterday's buzzwords form today's essential conversation,’ The Globe and Mail, Apr 22, pg l/n

That's the big difference from the oil-price shocks of the 1970s. The early price hikes were supply-driven, as the Organization of Petroleum Exporting Countries used its stranglehold over crude markets for both economic and political advantage. This time, the fundamental pressures are on the demand side, the result of booming economies in newly industrializing countries. In China alone, one forecaster recently told a U.S. Department of Energy conference, car sales have risen from 2 million a year in 2000 to nearly 9 million last year. Forecasters expect that by 2020, Chinese demand for crude oil will increase to about 15 million barrels a day, from the current 6.7 million barrels. The picture is not much better on the electricity side, where governments are fighting to restrain prices even as the future costs of generating power skyrocket. And as prices rise, the incentive for companies and consumers to invest in energy savings will grow. Even with some modest efficiency gains factored in, most power planners in Canada and the United States forecast a shortage of generating capacity late in the next decade. But the cost for large power plants is escalating faster than anyone can track. In the United States, major investment banks are unwilling to finance coal plants unless they include untried and enormously expensive technologies to capture and store carbon dioxide. This isn't because Wall Street has suddenly developed a green conscience, but rather because financiers believe that traditional coal plants - the biggest sources for sending CO{-2} into the atmosphere - face too much risk as governments move to impose limits on greenhouse gas emissions.

#### Renewables will be leading energy by 2025

#### **Rigg 11**

Rigg, Kelly. Executive director of the global campaign for climate action (GCCA). “IPCC Report: Renewable Energy Key To Solving Climate Change”. Huff-Post Green. 9 May 2011. http://www.huffingtonpost.com/kelly-rigg/ipcc-report-renewable-ene\_b\_859426.html. Accessed 6/26.

What's even more interesting is that oil industry leaders know they are a dying breed. A recent survey of business leaders in major oil and gas companies found that 90 percent of those who responded believed that "by 2025, renewables will be the most substantial energy source." Let's face it, the end of the fossil fuel era is in sight. Hats off to the IPCC for showing the way forward not just for the climate crisis but for a wide range of other societal ills -- energy poverty, energy insecurity, and respiratory diseases to name just a few. May government policymakers have the wisdom to take the hand being offered to them, allowing us to pull ourselves out of the dirty, dangerous energy hole we've dug for ourselves as fast as we possibly can.

### AT Econ Turns Renewables

#### High energy prices are driving massive renewable investments – even with a low economy

#### **PWC 8**

PricewaterhouseCoopers, ‘MoneyTree Report Findings Establish Cleantech Coming of Age,’ May 6,

http://www.primenewswire.com/newsroom/news.html?d=141814

"The increased venture capital investment into the Cleantech sector can be directly associated with the growing concerns about the environment, energy costs and security," said Tracy Lefteroff, global managing partner of the venture capital practice at PricewaterhouseCoopers. "Despite signs of a weakening economy, the high investment level and intensified adoption rate of technologies in this sector validates the expected growth predicted by industry experts." The report documents Cleantech's "coming of age" through the analysis of key political and corporate trends occurring in this space, VC funding across all green sub-sectors and the adoption rates of specific cleantech technologies. Record-setting oil prices and the emergence of climate change as a major public policy issue have helped drive investors into technologies aimed at producing alternative and renewable energy, which is an economically viable alternative to fossil fuels. The report also includes insights from industry experts on the exit climate for venture-backed cleantech companies through 2009. "There is huge enthusiasm taking place in the Cleantech industry and as consumers and corporations increasingly seek new ways to become environmentally responsible, interest and funding directed towards the sector will only continue," said Tim Carey, U.S. cleantech leader at PricewaterhouseCoopers. "We anticipate investments in this sector to become even further segmented with specific sub-sectors emerging in solar, wind, power storage biofuels and transportation."

#### **Oil prices continue to grow during poor economic times – benefitting alt energy**

#### **Rosendahl – No Date**

Rosendahl, Stephanie. Founder and CEO of website hosting firm “GreenHostIt.com”. “Renewable Energy – Green Energy Pros and Cons”. GreenHostIt.com : Personal Page.

Recent international focus on safe energy underscores the need for reevaluating all energy alternatives, particularly those that are clean and renewable. Because although the global economy is coming out of a recent recession, oil prices are climbing and the demand for alternative renewable sources is consistently growing. Indeed, the alternative energy market is one of the few markets that has seen substantial growth during the recent recession of the last two years. One thing is clear; the need for more efficient use of electricity with the integration of renewable energy sources is present.

### AT Shale Turn

#### Current alt energy investments will bridge the gap on shale and alt energy

Farmer 2012 (James Farmer, associate IFA magazine quoting investment director of GAM, 26 June 2012, Rio+20 creates environmental investment opportunities, <http://www.ifamagazine.com/news/quest-for-a-third-way-creates-energy-investment-opportunities/12134/>

The growing energy efficiency business could bridge the gap between environmentally damaging fossil fuel and the alternative energy market, creating a variety of investment opportunities. Energy efficiency is the front runner in the quest for a third way – leading on both investment potential and practical application grounds. Efficiency solutions have seen rapid growth in recent years and, unlike alternative energy, this sector is not reliant on government subsidies. When done well, the ultimate aim of efficiency solutions is that they pay for themselves. On average, every dollar spent on energy efficiency results in USD 2-4 in lifetime cost-saving. The numbers clearly stack up, and in an environment where cost is king, this is an essential factor for success. From an investment perspective, these intrinsic financial gains make efficiency solutions a logical buy even during economic instability. The opportunity Governments around the world are getting serious regarding dwindling fossil fuel supplies. The world’s leading economies face increasingly tough legislation, forcing firms to implement significant efficiency-focused changes. By 2020 all new buildings in the EU are required to be ‘energy passive’. Existing residential builds will have to cut consumption by 29%, commercial premises by 13%. This should reduce the EU’s energy bill by approximately EUR 200 billion a year. This top-down pressure, combined with a growing focus on cost efficiency has given rise to a range of investment opportunities. The buildings sector – which accounts for around 40% of global energy use – offers a raft of promising investment opportunities. For example in LED technology, where companies like Cree are set to benefit. Cree, manufactures in LEDs and associated products, with 75% of its revenues coming from lighting and is expected to register double-digit growth per annum over the next five years.

#### Shale Industry weak now

#### **Financial Times 11**

10/23/11, Why shale gas prices will increase http://www.ft.com/cms/s/0/417e3db2-fbcc-11e0-989c-00144feab49a.html#axzz1yw4aKNvL

Because the shale gas industry, overall, is not generating enough operating cash flow to cover its necessary capital expenditures. That hasn’t stopped the industry’s development programmes, because for the past several years it has been able to cover the difference with borrowing, equity raises, and cash contributions from joint venture partners. This year, though, outside financing for shale gas exploration and production has begun to decline. Bob Brackett, an analyst with Bernstein Research, says: “This year the North American exploration and production companies are on pace to raise $8bn from the capital markets. This compares with $27bn in 2009 and $21bn in 2010.” Furthermore, both the E&P companies, and their outside financiers, much prefer to direct their development money to rock that is rich in oil or natural gas liquids, rather than the dry gas used for power plants, stoves, and industrial processes. Recent large takeovers of shale-asset oriented companies, such as Petrohawk Energy and Brigham Exploration, were not, arguably, signs of strength for the industry. Petrohawk’s capex had been running over three times its operating cash flow; Brigham’s about twice cash flow. The break-even gas price for many shale gas deposits would seem to be above $6 per mmbtu, higher than the futures market is offering for the next several years. So the companies needed rich parents.

#### No transition to shale

#### **Energy Delta Institute no date**

Energy Delta Institute, Energy Business School, “DAVOS: Shell CEO: US Gas Prices Won’t Drive Shale Investment,

DAVOS, Switzerland -(Dow Jones)- Investment in shale gas won't be sustained if U.S. natural gas benchmarks stay at their currently depressed levels, Shell Chief Executive Peter Voser said Friday. "The current prices of gas are obviously are not a price which long-term will drive development in shale gas. ..so current prices are not attractive from an investment point of view," Voser told Dow Jones in an interview that also touched on his outlook for 2012 oil demand. Shell's CEO -- who in 2010 oversaw the Anglo-Dutch major's $4.7 billion acquisition of East Resources and its U.S. shale gas assets -- said he remained convinced the long-term price outlook for the commodity remained a good one. "Personally, I think long-term pricing in the U.S. will go up," said Voser.

#### Even with current oil prices shale isn’t viable

#### **Rapier 11**

It is pretty clear that at current oil prices, developments in the tight oil formations will continue. It is not at all clear that even at $100 oil the shale in the Green River formation will be commercialized to produce oil. In order to commercially convert the oil shale into oil, a much less energy intensive method of producing it must be found (or, one would have to have extremely cheap energy and abundant water supplies to drive the process). My prediction is that despite having an oil shale resource that may contain the energy equivalent of 2 trillion barrels of oil, the reserve will continue to be zero for quite some time because there are too many technical hurdles to overcome to realize a commercially viable process.

#### **AT Shale Turn—Solves Oil Dependence**

#### Transitioning to shale is good—solves for energy security

#### **Medlock 11**

Kenneth Barry Medlock III, James A. Baker, III, and Susan G. Baker Fellow in Energy and Resource Economics at the Baker Institute; “Modeling the implications of expanded US shale gas production”, Energy Forum, James A Baker III Institute for Public Policy, Rice University, Energy Strategy Reviews 1 (2012) p. 33-41

However, the insights of what shale has meant for global gas market structure are not fully understood until we compare the Reference Case to the No Shale Case. To wit, the rise of Iran and Venezuela in global gas markets is substantially different when shale is not allowed (see Fig. 6). In fact, without shale we see a greater concentration of supplies in future years. Fig. 6 indicates the change in LNG exports when shale is not allowed relative to the Reference Case. Qatari exports are larger in this case, but so are Iran and Venezuela. Thus, the absence of shale reveals a world that is far more dependent on Iranian and Venezuelan LNG supplies to meet demand. Since natural gas is expected to become a pivotal fuel in meeting growing energy demands and environmental objectives, the emergence of these two countries as crucial suppliers runs counter to U.S. interests against the existing backdrop of U.S.-Iranian and U.S.-Venezuelan relations. Shale gas not only has spatial impacts on the global gas market, but also temporal impacts, as seen by the fact that the emergence of shale gas greatly reduces the chance of any individual or group of producers gaining substantial market share. The reinvigoration of U.S. domestic production due to the emergence of shale renders the United States to be less reliant on LNG (see Figs. 7 and 8). In fact, this is the principle driver of lower overall LNG exports globally. Nevertheless, even in the Reference Case, global LNG trade is projected to continue to grow, largely due to demand growth in Asia. So, the potential for shale gas development to occur in Asia is a point that must be closely watched. Under the Reference Case, low capacity utilization remains a feature of U.S. regasification capacity through the 2020s (see Fig. 7). By contrast, LNG imports to the United States would be substantially higher under the case with no shale (see Fig. 8). In fact, absent shale, by the 2020s imported LNG represents a major component of the U.S. natural gas supply, with higher prices and lower demand. This would have resulted in greater reliance not only on LNG, but on supplies from historically volatile regions. The No Shale Case reveals an outcome in line with the majority of industry expectations just a decade ago- one of inexorable domestic production declines, rising import dependence, and higher natural gas prices. So, for the United States, the economic and geopolitical impacts of rising domestic shale gas production are dramatic. The projections of North American shale gas production illustrated in Fig. 9, particularly when combined with the trends seen in Figs. 1 and 10, reveal the implications that shale will have on the domestic supply-demand balance. The U.S. economy already faces challenges from the high costs of importing foreign oil. Large trade deficits driven by oil imports and the threat of oil supply disruptions driven by unrest in producing regions remain a risk factor to overall macroeconomic stability. Against that backdrop, the idea of further increasing U.S. exposure to international events through an increase in imports of LNG is not a desirable outcome. Thus, rising domestic production of natural gas, rather than rising imports, improves the energy security outlook for the U.S. As seen in Fig. 11 below, the price of natural gas is $1.50 lower by the 2030s, and it is sourced domestically, when shale developments occur unfettered. The availability of cheaper, ample domestic natural gas supplies could also give the United States greater flexibility to forge policies to diversify its transportation sector away from overwhelming reliance on oil-based fuels. For example, since the United States uses barely any oil to generate electricity, ample natural gas for electricity generation means a shift to electrified vehicles would lessen our dependence on imported oil at a lower cost than might otherwise have been possible.

## Impacts

### 2NC--Now is Key

#### Transitioning now is key to avert extinction

#### **Pernick and Wilder ‘7**

Ron Pernick and Clint Wilder, coauthors of The Clean Tech Revolution and co-founder/principal and contributing editor, respectively, of Clean Edge, Inc. “Extinction or Innovation? U.S. Government Must Enact Clean Energy Policy “. July 23, 207. http://www.renewableenergyworld.com/rea/news/reinsider/story?id=49399

Detractors and naysayers, of course, will say that clean energy is subsidy-dependent and therefore can't compete in the marketplace. But this is disingenuous double-speak. Close observers of the energy industry know that there is no such thing as a subsidy—and policy—independent energy source. The oil, coal, and nuclear power industries have all relied heavily not only on government policy, but also on rich and lucrative subsidy programs. Others will argue that clean technologies can't scale up. But this is misguided thinking. Spain and Denmark, for example, already generate about 20 percent of their nation's electricity from wind power and leading states like California are targeting around 30 percent of their grid electricity from new renewables before the end of the next decade. The U.S., known for its innovation in earlier tech revolutions such as computer chips, telecom, and the Internet can lead once again. But it will take a concerted effort by an army of corporate innovators and startup entrepreneurs—and, like any revolution—it will require supportive government policies. Sure, we're big supporters of the American free-market economy but it's unrealistic to act as if government policy and leadership doesn't matter. In today's increasingly competitive global marketplace, you either innovate or die—and government has a critical role in this process. Now is the time to push the envelope on the development of 21st century clean technologies. We need to embed silicon, like we have in our communication networks, into the electric grid. We need cars that don't just get 30 or 40 miles per gallon, but a new breed of plug-in hybrids that get up to 100 miles per gallon or more. Google.org recently awarded $1 million in grants and announced plans to provide $10 million toward the development, adoption, and commercialization of plug-in hybrids and fully electric cars. We believe that we are in the midst of one of the greatest shifts in human history. Within 50 years, we'll look back at the beginning of the 21st century and see it as the tipping point for clean technology. The choice for investors, companies, governments, and individuals is simple. Be part of one of the greatest business and economic shifts in recorded human history, or become extinct like the dinosaurs whose fossils fueled the last great industrial revolution. The opportunity for wealth creation and economic leadership stands on one side of the equation—and the very real threat of the collapse of civilization as we know it on the other.

### Clean Tech Solves Warming

#### Clean tech solves warming

Zervos & Coequyt 7 - European Renewable Energy Council & Climate & Energy Unit @ Greenpeace

Arthouros, and John, Climate &, “Increasing Renewable Energy in U.S. Can Solve Global Warming”, 1-24, http://www.renewableenergyworld.com/rea/news/infocus/story?id=47208

The good news first. Renewable energy, combined with energy efficiency, can meet half of the world's energy needs by 2050. This new report, "Energy Revolution: A Blueprint for Solving Global Warming," shows that it is not only economically feasible, but also economically desirable, to cut U.S. CO2 emissions by almost 75% within the next 43 years. These reductions can be achieved without nuclear power, and while virtually ending U.S. dependence on coal. Contrary to popular opinion, a massive uptake of renewable energy and efficiency improvements alone can solve our global warming problem. All that is missing is the right policy support from the President and Congress. The bad news is that time is running out. The overwhelming consensus of scientific opinion is that the global climate is changing and that this change is caused in large part by human activities; if left unchecked, it will have disastrous consequences for Earth's ecosystems and societies. Furthermore, there is solid scientific evidence that we must act now. This is reflected in the conclusions of the Intergovernmental Panel on Climate Change (IPCC), a collaborative effort involving more than 1,000 scientists. Its next report, due for release early this year, is expected to make the case for urgent action even stronger. In the United States there is a groundswell of activity at the local and state levels. Many mayors, governors, and public and business leaders are doing their part to address climate change. But they can only do so much; action is needed at the federal level. Now is the time for a national, science-based cap on greenhouse gas emissions. It's time for a national plan to address global warming. Such a plan will create jobs, improve the security of America's energy supply, and protect Americans from volatile energy prices. It will restore America's moral leadership on the critical international issue of climate change. And real action in the United States will inspire confidence as the rest of the world negotiates future global commitments to address climate change. In addition to global warming, other energy-related challenges have become extremely pressing. Worldwide energy demand is growing at a staggering rate. Over-reliance on energy imports from a few, often politically unstable, countries, and volatile oil and gas prices, have together pushed energy security to the top of the political agenda, while threatening to inflict a massive drain on the global economy. But while there is a broad consensus that we need to change the way we produce and consume energy, there is still disagreement about what changes are needed and how they should be achieved. The Energy Scenario The European Renewable Energy Council (EREC) and Greenpeace International commissioned this report from the Department of Systems Analysis and Technology Assessment (Institute of Technical Thermodynamics) at the German Aerospace Centre (DLR). The Worldwatch Institute was hired to serve as a technical consultant for the U.S. and North American portions of the report. The report presents a scenario for how the United States can reduce CO2 emissions dramatically and secure an affordable energy supply on the basis of steady worldwide economic development through the year 2050. Both of these important aims can be achieved simultaneously. The scenario relies primarily on improvements in energy efficiency and deployment of renewable energy to achieve these goals. The future potential for renewable energy sources has been assessed with input from all sectors of the renewable energy industry, and forms the basis of the Energy [R]evolution Scenario. The Potential for Renewable Energy Renewable energy technologies such as wind turbines, solar photovoltaic panels, biomass power plants, solar thermal collectors, and biofuels are rapidly becoming mainstream. The global market for renewable energy is growing dramatically; global investment in 2006 reached US$38 billion, 26% higher than the previous year. The time window available for making the transition from fossil fuels to renewable energy is relatively short. Today, energy companies have plans to build well over 100 coal-burning power plants across the United States; if those plants are built, it will be impossible to reduce CO2 emissions in time to avoid dangerous climate impacts. But it is not too late yet. We can solve global warming, save money, and improve air and water quality without compromising our quality of life. Strict technical standards are the only reliable way to ensure that only the most efficient transportation systems, industrial equipment, buildings, heating and cooling systems, and appliances will be produced and sold. Consumers should have the opportunity to buy products that minimise both their energy bills and their impact on the global climate.

#### Technology is sufficient

Cheeseman 9

Gina-Marie Cheeseman, Writer for care2, a web magazine, “Is Clean Tech the Solution to Global Warming?” December 31st, 2009, <http://www.care2.com/causes/is-clean-tech-the-solution-to-global-warming.html>

“If there is a solution to global warming it will be technological, not political, in nature,” a recent [editorial](http://www.dunnconnect.com/articles/2009/12/27/opinion/doc4b36692f2a0e0870593018.txt)  proclaimed. At COP15, the International Chamber of Commerce (ICC) held a side event to highlight the need for business to deploy clean technology. Jean-Yves Caneill, sustainable development project manager for Electricité de France [said](http://www.iccwbo.org/iccdecge/index.html) that there are already technologies in existence which “can help decarbonizes the economy.” He added that “successful deployment conditions” need to be created along with progressively building the international architecture. Peter Taylor, head of the Energy Technology Policy Division for the International Energy Agency (IEA) said, “The IEA believes that technology will be at the heart of the discussion. Whatever Copenhagen’s outcome, it is vital to marry the public and private sectors in order to spread clean technology as fast as possible. “Stimulating sustainability and economic growth in developing countries requires a different way of looking at technology, finance and regional partnerships from the energy and electricity sectors,” said Wendy Poulton, Chair, ICC Energy Task Force A [study](http://www.gigatonthrowdown.org/intro.php) by the Gigaton Throwdown Initiative released last summer identified seven clean technologies that could be drastically scaled up by 2020 in order to reduce carbon dioxide emissions by one gigaton (one billion tons), which is equivalent to the installed capacity of 205 gigawatts (GW). The seven clean technologies are:  biofuels, building efficiency, concentrating solar power, construction materials, geothermal, solar photovoltaics, and wind According to the study, each clean technology will need considerable amounts of investment to achieve gigaton scale by 2020. Biofuels-$383 billion investment Building efficiency-$61 billion to achieve gigaton scale Concentrating solar power-$2.24 trillion Construction materials-$445 billion Geothermal-$919 billion Solar photovoltaics-$2.1 trillion Wind- $1.38 trillion Current investment in clean tech This year, South Korea  devoted 80 percent of its economic stimulus package to clean technology. Now the South Korean government is predicting that manufacturing companies will invest over $3.4 billion in its clean technology sector in 2010, up from $2.7 billion in 2009. A senior government official [told Reuters](http://www.businessgreen.com/business-green/news/2255494/south-korea-ramp-clean-tech) earlier this month, “The government will help private firms raise their investment in clean technology by preparing new policies to expand the industries, for instance requiring public buildings to consume renewable energy.” He added, “The government would rather help more private funds to be spent in clean and renewable energy sectors as lots of private funds are already out there.” China, South Korea, and Japan will invest $519 billion in clean technology between 2009 and 2013, according to a [study](http://www.treehugger.com/files/2009/11/asia-to-outspend-usa-in-clean-technology-energy.php) by the Breakthrough Institute and the Information Technology and Innovation Foundation, titled Rising Tigers, Sleeping Giant. The U.S.  government will only invest $172 billion. Between 2000 and 2008 the U.S. attracted $52 billion in private capital for renewable energy technologies. The Cleantech Group predicts that clean tech in the U.S. will be the largest recipient of venture capital funding. Clean tech received approximately 25 percent of all venture capital investment during the third quarter of 2009. Mark Heesen, president of the National Venture Capital Association [said](http://www.financierworldwide.com/article_printable.php?id=5514), “Cleantech investing by US venture firms has grown from under 5 percent of venture investing just several years ago to 15 percent of venture investing in 2008. Two-thirds of the $1.6 billion invested in clean tech by venture capital firms globally was invested into U.S.  firms, according to the Cleantech Group. Solar-based technologies received $451 million, the largest amount of investment. Cleantech transportation technologies, including biofuels, received $383 million. Green buildings received $110 million Read more: <http://www.care2.com/causes/is-clean-tech-the-solution-to-global-warming.html#ixzz1RzyABRMe>

#### IPCC reports conclude that renewables can solve

#### **Rigg 11**

Rigg, Kelly. Executive director of the global campaign for climate action (GCCA). “IPCC Report: Renewable Energy Key To Solving Climate Change”. Huff-Post Green. 9 May 2011. http://www.huffingtonpost.com/kelly-rigg/ipcc-report-renewable-ene\_b\_859426.html. Accessed 6/26.

A new IPCC report is hot off the press this time focused on the potential of renewable energy sources to solve the climate crisis. Given the UN climate science panel's proclivity for producing scenarios guaranteed to make any thinking person lose sleep at night, the good news take-home message was a welcome cause for celebration. From a technological standpoint, renewables can more than meet our global energy demands. By 2050, nearly 80 percent of our energy needs can be met by renewables with existing technologies. So it's clear that whatever challenges and difficulties lay ahead, they are entirely within our power to overcome, simply by adopting the right policy incentives. A myriad of facts about the amazing rise of renewable energy can be found in the press releases of Greenpeace, WWF and the IPCC itself. This labor of love (IPCC authors contribute on a voluntary, no-pay basis) will undoubtedly become a major source of discussion in the coming days and weeks. Or months -- after all, the report is 900 pages long. Climate deniers will look for conspiracies, and the nuclear and fossil fuel industries will seize on short-term costs and other obstacles to downplay the revolutionary message that shines through the study's conclusions. But as I've said before there is no getting around one central conclusion -- like it or not we are in the midst of an energy paradigm shift.

### AT: Can’t Meet Demand

#### Renewables can meet global demand

RNLSE 10One of Europe's leading research laboratories in sustainable energy and is a significant player in nuclear technologies(Risø National Laboratory for Sustainable Energy, November 16, 2010, “Carbon Dioxide-Free Energy Can Meet the World’s Energy Needs in 2050, Danish Report Finds,” Science Daily, [http://www.sciencedaily.com/releases/2010/11/101116075800.htm)//DR](http://www.sciencedaily.com/releases/2010/11/101116075800.htm%29//DR). H

ScienceDaily (Nov. 16, 2010) — Taken as a whole, energy sources with low or no carbon emissions could easily cover the global energy supply in 2050, according to a new report from Denmark's Risø National Laboratory for Sustainable Energy. The challenge for a sustainable global energy system with low carbon emissions will be to use this potential in the energy system the best way possible seen from an economic point of view. Risø Energy Report 9 lists a wide range of energy technologies in the market with low or no emissions of greenhouse gases, describing how several of these will be made commercially available in the next decades.

### Clean Tech k to Econ

#### A successful transition to renewables boosts economic growth

Fraunhofer-Gesellschaf 11The largest organization for applied research in Europe. Our research is directed to the needs of people: health, safety, communication, mobility, energy and the environment (July 25, 2011, “Transition to Renewable Energy Stimulates the Economy, German Researchers Say,” Science Daily, http://www.sciencedaily.com/releases/2011/07/110725091451.htm

The transition to renewable energy is set to deliver an economic pay off as well in the years to come. Various studies show that a shift to alternative energy sources will raise the GNP in the coming decade and create new jobs, as Prof. Eicke Weber, spokesperson for the Fraunhofer Energy Alliance, points out. Fraunhofer scientists are developing concepts and solutions for the transition as it takes shape. The disaster at Fukushima has raised public awareness and made the shift to renewable sources of energy more desirable than ever**.** It is accompanied, too, by a political willingness to rethink and correct the policies followed until now. The question is often posed in public debate as to whether the shift to renewable energies will be too expensive, or whether it indeed poses a threat to Germany's competitiveness as an industrial location. Over the last two years, however, studies have suggested that fears of this sort are unfounded. On the contrary, according to an EU study performed by the Fraunhofer Institute for Systems and Innovation Research ISI in Karlsruhe, a shift towards renewable energies will stimulate growth in the job market in the coming decade. By 2020 scientists predict that some 2.8 million people will be employed in Europe's renewable energy sector, once implementation of EU objectives in this area has taken hold. The negative impact of a shift to alternative energy is far outweighed by the remaining positive net effect of some 400,000 additional jobs in the EU as a whole. What is more, Europe's GDP is expected to grow by 0.24 % (some 35 billion Euro). Similar results were reported in a study of Germany contracted by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety BMU, in which ISI scientists participated. One of the study's findings showed that "the short and long-term effects on the German labor market derived from expansion of renewable energy use, indicate a positive trend. When all negative effects and influences on the economic cycle are taken into account, the number still falls in the range of 120.000 -- 140,000 new jobs (2020, optimistic scenario, price path A)." Presenting the study's finding at a press conference, Fraunhofer President Prof. Hans-Jörg Bullinger emphasized the Fraunhofer-Gesellschaft's committed efforts in this field of research: "We are perfectly positioned to develop concepts and solutions for a transition to renewable energy. Within the Fraunhofer Energy Alliance alone there are some 2000 scientists from 16 organizations whose work is focused in this sector. They develop system technologies such as power grids and energy storage systems and research new ways to increase energy efficiency. There are also additional teams of scientists from the Building Innovation and Traffic and Transport Alliances, who also devote a significant part of their work to the question of energy." Renewable energy is affordable "The transition to sustainable energy supplies is one of the greatest challenges of the 21st century," asserts Prof. Eicke Weber, spokesperson for the Fraunhofer Energy Alliance and Director of the Fraunhofer Institute for Solar Energy Systems ISE in Freiburg. "To keep electricity, heat and transportation prices affordable in the future, we have to use energy more efficiently and devote more research to the development of renewable sources**.**" Dr. Mario Ragwitz of the ISI, who coordinated the EU study, further emphasizes, "We must sustain investment in renewable energy. And we must be patient." But it is worth the effort, not only to secure the supply of raw materials and to protect the environment, but also economically from a mid- to long-term perspective, a conclusion also reached in a study by the Renewable Energy Research Association FVEE. Another study entitled "Vision for a 100 percent renewable energy system," illustrates how a reliable, affordable and robust energy supply based on renewable sources can be achieved in Germany by the year 2050. "The expansion of renewable energy creates additional costs initially; however, costs should peak in 2015 at a total of about 17 billion Euro. That is only about eight percent of total costs for energy in Germany, and costs will sink again after that**.** Between 2010 and 2050, overall savings of some 730 billion Euro can be achieved in the electricity and heating sectors alone," reports Prof. Jürgen Schmid, Director of the Fraunhofer Institute for Wind Energy and Energy System Technology IWES in Kassel, summarizing the results of the study. Solar energy will become increasingly more competitive It is also clear that the costs of renewable energy will fall**.** "We predict, for example, that the price trend for photovoltaic modules (PV) will continue to follow a price-learning curve in the years ahead," says Eicke Weber. This trend assumes that the price of PV modules, currently between € 1.50 und € 2.00/Wp (net), could fall below € 1.00/Wp as early as 2016, which would put electricity generation costs in Germany in a range between 11 and 14 cents per kilowatt hour. The prerequisites for this reduction in costs are the further development of production, effective utilization of production capacities through corresponding growth in the global PV market, the continual implementation of technological innovations in production, and minimization of production processes and costs.

#### Economic collapse causes extinction

Kerpen 8

Phil, National Review Online, October 29, , Don't Turn Panic Into Depression, http://www.cbsnews.com/stories/2008/10/29/opinion/main4555821.shtml

It’s important that we avoid all these policy errors - not just for the sake of our prosperity, but for our survival. The Great Depression, after all, didn’t end until the advent of World War II, the most destructive war in the history of the planet. In a world of nuclear and biological weapons and non-state terrorist organizations that breed on poverty and despair, another global economic breakdown of such extended duration would risk armed conflicts on an even greater scale. To be sure, Washington already has stoked the flames of the financial panic. The president and the Treasury secretary did the policy equivalent of yelling fire in a crowded theater when they insisted that Congress immediately pass a bad bailout bill or face financial Armageddon. Members of Congress splintered and voted against the bill before voting for it several days later, showing a lack of conviction that did nothing to reassure markets. Even Alan Greenspan is questioning free markets today, placing our policy fundamentals in even greater jeopardy. But after the elections, all eyes will turn to the new president and Congress in search of reassurance that the fundamentals of our free economy will be supported. That will require the shelving of any talk of trade protectionism, higher taxes, and more restrictive labor markets. The stakes couldn’t be any higher.

### Clean Tech Leadership !

#### Clean tech leadership averts global war – independently turns warming and economy

Klarevas 9 – Professor of Global Affairs

Louis, Professor at the Center for Global Affairs – New York University, “[Securing American Primacy While Tackling Climate Change: Toward a National Strategy of Greengemony](http://www.huffingtonpost.com/louis-klarevas/securing-american-primacy_b_393223.html)”, Huffington Post, 12-15, http://www.huffingtonpost.com/louis-klarevas/securing-american-primacy\_b\_393223.html

By not addressing climate change more aggressively and creatively, the United States is squandering an opportunity to secure its global primacy for the next few generations to come. To do this, though, the U.S. must rely on innovation to help the world escape the coming environmental meltdown. Developing the key technologies that will save the planet from global warming will allow the U.S. to outmaneuver potential great power rivals seeking to replace it as the international system's hegemon. But the greening of American strategy must occur soon. The U.S., however, seems to be stuck in time, unable to move beyond oil-centric geo-politics in any meaningful way. Often, the gridlock is portrayed as a partisan difference, with Republicans resisting action and Democrats pleading for action. This, though, is an unfair characterization as there are numerous proactive Republicans and quite a few reticent Democrats. The real divide is instead one between realists and liberals. Students of realpolitik, which still heavily guides American foreign policy, largely discount environmental issues as they are not seen as advancing national interests in a way that generates relative power advantages vis-à-vis the other major powers in the system: Russia, China, Japan, India, and the European Union. Liberals, on the other hand, have recognized that global warming might very well become the greatest challenge ever faced by mankind. As such, their thinking often eschews narrowly defined national interests for the greater global good. This, though, ruffles elected officials whose sworn obligation is, above all, to protect and promote American national interests. What both sides need to understand is that by becoming a lean, mean, green fighting machine, the U.S. can actually bring together liberals and realists to advance a collective interest which benefits every nation, while at the same time, securing America's global primacy well into the future. To do so, the U.S. must re-invent itself as not just your traditional hegemon, but as history's first ever green hegemon. Hegemons are countries that dominate the international system - bailing out other countries in times of global crisis, establishing and maintaining the most important international institutions, and covering the costs that result from free-riding and cheating global obligations. Since 1945, that role has been the purview of the United States. Immediately after World War II, Europe and Asia laid in ruin, the global economy required resuscitation, the countries of the free world needed security guarantees, and the entire system longed for a multilateral forum where global concerns could be addressed. The U.S., emerging the least scathed by the systemic crisis of fascism's rise, stepped up to the challenge and established the postwar (and current) liberal order. But don't let the world "liberal" fool you. While many nations benefited from America's new-found hegemony, the U.S. was driven largely by "realist" selfish national interests. The liberal order first and foremost benefited the U.S. With the U.S. becoming bogged down in places like Afghanistan and Iraq, running a record national debt, and failing to shore up the dollar, the future of American hegemony now seems to be facing a serious contest: potential rivals - acting like sharks smelling blood in the water - wish to challenge the U.S. on a variety of fronts. This has led numerous commentators to forecast the U.S.'s imminent fall from grace. Not all hope is lost however. With the impending systemic crisis of global warming on the horizon, the U.S. again finds itself in a position to address a transnational problem in a way that will benefit both the international community collectively and the U.S. selfishly. The current problem is two-fold. First, the competition for oil is fueling animosities between the major powers. The geopolitics of oil has already emboldened Russia in its 'near abroad' and China in far-off places like Africa and Latin America. As oil is a limited natural resource, a nasty zero-sum contest could be looming on the horizon for the U.S. and its major power rivals - a contest which threatens American primacy and global stability. Second, converting fossil fuels like oil to run national economies is producing irreversible harm in the form of carbon dioxide emissions. So long as the global economy remains oil-dependent, greenhouse gases will continue to rise. Experts are predicting as much as a 60% increase in carbon dioxide emissions in the next twenty-five years. That likely means more devastating water shortages, droughts, forest fires, floods, and storms. In other words, if global competition for access to energy resources does not undermine international security, global warming will. And in either case, oil will be a culprit for the instability. Oil arguably has been the most precious energy resource of the last half-century. But "black gold" is so 20th century. The key resource for this century will be green gold - clean, environmentally-friendly energy like wind, solar, and hydrogen power. Climate change leaves no alternative. And the sooner we realize this, the better off we will be. What Washington must do in order to avoid the traps of petropolitics is to convert the U.S. into the world's first-ever green hegemon. For starters, the federal government must drastically increase investment in energy and environmental research and development (E&E R&D). This will require a serious sacrifice, committing upwards of $40 billion annually to E&E R&D - a far cry from the few billion dollars currently being spent. By promoting a new national project, the U.S. could develop new technologies that will assure it does not drown in a pool of oil. Some solutions are already well known, such as raising fuel standards for automobiles; improving public transportation networks; and expanding nuclear and wind power sources. Others, however, have not progressed much beyond the drawing board: batteries that can store massive amounts of solar (and possibly even wind) power; efficient and cost-effective photovoltaic cells, crop-fuels, and hydrogen-based fuels; and even fusion. Such innovations will not only provide alternatives to oil, they will also give the U.S. an edge in the global competition for hegemony. If the U.S. is able to produce technologies that allow modern, globalized societies to escape the oil trap, those nations will eventually have no choice but to adopt such technologies. And this will give the U.S. a tremendous economic boom, while simultaneously providing it with means of leverage that can be employed to keep potential foes in check**.**

### Oil Dependence Mod

#### Renewable energy is key to avoid oil dependence, high prices and warming

#### **Baker ‘4**

Mark, RadioFree Europe, ‘World: Rise In Oil Price Shifts Focus To Use of Renewable Resources,’ June 1,

http://www.rferl.org/featuresarticle/2004/06/8a45b713-2c2e-4654-9579-e7cc4e081637.html

Some 2,900 delegates, including ministers and heads of government from 118 countries, are planning to attend the conference. In addition to the use of solar and wind energy, delegates will discuss progress in harnessing biomass, geothermal energy, and hydrogen. Proponents of alternative fuels point out that they lessen the world's energy dependence on volatile areas like the Middle East. Much of the world's oil is produced in the Persian Gulf states and the Middle East -- where the threat of a terrorist attack is greatest. This past weekend's terrorist hostage taking in Saudi Arabia alone added nearly a dollar to the price of a barrel of oil -- pushing it to almost $41 a barrel in trading today. Rising demand for oil has also pushed prices higher. The reasons behind the higher demand are a rapidly growing Chinese economy and an increasing preference of drivers in the United States and other countries for bigger, less fuel-efficient vehicles. Another strong argument in favor of alternative fuels is their effect on climate change. Fossil fuels such as oil and coal, when burned, produce carbon dioxide and other greenhouse gases suspected of contributing to global warming. Alternative fuels, on the other hand, are negligible producers of such gases. But skeptics will recall that this sudden embrace of alternative fuels is nothing new. The world reacted in much the same way in the late 1970s and early 1980s in response to the oil-price shocks of the mid-1970s. A recent study by the Paris-based International Energy Agency (IEA) shows that the amount of money spent on total energy research -- including research on alternative fuels -- peaked in 1981, reaching some $16 billion that year. By 1987, however, as oil prices eased, the amount of money spent on energy research fell by half. During the 1990s research in alternative fuels lagged even as the global economy boomed. Today, renewable energy resources contribute only about 5.5 percent of total energy supply -- scarcely unchanged from 1970. The IEA says renewable energy resources can play a role in reducing oil dependence and in helping the environment, but that governments must spend more on research and development.

#### U.S. dependence on oil risks multiple flash points for conflict.

#### **Rosen ’10**

Mark E. Rosen, Deputy General Counsel, CNA Corporation. LL.M., 1991, University of Virginia School of Law; J.D., 1978, University of Georgia School of Law; A.B., 1974, University of Georgia. Mr. Rosen has over thirty years of experience in the legal and national security fields, including positions with the U.S. Department of Homeland Security and a twenty-one year career as an international and maritime lawyer with United States Navy. Mr. Rosen holds adjunct teaching appointments at George Washington University School of Law and Virginia Polytechnic Institute and State University. “Energy Independence and Climate Change: The Economic and National Security Consequences of Failing to Act”. March 2010. 44 U. Rich. L. Rev. 977. Lexis.

President Roosevelt's tacit agreement in 1945 with Saudi Arabia promising U.S. protection in return for special U.S. access to Saudi oil has more or less put the United States in the middle of four regional conflicts: Israel vs. Arab nations, Iraq vs. Iran, Iraq vs. Kuwait, and the United States vs. Iraq. n65 The links between access to oil and national security became explicit during the Carter administration, in which the United States signaled its willingness to use military force to protect the world's access to oil in order to protect the global market. n66 During that period, some international lawyers apparently reasoned that access to oil - essential for the generation of energy and food - is a fundamental human right, which might reasonably justify the use of armed force to protect commercial access. n67 Indeed, shortly after the [\*988] Iraqi invasion of Kuwait in 1990, President Bush imposed a de facto military blockade of Iraq in advance of an authorization by the UN Security Council for states to take military action to remove Iraqi forces from Kuwait. n68 This action was the first time since the Vietnam War that the United States had used military force to protect an economic interest. n69 The action prompted criticisms from many - including the UN Secretary General - that the United States must work through the Security Council. n70 Given that blockades are generally considered equivalent to the aggressive use of armed force under a traditional law-of-war analysis, n71 the 1990 blockade vignette clearly demonstrates that the United States - and presumably other states as well - regard access to oil as a fundamental right, which may legally justify the use of military force. There is a growing consensus in U.S. national security circles that American dependence on imported oil constitutes a threat to the United States because a substantial portion of those oil reserves are controlled by governments that have historically pursued policies inimical to U.S. interests. For example, Venezuela, which represents eleven percent of U.S. oil imports, "regularly espouses anti-American and anti-Western rhetoric both at home and abroad ... [and] ... promotes ... [an] anti-U.S. influence in parts of Latin and South America ..." n72 that retards the growth of friendly political and economic ties among the United States, Venezuela, and a few other states in Latin and South America. This scenario plays out in many different regions. Russia, for example, has used its oil leverage to exert extreme political pressure upon Ukraine and Belarus. n73 Longstanding Western commercial relations with repressive regimes in the Middle East - i.e., Iran, Sudan, and Saudi Arabia - raise similar issues because of the mixed strategic messages that are being sent. Of course, large wealth [\*989] transfers have allowed the Taliban in Saudi Arabia to bankroll terrorism. n74 A. Chokepoints and Flashpoints For the foreseeable future, the U.S. military will most likely be involved in protecting access to oil supplies - including the political independence of oil producers - and the global movements of using oil to help sustain the smooth functioning of the world economy. The security challenges associated with preserving access to oil are complicated by geographical "chokepoints," through which oil flows or is transported, but which are vulnerable to piracy or closure. n75 "Flashpoints" also exist as a result of political - and sometimes military - competition to secure commercial or sovereign access to oil in the face of disputed maritime and land claims that are associated with oil and gas deposits. Together, these challenges have necessitated that the United States and its allies maintain costly navies and air forces to protect sea lanes, ocean access, and maintain a presence to deter military competition in disputed regions. A selection of today's chokepoints and flashpoints follow. The Strait of Hormuz. This strait is the narrow waterway that allows access from the Indian Ocean into the Persian Gulf. Two-thirds of the world's oil is transported by ocean, and a very large percentage of that trade moves through Hormuz. The northern tip of Oman forms the southern shoreline of the strait. n76 Hormuz is protected by the constant transits of the U.S. Navy and its allies. Even though the strait has not been closed, the Persian Gulf has been the scene of extensive military conflict. n77 On September 22, 1980, Iraq invaded Iran, initiating an eight-year war between the two countries that featured the "War of the Tankers," in which 543 ships, including the USS Stark, were attacked, while the U.S. Navy provided escort services to protect tankers [\*990] that were transiting the Persian Gulf. n78 There have been past threats by Iran to militarily close the strait. n79 Additionally, there are ongoing territorial disputes between the United Arab Emirates and Iran over ownership of three islands that are located in approaches to the strait. n80 Closure of the strait would cause severe disruption in the movements of the world's oil supplies and, at a minimum, cause significant price increases and perhaps supply shortages in many regions for the duration of the closure. n81 During the War of the Tankers, oil prices increased from $ 13 per barrel to $ 31 a barrel due to supply disruptions and other "fear" factors. n82 Bab el-Mandeb. The strait separates Africa (Djibouti and Eritrea) and Asia (Yemen), and it connects the Red Sea to the Indian Ocean via the Gulf of Aden. The strait is an oil transit chokepoint since most of Europe's crude oil from the Middle East passes north through Bab el-Mandeb into the Mediterranean via the Suez Canal. n83 Closure of the strait due to terrorist activities or for political/military reasons, could keep tankers from the Persian Gulf from reaching the Suez Canal and Sumed Pipeline complex, diverting them around the southern tip of Africa (the Cape of Good Hope). n84 This would add greatly to transit time and cost, and would effectively tie-up spare tanker capacity. Closure of the Bab el-Mandeb would effectively block non-oil shipping from using the Suez Canal. n85 In October 2002 the French-flagged tanker Limburg was attacked off the coast of Yemen by terrorists. n86 During the [\*991] Yom Kippur War in 1973, Egypt closed the strait as a means of blockading the southern Israeli port of Eilat. n87 The Turkish Straits and Caspian Oil. The term "Turkish Straits" refers to the two narrow straits in northwestern Turkey, the Bosporus and the Dardanelles, which connect the Sea of Marmara with the Black Sea on one side and the Aegean arm of the Mediterranean Sea on the other. Turkey and Russia have been locked in a longstanding dispute over passage issues involving the Turkish Straits. n88 The 1936 Montreux Convention puts Turkey in charge of regulating traffic through the straits; n89 yet Turkey has been hard pressed to stop an onslaught of Russian, Ukrainian, and Cypriot tankers, which transport Caspian Sea oil to markets in Western Europe. n90 Because of the very heavy shipping traffic and very challenging geography, there have been many collisions and groundings in the past, creating terrible pollution incidents and death. n91 Thus far, none of these incidents have been attributed to state-on-state-conflict or terrorism; n92 however, the confined waterway is an especially attractive target because of the grave economic and environmental damage that would result from a well-timed and well-placed attack on a loaded tanker. The issues surrounding the straits are also a subset of larger problems associated with the exploitation of Caspian oil, including severe pollution of the Caspian Sea as a result of imprudent extraction techniques, as well as the ever-present potential for conflict among the various claimants to the Caspian's hydrocarbon resources due to an inability of the various Caspian littoral states to agree on their maritime boundaries - and their [\*992] legal areas in which to drill. n93 Any one of these problems could become a major flashpoint in the future. China vs. Japan. The Daiyu/Senkaku islands located in the East China Sea have become an increasingly contentious dispute because both claimants have, in the past, used modern military platforms to patrol the areas of their claims in which there are suspected oil and gas deposits in the seabed. n94 In September 2005, for example, China dispatched five warships to disputed waters surrounding its oil and gas platforms, which were spotted by a Japanese maritime patrol aircraft. n95 There have been other similar military-to-military encounters. n96 Given the fact that both countries have modern armed forces and are comparatively energy starved, it is not difficult to envision serious conflict erupting over these disputed areas. The Arctic Super Highway. Traditionalists would probably not include the Arctic as a security chokepoint. The oil connection is reasonably well known: "22 percent of the world's undiscovered energy reserves are projected to be in the region (including 13 percent of the world's petroleum and 30 percent of natural gas)." n97 However, given the very small margins that transporters earn transporting oil from point A to B, n98 shipping companies are always in search of shorter routes to transport oil to market. As the thawing of the Arctic Ocean continues as a result of climate change, n99 this may create new shipping routes that transporters of [\*993] oil and other goods will use to maximize their profits and minimize their transit times. As supplies of readily exploitable crude oil are reduced, the probability increases that some of this trade will result from exploitation activities in the land and littoral areas adjacent to the Arctic Sea. This development is concerning for a number of reasons: (1) the area is very remote and could provide a safe haven to pirates seeking to hijack cargoes; (2) the environmental sensitivity of the area, and the concomitant difficulty of mounting a cleanup effort, means that an oil spill in that marine environment will be much more persistent than an oil spill in temperate waters; n100 (3) the Arctic presents unique navigational difficulties due to the lack of good charts, navigational aids, and communications towers, as well as the impacts of extreme cold on the operational effectiveness of systems; n101 (4) the unsettled nature of claims by various countries, including the United States, to the seabed continental shelf resources in the littoral areas off their coastlines creates the potential for military competition and conflict over these claims. n102 The International Maritime Organization ("IMO") is now circulating draft guidelines for ships operating in Arctic areas to promote - but not require - ship hardening against an iceberg strike, better crew training, and environmental protection measures. n103 These guidelines are merely advisory and can only be implemented via the flag states. n104 Also, neither IMO nor any of the UN Law of the Sea Institutions have mandatory jurisdiction over any of the flashpoint issues relating [\*994] to competing continental shelf claims in the Arctic, n105 meaning that any disputes will remain unresolved for a long time. The above is only a selected list of potential flashpoints in which oil is the main culprit. Disputes between China and six other nations of the Spratly Islands, and other territories in the South China Sea, remain unresolved. n106 The Spratly Islands could become a flashpoint in the future, involving the United States or its allies, because of the proximity of those areas to the major sea routes to Japan and Korea. n107 The strategic straits of Malacca, Lombok, and Sunda in Southeast Asia are absolutely essential to the movement of raw materials to Japan, Korea, and China. n108 Because of Lombok's depth and strategic location, it is a major transit route for very large crude carriers that move between the Middle East and Asia. n109 Lombok is an undefended waterway that is only eighteen kilometers in width at its southern opening, making it an attractive chokepoint for hijacking or eco-terrorism in which the waters of the environmentally sensitive Indonesian archipelago would be held hostage.

### Oil Dependence Bad—Heg

#### Dependence on oil creates military overstretch and undermines foreign policy

Weiss 10-- Senior Fellow and the Director of Climate Strategy at American Progress,

Daniel. "Oil Dependence Is a Dangerous Habit." Oil Dependence Is a Dangerous Habit. N.p., 13 Jan. 2010. Web. 26 June 2012. <http://www.americanprogress.org/issues/2010/01/oil\_imports\_security.html>.

The CNA Corporation’s Military Advisory Board determined in 2007 that “Climate change can act as a threat multiplier for instability in some of the most volatile regions of the world, and it presents significant national security challenges for the United States.” In an update of its 2007 report last year CNA found that climate change, energy dependence, and national security are interlinked challenges. The report, “Powering America’s Defense: Energy and the Risks to National Security,” reiterates the finding that fossil fuel dependence is unequivocally compromising our national security. The board concludes, “Overdependence on imported oil—by the U.S. and other nations—tethers America to unstable and hostile regimes, subverts foreign policy goals, and requires the U.S. to stretch its military presence across the globe.”CNA advises, “Given the national security threats of America’s current energy posture, a major shift in energy policy and practice is required.

### Dependence Bad—Laundry List

#### Oil dependence destroys our economic recovery, spurs global warming, and threatens our national security

#### **Weiss 10--Senior Fellow and the Director of Climate Strategy at American Progress**

Daniel, "Oil Dependence Is a Dangerous Habit." Oil Dependence Is a Dangerous Habit. N.p., 13 Jan. 2010. Web. 26 June 2012. <http://www.americanprogress.org/issues/2010/01/oil\_imports\_security.html>.

A recent report on the November 2009 U.S. trade deficit found that rising oil imports widened our deficit, increasing the gap between our imports and exports. This is but one example that our economic recovery and long-term growth is inexorably linked to our reliance on foreign oil. The United States is spending approximately $1 billion a day overseas on oil instead of investing the funds at home, where our economy sorely needs it. Burning oil that exacerbates global warming also poses serious threats to our national security and the world’s security. For these reasons we need to kick the oil addiction.

# \*\*\*Affirmative\*\*\*

### No Alt Energy Investment

#### Lack of investment now—head of IEA

Hargreaves 2012 (Steve Hargreaves, senior editor of cnnmoney, june 12, 2012, IEA calls for $36 trillion more in clean energy investmens, <http://money.cnn.com/2012/06/12/news/economy/iea-energy/>)

NEW YORK (CNNMoney) -- The International Energy Agency said the world's clean energy investments are sorely lacking and this week called for an additional $36 trillion of funding by 2050. In a sharply-worded introduction to a 700-page report, IEA Executive Director Maria van der Hoeven said governments and private industry need to do far more if the world is to hold global warming to what most scientists say is an acceptable level. Our ongoing failure to realize the full potential of clean energy technology is alarming," said van der Hoeven. "Under current policies, both energy demand and emissions are likely to double by 2050." The IEA consists of mostly industrialized nations and was set up in the early 1970s to counterbalance OPEC. It conducts energy market research and helps coordinate releases from [strategic oil stockpiles](http://money.cnn.com/2012/05/17/markets/oil_reserves/index.htm?iid=EL). The report urged governments to set higher targets for [renewable energy](http://money.cnn.com/2012/06/06/technology/solyndra/index.htm?iid=EL) use, called for a price on the emissions of carbon dioxide, and an end to subsidies for fossil fuels -- which worldwide it said were seven times larger than renewable energy subsidies in 2011. "Too little is currently being spent on every element of the clean energy transformation pathway," said van der Hoeven. The IEA's call for the extra $36 trillion in clean energy investments seems like a huge number, it's actually just 35% more than what the world will invest in energy infrastructure by 2050 anyway. IEA noted the extra investment -- which works out to $130 per person per year -- could ultimately lower the world's energy costs by $150 trillion by 2050 because that money would not have to spent on buying more oil, gas or coal. The fuel for most renewable energy systems -- the [wind](http://money.cnn.com/2012/06/06/pf/kansas-wind-energy-america-boomtown/index.htm?iid=EL), the sun, the earth's heat -- is free, while fossil fuel systems require the constant purchase of fuel, mostly from a handful of resource-rich nations.

#### Clean energy market is collapsing in the status quo

NASDAQ 2012 (National association of securities dealers automated quotations, emerging money, international stocks, June 11, 2012, Natural gas has destroyed the global alternative energy sector, <http://community.nasdaq.com/News/2012-06/natural-gas-has-destroyed-the-global-alternative-energy-sector.aspx?storyid=147371>)

Both the private and public sector around the world has lost tens of billions of dollars in alternative energy investments. The biggest force collapsing clean enregy around the globe, according to a recent article in Wired Magazine has been the advent of fracking, which has greatly reduced the price of natural gas ( [UNG](http://emergingmoney.com/tag/ung/) , quote ). The Wired piece, " Clean Tech Meltdown ," notes that: "Perhaps the biggest force working against not just Solyndra but clean energy in general is this: Because natural gas has gotten so cheap, there is no longer a financial incentive to go with renewables. Technological advances in natural gas extraction from shale - including the controversial practice of hydraulic fracturing, or fracking - have opened up reserves so massive that the US has surpassed Russia as the world's largest natural gas supplier." What is ironic is that only the shorts on natural gas have gotten wealthy from this development. The price of natural gas peaked at around $13 per thousand feet in 2008 and is now around $3. Year to date, United States Natural Gas has fallen 38.82%. For the last 12 months of market action, UNG is down by 67.92%. The last week of trading has seen another 5.84% decline. As previously noted, this is not likely to improve anytime soon for UNG shareholders . It will be even worse for shareholders in alternative energy stocks and exchange traded funds, such as the Market Vectors Global Alternative Energy ( GEX , quote ). At this point int time, alternative energy investments are a little like former Nirvana lead singer Kurt Cobain: widely admired but deeply troubled. Everyone wants a clean energy alternative to fossil fuels such as crude oil and natural gas, but almost no one is currently willing or able to pay the surchage for living green. As natural gas begins to rise, emerging market investors should look for alternative energy stocks to rebound.

#### No alt energy now- American recovery and reinvestment act failure

**Kiern 12** (Larry Kiern, senior fellow and writer at the maritime executive, marex news, Washington insider: national offshore energy agenda remains on course, june 27, 2012, the audacity of hope confronts political Reality, <http://www.maritime-executive.com/article/washington-indsider-the-law-of-the-sea-convention-resurfaces>)

A year ago the President and Congress used the national economic crisis to enact into law new national programs to promote alternative energy and spur investments in conservation. The American Recovery and Reinvestment Act aimed, among other things, to reduce America's dependence on foreign oil principally by providing $80 billion for conservation and to promote the development of domestic renewable and alternative sources – biofuels, solar, wind, wave and tidal energy. One year later conservative critics pronounced the $787 billion stimulus plan a failure, highlighting its inability to prevent unemployment from rising above eight percent as initially projected by the Obama Administration. Additionally, critics argued that the stimulus wasted public funds and threatened our fiscal security. Notably, however, they have not targeted for cutting those projects that spur alternative energy, and there appears no serious effort to repeal these programs. To the contrary, supporters of the stimulus complain about the plan’s slow pace and potential benefits flowing to foreigners instead of Americans.

### US Not Leading

#### **U.S. investment in alt energy low now, losing to international competition**

#### **Romm 2012** (Joe Romm, Fellow at American progress and editor of climate progress, oilprices.com, 20 june, 2012, getting ahead in the solar energy market, <http://oilprice.com/Alternative-Energy/Solar-Energy/Getting-Ahead-in-the-Solar-Energy-Market.html>)

On both measures, industry size and system cost, the U.S. is lagging. With the smallest manufacturing capacity for solar modules among the countries reviewed (although the U.S. does have leading market share in other parts of the value chain such as in polysilicon), a relatively high cost for installed solar systems, and a significantly smaller annual rate of deployment than China or Germany—the U.S. economy seems to be losing out on both the economic development opportunities and the potentially lower costs of solar energy. Where its competitors take more deliberate and active policy approaches, the U.S. has relied on a patchwork of sub-national incentives for deployment policy (some of which are very successful) and a hands-off approach to support manufacturing. In the midst of a volatile global competition, this approach seems to be less effective at delivering on the potential benefits of solar.

### High Prices Don’t Lead to Renewables

#### High oil prices lead to the development of alternative oil sources and electric cars – not true renewables.

#### **IBT ‘11**

International Business Times. “Why lower Saudi oil prices kill alternative energy”. May 30, 2011. http://www.ibtimes.com/articles/154524/20110530/saudi-arabia-oil.htm

The biggest obstacle to alternative energy is money. Saudi Prince Al-Waleed bin Talal seems to understand this. In a CNN interview, he admitted Saudi Arabia wants lower oil prices because it doesn’t “want the West to go and find alternatives.” Alternative energy hasn’t taken off in the US because its development largely depends on the private sector. Currently, it’s simply cheaper buy oil from countries like Saudi Arabia, so not many private companies bother to develop alternative sources. For example, if Saudi oil average $80 per barrel in the long-term, why bother extracting oil from oil sands and oil shale if doing so cost $85 per barrel? Why turn to electric cars if the whole ordeal – the research, electric cars, and electric grid – cost more than filling up convention cars with imported fossil fuel? On the other hand, if oil skyrockets to $200 per barrel, it would make absolutely sense to develop oil sands, oil shale, and electric cars. Experts generally put the threshold at which alternative energy becomes viable at a long-term sustained price of $80 per barrel. A recent Federal Reserve research, for example, puts the figure for oil sands at $70 per barrel in 2005 terms, which translates to $77.5 in 2010. According to Al-Waleed, Saudi Arabia probably estimates the threshold to be $80 per barrel. The cost of many alternative energy sources is front-loaded. For example, once a solar farm is constructed and the electric grid is built, the cost of harvesting additional electricity becomes extremely cheap. The danger for oil producers like Saudi Arabia is that once a sustained period of high oil prices induces the Western private sector to invest the upfront costs of setting up alternative sources, the price of energy will be lowered permanently. The optimal strategy for Saudi Arabia, therefore, is to avoid a sustained period of high oil prices. For Western countries, the optimal strategy to bite the bullet, pay the upfront cost, and save money in the long-run with cheap alternative energy sources. Western capitalism, however, can be short-sighted and decentralized; if oil prices stay reasonablely low, not enough players in the private sector will have the resolve to eat the enormous upfront costs of developing alternative energy sources.

#### High oil prices do not lead to renewables

King in ‘8

Neil King, Jr. “Oil Hits $100, Jolting Markets” Wall Street Journal.1/3/8. Factiva

Paradoxically, the high oil price in some ways hinders the quest to curb greenhouse-gas emissions. The oil price makes it economic to develop unconventional deposits such as Canada's oil sands. But the gummy substance is mined, and turning it into usable products takes extensive refining. Gallon for gallon, producing gasoline from oil sands emits far more carbon dioxide than making it from conventional crude. The price rise has a similarly dirty impact at power plants. In the 1990s, when natural gas was cheap, many countries pushed to use more of that, in place of coal, to make electricity. This was good for the environment, because per unit of energy generated, natural gas emits about half as much CO2. But natural-gas prices roughly track oil prices, and they've been rising too. Their rise has prompted a resurgence in coal use, one reason greenhouse-gas emissions are going up faster than many expected. China, the second-largest oil user after the U.S., still meets the bulk of its energy needs with coal.

#### High prices lead to new petroleum sources – no impact to prices and only a risk of environmental damage

#### **Valdmanis, 8**

Richard, ‘Oil-price supernova spurs search for alternatives,’ June 2, Reuters, http://www.reuters.com/article/CentralEuropeanInvestment08/idUSSP32671320080602?pageNumber=3

But the move isn't all green. Rising prices and the scarcity of conventional supplies have triggered an inflow of cash into development of nonconventional petroleum sources -- like the Alberta oil sands, gas shale in Colorado and technology to turn coal into motorfuel -- that could be harmful to the environment. Companies have already poured $100 billion into the Alberta oil sands and hope to triple production by 2015. "The signals that (record oil) could send are a little scary," said Chris Walker, the North American director of The Climate Group, an international nonprofit organization.

### No Link—Alt Energy doesn’t Decrease Prices

#### **Static oil prices are inevitable**

#### **Corredoira 12**

Rafael Corredoira, The Baltimore Sun, “More domestic production won't lower gas prices”, April 19, 2012 http://articles.baltimoresun.com/2012-04-19/news/bs-ed-gas-prices-20120419\_1\_oil-prices-opec-gas-prices

Now, consider this pair of scenarios: 1) The U.S. buys less oil from abroad; as a result, OPEC would cut production and increase prices again (that's what cartels do). 2) The U.S. increases oil production to the extent that it stops buying oil abroad; OPEC would cut production and keep the world price high. In both cases, U.S. consumers would end up paying the OPEC price because U.S. producers (in the absence of trade restriction that would create an isolated market) will export at the higher OPEC price instead of at the lower U.S. price. It should be remembered that in 2011, the U.S. became a net exporter of petroleum products — and that this development contributed to higher prices at the pump. This is more evidence of a global market where OPEC-controlled oil prices have a direct impact on U.S. gas prices: U.S. companies find it more profitable to sell the additional production abroad, at prices driven up by OPEC, than to bring the U.S. price down by selling domestically. Again, the only quick solution — nationalizing oil production or imposing trade restrictions — would be unacceptable in a free-market system. While this may seem dire for U.S. consumers, it does not mean that OPEC holds all the cards. As a Saudi oil minister said in 1973: "The Stone Age didn't end because we ran out of stones." In other words, the Saudis understand supply and demand and the historical evolution of technology. If something was learned from the aftermath of the 1973 oil crisis, it is that high oil prices lead to technological solutions, reducing the dependence on oil at a global level (e.g., conservation, development of alternative energy sources, opening of new oil reserves). In some buildings, you can still see "turn off the lights when leaving" signs from those days. As a result, some OPEC members have been concerned about high oil prices prompting conservation and development of alternative energy sources. Following this logic, the market likely holds a ceiling for U.S. gas prices. According to current estimates, if the average price of gas breaks the $5 barrier at the pump, cars powered by hybrid engines and alternative fuel sources would become less expensive to buy and operate than those powered by internal combustion engines. Thus, one can argue that it is in OPEC's interest to keep the price of gasoline below $5 a gallon. The technology is available, increased demand for the technology would make it more accessible. One would expect OPEC to act accordingly.

#### **OPEC can’t control the market**

#### **MacDonald 12**

Gregor MacDonald, Energy Bulletin, “OPEC Has Lost the Power to Lower the Price of Oil”, May 24, 2012, http://www.energybulletin.net/stories/2012-05-24/opec-has-lost-power-lower-price-oil

But there’s another component to this new belief in the changing global landscape for oil: the dawning awareness that OPEC’s power has finally gone into decline. You can read the celebration of OPEC’s waning in power in practically every publication from Foreign Policy to various political blogs and op-eds. David Ignatius of the Washington Post wrapped up nearly all of the recent claims in a nice bundle in his May 4, 2012 piece, An Economic Boom Ahead?, when he quoted PFC Energy’s David West: “This is the energy equivalent of the Berlin Wall coming down,” contends West. “Just as the trauma of the Cold War ended in Berlin, so the trauma of the 1973 oil embargo is ending now.” The geopolitical implications of this change are striking: “We will no longer rely on the Middle East, or compete with such nations as China or India for resources.” (Source) While it’s true that the Americas hold great promise to convert natural gas resources to higher production levels, that is not the case with oil. The celebration of a geo-political swing in energy power therefore misses a crucial point: No region -- from OPEC to Non-OPEC, from Africa to Russia -- has the single-handed ability to lower the price of oil now, because none can bring on new supply quickly enough for a long-enough sustained period of time. And there is more to this story than meets the eye.

### Shale Gas Turn

#### High oil prices leads to shale oil production—stops clean tech from coming

#### **NY Times 12**

Fuel to Burn: Now What?, http://www.nytimes.com/2012/04/11/business/energy-environment/energy-boom-in-us-upends-expectations.html?pagewanted=all

THE reversal of fortune in America’s energy supplies in recent years holds the promise of abundant and cheaper fuel, and it could have profound effects on what people drive, domestic manufacturing and America’s foreign policy. . Cheaper fuel produced domestically could reduce the cost of shipping and manufacturing, trim heating and cooling bills, improve the auto market and provide tens of thousands of new jobs. It might also pose new environmental challenges, both predictable and unforeseen, by damping enthusiasm for clean forms of energy and derailing efforts to wean the nation from its wasteful energy habits. But for Americans battered by rising gasoline prices, frustrated by the dependence on foreign oil, skeptical of the benefits or practicality of renewable fuels and afraid of nuclear power, the appeal of plentiful domestic oil and gas could far outweigh the costs. Just a few years ago, the dominant theme in discussions about energy was of declining production and the fear of running out of oil. Even today, political tensions in the Middle East, particularly in the Persian Gulf, have fanned fears of supply disruptions that are keeping prices high. But a new boom in energy production in recent years has upended these expectations in record time. High energy prices led to a wave of successful oil and gas exploration in North America, including in fields that were deemed uneconomical only a few years ago. Using techniques like horizontal drilling and hydraulic fracturing, oil companies are tapping into deeply buried reserves in shale rocks and in the ocean’s depths. The surge in energy prices, along with a recession and new government rules that tightened fuel-economy standards, led to a sharp cutback in gasoline consumption. This decline in demand in the last five years reversed decades of almost uninterrupted growth that made the United States the world’s top energy consumer, accounting for one in every four barrels of oil burned around the globe. The North American energy revival is primarily the result of so-called unconventional sources of energy — like shale oil and shale gas across the United States, oil sands in Canada and deepwater production in the Gulf of Mexico. In the last five years, the United States and Canada combined have become the fastest-growing sources of new oil supplies around the world, overtaking producers like Russia and Saudi Arabia.

### Ext.—Will be Shale Gas

#### High Oil Prices makes shale gas cost efficient—net worse for the environment

#### **Voice of Russia 12**

High oil prices advantageous for US shale oil production, http://english.ruvr.ru/2012/01/17/63994539.html

"Over the last decades the US has been actively developing shale gas production. Then the US companies started to develop shale oil production. In the US it is almost a nationwide project implying creation of more than 1 million of working places. Shale oil and gas production implies almost permanent drilling of new wells because after one year a well is no longer operational. It is very expensive and to make this project cost efficient oil should cost not less than $100 per barrel. In reality the US needs Iran to close the Strait of Hormuz through which shipments of Middle Eastern oil and gas are carried out. This would lead to a great deficit." The US and also Canada are the world’s leaders in terns of explored reserves of shale gas. So now Washington may use the aggravation of the situation around the Iranian nuclear program. The potential of this hard extractable oil is quite high and the production is expensive. That is why keeping oil price high US will be able to make such production cost efficient. Experts point at one more aspect of using the Iranian factor for the benefits of the shale oil project. Until recently the US ecologists have been pointing at catastrophic consequences the mass development of shale deposits may lead to. The wells are located deep underground in porous fields. In order to prevent their disintegration the oil producers pump in mixture of water and chemical substances there, a professor Alexei Yablokov says: "The production of shale gas may provoke earthquakes. Another problem is contamination of ground waters, which may spread quite far. There have been constant disputes in America whether to allow such production in the state of New York and states."

#### **Transition to fracking is caused by high oil prices—empirics**

#### **Engdahl 12**

F. William Engdahl, degree from Princeton University in engineering and jurisprudence, Associate Editor and Research Associate of Michel Chossudovsky’s Centre for Research on Globalization, Lars Schall, “The Serious Consequences of New Technologies to Explode Gas out of Shale Rock”, May 7, 2012 http://www.larsschall.com/2012/05/07/is-shale-gas-a-real-energy-solution/

In the US, oil industry people have quickly forgotten the recent scare about oil and gas depletion, popularly known as the Peak Oil theory, in their new euphoria over huge new volumes of gas and also oil obtained by fracking of shale and coal beds. Now even the Obama Administration is talking about a renaissance in domestic oil production. The reason is the dramatic rise in domestic extraction of gas from hydraulic fracking of shale, using new fracking techniques first developed by Halliburton, expensive techniques made financially attractive with the advent of $100 a barrel oil and record high gas prices since 2008.Myth and reality: The Halliburton Loophole Fracking techniques have been around since the end of World War II. Why then suddenly is the world going gaga over shale gas hydraulic fracking? One answer is that the record high oil and gas prices of the recent few years have made inefficient processes such as extracting oil from Canada’s tar sands or the costly fracking profitable. The second reason is the advance of various horizontal underground drilling techniques that allow companies like Schlumberger to enter a large shale rock formation and inject substances to “free” the trapped gas.

#### **High fuel prices spur transition to shale**

#### **George et al 11—Professor @ Cornell University**

Al George (Systems Engineering & Mechanical and Aerospace Engineering), Susan Christopherson (City & Regional Planning), Kieran Donaghy (City & Regional Planning), Deb Grantham (Cornell Cooperative Extension), Rod Howe (Cornell Cooperative Extension), Jeffrey Jacquet (Natural Resources), Teresa Jordan (Earth & Atmospheric Sciences), David Kay (Development Sociology), Michael Moore (University of Calgary), Linda Nozick (Systems Engineering and Civil & Environmental Engineering), Susan Riha (NYS Water Resources Institute and Earth & Atmospheric Sciences), Robert Ross (Paleontological Research Institution), Richard Stedman (Natural Resources), Jeff Tester (Sustainable Energy Institute and Chemical & Biomolecular Engineering), The Atkinson Center for a Sustainable Future Cornell University, “Energy Transitions: A Systems Approach Including Marcellus Shale Gas Development”, August 2011, http://www.sustainablefuture.cornell.edu/attachments/ETransitions-WhitePaperMaster-25Aug2011.pdf

We are pursuing the development of such frameworks through a real-world case study focused on the recovery of gas from the Marcellus Shale. In numerous parts of the U.S., exploitation of natural gas from shales emerged from higher fuel prices and improved technologies to become a fast-advancing industrial phenomenon moving into regions that had not previously seen similar scales of energy production. In West Virginia, Pennsylvania and New York State, production activity from the Marcellus Shale either began in the last two years or may shortly commence in high volume, even as the appropriateness of statutory controls of the environmental impacts of this activity are under debate. Not only the environmental impacts of drilling are uncertain, but also the extent and nature of potential socio-economic risks and outcomes are unclear. Put in the context of the benefits and risks of other energy source and technology options, it may be the case that exploration for and extraction of natural gas from the Marcellus Shale are, or are not, important activities to pursue as part of a strategy to transition to a sustainable regional energy system. We envision it, however, as emblematic of a larger suite of examples, most of which involve reducing the impact of fossil fuel-based energy production and substitution of renewable energy resources. By studying natural gas recovery and use, environmental impacts, and community impacts we hope to gain important insights into the larger class of problems inherent in managing other transitions to more sustainable lifestyles.

#### High oil triggers transition to shale

#### **Siegel 12**

John R. Siegel, president of J.J. Richardson, a registered investment advisor that manages a hedge fund in Bethesda, Md., Barron’s, “The World's Largest LNG Supplier?”, April 7, 2012, http://online.barrons.com/article/SB50001424052748704759704577267370939083182.html

But exporters must overcome growing opposition to LNG exports by environmentalists and industrial users of natural gas. Exporters must also get multiple permits from environmentally conscious federal officials. And Rep. Ed Markey (D.-Mass.) has proposed legislation to bar federal approval of any LNG export terminals until 2025. Those who most fear global warming don't want anyone anywhere to use more fossil fuel, even "cleaner" natural gas. It is uphill for the anti-gas crowd. High oil prices are driving a transition to natural gas, even as fuel for trucks and cars. In the U.S., the T. Boone Pickens Plan would displace gasoline and diesel fuel for compressed natural gas in large trucks. Pickens estimates savings of two million barrels per day of oil imports if the nation's fleet of 18-wheelers converts to CNG. The Pickens Plan might fail legislatively because it calls for subsidies to fuel the transition. But if CNG's nearly $2-per-gallon price advantage over gasoline continues, the concept will evolve via natural market forces, as it should.

### Shale Bad-Warming

#### **Fracking accelerates warming—releases methane which is worse than carbon—also indicts your authors’ studies**

#### **Harvey 12**

Fiona Harvey, environment correspondent, The Guardian, “Using shale gas over coal does not help climate, says big gas investor”, May 29, 2012 http://www.guardian.co.uk/environment/2012/may/29/shale-gas-coal-climate-investor

Using shale gas instead of coal does nothing to help the climate, one of the biggest investors in gas has said, because shale gas companies are failing to use simple technology to fix leaks of a potent greenhouse gas. Switching from coal to shale gas is supposed to help reduce greenhouse gas emissions, because gas produces less carbon than coal when burned. The difference in emissions has been the chief basis for claims by the gas industry that this new form of gas represents a "green" shift that will help to tackle climate change. But at present these savings do not exist, according to an authoritative study by Scottish Widows Investment Partnership, a major financial investor in fossil fuels. It would take two or three decades for shale gas to make a genuine dent in greenhouse gas emissions, as large amounts of coal power went offline, the analysis found. The problem is that "fracking" – blasting rocks apart to obtain gas, which is present in tiny pockets contained within certain dense rocks – produces leaks that pour methane into the atmosphere. Methane is more than 20 times more potent than carbon dioxide in terms of global warming. Companies could use technology known as "green completion" in order to capture the leaking natural gas, known as fugitive methane. But the vast majority do not, particularly in the US where fracking is most advanced, because it costs money and they face no penalty for the leaks. "This is a very big issue, and has huge implications for climate change, given the pursuit of shale gas," said Craig Mackenzie, author of the report by Scottish Widows Investment Partnership. "But there are things gas companies can do to make themselves more green." As a result of the massive expansion of shale gas exploration, according to Scottish Widows, natural gas fugitive emissions now contribute about 20% of the short-term warming impact of the US's total greenhouse gas output, and this amount is rising. Natural gas has overtaken agriculture as the US's biggest source of methane. The enormous impact of fugitive methane has been overlooked in many other studies, according to Scottish Widows, partly because it has not been adequately examined and also because some of the methods used to calculate methane's impact have been faulty. The investor's key conclusion – that fugitive methane is wiping out any carbon saving from switching from coal to gas, and will continue to do so for 20 to 30 years unless the problem is addressed – run counter to recent claims from the International Energy Agency that the switch has cut US emissions substantially. The IEA is set to publish a major report on gas on Tuesday. But the IEA did not include fugitive methane in its calculations of the impact of shale fracking on US emissions. The agency did not comment on the new study. Mackenzie said the future for shale gas didn't have to be altogether bleak, in global warming terms. If companies take steps to plug leaks and capture fugitive gas, they can cut their impact on the climate for little cost. When the fugitive gas is captured, it can be sold along with the rest of the gas produced, providing a return on the investment made on the capturing technologies – a payback period that can be less than a year. Companies fail to do so at present because the world is in the midst of a shale gas bonanza, and most gas companies are focused on finding new sources of supply. In the UK, government ministers were recently advised by scientists to give shale gas fracking a green light, despite local opposition after the first drilling exploration caused two small earthquakes. Mackenzie said Scottish Widows was embarking on a campaign to persuade all of the gas companies in which it holds shares to start using leak-reduction technology. This does not just apply to shale gas operations – conventional gas drilling also produces leaks, which can be stanched by a variety of technologies, including one known as "plunger lift". Scottish Widows is one of the biggest institutional shareholders in BP, as well as other major oil and gas companies.

#### **Shale gas accelerates warming—causes extinction**

#### **Romm 12**

Joe Romm, Fellow at American Progress and is the editor of Climate Progress, “Exporting Liquefied Natural Gas (LNG) Is Bad For The Climate”, Climate Progress, June 18, 2012, http://thinkprogress.org/climate/2012/06/18/500954/exporting-liquefied-natural-gas-lng-is-bad-for-the-climate

But if avoiding catastrophic climate change is your goal, then spending huge sums on even conventional natural gas infrastructure is not the answer, as a recent International Energy Agency report made clear: The speciﬁc emissions from a gas-ﬁred power plant will be higher than average global CO2 intensity in electricity generation by 2025, raising questions around the long-term viability of some gas infrastructure investment if climate change objectives are to be met. And liquefying natural gas is an energy intensive and leaky process. When you factor in shipping overseas, you get an energy penalty of 20% or more. The extra greenhouse gas emissions can equal 30% or more of combustion emissions, according to a 2009 Reference Report by the Joint Research Centreof the European Commission, Liquefied Natural Gas for Europe – Some Important Issues for Consideration. Such extra emissions all but eliminate whatever small, short-term benefit there might be of building billion-dollar export terminals and other LNG infrastructure, which in any case will last many decades, long after the electric grid will not benefit from replacing coal with gas. Furthermore, the U.S. Energy Information Administration concluded in a 2012 report on natural gas exports done for DOE’s Office of Fossil Energy that such exports would also increase domestic greenhouse gas emissions: [W]hen also accounting for emissions related to natural gas used in the liquefaction process, additional exports increase CO2 levels under all cases and export scenarios, particularly in the earlier years of the projection period. Asserting any net benefit for the importer requires assuming the new gas replaces only coal — and isn’t used for, say, natural gas vehicles, which are worse for the climate or that it doesn’t replace new renewables. If even a modest fraction of the imported LNG displaces renewables, it renders the entire expenditure for LNG counterproductive from day one. Remember, a major new 2012 Proceedings of the National Academy of Sciences study on “technology warming potentials” (TWPs) found that a big switch from coal to gas would only reduce TWP by about 25% over the first three decades (see “Natural Gas Is A Bridge To Nowhere Absent A Carbon Price AND Strong Standards To Reduce Methane Leakage“). And that is based on “EPA’s latest estimate of the amount of CH4 released because of leaks and venting in the natural gas network between production wells and the local distribution network” of 2.4%. Many experts believe the leakage rate is higher than 2.4%, particularly for shale gas. Also, recent air sampling by NOAA over Colorado found 4% methane leakage, more than double industry claims. A different 2012 study by climatologist Ken Caldeira and tech guru Nathan Myhrvold finds basically no benefit in the switch whatsoever — see You Can’t Slow Projected Warming With Gas, You Need ‘Rapid and Massive Deployment’ of Zero-Carbon Power. So spending vast sums of money to export natural gas from this country is a bad idea for the climate. A new paper published last week by Brooking’s Hamilton Project, “A Strategy for U.S. Natural Gas Exports,” asserts a different conclusion, primarily because it ignores all of the issues discussed above. Indeed, the paper rather amazingly asserts “Natural gas, though, has the same climate consequences whether it is burned in the United States, Europe, or Asia,” which would be true for exported U.S. gas only if we could use magic to take the U.S. shale gas and put it into European or Asian gas-fired power plants. In the real world, it takes a massive amount of energy and greenhouse gas emissions to get gas from here to those markets, as is well known in the climate policy arena. BOTTOM LINE: Investing billions of dollars in new shale gas infrastructure for domestic use is, at best, of limited value for a short period of time if we put in place both a CO2 price and regulations to minimize methane leakage. Exporting gas vitiates even that limited value and so investing billions in LNG infrastructure is, at best, a waste of resources better utilized for deploying truly low-carbon energy. At worst, it helps accelerates the world past the 2°C warming threshold into Terra incognita — a planet of amplifying feedbacks and multiple simultaneous catastrophic impacts.

### Shale Doesn’t Solve Warming

#### **Shale gas extracted by fracking won’t reduce GHG emissions and won’t solve global warming**

#### **Howarth et al. 11**

Robert W. Howarth and Renee Santoro, Department of Ecology and Evolutionary Biology, Cornell University; Anthony Ingraffea, School of Civil and Environmental Engineering, Cornell University; “Methane and the greenhouse-gas footprint of natural gas from shale formations”, 3/13, Climatic Change (2011) 106:679–690, Springer

The GHG footprint of shale gas is significantly larger than that from conventional gas, due to methane emissions with flow-back fluids and from drill out of wells during well completion. Routine production and downstream methane emissions are also large, but are the same for conventional and shale gas. Our estimates for these routine and downstream methane emission sources are within the range of those reported by most other peer-reviewed publications inventories (Hayhoe et al. 2002; Lelieveld et al. 2005). Despite this broad agreement, the uncertainty in the magnitude of fugitive emissions is large. Given the importance of methane in global warming, these emissions deserve far greater study than has occurred in the past. We urge both more direct measurements and refined accounting to better quantify lost and unaccounted for gas. The large GHG footprint of shale gas undercuts the logic of its use as a bridging fuel over coming decades, if the goal is to reduce global warming. We do not intend that our study be used to justify the continued use of either oil or coal, but rather to demonstrate that substituting shale gas for these other fossil fuels may not have the desired effect of mitigating climate warming.

### Shale Doesn’t Solve Oil Dependence

#### Won’t be able to expand fast enough to meet energy demands

#### **Post Carbon Institute 12**

Post Carbon Institute provides individuals, communities, businesses, and governments with the resources needed to understand and respond to the interrelated economic, energy, environmental, and equity crises that define the 21st century. US May Hold Large Reserves of Shale Oil, but is it Economically Out of Reach?, http://oilprice.com/Energy/Crude-Oil/US-May-Hold-Large-Reserves-of-Shale-Oil-but-is-it-Economically-Out-of-Reach.html

There is a lot more to the U.S. shale oil story, however, than simply the Bakken shales in the upper Midwest. The Eagle Ford shale in southwestern Texas has been drawing considerable attention as a major source of oil and natural gas. However, it is the Monterey shale in southern California that is likely to become the biggest shale oil resource of all. Whereas the Bakken and Eagle Ford shales are estimated to contain about 3.5 million barrels each of recoverable oil, the Monterey shale with 15 billion barrels is 64 percent of the 24 billion barrels estimated to be trapped in U.S. shale formations. While this 24 billion barrel figure sounds impressive to politicians looking for a talking point, it really is only about 9 months' worth of current global oil consumption. As we have seen with the Bakken and the various natural gas bearing shales we have been drilling of late, it takes an awful lot of expensive wells and environmental disruption to get the oil out. One estimate of the Energy Returned on Energy Investment (EROEI) for the Bakken shale suggests that the EROEI is six. This means that it may take one oil barrel's worth of energy to produce six barrels of Bakken shale oil. This is getting very close to the theoretical point at which it really is not worth the effort and all the economic disruption. The aspect of this "energy independence" story that the optimists continue to ignore is that, while oil production from shale may be climbing, depletion of our other sources of oil continues apace. Alaskan oil production is falling rapidly as is shallow offshore production in the Gulf and at least some of the offshore platforms are not turning out to be anywhere near as productive as planned. For its part, the EIA forecasts that U.S. shale oil production will reach a peak of about 1 million b/d around 2020, and deepwater production will increase by about another 500,000 b/d before peaking. This would put total US oil production in 2020 around 6.5 million b/d, far below the current demand of 18 million b/d.

### Tech Fails

#### Renewables cannot reduce dependence on fossil fuels or solve warming.

#### **Spencer ‘8**

Roy Spencer, a principal research scientist at the University of Alabama in Huntsville. “Reality Deniers”. January 15, 2008. http://www.nationalreview.com/articles/223225/reality-deniers/roy-spencer

I am astounded by the naiveté of those folks who seem to think there is some magic, non-polluting energy source out there that “Big Oil” has been hiding from us until all of the petroleum runs out. As these reality deniers continue to drive cars and fly in airplanes, they deny the fact that mankind’s dependence on oil is not out of choice, but necessity. It makes me cringe when I see bloggers and pundits say things like, “What’s the downside of reducing greenhouse-gas emissions? Even if we’re wrong about man-made global warming, we’ll end up with better energy technologies and cleaner air. And if we’re right, we’ll save the planet!” The only problem is, no matter how serious you think global warming will be, our current renewable-energy technologies and conservation will make virtually no difference to future global temperatures. These efforts might make us feel better about ourselves, but don’t expect them to come anywhere close to solving the problem. The energy demand by humanity is simply too large — and it is growing rapidly in developing countries like India and China. Electricity in the United States is supplied by the equivalent of 1,000 one-gigawatt power plants. It would be a major feat, both politically and monetarily, to replace 50 of those 1,000 power plants with solar and wind generation facilities.

#### New tech is a false god – it cannot offset enough traditional consumption

#### **Foroohar, 8**

Rana, The Coming Energy Wars, Newsweek, June 9, pg. l/n

Meanwhile, though numerous green technologies hold plenty of promise, none of them are going to save the day any time soon. "It's a false god," says Robin West, chairman of PFC Energy. "There will be step changes in technology, but people forget the scale of the oil business. Ethanol production was 5 billion gallons last year, with huge subsidies to farmers and rising food prices. But that's the size of one production platform off the coast of West Africa."

### Econ Turn Renewables

#### Economic decline collapses renewables

#### **Richard 8**

Michael Graham, staff writer, Tree Hugger, http://www.treehugger.com/files/2008/02/4\_reasons\_recession\_bad\_environment.php

As a counter-point to Lloyd's tongue-in-cheek post about [10 Ways the Recession Can Help the Environment](http://www.treehugger.com/files/2008/02/always_look_on.php), here are some eco-reasons why we should wish a speedy recovery (we won't get into non-green reasons here): Firstly, when squeezed, companies will reduce their investments into research & development and green programs. These are usually not short-term profit centers, so that is what's axed first. Some progress has been made in the past few years, it would be sad to lose ground now. Secondly, average people, when money is tight, will look for less expensive products (duh). Right now, that usually means that greener products won't make it. Maybe someday if we start taxing "bads" instead of "goods" (pollution, carbon, toxins instead of labor, income, capital gains) the least expensive products will also be the greenest, but right now that's not the case. Thirdly, there's less money going into the stock markets and bank loans are harder to get, which means that many small firms and startups working on the breakthrough green technologies of tomorrow can have trouble getting funds or can even go bankrupt, especially if their clients or backers decide to make cuts. Fourthly, during economic crises, voters want the government to appear to be doing something about the economy (even if it's government that screwed things up in the first place). They'll accept all kinds of measures and laws, including those that aren't good for the environment. Massive corn subsidies anyone? Don't even think about progress on global warming...

### AT Clean Tech Key to Econ—Econ Decline Doesn’t Lead to War

#### Recent conflicts prove there is zero correlation between economic decline and war

#### **Barnett 9**

Thomas, Senior Managing Director of Enterra Solutions LLC, Contributing Editor and Online Columnist for Esquire, The New Rules: Security Remains Stable Amid Financial Crisis, Aprodex, Asset Protection Index, <http://www.aprodex.com/the-new-rules--security-remains-stable-amid-financial-crisis-398-bl.aspx>

When the global financial crisis struck roughly a year ago, the blogosphere was ablaze with all sorts of scary predictions of, and commentary regarding, ensuing conflict and wars -- a rerun of the Great Depression leading to world war, as it were. Now, as global economic news brightens and recovery -- surprisingly led by China and emerging markets -- is the talk of the day, it's interesting to look back over the past year and realize how globalization's first truly worldwide recession has had virtually no impact whatsoever on the international security landscape. None of the more than three-dozen ongoing conflicts listed by GlobalSecurity.org can be clearly attributed to the global recession. Indeed, the last new entry (civil conflict between Hamas and Fatah in the Palestine) predates the economic crisis by a year, and three quarters of the chronic struggles began in the last century. Ditto for the 15 low-intensity conflicts listed by Wikipedia (where the latest entry is the Mexican "drug war" begun in 2006). Certainly, the Russia-Georgia conflict last August was specifically timed, but by most accounts the opening ceremony of the Beijing Olympics was the most important external trigger (followed by the U.S. presidential campaign) for that sudden spike in an almost two-decade long struggle between Georgia and its two breakaway regions. Looking over the various databases, then, we see a most familiar picture: the usual mix of civil conflicts, insurgencies, and liberation-themed terrorist movements. Besides the recent Russia-Georgia dust-up, the only two potential state-on-state wars (North v. South Korea, Israel v. Iran) are both tied to one side acquiring a nuclear weapon capacity -- a process wholly unrelated to global economic trends. And with the United States effectively tied down by its two ongoing major interventions (Iraq and Afghanistan-bleeding-into-Pakistan), our involvement elsewhere around the planet has been quite modest, both leading up to and following the onset of the economic crisis: e.g., the usual counter-drug efforts in Latin America, the usual military exercises with allies across Asia, mixing it up with pirates off Somalia's coast). Everywhere else we find serious instability we pretty much let it burn, occasionally pressing the Chinese -- unsuccessfully -- to do something. Our new Africa Command, for example, hasn't led us to anything beyond advising and training local forces.

#### **No causality – economic decline doesn’t cause war**

**Ferguson in ‘6**

Niall Ferguson, MA, D.Phil., is the Laurence A. Tisch Professor of History at Harvard University and William Ziegler Professor at Harvard Business School, “The Next War of the World”, Foreign Affairs 85.5, Proquest

There are many unsatisfactory explanations for why the twentieth century was so destructive. One is the assertion that the availability of more powerful weapons caused bloodier conflicts. But there is no correlation between the sophistication of military technology and the lethality of conflict. Some of the worst violence of the century -- the genocides in Cambodia in the 1970s and central Africa in the 1990s, for instance -- was perpetrated with the crudest of weapons: rifles, axes, machetes, and knives. Nor can economic crises explain the bloodshed. What may be the most familiar causal chain in modern historiography links the Great Depression to the rise of fascism and the outbreak of World War II. But that simple story leaves too much out. Nazi Germany started the war in Europe only after its economy had recovered. Not all the countries affected by the Great Depression were taken over by fascist regimes, nor did all such regimes start wars of aggression. In fact, no general relationship between economics and conflict is discernible for the century as a whole. Some wars came after periods of growth, others were the causes rather than the consequences of economic catastrophe, and some severe economic crises were not followed by wars.

### AT Oil Dependence Impact

#### Oil Dependence won’t cause wars—US will be able to get the oil from other regions

Eland 8--Senior Fellow and Director of the [Center on Peace & Liberty](http://independent.org/research/copal/) at The Independent Institute

Ivan, 9/1/08, U.S. Dependence on Foreign Oil: Why We Shouldn’t Be Alarmed, http://independent.org/newsroom/article.asp?id=2306

In the globalized world, however, the United States is heavily dependent on imports for many important necessities and products—for example, semiconductors. International trade allows U.S. companies and the American public to take advantage of the world market to get better goods at cheaper prices. Thus, when politicians generate fear of U.S. dependence on foreign oil, they are implicitly alleging that oil is somehow special. Oil is heavily used in transportation and the manufacture of such industrial items as petrochemicals and plastics. Yet to use the example of semiconductors mentioned above, imported semiconductors also are key component parts of important items throughout the economy—for example, computers, television sets, other electronic devices, cars, etc. Therefore, the politicians are not only implying that oil is special, but that it is also “strategic.” Oil is strategic, however, only in the narrow sense that its derivatives help run tanks, aircraft, ships, helicopters, and other vehicles that the U.S. military would use in a war. (Of course, so do semiconductors.) But the United States produces about 1.8 billion barrels of oil annually, almost 13 times what the U.S. military used at the height of its consumption during the latest simultaneous wars in Iraq and Afghanistan (144 million barrels per year). Thus, there is plenty of domestically produced oil to run the U.S. military in times of war. With the probability of any worldwide conventional war among great powers escalating into a global thermonuclear holocaust being quite high—in which case nobody would be caring about the vaporized imported oil—such a widespread conventional conflict is very unlikely. Thus, in any regional war, the U.S. economy would be able to get oil from the regions of the world not involved in the conflict. The price might go up because of the war, but industrial economies are actually quite resilient to oil price increases. For example, the U.S. economy has not collapsed in the wake of recent record oil prices, and from late 1998 to late 2000, Germany maintained respectable economic growth rates in the face of a 211 percent price increase in oil. But what if the war occurred in the volatile Persian Gulf region? The United States only gets 21 percent of its oil from the Persian Gulf. Most of it comes from Canada, Mexico, Nigeria, and Venezuela. Of course, a war anywhere in the world will cause the price of oil to go up. But about 80 percent of U.S. semiconductor imports come from East Asia, yet the media doesn’t constantly run hysterical stories on price spikes in semiconductors or on the horrible U.S. dependence on East Asian semiconductors. And the politicians don’t talk about using the U.S. military to safeguard such supplies from East Asia. But can’t the world run out of oil, especially with developing nations, such as China and India, using more? Theoretically, the answer is yes because there are only finite deposits in the earth. Yet because exploration and recovery technology is constantly improving, proven oil reserves have tended to increase over time. Also, as oil prices go up, conservation increases and alternative energy sources—natural gas, solar, geothermal, etc.--become more attractive economically. For example, the conventional wisdom was that U.S. natural gas fields were in irreversible decline, but the high price of oil has led to a drilling boom to find more of this substitute. New technology to extract natural gas from shale beds has increased production in the U.S. dramatically and will probably also do so around the world. So who knows, similar technological leaps might also increase the amount of recoverable oil around the world. But one thing is sure: it’s a myth that being dependent on imported oil is bad. As a way to stump politicians who perpetuate this nonsense, perhaps we should ask them this question: If oil is so critical and will become even more valuable when world supplies allegedly dwindle in the future, shouldn’t we use other countries’ oil now and have the U.S. government require that our limited production be saved to use or sell as the shortages worsen and future prices go even higher? Diametrically opposed to the present time, with the prevalent fears of dependency on foreign oil, this “conservation theory” was all the rage in the late 1930s and 1940s when a slowdown in finding new oil deposits seemed to threaten chronic future shortages (similar to the dire predictions after World War I and in the early 1920s before big oil discoveries were made late in the 1920s).

Alt Energy Investment---Liam

Oil Prices High

AT Econ key to Alt Energy Investment--Babs

Renewables solve warming/oil dependence--Amit

AT Transit solves warming/renewables > decreasing consumption--Babs

Oil Dependence !--Brendan

I/L cards—high prices🡪shift—High Oil Prices--Birzer

Warming !—

# \*\*\*Russian Oil DA\*\*\*

## 1NC: Russian Oil

#### Russian economy strong now – weathering Euro financial crisis

RT (Russian News “TV-Novosti”) June22, 2012 “Lower oil price 'good for Russia'” http://rt.com/business/news/oil-price-russia-economy-497/

Analysts say Russia, one of the four BRIC countries, has become a particular surprise this year, Russia seems to be more sheltered from the current global economic crisis than it was during the 2008 and 2009 downturn. Its prospects are brighter than those of many other economies The country’s economy is expected to grow between 4-5 percent this year -much higher than any developed country. “If it carries on growing at these rates it will contribute more to the world this decade than the whole of Europe,” said Jim O’Neill. Together with the other BRIC nations Russia is ready to tackle the global economic crisis. “Emerging countries, including BRICS should play a bigger role in the world economy,” Russian President Vladimir Putin told the Petersburg International Economic Forum. Brazil, Russia, India, China and South Africa have recently offered their help, pledging to inject $75 billion into the IMF. China has offered $43 billion, while Brazil, Russia, India and Mexico promised $10 billion each. Meanwhile South Africa, Turkey, Colombia, Malaysia, New Zealand and the Philippines also promised smaller sums. The five BRICS nations represent 43 percent of the world’s population and about 18 percent of global economic output. They have about $4 trillion in combined reserves, with the lion’s share held by export powerhouse China. “If I had to rank them then China would be number one, Brazil -two, Russia number three and India four” Jim O’Neill of Goldman Sachs said. “Russia has lots of challenges, so does everybody else.”

#### And oil prices are on the rise

John Beirs, 2012 [Writer for NASDAQ.com, U.S. Oil futures end higher as Brent lends boost, http://www.nasdaq.com/article/oil-prices-rise-rebound-seen-as-temporary-20120626-00489]

Carl Larry, an analyst with Oil Outlooks & Opinions in Houston, attributed the jump in West Texas Intermediate to the increase in Brent and to renewed optimism that an upcoming euro-zone summit could yield a breakthrough. Larry also cited renewed tensions between Syria and Turkey as a factor in the rally.

The increase is "following along on anticipation of bigger and better things tomorrow," said Mr. Larry. "We're looking for a shred of hope" on Europe, he added.

North Sea Brent crude oil was higher on concerns over tightening supplies due to a strike in Norway and the impending Europe Union embargo on Iranian crude-oil imports.

Traders said the gain was sparked by news of a widening impact of a strike by Norwegian oil workers. Analysts at J.P. Morgan warned the strike "has the potential to tighten the European light sweet-crude market, particularly as refinery runs increase following the spring maintenance period."

Brent also gained support from news South Korea said it would halt its import of Iranian crude oil indefinitely as of July 1.

The move comes as stricter sanctions on Iran are set to go into effect Sunday, including a ban of Iranian oil imports by E.U. nations.

<INSERT LINK TO THE PLAN>

#### Low prices hurt Russian economy

VAO News, 2012 [June 11, Falling Oil Prices Prompt Russian Economic Fears, http://www.voanews.com/content/falling-oil-prices-prompt-russian-economic-fears/1206097.html]

Khanty-Mansiysk in Siberia - home to around 70 percent of Russia’s developed oil fields and the source of much of the country’s wealth.

Russia produces more than 10 million barrels of oil per day - making it a major energy player.

Stephen Tindale, an energy economist at the Center for European Reform, said, “Almost half of the Russian government’s revenue comes from various taxes on oil and gas exports.”

Tindale says that leaves the Russian economy highly vulnerable to a fall in oil prices. “It would mean their budget was well out of balance and so would be very serious, short-term, for Putin and the Russian government," he said.

#### Nuclear war

Sheldon Filger, 2009 [Author for the Huffington Post, “Russian Economy Faces Disastrous Free Fall Contraction” http://www.globaleconomiccrisis.com/blog/archives/356]

In Russia, historically, economic health and political stability are intertwined to a degree that is rarely encountered in other major industrialized economies. It was the economic stagnation of the former Soviet Union that led to its political downfall. Similarly, Medvedev and Putin, both intimately acquainted with their nation's history, are unquestionably alarmed at the prospect that Russia's economic crisis will endanger the nation's political stability, achieved at great cost after years of chaos following the demise of the Soviet Union. Already, strikes and protests are occurring among rank and file workers facing unemployment or non-payment of their salaries. Recent polling demonstrates that the once supreme popularity ratings of Putin and Medvedev are eroding rapidly. Beyond the political elites are the financial oligarchs, who have been forced to deleverage, even unloading their yachts and executive jets in a desperate attempt to raise cash.

Should the Russian economy deteriorate to the point where economic collapse is not out of the question, the impact will go far beyond the obvious accelerant such an outcome would be for the Global Economic Crisis. There is a geopolitical dimension that is even more relevant then the economic context. Despite its economic vulnerabilities and perceived decline from superpower status, Russia remains one of only two nations on earth with a nuclear arsenal of sufficient scope and capability to destroy the world as we know it. For that reason, it is not only President Medvedev and Prime Minister Putin who will be lying awake at nights over the prospect that a national economic crisis can transform itself into a virulent and destabilizing social and political upheaval. It just may be possible that U.S. President Barack Obama's national security team has already briefed him about the consequences of a major economic meltdown in Russia for the peace of the world. After all, the most recent national intelligence estimates put out by the U.S. intelligence community have already concluded that the Global Economic Crisis represents the greatest national security threat to the United States, due to its facilitating political instability in the world. During the years Boris Yeltsin ruled Russia, security forces responsible for guarding the nation's nuclear arsenal went without pay for months at a time, leading to fears that desperate personnel would illicitly sell nuclear weapons to terrorist organizations. If the current economic crisis in Russia were to deteriorate much further, how secure would the Russian nuclear arsenal remain? It may be that the financial impact of the Global Economic Crisis is its least dangerous consequence.

## Uniqueness – Russian Economy

#### **All major indictors show Russian economy is improving**

#### **RT** (Russian News “TV-Novosti”) 18 June, **2012**, 15:17 “The G20 and global economic challenges” http://rt.com/politics/official-word/putin-g20-crisis-article-070/

What position does Russia take in this situation? Over recent years, Russia, which is the world’s sixth-biggest economy in terms of purchasing parity power, has strengthened its financial and budget system. We have the third-biggest currency and gold reserves in the world. With a growth rate of 4.3 percent, Russia’s economy is one of the fastest growing big economies in Europe. Unlike in 2008, Russia’s banking system is now much better protected against fluctuations on the global financial market. Russia is not burdened by dangerously high debt levels. Household debt levels in Russia are considerably lower than that of other countries. Total household debt came to 10.6 percent of GDP as of April 1, 2012, compared to approximately 60 percent of GDP in Germany and France, 87 percent in Spain, and 92 percent in the USA. As for Russia’s public debt, at 9.2 percent of GDP as of May 1, 2012, it is minimal compared to the other countries in the G8, G20, and the BRICS Group. For comparison, public debt is 81 percent of GDP in Germany, 86 percent in France, and 104 percent in the USA. Last year we succeeded to get a deficit-free budget and to even make a small profit of 0.8 percent of GDP, we therefore earned more money than we spent. Russia’s trade surplus stood at $198 billion.

#### Russian economy is high but it’s dependent on high oil prices

Lloyds TSB Financial Markets Economic Research Jun 22 2012, 12:06 GMT Teamhttp://www.fxstreet.com/fundamental/analysis-reports/economics-weekly/2012/06/22/

The Russian Economy is going through major growth buoyed by gas prices but concern is high

Russian industrial production was bolstered by a rebound in manufacturing as domestic demand remained firm. Industrial production rose 3.7% yoy in May, up from 1.3% in April, in part reflecting more working days compared to last year. The positive economic backdrop was underlined by a further fall in unemployment to 5.4% in May - the lowest rate since May 2008 - continuing robust growth in real wages (11.1% yoy) and buoyant investment in productive capacity (7.7% yoy). Recent sovereign ratings actions saw Fitch cut its outlook for India to negative from stable. In contrast, Moody’s upgraded Turkey’s credit rating to Ba1, one notch below investment grade and retained its positive outlook. THE WEEK AHEAD The Turkish trade deficit has been on a narrowing trend in the last six months as imports have fallen and exports have seen solid growth. The slowdown in imports is reflective of weaker domestic growth but there are concerns about how well exports to the euro area will hold up. Positively, Turkish exporters have been able to find some offset via encouraging Middle-Eastern trade, which should prove resilient despite the recent slide in crude oil prices. We forecast the trade deficit narrowed further in May to $6.2bn, from $6.6bn in April. The improved trade position should support a further reduction in the current account deficit, a long-standing key vulnerability for Turkey, helping to provide some underlying support for the lira. However, the currency is vulnerable to a worsening of the euro area crisis. Balance of payments data are also published for South Korea on Thursday. We forecast a modest widening in both the May trade and current account surpluses as the upturn in the global electronics cycle helps to partly offset generally softer external demand. Chart B shows the typical rebound in exports has been constrained by weaker global confidence but should nevertheless strengthen from here. South Korean import growth is also likely to reflect the softer global backdrop. We forecast the current account surplus widened to $2.5bn in May, from $1.8bn in April. The Hungarian economy appears poised to contract again in the current quarter, signalling a return to recession for the first time since 2009. Positively, the government has taken key steps to restart negotiations with the IMF/EU this week as the need for official financing is growing, particularly given the uncertain euro area outlook. The situation presents a dilemma for the central bank as it would probably like to cut interest rates, particularly now that inflation is also slowing, but Hungarian assets remain vulnerable to a significant correction. We forecast the policy interest rate at 7% for a fifth straight month.In contrast, the Russian economy has proved resilient to the global slowdown, buoyed by high oil prices and robust domestic demand. However, there are concerns building about the outlook as crude oil prices have fallen sharply, following signs of slowing growth in key external markets. Oil price developments will be watched closely and financial markets will be particularly alert to any comments from OPEC. The EU leaders’ Summit represents another key event for the diary this week.

## Uniqueness – Oil Prices

#### Prices are rebounding – EU ban on Iranian oil

Business Week, 2012 [June 28, Oil Over $100 Seen on Iran After Worst Quarter Since 2008, http://www.businessweek.com/news/2012-06-27/oil-over-100-seen-on-iran-after-worst-quarter-since-08]

Brent crude is set to recover from its worst quarter since 2008 as a European Union ban on Iranian oil takes effect, central banks act to protect growth and on speculation OPEC will curb some of its excess supply.

Brent, the second-worst performer between April and June in the Standard & Poor’s GSCI commodity index, is forecast to rebound to an average $114.50 a barrel in the third quarter, according to the median estimate of 32 analysts tracked by Bloomberg. BNP Paribas SA, Deutsche Bank AG and Barclays Plc predict $110, $115 and $121, respectively. Prices dipped as low as $88.49 last week in London and rose as high as $93.85 today.

“We do look for a rebound and feel that the oil price has gone beyond economic fundamentals,” Michael Lewis, Deutsche Bank’s head of commodities research in London, said by phone on June 26. “We are in quite an extreme level of investor pessimism, which would only seem to us justified if the U.S. was going back into a recession.”

The prospect of a rebound in prices driven by sanctions on Iran illustrates the readiness of the U.S., Europe and their allies to suffer higher fuel costs in order to curb the Islamic republic’s nuclear program. The EU, Iran’s biggest buyer after China, is due to stop importing the nation’s oil July 1. While reflecting an improvement in demand as major economies tackle the fallout from Europe’s sovereign debt crisis, rising prices may also pose headwinds to a recovery.

#### Prices will level

Business Week, 2012 [June 27, Are Oil Prices Nearing a Bottom? http://www.businessweek.com/articles/2012-06-27/are-oil-prices-nearing-a-bottom]

The recent decline in the price of oil has been among the swiftest ever. Crude prices have tumbled 22 percent so far this quarter, their steepest slide [since the end of 2008](http://www.bloomberg.com/news/2012-06-25/corn-advances-on-hot-weather-oil-falls-commodities-at-close.html), back in the deep, dark days of the financial crisis. Things are bad now for sure, with [Europe on the brink](http://www.bloomberg.com/news/2012-06-27/merkel-rebuffs-rajoy-plea-shuts-door-to-euro-area-bonds.html) and an underwhelming U.S. recovery. But are they Lehman Brothers, Bernie Madoff, AIG bad? Probably not. And there’s growing evidence that oil prices may be approaching a bottom.

Both domestic and international crude prices have risen over the past week. Since June 21, domestic West Texas Intermediate is up nearly 2 percent, while the price of international Brent is up 8 percent. That’s right about where they were during the last market bottom in early October. The seven-month buildup in U.S. oil supplies finally appears to be losing steam, after the Department of Energy reported that crude inventories fell 133,000 barrels last week ([PDF](http://ir.eia.gov/wpsr/wpsrsummary.pdf)). That’s not nearly as big a drop as many people expected—a Bloomberg survey forecast a 1.3 million-barrel decline. But it’s a drop nonetheless, and a rare one at that. Since December, U.S. oil inventories have risen 20 percent, yet over the past month the pace has flattened out. At 387 million barrels, the U.S. is still sitting on its highest supply of crude oil since July 1990.

#### Prices are set to increase – demand growing

McKillop 6/17/12 **-** former Expert-Policy and Programming, Division A-Policy, DG XVII-Energy, with the European Commission, Brussels (Andrew, “ Crude Oil Demand Recovery Is Unlikely” The Market Oracle <http://www.marketoracle.co.uk/Article35184.html>)

**“**World oil consumption will rebound next year as the global economy recovers, according to a report released by the Paris-based International Energy Agency which said it expects global oil demand to grow 1.7%, for an increase of 350,000 barrels per day from its previous estimate". The only problem with the serial oil demand growth-forecasting reports from the IEA is the above example dates from.... September 2009. At that time, crude for November delivery was trading around $71.75 a barrel for WTI grade. Why oil demand did not rebound is the real question, and the reasons for this are not only due to GDP change or oil prices but are wide ranging - and will go on growing. This especially affects the European Union countries, the US and Japan, which are the three main oil consumers in the IEA's 28 member states, using a combined 44.25 million barrels a day (Mbd) as of March 2012, almost exactly 50% of world total oil demand.

### Link Booster—Russia perceives Small Changes

#### Even a small change in oil prices will hurt the Russian economy

RT, 2012 [Russian Times, March 27, Oil Prices: The make or break of the Russian economy – World Bank, http://rt.com/business/news/world-bank-report-russia-543/]

Russia has to thank high oil prices for the better state of its economy. A World Bank report says it has the edge over other emerging countries and the EU, but the rosy picture will become bleaker unless the country deals with a number of challenges.

The growth rose from 3.8% year-on-year in the first half to 4.8% in the second half of 2011 and in September was 0.3% better than predicted in the previous Russian Economic Report.

Restocking and growing consumptions were the most important growth drivers in 2011 after the sharp decline in 2009. Private consumption was supported by growing employment, solid wage growth, lower inflation, and a strong rouble in the first half of the year.

Although the Russian economy returned to pre-crisis level by the end of 2011, the recovery from the crisis was slower than that in 1998. By comparison, GDP took 7 quarters to recover to pre-crisis level after 1998 crisis, yet twice as long after the 2008 crisis. However consumption held up better in 2008 than in 1998 partly due to stronger fiscal policy. Imports recovered faster in 2008.

The capital investment showed slowest recovery in 2011. Overall investment reached 22% of GDP in the third quarter of 2011, some 4.4% of GDP below the pre-crisis level in the second quarter of 2008.

“It is going to be very important for the Russian government to make sure that investors want to put money in Russia,” said Kaspar Richter, World Bank's Lead Economist and Country Sector Coordinator for Russia. “Macroeconomic policy should emphasize stability; all buffers have to be rebuilt. So when the next crisis comes Russia is a good place to address this crisis”.

The lower inflation rate is among the major achievements of Russian economy, according to the World Bank. CPI inflation fell for 10 months in a row from 9.7% in April 2011 to 3.8% in February 2012, the lowest level since the early 1990s.

Russia’s labor market improved in 2011, as unemployment was 6.5 % in July, and remained around this level through to the end of the year, according to the report. Though real income growth was 1.1% in 2011, the lowest rate in many years, real wages increased 4.2%, although only 2% for the public sector.

In 2011 the Russian budget turned in a surplus thanks to surging oil prices and moderate spending. But the World Bank expects the budget to turn to a deficit in 2012 as spending on extra-budgetary funds and social policy is projected to jump from 5.8% of GDP in 2011 to 7.5% of GDP in 2013.

World Bank also warns against increasing reliance on resources exports as oil and gas revenues grew to 10.4% of GDP from 7.6% in 2009. “Even a moderate correction in the oil prices could reverse improvements on the revenue side achieved in 2011,” experts say.

### XT: Russian Econ I/L

#### Low oil prices collapse the Russian economy – oil revenue and taxes make up the majority of the Russian budget – decline collapses the regime – that’s VAO

#### Even a small change in oil prices will hurt the Russian economy

RT, 2012 [Russian Times, March 27, Oil Prices: The make or break of the Russian economy – World Bank, http://rt.com/business/news/world-bank-report-russia-543/]

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Oil prices are the key internal to regime stability – low prices collapses the government and prevent economic reforms

Andrew Kramer, 2012 [New York Times writer and editor, “Higher Oil Prices to Pay for Campaign Promises” New York Times March 16, 2012 http://www.nytimes.com/2012/03/17/business/global/vladimir-putins-big-promises-need-fueling-by-high-oil-prices.html?\_r=2?pagewanted=print Putin Needs ajones]

MOSCOW — In American presidential politics, high oil prices are a problem. For Vladimir V. Putin’s new presidential term in Russia, they will be a necessity — crucial to fulfilling his campaign promises to lift government spending by billions of dollars a year. But doing that without busting the Kremlin’s budget would require oil to reach and sustain a price it has never yet achieved — $150 a barrel, according to one estimate by Citigroup. No wonder economists who specialize in Russia are skeptical. (On Friday, Russia’s Ural Blend export-grade oil was trading at $120 on the global spot market.) “It’s very hard to overestimate how vulnerable the Russian economy is to external pressures” from the oil price, Sergei Guriev, the rector of the New Economic School in Moscow, said in a telephone interview. “That vulnerability is huge, which is why Russia must be very vigilant. The spending is a risk.” The promised spending is also ambitious. Mr. Putin has laid out a program of raising wages for doctors and teachers, padding retirement checks for everyone and refurbishing Russia’s military arsenal. The oil-lubricated offerings would even include a population premium: expanding the popular “baby bonus” payments the Russian government provides to mothers, to include a third child. The payment, of up to $8,300 for housing or baby-related expenses, now comes as an incentive only with each of the first two children. The additional cost of the expanded baby benefits alone will total $4.6 billion a year, according to an estimate by the Higher School of Economics in Moscow. Most of Mr. Putin’s spending promises came at least partly in response to the street demonstrations by young and middle-class protesters in Moscow and other big cities challenging his authority in the weeks leading up to the March 4 election. His apparent aim was to shore up support from the rest of Russia: poorer and rural parts of the country, and from state workers and the elderly. The repercussions of his campaign promises, and an earlier commitment on military spending, could be felt for years to come, giving price swings in oil a bigger role than ever on the Russian economy. Taxes on oil and natural gas sales provide half of Russia’s government revenue. Each increase in the Russian budget equivalent to 1 percent of the gross domestic product requires a rise in the price of oil of about $10 a barrel on global markets — which is how Citigroup arrived at the $150-a-barrel figure for meeting the new obligations Mr. Putin has taken on. Analysts worry that, even if the government can fulfill its promises, too little will remain for a sovereign wealth fund that is intended as a shock absorber for the Russian economy and the ruble exchange rate during an oil price slump. Russia needed to use that buffer as recently as 2008, during the financial crisis. “The concern is simple,” Kingsmill Bond, the chief strategist at Citigroup in Russia, said in a telephone interview. “If the oil price that Russia requires to balance its budget is higher, the systemic risks that the market faces are also higher.” The bank estimated that Mr. Putin’s promises of higher wages and pensions, not counting the military outlays, add up to additional spending equal to 1.5 percent of Russia’s gross domestic product. That comes on top of an earlier pledge to spend an additional 3 percent of gross domestic product a year re-arming the military. In all, the new commitments would add up to about $98 billion a year, Citigroup estimates. The spillover from the Arab Spring and the specter of an Israeli attack on Iran’s nuclear development plants are propping up oil prices now. But over the long term, economic stagnation in Europe could help bring them down. Even before the election, Russia’s government spending was up, helping reinforce Mr. Putin’s message that he was the best candidate to deliver prosperity and stability. In January, the Russian military ministry, for example, doubled salaries in the nation’s million-person army. It was ostensibly a long-planned move. But coming just two months before the presidential vote, the political message was clear. Also smoothing the path for Mr. Putin’s victory was a national cap on utility rates that helped keep inflation at the lowest level in Russia’s post-Soviet history for January and February, at a 3.7 percent annual pace. “Putin made large spending commitments,” the Fitch rating agency said in a statement released the day after the election. “The current high price of oil cushions Russia’s public finances,” Fitch said. “But in the absence of fiscal tightening that significantly cuts the non-oil and gas fiscal deficit, a severe and sustained drop in the oil price would have a damaging impact on the Russian economy and public finances and would likely lead to a downgrade” of the nation’s credit rating. As Mr. Putin’s spending promises started to be introduced in January, Fitch altered Russia’s outlook to stable, from positive. Mr. Putin has defended the proposed spending as necessary and just, given the hardship of teachers and other public sector workers in the post-Soviet years. “A doctor, a teacher, a professor, these people should make enough money where they work so they don’t have to look for a side job,” Mr. Putin wrote in a manifesto published during the campaign. But in fact, the government will offset a portion of the pay raises, perhaps as much as one-third of their cost, by laying off some public sector workers and trimming some other public spending. That was the word from Lev I. Yakobson, the deputy rector of the Higher School of Economics, who helped draft the policy. That part of the plan, though, was never part of Mr. Putin’s stump speech.

#### And it’s key to long-term diversification - High oil prices drive investment and prevent collapse in the short-term

UK Trade & Investment, 2012 [June 19, Published by the British Embassy in Moscow, Russia: Oil and the Wider Economy – June 2012, http://www.ukti.gov.uk/export/howwehelp/overseasbusinessrisk/item/323740.html]

Nonetheless, the Russian economy is in a good place in the short term.  Russia is in a better place than it was in 2008, its banks are better capitalised, its markets are reasonably liquid, and – so far at least – the Central Bank is continuing to allow the rouble to float freely within an agreed band. Russia’s direct exposure to the Eurozone remains low and domestic consumer demand is strong with inflation and unemployment both at historic lows.

But a sustained fall in oil prices will only exacerbate the existing structural problems in the economy. The budget balances this year at $115, now well above the prevailing oil price, some analysts expect the break-even point to rise to $125 in the coming years. While high prices at the start of the year mean the year’s average oil price is still above $115, some commentators expect oil to finish the year between $90-$100 and others have a long term expectation of $80-$90 oil, and do not rule out oil as low as $50.

Capital outflows meanwhile have slowed but not turned around and could accelerate again if lower oil prices were to spook investors. And although the potential earnings are great the investment climate – while not directly oil linked – remains challenging.

While no one disagrees that a fall in oil prices is bad for the Russian economy, the Government are more bullish about prospects – the Ministry of Economic Development think $80 oil will knock GDP growth down to 2%, whereas Standard and Poors say $80 pushes Russia into a mild recession, with a further decrease to $60 shrinking the economy by 5% and creating a budget deficit of some 8% of GDP.

Comment

The Russian economy is, as ever, driven by the oil price. Rising oil prices deliver increasing returns to the Russian budget and encourage investors. Falling oil does the reverse, increasing the deficit, worrying consumers and deterring much needed investment - in the first five months of this year alone $46.5 billion left the country.

### XT: Russian Econ Collapse Causes War

#### Russian economic collapse causes war – results in regime instability and increases the risk that nuclear material falls into terrorist hands

#### Economic growth key to Russian political stability

Mark Adomanis, 2010 [BAs in Russian studies from both Harvard and Oxford, “Russia’s economy: still not collapsing!” April 21, http://trueslant.com/markadomanis/2010/04/21/russias-economy-still-not-collapsing/]

All of that being said, my personal opinions, and the opinions of any of the other over-excitable Western Russia analysts, don’t really matter. At all. I can stammer and stutter, or even wax eloquent, all I want about the profound incompetence and malevolence of the Kremlin, but if the Russian economy grows (even as a natural-resource remora of China) the Putin/Medvedev team will be entirely and completely secure. If Dima and Vlad can survive the international financial Krakatoa of 2008-09 almost totally unscathed they can survive virtually anything, much less the feeble protestations of nutcases such as Boris Nemtsov and Yulia Latynina.

#### Political instability causes a nuclear strike on the US

**PRY 1999** (Peter Vincent, Former US Intelligence Operative, War Scare: U.S.-Russia on the Nuclear Brink, netlibrary)

Russian internal troubles—such as a leadership crisis, coup, or civil war—could aggravate Russia’s fears of foreign aggression and lead to a miscalculation of U.S. intentions and to nuclear overreaction. While this may sound like a complicated and improbable chain of events, Russia’s story in the 1990s is one long series of domestic crises that have all too often been the source of nuclear close calls. The war scares of August 1991 and October 1993 arose out of coup attempts. The civil war in Chechnya caused a leadership crisis in Moscow, which contributed to the nuclear false alarm during Norway’s launch of a meteorological rocket in January 1995. Nuclear war arising from Russian domestic crises is a threat the West did not face, or at least faced to a much lesser extent, during the Cold War. The Russian military’s continued fixation on surprise-attack scenarios into the 1990s, combined with Russia’s deepening internal problems, has created a situation in which the United States might find itself the victim of a preemptive strike for no other reason than a war scare born of Russian domestic troubles. At least in nuclear confrontations of the 1950s–1970s—during the Berlin crisis, Cuban missile crisis, and 1973 Middle East war—both sides knew they were on the nuclear brink. There was opportunity to avoid conflict through negotiation or deescalation. The nuclear war scares of the 1980s and 1990s have been one-sided Russian affairs, with the West ignorant that it was in grave peril.

Extinction

Bostrom, 2 - Ph.D. Philosophy @ Oxford and really smart dude

(Nick, Journal of Evolution and Technology, Vol. 9, <http://www.nickbostrom.com/existential/risks.html>)

A much greater existential risk emerged with the build-up of nuclear arsenals in the US and the USSR. An all-out nuclear war was a possibility with both a substantial probability and with consequences that *might* have been persistent enough to qualify as global and terminal. There was a real worry among those best acquainted with the information available at the time that a nuclear Armageddon would occur and that it might annihilate our species or permanently destroy human civilization.[[4]](http://www.nickbostrom.com/existential/risks.html#_ftn4)  Russia and the US retain large nuclear arsenals that could be used in a future confrontation, either accidentally or deliberately. There is also a risk that other states may one day build up large nuclear arsenals. Note however that a smaller nuclear exchange, between India and Pakistan for instance, is not an existential risk, since it would not destroy or thwart humankind’s potential permanently. Such a war might however be a local terminal risk for the cities most likely to be targeted. Unfortunately, we shall see that nuclear Armageddon and comet or asteroid strikes are mere preludes to the existential risks that we will encounter in the 21st century

### Economy Impact - Nationalism

#### Economic collapse causes nationalism and undermines democracy

BLAIR AND GADDY 1999 (Bruce Blair is a senior fellow and Clifford Gaddy a fellow in the Brookings Foreign Policy Studies program, Brookings Review, Summer)

Economic weakness is strengthening the anti-Western, antidemocratic, and antimarket reform trends in Russia today. It is also steadily eroding the military’s tradition of political neutrality. Although the military’s aversion to Bonapartism appears to remain intact, rising nationalism draws additional strength from its growing politicization.

#### Russian nationalism threatens nuclear war

#### WAGSTYL 08 **(2/29, Stefan, FT’s east Europe editor, Financial Times)**

#### **Gaidar warns today's Russian leaders not to repeat those mistakes.** The country is living through the shock of losing its empire and ideas of reviving its power are rife. ''It is a disease. Russia is going through a dangerous phase. We should not succumb to the magic of numbers, but the fact that there was a 15-year gap between the collapse of the German empire and Hitler's rise to power and 15 years between the collapse of the USSR and Russia in 2006-2007 (Gaidar's time of writing) makes one think.'' It takes a brave Russian to compare Russia with Nazi Germany. But Gaidar does not flinch, saying the use of nationalist and xenophobic rhetoric in a land that has lost an empire is a ''political nuclear weapon'', as it was in Nazi times. ''Trying to make Russia an empire again imperils its existence.''

#### Brink Now – Racist Russian Nationalist Party Gaining Public Support Now

Marc Bennets 2012 [3/29, Contributor for Reputable Foreign News Service RIA Novosti, “Russian Nationalists To Form New Political Party”, http://en.rian.ru/analysis/20120329/172469704.html]

A number of prominent Russian nationalists united on Thursday to announce the creation of a potential new political force – the National Democratic Party. “We intend to file for party registration in the near future and then take part in elections, at which we are counting on doing well,” party leader Konstantin Krylov told journalists at a downtown Moscow news conference. Russia has seen a dramatic rise in nationalist sentiments since the break-up of the Soviet Union, with far-right movements prominent at this winter’s mass protests against the policies of President-elect Vladimir Putin and his ruling United Russia party. “The spirit of the times has changed and the wind is blowing in our sails,” said party executive committee head Vladimir Tor. He also said he was “100 percent” sure the party would not be denied registration. “Russians must become the genuine masters of their own country – its land, its wealth and, most importantly – its government,” read a party manifesto distributed to journalists. A Levada Center opinion poll carried out last December indicated that 69 percent of Russians agree to some extent or another with the nationalist slogan “Russia for Russians.” Another 62 percent supported the slogan “Stop Feeding the Caucasus!” a reference to generous Kremlin funding of the mainly Muslim North Caucasus, which includes Chechnya. Tensions have been exacerbated by clashes in big cities like Moscow and St. Petersburg between ethnic Russians and youths from the North Caucasus, as well as by mass immigration from impoverished former Soviet Central Asian republics such as Tajikistan. Racial violence led to the deaths of 21 people of “non-Slavic appearance” in 2011, a decline from 42 in 2010, according to the Sova organization, which monitors race-hate attacks in Russia. Anti-corruption blogger and opposition figurehead Alexei Navalny has frequently expressed nationalist sentiments and attends the annual Russian March, organized in part by both Krylov and Tor. He has also been invited to join the National Democratic Party’s supervisory board. “We are holding talks of a positive, constructive character with him,” Tor told RIA Novosti by telephone later on Thursday. The party looks to bring together Krylov’s Russian Public Movement, Tor’s Movement Against Illegal Immigration, and the Russian Civil Union led by Anton Susov, as well as a number of other organizations. Dressed in sharp suits and ties, both Krylov and Tor were keen to stress the party’s distance from traditional images of skinheads and swastikas and highlight the “democratic” aspect of the party’s name. “We want to create a classic, European national-democratic party,” Krylov said. “We share democratic values and believe democracy needs to be restored to Russia.” “The Russian nationalist movement has been almost entirely cleansed of the so-called skinhead elements,” he said. And analysts suggested the party’s prospects were good, if it gains registration. “Nationalism is a political trend in demand whose ideas have been used even by Putin, who has called himself a ‘Russian nationalist,'” said analyst Alexei Mukhin of the Moscow-based Center for Political Information think tank. “The nationalist movement has been boosted by this.” Putin has described himself as a nationalist on a number of occasions, and in January pledged in a pre-election article to crack down on “aggressive, provocative and disrespectful” internal migrants who fail to respect “the customs of the Russian people.” But he also warned against the promotion of the idea of the creation of a “mono-ethnic, national Russian state,” calling it “the shortest path to both the destruction of the Russian people and Russia’s sovereignty.” “Judging by Russia’s nationalist-orientated electorate, it’s natural that the possibility for such a party exists,” said analyst Lilia Shevtsova of the Moscow-based Carnegie Center. “But the success of the party will depend not only on the electorate, but also the authorities. The Ministry of Justice could disband the party at any time.” Reforms on party registration has led experts to suggest a host of parties with similar names and aims could appear as soon as Medvedev approves the relaxing of regulations and it appears the National Democratic Party may face competition for the hearts and minds of the country’s nationalists. “It will be good if there are lots of nationalist parties,” Dmitry Dyomushkin, the leader of Russia's outlawed Slavyansky Soyuz nationalist movement, told RIA Novosti by telephone. “That way it will be harder to fight against us.” “I don’t mean any disrespect to our colleagues, but our party will be bigger,” he said. Dyomushkin’s potential party has yet to settle on a name. National Democratic Party leaders hit out at a number of occasions on Thursday at the Kremlin’s funding of the North Caucasus and proposed the region’s “golden thread” of financial support be cut off. Krylov said budget spending on average on residents of the North Caucasus was ten times higher than spending on ethnic citizens. “North Caucasus people are perfectly capable people, who are able to work,” said Krylov. “It’s insulting to them to even suggest otherwise.” But the head of the Russian Congress of Peoples of the Caucasus dismissed claims that the volatile region was being “overfed” by the Kremlin “Nationalists just take these figures without examining them,” said Aliy Totorkulov. “A lot of the money supposedly bound for the Caucasus doesn’t end up there at all due to money-laundering.” “You only have to visit the region to see how people live,” he said. “Many people can’t find work, that’s why they are forced to move to Moscow.”

#### Russian aggression causes nuclear war---it’s the only great-power war that’s likely because other relationships don’t involve ideological rivalry

Blank 9 – Dr. Stephen Blank , Research Professor of National Security Affairs at the Strategic Studies Institute of the U.S. Army War College, March 2009, “Russia And Arms Control: Are There Opportunities For The Obama Administration?,” online: http://www.strategicstudiesinstitute.army.mil/pdffiles/pub908.pdf

Proliferators or nuclear states like China and Russia can then deter regional or intercontinental attacks either by denial or by threat of retaliation.168 Given a multipolar world structure with little ideological rivalry among major powers, it is unlikely that they will go to war with each other. Rather, like Russia, they will strive for exclusive hegemony in their own “sphere of influence” and use nuclear instruments towards that end. However, wars may well break out between major powers and weaker “peripheral” states or between peripheral and semiperipheral states given their lack of domestic legitimacy, the absence of the means of crisis prevention, the visible absence of crisis management mechanisms, and their strategic calculation that asymmetric wars might give them the victory or respite they need.169 Simultaneously,

The states of periphery and semiperiphery have far more opportunities for political maneuvering. Since war remains a political option, these states may find it convenient to exercise their military power as a means for achieving political objectives. Thus international crises may increase in number. This has two important implications for the use of WMD. First, they may be used deliberately to offer a decisive victory (or in Russia’s case, to achieve “intra-war escalation control”—author170) to the striker, or for defensive purposes when imbalances in military capabilities are significant; and second, crises increase the possibilities of inadvertent or accidental wars involving WMD.171

Obviously nuclear proliferators or states that are expanding their nuclear arsenals like Russia can exercise a great influence upon world politics if they chose to defy the prevailing consensus and use their weapons not as defensive weapons, as has been commonly thought, but as offensive weapons to threaten other states and deter nuclear powers. Their decision to go either for cooperative security and strengthened international military-political norms of action, or for individual national “egotism” will critically affect world politics. For, as Roberts observes,

But if they drift away from those efforts [to bring about more cooperative security], the consequences could be profound. At the very least, the effective functioning of inherited mechanisms of world order, such as the special responsibility of the “great powers” in the management of the interstate system, especially problems of armed aggression, under the aegis of collective security, could be significantly impaired. Armed with the ability to defeat an intervention, or impose substantial costs in blood or money on an intervening force or the populaces of the nations marshaling that force, the newly empowered tier could bring an end to collective security operations, undermine the credibility of alliance commitments by the great powers, [undermine guarantees of extended deterrence by them to threatened nations and states] extend alliances of their own, and perhaps make wars of aggression on their neighbors or their own people.172

#### Unchecked Russian expansionism destroys U.S. hegemony

Cohen 9 – Ariel Cohen, Senior Research Fellow in Russian and Eurasian Studies and International Energy Security in the Douglas and Sarah Allison Center for Foreign Policy Studies at the Heritage Foundation, March 12, 2009, “How the Obama Administration Should Deal with Russia's Revisionist Foreign Policy,” online: http://www.heritage.org/research/russiaandeurasia/bg2246.cfm

Despite the economic crisis that provided a reality check for Moscow, Russia is doing its best to continue a broad, global, revisionist foreign policy agenda that seeks to undermine what it views as an U.S.-led international security architecture. Russia's rulers want to achieve a world order in which Russia, China, Iran, Syria, and Venezuela will form a counterweight to the United States. Moscow is doing so despite the dwindling currency reserves and a severe downturn in its economic performance due to plummeting energy and commodity prices.[17]

In December 2008, the Russian navy conducted maneuvers in the Caribbean with Venezuela, while the Russian air force's supersonic Tupolev TU-160 "Blackjack" bombers and the old but reliable TU-95 "Bear" turboprop bombers flew patrols to Venezuela, as well as close to U.S. air space in the Pacific and the Arctic.[18] Russia is also developing the Syrian ports of Tartus and Latakia in order to manage an expanded Russian naval presence in the Mediterranean, and may possibly revive an anchorage in Libya and Yemen. (See Map 2.)[19] These are only some examples of how Moscow is implementing its global agenda. While some of these moves may be mostly symbolic, combined with a $300 billion military modernization program they signal a much more aggressive and ambitious Russian global posture. Russia is also overtly engaging the Hezbollah and Hamas terrorist organizations.

If Moscow's vision were to be realized, given the large cast of state and non-state "bad actors" currently on the international stage, Russia's notion of "multipolarity" would engender an even more unstable and dangerous world. Additionally, the very process of trying to force such a transition risks destabilizing the existing international system and its institutions while offering no viable alternatives.

#### Heg is key to prevent global nuclear war

Kagan 7 – Robert Kagan, senior associate at the Carnegie Endowment for International Peace and senior transatlantic fellow at the German Marshall Fund, August/September 2007, The Hoover Policy Review, online: http://www.hoover.org/publications/policyreview/8552512.html, accessed August 17, 2007

The jostling for status and influence among these ambitious nations and would-be nations is a second defining feature of the new post-Cold War international system. Nationalism in all its forms is back, if it ever went away, and so is international competition for power, influence, honor, and status. American predominance prevents these rivalries from intensifying —  its regional as well as its global predominance. Were the United States to diminish its influence in the regions where it is currently the strongest power, the other nations would settle disputes as great and lesser powers have done in the past: sometimes through diplomacy and accommodation but often through confrontation and wars of varying scope, intensity, and destructiveness. One novel aspect of such a multipolar world is that most of these powers would possess nuclear weapons. That could make wars between them less likely, or it could simply make them more catastrophic.

### Economy Impact—Nationalism—Prolif

#### Nationalist takeover causes nuclear proliferation.

Arbatov 93 [Alexei Arbatov, Fall 1993. Director of the Center for Geopolitical and Miltary Forecasts. International Security, Ebsco.]

If the nationalist hard-liners were to come to power, they would certainly obstruct any collective action under the UN or CSCE guidance by taking tough and uncompromising positions. Then multilateral operations would have to center on NATO or the WEU, or on ad hoc Western coalitions like the 1991 Gulf War action did. Since Russia would not be able to oppose these directly with military force, it would probably do so indirectly by supplying the opponents of the West with arms, other kinds of aid, military advisers and volunteers. This might make Western actions too costly, and precipitate major new confrontation in world politics, aggravated by the proliferation of nuclear weapons and missle technologies.

#### That causes nuclear war.

Victor Utgoff, Summer **200**2. Deputy Director of Strategy, Forces, and Resources Division of Institute for Defense Analysis. “Proliferation, Missile Defense and American Ambitions,” Survival, p.87-90.

In sum, widespread proliferation is likely to lead to an occasional shoot-out with nuclear weapons, and that such shoot outs will have a substantial probability of escalating to the maximum destruction possible with the weapons at hand. Unless nuclear proliferation is stopped, we are headed towards a world that will mirror the American Wild West of the late 1800s. With most, if not all, nations wearing nuclear “six shooters” on their hips, the world may even be a more polite place than it is today, but every once in a while we will all gather together on a hill to bury the bodies of dead cities or even whole nations.

### Economy Impact - Russia-China War

#### Impact is Russia-China war

TRENIN 2 (Dmitri, Deputy Director of the Carnegie Endowment for International Peace, Former Russian Officer, After Eurasia, pp 308-309)

Usually, there is no shortage of dire predictions concerning Russia’s ultimate fate. In a characteristic exchange of views on the eve of the year 2000, a prominent Russian intellectual predicted Russia’s disintegration within 10 to 15 years. His European counterpart’s vision of Russia was that of Muscovy west of the Urals, with Siberia under Chinese control. The American scholar limited himself to the vision of a Sino-Russian war. If a doomsday scenario were to become a reality, this would be the result of a major economic catastrophe. If Russia became a loose confederation, its borderlands would gravitate in different directions, and governing Russia would require the art of managing these very different orientations. In other words, Russia would still join the world, but it would do so in less than one piece.

#### Russia-China escalates.

Nathan Nankivell 5, Senior Researcher at the Office of the Special Advisor Policy, Maritime Forces Pacific Headquarters, Canadian Department of National Defence, 10/25/2005. “China's Pollution and the Threat to Domestic and Regional Stability,” China Brief 5.22, http://www.zmag.org/content/showarticle.cfm?ItemID=9509.

In addition to the concerns already mentioned, pollution, if linked to a specific issue like water shortage, could have important geopolitical ramifications. China’s northern plains, home to hundreds of millions, face acute water shortages. Growing demand, a decade of drought, inefficient delivery methods, and increasing water pollution have reduced per capita water holdings to critical levels. Although Beijing hopes to relieve some of the pressures via the North-South Water Diversion project, it requires tens of billions of dollars and its completion is, at best, still several years away and, at worst, impossible. Yet just to the north lies one of the most under-populated areas in Asia, the Russian Far East.

While there is little agreement among scholars about whether resource shortages lead to greater cooperation or conflict, either scenario encompasses security considerations. Russian politicians already allege possible Chinese territorial designs on the region. They note Russia’s falling population in the Far East, currently estimated at some 6 to 7 million, and argue that the growing Chinese population along the border, more than 80 million, may soon take over. While these concerns smack of inflated nationalism and scare tactics, there could be some truth to them. The method by which China might annex the territory can only be speculated upon, but would surely result in full-scale war between two powerful, nuclear-equipped nations.

#### That outweighs --- largest population centers.

Mark W. Hughes 6, 2/15/2006. “An Analysis of Recent Moves By China Which May Signal Intentions To Invade Russia,” Infoshop News, http://news.infoshop.org/article.php?story=20060215180623912.

Should China invade without a nuclear first-strike, then Russia would likely not respond with nuclear weapons, at least not initially. However, if nations armed with such weapons go to war, then the potential for a nuclear war always exists. Moreover, once one side sees that it is clearly loosing, and if the stakes are high for each nation, then there is a strong possibility that the losing side will attempt to gain some advantage by utilizing nuclear weapons on the battlefield. Once a war has gone nuclear, escalation is almost inevitable, as the other side retaliates, and the targets of the nuclear exchanges become more significant until a full-scale nuclear war in which populations of the largest cities will likely be targeted and killed.

The implications of even a small-scale nuclear exchange (to the extent a nuclear exchange can be small-scale) in Central Eurasia are staggering. The death toll would be in the millions and the region would be poisoned with radiation and fallout. Since China lacks the massive nuclear arsenal of Russia, even a full-scale nuclear exchange would not quite be the global doomsday scenario that would arise from a U.S.-Russian exchange, since the total number of nuclear detonations would be barely more than half of the doomsday scenario and would be restricted to a much more narrow targeting area. But the war would take place in the most populated part of the entire world, Central Eurasia, and where a huge amount of global resources are found. The radiation and fallout would affect other large parts of the world, and the death toll from the initial nuclear detonations combined with those suffering radiation sickness and long-term related illnesses would no doubt be in the hundreds of millions. And of course, the political and economic impacts would be earth-shattering, especially in light of the scenarios leading up to the war and if North Korea were enlisted to attack South Korea at the same time.

### Economy Impact - EU

#### Continued growth is key to Russia forming modernization alliances with the US and EU

Rajorshi Roy 10, Institute for Defence Studies and Analyses, Russia & India Report, 12-8-10, “Skolkovo Initiative: Russia’s Drive Towards Modernization,” http://indrus.in/articles/2010/12/08/skolkovo\_drive\_towards\_modernization04972.html

Russia has emerged in the twenty first century as a self confident and determined country. It continues to be recognized as a major power. It is a significant producer of weapons, and maintains a nuclear arsenal to boot. And it is a major producer of oil and gas. High oil and gas prices and an exponential increase in the sale of weapons during the period 2005-2008 have enabled Russia to play a more assertive role in global affairs.

However, the Russia-Georgia conflict of 2008 and the onset of the global economic crisis have adversely impacted the Russian economy. Russia witnessed a massive outflow of capital on account of the war, and this was further aggravated by the financial crisis sweeping the world. Russia was unable to get international support for the declaration of independence of South Ossetia and Abkhazia from Georgia. Russia’s GDP fell by 8 per cent in 2009, while the stock market plummeted by almost 90 per cent from the peak achieved in the summer of 2008, and foreign direct investment also fell by 45 per cent.

Russia’s influence in global affairs today is restricted on account of its lack of global economic competitiveness. Its economy is still primarily a resource based one and therefore highly dependent on prices of commodities like oil, gas and metals. Despite being a major defence equipment producer involving high technology, Russia is also plagued by the problem of “monocities” i.e. cities that rely on one or a few Soviet-era outdated businesses. This is an indication of the inability of the state to achieve seamless diffusion of military technology into the civilian sphere.

One of the primary objectives of Russian policy makers is to initiate steps for the resurgence of Russia and it regaining its lost position in global politics.

Therefore, President, Dmitri A. Medvedev has chalked out a diversification plan that would enable the economy to ride out future economic crises and fostered enhanced technological cooperation with the developed world, especially ‘modernization alliances’ with the United States and the European Union. The development of a robust national innovation system and a knowledge based economy with the help of the world’s smartest money has been accorded top priority in economic planning. Russia is home to some of the best engineers and scientists in the world and therefore the State seems to be in a position to implement radical ideas in collaboration with foreign capital and technology. Modernization will be accompanied by a thorough integration of cutting-edge dual use technology, maximizing the human and intellectual potential of the country, capacity building and creating entirely new areas of world-class technology.

In February 2010, President Medvedev announced the establishment of a modern technological innovation centre in Skolkovo (on the outskirts of Moscow) for research and development, with an area of 1.5 million square meters, dubbed as Russia's own Silicon Valley after its namesake in the United States. The innovation hub will have its own police department, tax and customs services and patent authority. Individuals involved in research activities in Skolkovo will be exempted from VAT, property and land taxes until their annual sales reach 1 billion roubles ($34 million) and eventually until their accrued profits amount to 300 million roubles ($10 million). The centre will focus on research in five priority areas: energy, information technology, communication, biomedical research, and nuclear technology. These include research on nuclear energy, satellite technology (communications and the GLONASS system), medicine (diagnostics systems and new drugs), and information technology (software and supercomputers). Scientific research premises along with graduate schools, laboratories, housing, offices, kindergartens, schools and hospitals will be built in Skolkovo. Highway infrastructure has been earmarked for completion within four years. There will be no local authorities, and the Skolkovo Board itself will take care of lighting, plumbing and street naming. This is an exception to the law of local governance in a country which is otherwise over-centralized and state controlled.

#### This sustains relations with the West

Rajorshi Roy 10, Institute for Defence Studies and Analyses, Russia & India Report, 12-8-10, “Skolkovo Initiative: Russia’s Drive Towards Modernization,” http://indrus.in/articles/2010/12/08/skolkovo\_drive\_towards\_modernization04972.html

Modernization alliances and Russia’s increased cooperation with the West bodes well for the international system. Not only does it allow Russia to be a bigger stake holder in the conduct of international affairs but also enables the country to forge alliances and partnerships with states which have hitherto viewed Russia with deep scepticism and concern. The new scenario has manifested itself at various levels: Russia’s Lisbon agreement with NATO to cooperate on anti-piracy, drug trafficking, Afghanistan and to consider working together for a missile defence for Europe, Russia's voting for UN sanctions against Iran, START treaty with the US, and inviting NATO soldiers to march on Red Square on Victory Day.

#### Key to solve a list of planet-ending impacts

Taylor 8 [Jeffrey, Atlantic correspondent living in Moscow, Medvedev Spoils the Party, November, The Atlantic]

Like it or not, the United States cannot solve crucial global problems without Russian participation. Russia commands the largest landmass on earth; possesses vast reserves of oil, natural gas, and other natural resources; owns huge stockpiles of weapons and plutonium; and still wields a potent brain trust. Given its influence in Iran and North Korea, to say nothing of its potential as a spoiler of international equilibrium elsewhere, Russia is one country with which the United States would do well to reestablish a strong working relationship—a strategic partnership, even—regardless of its feelings about the current Kremlin government. The need to do so trumps expanding NATO or pursuing “full-spectrum dominance.” Once the world financial crisis passes, we will find ourselves returning to worries about resource depletion, environmental degradation, and global warming – the greatest challenges facing humanity. No country can confront these problems alone. For the United States, Russia may just prove the “indispensable nation” with which to face a volatile future arm in arm.

### Economy Impact – Accidents

#### **Russian economic decline destroys nuclear command & control---makes accidental launch inevitable**

Von Hippel 98 – Frank Von Hippel, Professor of Public and International Affairs, Princeton University, Chairman of the research arm of the Federation of American Scientists, November 1, 1998, “De-alerting Nuclear Missiles,” online: http://www.nautilus.org/archives/library/security/papers/von\_hippelISODARCO.PDF

The danger of mistaken launch has been reduced by the relaxation of U.S.-Russian tensions following the end of the Cold War. Some expert analysts such as Bruce Blair feel, however, that it is also being significant increased by the current economic and political crisis in Russia. The Strategic Missile Forces have suffered in this crisis along with the rest of the country. On February 6, 1997 then Russian Defense Minister Igor Rodionov warned that

"Some components of our systems have already been made to operate for twice or three times their useful life. Today, no one can...guarantee the reliability of our control systems...If the shortage of funds persists, the system...could fall apart...Russia may soon approach a threshold beyond which its missiles and nuclear systems become uncontrollable."

Leaked CIA reports were similarly alarming. One report stated that "during the autumn of 1996, thieves disrupted communications to operational SRF units on seven occasions by 'mining' copper and other nonferrous metals in communications cables."3 At the same time, Russia's early-warning system is being degraded by the fact that many of its early-warning radars are in other republics of the former Soviet Union, some do not operate regularly or at full power because they cannot pay their electricity bills, and Russia's early-warning satellites may be unable to pick up the launch of ballistic missiles from the oceans.4

These weaknesses in Russia's early-warning and command-and-control system would become much more serious in a crisis -- and internal crises are a fact of life in today's Russia. An unpublished book by a former CIA analyst reports that, during both the August 1991 coop against Gorbachev and the October 1993 armed confrontation between Yeltsin and the Russian parliament, the Soviet/Russian military leadership put Russia's strategic nuclear forces on a state of "Increased Combat Readiness" out of fear that the U.S. might take advantage of the confusion in Moscow to attack.5 The history of these crises is very relevant today as Russia's economic downward spiral make it appear ripe for a new period of political instability.

#### Extinction

Mintz 1 – Morton Mintz, former chair of the Fund for Investigative Journalism and a former Washington Post reporter, February 26, 2001, “Two Minutes to Launch,” The American Prospect, online: http://www.prospect.org/cs/articles?article=two\_minutes\_to\_launch

Hair-trigger alert means this: The missiles carrying those warheads are armed and fueled at all times. Two thousand or so of these warheads are on the intercontinental ballistic missiles (ICBMs) targeted by Russia at the United States; 1,800 are on the ICBMs targeted by the United States at Russia; and approximately 1,000 are on the submarine-based missiles targeted by the two nations at each other. These missiles would launch on receipt of three computer-delivered messages. Launch crews--on duty every second of every day--are under orders to send the messages on receipt of a single computer-delivered command. In no more than two minutes, if all went according to plan, Russia or the United States could launch missiles at predetermined targets: Washington or New York; Moscow or St. Petersburg. The early-warning systems on which the launch crews rely would detect the other side's missiles within tens of seconds, causing the intended--or accidental--enemy to mount retaliatory strikes. "Within a half-hour, there could be a nuclear war that would extinguish all of us," explains Bruce Blair. "It would be, basically, a nuclear war by checklist, by rote."

### Economy Impact – Global Econ

#### Russian collapse kills global economy.

AFR 2k --- Australian Financial Review, 1/8/2K. afr.com

As a big debtor nation, Russia’s ability to meet its financial obligations also matters to world markets – as the Russian rouble’s collapse and accompanying loan default in August 1998 starkly revealed. The crisis raised fears of a domino effect across emerging markets that could ultimately push the global economy into recession. That, in the end, didn’t occur. But an economist specializing in Russia at the European Bank for Reconstruction and Development, Ivan Szegvari, says the confidence of international investors in emerging markets, and transitional economies as a whole, is affected by what happens in Russia. In addition, Russia remains one of the most important clients of international financial institutions such as the International Monetary Fund.

### Economy Impact—TB

#### Russian economy decline diverts focus from public health institutions—facilitates worldwide drug-resistant TB spread

Science Daily, 9/16/**19**98. “Multi Drug Resistant-TB: Russian Economic Collapse Will Lead To Global Spread Of "Ebola With Wings"; Statement by Doctors without Borders, the Medical Emergency Relief Network International (MERLIN) and The Public Health Research Institute <http://www.sciencedaily.com/releases/1998/09/980916074355.htm>.

Multi Drug Resistant-TB: Russian Economic Collapse will Lead to Global Spread of "Ebola with Wings" Foreign Funds are Needed to Prevent Epidemic Our three nongovernmental organizations are calling for an urgent worldwide campaign to raise the $100 million needed to prevent the imminent epidemic of multidrug resistant tuberculosis (MDR-TB) in Russia. In our view, this local humanitarian disaster is already a direct global public health threat. Drug-senstive TB is curable through proper drug therapy. MDR-TB is potentially much more dangerous, especially because TB spreads through the air and can move from patient to patient in its deadly drug-resistant form. MDR-TB has been dubbed "Ebola with wings." Current levels of MDR-TB in Russia are alarming. The looming economic crisis will exacerbate the problem. It is only a matter of time before MDR-TB of Russian origin becomes a daily reality in other countries worldwide. The current Russian economic crisis will further deplete already strained resources of public medicine. The resulting shortage of anti-TB drugs will inevitably lead to the massive practice of substandard antibiotic treatment of patients with TB, which is the principal cause of MDR-TB. Standard treatment of regular TB consists of a daily regimen of four different antibiotics for six months. When this treatment is incomplete or interrupted, a patient can easily develop MDR-TB and then spread this potentially lethal form of TB to other people. We are particularly concerned about the dire situation in Russian prisons, where systematic underfunding combined with epidemic-prone conditions already has resulted in the generation of nearly 20,000 MDR-TB cases. The number of cases is expected to rise because, under the current conditions, about 100,000 inmates with regular TB are subjected to inappropriate, MDR-causing treatment protocols. Among the civilian population, TB patients undergoing treatment often are required to pay for their own drugs, even in state run hospitals. In the worsening economic situation, this burden on patients will translate into inadequate treatment and, consequently, thousands of new MDR-TB cases because most people will discontinue prescribed treatment as soon as symptoms subside.

#### MDR TB will kill as many people as AIDS

Stanford Report, 8/9/**200**6. <http://news-service.stanford.edu/news/2006/august9/tbstudy-080906.html>.

The emergence of drug-resistant strains of tuberculosis throughout the world is a far greater risk to human health than medical experts had assumed, according to Stanford University scientists. This finding is based on a Stanford-led study of patients infected with mutant strains of the bacterium that causes tuberculosis. The results of the study, published in the journal Science, challenge a fundamental principle of evolutionary medicine and may lead epidemiologists to rethink their strategy for preventing the global spread of this highly contagious respiratory disease, researchers say. "Until this study, medical dogma had been that when a bacterium develops resistance to a drug, it becomes weaker as a human pathogen," said Stanford epidemiologist Gary K. Schoolnik, co-author of the June 30 *Science* study. "According to that very rosy scenario, drug-resistant strains should eventually extinguish themselves in the environment, because they can't compete with the original, drug-susceptible organism. But we found the opposite to be true, and that has very ominous implications for the spread of tuberculosis throughout the world." Global epidemic Tuberculosis is caused by a species of bacteria called *Mycobacterium tuberculosis*, which can be transmitted through the air when an infected patient coughs or sneezes. If not controlled, the bacterium may attack and destroy the lungs and other parts of the body. The World Health Organization (WHO) estimates that 2 billion people are infected with latent *M. tuberculosis*, which usually remains dormant but may begin actively multiplying, especially if the person's immune system weakens. Approximately 15 million people—primarily in Africa, Asia and Eastern Europe—have active tuberculosis disease, including about 14,000 in the United States. "Worldwide there are roughly 12 million new active cases annually, and of those about 2 million will die every year," said Schoolnik, professor of medicine and of microbiology and immunology at Stanford. "As a global health threat, tuberculosis assumes a significance that is only equaled by two other infectious diseases—malaria and HIV/AIDS."

### Economy Impact—AT: US Economy Solves

#### Case can’t solve – Russian economy is decoupled

Martin Gilman, 1/16/**20**08. Former senior representative of the IMF in Russia and professor at the Higher School of Economics in Moscow. “Well-Placed to Weather an Economic Storm,” Moscow Times, <http://www.moscowtimes.ru/stories/2008/01/16/008.html>.

Faced with this gloomy global outlook, Russia is well placed to weather the storm. In fact, not only is the Russian economy likely to decouple largely from a sagging United States and even Europe, but its continuing boom -- mostly but not solely fueled by high energy revenues -- is sucking in both consumer and investment goods, and so acting as a motor of world growth. And the planned $1 trillion public investment program over the next decade should ensure that the country remains decoupled for years to come.

###  Economy Impact – Turns Heg

Russian collapse will shift the balance of power away towards China, killing heg

Baran et al 7[Zeyno Baran et al, Summer 2007. Senior Fellow and Director Center for Eurasian Studies, Hudson Institute. “U.S. – RUSSIAN RELATIONS : IS CONFLICT INEVITABLE?” Hudson Institute Symposium on US-Russian Relations, www.hudson.org/files/pdf\_upload/Russia-Web%20(2).pdf.]

The West needs a stable Russia in order to maintain the global balance of power against China. In the event of Russia’s disintegration, her resources will go to China, not the West. The West cannot stop Russia’s slide into a systemic cri- sis, and can only help get out of it once it has begun. This is a challenge for the future. Currently, the West needs a “Cold War” only with Russia’s new masters, not with the Russian people. Russians are protesting against the politics of the Russian bureaucracy, and their protest should not be re-directed at the bureaucracy’s strategic partners in the West. If the West understands and accepts this, it needs to learn to acknowledge Russians’ rights to patriotism and to a normal level of freedom—not as a religious symbol, but as the only path to prosperity and justice. Russian “democrats” and “liberals” have forgotten these demands and rights, and therefore the terms “dem - o crat” and “liberal” are cursed in Russia. Official propa- ganda uses this to divert Russian citizens from asserting their interests and rights to fighting the West. The West needs to explain to Russia that these rights have been destroyed not by rivalry with the West, but solely by the avarice of the new Russian leaders. It is true that in the future, the issue of global competition will arise. Currently, however, there is only one key prob- lem—corruption (including, of course, corruption in the interests of the West) and a lack of bureaucratic integrity. After Russia experiences a systemic crisis the West must be able to say to Russians; “You see? We are for democracy, but not for “democrats,” for law, but not for lawyers, for prosperity, but not for prospering oligarchs.” All of these are things that the West could not say after the 1990s. Russia will be useful to the West if the West can side with Russia against China and global Islam in foreign policy and with the Russian people against the Russian bureaucracy in domestic policy. If the West attempts to transform Russia according to its own conceptualization of the correct societal order, or simply to seize Russian raw materials, intellect, and money, it will destroy Russia and pay dearly for the rela- tively small gain. As a consequence of doing so, the West will experience large-scale, global systemic problem**s**.

###  High Prices Good – Dollar Heg

#### High prices key to dollar hegemony

Stratfor 1/8/2008, [Annual Forecast 2008, web.stratfor.com/images/writers/STRATFOR\_Annual\_1\_08.pdf

Quietly developing in the background, the global economy is undergoing a no less dramatic transformation. While we expect oil prices to retreat somewhat in 2008 after years of surges, their sustained strength continues to shove a great deal of cash into the hands of the world’s oil exporters — cash that these countries cannot process internally and that therefore will either be stored in dollars or invested in the only country with deep enough capital pools to handle it: the United States. Add in the torrent of exports from the Asian states, which generates nearly identical cash-management problems, and the result is a deep dollarization of the global system even as the U.S. dollar gives ground. The talk on the financial pages will be of dollar (implying American) weakness, even as the currency steadily shifts from the one of first resort to the true foundation of the entire system.

#### Key to heg

Robert Looney 3/22/2004, [Middle East Policy No. 1 Vol. 11, p. 26 Professor of National Security Affairs for the Center for Contemporary Conflict]

Political power and prestige. The benefits of "power and prestige" are nebulous. Nevertheless, the loss of key currency status and the loss of international creditor status have sometimes been associated, along with such non-economic factors as the loss of colonies and military power, in discussions of the historical decline of great powers. Causality may well flow from key currency status to power and prestige and in the opposite direction as well.[[8]](http://www.ccc.nps.navy.mil/si/nov03/middleEast.asp#references)

On a broader scale, Niall Ferguson[[9]](http://www.ccc.nps.navy.mil/si/nov03/middleEast.asp#references) notes that one pillar of American dominance can be found in the way successive U.S. government sought to take advantage of the dollar's role as a key currency. Quoting several noted authorities, he notes that

[the role of the dollar] enabled the United States to be "far less restrained…than all other states by normal fiscal and foreign exchange constraints when it came to funding whatever foreign or strategic policies it decided to implement." As Robert Gilpin notes, quoting Charles de Gaulle, such policies led to a 'hegemony of the dollar" that gave the U.S. "extravagant privileges." In David Calleo's words, the U.S. government had access to a "gold mine of paper" and could therefore collect a subsidy form foreigners in the form of seignorage (the profits that flow to those who mint or print a depreciating currency).

The web contains many more radical interactions of the dollar's role. Usually something along the following lines:

World trade is now a game in which the U.S. produces dollars and the rest of the world produces things that dollars can buy. The world's interlinked economies no longer trade to capture a comparative advantage; they compete in exports to capture needed dollars to service dollar-denominated foreign debts and to accumulate dollar reserves to sustain the exchange value of their domestic currencies…. This phenomenon is known as dollar hegemony, which is created by the geopolitically constructed peculiarity that critical commodities, most notably oil, are denominated in dollars. Everyone accepts dollars because dollars can buy oil. The recycling of petro-dollars is the price the U.S. has extracted from oil-producing countries for U.S. tolerance of the oil-exporting cartel since 1973.[[10]](http://www.ccc.nps.navy.mil/si/nov03/middleEast.asp#references)

America's coercive power in the world is based as much on the dollar's status as the global reserve currency as on U.S. military muscle. Everyone needs oil, and to pay for it, they must have dollars. To secure dollars, they must sell their goods to the U.S., under terms acceptable to the people who rule America. The dollar is way overpriced, but it's the only world currency. Under the current dollars-only arrangement, U.S. money is in effect backed by the oil reserves of every other nation.[[11]](http://www.ccc.nps.navy.mil/si/nov03/middleEast.asp#references)

### AT: Dutch Disease

#### Russia isn’t experiencing the Dutch Disease, the value of the ruble is too low.

#### **Forbes 12**

#### **[Mark Adomanis, contributor to The Russian Hand on Forbes.com “Is Russia Suffering From Dutch Disease?”, from Forbes.** <http://www.forbes.com/sites/markadomanis/2012/06/22/is-russia-suffering-from-dutch-disease/> **6/22/12]**

In the course of a generally excellent FT article, one that I would encourage everyone to read as it provides a very solid overview of where Russia’s economy sits in mid 2012, Neil Buckley goes off on a bit of a tangent. I want to highlight this not because I’m trying to beat up on Buckley, he does very good work, because he seems to confuse two very different problems potentially facing the Russian economy: “ Economists have also warned that, with budgetary spending becoming a bigger contributor to growth, and that, in its turn, increasingly funded by oil and gas revenues, Russia is drawing too heavily on its energy wealth. That drives up prices and costs, crowds out private sector investment and makes manufacturing uncompetitive, all classic symptoms of the so-called Dutch Disease. This hinders what should be its main policy aim: diversifying the economy away from reliance on extractive industries. I’m not an expert in natural resource economics, but my understanding of Dutch Disease is basically the same as the one offered here by The Economist: “the malady involves commodity exports driving up the value of the currency, making other parts of the economy less competitive, leading to a current-account deficit and even greater dependence on commodities. Dutch Disease is basically about natural resources affecting a country’s position in the international economy: its currency becomes too strong which discourages domestic production and encourages imports. This is extremely dangerous for many reasons, but perhaps the most severe is that if the flow of natural resources ever comes to a sudden stop the value of the currency will crash. Normally a country would respond to a weakening of its currency by increasing exports, but in an economy ravaged by Dutch Disease there is little immediate ability to increase exports because the manufacturing sector has become so weak and withered and the country so dependent on imports. Balance will eventually be achieved, a cheaper currency will eventually spur a growth in manufacturing and exports and a decrease in imports, but this nightmare scenario explains why so many countries with significant oil production have “sequestered” most of their earnings either by paying down foreign debts or by creating various types of sovereign wealth funds. Russia, of course, essentially followed the textbook economic playbook from 1999-2005 by using almost all of the increase in oil earnings to pay down its sovereign debt ahead of schedule and to create the “reserve fund” and the “national welfare fund.” Crowding Out, on the other hand, is about domestic government spending leading to an increase in interest rates and a decrease in private investment. There are various iterations of this argument, and while it almost always focuses on deficit-financed government spending there are some people who make much more radical arguments about the distortions caused by any government spending whatsoever. Unlike Dutch Disease, Crowding Out is basically a domestic phenomenon: it can occur in a country regardless of its international context. If a government has gone on a debt-financed investment binge, it’s probably going to experience crowding out whether its currency is cheap or expensive relative to those of other countries. Since the sine qua non of Dutch disease is an overvalued currency, we can see if this is actually the case with the Russian ruble. Here is how the ruble has fared compared to the dollar and the Euro since April 2004 (when the Google finance charts begin): The ruble strengthened against the dollar considerably from 2005-2008, but since then it has actually lost a significant bit of ground. And the ruble never strengthened noticeably against the Euro, it’s been consistently weaker for almost all of the past 8 years. Indeed what’s remarkable is that, until the recent turmoil in global markets took a hefty toll on the ruble and sent it tumbling, the ruble was within earshot of where it was all the way back in 2004. Indeed rather than a dramatically overvalued ruble, which is what would happen if Russia were suffering from Dutch Disease, the most dramatic threat facing Russia in 2012 is that, as global growth retreats and prices for natural resources decline, the value of the ruble will stumble even further and require costly Central Bank interventions to prevent a panicky devaluation. Crowding out is a serious concern, particularly because the Russian state continues to play far too large a role in the country’s economy and also because Putin’s proposals from his election campaign would suggest a huge increase in state spending, but even there the story is a complicated one. Russian inflation is at or near its post-Soviet low, and interest rates are also near post-Soviet lows. Part of the reason that Russia is not experiencing Dutch Disease (which is something you would normally expect in a country that has earned such an enormous pile of money from selling oil and natural gas) is that the world economy has been in turmoil for most of the past 4 years: there has been a “flight” to quality in “safe” assets and currencies which has surely worked to weaken the ruble and depress its value. The “new normal” is actually a pretty bizarre state of affairs, and is characterized by any number of things, such as negative real interest rates on German Bunds and US treasuries, that ten years ago would have seemed impossible. Russia’s economy faces an awful lot of risks, and its over-dependence on natural resources is extremely dangerous, particularly at a time that global growth is slamming to a halt. Buckley is right that Russia needs to diversify, and that its government will find this process to be an extremely difficult and complicated one. But, at the present time, one of the very few economic risks that Russia doesn’t face is Dutch Disease: its currency isn’t overvalued and, if anything, is actually trending lower against the main reserve currencies.

#### Empirical evidence from a number of countries disproves the Dutch Disease theory.

#### **Davis 95 PhD Mineral Economics**

Dr. Graham A. Davis, professor in Division of Economics and Business at Colorado School of Mines“Learning to Love the Dutch Disease: Evidence from the Mineral Economies” World Development, Vol. 23, No. 10, pp. 1765-1779, 1995 Copyright 0 1995 Elsevier Science Ltd Printed in Great Britain. All rights reserved 0305-750x/95 $9.50 + 0.00http://ac.els-cdn.com/0305750X9500071J/1-s2.0-0305750X9500071J-main.pdf?\_tid=e80448fd4c406cf099f85349d81a2849&acdnat=1340746736\_c980c6af3875e1f5d7f61532a285f668

If the country groupings used in this paper are a reasonable taxonomy of mineral and nonmineral economies, the current resource curse worries are in general unsupported by the evidence. Certain countries within the minerals-economy group, such as Zambia, have undoubtedly suffered from their mineral exploitation. The evidence presented here, however, suggests that the resource curse is by no means evident for the mineral economies as a whole, and only applies, if at all, on a case by case basis dependent on domestic economic factors. Tunisia, incidentally, having graduated from the ranks of mineral producers, is doing well. All but one of its 1991 development indicators (access to sanitation) are above the means of the 1991 never-mineral economies indicators, with a 1991 GNP per capita of $1,500. A main worry of Dutch disease effects is that traditional export sectors are permanently damaged and never regain international competitiveness. The Tunisia case is preliminary evidence that growth on the back of mineral production does not permanently cripple an economy, regardless of any short-term Dutch disease effects. We await further evidence as the other mineral producers in time graduate to a more diversified export structure. 5. POLICY IMPLICATIONS OF MINERALS AS A DEVELOPMENT CURSE Let us for a moment agree that the concentrated exploitation of mineral endowments is detrimental to long-run development in certain mineral-based developing countries. Several astounding yet welfareimproving policy implications follow from what Auty (1993, p. 1) has described as “this counter-intuitive outcome”: 1. These mineral-based economies would now be better off if their mineral resources had never been discovered. Optimal government policy would have made mineral exploration an illegal activity, and any accidental findings should have been confiscated by the government and secured against development. Geological mapping should not have been encouraged. All minerals, aside from industrial minerals necessary for domestic growth, should have been imported. 2. Mineral discoveries and augmentations should be counted as a debit in these countries’ “green accounts,” since the present welfare value of any discovery is negative. Any depletion or downward adjustment of mineral reserves should on the other hand add to the national accounts. 3. Where mineral exploitation must take place in these developing countries due to geological incidence, multinational enclaves are desirable. These nations should not accept any windfalls from the multinationals in the form of taxes, royalties, or gifts. Employment and output multipliers should be kept to a minimum by forbidding the multinational from purchasing local inputs and labor or supplying local markets. 4. World Bank, IMF, and other lending schemes should penalize these developing economies for developing their mineral deposits. Financial support and loan guarantees for mining projects in these countries should only go to developed-country multinationals who agree to mine in an enclave environment. 5. Optimal depletion models, which calculate optimal extraction paths given the objective of maximizing social welfare, have been negligent in omitting the costs of structural adjustment and government wasting of mineral revenues. Correctly specified models would indicate that the minerals should in some cases be left in the ground indefinitely or extracted at such a slow rate as to not dramatically influence export revenues. 6. Thus far, mineral booms and Dutch disease effects have been created by either increased minerals prices or increased minerals output. But the core Dutch disease model assumes that an improvement in the technology of an export sector causes the export boom (Corden and Neary, 1982). Bandara (1991) has shown that technological improvements and price effects result in similar structural effects. Thus, not only should mineral production be prevented, but technological advances in any single export sector should be prohibited in these countries. Unless this thesis is carefully stated, it could lead to the above absurdities. In any event, the economic data presented in section 4 provide support that the resource curse thesis is not a widespread and general phenomenon. 6. CONCLUSIONS AND AREAS OF FURTHER RESEARCH The 22 mineral economies appear to have done well as a group compared to other, nonmineral developing economies, and it would be difficult to support the claim that they have underperformed. On this basis, the resource curse is, if anything, the exception rather than the rule. Yet some qualifications to these results must be made explicit. First, no causality between mineral exploitation and development has been assumed or implied. I simply find that mineral economies as a group are not cursed, have not performed poorly in the long run, and have not been decimated by the Dutch disease that may or may not in practice accompany mineral booms. The mineral economies have done rather well, and minerals production may certainly be the cause. On the other hand, this may be a spurious correlation, with something common among mineral economies that promotes development and that has nothing to do with minerals. Mineral economies, for instance, may incidentally be less dictatorial than other developing economies, and are mineral economies simply because the political environment attracted foreign capital. Mineral production may even be a reflection of development, rather than a cause. These questions remain unanswered. It may also be too soon to tally up the results. The 22 long-term mineral economies studied here will eventually use up their endowments. Tunisia is the only economy that has moved on from being a mineral producer, with no adverse effects. Other economies must do equally well before we can finally dismiss the resource curse thesis.

#### No solid evidence for these bad effects of oil dependence, it depends on the country’s policies. The general trends are positive.

#### **Brahmbhatt, Canuto, and Vostroknutova 10**

[Milan Brahmbhatt Senior Adviser in the PREM Network at the World Bank Otaviano Canuto Vice President, Poverty Reduction and Economic Management (PREM) Network at the World Bank Ekaterina Vostroknutova Senior Economist in the East Asia and Pacific Poverty Reduction and Economic Management unit at the World Bank, “Dealing with Dutch disease”, <http://voxeu.org/index.php?q=node/5213>, 6/21/10]

Following the classic exposition by Corden and Neary (1982), the economy can be divided into three sectors: the natural resource sector, the non-resource tradable sector (usually understood as agriculture and manufacturing), and the non-tradables sector (including non-tradable services and construction). The real exchange rate is defined as the price of non-tradables (set in the domestic economy) relative to the price of tradables (set in the world market). There are two types of effects leading to Dutch Disease and real exchange rate appreciation: •The spending effect. This comes into play when increased income from the booming natural resource sector stimulates demand and spending by the private and public sectors, leading to higher prices and output in the non-tradables sector. In the non-natural resource tradables sector (“manufacturing”), however, prices are fixed at international levels, profits are squeezed by rising economy-wide wages and increased demand is increasingly met out of rising imports. •The resource movement effect. Takes place when the boom in the natural resource sector attracts capital and labour away from other parts of the economy. Output declines in the non-resource economy, but by more in tradables, where prices are fixed at world market levels. Both effects result in a fall in the output share of non-natural resource tradables relative to non-tradables, and a real exchange rate appreciation. But is there any empirical evidence of Dutch Disease? There is relatively robust evidence that terms of trade increases cause real exchange rate appreciation in natural-resource-rich countries (for example Spatafora and Warner 1995). Figure 1 illustrates the correlation between real effective exchange rates and terms of trade changes. Figure 1. Terms of trade shocks and real appreciation, 2004–2009 Source: Authors’ calculations The evidence on the shrinking of the manufacturing sector in response to terms of trade shocks has been somewhat mixed (Sala-i-Martin and Subramanian 2003). Most recently, however, Ismail (2010) finds much stronger evidence for Dutch Disease effects, with a 10% increase in an oil windfall associated with a 3.4% fall in value added across manufacturing sectors. Such effects are larger in economies that are more open to capital flows and with relatively less capital-intensive manufacturing sectors. Determining how large the tradables sector would have been in the absence of the natural resources is difficult. Using the Chenery and Syrquin (1975) approach, we estimate a norm for the size of the tradables (manufacturing and agriculture) sector for all countries over time, controlling for per capita income, population, and time trend. Figure 2 shows the difference between the actual size of the tradables sector and the norm, for both resource-rich and non–resource-rich countries. On average in resource rich countries the tradables sector (as defined) is around 15% of GDP lower than the norm. Figure 2. Dutch Disease measure for resource-rich and other countries, 1975-2005 Source: Authors’ calculations based on Chenery and Syrquin (1975). Is there evidence that Dutch Disease is bad for growth? In general, an increase in wealth due to a natural resource discovery or a permanent rise in the terms of trade is a positive development, generating higher incomes and allowing more consumption of both non-tradables and tradables, the latter supplied to a greater extent through imports. Rents from mineral resources can provide government with increased resources for investment in public goods and other development expenditures. These gains may however come at the expense of growth in the long term, based on the idea that manufacturing and other non-resource tradables possess specific long-term, growth-enhancing qualities, such as the presence of positive technological spillovers, learning by doing effects, or increasing returns to scale in production. Manufacturing is also more labour intensive than natural resource industries, with implications for employment. Given increasing returns and costly and time-consuming learning in manufacturing, the economy would struggle to rebuild sources of growth upon depletion of its natural resource. The results of cross-country analysis of a direct link between natural resource riches and growth have been inconclusive. Sachs and Warner (2001) argued that natural resource abundance has a strong negative impact on growth, but Lederman and Maloney (2008), using a different specification, on the contrary found a positive effect. Trying to reconcile this disparate evidence in a panel cointegration framework, Collier and Goderis (2007) concluded that commodity price booms have positive short-term impacts on growth, but that in countries with bad governance and ”point source” natural resources (oil and minerals) the impact on growth is significantly negative in the long term. Quality of institutions conditions the quality of policies and therefore how natural resource abundance affects growth. Another line of argument notes that although real exchange rate appreciation in a resource boom is in principle an equilibrium phenomenon that reflects improved fundamentals, agents could mistakenly overestimate the permanence of the fundamental improvement, resulting in real exchange rate overvaluation. And there is now a good deal of evidence on the strong negative impact of overvaluation on growth (Aguirre and Calderon 2006, among others). Dutch Disease may also result in high export concentration in commodities with high price volatility. If government spending is closely related to natural resource revenues then it will also become more volatile and in turn drive volatility in the real exchange rate through the spending effect described above. A large body of empirical work documents the adverse impact of real exchange rate and other economic volatility on investment and growth. As shown by earlier booms, high commodity prices can lead to over borrowing, when countries use their resources as collateral to borrow abroad, and then finance large investment projects and high public consumption. But when prices fall they are left with balance-of-payments crises and unsustainable external debt levels. A recent paper by Reinhart and Rogoff (2010) suggests that when external debt reaches above 60% of GDP annual growth declines on average by 2 percentage points, and for very high levels of debt, growth is cut in half. Impacts of natural resources on an economy will depend to a large extent on policies Excessive spending appears to be at the heart of economic mismanagement in the wake of natural resource booms (Gelb and Associates 1988). Fiscal policy is thus a main instrument for dealing with the negative impacts of Dutch Disease. Sound fiscal rules for the disposition of natural resource revenues can help constrain the spending effect – the main transmission channel in low-income countries and also to smooth expenditures and reduce volatility. An adequate fiscal policy should however also balance the need to implement development objectives with the need to constrain the spending effect. The so-called “permanent income” fiscal rule recommends spending no more than a constant annuity that, received forever, would yield the same net present value as the stream of expected revenues from the natural resources. Collier and others (2009) however suggest that a better fiscal rule for a low income developing country would require less saving of revenues in the form of external assets earlier on, allowing for more domestic investment and consumption than in the permanent income strategy. This approach would allow addressing some urgent development needs in low income countries, but it also would require strict fiscal discipline, clear spending rules and strong institutions for public financial management. More on curbing the disease Policies covering the composition of spending can also help curb Dutch Disease. Directing spending toward tradables (including imports) rather than non-tradables would help slow the impact through the spending effect. Improving the quality of spending to ensure that productivity in non-tradable sectors increases more rapidly would also help alleviate real exchange rate appreciation and other Dutch Disease effects. Spending on investment projects, rather than on increasing recurrent permanent expenditures, such as wages, helps countries to more easily adjust to volatility of revenues. However, special care needs to be taken to ensure that capacity to prioritise and implement public projects is adequate, especially in low- income countries. Monetary policy in commodity -exporting countries would need to coordinate with fiscal policy; the choice of an appropriate anchor for monetary policy is especially important for macroeconomic management. For example, inflation targeting has been an extremely successful instrument elsewhere, but it may result in a monetary policy that puts appreciation pressure on the exchange rate when commodity prices increase.

#### Russia will alleviate stresses of oil dependence by sharing its oil to diversify and modernize its economy.

#### **Reuters 12**

[Melissa Akin, journalist at Reuters.“Russia shifts from resource nationalism to globalism”http://www.reuters.com/article/2012/06/23/us-russia-energy-shift-idUSBRE85M0IQ20120623]

(Reuters) - President Vladimir Putin left global oil executives in little doubt as to who was the master of the world's largest energy reserves at Russia's answer to Davos. The sky over St Petersburg was turning white at the end of the longest day of the year, and the financiers and leaders of global industry who had gathered as Putin's guests at this year's forum were retiring to lavish parties and rooftop bars. But the chief executives of BP, ConocoPhillips, Shell and Chevron stood with a dozen colleagues in a dark, chairless foyer, shifting from foot to foot on Thursday as they waited three hours for an audience. "No one was angry," said a European chief executive as he whiled away the wait by hashing out an equipment issue with a colleague. "There was a lot to talk about." Putin has kept them waiting in the past, both for meetings and for deals, sometimes for years as they struggled to find a way in with a government that controls access to some of the world's largest untapped oil and gas reserves. Putin, whose conviction that strategic resources should be in the hands of the state was laid out in his doctoral dissertation, has shown a willingness in the past few months to share prospective oil riches on a scale unprecedented since Russia's early post-Soviet years. Three Arctic drilling deals, personally brokered by energy tsar Igor Sechin in the final days of Putin's four-year spell as prime minister, have opened up new possibilities after a decade in which Russia became a byword for resource nationalism. The appeal of advanced Western technology needed to tap increasingly remote and challenging fields, and the attendant promise of a more modern, healthy economy has chipped away at the Kremlin's jealous guard of its natural resources. It has also set off debate around long-standing tax policies that are designed to skim off oil industry revenues but have proven costly in terms of investment in new barrels. "What strikes me is that they are very much aware of the fact that they have to open up to other countries," Maria van der Hoeven, head of the International Energy Agency, said in an interview at the annual St Petersburg International Economic Forum. "It has to do with investments and it has to do with markets, with market diversification. They need to find the right methods to do that, the right regulatory framework to get the (international oil companies) coming into the country." OUR RESERVES, THEIR TECHNOLOGY When Putin finally joined the CEOs, he was at pains to be welcoming, first giving the floor to Peter Voser, the CEO of Shell, which has been identified in media reports as a potential new investor in Shtokman, a troubled Barents Sea gas project. "Twenty-five percent of our oil is produced by companies with foreign partners. That should tell you how open our industry is to foreign capital. Not in all countries is there such broad participation by foreigners," he told the executives. "I just got back from Mexico, where the G20 was held, and (the oil industry) is almost completely state controlled. In a market-oriented country like Norway, there is really just one big company, Statoil." Russia has one thing in common with those countries: declines in its old production base, though Russia has managed to keep pumping at ever higher rates, hitting post-Soviet output peaks thanks to new fields launched at great cost. So it was that Sechin, a former military translator in Africa, found himself defending his decision to share the state oil company's reserves with foreigners at the company's annual meeting last week when a skeptical shareholder asked him whether such deals were in Russia's national interest. His answer echoed a refrain that has been repeated since the Rosneft first announced its intent to grant a foreign oil company access to a new hydrocarbon province that could harbor fields like the Soviet-era "supergiants" which sustained the country through its last decades: Our reserves, their capital, their risk and, most of all, their technology. EXXON'S SECRET If the executives' long wait for Putin belied a welcoming stance, the body language with Exxon executives - notable by their absence at the table with Putin - has been easier to read. CEO Rex Tillerson, who flew to a Black Sea refinery town this month at Rosneft's invitation for a strategy presentation with Putin, was photographed seated next to the Russian president, inclining his head for a private word. Exxon executives were guests of honor at Rosneft's AGM, where Sechin had frank praise for the American major and its focus on delivering value to shareholders. An executive at a rival major said he believed that was not what won over Sechin and his Kremlin patron. "They have really gone in with technology," the executive said. The challenge faced by the Russian industry, said a source from a company with a long history in offshore drilling, is to move from standardized bulk drilling and top-down design decisions at old West Siberian fields to unpredictable environments and prospective projects where new technology must be developed and honed along the way. Therein is the deep attraction of technology transfer for the Russian government, which is caught in a Catch-22 situation: With 50 percent of its budget revenue from energy, it can neither afford to let the industry stagnate, nor can it remain so heavily dependent on a volatile commodity. Most immediately for Rosneft, it must invest in future output growth while simultaneously retooling its Soviet-built refineries to meet rising demand for high-specification gasoline and prevent politically damaging petrol shortages. The order of the queue of executives at Rosneft's stand at the St Petersburg convention centre was telling. Behind Eni and Statoil - there to finalize their drilling deals - was Andrei Kostin, CEO of state bank VTB, on hand to sign a new financing deal to help build a new refinery near Moscow. It was a reminder that, despite Rosneft's outward-looking stance of recent months, its concerns - and the Kremlin's - gravitate back to the domestic marketplace. And with little build on outside the energy industry besides a crippled Soviet industrial base and a small if growing band of entrepreneurs, the Kremlin must pin its hopes for a modern economy on its oldest resource of all. "Russia's energy sector is, perhaps, now, and must remain over the near term, the driver for modernization of the country's economy," said Sechin.

#### Russia can’t handle low prices—any studies to the contrary use flawed data.

Gaddy and Ickes 5 [Clifford Gaddy and Barry Ickes, December 2005. Fellow at Brookings at Associate Professor of Economics at Penn State. Eurasian Geography and Economics, 46.8, pp. 559-583(25)]

What is distinctive for Russia, we would argue, is the scale of the informal rent redistribution. Like the part of the iceberg that lies beneath the surface, the informal rent categories may turn out to be most important in assessing current and future economic and political developments. To take one example, one frequently hears statements to the effect that a decline in oil prices would have little impact on the Russian economy. The government’s oil stabilization fund, it is said, absorbs the windfall. The core budget is sustainable at much lower oil prices. But this line of thinking is based on looking at formal taxes alone. In fact, we see that the formal taxes and the formal budget are only a part of the picture. Informal rent-sharing sustains a much broader part of the economy and society. Lower oil prices mean smaller overall rents, and thus less to be shared among all the categories – not just the part represented by formal taxes.

#### WTO membership will diversify their economy in the long-term

Burns 6

[William J. Burns, 11/28/2006. U.S. Ambassador to Russia. “WTO and U.S.-Russian Relations — Remarks to the American Chamber of Commerce,” Department of State, <http://usembassy.ru/bilateral/statement.php?record_id=73>.]

WTO membership will provide a strong impulse toward diversification of the Russian economy beyond oil and gas. It will help the modernization of Russia's aviation industry, making state of the art aircraft and plane parts more affordable and airlines better able to service Russia's eleven time zones. WTO membership will help Russian exporters and employers to expand in the ferrous and non-ferrous metals, chemicals, and telecommunications sectors. Chemical processing industries like those I visited in Volgograd ten days ago are likely to get a big boost. Russian consumers will see a broader range of goods at cheaper prices in stores and groceries. Russian food processors will have better access to import ingredients due to lower tariffs and fewer import restrictions. WTO membership will also allow Russian agricultural producers to better defend and promote their export interests.

### AT: High Prices Hurt US Econ

#### High oil prices are good for the US - increases GDP

#### **Business Insider Magazine 11**

Staff writer Dean Baker, “The Impact of Oil Prices On Economic Growth” http://articles.businessinsider.com/2011-02-24/markets/30002862\_1\_gas-prices-barrel-impact#ixzz1z21PRa23

An NYT article discussing the impact of higher oil prices on the economy told readers that: "As a general rule of thumb, every $10 increase in the price of a barrel of oil reduces the growth of the gross domestic product by half a percentage point within two years." There is no source cited for this rule of thumb, which implies an extraordinarily large impact of oil prices on GDP. For example, the fall of oil prices from an average of $91 a barrel in 2008 to $53 a barrel in 2009 should have added almost two percentage points to GDP growth in the last two years. The article later gives a more conventional rule of thumb, that each 1 cent increase in gas prices takes $1 billion out of consumers' pockets. These two rules of thumb appear inconsistent. A $10 increase in the price of a barrel of oil would imply an increase in gas prices of about 25 cents. This would reduce the money available for other consumption by about $25 billion a year. If the impact is doubled to account for other uses of oil (e.g. home heating, electricity, etc.) this would reduce the money available for spending by $50 billion, approximately 0.3 percent off GDP. Of course the reduction in spending will not be 100 percent of the higher price of oil, many consumers will dip into their savings, just as they would in response to a temporary tax increase. In addition, some of the gain from higher oil prices goes to U.S. producers of oil, either as domestic production or importers with higher profits. While higher earnings for producers will have less impact on increasing spending than higher oil prices will have on reducing spending, the impact will not be zero. On net, it is unlikely that the actual impact of a $10 increase in the price of a barrel of oil would be even half as large as the rule of thumb described in this article. A substantial rise in the price of oil would still have a substantial impact on the economy, but not nearly as much as this article claims.

#### High oil prices drive economic recovery

#### **Washington Post 12**

By staff writer Brad Plumer, Will high oil prices hurt the recovery—or help it? http://www.washingtonpost.com/blogs/ezra-klein/post/will-high-gas-prices-hurt-the-recoveryor-help-it/2012/02/16/gIQAz8QwHR\_blog.html 2/16/12

These days, the U.S. economy’s looking rosier, with one exception: oil. Crude prices are ticking past $100 per barrel — thanks, in part, to tensions with Iran — and gasoline remains pricey. That, in turn, could imperil the recovery. But let’s see how this might happen. Workers load equipment onto a truck to be transported to a ship for a delivery to oil rigs in Malaysia. (Bazuki Muhammad - Reuters) The conventional story is this: If U.S. consumers are spending more on gasoline, all that money gets spirited to overseas producers. Consumers have less funds for other purchases, which hurts the recovery. Manufacturers, too, see their profit margins sliced. The standard rule of thumb is that a $20 increase in the cost of a barrel of oil — roughly what we saw in 2011 — shaves about 0.4 percentage points off growth and boosts unemployment by 0.1 percentage points. Put another way, last year’s price increase cost the United States about $125 billion, which would be enough to negate the effects of the just-agreed-to payroll tax holiday. But not everyone’s so gloomy. Economist Karl Smith, who’s generally been bullish on the recovery, observes that higher oil and gasoline prices might ripple through the economy in a variety of ways. On the bright side, higher prices could cause more investment in domestic oil drilling — remember, the oil and gas industries have been a significant driver of the current recovery — and they could also spur many consumers to swap out their old, inefficient cars for new ones, boosting auto sales. “So,” he notes, “its hard to say even if higher gas prices are contractionary or expansionary.” Then again, there’s also the Federal Reserve to consider. As the Wall Street Journal points out Thursday, an oil shock could make the central bank jittery about rising prices, even if it’s only temporary inflation. That, in turn, could complicate the Fed’s willingness to stimulate the economy. Does another round of quantitative easing become less likely if oil prices keep nosing upward? “In the past,” the paper explains, “the Fed has been willing to look past temporary spikes in inflation, but it isn’t clear it would be willing to do so again.” As ever, there are plenty of complicating factors at play. A slowdown in China could ease the pressure on oil prices. The mild winter means that consumers in the Northeast have to spend somewhat less on heating oil. Low natural gas prices are holding down resource costs for many companies. And, as discussed in this post, Americans have been driving less and buying more fuel-efficient cars as higher gas prices become the new normal (each year since 2008 has seen a growing share of days with gas above $3 per gallon). So there’s no guarantee that pricey oil will squelch the economy. But it’s certainly a big factor to watch.

#### Impacts of high prices are modest – plus the US economy is specifically robust against it.

#### **The Economist 12**

Oil and the world economy The new grease? How to assess the risks of a 2012 oil shock <http://www.economist.com/node/21549949> 5/10/12

Separating out these various factors is not easy, but Jeffrey Currie of Goldman Sachs reckons that the fundamentals of supply and demand have pushed oil prices to around $118 a barrel. He thinks the remaining increase is down to fears about Iran. If so, should relations with Iran improve, the oil price might go down by a few dollars, but stay close to $120. Globally, the damage from price increases to date is likely to be modest. A rule of thumb is that a sustained 10% rise in the price of oil shaves around 0.2% off global growth in the first year, largely because dearer oil shifts income from oil consumers to producers, who tend to spend less. For now any impact is almost certainly outweighed by improvements elsewhere, particularly in the easing of the euro crisis. Despite dearer oil, the prospects for global growth are still better than they were at the beginning of the year. But the impact on growth and inflation in individual countries will differ. In America, a net importer which taxes fuel lightly, the standard rule is that a $10 increase in oil prices (which corresponds to a 25-cent rise in the price of petrol) knocks around 0.2% off output in the first year and 0.5% in the second year. That would slow, but hardly fell, an economy that is widely expected to grow by more than 2% this year. There are in any case several reasons why America may be more resilient to dearer oil than in recent years. The jump in petrol prices has been far smaller than in 2011 or 2008. Rising employment gives consumers more income with which to pay for fuel. And America’s economy is becoming ever less energy-intensive, and less dependent on imports. Oil consumption has fallen in the past two years, even as GDP has risen. Americans are driving less, and they are buying more fuel-efficient cars. Net oil imports are well below their 2005 peak, which means more of the money Americans spend on costlier oil stays within its borders. The development of copious amounts of natural gas means gas prices have plunged. That, coupled with an unusually mild winter, has kept bills for home heating unusually low. In January the share of consumers’ spending on energy products was the second-lowest in 50 years. These factors do not imply that America is impervious to spiking oil, but they do suggest the impact of price rises to date will be modest. Europe is more exposed. European countries, which tax oil more heavily than America, have typically seen a smaller impact on growth from changes in the oil price. But this time they may be relatively more affected, because most economies are already stagnant or shrinking. Worse, Europe’s weakest peripheral economies are also some of the biggest net importers (see chart 2). Greece, for instance, is highly dependent on imported energy, of which 88% is oil. Even the price rises to date will worsen the euro-zone recession; a big jump could spawn a deep downturn and fracture the confidence of markets.

#### Low gas prices hurt the US biofuel and auto industries as well as government revenue.

#### **Market Intelligence 12**

Staff writers at Market Intelligence “Artificially Low U.S. Gas Prices Hurt U.S. Economy in the Long Run” <http://www.marketintelligence.org/?p=108>, 2/26/12

In this week’s address, President Obama spoke about energy challenges. Recognizing that “there’s no silver bullet that will bring down gas prices or reduce our dependence on foreign oil overnight”, President Obama still stopped short of telling politically inconvenient truth that artificially low gas prices are unsustainable and that they hurt U.S. economy in the long run. U.S. Secretary of Energy Steven Chu had been more outspoken than his boss. “Somehow,” Chu said, “we have to figure out how to boost the price of gasoline to the levels in Europe.” Europeans pay at least twice more than americans for gallon of gasoline. Never mind the current European debt crisis, the higher gasoline prices did not kill European economy. The downturns of higher gas prices are obvious, but why would the higher gas prices be beneficial for U.S. Economy in the long run? ■Artificially low gasoline prices hold back progress of biofuel industry. If given a chance, the fledgling biofuel market will jump-start, creating new business opportunities, new U.S. jobs and laying foundation for energy independence. ■Currently $4 billion of tax dollars subsidize the U.S. oil industry every year. With higher gas prices in place there is no justification for tax breaks and subsidies to oil companies. ■Higher gas price is the best incentive to replace gas-guzzling vehicles by fuel-efficient models, with increased global competitiveness of the U.S. automotive industry as a side effect. It’s not all roses going the way of higher gas prices but the current status quo is unsustainable in the long run.

#### Even when other countries are negatively affected by oil prices, US remains strong

#### **AP 9**

Greenspan: Oil Prices Impact Economy, posted on CBS Money Watch <http://www.cbsnews.com/2100-500395_162-1690917.html> 2/11/9

Former Federal Reserve Chairman Alan Greenspan said Wednesday that while the U.S. has been able to absorb sharp increases in oil prices, the high energy costs are beginning to stunt economic growth. But he also said that sharply higher oil prices have not produced any "serious erosion" of world economic activity. "The United States, especially, has been able to absorb the huge implicit tax of rising oil prices so far," Greenspan told a Senate hearing in his first appearance before Congress since leaving the Federal Reserve. "However, he added, "recent data indicate we may finally be experiencing some impact." Greenspan said the high oil prices, exceeding $70 a barrel resulting in gasoline costs to sore beyond $3 a gallon, are due to a sharp decline in spare global oil production capacity, refinery shortages and to some extent market speculation. He said that American business "to date has largely succeeded in finding productivity improvements that have contained energy costs." But he said consumers "are struggling with rising gasoline prices." Greenspan, appearing before the Senate Foreign Relations Committee, said he saw little chance that the narrow gap between global oil supply and demand will expand anytime soon. But he said "current oil prices over time should lower to some extent our worrisome dependence on petroleum" with the development of alternative fuels and broader use of electric-hybrid cars. This "would help to wean us of our petroleum dependence," Greenspan said. He said the United States has been able to "absorb the huge impact of rising oil prices with little consequences to date because it has become far more flexible" over the past three decades because of less regulation and globalization. But he warned against import or price restrictions or other interference in the market. "Growing protectionism would undermine that flexibility and make our nation increasingly vulnerable to the vagaries of the oil market," he said. Greenspan told the Senate panel that the issue isn't so much the supply of oil reserves. Rather, it is that few national oil companies are investing enough to convert reserves "into crude oil productive capacity." "Besides feared shortfalls in crude oil capacity, the adequacy of world refining capacity has become worrisome as well," Greenspan said, noting that in the case of the U.S., there hasn't been a new refinery built since 1976. One bright spot, Greenspan suggested, is that higher oil prices are acting to limit U.S. dependence on oil, a trend that has already been occurring since the 1970s. Between 1945 and 1973, U.S. petroleum consumption grew at a "startling" 4.5 percent per year, Greenspan said. That rate fell to just 0.5 percent per year between 1973 and 2006, he added. "Oil in the years ahead will remain an important element of our energy future, but it need no longer be the dominant player," he added. But outside the U.S., some trends point to continue robust oil consumption, especially in China, Greenspan said. Motor vehicle use there "is gaining very rapidly," Greenspan said, while fuel efficiency in China is not a high priority given the country's desire to rapidly industrialize. Thus, China will remain a "major demander" of oil, Greenspan said.

#### Data proves US consumer and business confidence are unaffected by oil.

#### **IMF 2k**

Approved by Michael Mussa, “The Impact of Higher Oil Prices on the Global Economy” <http://www.imf.org/external/pubs/ft/oil/2000/#IV> 12/8/00

For much of the period since the October 2000 World Economic Outlook was completed, oil prices have averaged $5 per barrel higher than assumed in that exercise. A sustained oil price increase of that size would imply a permanent transfer of about ¼ percent of GDP from global oil importers to oil exporters, relative to the WEO baseline, with additional transfers of income from oil consumers to oil producers within countries. Such a terms of trade shock would affect the global economy through supply and demand effects as well as via second-round effects on inflation, for example, through higher wage claims. This in turn would affect the extent to which central banks raise interest rates to offset inflationary pressures, and therefore the impact of the oil price increase on real activity. The impact on asset prices and financial markets would provide additional channels. As simulations in Section 2 indicate, the size of the impact on demand and activity depends critically on these factors. While it is still too early to make a final judgment, the latest data suggest that the impact on core inflation in advanced countries has been relatively modest to date and there is little sign of feed through into wage claims. Although there has been a decline in consumer and business confidence, they so far remain relatively strong and although stock prices have fallen, the decline appears to be much more due to non-oil related factors. On the other hand, however, there are signs that expenditure by oil producing countries may be lower than the staff's model suggests, which would tend to increase the adverse effects on global growth, and the impact of higher prices of other fuels-notably gas- also needs to be taken into account. Overall, were oil prices in 2001 to be $5/barrel higher than anticipated in the WEO baseline, the overall impact on global growth would likely be of the order of ¼ percent in terms of yearly average growth, with the effects concentrated in 2001. If oil prices were to fall back-as the most recent futures market data suggest-the $5/barrel shock would be temporary rather than permanent in nature, and the impact on activity therefore reduced. In developing countries, the impact of a sustained $5/barrel oil price increase would vary widely across countries. It would be the largest in Asia, where there are relatively few oil producers. Given current account surpluses or small deficits in many of these countries, balance of payments are not in most cases a concern, but there would be an unwelcome brake on activity in present circumstances. The impact would generally be smaller in the Latin American countries, while many of the HIPC and several CIS economies would be quite seriously affected. With regard to policy implications, as experience in previous oil shocks shows (see Annex), monetary policy in advanced countries will need to prevent second round price effects. This will help ensure that there is only a price level effect, but not a continuing impact on the rate of inflation. This is likely to be helped at the current juncture by generally greater flexibility of labor markets in most advanced countries. The underlying fiscal stance should in general remain broadly unchanged, although automatic stabilizers can play a role in supporting activity. On the microeconomic side, any adjustment of taxes on gasoline and other petroleum products would need to be considered in terms of what is appropriate from the overall fiscal and macroeconomic situation. If the oil price increase appears to be temporary, there would appear to be little merit in adjusting taxes. However, if prices remain, or are expected to remain, at a higher level and ad valorem taxes generate revenue increases greater than required for fiscal policy considerations, there is bound to be some rethinking of the best use of the revenue windfall. The appropriate strategy will depend upon the tax structure of the country concerned.

#### Predictions of price shock impacts are always over exaggerated – economy still grows and people adapt to small changes.

#### **NPR 7**

Jim Zarroli, business reporter for NPR in New York, “ High Oil Prices Affect Many Products” <http://www.npr.org/templates/story/story.php?storyId=16211938> 11/12/07

The price of oil affects just about everything that is made, transported, eaten and sold in the United States. But with oil approaching $100 a barrel, the impact on the U.S. economy has been less than many analysts expected. Time and again, economists from Alan Greenspan on down have warned that higher oil prices are inflationary. They make it more expensive to drive, to buy an airplane ticket and to manufacture anything from air conditioners to zippers. Despite that, the economy grew at an annual rate of 4.9 percent last quarter. That's been a surprise to Jay Bender, president of a South Dakota injection-molding company. NPR interviewed him in January 2003 when oil sold for $32 a barrel. At the time he worried that rising oil prices would make raw materials more expensive. "That's going to be a challenge and if it does squeeze our bottom line too hard, it will have an impact on our ability to invest in capital equipment and grow our business," Bender said in 2003. Today, he says, the cost of raw materials has increased, but "I would say probably not as much as I thought it would and maybe what I was forgetting [in 2003] ... is when these costs go up they impact my competitors as well." So, how is his company doing now? "We're doing well," he said. "I would say it's the same scenario as three or four years ago that our sales are continuing to increase, our top line is good, we just set a sales record in August and we broke it again last month in October." Bender said he has survived because by becoming more efficient, fighting back against higher prices and passing on some increases to customers. Economist Ken Goldstein of The Conference Board, which compiles the Consumer Confidence Index, said what's happened to Bender is happening across the economy. He said it may not look like it when you see all those SUVs but the U.S. is more energy efficient than it used to be and alternative fuels are more widely available. "When oil gets much more expensive ... some biofuels," become more cost effective, Goldstein said. "We are able to make that switch today. We weren't able to make that earlier." Federal Reserve Governor Alice Rivlin said there is another reason the economy has survived price increases — less manufacturing. "We don't depend on energy as much because we don't depend on manufacturing as much," Rivlin said. "Services are less energy intensive." Goldstein believes the days of relatively painless price increases are ending. A lot of things are getting more expensive. "For example, the price of some of these sports drinks hadn't increased in seven years. It did this summer and precisely because the price of transporting that stuff by truck to the supermarket to the grocery store got more expensive to the point where they had to go for a price increase," he said. Goldstein says there is always a lag between the time when oil goes up and the time its impact is felt in the economy. "This $100 — near $100 — a barrel crude oil, that's still on the tanker," he said. "That hasn't even gotten to the refinery, let alone to the gas station on the corner." When it does, he said, gasoline could hit $4 a gallon. That's bound to be felt by consumers. Whether they stop spending will depend partly on other factors, such as how well the housing industry and the job market do. But the past few years have shown that the economy can adjust to rising prices better than people once thought.

###  AT: Price Shocks

#### No Energy Shocks – Increasing global liberalization of markets has eliminated the risk

Robert Bradley, 1999 [president of the Institute for Energy Research in Houston, Texas, and an adjunct scholar of the Cato Institute, “The Increasing Sustainability of Conventional Energy, http://www.cato.org/pubs/pas/pa341.pdf]

The Chimera of Energy Security

Although the underlying physical stock of crude oil has always been plentiful, critics can point to interruptions in oil imports to the United States and other net importing regions as the operative constraint. Energy security became a concern in the United States and other industrialized nations with the “oil shocks” and oil product shortages of 1973–74 and 1979.Enhancing “energy security” has been a major mission of the U.S. Department of Energy and the International Energy Agency of the Organization for Economic Cooperation and Development ever since the troubled 1970s.

Energy security, like resource exhaustion, has proven to be an exaggerated rationale for government intervention in petroleum markets (such as emergency price and allocation regulation, publicly owned strategic oil reserves, international contingency supplysharing agreements, and crash programs to fund new electricity sources or transportation alternatives). The lesson from the 1970s energy crises is that government price and allocation regulation can turn the process of microeconomic adjustment to higher energy prices into a “macroeconomic” crisis of physical shortages, industrial dislocations, lost confidence, and social instability.2 5 The “oil crises that were not,” during the Iran-Iraq War of 1980–81 and the UN ban on Iraqi oil exports of a decade later, demonstrated that freer markets can anticipate and ameliorate sudden supply dislocations without physical shortages, the need for price and allocation regulation, or strategic petroleum reserve drawdowns.2 6

The international petroleum market is subject to geopolitics, which will occasionally lead to supply disruptions and temporarily higher world prices. But the risk of higher prices must be balanced with the normalcy of price wars and a “buyers’ market,” given an abundant resource base and natural pecuniary incentives to find and market hydrocarbons. Markets learn, adjust, and improve over time as technology and wealth expand. “Market learning” from the 1970s has resulted in increased energy efficiency; greater diversity of supply; enlarged spot-market trading, futures trading, and risk management; and greater integration and alignment of producer interests with consumer interests. 2 7 Future oil crises like those of the 1970s are highly improbable because of the ameliorating effects of the new market institutions.

Transient price flare-ups as a result of politically driven supply reductions are, of course, possible. In the developed world, such “worst-case” events for motorists are not qualitatively, or even quantitatively, different from abnormally cold winters for natural gas consumers and abnormally hot summers for electricity users. They are transient economic burdens, not macroeconomic or national security events worthy of proactive “energy policy.”

World oil markets are more fluid and efficient than ever before, and this improvement can be expected to continue as more economies are liberalized in future decades. Any alleged “energy security premium,” making the social cost of oil greater than its private cost, is small and largely internalized by the market.2 8 Thus investments such as the U.S. Strategic Petroleum Reserve, which holds oil with an embedded cost several times the recent market price of crude oil in present dollars, and international oilsharing agreements in the event of a shortfall, such as those under the auspices of the International Energy Agency, are unnecessary, create bad incentives, and are potentially costly as well.

# \*\*\*AFFIRMATIVE\*\*\*

### Uniqueness – Oil Prices

#### **Non Unique - Oil Prices lowering because of Industry Plans**

Steve Hargreaves, 2012 [March 23, CNN Money Contributor, “The Oil Industry’s Plan to Lower Gas Prices”, <http://money.cnn.com/2012/03/23/news/economy/oil-industry-gas-prices/index.htm>]

The oil industry recently laid out a set of proposals it believes will instantly lower gasoline prices. The proposals call for more domestic oil production, fewer environmental regulations, and for not raising taxes on the industry. They're basically what the Republican presidential candidates are calling for. But analysts say those ideas will do little to [lower gas prices](http://money.cnn.com/2012/03/21/markets/oil-gas-prices-speculators/index.htm?iid=EL) in the short term. Here's why: The industry has long held that this is key to lowering prices, and "unlocking America's energy potential" is a theme all the Republican candidates are touting. The industry has studies saying that if it was [allowed to drill](http://money.cnn.com/2012/02/27/news/economy/oil_boom/index.htm?iid=EL) off both the East and West coasts, on all federal land that isn't a national park and in Alaska's national wildlife refuge, it could produce another 10 million barrels of oil a day by 2030 -- double the nation's current oil output. Eighteen years is a long time to wait. But the industry says that if Obama merely announced such a plan, [oil prices](http://money.cnn.com/data/commodities/?iid=EL) would drop overnight in anticipation of this new production. "Markets are driven by expectations," Jack Gerard, president of the American Petroleum Institute, said on a recent conference call.

#### Non Unique – Oil Prices Lowering because of Rise In Production, Instability in the Middle East, and Drop in Chinese Demand

**CLIFFORD** KRAUSS**, 2012 [5/24, New York Times Contributor, “Gas Prices Modestly Low as Driving Season tarts”,** <http://money.cnn.com/2012/03/23/news/economy/oil-industry-gas-prices/index.htm>**]**

Gasoline prices are dropping primarily because of a decline in global crude oil prices, stemming from an easing of tensions in the Middle East and growing oil supplies, bolstered in recent months by the rapid return of Libyan oil exports and increased production from Saudi Arabia. Because oil is priced in dollars, the firming value of the dollar in recent weeks in the wake of the European financial crisis has also helped reduce prices. The sluggish global economy has also reduced demand for oil and other commodities, particularly in Europe. Demand growth in China, a main driver of oil prices in recent years, has slowed in recent months. And while gasoline demand in the United States has diminished in recent months because of the soft economy, oil supply inventories recently reached a 22-year high.

#### Prices at an 8 month low – demand decreasing, supply expanding

AP, 6/23/12 – Associated Press [Pablo Gorondi, “Oil prices approach eight-month low,” The Star Phoenix, [http://www.thestarphoenix.com/business/prices+approach+eight+month/6829232/story.html](http://www.thestarphoenix.com/business/prices%2Bapproach%2Beight%2Bmonth/6829232/story.html)]

Oil prices made small gains above US$78 a barrel Friday but remained near eight month lows after signs of slowing global economic growth triggered a sharp plunge this week. By early afternoon in Europe, benchmark West Texas Intermediate crude for August delivery was up 33 cents at US$78.53 a barrel in electronic trading on the New York Mercantile Exchange. The contract fell $3.25 to settle at US$78.20, the lowest since October, in New York on Thursday. In London, Brent crude for August delivery was up 98 cents at US$90.21 per barrel on the ICE Futures exchange. Crude fell from $84 earlier this week and has plummeted 26 per cent in less than two months as signs mount of a slowdown in the global economy, led by Europe, that would reduce demand for crude. Reports on Thursday showing industrial production slowing in the U.S. and China added to evidence that the world's two largest economies and oil consumers are weakening just as global crude supplies are growing.

### Uniqueness – Russian Economy

#### Russian economic decline inevitable – Euro crisis, slowing growth, and oil price decline inevitable

Martina Bozadzhieva, 6/7/2012 [Emerging Market Insights, by Frontier Strategy Group, Time to Prepare your Business in Russia for Crisis, http://blog.frontierstrategygroup.com/2012/06/time-to-prepare-your-business-in-russia-for-crisis/]

In the near term, significant external risks loom over the economy. Global oil prices are unsupported by demand-supply fundamentals and are already on their way down; a deeper eurozone crisis will lead to their further decline. Brent prices declined by 25% in the last three months and the worst of the eurozone crisis is still ahead of us. As Russia’s dependence on oil prices has increased since the 2008-2009 financial crisis, the impact of an oil price bust on the economy will be severe – S&P estimates that Russia will enter recession if oil prices fall below US$80 per barrel.

As a result, Russia’s prospects should be a source of concern, rather than optimism: in the short term the economy is slowing, in the medium term the eurozone crisis poses a significant risk of recession, and in the long term there is little reason to expect growth to improve significantly. While none of these risks have fully materialized yet, companies with significant exposure in Russia need to prepare now to respond to them.

#### Russia’s economy is facing harsh times due to the current decrease in gas prices.

Henry Ridgwell (writer for VOA news) 06/13/12 “Falling Oil Prices Prompt Russian Economic Fears” http://www.payvand.com/news/12/jun/1109.html

LONDON - Oil prices have shown a steady fall in the last few months, prompting fears that the Russian economy, which relies heavily on energy exports, could suffer. Meanwhile, new sources of oil are coming on line and helping to drive down the price at the pump. Khanty-Mansiysk in Siberia - home to around 70 percent of Russia's developed oil fields and the source of much of the country's wealth. Russia produces more than 10 million barrels of oil per day - making it a major energy player. Stephen Tindale, an energy economist at the Center for European Reform, said, "Almost half of the Russian government's revenue comes from various taxes on oil and gas exports." ​​Tindale says that leaves the Russian economy highly vulnerable to a fall in oil prices. "It would mean their budget was well out of balance and so would be very serious, short-term, for Putin and the Russian government," he said. In recent weeks, oil prices have begun falling - from around $125 per barrel in March to around $100 by June. For an explanation we have to look back to why prices were high at the beginning of the year, says Paul Stevens at Chatham House, an independent policy institute in London. "Oil demand was beginning to pick up again, supply was being constrained, we had lost Syria, we had lost Yemen, we had lost South Sudan, Libya was still off the market to a certain extent," he said. Stevens says demand is now falling, thanks to fears about the world economy - and that could be bad news for Russian exporters. In addition, Iraq has seen the opening of new oil fields like this one in West Qurna in April. which was developed in partnership with Russian giant Lukoil. Its vice president, Sergei Nikiforov, said, "Today, Iraq and Russia inaugurated the giant oilfield of West Qurna, one of the largest fields discovered in the world." Stevens at Chatham House says developments like this are offsetting the impact of recent geopolitical upheavals. "The supply side has also improved, partially because Iraq has been coming on but more importantly because other OPEC members, particularly Saudi Arabia, have been increasing their production, in part in an effort to offset the loss of Iranian production because of the embargo," he said. While the short-term outlook may be for a slow decline in oil prices, Stevens says a single event, such as an Israeli attack on Iran over its nuclear program, could see prices rocket towards $200 a barrel.

#### Russia’s economy bad now; facing another collapse like 2008.

Neil Buckley June 20, 2012 10:18 pm “Economy: Oil dependency remains a fundamental weakness” <http://www.ft.com/cms/s/0/438712b2-b497-11e1-bb2e-00144feabdc0.html#axzz1yw57Ctoi>

Moscow’s dollar-denominated stock market index is down more than 20 per cent since this year’s mid-March peak, while the rouble has fallen 13 per cent against the dollar. Is Russia’s economy again headed for a fall? Investors might be forgiven for fearing it is 2008 all over again. That year, the stock market began a seven-month, 80 per cent decline from peak to trough, as oil and commodity prices slumped, followed by the collapse of Lehman Brothers in September. Russia’s economy went on to shrink by 7.8 per cent in 2009, the deepest recession of any G20 country. The recent market slides reflect a 20 per cent decline in Brent crude prices since March, which reached $100 a barrel by early June, and intensifying concerns that Greece could crash out of the eurozone, dealing a Lehman-style shock to the global economy. But many analysts say the recent falls are an overreaction typical of Russian markets. The country is in many ways less vulnerable to external shocks than it was four years ago, even though it has become ever more dependent on oil prices. Charles Robertson, global chief economist at Renaissance Capital, the Moscow-based investment bank, says: “In 2008, markets priced Russia as if it was going to offer a repeat of 1998,” referring to the 1990s default on domestic debt. “Now, the markets are pricing Russia like it’s going to be 2008 again.” The foreign debt of banks and companies is much lower than it was four years ago, making the economy less susceptible to a sudden halt to financing and the macroeconomic position also looks robust. Russia has foreign exchange reserves of $500bn, a current account surplus last year of more than 5 per cent of gross domestic product, and public debt below 10 per cent of GDP. Growth was a respectable 4.3 per cent in both 2010 and 2011, and the International Monetary Fund is forecasting 4 per cent growth this year and next. Russia can, of course, never be immune. Sberbank, the country’s biggest bank, warned last month that, if Greece withdrew from the euro in the final quarter of 2012 in an “unregulated” way, Russia’s GDP would contract 2.1 per cent next year. Renaissance Capital says an “orderly” Greek exit would prompt a modest slowdown in Russia’s growth to 2 per cent this year and 2.9 per cent next; a disorderly exit would cause a mild 2013 recession of 0.2 per cent. If Spain also left the euro, Renaissance forecast that Russian output would decline 2.7 per cent this year and 5 per cent in 2013. What is notable about all those forecasts is that they are less severe than Russia’s 2009 recession. But some analysts are more cautious. Russia’s Higher School of Economics warns that if a global slowdown reduced oil prices even to $80 a barrel, the government would quickly burn through its $60bn rainy-day reserve fund to meet its budget obligations. Oil dependency is seen as Russia’s biggest weakness. This year’s budget needs an oil price of more than $120 a barrel to balance, lifting the non-oil deficit, the shortfall excluding oil and gas revenues, to 12.5 per cent of GDP. It was below 5 per cent before 2008. Returning president Vladimir Putin, made some costly election promises which totalled about Rbs10tn ($309bn) by 2018, even excluding ambitious military spending increases, notes Sergei Aleksashenko, a former deputy central bank governor, now director of macroeconomic studies at the Higher School. Oil prices would need to grow by $10 to $15 a year, he adds, otherwise the “budget will not be affordable”, forcing Russia to increase borrowing or reduce spending. Economists have also warned that, with budgetary spending becoming a bigger contributor to growth, and that, in its turn, increasingly funded by oil and gas revenues, Russia is drawing too heavily on its energy wealth.

#### Russian economy plagued with dangerous inflation rates and a slow recovery

Clara Weiss (Writer for Wsws news) 22 February 2012 “Economic crisis in Russia deepens” http://www.wsws.org/articles/2012/feb2012/russ-f22.shtml

With many indicators pointing to a new downturn in the world economy, high-ranking Russian politicians such as Prime Minister Vladimir Putin and Deputy Finance Minister Sergey Storchak warned of “a difficult 2012” at the start of this year. Despite the growth of the country’s GDP by 4.3 percent, there were already signs of recession in 2011. Russia is highly dependent on the export of raw materials. Around 40 percent of the state’s revenues come from the oil and gas sectors. The government’s budget dependence on revenues from these sectors fluctuated between 37 and 47 percent in recent years. Thus, any forecast for Russia’s economic growth depends on the development of oil prices on the world market. The main reason for the GDP growth in 2011 was the relatively high oil price. Experts reckon that an oil price of at least $100 per barrel is necessary to balance the state budget in 2012. Economic growth would require a price of $110 per barrel. The financial crisis of 2008, which sent oil prices through the floor, led to a deep recession in Russia in 2009. The GDP fell by 7.8 percent and the number of unemployed increased from 4 million in the summer of 2008 to 7 million (or 9.3 percent) at the beginning of 2010. Between October and December 2008, production experienced its worst drop in the history of Russia, plummeting by a record 19 percent. The official inflation rate, which reached over 14 percent in 2008, remains high at 6.1 percent. Although GDP grew in 2010 and 2011 by 4 percent and 4.3 percent respectively, it was nowhere near the pre-crisis level of 8.5 percent (2007). The Russian economy thus has recovered more slowly than all other economies of the so-called BRIC countries (Brazil, Russia, India, China). A report on economic development by the Ministry for Education and Sciences of the Russian Federation described these growth rates as “insufficient” to combat poverty and develop the infrastructure. It noted an “obvious deficit of factors for economic growth”.

### Turn – Low Prices Good for Russia

#### If the Russian economy continues to grow at squo levels overheating makes economic downturn inevitable; decrease in oil prices help slow russia’s growth.

Andrey Ostroukh (Financial Correspondent at Reuters )Wednesday, 20 Jun 2012 “Russian economy resilient but falling oil prices pose risk” http://www.cnbc.com/id/47891847/UPDATE\_1\_Russian\_economy\_resilient\_but\_falling\_oil\_prices\_pose\_risk

MOSCOW, June 20 (Reuters) - Falling unemployment and strong capital investment suggest Russia's economy risks overheating in the short term, data showed on Wednesday, but with falling oil prices posing a risk to growth economists do not expect a shift in monetary policy. The International Monetary Fund warned last week that Russia should rein in state spending and look to raise interest rates to prevent the economy from overheating. Data on Wednesday showed the unemployment rate fell to a four-year low of 5.4 percent in May, according to the Federal Statistic Service, while capital investment continued rising at a pace of nearly eight percent year-on-year. "The numbers are very good and unemployment is surprising. It is definitely a sign that the economy is overheating," said Vladimir Osakovsky, economist at Bank of America Merrill Lynch in Moscow. An overheated economy is when a long period of growth leads to high levels of inflation and overproduction caused by rapidly rising wealth, factors that can eventually lead to a recession.

For now inflation appears to be in check. While nominal wages surged 15.1 percent in May from a year earlier and retail sales jumped 6.8 percent, according to data on Wednesday, producer prices fell 2.4 percent in May from April. That makes the central bank unlikely to rush to tighten monetary policy while global financial turmoil persists and falling oil prices pose risks to Russia's export outlook, analysts said. Russia saw $46.5 billion in capital flight in January to May, more than half the $80 billion during the whole of 2011, and as one of the world's biggest exporters of oil it is vulnerable to the subdued global economic environment. Consumer inflation hit a record low of 3.6 percent in May although it is likely to pick up from July due to a planned hike in utility tariffs - postponed from the start of the year as a sop to voters ahead of the March presidential election when Vladimir Putin won a new six-year term. The central bank targets keeping full-year inflation within a range of 5-6 percent. "The macro data clearly suggests that domestic demand remains surprisingly resilient, which fully backs the central bank's current wait-and-see stance. As for the PPI trend, in terms of the overall market factors the outlook remains benign," analysts at ING said in a note. The central bank has kept interest rates on hold this year and financial markets have widely expected it will stick to a wait-and-see stance for the coming months, balancing downside risks to economic growth and the risks of rising inflation. The price of oil, Russia's chief export, has fallen below $100 per barrel this month, posing risks for the country's budget which is based on an assumption that the average oil price in 2012 will stand at $115 per barrel. "Financial markets' volatility and declining oil prices are having a limiting effect on economic growth," said Osakovsky. The government expects the economy to grow by 3.4 percent this year, down from 4.3 percent in 2011. In theory, Russia's strong fundamentals should bode well for the rouble , but as the central bank is granting it more and more flexibility commodity market conditions and global risk perception will have an impact.

#### Decreasing oil prices can only help Russian economy; it will speed up the transition already taking place.

RT (Russian News “TV-Novosti”) June22, 2012 “Lower oil price 'good for Russia'” http://rt.com/business/news/oil-price-russia-economy-497/

Russia will benefit from lower oil prices says Jim O’Neill, Chairman for Goldman Sachs Asset Management. This follows news that Russia is to adopt new policies to make its economy less dependent on the price of crude. ­ "I think it will be good for Russia if oil prices go down”, Jim O’Neill told RT at the St. Petersburg International Economic Forum. Russia’s economy has long been heavily dependent on oil exports. Half of the budget revenues come from oil and gas. ”Russia certainly needs to be not so dependent on the drug of rising oil prices. It has to adopt and change to a quarter balance." And Russia seems to be heading in the right direction. President Vladimir Putin told the St. Petersburg Forum it was not enough to rely on an oil price of 115 dollars per barrel to achieve a deficit-free budget. “We need to diversify our economy away from total reliance on oil revenues, and turn to private capital as a source of growth,” he said. “Russia not only needs a deficit-free budget but a budget with a reserve of resilience.” Putin also said that “budget rules will be adopted soon under which "neither state liabilities, nor budgetary expenditure, nor long-term investment programs will depend on oil prices, and excess profits will go to replenish funds.”

### Turn – Dutch Disease

#### High prices cause Dutch Disease – collapses Russian economy

Neil Buckley, 2012 (Financial Times, “Economy: Oil Dependence Remains a Fundamental Difference,” 6/20, Financial Times, <http://www.ft.com/intl/cms/s/0/438712b2-b497-11e1-bb2e-00144feabdc0.html#axzz1ypkFB0pH)//mat>

Moscow’s dollar-denominated stock market index is down more than 20 per cent since this year’s mid-March peak, while the rouble has fallen 13 per cent against the dollar. Is Russia’s economy again headed for a fall? Investors might be forgiven for fearing it is 2008 all over again. That year, the stock market began a seven-month, 80 per cent decline from peak to trough, as oil and commodity prices slumped, followed by the collapse of Lehman Brothers in September. Russia’s economy went on to shrink by 7.8 per cent in 2009, the deepest recession of any G20 country. The recent market slides reflect a 20 per cent decline in Brent crude prices since March, which reached $100 a barrel by early June, and intensifying concerns that Greece could crash out of the eurozone, dealing a Lehman-style shock to the global economy. But many analysts say the recent falls are an overreaction typical of Russian markets. The country is in many ways less vulnerable to external shocks than it was four years ago, even though it has become ever more dependent on oil prices. Charles Robertson, global chief economist at Renaissance Capital, the Moscow-based investment bank, says: “In 2008, markets priced Russia as if it was going to offer a repeat of 1998,” referring to the 1990s default on domestic debt. “Now, the markets are pricing Russia like it’s going to be 2008 again.” The foreign debt of banks and companies is much lower than it was four years ago, making the economy less susceptible to a sudden halt to financing and the macroeconomic position also looks robust. Russia has foreign exchange reserves of $500bn, a current account surplus last year of more than 5 per cent of gross domestic product, and public debt below 10 per cent of GDP. Growth was a respectable 4.3 per cent in both 2010 and 2011, and the International Monetary Fund is forecasting 4 per cent growth this year and next. Russia can, of course, never be immune. Sberbank, the country’s biggest bank, warned last month that, if Greece withdrew from the euro in the final quarter of 2012 in an “unregulated” way, Russia’s GDP would contract 2.1 per cent next year. Renaissance Capital says an “orderly” Greek exit would prompt a modest slowdown in Russia’s growth to 2 per cent this year and 2.9 per cent next; a disorderly exit would cause a mild 2013 recession of 0.2 per cent. If Spain also left the euro, Renaissance forecast that Russian output would decline 2.7 per cent this year and 5 per cent in 2013. What is notable about all those forecasts is that they are less severe than Russia’s 2009 recession. But some analysts are more cautious. Russia’s Higher School of Economics warns that if a global slowdown reduced oil prices even to $80 a barrel, the government would quickly burn through its $60bn rainy-day reserve fund to meet its budget obligations. Oil dependency is seen as Russia’s biggest weakness. This year’s budget needs an oil price of more than $120 a barrel to balance, lifting the non-oil deficit, the shortfall excluding oil and gas revenues, to 12.5 per cent of GDP. It was below 5 per cent before 2008. Returning president Vladimir Putin, made some costly election promises which totalled about Rbs10tn ($309bn) by 2018, even excluding ambitious military spending increases, notes Sergei Aleksashenko, a former deputy central bank governor, now director of macroeconomic studies at the Higher School. Oil prices would need to grow by $10 to $15 a year, he adds, otherwise the “budget will not be affordable”, forcing Russia to increase borrowing or reduce spending. Economists have also warned that, with budgetary spending becoming a bigger contributor to growth, and that, in its turn, increasingly funded by oil and gas revenues, Russia is drawing too heavily on its energy wealth. That drives up prices and costs, crowds out private sector investment and makes manufacturing uncompetitive, all classic symptoms of the so-called Dutch disease. This hinders what should be its main policy aim: diversifying the economy away from reliance on extractive industries.

#### Lowering prices are critical to prevent Dutch Disease from ravaging the Russian economy and they can handle major price drops

Evans-Pritchard, 8 (Ambrose,. Int'l Business Editor for The Telegraph (London). "Russian economy succumbs to the oil curse," 2/5, <http://www.telegraph.co.uk/money/main.jhtml?xml=/money/2008/02/04/ccview104.xml>.

This is the curse of commodity wealth, the "Dutch Disease" that eats at the competitive foundations of an economy and incubates a parasite culture. No doubt Russia's scientists, engineers, and cyber talent, will enrich the country, but first it must overcome the toxic effects of oil at $90 a barrel. "We can no longer afford to buy Russian equipment," said Yevgeny Ivanov, head of Polyus Gold. "The prices here are one and a half times higher than abroad so we're having to break our rigid rule and turn to foreign-made machinery. It is bad news for Russian firms. The commodity super-cycle is catching up with us through higher prices. It is a disheartening picture," he said. "There's no infrastructure, no power, no roads. Electricity costs twice what they pay in Alaska and Canada. We face a Soviet bureaucracy passing decrees that make you weep," he said. The government has declared an infrastructure emergency. Russia has hit the limits of durable growth on today'srickety foundations**.** China has built 25,000 miles of highways since 1988, Russia a few hundred. President Vladimir Putin has ordered a $1 trillion blitz on ports, highways, power grids, and water plants over seven years. Some 2,600 miles of road are planned each year, starting with the St Petersburg "High-Speed Diameter" and the $3bn Helsinki Expressway. Bouygues and Bechtel are battling for the first tender. Around $200bn is to come from state coffers: the rest from industry and banks. Taken together, the scheme is the biggest project in the world outside China. Finance minister Alexei Kudrin said the railways alone would need $440bn by 2030. "We are prepared to guarantee foreign investors a high level of return," he said. Hence the pinstripe and Blackberry brigade descending on Moscow. There were no visible tourists on my BA flight from London. Two thirds of the aircraft was business class, a telling sign. The infrastructure edict comes late. The economy is already over-heating. Inflation has hit 12pc, despite Soviet price controls on food. Factory gate prices are up 25pc. Yet the all-conquering rouble rises, strapped to oil. This is double strangulation. "The government must bring down inflation, there is no other way," said Andrew Bosomworth, head of PIMCO in Europe. "Interest rates [7pc] are negative in real terms. It will encourage borrowing until the cows come home," he said. Car sales rose 67pc last year to $53bn, imported Audis and Renaults by the look of it. The current account surplus will shrivel to 2.6pc of GDP this year, down from 9.5pc two years ago. The oil bonanza is draining into shopping malls. "We believe the trade surplus will disappear before the end of 2009," said Danske Bank. The slippage is ominous with oil, gas, and metals near historic highs. They make up 80pc of exports. "Russia has all the classical symptoms of the Dutch Disease," said a World Bank report. "Firms have largely exhausted the productivity gains derived from idle capacity and labour shedding after the 1998 crisis," it said. This feels like the late phase of the 1970s oil boom, when Mexicans briefly thought they walked on water. The sequel was not happy. Eighty cents on every dollar above $27 a barrel goes to the state. Energy rents fund 48pc of the budget. Yet the fiscal surplus has halved in two years. Plans are now afoot to lavish funds on long-suffering pensioners. One sympathises, but this is how macro-blunders occur. Mr Kudrin is chopping his figures as fast as Alistair Darling. The budget surplus will be 2.8pc in 2007, not 4.8pc as expected. If a US-British-Club Med-Japanese recession knocks oil down to $50, Russia faces a crunch. Ex-premier Yegor Gaidar said Russia is ready this time. "It won't be a catastrophe. We can easily adjust because of our accumulated reserves," he said. Perhaps, but the credit markets are sniffing Russia-risk. Even Gazprom is paying much higher spreads. "The bond market effectively shut down in October," said Commerzbank. The Oil Stabilization Fund was supposed to inoculate Russia against the curse by siphoning revenues out the domestic economy. Certainly it helps. There will be no repeat of 1998 default. Russia has paid off its foreign debt. The oil fund ($157bn) and foreign reserves ($470bn) are enough to deflect anything short of financial cataclysm.

#### Reliance on oil prevents diversification – guarantees long term collapse

Kline Blogs 10, Kline is a worldwide consulting and research firm dedicated to providing the kind of insight and knowledge that helps companies find a clear path to success, Can Russia Shake Its Dependence on Energy Exports?, 10-29-10, http://blogs.klinegroup.com/2010/10/29/can-russia-shake-its-dependence-on-energy-exports/

Russia boasts an abundance of energy reserves, which make up a significant proportion of the country’s total commodity exports. Along with metals and other precious commodities, oil and gas exports are key contributors to the growth of the Russian economy. While energy exports generated rapid economic growth before the recession, Russia paid dearly for this dependence during the global economic downturn.

When energy prices were high, Russia saw a massive influx of foreign credit and increased consumer spending. Prior to the recession, foreign investors poured nearly $500 billion into large state firms and private companies, overheating the economy. Once oil prices dropped, energy exports and consumer demand collapsed, subjecting Russia to a sharp economic decline. Gross domestic product shrank by 7.9 percent in 2009 after having posted growth of 8.1 percent in 2007 and 5.6 percent in 2008.

The downturn in the economy affected all key Russian business sectors. General industrial production, mining, and primary metal production all showed significant double-digit declines in 2009. Automotive sales fell by nearly 60 percent in the same year, as consumption dwindled in consequence of increasing unemployment rates. Closely associated with industrial production and transportation, demand for lubricants dropped by 28 percent in 2009 compared to 2008 figures.

Immediate action taken by the government to alleviate the impact of the recession was a U.S. $200 billion rescue plan, aimed at increasing liquidity in the financial sector. A further $20 billion was infused in the economy in the form of tax cuts and subsidies to consumers and industries. Positive response has come from some industries. For example, the “cash for clunkers” program helped increase sales in the automotive industry.

Going forward, these events indicate, that Russia needs to diversify its economy and find new drivers of economic growth. The government seems to be taking steps in this direction. The Russian government is soliciting investments to create and grow new industry clusters such as information technology, communications, biomedicine, and nuclear energy. The government is also seeking to grow investments to develop innovative and green technologies, improve energy efficiencies in its old industries, and improve its infrastructure. To facilitate these investments, Russia has reduced the number of industries which are “strategic” and hence off-limits for foreign investors. Russia is also considering eliminating capital gains tax on long term direct investment in these preferred industries and offering tax breaks for companies investing in innovative and green technologies.

### Impact Turn – US Heg

#### High oil prices undermines US heg and results in Russian modernization

John T. Bennett, 4/3/2012 [JD, Emory University, MA in social policy from University of Chicago, writer for US News and World Report, Oil Prices Fueling Russia’s Disruption of U.S. Foreign Policy, http://www.usnews.com/news/articles/2012/04/03/oil-prices-fueling-russias-disruption-of-us-foreign-policy]

Russia, once an old foe, is again proving to be a major obstacle for America's foreign interests, and will continue to be a thorn in the country's side as long as oil prices remain high.

Russian leaders have made the Obama administration's efforts to pressure Iran into giving up its nuclear weapon ambitions difficult at every turn. Moscow has also joined China in rejecting a U.N. measure that would strike a diplomatic blow to Syrian president Bashir al-Assad, frustrating White House officials.

The White House will also likely seek new, harsh sanctions against North Korea if it launches a long-range rocket that could one day be fitted with a nuclear weapon capable of hitting U.S. turf. But experts say again that Moscow—along with support from Beijing— will likely stand in the way.

Russia's return to the fore as a check against America's global whims has escalated in recent months, as Russian Prime Minister Vladimir Putin was elected as President, and is setting his agenda for a third term.

U.S.-Russian relations returned to the front pages last week after Obama urged outgoing Russian President Dmitry Medvedev to "give me space" on several issues, including a European missile defense shield that Moscow opposes. Likely GOP presidential nominee Mitt Romney soon after called Russia America's "top geopolitical enemy."

"Putin still aspires for Russia to be a superpower," says Steven Pifer, a former U.S. ambassador to Ukraine. "There are only two ways for Russia to achieve that: nuclear weapons, and oil and natural gas sales."

The price of a barrel of oil was nearly $105 at midday Tuesday, steadily climbing from a 52-week low of $76.35 per barrel in October. Oil prices began to rise in late 2010, peaking at $113 per barrel in May 2011, before dipping last summer and then rising again.

Russia is the world's second-largest oil exporter at 5 million barrels a day, and its the ninth-leading natural gas exporter at 38.2 billion cubic meters a year, according to the CIA World Factbook. Russia rakes in nearly $500 billion annually in exports, with the CIA listing petroleum and natural gas as its top two commodities.

Frances Burwell, vice president of the Atlantic Council, says Russia's oil revenues "give it a comfort zone" from which its leaders feel they have the global cache to make things tough for Washington.

Burwell says she "places more weight" for Russia's recent global muscularity on "Putin's re-emergence." The Russian once-and-soon-again president "clearly sees playing the national card as the strong guy internationally benefits him," she says.

But, make no mistake, bloated national coffers from high oil and gas prices underwrite Putin's muscle-flexing, experts say.

Putin made a number of big domestic promises during the presidential race, including plans to usher in sweeping pension and wage hikes. He also put forth "a rather ambitious military modernization program," Pifer says.

"If oil prices remain high, he might be able to do all of those things," Pifer says. "If prices come down, however, Putin will have some very tough decisions to make at home ... between guns versus butter."

Should oil and gas prices tumble, experts say Putin would likely pick butter.

"In 2007 when oil was doing well, Putin [as president] could have modernized the Russian military," says Pifer. Instead, Putin made a number of economic moves, such as the creation of a rainy day fund that was used during the recent global financial crisis," Pifer notes.

#### Hegemony prevents global instability and major war --- no viable replacement

Robert Knowles 9, Assistant Professor – New York University School of Law, AMERICAN HEGEMONY AND THE FOREIGN AFFAIRS CONSTITUTION, Arizona State Law Journal, Vol. 41, 2009

First, the “hybrid” hegemonic model assumes that the goal of U.S. foreign affairs should be the **preservation of American hegemony**, which is **more stable, more peaceful, and better for** America’s **security and prosperity, than the alternatives**. If the **U**nited **S**tates **were to withdraw from its global leadership role, no other nation would be capable of taking its place**.376 **The result would be radical instability and a greater risk of major war.**377 In addition, the United States would no longer benefit from the public goods it had formerly produced; as the largest consumer, it would suffer the most.

#### These conflicts go nuclear --- leadership diffuses them

Robert Kagan 7, senior associate at the Carnegie Endowment for International Peace and senior transatlantic fellow at the German Marshall Fund, August/September 2007, The Hoover Policy Review, http://www.hoover.org/publications/policyreview/8552512.html

The jostling for status and influence among these ambitious nations and would-be nations is a second defining feature of the new post-Cold War international system. Nationalism in all its forms is back, if it ever went away, and so is international competition for power, influence, honor, and status. American predominance prevents these rivalries from intensifying —  its regional as well as its global predominance. Were the United States to diminish its influence in the regions where it is currently the strongest power, the other nations would settle disputes as great and lesser powers have done in the past: sometimes through diplomacy and accommodation but often through confrontation and wars of varying scope, intensity, and destructiveness. One novel aspect of such a multipolar world is that most of these powers would possess nuclear weapons. That could make wars between them less likely, or it could simply make them more catastrophic**.**

### Impact Defense—Resiliency

#### Russian economy’s resilient

Garrels 8 [Anne, writer for NPR, “Russian Economy Strong Despite Commodity Fallout,” 9/20, http://www.npr.org/templates/story/story.php?storyId=94647099]

For the past six years, Russia's economy has boomed in large part because of soaring prices for oil and metals. Russia is strong in these areas — too strong, though, for a balanced economy.

Russian shares have bled almost 50 percent of their value since May, but many analysts say Russia still remains a resilient economy. And after the Georgia invasion and weeks of harsh, anti-western rhetoric, both Russian President Dmitri Medvedev and Prime Minister Vladimir Putin have tried to reassure foreign investors.

When those commodities prices dropped, Russia's stock market was hit hard.

"The question is if they fall significantly further," says James Fenkner with Red Star Assets in Moscow.

Fenkner is one of the more cautious voices in Moscow, and other analysts like Roland Nash of Renaissance Capital look at other indicators, like direct foreign investment.

"The level of foreign investment is twice the per capita of Brazil, four times that of China, and six times that of India this year," Nash says. "The market arguments for Russia are still very good and there is still a lot of money coming in."

Too Dependent On Commodities

The Russia government recognizes it is too dependent on commodities, and while their prices were high, it amassed huge reserves as a cushion. The country now has a balanced budget and financial analysts predict its economy will continue to grow at about six percent.

Vladmir Tikhomirov, senior economist at Uralsib Financial Corporation, says this is enough to avoid a crisis, but it is not what the Kremlin hoped for.

#### Russia’s adapted to market cycles and recession

RIA Novosti 9 [“Russia’s handling of crisis shows ‘civilized economy’ – Kudrin,” 12/23, http://en.rian.ru/business/20091223/157333298.html]

Russia's handling of the effects of the global economic crisis has shown that the country has become a civilized market economy, Finance Minister Alexei Kudrin said on Wednesday.

The Russian economy was hard-hit by the economic crisis in late 2008, with the Russian government devaluing the ruble and cutting spending. However, starting from the third quarter of this year, the economy has resumed growth.

Kudrin said the ongoing crisis can be compared to the transitional period in the 1990s when the economy shrank 50%, inflation soared to more than 80% a year, and household incomes plummeted 16%.

"But now we have started to live within the framework of market mechanisms and market cycles. We experienced this world cycle ourselves, and we acted in a civilized manner," Kudrin said.

### Impact Defense—Russian Expansionism

No risk of Russian expansionism or aggression---they’re far too weak

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But this last scenario, among the worst anyone can come up with, is not at all dismal. Consider this: had power in Russia at a particularly fragile moment in 1917 not been wrested by the Bolsheviks, it is entirely possible—likely even—that (over the course of the twentieth century) Russia would have evolved into a poorer, slightly more corrupt and unstable version of France and Germany, anchored to Europe, where most of Russia’s population is in any case located. The seventy-year Bolshevik interregnum which created a non-European empire is now past, the strongly European configuration of Russian demography remains unchanged, and now–Prime Minister Vladimir Putin’s fitfully modernizing national-security state has no ideology to impose outside its borders, nor troops available to permanently occupy Eastern Europe like it did during the Cold War. In short, Russia is demographically tied to the Continent but finds it hard to dominate it. Meanwhile, Germany, as its economy and power amplify, may be forced to become a normal regional actor able to balance against Russia; in the process it might lose its quasi pacifism. Moreover, Moscow, as a fading European power, presents the United States with options because of Russia’s own manifold insecurities. Any new Russian empire will be a weak reincarnation of previous ones, limited not only by Chinese influence in the Russian Far East but by Chinese political and economic influence in Muslim Central Asia as well. Newly vibrant states like China, India, Turkey, Poland and Kazakhstan are already containing Russia after a fashion. America’s goal must be to support Russia’s consolidation of its own Far East, so that China will feel less secure on land and consequently be unable to so completely devote its energies to sea power. Balancing against Russia in Europe and yet helping it abroad is the kind of subtle strategy that would help guard against any one nation achieving the level of dominance elsewhere that America already enjoys in the Western Hemisphere.

Russia’s not a threat --- no military power or resources

Friedman 9 [George, CEO of Stratfor and former professor of political science at Dickinson College, “The Geopolitical Western View of Russia,” STRATFOR, http://www.marketoracle.co.uk/index.php?name=News&file=article&sid=13135]

While the nuclear balance remains, by itself it is hollow. Without other dimensions of Russian power, the threat to engage in mutual assured destruction has little meaning. Russia’s military could re-evolve to pose a Eurasian threat; as we have pointed out before, in Russia, the status of the economy does not historically correlate to Russian military power. At the same time, it would take a generation of development to threaten the domination of the European peninsula — and Russia today has far fewer people and resources than the whole of the Soviet Union and the Warsaw Pact that it rallied to that effort. Finally, while Russia could certainly fund insurgencies, the ideological power of Marxism is gone, and in any case Russia is not a Marxist state. Building wars of national liberation around pure finance is not as easy as it looks. There is no road back to the Cold War. But neither is there a road back to the post-Cold War period.

### Impact Defense—US/Russian War

#### Reset in relations succeeding – reduces chance of nuclear conflict.

NSN 10 (National Security Network, “A 21st Century U.S.-Russian Relationship,” July12, 2010, http://www.nsnetwork.org/node/1658)

U.S.-Russian reset has facilitated several successes for U.S. national security. The Administration has worked to reverse the frayed U.S.-Russian relationship after years of shaky relations under President Bush. The reset has solidified cooperation on areas of mutual interest and resulted in several successes. Reduces the threat of nuclear weapons: The New Strategic Arms Reduction Treaty (New START) locks in a stable, transparent nuclear relationship and limits the strategic nuclear arsenals of Russia and the United States, the world's two largest nuclear powers. [National Security Network, 6/25/10] Unprecedented cooperation toward Iran: The U.S. garnered Russian support for strong international sanctions against Iran, a move which later resulted in the cancellation of the long-planned sale of Russian S-300 air defense missiles to Iran. [Washington Times, 6/22/10] Stability for Eastern European allies: "In recent months, American officials have worked visibly to bolster regional confidence through NATO contingency planning, Patriot missiles in Poland, military exercises in the Baltic and Black Seas, the creation of strategic consultative mechanisms and forward movement on the new missile defense architecture." [Mark Brzezinski and A. Wess Mitchell, NY Times, 4/7/10] Over-flight privileges for U.S. troops and supplies headed to Afghanistan: The Afghanistan Air Transit Agreement and Russia's participation in the Northern Distribution Network have facilitated critical ground and air transit for U.S. troops and supplies headed to Afghanistan. [Samuel Charap, Center for American Progress, 4/10]

#### Stable deterrence – no risk of nuclear conflict.

Blair et al. 10 (Bruce Blair Ph.D., Col.-Gen. (Ret.) Victor Esin Ph.D., Matthew McKinzie Ph.D., Col. (Ret.) Valery Yarynich Ph.D., and Maj.-Gen. (Ret.) Pavel Zolotarev Ph.D., “One Hundred Nuclear Wars: Stable Deterrence between the United States and Russia at Reduced Nuclear Force Levels Off Alert in the Presence of Limited Missile Defenses -- Technical Appendix to “Smaller and Safer: A New Plan for Nuclear Postures,”” Foreign Affairs, Volume 89, No. 5 A GLOBAL ZERO WORKING PAPER: VERSION 09/02/2010, http://www.globalzero.org/files/FA\_appendix.pdf)

Deterrence in our view is the possibility of keeping a sufficient size of retaliation at a given probability. The specter of retaliation is the foundation of deterrence. Uncertainty is an important aspect of nuclear conflict that bolsters the fear of retaliation to attack. However, if we wish to reduce nuclear arms to low levels, this uncertainty must be specified well enough to impart knowledge of the possible outcome of a nuclear exchange.

The stability of deterrence depends strongly on the configuration and capabilities of forces on both sides. The current status of nuclear deterrence – including a significant launch on warning capability from a sizable portion of the nuclear arsenals on alert – is stable, in that neither the United States nor Russia could strike first without the risk of devastating retaliation: neither country could mount a disarming first strike. A solution to a stable nuclear deterrent with all forces off alert, put forward here, is to divide the nuclear forces of both countries into distinct groups, termed Echelons, with different degrees of reduced combat readiness (i.e., different generation times to launch-ready status). By “echeloning” the forces, a stable nuclear deterrent whole is constructed from more vulnerable, de-alerted parts.

###  Impact Defense—AT: Bostrom

#### US-Russia war doesn’t cause extinction

Nick Bostrom 7 - Future of Humanity Institute, Faculty of Philosophy & James Martin 21st Century School, Oxford University, 2009 Gannon Award Recipient, The Future of Humanity, 2007, www.nickbostrom.com/papers/future.pdf

Extinction risks constitute an especially severe subset of what could go badly wrong

for humanity. There are many possible global catastrophes that would cause immense worldwide damage, maybe even the collapse of modern civilization, yet fall short of terminating the human species. An all-out nuclear war between Russia and the United States might be an example of a global catastrophe that would be unlikely to result in extinction. A terrible pandemic with high virulence and 100% mortality rate among infected individuals might be another example: if some groups of humans could successfully quarantine themselves before being exposed, human extinction could be avoided even if, say, 95% or more of the world’s population succumbed. What distinguishes extinction and other existential catastrophes is that a comeback is impossible. A non-existential disaster causing the breakdown of global civilization is, from the perspective of humanity as a whole, a potentially recoverable setback: a giant massacre for man, a small misstep for mankind.

U.S. - Russia nuclear war will be limited

Oelrich 5 - Vice President for Strategic Security programs @ Federation of American Scientists

[Ivan Oelrich (Former professor of physics @ Technical University of Munich and Former pre-doctoral Research Associate at Lawrence Livermore National Laboratory),“Missions for Nuclear Weapons after the Cold War,” The Federation of American Scientists, Occasional Paper No. 3, January 2005]

What has not happened since the end of the Cold War is a recalibration of our deterrence requirements based on the changes in the stakes. The Cold War analyses of nuclear wars took little regard of what the war might have been about, implicitly assuming it would be about national survival and world leadership. Today the stakes are, overall, much smaller. Indeed, it is nearly impossible to conjure up even hypothetical areas of conflict between the United States and Russia with stakes remotely comparable to those of the Cold War or even a crisis that could rationally justify nuclear weapons. Where the stakes are high–for example, the ongoing tension between Islamic fundamentalism and the West–the role of nuclear retaliation is limited.

###  Impact Defense—US/Russian Relations

Disagreements don’t affect overall relations --- Russia has strong incentives to cooperate

Shoumikhin 5 [Andrei, senior analyst at the National Institute for Public Policy, “Russian Probes on Arms Control Regimes,” National Institute for Public Policy, http://www.nipp.org/Publication/Downloads/Publication%20Archive%20PDF/July%2005%20web%20article.pdf, p.18]

A particular problem for Moscow is finding the right kind of balance between cooperation and competition with the U.S. On the one hand, it needs Western assistance and support in resolving such overwhelming problems as getting rid of obsolescent military hardware and dangerous materials: nuclear, chemical, biological, etc., and assuring security and safety at numerous installations that carry WMD and related materials. On the other hand, given its vulnerability to internal pressures, it does not want to “lose face” by relinquishing “too much control” over such installations to foreign powers. The controversy over these matters linked to the Bratislava summit serve as an illustration to the so-far unresolved dilemma in front of the Russian leaders. At the current stage, Russia remains generally disposed to compromises with the U.S. and NATO. Moscow will hardly allow recurring disagreements to grow into outright conflicts that may disrupt the relationships it was meticulously trying to construct over the past decade. If nothing else, the example of several neighboring CIS countries that went through sudden albeit peaceful regime changes should teach the Russian leaders caution. Western support, or at least neutrality, is also badly needed in dealing with the remaining internal challenges of secessionism, irredentism, terrorism, etc.

###  Impact Defense—AT: David 99/Civil War

No risk of any doomsday scenario from Russian civil war

Angela E. Stent, professor of government and foreign service, and director of the Center for Eurasian, Russian and East European Studies at Georgetown University, Winter 2003, World Policy Journal, p. 75-76

Using extensive interviews with participants in all three administrations, and memoirs by former officials, they paint a compelling picture of officials often overwhelmed by the challenge of an entirely new reality. The unexpected collapse of communism and of the Soviet Union, coming just after the Gulf War, left them with no road map to understand how Russia and other post-Soviet states might develop. Nightmare scenarios suggested themselves: nuclear war between Russia and Ukraine; weapons proliferation on a terrifying scale; Yugoslav-type ethnically based civil war on the territory of the former Soviet Union; mass starvation; economic collapse—the ominous possibilities were endless. That these “dogs did not bark” is testimony to the unwillingness of people in the post-Soviet space to engage in armed conflict and to Western assistance that staved off famine and economic collapse. The failure of catastrophic scenarios to come about is one indicator of success—but if one were to measure America’s contribution to transforming Russia in more positive ways, the evidence is more mixed. If a minimalist definition of success was the absence of catastrophe, the maximalist definition was the creation of a fully functioning democracy in Russia with a transparent market economy and the rule of law. That has not happened yet, and it is unclear when it will. So far, there is no consensus about what would constitute a realistic timetable for Russia’s democratic development.

### Impact Defense—Russia/China War

#### Zero chance of war---economic ties in border regions are increasing and both sides perceive a stake in interdependence

Spears 9 – Collin Spears, Chief Foreign Policy Correspondent for the Brooks Foreign Policy Review, May 1, 2009, “Leering Bear, Rising Dragon: Life Along the Sino-Russian Border,” Brooks Foreign Policy Review, http://brooksreview.wordpress.com/2009/05/01/leery-bear-rising-dragon-life-along-the-sino-russian-border/

The Chinese government declared 2006, The “Year of Russia”; and in turn, Russia celebrated 2007 as “The Year of China.” These mutual pronouncements were part of a decade long rapprochement between the two states. After many years of mutual acrimony and suspicion the barriers that divide the two nations have abated, replaced by a bridge of pragmatism. This new relationship, based on mutual resentment of global Western dominance and a shared interest in Central Asian security; has an unintended consequence: both nations are seeing increased economic interaction on their border. Conversely, this contact has fed lingering paranoia and insecurity in Russia, a former great power that is seeing itself eclipsed economically and politically by China, a state it once considered a “little brother.” Less then a decade ago, this was reflected in an ominous warning given by Russian Prime Minister Vladimir Putin, ”If we don’t make concrete efforts…the future local population will speak Japanese, Chinese or Korean” (Wines 2001). Currently, the Russian political elite are not publicly expressing fear of territorial encroachment and potential colonization, but these attitudes are increasing in the general population. This xenophobic sentiment is an outgrowth of reawakened Russian nationalism, which has served as a swathe for the disillusionment that came from loss of empire. However, to have a truly constructive engagement with China, Russia must move beyond its historic tendency to loath any nation along its periphery it cannot dominate.

###  Impact Defense—Accidental Launch

#### No escalation to full-scale war

Kislov 93

(Alexander K. Kislov, Deputy Director of the Institute of World Economics and International Relations of the Russian Academy of Sciences, Inadvertent Nuclear War: The Implications of the Changing Global Order, Ed. by Wiberg, Petersen, and Smoker, 93, p. 239-240)

A deliberate nuclear war between East and West is out of the question; but what about a war caused by chance factors? An accidental or unauthorized launching of a missile or even of several missiles (in itself highly improbable) is unlikely to bring about a full-scale war when neither side has any incentive for it. We assume a very small probability of a very limited (‘automatic’ or unauthorized) reaction and a close-to-zero probability of a very limited authorized ‘retaliation’; this is the maximal assumption that is possible if we want to remain realistic. There should thus be no question of an accidental East-West nuclear war, today or in a foreseeable future. We may imagine an accidental missile launch or an accidental explosion of some nuclear charge, an accidental nuclear strike or even an accidental nuclear conflict; but an accidental nuclear war for instance between the United States and our country is unimaginable.

###  Impact Defense—Accidental Launch

#### No Russian accidental launch --- it’d only go off in response to an actual nuclear detonation and even then human intervention can still prevent launch

Nicholas Thompson 9, Senior editor – Wired, Inside the Apocalyptic Soviet Doomsday Machine, Wired, 9-21-09,[[\*\* Valery Yarynich glances nervously over his shoulder. Clad in a brown leather jacket, the 72-year-old former Soviet colonel]]

Perimeter ensures the ability to strike back, but it's no hair-trigger device. It was designed to lie semi-dormant until switched on by a high official in a crisis. Then it would begin monitoring a network of seismic, radiation, and air pressure sensors for signs of nuclear explosions. Before launching any retaliatory strike, the system had to check off four if/then propositions: If it was turned on, then it would try to determine that a nuclear weapon had hit Soviet soil. If it seemed that one had, the system would check to see if any communication links to the war room of the Soviet General Staff remained. If they did, and if some amount of time—likely ranging from 15 minutes to an hour—passed without further indications of attack, the machine would assume officials were still living who could order the counterattack and shut down. But if the line to the General Staff went dead, then Perimeter would infer that apocalypse had arrived. It would immediately transfer launch authority to whoever was manning the system at that moment deep inside a protected bunker—bypassing layers and layers of normal command authority. At that point, the ability to destroy the world would fall to whoever was on duty: maybe a high minister sent in during the crisis, maybe a 25-year-old junior officer fresh out of military academy. And if that person decided to press the button ... If/then. If/then. If/then. If/then. Once initiated, the counterattack would be controlled by so-called command missiles. Hidden in hardened silos designed to withstand the massive blast and electromagnetic pulses of a nuclear explosion, these missiles would launch first and then radio down coded orders to whatever Soviet weapons had survived the first strike. At that point, the machines will have taken over the war. Soaring over the smoldering, radioactive ruins of the motherland, and with all ground communications destroyed, the command missiles would lead the destruction of the US. The US did build versions of these technologies, deploying command missiles in what was called the Emergency Rocket Communications System. It also developed seismic and radiation sensors to monitor for nuclear tests or explosions the world over. But the US never combined it all into a system of zombie retaliation. It feared accidents and the one mistake that could end it all. Instead, airborne American crews with the capacity and authority to launch retaliatory strikes were kept aloft throughout the Cold War. Their mission was similar to Perimeter's, but the system relied more on people and less on machines. And in keeping with the principles of Cold War game theory, the US told the Soviets all about it. The first mention of a doomsday machine, according to P. D. Smith, author of Doomsday Men, was on an NBC radio broadcast in February 1950, when the atomic scientist Leo Szilard described a hypothetical system of hydrogen bombs that could cover the world in radioactive dust and end all human life. "Who would want to kill everybody on earth?" he asked rhetorically. Someone who wanted to deter an attacker. If Moscow were on the brink of military defeat, for example, it could halt an invasion by declaring, "We will detonate our H-bombs." A decade and a half later, Stanley Kubrick's satirical masterpiece Dr. Strangelove permanently embedded the idea in the public imagination. In the movie, a rogue US general sends his bomber wing to preemptively strike the USSR. The Soviet ambassador then reveals that his country has just deployed a device that will automatically respond to any nuclear attack by cloaking the planet in deadly "cobalt-thorium-G." "The whole point of the doomsday machine is lost if you keep it a secret!" cries Dr. Strangelove. "Why didn't you tell the world?" After all, such a device works as a deterrent only if the enemy is aware of its existence. In the movie, the Soviet ambassador can only lamely respond, "It was to be announced at the party congress on Monday." In real life, however, many Mondays and many party congresses passed after Perimeter was created. So why didn't the Soviets tell the world, or at least the White House, about it? No evidence exists that top Reagan administration officials knew anything about a Soviet doomsday plan. George Shultz, secretary of state for most of Reagan's presidency, told me that he had never heard of it. In fact, the Soviet military didn't even inform its own civilian arms negotiators. "I was never told about Perimeter," says Yuli Kvitsinsky, lead Soviet negotiator at the time the device was created. And the brass still won't talk about it today. In addition to Yarynich, a few other people confirmed the existence of the system to me—notably former Soviet space official Alexander Zheleznyakov and defense adviser Vitali Tsygichko—but most questions about it are still met with scowls and sharp nyets. At an interview in Moscow this February with Vladimir Dvorkin, another former official in the Strategic Rocket Forces, I was ushered out of the room almost as soon as I brought up the topic. So why was the US not informed about Perimeter? Kremlinologists have long noted the Soviet military's extreme penchant for secrecy, but surely that couldn't fully explain what appears to be a self-defeating strategic error of extraordinary magnitude. The silence can be attributed partly to fears that the US would figure out how to disable the system. But the principal reason is more complicated and surprising. According to both Yarynich and Zheleznyakov, Perimeter was never meant as a traditional doomsday machine.—Impact Defense—Accidental Launch

The Soviets had taken game theory one step further than Kubrick, Szilard, and everyone else: They built a system to deter themselves. By guaranteeing that Moscow could hit back, Perimeter was actually designed to keep an overeager Soviet military or civilian leader from launching prematurely during a crisis. The point, Zheleznyakov says, was "to cool down all these hotheads and extremists. No matter what was going to happen, there still would be revenge. Those who attack us will be punished." And Perimeter bought the Soviets time. After the US installed deadly accurate Pershing II missiles on German bases in December 1983, Kremlin military planners assumed they would have only 10 to 15 minutes from the moment radar picked up an attack until impact. Given the paranoia of the era, it is not unimaginable that a malfunctioning radar, a flock of geese that looked like an incoming warhead, or a misinterpreted American war exercise could have triggered a catastrophe. Indeed, all these events actually occurred at some point. If they had happened at the same time, Armageddon might have ensued. Perimeter solved that problem. If Soviet radar picked up an ominous but ambiguous signal, the leaders could turn on Perimeter and wait. If it turned out to be geese, they could relax and Perimeter would stand down. Confirming actual detonations on Soviet soil is far easier than confirming distant launches. "That is why we have the system," Yarynich says. "To avoid a tragic mistake. " The mistake that both Yarynich and his counterpart in the United States, Bruce Blair, want to avoid now is silence. It's long past time for the world to come to grips with Perimeter, they argue. The system may no longer be a central element of Russian strategy—US-based Russian arms expert Pavel Podvig calls it now "just another cog in the machine"—but Dead Hand is still armed. To Blair, who today runs a think tank in Washington called the World Security Institute, such dismissals are unacceptable. Though neither he nor anyone in the US has up-to-the-minute information on Perimeter, he sees the Russians' refusal to retire it as yet another example of the insufficient reduction of forces on both sides. There is no reason, he says, to have thousands of armed missiles on something close to hair-trigger alert. Despite how far the world has come, there's still plenty of opportunity for colossal mistakes. When I talked to him recently, he spoke both in sorrow and in anger: "The Cold War is over. But we act the same way that we used to." Yarynich, likewise, is committed to the principle that knowledge about nuclear command and control means safety. But he also believes that Perimeter can still serve a useful purpose. Yes, it was designed as a self-deterrent, and it filled that role well during the hottest days of the Cold War. But, he wonders, couldn't it now also play the traditional role of a doomsday device? Couldn't it deter future enemies if publicized? The waters of international conflict never stay calm for long. A recent case in point was the heated exchange between the Bush administration and Russian president Vladimir Putin over Georgia. "It's nonsense not to talk about Perimeter," Yarynich says. If the existence of the device isn't made public, he adds, "we have more risk in future crises. And crisis is inevitable." As Yarynich describes Perimeter with pride, I challenge him with the classic critique of such systems: What if they fail? What if something goes wrong? What if a computer virus, earthquake, reactor meltdown, and power outage conspire to convince the system that war has begun? Yarynich sips his beer and dismisses my concerns. Even given an unthinkable series of accidents, he reminds me, there would still be at least one human hand to prevent Perimeter from ending the world. Prior to 1985, he says, the Soviets designed several automatic systems that could launch counterattacks without any human involvement whatsoever. But all these devices were rejected by the high command. Perimeter, he points out, was never a truly autonomous doomsday device. "If there are explosions and all communications are broken," he says, "then the people in this facility can—I would like to underline can—launch."

### Impact Defense – AT: Dollar Heg

#### Loss of dollar heg inevitable

Ron Paul, 2/14/2006. “The End of Dollar Hegemony,” Energy Bulletin, <http://www.energybulletin.net/node/12987>.

In the short run, the issuer of a fiat reserve currency can accrue great economic benefits. In the long run, it poses a threat to the country issuing the world currency. In this case that’s the United States. As long as foreign countries take our dollars in return for real goods, we come out ahead. This is a benefit many in Congress fail to recognize, as they bash China for maintaining a positive trade balance with us. But this leads to a loss of manufacturing jobs to overseas markets, as we become more dependent on others and less self-sufficient. Foreign countries accumulate our dollars due to their high savings rates, and graciously loan them back to us at low interest rates to finance our excessive consumption. It sounds like a great deal for everyone, **except the time will come when our dollars-- due to their depreciation-- will be received less enthusiastically or even be rejected by foreign countries**. That could create a whole new ballgame and force us to pay a price for living beyond our means and our production. The shift in sentiment regarding the dollar has already started, but the worst is yet to come. The agreement with OPEC in the 1970s to price oil in dollars has provided tremendous artificial strength to the dollar as the preeminent reserve currency. This has created a universal demand for the dollar, and soaks up the huge number of new dollars generated each year. Last year alone M3 increased over $700 billion. The artificial demand for our dollar, along with our military might, places us in the unique position to “rule” the world without productive work or savings, and without limits on consumer spending or deficits. The problem is, **it can’t last**.