# \*\*\*Energy/Resources

### Long timeframe to solving energy needs

Foust 8 - editor of the Space Review (Jeff, “Energy vs. space”, The Space Review, 7/14, <http://www.thespacereview.com/article/1169/1>)

Another common response, of course, is to cite the promise of space solar power (SSP). And, indeed, SSP could go a long way towards solving the nation’s energy woes—in theory. The problem is that even supporters of SSP acknowledge turning that theory into reality is still decades away, assuming that technological and financial obstacles can be overcome: little comfort for those feeling pain at the pump today. Moreover, others are less sanguine about SSP’s prospects (see [“Knights in shining armor”](http://www.thespacereview.com/article/1147/1), The Space Review, June 9, 2008).

### No scenario for conflict --- resources are infinite–we’ll never run out

Geddes 4 (Marc, Writer and Libertarian Analyst, “The Monster Non-Socialist Faq”, February 12, http://solohq.com/War/MonsterFAQ.shtml)

Answer: A significant disruption to supplies of critical resources can cause temporary problems, but in a free market, if resources start to become scarce, prices rise, leading to a search of substitutes and improved conservation efforts. The pool of resources is not fixed, because human ingenuity can find substitutes or new sources of resources. Supplies of most raw materials have been increasing throughout the 20th century, and the cost has been falling (See the entry on Natural resources). For instance, between 1950 and 1970, bauxite (aluminium source) reserves increased by 279 per cent, copper by 179 per cent, chromite (chromium source) by 675 per cent, and tin reserves by 10 per cent. In 1973 experts predicted oil reserves stood at around 700 billion barrels, yet by 1988 total oil reserves had actually increased to 900 billion barrels. Production of certain kinds of resources such as fossil fuels may finally be beginning to peak but there are renewable energy sources in development which can serve as substitutes. Simplistic thermodynamic analysis of energy production is misleading, because it's not the quantities of energy used or produced that determine economic value, but the utility, or usefulness if that energy to humans. If energy is being used more efficiently you don't need as much of it, and some forms of energy are more valuable than others- for instance kinetic energy in the form of wind power is less valuable than the same quantity of latent energy in the form of oil. Solar power is a virtually inexhaustible supply of new energy for stationary sources and the hydrogen fuel cell can serve for transportation in place of fossil fuels. Developing these technologies costs money, so to avoid resource shortages a good economy is essential. Libertarian capitalism is the system which generates wealth the fastest.

### Technology will always increase resource availability

Simon ’96 Julian, Former Prof of Business Administration at University of Maryland and Fmr Senior Fellow at CATO, “The Ultimate Resource 2”, p. 30-31

The most important elements in raw-material price trends have been (1) the rate of movement from richer to poorer ores and mining locations, that is, the phenomenon of "exhaustion"; and (2) the continued development of technology, which has more than made up for exhaustion. Is the rate of development of such new technology slowing up? To the contrary: the pace of development of new technology seems to be increasing. Hence, if the past differs from the future, the bias is likely to be in the direction of understating the rate at which technology will develop, and therefore under-estimating the rate at which costs will fall. The fall in the costs of natural resources, decade after decade and century after century, should shake us free from the idea that scarcity must increase sometime. And please notice that current prices do not mislead us about future scarcities. If there is reason to judge that the cost of obtaining a certain re-source in the future will be much greater than it is now, speculators will hoard that material to obtain the higher future price, thereby raising the present price. So current price is our best measure of both current and future scarcity (more about this later).

### Resource substitution and innovation solve

Krautkraemer 2005 [Jeffrey, Professor at University of Hawaii, Economics of Natural Resource Scarcity: the State of the Debate, April, Resources for the Future, www.rff.org/Documents/RFF-DP-05-14.pdf]

The ability to substitute capital for a natural resource, then, is a critical question in the current scarcity and growth debate. It is relatively easy to find examples where capital can substitute for the use of a natural resource. For example, insulation and thermal pane windows reduce the energy needed to maintain indoor temperatures. The redesign of products like milk and beverage containers that allows the same services to be obtained with less material input can be seen to substitute human capital services for plastic and aluminum. New technologies can replace one resource with another more abundant resource, as fiber optics have replaced copper for telecommunications. The mix of goods produced in the economy can shift from more to less resource intensive commodities. The energy used to produce one dollar of gross domestic product was reduced by almost one-half in the United States between 1949 and 2000, with most of that reduction coming after 1970, although total energy use tripled as population doubled and per-capita GDP increased (Energy Information Agency 2002). World primary energy use per dollar of GDP has declined by more than 25% since 1970 (Smith 2002) and at an annual rate of 1.7% during the 1990s (Darmstadter 2002). The use of materials per unit of GDP has declined about one-third since 1970 (Wernick et al. 1996).

### We can’t run out of solutions–discoveries always beget further questions that are always solved

Simon ’96 Julian Simon, Former Professor of Business Administration at the University of Maryland and Former Senior Fellow at the CATO Institute, “The Ultimate Resource 2”, 1996, p. 405-406

Some ask: can we know that there will be discoveries of new materials and of productivity-enhancing techniques in the future? Behind the question lies the implicit belief that the production of new technology does not follow predict-able patterns of the same sort as the patterns of production of other products such as cheese and opera. But there seems to me no warrant for belief in such a difference, either in logic or in empirical experience. When we add more capital and labor, we get more cheese; we have no logical assurance of this, but such has been our experience, and therefore we are prepared to rely upon it. The same is true concerning knowledge about how to increase the yield of grain, cows, milk, and cheese from given amounts of capital and labor. If you pay engineers to find ways to solve a general enough problem—for example, how to milk cows faster, or with less labor—the engineers predictably will do so. There may well be diminishing returns to additional inventive effort spent on the same problem, just as there are diminishing returns to the use of fertilizer and labor on a given farm in a given year. But as entirely new forms of technology arise and are brought to bear on the old problems, the old diminishing-returns functions then no longer apply. The willingness of businesses to pay engineers and other inventors to look for new discoveries attests to the predictability of returns to inventive effort. To obtain a more intimate feeling for the process, one may ask a scientist or engineer whether she expects her current research project to produce results with greater probability than if she simply sat in the middle of the forest reading a detective novel; the trained effort the engineer applies has a much greater likelihood of producing useful information—and indeed, the very in-formation that is expected in advance—than does untrained noneffort. This is as predictable in the aggregate as the fact that cows will produce milk, and that machines and workers will turn the milk into cheese. Therefore, to depend upon the fact that technical developments will continue to occur in the future—if we continue to devote human and other resources to research—is as reasonable as it is to depend upon any other production process in our economy or civilization. One cannot prove logically that technical development will continue in the future. But neither can one so prove that capital and labor and milk will continue to produce cheese, or that the sun will come up tomorrow As I see it, the only likely limit upon the production of new knowledge about resources is the occurrence of new problems; without unsolved problems there will be no solutions. But here we have a built-in insurance policy: if our ultimate interest is resource availability, and if availability should diminish, that automatically supplies an unsolved problem, which then leads to the production of new knowledge, not necessarily immediately or without short-run disruption, but in the long run.

## AT: ME oil dependence

### Middle East dependence is overblown.

### Bandow 2 (Doug, senior fellow at the Cato Institute, “Is Terrorism the Price of Saudi Oil?”, 12-2-02, http://www.cato.org/pub\_display.php?pub\_id=4124) OP

Nor need the U.S. step gently because of oil. Contrary to popular wisdom, the Saudis' trump hand is surprisingly weak. True, with 262 billion barrels in proven reserves, Saudi Arabia has about one quarter of the world's resources and 8.7 times America's supplies. Riyadh is not only the world's leading supplier, but as a low-cost producer can easily augment its daily exports, eight million barrels a day last year. However, the reserves figure vastly overstates the importance of Middle Eastern oil to the U.S. (and Western) economy. Saudi Arabia accounted for about 10.5 percent of production last year (and so far under ten percent this year); Riyadh plus Kuwait and the various sheikdoms came to 26.6 percent; OPEC produced 39.2 percent of the world's supplies. Were Saudi Arabia to fall, prices would rise substantially only if the conquerer, whether internal or external, held the oil off of the market, especially if the other Gulf states also collapsed. The result then would be severe economic pain in the short-term, though the Strategic Petroleum Reserve, which the president has vowed to fill, would help moderate prices.

## AT: Peak Oil

### Peak oil theory wrong—six reasons

Hossein-zadeh 8 – Professor of Economics, Drake (Ismael, 6/25, Are they really oil wars?, http://www.atimes.com/atimes/Global\_Economy/JF25Dj05.html)

Peak Oil theory is based on a number of assumptions and omissions that make it less than reliable. To begin with, it discounts or disregards the fact that energy-saving technologies have drastically improved (and will continue to further improve) the efficiency of oil consumption. Evidence shows that, for example, "over a period of five years (1994-99), US GDP expanded over 20% while oil usage rose by only 9%. Before the 1973 oil shock, the ratio was about one to one." [4]

Second, Peak Oil theory pays scant attention to the drastically enabling new technologies that have made (and will continue to make) possible discovery and extraction of oil reserves that were inaccessible only a short time ago. One of the results of the more efficient means of research and development has been a far higher success rate in finding new oil fields. The success rate has risen in 20 years from less than 70% to over 80%. Computers have helped to reduce the number of dry holes. Horizontal drilling has boosted extraction. Another important development has been deep-water offshore drilling, which the new technologies now permit. Good examples are the North Sea, the Gulf of Mexico, and more recently, the promising offshore oil fields of West Africa. [5]

Third, Peak Oil theory also pays short shrift to what is sometimes called non-conventional oil. These include Canada's giant reserves of extra-heavy bitumen that can be processed to produce conventional oil. Although this was originally considered cost inefficient, experts working in this area now claim that they have brought down the cost from over US$20 a barrel to $8 per barrel. Similar developments are taking place in Venezuela. It is thanks to developments like these that since 1970, world oil reserves have more than doubled, despite the extraction of hundreds of millions of barrels. [6]

Fourth, Peak Oil thesis pays insufficient attention to energy sources other than oil. These include solar, wind, non-food bio-fuel, and nuclear energies. They also include natural gas. Gas is now about 25% of energy demand worldwide. It is estimated that by 2050 it will be the main source of energy in the world. A number of American, European, and Japanese firms are investing heavily in developing fuel cells for cars and other vehicles that would significantly reduce gasoline consumption. [7]

Fifth, proponents of Peak Oil tend to exaggerate the impact of the increased oil demand coming from China and India on both the amount and the price of oil in global markets. The alleged disparity between supply and demand is said to be due to the rapidly growing demand coming from China and India. But that rapid growth in demand is largely offset by a number of counterbalancing factors. These include slower growth in US demand due to its slower economic growth, efficient energy utilization in industrially advanced countries, and increases in oil production by members of the Organization of Petroleum Exporting Countries, Russia, and others.

Finally, and perhaps more importantly, claims of "peaked and dwindling" oil are refuted by the available facts and figures on global oil supply. Statistical evidence shows that there is absolutely no supply-demand imbalance in global oil markets. Contrary to the claims of the proponents of Peak Oil and champions of war and militarism, the current oil price shocks are a direct consequence of the destabilizing wars and geopolitical insecurity in the Middle East, not oil shortages. These include not only the wars in Iraq and Afghanistan, but also the threat of a looming war against Iran. The record of soaring oil prices shows that anytime there is a renewed US military threat against Iran, fuel prices move up several notches.

### **New discoveries will triple reserves – new technology makes it cost effective**

CERA 06 – Cambridge Energy Research Associates (“Peak Oil Theory – “World Running Out of Oil Soon” – Is Faulty; Could Distort Policy & Energy Debate”, 11/14,http://www.cera.com/aspx/cda/public1/news/pressReleases/pressReleaseDetails.aspx?CID=8444)

In contrast to a widely discussed theory that world oil production will soon reach a peak and go into sharp decline, a new analysis of the subject by Cambridge Energy Research Associates (CERA) finds that the remaining global oil resource base is actually 3.74 trillion barrels -- three times as large as the 1.2 trillion barrels estimated by the theory’s proponents -- and that the “peak oil” argument is based on faulty analysis which could, if accepted, distort critical policy and investment decisions and cloud the debate over the energy future.

“The global resource base of conventional and unconventional oils, including historical production of 1.08 trillion barrels and yet-to-be-produced resources, is 4.82 trillion barrels and likely to grow,” CERA Director of Oil Industry Activity Peter M. Jackson writes in Why the Peak Oil Theory Falls Down: Myths, Legends, and the Future of Oil Resources.  The CERA projection is based on the firm’s analysis of fields currently in production and those yet-to-be produced or discovered.

“The ‘peak oil’ theory causes confusion and can lead to inappropriate actions and turn attention away from the real issues,” Jackson observes.  “Oil is too critical to the global economy to allow fear to replace careful analysis about the very real challenges with delivering liquid fuels to meet the needs of growing economies.  This is a very important debate, and as such it deserves a rational and measured discourse.”

“This is the fifth time that the world is said to be running out of oil,” says CERA Chairman Daniel Yergin.  “Each time -- whether it was the ‘gasoline famine’ at the end of WWI or the ‘permanent shortage’ of the 1970s -- technology and the opening of new frontier areas has banished the specter of decline.  There’s no reason to think that technology is finished this time.”

### **No oil shortage- it’s an industry myth to encourage high prices**

Connor, 08 (Steve, The Independent, “Oil shortage a myth, says industry insider”, 6/9, http://www.independent.co.uk/environment/climate-change/oil-shortage-a-myth-says-industry-insider-842778.html)

There is more than twice as much oil in the ground as major producers say, according to a former industry adviser who claims there is widespread misunderstanding of the way proven reserves are calculated.

Although it is widely assumed that the world has reached a point where oil production has peaked and proven reserves have sunk to roughly half of original amounts, this idea is based on flawed thinking, said Richard Pike, a former oil industry man who is now chief executive of the Royal Society of Chemistry.

Current estimates suggest there are 1,200 billion barrels of proven global reserves, but the industry's internal figures suggest this amounts to less than half of what actually exists.

The misconception has helped boost oil prices to an all-time high, sending jitters through the market and prompting calls for oil-producing nations to increase supply to push down costs.

Flying into Japan for a summit two days after prices reached a record $139 a barrel, energy ministers from the G8 countries yesterday discussed an action plan to ease the crisis.

Explaining why the published estimates of proven global reserves are less than half the true amount, Dr Pike said there was anecdotal evidence that big oil producers were glad to go along with under-reporting of proven reserves to help maintain oil's high price. "Part of the oil industry is perfectly familiar with the way oil reserves are underestimated, but the decision makers in both the companies and the countries are not exposed to the reasons why proven oil reserves are bigger than they are said to be," he said.

Dr Pike's assessment does not include unexplored oilfields, those yet to be discovered or those deemed too uneconomic to exploit.

### Tons of coal reserves

Auer 7 (Josef, Deutsche Bank Research, "Technology to clean up coal for the post-oil era", 2-6, http://www.dbresearch.com/PROD/DBR\_INTERNET\_DE-PROD/PROD0000000000205736.pdf

One advantage of coal is that it offers the greatest range of globalreserves among the fossil fuels. The “static range”, i.e. the quotientof current reserves to annual output, came to over 212 years forlignite at the start of 2006, and 153 years for hard coal. By contrast,the ranges for oil (42 years) and natural gas (63 years) are muchsmaller. The reserves findings alone point to a relatively highperformance capability for coal. Experience tells us, though, that theranges represent only a snapshot of the situation, since thenumerator and the denominator vary over time owing to technological progress, new finds, price changes and growth of globaldemand.If the conventional and non-conventional resources are added to thereserves, the ranges increase. However, while this then boosts theranges for oil and natural gas to only 120 and 200 years, respective-ly, the range for brown coal extends to 1,300 years and hard coal toaround 1,000 years. The figures for the fossil-based hydrocarbonsoil and natural gas, in particular, suggest that supply is secure whenin fact it is not, for it is scarcely likely that non-conventional re-sources can be activated technologically and economically in theforeseeable future.Not only the large proven reserves and potential resources amongthe fossil fuels argue for an even greater role for coal in the comingdecades and centuries. The generally global distribution of coaldeposits is also a point in its favour.

## AT: Gas Peak

### No gas peak

WSJ, 09 (Ben Casselman, “U.S. Gas Fields Go From Bust to Boom”, http://online.wsj.com/article/SB124104549891270585.html)

A massive natural-gas discovery here in northern Louisiana heralds a big shift in the nation's energy landscape. After an era of declining production, the U.S. is now swimming in natural gas. Even conservative estimates suggest the Louisiana discovery-- known as the Haynesville Shale, for the dense rock formation that contains the gas -- could hold some 200 trillion cubic feet of natural gas. That's the equivalent of 33 billion barrels of oil, or 18 years' worth of current U.S. oil production. Some industry executives think the field could be several times that size. "There's no dry hole here," says Joan Dunlap, vice president of Petrohawk Energy Corp., standing beside a drilling rig near a former Shreveport amusement park. Huge new fields also have been found in Texas, Arkansas and Pennsylvania. One industry-backed study estimates the U.S. has more than 2,200 trillion cubic feet of gas waiting to be pumped, enough to satisfy nearly 100 years of current U.S. natural-gas demand. The discoveries have spurred energy experts and policy makers to start looking to natural gas in their pursuit of a wide range of goals: easing the impact of energy-price spikes, reducing dependence on foreign oil, lowering "greenhouse gas" emissions and speeding the transition to renewable fuels. A climate-change bill being pushed by President Barack Obama could boost reliance on natural gas. The bill, which could emerge from the House Energy and Commerce Committee in May, is expected to set aggressive targets for reducing emissions of carbon dioxide, the most prevalent man-made greenhouse gas. Meeting such goals would require quickly moving away from coal-fired power plants, which account for substantial carbon emissions. President Obama wants the U.S. to rely more on renewable energy such as wind and solar power, but those technologies aren't ready to shoulder more than a fraction of the nation's energy burden. Advocates for natural gas argue that the fuel, which is cleaner than coal, would be a logical quick fix. In addition, billionaire energy investor T. Boone Pickens has been touting natural gas as an alternative to gasoline and diesel for cars and trucks. "The availability of natural-gas generation enables us to be much more courageous in charting a transition to a low-carbon economy," says Jason Grumet, executive director of the National Commission on Energy Policy, who was a senior adviser to President Obama during the campaign. Just three years ago, the conventional wisdom was that U.S. natural-gas production was facing permanent decline. U.S. policy makers were resigned to the idea that the country would have to rely more on foreign imports to supply the fuel that heats half of American homes, generates one-fifth of the nation's electricity, and is a key component in plastics, chemicals and fertilizer. But new technologies and a drilling boom have helped production rise 11% in the past two years. Now there's a glut, which has driven prices down to a six-year low and prompted producers to temporarily cut back drilling and search for new demand. The natural-gas discoveries come as oil has become harder to find and more expensive to produce. The U.S. is increasingly reliant on supplies imported from the Middle East and other politically unstable regions. In contrast, 98% of the natural gas consumed in the U.S. is produced in North America. Coal remains plentiful in the U.S., but is likely to face new restrictions. To produce the same amount of energy, burning gas emits about half as much carbon dioxide as burning coal. Natural gas has never played more than a supporting role in the nation's energy supply. Crude oil, refined into gasoline or diesel, fuels nearly all U.S. cars or trucks. Coal is the dominant fuel for generating electricity. Natural-gas production in the U.S. peaked in the early 1970s, then fell for a decade due to weak prices and declining gas fields in Texas, Louisiana and elsewhere. Production bounced back in the 1990s with the discovery of new fields in New Mexico and Wyoming, but by 2002, output was falling again -- this time, most experts thought, for good. Believing the U.S. would soon need to import liquefied natural gas from overseas, companies such as ConocoPhillips, El Paso Corp. and Cheniere Energy Inc. spent billions on terminals, pipelines and storage facilities. The supply fears drove up prices, which spurred innovation. Oil-and-gas companies had known for decades that there was gas trapped in shale, a nonporous rock common in much of the U.S. but considered too dense to produce much gas. In the 1980s, Texas oilman George Mitchell began trying to produce gas from a formation near Fort Worth, Texas, known as the Barnett Shale. He pumped millions of gallons of water at high pressure down the well, cracking open the rock and allowing gas to flow to the surface. Oklahoma City-based Devon Energy Corp. bought Mr. Mitchell's company in 2002. It combined his methods with a technique for drilling straight down to gas-bearing rock, then turning horizontally to stay within the formation. Devon's first horizontal wells produced about three times as much gas as traditional vertical wells. The development of the Barnett Shale almost single-handedly reversed the decline in U.S. natural-gas production. Last year, the Barnett produced four billion cubic feet of gas a day, making it the largest field in the U.S. Other companies such as Newfield Exploration Co., Southwestern Energy Co. and Range Resources Corp. found shale fields across the U.S.

## AT: Resource wars

### No resource wars - depletion of resources doesn’t cause violence

Victor 7 [David G. - professor at the School of International Relations and Pacific Studies and director of the School’s new Laboratory on International Law and Regulation. “What resource wars?”. http://www.atimes.com/atimes/Global\_Economy/IK14Dj04.html, November 14, 2007 ayc]

Most of this is bunk, and nearly all of it has focused on the wrong lessons for policy. Classic resource wars are good material for Hollywood screenwriters. They rarely occur in the real world. To be sure, resource money can magnify and prolong some conflicts, but the root causes of those hostilities usually lie elsewhere. Fixing them requires focusing on the underlying institutions that govern how resources are used and largely determine whether stress explodes into violence. When conflicts do arise, the weak link isn't a dearth in resources but a dearth in governance. Feeding the dragon Resource wars are largely back in vogue within the US threat industry because of China's spectacular rise. Brazil, India, Malaysia and many others that used to sit on the periphery of the world economy are also arcing upward. This growth is fueling a surge in world demand for raw materials. Inevitably, these countries have looked overseas for what they need, which has animated fears of a coming clash with China and other growing powers over access to natural resources. Within the next three years, China will be the world's largest consumer of energy. Yet, it's not just oil wells that are working harder to fuel China, so too are chainsaws. Chinese net imports of timber nearly doubled from 2000 to 2005. The country also uses about one-third of the world's steel (around 360 million tons), or three times its 2000 consumption. Even in coal resources, in which China is famously well-endowed, China became a net importer in 2007. Across the board, the combination of low efficiency, rapid growth and an emphasis on heavy industry - typical in the early stages of industrial growth - have combined to make the country a voracious consumer and polluter of natural resources. America, England and nearly every other industrialized country went through a similar pattern, though with a human population that was much smaller than today's resource-hungry developing world. Among the needed resources, oil has been most visible. Indeed, Chinese state-owned oil companies are dotting Africa, Central Asia and the Persian Gulf with projects aimed to export oil back home. The overseas arm of India's state oil company has followed a similar strategy - unable to compete head-to-head with the major Western companies, it focuses instead on areas where human-rights abuses and bad governance keep the major oil companies at bay and where India's foreign policy can open doors. To a lesser extent, Malaysia engages in the same behavior. The American threat industry rarely sounds the alarm over Indian and Malaysian efforts, though, in part because those firms have less capital to splash around and mainly because their stories just don't compare with fear of the rising dragon. These efforts to lock up resources by going out fit well with the standard narrative for resource wars - a zero-sum struggle for vital supplies. But will a struggle over resources actually lead to war and conflict? To be sure, the struggle over resources has yielded a wide array of commercial conflicts as companies duel for contracts and ownership. State-owned China National Offshore Oil Corporation's (CNOOC) failed bid to acquire US-based Unocal - and with it Unocal's valuable oil and gas supplies in Asia - is a recent example. But that is hardly unique to resources - similar conflicts with tinges of national security arise in the control over ports, aircraft engines, databases laden with private information and a growing array of advanced technologies for which civilian and military functions are hard to distinguish. These disputes win and lose some friendships and contracts, but **they do not unleash violence.**

## No Water Wars

### No Water Wars- even if they are brought to the brink the past 4,500 years prove they settle disputes with peace

Doyle – 6, Alister Doyle, Environmental correspondent, Reuters, 9/17/06, “Water Wars” loom? But none in past 4,500 years” <http://harowo.com/2006/09/17/water-wars-loom-but-none-in-past-4500-years/>

With a steady stream of bleak predictions that "water wars" will be fought over dwindling supplies in the 21st century, battles between two Sumerian city-states 4,500 years ago seem to set a worrying precedent. But the good news, many experts say, is that the conflict between Lagash and Umma over irrigation rights in what is now Iraq was the last time two states went to war over water.Down the centuries since then, international rivals sharing waters such as the Jordan River, the Nile, the Ganges or the Parana have generally favoured cooperation over conflict. So if history can be trusted, things may stay that way. "The simple explanation is that water is simply too important to fight over," said Aaron Wolf, a professor at Oregon State University. "Nations often go to the brink of war over water and then resolve their differences."

### 3,600 years of waterless justification for war in the world proves that war is unlikely- even if the potential for conflict rises, it won’t actually lead to war anyway

Doyle – 6, Alister Doyle, Environmental correspondent, Reuters, 9/17/06, “Water Wars” loom? But none in past 4,500 years” <http://harowo.com/2006/09/17/water-wars-loom-but-none-in-past-4500-years/>

Since the war between Lagash and Umma, recorded on a stone carving showing vultures flying off with the heads of defeated Umma warriors, no wars have been fought and 3,600 international water treaties have been signed, he said. Yet politicians regularly warn that water shortages caused by surging populations and climate change could trigger conflicts this century in a world where a billion people in developing countries lack access to clean drinking water."Fierce competition for fresh water may well become a source of conflict and wars in the future," U.N. Secretary-General Kofi Annan said in 2001. The English word "rival" even comes from the Latin "rivalis" meaning "someone sharing a river". Other experts say international "water wars" are unlikely."I don’t really expect wars over water because … the benefits of collaboration are so great," said Frank Rijsberman, head of the International Water Management Institute (IWMI). And still others say water might be one factor in future conflicts. Achim Steiner, executive director of the U.N. Environment Programme (UNEP), says this is particularly true in border regions where countries share rivers."I am not somebody who believes that our third world war will be over water, but I think the potential for conflict will grow as we are faced with water scarcity," he told Reuters.

### Minute risk of water war- their evidence is blown up by career-concerned journalists

Doyle – 6, Alister Doyle, Environmental correspondent, Reuters, 9/17/06, “Water Wars” loom? But none in past 4,500 years” <http://harowo.com/2006/09/17/water-wars-loom-but-none-in-past-4500-years/>

"If there is a war between two countries the 15th reason could be water but the first 14 reasons will have absolutely nothing to do with water," said Asit Biswas, head of the Third World Centre for Water Management in Mexico City. "But if I want to get in the media the easiest thing is to say that a water war is about to break out in the Middle East," he said. "The last war over water was thousands of years ago."

### No water wars – based on faulty Malthusian arguments

Allouche 11 – Jeremy Allouche, Institute of Development Studies, UK, January 2011, "The sustainability and resilience of global water and food systems: Political analysis of the interplay between security, resource scarcity, political systems and global tradestar, open," Food Policy, Volume 36, Supplement 1, January 2011, Pages S3-S8, http://www.sciencedirect.com/science/article/pii/S0306919210001272

The question of resource scarcity has led to many debates on whether scarcity (whether of food or water) will lead to conflict and war. The underlining reasoning behind most of these discourses over food and water wars comes from the Malthusian belief that there is an imbalance between the economic availability of natural resources and population growth since while food production grows linearly, population increases exponentially. Following this reasoning, neo-Malthusians claim that finite natural resources place a strict limit on the growth of human population and aggregate consumption; if these limits are exceeded, social breakdown, conflict and wars result. Nonetheless, it seems that most empirical studies do not support any of these neo-Malthusian arguments. Technological change and greater inputs of capital have dramatically increased labour productivity in agriculture. More generally, the neo-Malthusian view has suffered because during the last two centuries humankind has breached many resource barriers that seemed unchallengeable.

### Their evidence is only alarmist – comprehensive studies disprove their impact

Allouche 11 – Jeremy Allouche, Institute of Development Studies, UK, January 2011, "The sustainability and resilience of global water and food systems: Political analysis of the interplay between security, resource scarcity, political systems and global tradestar, open," Food Policy, Volume 36, Supplement 1, January 2011, Pages S3-S8, http://www.sciencedirect.com/science/article/pii/S0306919210001272

Lessons from history: alarmist scenarios, resource wars and international relations

In a so-called age of uncertainty, a number of alarmist scenarios have linked the increasing use of water resources and food insecurity with wars. The idea of water wars (perhaps more than food wars) is a dominant discourse in the media (see for example [Smith, 2009](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0315)), NGOs ([International Alert, 2007](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0175)) and within international organizations ([UNEP, 2007](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0340)). In 2007, UN Secretary General Ban Ki-moon declared that ‘water scarcity threatens economic and social gains and is a potent fuel for wars and conflict’ ([Lewis, 2007](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0195)). Of course, this type of discourse has an instrumental purpose; security and conflict are here used for raising water/food as key policy priorities at the international level.

In the Middle East, presidents, prime ministers and foreign ministers have also used this bellicose rhetoric. Boutrous Boutros-Gali said; ‘the next war in the Middle East will be over water, not politics’ (Boutros Boutros-Gali in [Butts, 1997](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0060), p. 65). The question is not whether the sharing of transboundary water sparks political tension and alarmist declaration, but rather to what extent water has been a principal factor in international conflicts. The evidence seems quite weak. Whether by president Sadat in Egypt or King Hussein in Jordan, none of these declarations have been followed up by military action.

The governance of transboundary water has gained increased attention these last decades. This has a direct impact on the global food system as water allocation agreements determine the amount of water that can used for irrigated agriculture. The likelihood of conflicts over water is an important parameter to consider in assessing the stability, sustainability and resilience of global food systems.

None of the various and extensive databases on the causes of war show water as a casus belli. Using the International Crisis Behavior (ICB) data set and supplementary data from the University of Alabama on water conflicts, Hewitt, Wolf and Hammer found only seven disputes where water seems to have been at least a partial cause for conflict ([Wolf, 1998](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0360), p. 251). In fact, about 80% of the incidents relating to water were limited purely to governmental rhetoric intended for the electorate ([Otchet, 2001](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0260), p. 18).

### Scarcity leads to cooperation – no water wars

Allouche 11 – Jeremy Allouche, Institute of Development Studies, UK, January 2011, "The sustainability and resilience of global water and food systems: Political analysis of the interplay between security, resource scarcity, political systems and global tradestar, open," Food Policy, Volume 36, Supplement 1, January 2011, Pages S3-S8, http://www.sciencedirect.com/science/article/pii/S0306919210001272

As shown in The Basins At Risk (BAR) water event database, more than two-thirds of over 1800 water-related ‘events’ fall on the ‘cooperative’ scale ([Yoffe et al., 2003](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0365)). Indeed, if one takes into account a much longer period, the following figures clearly demonstrate this argument. According to studies by the United Nations Food and Agriculture Organization (FAO), organized political bodies signed between the year 805 and 1984 more than 3600 water-related treaties, and approximately 300 treaties dealing with water management or allocations in international basins have been negotiated since 1945 ([[FAO, 1978]](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0095) and [[FAO, 1984]](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0100)).

The fear around water wars have been driven by a Malthusian outlook which equates scarcity with violence, conflict and war. There is however no direct correlation between water scarcity and transboundary conflict. Most specialists now tend to agree that the major issue is not scarcity per se but rather the allocation of water resources between the different riparian states (see for example [[Allouche, 2005]](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0015), [[Allouche, 2007]](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0020) and [[Rouyer, 2000]](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0290)). Water rich countries have been involved in a number of disputes with other relatively water rich countries (see for example India/Pakistan or Brazil/Argentina). The perception of each state’s estimated water needs really constitutes the core issue in transboundary water relations. Indeed, whether this scarcity exists or not in reality, perceptions of the amount of available water shapes people’s attitude towards the environment ([Ohlsson, 1999](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0250)). In fact, some water experts have argued that scarcity drives the process of co-operation among riparians ([[Dinar and Dinar, 2005]](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0090) and [[Brochmann and Gleditsch, 2006]](http://www.sciencedirect.com/science/article/pii/S0306919210001272" \l "b0055)).

In terms of international relations, the threat of water wars due to increasing scarcity does not make much sense in the light of the recent historical record. Overall, the water war rationale expects conflict to occur over water, and appears to suggest that violence is a viable means of securing national water supplies, an argument which is highly contestable.

### Water shortages do not cause wars – limited to local conflicts

Allouche 11 – Jeremy Allouche, Institute of Development Studies, UK, January 2011, "The sustainability and resilience of global water and food systems: Political analysis of the interplay between security, resource scarcity, political systems and global tradestar, open," Food Policy, Volume 36, Supplement 1, January 2011, Pages S3-S8, http://www.sciencedirect.com/science/article/pii/S0306919210001272

Conclusion

This article has provided an overview of the current and future challenges in terms of global food and water systems. The major focus of the argument has been on how resource scarcity is a contested and subjective concept which cannot fully explain conflict, political instability or food insecurity. The politics of inequality and allocation are much more important variables in explaining water and food insecurity. This is particularly true for conflicts. Although resource scarcity has been linked to international wars, the current data shows that most conflict over water and food are much more local. But there again, although resource scarcity can be linked to malnutrition, hunger and water insecurity, in the majority of cases, water and food insecurity are rarely about competition over resources but rather reflect the politics of allocation and inequality. In this respect, war and conflicts aggravate these insecurities not just on the short term but also on the long term.

At the global level, food security has considerably improved and provides the means to address these insecurities. Trade can certainly be seen as a way to address access for countries that are under severe stress in terms of food and water and provides logical grounds for questioning the various water and food wars scenarios. Although global trade and technological innovation are key drivers in providing stable and resilient global systems, the most destabilizing global water-related threat is increasing food prices and hunger. Overall, decision-makers should show greater concern for the human beings who make their living in agriculture, so that those at risk of livelihood and food-security failures, especially under anticipated scenarios of climate change, will be less deprived. Current debates linked to global food security and climate fail to address the political dimension of resource scarcity which is primarily linked to the politics of inequality, gender and power.

## A2 Oceans --- Resilient

### **The oceans are resilient**

Balbulus & Fitzgerald 6 – John Balbulus, MD, Health Program Directory, \*\*AND Timothy Fitzgerald, scientist, March 24th, 2006, "Ensuring a future supply of healthy fish and omega-3s," <http://www.bmj.com/content/332/7544/739/reply>

Breaking downward cycles in fisheries requires altering the short- term economic incentives that stem from current management systems, which push fishermen to maximize today's catch at the expense of future populations and ecosystem health. Luckily, the oceans are resilient and inherently capable of providing far more fish than they currently do.

### **The Gul Oil Spill proves the oceans are resilient and can bounce back**

Handwerk 11 – Brian Handwerk, National Geographic News, April 19th, 2011, "Gulf Oil Spill Anniversary: Resilience Amid Unknowns," http://news.nationalgeographic.com/news/2011/04/110420-gulf-oil-spill-anniversary-year-later-science-nation-environment/

On the first anniversary of the Gulf oil spill, scientists caution that it could take years to understand the full scope of the disaster. (See photos of the Gulf oil spill in National Geographic magazine.)

But many are encouraged because the damage could have been far worse—and nature is already showing signs of resilience.

On April 20, 2010, a massive explosion rocked the Transocean oil rig Deepwater Horizon, a state-of-the art mobile offshore drilling platform at work on a well in the Gulf of Mexico. Eleven workers were killed by the blast and survivors had just minutes to flee an inferno that would soon burn and sink the rig.

The accident unleashed a torrent of oil that began roaring from an underground Macondo reservoir into the Gulf waters. During the first few frantic days of the BP crisis that became the worst oil spill in U.S. history, experts had a hard time determining what was happening—much less what the spill's ultimate environmental and economic consequences might be.

(See satellite pictures of the Gulf oil spill's evolution.)

As people around the world fixated on oil spewing from a pipe 1 mile (1.6 kilometers) beneath the Gulf's surface, scientists clambered to discern just how much was gushing out. Estimates climbed from 1,000 barrels a day to 12,000 barrels to 62,000 barrels a day. Even less certain was how the damaged wellhead would finally be plugged—and for a while, people feared the leak could continue for years. Authorities finally capped it in July.

A spill that started with the tragic loss of life soon wrought major environmental devastation over huge region of the Gulf. Disturbing images appeared daily of oiled wildlife, iridescent surface slicks, overwhelmed cleanup workers, fouled beaches, burning oil fires, and blackened wetlands.

The damage from nearly five million barrels of oil was very real, yet many expert predictions missed their marks. Hurricanes didn't drive enormous quantities of oil ashore, giant dead zones didn't materialize, and oil didn't round the tip of Florida to rocket up the East Coast via the Gulf Stream. Fisheries now appear poised to rebound instead of suffering the barren years or decades some feared. And Mother Nature had her own surprises in store, showcasing an ability to fight back against the spill and, later, to bounce back from the damage—at least in the short-term.

## AT: environment

The environment is resilient

Boucher 96 (Doug is the director of the Tropical Forest and Climate Initiative at the Union of Concerned Scientists (UCS)"Not with a Bang but a Whimper," Science and Society, Fall 96 Issue, <http://www.driftline.org/cgi-bin/archive/archive_msg.cgi?file=spoon-archives/marxism-international.archive/marxism-international_1998/marxism-international.9802&msgnum=379&start=32091&end=32412>

The political danger of catastrophism is matched by the weakness of its scientific foundation. Given the prevalence of the idea that the entire biosphere will soon collapse, it is remarkable how few good examples ecology can provide of this happening m even on the scale of an ecosystem, let alone a continent or the whole planet. Hundreds of ecological transformations, due to introductions of alien species, pollution, overexploitation, climate change and even collisions with asteroids, have been documented. They often change the functioning of ecosystems, and the abundance and diversity of their animals and plants, in dramatic ways.

The effects on human society can be far-reaching, and often extremely negative for the majority of the population. But one feature has been a constant, nearly everywhere on earth: life goes on. Humans have been able to drive thousands of species to extinction, severely impoverish the soil, alter weather patterns, dramatically lower the biodiversity of natural communities, and incidentally cause great suffering for their posterity. They have not generally been able to prevent nature from growing back.

As ecosystems are transformed, species are eliminated -- but opportunities are created for new ones. The natural world is changed, but never totally destroyed. Levins and Lewontin put it well: "The warning not to destroy the environment is empty: environment, like matter, cannot be created or destroyed. What we can do is replace environments we value by those we do not like" (Levins and Lewontin, 1994). Indeed, from a human point of view the most impressive feature of recorded history is that human societies have continued to grow and develop, despite all the terrible things they have done to the earth. Examples of the collapse of civilizations due to their over- exploitation of nature are few and far between. Most tend to be well in the past and poorly documented, and further investigation often shows that the reasons for collapse were fundamentally political.

Resource scarcity doesn’t cause conflict—humans can adapt and their studies aren’t conclusive

Bernauer et al 10 (Thomas is a professor of political science at ETH Zurich, Ms. Anna Kalbhenn is PhD candidate at the Center for Comparative and International Studies (CIS), Zurich, Vally Koubi is a senior fellow at the Center for Comparative and International Studies (CIS) at the Swiss Federal Institute of Technology Zurich, Gabriele Ruoff is postdoctoral researcher in the “International Political Economy” group of Thomas Bernauer at the Center for Comparative and International Studies, Climate Change, Economic Growth, and Conflict climsec.prio.no/papers/Climate\_Conflict\_BKKR\_Trondheim\_2010.pdf

Other scholars, commonly referred to as cornucopians or resource optimists, do not share this pessimistic view. They acknowledge that environmental degradation may negatively affect human wellbeing. But they argue that humans can adapt to resource scarcity by using market mechanisms (pricing), technological innovation, and other means (Lomborg 2001; Simon 1998). Simon (1998) for instance notes that, although population growth can lead to shortages or increased economic burdens in the short run, the ability of society to respond to such circumstances by improvements in technology and efficiency usually outstrips the constraints imposed by an increasing population.

The neo-Malthusian argument has also been criticized for being overly complex and deterministic, and for ignoring important economic and socio-political factors (e.g. Gleditsch 1998; de Soysa 2002a,b; Barnett and Adger 2007; Salehyan 2008). Critics have argued that scarcity of renewable resources is just one of the factors in the overall relationship between climate change and conflict. Buhaug et al. (2008:20) note that “climate change may increase the risk of armed conflict only under certain conditions and in interaction with several socio-political factors”. They reject the idea that climate change has a direct effect on the likelihood of conflict and propose several causal pathways through which economic and political instability, social fragmentation, and migration could increase the probability of climate change leading to armed conflict.

Qualitative case studies (e.g. Baechler et al. 1996) provide some, albeit anecdotal evidence that climate change induced environmental degradation (such as water scarcity, soil degradation, or deforestation) has contributed to conflict in some parts of the world (e.g. the Sahel region). But it remains unclear to what extent these case- specific findings can be generalized. Large-N studies have, so far, not been able to provide conclusive evidence. One part of this variance in empirical evidence is certainly due to the use of different measures of climate change and environmental degradation, data problems, and different sample sizes and time periods. Another part, we submit, is due to the fact that past research has focused on identification of a direct link between climatic conditions and conflict. Conditional effects that stem from key factors such as economic development and the political system characteristics may thus have been overlooked.

# \*\*Prolif

### No impact to prolif—U.S. can deter threats and set a precedent to stop prolif

Colby 7 -Eldridge Colby, Adjunct Staff Member of the RAND Corporation, formerly a staff member in the Office of the Director of National Intelligence and on the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, 2007, “Restoring Deterrence,” Orbis, Vol. 51, No. 3, p. 413-428, <http://www.theatlantic.com/past/docs/images/issues/200707u/Restoring%20Deterrence.pdf>

This logic’s bottom line seems clear. If the proliferation of weapons technology is inevitable, then it hardly makes sense to embark on a quixotic crusade to prevent it. Better to accept the new reality and deal with it as best we can. Seen in this light, deterrence is quite appealing. Such a posture, accepting the inevitability of proliferation, would state as a policy only that the use (or allowance of use) of such weapons against the United States or its allies would provoke a devastating response. Countries could, if they wanted, develop these weapons, but the United States would take little strategic cognizance of them. There would be some strategic downside—regime change, for instance, would lose luster as a policy. But, overall, the weapons would have little effect if America maintained a basically status quo posture, defending its established interests and allies. If, for instance, Iran rattled its nuclear saber and insisted the United States withdraw from Saudi Arabia, we would have to play the brinksmanship game and not back down—but what would be new about that? And would Iran be so foolish as to do something to call down the wrath of the American retaliatory capability? Those who say so need do more than point to the rantings of Ahmadinejad. History has shown many enemies who poured scorn on a nuclear-armed United States, but none who were foolish enough actually to act on their bluster and thereby incur its full wrath. Further, Iran is hardly the Soviet Union of the Khrushchev era, bristling with nuclear and conventional weapons.

Indeed, a deterrent posture would, through not placing as much value on WMD, help the cause of disarmament by positively disincentivizing countries from developing them. If the U.S. took an agnostic position on the development of unconventional weapons, but maintained its same status quo red lines while demanding strict accountability for the use or loss of such weapons, why would countries want to build them? If North Korea’s nuclear weapons, in other words, will not affect the American commitment to South Korea (if the South Koreans don’t wreck it themselves in the meantime) and Japan, and if the United States holds the North Koreans responsible for whatever uses their nuclear weapons are put to, then is not the danger of possessing them greater than their beneﬁt? After all, these rogue states are not building these weapons to win a war against us. Instead, they are developing them either as last-ditch weapons—in which case we have no reason to push them into a corner anyway—or as cards to bluff with—in which case we simply need to call that bluff.

# \*\*\*WARMING

### No warming

Beisner 10 — former associate professor of interdisciplinary studies in economics, government, and public policy, Covenant. PhD, University of St. Andrews (Calvin, Forget Global Warming Mini Ice Age May Be on Its Way, 12 January 2010, http://www.rightsidenews.com/201001128144/energy-and-environment/forget-global-warming-mini-ice-age-may-be-on-its-way.html, AMiles) Note – graph omitted

The UK's MailOnline did just that this week under the headline The mini ice age starts here. Lead paragraph? "The bitter winter afflicting much of the Northern Hemisphere is only the start of a global trend towards cooler weather that is likely to last for 20 or 30 years, say some of the world's most eminent climate scientists." Right. MailOnline reporter David Rose doesn't call them "the world's leading climate skeptics." He calls them "some of the world's most eminent climate scientists"--and he goes on to cite "Mojib Latif, a leading member of the UN's Intergovernmental Panel on Climate Change (IPCC)," "Anastasios Tsonis, head of the University of Wisconsin Atmospheric Sciences Group," and "William Gray, emeritus Professor of Atmospheric Sciences at Colorado State University." Contrary to fears of inexorably diminishing Arctic sea ice, Rose cites the U.S. National Snow and Ice Data Center as reporting that "Arctic summer sea ice has increased by 409,000 square miles, or 26 per cent, since 2007." Though snow's been unusual for most of the southern half of the United Kingdom in recent decades, the Mail published the accompanying satellite photo of Great Britain during the recent cold snap. The island is essentially all covered with snow. Rose reported record lows as far south as Cuba--something I can attest to, living near Miami in south Florida, where we experienced sub-freezing weather over the weekend. He quoted Tsonis as saying that last week 56% of the United States was covered by snow--something that hasn't happened in several decades. And the "'Arctic oscillation'--a weather pattern that sees the development of huge 'blocking' areas of high pressure in northern latitudes, driving polar winds far to the south . . . is at its strongest for at least 60 years. As a result, the jetstream--the high-altitude wind that circles the globe from west to east and normally pushes a series of wet but mild Atlantic lows across Britain--is currently running not over the English Channel but the Strait of Gibraltar." Consequently, most of the Northern Hemisphere is much colder this winter than it's been in decades--and the Southern Hemisphere is cooler, too. According to Rose, Latif, Tsonis, and other scientists attribute the cold shift primarily to a shift in the world's dominant ocean circulations--the Pacific Decadal Oscillation and the Atlantic Multidecadal Oscillation--from a warm phase to a cool phase, something that happens about every 20 to 30 years. "The scientists' predictions also undermine the standard climate computer models, which assert that the warming of the Earth since 1900 has been driven solely by man-made greenhouse gas emissions and will continue as long as carbon dioxide levels rise. They say that their research shows that much of the warming was caused by oceanic cycles when they were in a 'warm mode' as opposed to the present 'cold mode'." That's a point made by Dr. Roy W. Spencer in the science chapter of the Cornwall Alliance's new document A Renewed Call to Truth, Prudence, and Protection of the Poor: An Evangelical Examination of the Theology, Science, and Economics of Global Warming and illustrated in the graph below. "A significant share of the warming we saw from 1980 to 2000 and at earlier periods in the 20th Century was due to these cycles," said Latif, "perhaps as much as 50 per cent. They have now gone into reverse, so winters like this one will become much more likely. Summers will also probably be cooler, and all this may well last two decades or longer. The extreme retreats that we have seen in glaciers and sea ice will come to a halt. For the time being, global warming has paused, and there may well be some cooling." Tsonis also believes that the ocean current cycles dominated global climate change in the 20th century, including the post-1970s, the period many point to as driven by human greenhouse gas emissions, but he doesn't venture to attribute specific percentages to the natural and human causes. "I do not believe in catastrophe theories," Rose quoted him as saying. "Man-made warming is balanced by the natural cycles, and I do not trust the computer models which state that if CO2 reaches a particular level then temperatures and sea levels will rise by a given amount. These models cannot be trusted to predict the weather for a week, yet they are running them to give readings for 100 years." Gray went farther: "Most of the rise in temperature from the Seventies to the Nineties was natural. Very little was down to CO2--in my view, as little as five to ten per cent." Gray, Tsonis, and Latif all agreed that the findings about the ocean currents undermined the credibility of the computer climate models on which the IPCC and other alarmists rely.

### Their impacts are predicated on cloud studies that conflate cause and effect

Spencer 08 Roy W. Recipient of NASA's Medal for Exceptional Scientific Achievement, and William D. Braswell, Nichols Research Corporation [Both of the Earth System Science Center, U of Alabama], June 12 2008 (Lead authors of “Potential Biases in Feedback Diagnosis from Observational Data: A Simple Model Demonstration” and quoted in an article on ScienceDaily titled “Has Global Warming Research Misinterpreted Cloud Behavior?”, http://www.sciencedaily.com/releases/2008/06/080611184722.htm)

ScienceDaily (June 12, 2008. — Climate experts agree that the seriousness of manmade global warming depends greatly upon how clouds in the climate system respond to the small warming tendency from the extra carbon dioxide mankind produces. To figure that out, climate researchers usually examine natural, year-to-year fluctuations in clouds and temperature to estimate how clouds will respond to humanity¹s production of greenhouse gases. When researchers observe natural changes in clouds and temperature, they have traditionally assumed that the temperature change caused the clouds to change, and not the other way around. To the extent that the cloud changes actually cause temperature change, this can ultimately lead to overestimates of how sensitive Earth's climate is to our greenhouse gas emissions. This seemingly simple mix-up between cause and effect is the basis of a new paper that will appear in the "Journal of Climate." The paper¹s lead author, Dr. Roy W. Spencer, a principal research scientist at The University of Alabama in Huntsville, believes the work is the first step in demonstrating why climate models produce too much global warming. Spencer and his co-author, principal research scientist William (Danny) Braswell, used a simple climate model to demonstrate that something as seemingly innocuous as daily random variations in cloud cover can cause year-to-year variation in ocean temperature that looks like -- but isn't -- "positive cloud feedback," a warmth-magnifying process that exists in all major climate models. "Our paper is an important step toward validating a gut instinct that many meteorologists like myself have had over the years," said Spencer, "that the climate system is dominated by stabilizing processes, rather than destabilizing processes -- that is, negative feedback rather than positive feedback." The paper doesn't disprove the theory that global warming is manmade. Instead, it offers an alternative explanation for what we see in the climate system which has the potential for greatly reducing estimates of mankind's impact on Earth's climate. "Since the cloud changes could conceivably be caused by known long-term modes of climate variability -- such as the Pacific Decadal Oscillation, or El Nino and La Nina -- some, or even most, of the global warming seen in the last century could simply be due to natural fluctuations in the climate system," Spencer said. While the paper's two peer reviewers, both climate model experts, agreed that the issue is a legitimate one, Spencer knows the new paper will be controversial, with some claiming that the impact of the mix-up between cause and effect will be small. "But we really won't know until much more work is done," Spencer said. "Unfortunately, so far we have been unable to figure out a way to separate cause and effect when observing natural climate variability. That's why most climate experts don't like to think in terms of causality, and instead just examine how clouds and temperature vary together. "Our work has convinced me that cause and effect really do matter. If we get the causation wrong, it can greatly impact our interpretation of what nature has been trying to tell us. Unfortunately, in the process it also makes the whole global warming problem much more difficult to figure out."

### Observation satellite data proves there is no warming now – there’s global cooling

**Taylor 9** (James, Senior Fellow @ Heartland Institute, “Global Cooling Continues,” March 1, http://www.heartland.org/publications/environment%20climate/article/24739/Global\_Cooling\_Continues.html)

Continuing a decade-long trend of declining global temperatures, the year 2008 was significantly colder than 2007, and global temperatures for the year were below the average over the past 30 years. The global temperature data, reported by NASA satellite-based temperature measurements, refuted predictions 2008 would be one of the warmest on record. Data show 2008 ranked 14th coldest of the 30 years measured by NASA satellite instruments since they were first launched in 1979. It was the coldest year since 2000. (See accompanying figure.) Satellite Precision NASA satellites uniformly monitor the Earth’s lower atmosphere, which greenhouse gas theory predicts will show the first and most significant effects of human-caused global warming. The satellite-based measurements are uncorrupted by urban heat islands and localized land-use changes that often taint records from surface temperature stations, giving false indications of warming. The uncorrupted satellite-based temperature measurements refute surface temperature station data finding 2008 to be one of the top 10 warmest years on record. “How can an ‘average year’ in one database appear to be a [top 10] warmest year in another?” asked meteorologist Joe D’Aleo on his International Climate and Environmental Change Assessment Project Web site. “Well, the global databases of [surface station reports] are all contaminated by urbanization, major station dropout, missing data, bad siting, instruments with known warm biases being introduced without adjustment, and black-box and man-made adjustments designed to maximize [reported] warming,” explained D’Aleo. Warming Trend Overstated “The substantial and continuing La Niña cooled the Earth quite a bit in 2008, to the point that it was slightly below the 30-year average [1979-2008] but slightly above the 20-year average [1979-1998],” said John Christy, distinguished professor of atmospheric science and director of the Earth System Science Center at the University of Alabama in Huntsville (UAH). “From research we have published, and more to come soon, we find that land surface air temperatures misrepresent the actual temperature changes in the deep atmosphere—where the greenhouse effect is anticipated to have its easiest impact to measure. Surface thermometers are affected by many influences, especially surface development, so the bulk atmospheric measurements from satellites offer a straightforward indicator of how much heat is or is not accumulating in the air, for whatever reason,” Christy explained. “Recent published evidence also supports the long-term trends of UAH as being fairly precise, so the observed rate of warming is noticeably less than that projected by the IPCC ‘Best Estimate’ model simulations which, we hypothesize, are too sensitive to CO2 increases,” Christy added.

## **A2 Schwartz and Randall**

### **Their impact is not true – their authors were only doing a hypothetical exercise**

Schwartz and Randall 3 Peter Schwartz, co-founder and chairman of Global Business Network \*\*AND Doug Randall, California-based Global Business Network, October 2003 “An Abrupt Climate Change Scenario and Its Implications for United States National Security,” <http://www.edf.org/documents/3566_AbruptClimateChange.pdf>

The purpose of this report is to imagine the unthinkable – to push the boundaries of current research on climate change so we may better understand the potential implications on United States national security.

We have interviewed leading climate change scientists, conducted additional research, and reviewed several iterations of the scenario with these experts. The scientists support this project, but caution that the scenario depicted is extreme in two fundamental ways. First, they suggest the occurrences we outline would most likely happen in a few regions, rather than on globally. Second, they say the magnitude of the event may be considerably smaller.

# \*\*Econ

### US and global economy is resilient

Behravesh 6 (Nariman, most accurate economist tracked by USA Today and chief global economist and executive vice president for Global Insight, Newsweek, “The Great Shock Absorber; Good macroeconomic policies and improved microeconomic flexibility have strengthened the global economy's 'immune system.'” 10-15-2006, www.newsweek.com/id/47483)

The U.S. and global economies were able to withstand three body blows in 2005--one of the worst tsunamis on record (which struck at the very end of 2004), one of the worst hurricanes on record and the highest energy prices after Hurricane Katrina--without missing a beat. This resilience was especially remarkable in the case of the United States, which since 2000 has been able to shrug off the biggest stock-market drop since the 1930s, a major terrorist attack, corporate scandals and war. Does this mean that recessions are a relic of the past? No, but recent events do suggest that the global economy's "immune system" is now strong enough to absorb shocks that 25 years ago would probably have triggered a downturn. In fact, over the past two decades, recessions have not disappeared, but have become considerably milder in many parts of the world. What explains this enhanced recession resistance? The answer: a combination of good macroeconomic policies and improved microeconomic flexibility. Since the mid-1980s, central banks worldwide have had great success in taming inflation. This has meant that long-term interest rates are at levels not seen in more than 40 years. A low-inflation and low-interest-rate environment is especially conducive to sustained, robust growth. Moreover, central bankers have avoided some of the policy mistakes of the earlier oil shocks (in the mid-1970s and early 1980s), during which they typically did too much too late, and exacerbated the ensuing recessions. Even more important, in recent years the Fed has been particularly adept at crisis management, aggressively cutting interest rates in response to stock-market crashes, terrorist attacks and weakness in the economy. The benign inflationary picture has also benefited from increasing competitive pressures, both worldwide (thanks to globalization and the rise of Asia as a manufacturing juggernaut) and domestically (thanks to technology and deregulation). Since the late 1970s, the United States, the United Kingdom and a handful of other countries have been especially aggressive in deregulating their financial and industrial sectors. This has greatly increased the flexibility of their economies and reduced their vulnerability to inflationary shocks. Looking ahead, what all this means is that a global or U.S. recession will likely be avoided in 2006, and probably in 2007 as well. Whether the current expansion will be able to break the record set in the 1990s for longevity will depend on the ability of central banks to keep the inflation dragon at bay and to avoid policy mistakes. The prospects look good. Inflation is likely to remain a low-level threat for some time, and Ben Bernanke, the incoming chairman of the Federal Reserve Board, spent much of his academic career studying the past mistakes of the Fed and has vowed not to repeat them. At the same time, no single shock will likely be big enough to derail the expansion. What if oil prices rise to $80 or $90 a barrel? Most estimates suggest that growth would be cut by about 1 percent--not good, but no recession. What if U.S. house prices fall by 5 percent in 2006 (an extreme assumption, given that house prices haven't fallen nationally in any given year during the past four decades)? Economic growth would slow by about 0.5 percent to 1 percent. What about another terrorist attack? Here the scenarios can be pretty scary, but an attack on the order of 9/11 or the Madrid or London bombings would probably have an even smaller impact on overall GDP growth.

### Economy resilient

Main Wire 8 (Reporting the Congressional Budget Office Summer Report on Economic Assessments, “FOMC Seen Hiking FFR Through '09,'10”, 9-9, Lexis)

However, the economic outlook could also improve sooner than CBO is currently forecasting. During the past 25 years, the economy has been **resilient in the face of** **adverse shocks**; since 1983, it has experienced only two relatively mild recessions, and inflation has been much more contained than in earlier years. Some economists attribute that long period of relative stability to a number of developments -- for example, less economic regulation, greater competition in labor and product markets (including globalization), and more-effective monetary policy. They argue that the economy has become more competitive and more flexible, able to respond to shocks because prices can adjust more quickly to reflect relative scarcities. (According to that view, scarce goods and services can be quickly redirected to their most valued uses, and a price shocks negative effect on output will be muted.) The current turbulence in the financial markets is testing that argument, but up to now, the economy has coped with the severe shocks of the past year relatively well. In particular, in a distinct contrast to events following the shocks of the 1970s, the lack of a steady surge in core inflation and unit labor costs, and the degree to which the consumption of petroleum products has declined, indicate an efficient response by businesses and households to skyrocketing oil prices. (For example, initial estimates indicate that the consumption of petroleum products during the second quarter of this year was about 4 percent lower than it was a year ago, even though real GDP was 1.8 percent higher. In contrast to responses to earlier oil price shocks, the reduction in the use of petroleum per unit of GDP has occurred without causing major disruptions.) Moreover, the apparent restraint in core inflation has given the Federal Reserve more latitude to try to mitigate the downturn in the economy. Also, some of the negative effects that the shortage of credit has had on businesses' investment spending may have been alleviated by the relatively healthy balance sheets of nonfinancial corporations.

### Economic decline doesn’t cause war

Ferguson 6 (Niall, Professor of History – Harvard University, Foreign Affairs, 85(5), September / October, Lexis)

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**.

### Economic decline doesn’t cause war –

### --Studies prove

Miller 00 (Morris, Economist, Adjunct Professor in the Faculty of Administration – University of Ottawa, Former Executive Director and Senior Economist – World Bank, “Poverty as a Cause of Wars?”, Interdisciplinary Science Reviews, Winter, p. 273)

The question may be reformulated. Do wars spring from a popular reaction to a sudden economic crisis that  
exacerbates poverty and growing disparities in wealth and incomes? Perhaps one could argue, as some scholars do, that it is some dramatic event or sequence of such events leading to the exacerbation of poverty that, in turn, leads to this deplorable denouement. This exogenous factor might act as a catalyst for a violent reaction on the part of the people or on the part of the political leadership who would then possibly be tempted to seek a diversion by finding or, if need be, fabricating an enemy and setting in train the process leading to war. According to a study undertaken by Minxin Pei and Ariel Adesnik of the Carnegie Endowment for International Peace, there would not appear to be any merit in this hypothesis. After studying ninety-three episodes of economic crisis in twenty-two countries in Latin America and Asia in the years since the Second World War they concluded that:19 Much of the conventional wisdom about the political impact of economic crises may be wrong ... The severity of economic crisis – as measured in terms of inflation and negative growth - bore **no relationship** to the collapse of regimes ... (or, in democratic states, rarely) to an outbreak of violence ... In the cases of dictatorships and semidemocracies, the ruling elites responded to crises by increasing repression (thereby using one form of violence to abort another).

### --No resources

Duedney 91 (Daniel, Hewlett Fellow in Science, Technology, and Society – Princeton University, “Environment and Security: Muddled Thinking?”, Bulletin of the Atomic Scientists, April)

Poverty wars. In a second scenario, declining living standards first cause internal turmoil, then war. If groups at all levels of affluence protect their standard of living by pushing deprivation on other groups, class war and revolutionary upheavals could result. Faced with these pressures, liberal democracy and free market systems could increasingly be replaced by authoritarian systems capable of maintaining minimum order.9 If authoritarian regimes are more war-prone because they lack democratic control, and if revolutionary regimes are war-prone because of their ideological fervor and isolation, then the world is likely to become more violent. The record of previous depressions supports the proposition that widespread economic stagnation and unmet economic expectations contribute to international conflict. Although initially compelling, this scenario has major flaws. One is that it is arguably based on unsound economic theory. Wealth is formed not so much by the availability of cheap natural resources as by capital formation through savings and more efficient production. Many resource-poor countries, like Japan, are very wealthy, while many countries with more extensive resources are poor. Environmental constraints require an end to economic growth based on growing use of raw materials, but not necessarily an end to growth in the production of goods and services. In addition, **economic decline does not** necessarily **produce conflict**. How societies respond to economic decline may largely depend upon the rate at which such declines occur. And as people get poorer, they may become less willing to spend scarce resources for military forces. As Bernard Brodie observed about the modern era, “The predisposing factors to military aggression are full bellies, not empty ones.” The experience of economic depressions over the last two centuries may be irrelevant, because such depressions were characterized by under-utilized production capacity and falling resource prices. In the 1930s increased military spending stimulated economies, but if economic growth is retarded by environmental constraints, military spending will exacerbate the problem.

### -- No timeframe

Russett 83 (Bruce, Dean Acheson Professor of International Relations and Political Science – Yale University, “Prosperity and Peace: Presidential Address”, International Studies Quarterly, 27(4), p. 384)

The ‘optimism’ argument seems strained to me, but elements of Blainey’s former thesis, about the need to mobilize resources before war can be begun, are more plausible, especially in the 20th century. Modern wars are fought by complex organizations, with complex and expensive weapons. It takes time to design and build the weapons that military commanders will require, and it takes time to train the troops who must use them. Large bureaucracies must plan and obtain some consensus on those plans; and even in a dictatorship the populace in general must be prepared, with clear images of who are their enemies and of the cause that will justify war with them. In short, preparations for war take time. Just how long a lag we should expect to find between an economic downturn and subsequent war initiation is unclear. But surely it will be **more than a year or two**, and war may well occur **only after** the economy is recovering.

### Economic downturn doesn’t cause war – empirics prove

Blackwill 9 (Robert, former deputy National Security Advisor for Strategic Planning, “The Geopolitical Consequences of the World Economic Recession—A Caution,” Occasional Papers @ RAND Institute. [PDF Online @] www.rand.org/pubs/occasional\_papers/OP275.html)

Earlier slumps that have affected the United States may hold lessons regarding the present one. Including this recession, from 1945 to 2009, the National Bureau of Economic Research has identified 12 U.S. recessions; excluding the current recession, their average duration was ten months (peak to trough).8 Did any of these post–World War II U.S. economic downturns result in deep structural alterations in the international order, that is, a fundamental, long-term change in the behavior of individual nations? None is apparent. Indeed, on some occasions geopolitical events caused international economic dips, but not the other way around. For example, the Iranian Revolution in 1979 sharply increased the global price of oil, which in turn produced an international energy crisis and, abetted by tight monetary policy by the Federal Reserve, a U.S. recession.

## AT: US k2 global econ

### U.S. isn’t key to the global economy

ML 6 (Merrill Lynch, “US Downturn Won’t Derail World Economy”, 9-18, http://www.ml.com/index.asp?id=7695\_7696\_8149\_63464\_70786\_71164)

A sharp slowdown in the U.S. economy in 2007 is **unlikely to drag the** rest of the **global economy down** with it, according to a research report by Merrill Lynch’s (NYSE: MER) global economic team. The good news is that there are strong sources of growth outside the U.S. that should **prove resilient** to a consumer-led U.S. slowdown. Merrill Lynch economists expect U.S. GDP growth to slow to 1.9 percent in 2007 from 3.4 percent in 2006, but non-U.S. growth to decline by only half a percent (5.2 percent versus 5.7 percent). Behind this decoupling is higher non-U.S. domestic demand, a rise in intraregional trade and supportive macroeconomic policies in many of the world’s economies. Although some countries appear very vulnerable to a U.S. slowdown, one in five is actually on course for faster GDP growth in 2007. Asia, Japan and India appear well placed to decouple from the United States, though Taiwan, Hong Kong and Singapore are more likely to be impacted. European countries could feel the pinch, but rising domestic demand in the core countries should help the region weather the storm much better than in previous U.S. downturns. In the Americas, Canada will probably be hit, but Brazil is set to decouple.

### **US not key to world economy – US recession at a time of global growth empirically proves**

Greenspun 8/1/2011 (Philip, semi-retired American computer scientist, educator, and early Internet entrepreneur who was a pioneer in developing online communities, “Does It Make Sense To Talk About The U.S. Economy Being In A Recession?,” Business Insider, http://www.businessinsider.com/philip-greenspun-recession-economy-2011-8)

A commenter on a recent blog post says “Philip, I know you don’t believe there’s a recession” (based on the fact that the NBER declared the U.S. economy to have come out of the most recent recession in the summer of 2009). It occurred to me that maybe asking whether or not the U.S. economy is in a recession is the wrong question. Now that the world economy is so tightly linked, what does it mean for a single country to be in a “recession”? A recession implies that there is a business cycle within each country that inevitably expands and contracts. Thus if a country is “in recession”, without any changes in laws, education, tax rates, or attitudes, it will inevitably enjoy strong growth when the recession is over. The world economy has never been in better shape than right now. You might not get that perspective from news articles, but of course they tend to focus on problem spots such as Greece, Ireland, the U.S., etc. There has been a huge amount of growth in the world economy since 2007 (chart). If a country, such as the U.S., has a smaller economy than it did in 2007, does it make sense to say that country is “in a recession” or simply that whatever conditions are necessary for growth in the current world economy are not present in that country? Does it make sense to predict that next year will be different from this year in terms of a business’s willingness to invest in the U.S.? The existence of growth generates inequality. In a subsistence economy, most people have about the same standard of living. Growth, however, will affect different people to different extents and lead to an inequality of income and wealth. Rather than talk about recession or expansion of a particular economy, would it not make more sense to say that different regions of the world will enjoy a larger or smaller share of the world’s economy growth? Even within the U.S., the expansion periods have not been experienced equally in all regions and industries. Michigan stagnated while North Carolina grew. Investment banks grew fat while other kinds of companies at best stayed even. The U.S. recession is over and yet there are a lot of unemployed Americans. Maybe the answer is that it simply is not productive to consider the concept of a national “recession” at a time when the world economy is exploding with growth.

## AT: Trade

### -- No war impact

Barbieri 96 (Katherine, Professor of Political Science – University of North Texas, Journal of Peace Research, February, p. 42-43)

This study provides little empirical support for the liberal proposition that trade provides a path to interstate peace. Even after controlling for the influence of conti­guity, joint democracy, alliance ties, and relative capabilities, the evidence suggests that in most instances trade fails to deter conflict. Instead, extensive economic inter­dependence increases the likelihood that dyads engage in militarized dispute; how­ever, it appears to have little influence on the incidence of war. The greatest hope for peace appears to arise from symmetrical trading relationships. However, the dampening effect of symmetry is offset by the expansion of interstate linkages. That is, extensive economic linkages, be they sym­metrical or asymmetrical, appear to pose the greatest hindrance to peace through trade. Although this article focuses exclusively on the pre-WWII period, elsewhere I provide evidence that the relationships revealed here are also observed in the post­WWII period and more extended period, 1870—1985 (Barbieri, 1995). Why do the findings differ from those presented in related studies of the trade—conflict re­lationship, which reveal an inverse relation­ship between trade and conflict? Several explanations, other than the temporal domain, can be offered. First, researchers differ in the phenomena they seek to explain, with many studies incorporating both conflictual and cooperative interstate behavior (e.g., Gasiorowski, 1986a, b; Gasiorowski & Polachek, 1982; Polachek, 1980, 1992; Polachek & McDonald, 1992). Studies that focus exclusively on extreme forms of conflict behavior, including dis­putes and wars, differ in their spatial and temporal domains, their level of analysis, and their measurement of central con­structs. Preliminary tests reveal that the composition of dyads in a given sample may have a more dramatic impact on the empiri­cal findings than variations in measurement. For example, the decision to focus exclusively on ‘politically relevant dyads’ may be one source of difference (Oneal et al., 19%). Perhaps the primary component missing from this and related research is the inclusion of a more adequate assessment of the costs and benefits derived from interdepen­dence. I have repeatedly argued that the conflictual or pacific elements of interdepen­dence are directly related to perceptions about trade’s costs and benefits. Yet, a more comprehensive evaluation of these costs and benefits is needed to see whether a link truly exists between the benefits enjoyed in a given trading relationship and the inhibition of conflict in that relationship, or con­versely, the presence of net costs for at least one trading partner and the presence of con­flict in that relationship. For example, are trading relationships that contain two partners believed to benefit from trade less conflict-prone than those containing at least one partner perceived to be worse off from trade? I have merely outlined the types of relationships believed to confer the greatest benefits, but such benefits and costs require a more rigorous investigation.

### -- Trade is resilient – no collapse

Perroni and Whally 96 (Carlo, University of Warwick and John, University of Western Ontario, American Economic Review, 86(2), May, p. 60)

Furthermore, trade performance in the period since the late 1940’s also clearly stands in sharp contrast to the events of the 1930’s. The largest players, the United States and the EU have consistently displayed a determination to mediate their trade disputes in the 1980’s, triggered by EU enlargement. And today’s global economy is much more interdependent than it was in the 1930’s. Firms and industries have become more reliant on export markets, and there is more interindustry trade. There is also the major difference of the presence of the GATT/WTO, accompanied by bindings on tariffs achieved in eight rounds of negotiations; and, despite its weaknesses, a GATT/WTO dispute-settlement procedure has continued to function.

### -- Trade conflicts won’t escalate

Nye 96 (Joseph, Dean of the Kennedy School of Government – Harvard University, Washington Quarterly, Winter)

The low likelihood of direct great power clashes does not mean that there will be no tensions between them. Disagreements are likely to continue over regional conflicts, like those that have arisen over how to deal with the conflict in the former Yugoslavia. Efforts to stop the spread of weapons of mass destruction and means of their delivery are another source of friction, as is the case over Russian and Chinese nuclear cooperation with Iran, which the United States steadfastly opposes. The sharing of burdens and responsibilities for maintaining international security and protecting the natural environment are a further subject of debate among the great powers. Furthermore, in contrast to the views of classical Liberals, increased trade and economic interdependence can increase as well as decrease conflict and competition among trading partners. The main point, however, is that such disagreements are very unlikely to escalate to military conflicts.

# \*\*SKFTA

## AT: Korean War

### No risk of Korean war

Edwards 10 (Michael, Reporter – ABC News, “Full-scale War on Korean Peninsula 'Unlikely'”, ABC News, 11-25, http://www.abc.net.au/news/stories/2010/11/24/3075727.htm)

Experts say full-scale war on the Korean Peninsula is unlikely. But they do say that it remains an alarming possibility.

An expert on North Korea, Professor Peter Hayes from RMIT University, says yesterday's attack is evidence there is a new sense of confidence in Pyongyang.

"I think the reason, at least in part, is that [North Korea] feels it has a both compellent and deterrent capacity," he said.

"A compellent capacity in the sense that it can undertake conventional and nuclear operations to force South Korea to change its policies of hostility towards North Korea, which have come about in the last few years under the current president in South Korea, and deterrent in respect to the United States.

"In other words it can put a lid on any escalation that might come about because of its use of conventional force, because it is simply too dangerous to escalate for everyone, because you might end up in a nuclear war and now they have nuclear weapons which they didn't have."

Professor Hayes says North Korea's unveiling of its uranium enrichment plant has changed the dynamic on the Korean peninsula.

He says war could happen, but South Korea is likely to resist a full-scale military response for the time being.

"I actually think that they can absorb a lot of provocation because the risk of war," he said.

"Given that Seoul, which represents roughly 80 per cent of their economy, is within striking distance of artillery and rockets from North Korea means that we would have to see a lot more violence at this point before the South will be willing to actually conduct military operations against the North."

Professor Hayes does expect North Korea's main ally China to intervene.

### Doesn’t escalate – no retaliation

Lankov 12-19 (Andrei, Professor – Kookmin University (Seoul), “How to stop the next Korean war,” 2010, East Asia Forum, http://www.eastasiaforum.org/2010/12/19/how-to-stop-the-next-korean-war/)

In the past, the South Korean public and government have demonstrated almost inhuman patience every time they faced a North Korean provocation — and they have had to face such provocations regularly. Over the last few decades, North Korean agents bombed one civilian airliner and hijacked another, assaulted the presidential palace, blew up the half of the cabinet of ministers, and arranged at least two assassination attempts against South Korean presidents — not counting numerous kidnappings, commandos raids (with an occasional slaughter of civilians), and the sinking of boats. How did South Korea react to all these acts? In the same, time-tested way: by doing nothing. This unusual restraint reflects the grim reality of the South Korean situation. Half the country’s entire population, some 24 million people, lives in the capital Seoul and its vicinity, well within the range of North Korean artillery. The country’s infrastructure is highly developed and hence highly vulnerable. Since the late 1950s, war has simply not been an option; as Seoul’s frustrated strategists assumed that a retaliatory strike would lead to war — or else prove useless. This assumption was probably correct. North Korea watchers often describe its provocative actions as either irrational or driven by succession politics. This time, Kim Jong Il’s drive to install his son as his heir does seem involved, but on balance Pyongyang’s recent attacks are rational acts — essentially diplomatic demarches, albeit undertaken in somewhat unusual form. In the late 1990s, under the ‘sunshine policy,’ South Korea began providing the North with unconditional aid, but in 2008 the newly elected right-wing administration dramatically reduced the amount. After the second nuclear test in May 2009, the United States halted its aid programs, switching to a policy of ‘strategic patience’ — in other words, ignoring North Korea. None of this drove the North to economic collapse, as many U.S. policymakers hoped, but it did achieve one thing: It made Pyongyang highly dependent on Beijing’s financial and diplomatic largesse. This was not a development North Korean leaders welcomed, mind you — they despise and distrust China (suspicions likely only confirmed by the recent WikiLeaks disclosures). The North Korean regime would like to revive its old strategy of having two or three competing sponsors who can be easily played against one another. So, Pyongyang decided to teach Seoul and Washington a lesson, to show that North Korea is too troublesome to be simply ignored. To the Americans, this message was delivered when Siegfried Hecker, the former director of the Los Alamos National Laboratory, was shown a new state-of-the-art plant producing enriched uranium. For the South, the same message was delivered by artillery shells. North Korean strategists wanted to demonstrate that they can hit a South Korean government — even a hawkish one like that of current President Lee Myung-bak — hard. While Kim Jong Il’s regime revels in its international isolation, it knows that such military incidents are bad for the South, whose lifeblood is global trade. Potential business partners blanche at newspaper headlines about ‘Korea on the brink of war’: Economic performance is the single most important thing the average South Korean voter cares about. South Koreans do not like living in a constant state of siege. Even if the current government remains stubborn, North Korean planners figure, chances are that economic troubles and a general sense of unease will contribute to Lee’s eventual defeat at the polls. The ongoing succession adds another wrinkle. Kim Jong Un, the world’s youngest four-star general, wants to show his toughness — much like his father did when he began preparing to take over in the 1970s and 80s. We shouldn’t overestimate the succession process’s importance, however: Pyongyang would do something along this line anyway — and since the South Korean government is not giving in, another attack is likely to follow soon, in the next few months. South Koreans expect that this time their government will retaliate, and it seems that military leaders — especially after Lee’s recent shakeup of the top ranks — share this mood. It’s an understandable reaction, no doubt. But it is also dangerous and counterproductive. To start with, even if a massive South Korean counterstrike were successful, it would exercise no impact on Pyongyang’s political behavior. For instance, with its impressive technological superiority, the South Korean military could probably sink half the North Korean navy in about an hour. In most places, that sort of defeat would have serious political consequences — but not in North Korea. The lives of the common soldiers and sailors are of no political significance there. The tiny North Korean elite has demonstrated that it is ready to sacrifice as many of the common people as necessary to stay in control (during the famine of the late 1990s, as many as 1 million people perished, with no discernable political repercussions for the government). The death of a few hundred soldiers will be seen as a sorry but fully acceptable price — and will not even deter Pyongyang from planning a new round of provocations. Some argue that such a military disaster would damage the regime, which has staked its reputation on Kim Jong Il’s ‘military first’ doctrine. But Kim’s regime controls the media so completely that even the most humiliating defeat would be presented as a great victory, a spectacular triumph of North Korean arms. Only a handful of generals will know the truth, and these generals understand that they would have no future without the current regime, so they are unlikely to protest. So, nothing can be gained from a massive retaliatory strike. But much can be lost. It may be true that neither side wants war, but there is a danger that a South Korean counterstrike would be seen as excessive in Pyongyang.

**No North Korean adventurism or risk-taking --- deterrence solves and they know US retaliation would annihilate them**

Muthiah **Alagappa 9,** Distinguished Senior Fellow, East-West Center PhD, International Affairs, Fletcher School of Law and Diplomacy, Tufts University, 2009--- Nuclear Weapons Reinforce Security and Stability in 21st Century Asia, The following is an excerpt from The Long Shadow: Nuclear Weapons and Security in 21st Century Asia, <http://globalasia.org/pdf/issue9/Alagappa_Full_Version.doc>

It has been argued that states with small or nascent nuclear arsenals might have strategic incentive to use them early in a conflict to secure a military advantage in an impending full-scale war or to prevent the crippling of their nuclear arsenals in the event of a preventive strike. Without survivable nuclear forces, these considerations would encourage launch-on-warning postures that could produce crisis situations and undermine stability. Although uncertain how this theoretical possibility might materialize, it has been posited that North Korea’s nuclear armaments will generate continuous crises and undermine stability on the Korean peninsula (Park and Lee 2008). That North Korea’s quest for nuclear weapons and the American responses have generated crisis situations and may do so in the future is not the issue. The question is whether nascent and small nuclear weapon states will adopt early-launch postures that produce crisis and undermine stability. There is little empirical evidence to support such a claim.

In the abstract, it would be illogical for a nascent or small nuclear power to adopt such a posture against a much superior adversary, as for example in the standoff between North Korea and the United States. Even if North Korea were to inflict substantial damage on the United States or its allies, it is unclear what political or military advantage would accrue to it. It is almost certain, though, that it would not survive a massive retaliatory strike by the United States. However, if North Korea develops a partially survivable nuclear force, early use could have some value; but still such use is likely to be deterred by the possibility of massive retaliation and destruction by the more powerful adversary. Early use postures may make more sense between powers of roughly equal capability with partially survivable nuclear forces. However, evidence from the India-Pakistan dyad, which has a relatively longer nuclear history, does not support this abstract possibility. Despite Pakistan’s refusal to embrace an NFU policy and its attempt to exploit the risk of escalation to nuclear war, Islamabad has not opted for an early use posture ( Khan and Lavoy 2008). India, which is committed to an NFU policy, has also not adopted an early use posture. As Devin Hagerty (1998) points out, despite the tensions between them, both countries have taken unilateral and bilateral measures to avoid early use. Deterrence, not early use, characterizes their nuclear postures.

## AT: k2 relations

### SKFTA not key

Lim 6 (Wonhyuk, Fellow – Korea Development Institute and Nonresident Fellow – Center for Northeast Asian Policy Studies – Brookings Institution, “KORUS FTA: A MYSTERIOUS BEGINNING AND AN UNCERTAIN FUTURE,” Asian Perspective, 30(4), pp. 175-187, http://www.asianperspective.org/articles/v30n4-i.pdf)

Despite these problems, many people seem to presume that the KORUS FTA will be a new glue that holds the alliance together, a quick fix for the strained relationship between the two countries. However, as long as the two countries fail to craft a common strategic vision for the Korean peninsula and East Asia, the extent to which the FTA can compensate for strains in the security alliance is likely to be limited. Moreover, the process leading to such an agreement will be far from smooth. Most importantly, the bilateral nature of negotiations may create the impression that the United States is to blame for heavy adjustment costs that Korea’s “vulnerable” sectors must bear. For multilateral negotiations, anti-liberalization forces stage a protest against globalization, whereas for bilateral negotiations, they can target a particular country. In other words, negotiations for the KORUS FTA actually run the risk of fueling anti-American sentiment in Korea and anti-Korean sentiment in the United States— exactly the opposite of what its proponents intended. This would be a shame, especially in light of the fact that bilateral trade and investment have been the saving grace of ROK-U.S. relations in recent years.

### US-South Korea relations resilient.

Ireland 9 (Corydon, Harvard News Office, 9/14, http://news.harvard.edu/gazette/story/2009/09/firm-allies-past-and-present/#)

In a conversation in front of a capacity crowd at the forum, the two diplomats reflected on the historical strength of the alliance and what issues might put it at risk. Both agreed it would take a lot to shake a political relationship that dates back to the 19th century, and one that was forged in steel by the Korean War. It is an alliance “less brittle and far more resilient than it ever has been,” said Stephens. Han, who in 1984 earned a Harvard Ph.D. in economics, called the U.S.-South Korea alliance the foundation of his nation’s “economic growth, prosperity, and security.” It remains so firm and mutual today, he added, that it could be an international model of cooperation — “the exemplar alliance relationship of the future.” Moderating the public conversation between ambassadors was Graham Allison, a terrorism scholar who has studied the threat posed by a nuclear-armed North Korea. He is Douglas Dillon Professor of Government at Harvard Kennedy School (HKS) and director of the Belfer Center for Science and International Affairs. Skeptical and probing, Allison prompted the two diplomats to imagine a near future in which the traditional alliance enjoyed by the United States and South Korea goes sour. In sum, he asked, what could go wrong and what issues need attending to? Neither of the ambassadors budged much. In fact, said Han, “there is a very, very fundamental notion that U.S.-Korea relations cannot be swayed by one or two events.” It is and has been an alliance, he said, that has never been “underestimated or disregarded. It was always central.” But it is true, Han added, that the two nations share a set of 21st century problems — global issues that include terrorism, piracy, climate change, and the challenges of development and trade. U.S.-South Korea relations are resilient and strong, said Stephens, but three areas deserve a measure of vigilance: economic crisis, North Korea, and the continued presence of 26,000 American military personnel on Korean soil. “We need to be good neighbors, good friends” on the issue of that presence, she said.

# \*\*Heg

## AT: Asian leadership

### Asian leadership is high – and ASEAN solves

**Siirila 10** (Aaron, Projects & Outreach Coordinator – East-West Center, “Clinton: “Renewed American leadership in Asia”,” 11-4, http://aseanmattersforamerica.org/clinton-renewed-american-leadership-in-asia/456)

US Secretary of State Hilary Rodham Clinton called ASEAN a “fulcrum for the region’s emerging regional architecture” and declared US intentions to “sustain and strengthen America’s leadership in the Asia-Pacific region” in a speech co-hosted by the East-West Center on October 28 in Hawaii. Full video of the speech is available. One main theme of the speech was a defense of America’s record and continuing commitment to US allies, partners and regional institutions in Asia. It was in the context of the third category – regional institutions – that Clinton singled out ASEAN as a leader: And let me simply state the principle that will guide America’s role in Asian institutions. If consequential security, political, and economic issues are being discussed, and if they involve [US] interests, then we will seek a seat at the table. That’s why we view ASEAN as a fulcrum for the region’s emerging regional architecture. And we see it as indispensable on a host of political, economic, and strategic matters. The speech comes as Clinton departs for a seven-country tour of Asia and just two weeks before President Barack Obama visits Asia for the longest international trip of his presidency. ASEAN features heavily in both itineraries; between them, Clinton and Obama will visit four of the ten ASEAN countries. Clinton went on to describe the many ways the US has engaged with ASEAN over the past two years, including: accession to the Treaty of Amity and Cooperation, opening a US mission to ASEAN, engaging in the ASEAN Defense Ministerial Meeting, two US-ASEAN summits attended by President Obama, and a “leading role” in the ASEAN regional forum. Other regional institutions of importance to the United States included APEC and the East Asia Summit (EAS). Clinton also detailed the many strides in bilateral relations between the US and countries in Southeast Asia. In Thailand, she held out the Creative Partnership Agreement, which brings Thais and Americans together to develop sectors of the Thai economy. In the Philippines, the upcoming 2+2 Strategic Dialogue meeting will bring together US and Filipino defense and foreign secretaries. The US has engaged with both countries to increase their skills in counterterrorism and response to humanitarian disaster. Clinton praised Indonesia for “playing a leading role in the region and especially in regional institutions.” The US is looking forward to launching the new Comprehensive Partnership Agreement this month, during Obama’s visit, and is also placing high hopes on Indonesia’s hosting of the East Asia Summit in 2011. In Vietnam, the US is “cultivating a level of cooperation that would have been unimaginable just 10 years ago.” US-Vietnamese ties are moving forward diplomatically, economically, and in defense-related issues. And the US is working with Singapore to promote economic growth and integration through ASEAN and the Trans-Pacific Partnership (TPP). The US has also increased its naval presence in Singapore.

### -- Asian leadership collapse inevitable – economic crisis and defense spending

Zakheim 9 (Dov, Trustee – Foreign Policy Research Institute, “Security Challenged for the Crisis”, 3-11,

http://www.isn.ethz.ch/isn/Current-Affairs/Security-Watch/Detail/?ots591=4888CAA0-B3DB-1461-98B9-E20E7B9C13D4&lng=en&id=98001)

The economic crisis is likely to further diminish the already weak appetite of allies and friends both to increase or even maintain their current levels of defense expenditure, and to contribute to coalition operations in Afghanistan. Few of our major allies and friends spend as much as 3 percent. of their GDP on defense. Their GDPs, like ours, are in decline and in several cases, such as Japan, are declining at a far faster rate than ours. Korea and Taiwan, like Japan, are suffering from a drop in exports, notably in the automobile sector. Iceland’s financial collapse has received widespread attention. Economic constraints have at times been an excuse for allies not to do more for the common defense of the West; today, that excuse is being buttressed by reality. Whether excuse or reality, the net result will be exactly the same: the United States will be forced to bear an even heavier burden to defend western interests, at a time when it will have fewer resources enabling it to do so. The case of the F-35 provides a distinct example of the interplay between pressures on the US defense budget and alliance relationships. The F-35 program could be one of those affected by the redistribution of defense spending priorities. There are eight countries that currently are co-developing this aircraft, including key allies Britain, Canada and Australia, and many more planning to purchase it, among them Israel, Singapore, and many of the European allies that currently fly F-16s. Any slowdown of the program will increase its costs, and could put it beyond the purchasing power of several F-35 partners. It could also could embitter states that have contributed to its development, furnishing them with yet another reason to be even less inclined to contribute to coalition efforts if Afghanistan, and potentially elsewhere, than they are today.

## AT: general

### The US has superpower status in every sector that is unrivaled

Brooks and Wohlforth 8 – Stephen Brooks, Associate Professor of Government at Dartmouth, William C. Wohlforth, Daniel Webster Professor of Government at Dartmouth, “World Out of Balance,” Princeton University Press, http://press.princeton.edu/chapters/i8784.pdf

1This point has been stressed by political scientists, historians, and policymakers. Political scientist G. John Ikenberry observes that “since the end of the Cold War, the United States has emerged as an unrivaled and unprecedented global superpower. At no other time in modern history has a single state loomed so large over the rest of the world.” “Is American Multilateralism in Decline?” Perspectives on Politics 3 (2003): 533. Historian Paul Kennedy stresses: “A statistician could have a wild time compiling lists of the ﬁelds in which the US leads. . . . It seems to me there is no point in the Europeans or Chinese wringing their hands about US predominance, and wishing it would go away. It is as if, among the various inhabitants of the apes and monkeys cage at the London Zoo, one creature had grown bigger and bigger—and bigger—until it became a 500lb gorilla.” “The Eagle Has Landed: The New U.S. Global Military Position,” Financial Times, February 1, 2002. And former secretary of state Henry Kissinger maintains, “The U.S. is enjoying a preeminence unrivaled by even the greatest empires of the past. From weaponry to entrepreneurship, from science to technology, from higher education to popular culture, America exercises an unparalleled ascendancy around the globe.” Does America Need a Foreign Policy? Toward a Diplomacy for the 21st Century (New York: Simon and Schuster, 2001), 17

### No transition war

**Ikenberry 8** John Ikenberry, professor of Politics and International Affairs at [Princeton University](http://en.wikipedia.org/wiki/Princeton_University), “The Rise of China and the Future of the West Can the Liberal System Survive?,” Foreign Affairs Magazine, January/February 2008

Some observers believe that the American era is coming to an end, as the Western-oriented world order is replaced by one increasingly dominated by the East. The historian Niall Ferguson has written that the bloody twentieth century witnessed "the descent of the West" and "a reorientation of the world" toward the East. Realists go on to note that as China gets more powerful and the United States' position erodes, two things are likely to happen: China will try to use its growing influence to reshape the rules and institutions of the international system to better serve its interests, and other states in the system -- especially the declining hegemon -- will start to see China as a growing security threat. The result of these developments, they predict, will be tension, distrust, and conflict, the typical features of a power transition. In this view, the drama of China's rise will feature an increasingly powerful China and a declining United States locked in an epic battle over the rules and leadership of the international system. And as the world's largest country emerges not from within but outside the established post-World War II international order, it is a drama that will end with the grand ascendance of China and the onset of an Asian-centered world order. That course, however, is not inevitable. The rise of China does not have to trigger a wrenching hegemonic transition. The U.S.-Chinese power transition can be very different from those of the past because China faces an international order that is fundamentally different from those that past rising states confronted. China does not just face the United States; it faces a Western-centered system that is open, integrated, and rule-based, with wide and deep political foundations. The nuclear revolution, meanwhile, has made war among great powers unlikely -- eliminating the major tool that rising powers have used to overturn international systems defended by declining hegemonic states. Today's Western order, in short, is hard to overturn and easy to join.

### Hegemony inevitable

**Friedman 9** (George Friedman Ph.D, Chief executive, founder of STRATFOR, Former Political Science Professor at Dickinson College, PhD in government, “The Next 100 Years”, 13-31) SV

We are now in an America-centric age. To understand this age, we must understand the United States, not only because it is so powerful but because its culture will permeate the world and deﬁne it. Just as French culture and British culture were deﬁnitive during their times of power, so American culture, as young and barbaric as it is, will deﬁne the way the world thinks and lives. So studying the twenty- ﬁrst century means studying the United States. If there were only one argument I could make about the twenty- ﬁrst century, it would be that the European Age has ended and that the North American Age has begun, and that North America will be dominated by the United States for the next hundred years. The events of the twenty ﬁrst century will pivot around the United States. That doesn’t guarantee that the United States is necessarily a just or moral regime. It certainly does not mean that America has yet developed a mature civilization. It does mean that in many ways the history of the United States will be the history of the twenty- ﬁrst century. There is a deep- seated belief in America that the United States is approaching the eve of its destruction. Read letters to the editor, peruse the Web, and listen to public discourse. Disastrous wars, uncontrolled deﬁcits, high gasoline prices, shootings at universities, corruption in business and government, and an endless litany of other shortcomings—all of them quite real—create a sense that the American dream has been shattered and that America is past its prime. If that doesn’t convince you, listen to Europeans. They will assure you that America’s best day is behind it. The odd thing is that all of this foreboding was present during the presidency of Richard Nixon, together with many of the same issues. There is a continual fear that American power and prosperity are illusory, and that disaster is just around the corner. The sense transcends ideology. Environmentalists and Christian conservatives are both delivering the same message. Unless we repent of our ways, we will pay the price—and it may be too late already. It’s interesting to note that the nation that believes in its manifest destiny has not only a sense of impending disaster but a nagging feeling that the country simply isn’t what it used to be. We have a deep sense of nostalgia for the 1950s as a “simpler” time. This is quite a strange belief. With the Korean War and McCarthy at one end, Little Rock in the middle, and Sputnik and Berlin at the other end, and the very real threat of nuclear war throughout, the 1950s was actually a time of intense anxiety and foreboding. A widely read book published in the 1950s was entitled The Age of Anxiety. In the 1950s, they looked back nostalgically at an earlier America, just as we look back nostalgically at the 1950s. American culture is the manic combination of exultant hubris and profound gloom. The net result is a sense of conﬁdence constantly undermined by the fear that we may be drowned by melting ice caps caused by global warming or smitten dead by a wrathful God for gay marriage, both outcomes being our personal responsibility. American mood swings make it hard to develop a real sense of the United States at the beginning of the twenty ﬁrst century. But the fact is that the United States is **stunningly powerful**. It may be that it is heading for a catastrophe, but it is hard to see one when you look at the basic facts. Let’s consider some illuminating ﬁgures. Americans constitute about 4 percent of the world’s population but produce about 26 percent of all goods and services. In 2007 U.S. gross domestic product was about $14 trillion, compared to the world’s GDP of $54 trillion—about 26 percent of the world’s economic activity takes place in the United States. The next largest economy in the world is Japan’s, with a GDP of about $4.4 trillion—about a third the size of ours. The American economy is so huge that it is larger than the economies of the next four countries combined: Japan, Germany, China, and the United Kingdom. Many people point at the declining auto and steel industries, which a generation ago were the mainstays of the American economy, as examples of a current deindustrialization of the United States. Certainly, a lot of industry has moved overseas. That has left the United States with industrial production of only $2.8 trillion (in 2006): the largest in the world, more than twice the size of the next largest industrial power, Japan, and larger than Japan’s and China’s industries combined. There is talk of oil shortages, which certainly seem to exist and will undoubtedly increase. However, it is important to realize that the United States produced 8.3 million barrels of oil every day in 2006. Compare that with 9.7 million for Russia and 10.7 million for Saudi Arabia. U.S. oil production is 85 percent that of Saudi Arabia. The United States produces more oil than Iran, Kuwait, or the United Arab Emirates. Imports of oil into the country are vast, but given its industrial production, that’s understandable. Comparing natural gas production in 2006, Russia was in ﬁrst place with 22.4 trillion cubic feet and the United States was second with 18.7 trillion cubic feet. U.S. natural gas production is greater than that of the next ﬁve producers combined. In other words, although there is great concern that the United States is wholly dependent on foreign energy, it is actually one of the world’s largest energy producers. Given the vast size of the American economy, it is interesting to note that the United States is still under populated by global standards. Measured in inhabitants per square kilometer, the world’s average population density is 49. Japan’s is 338, Germany’s is 230, and America’s is only 31. If we exclude Alaska, which is largely uninhabitable, U.S. population density rises to 34. Compared to Japan or Germany, or the rest of Europe, the United States is hugely under populated. Even when we simply compare population in proportion to arable land—land that is suitable for agriculture—America has five times as much land per person as Asia, almost twice as much as Europe, and three times as much as the global average. An economy consists of land, labor, and capital. In the case of the United States, these numbers show that the nation can still grow—it has plenty of room to increase all three. There are many answers to the question of why the U.S. economy is so powerful, but the simplest answer is military power. The United States completely dominates a continent that is invulnerable to invasion and occupation and in which its military overwhelms those of its neighbors. Virtually every other industrial power in the world has experienced devastating warfare in the twentieth century. The United States waged war, but America itself never experienced it. Military power and geographical reality created an economic reality. Other countries have lost time recovering from wars. The United States has not. It has actually grown because of them. Consider this simple fact that I’ll be returning to many times. The United States Navy controls all of the oceans of the world. Whether it’s a junk in the South China Sea, a dhow off the African coast, a tanker in the Persian Gulf, or a cabin cruiser in the Caribbean, every ship in the world moves under the eyes of American satellites in space and its movement is guaranteed—or denied—at will by the U.S. Navy. The combined naval force of the rest of the world doesn’t come close to equaling that of the U.S. Navy. **This has never happened before** in human history, even with Britain. There have been regionally dominant navies, but never one that was **globally and overwhelmingly dominant**. This has meant that the United States could invade other countries—but never be invaded. It has meant that in the ﬁnal analysis the United States controls international trade. It has become the foundation of American security and American wealth. Control of the seas emerged after World War II, solidiﬁed during the ﬁnal phase of the European Age, and is now the ﬂip side of American economic power, the basis of its military power. Whatever passing problems exist for the United States, the most important factor in world affairs is the tremendous imbalance of economic, military, and political power. Any attempt to forecast the twenty- ﬁrst century that does not begin with the recognition of the extraordinary nature of American power is out of touch with reality. But I am making a broader, more unexpected claim, too: the United Statesis only at the beginning of its power. **The twenty first century will be the American century**.

### Aging crisis solves

**Haas 7** (Mark L Haas, Assistant Professor of Political Science at Duquesne University, “A Geriatric Peace? The Future of U.S. Power in a World of Aging Populations” International Security, Vol. 32, No. 1, Summer, p 112-147 (EBSCO)) SV

**Global population aging will** influence U.S. foreign policies in five major ways in coming decades. First, this phenomenon will **be a potent force for the continuation of U.S. power dominance, both economic and military**. Aging populations are likely to result in the slowdown of states’ economic growth at the same time that governments face substantial pressure to pay for massive new expenditures for elderly care. This double economic dilemma will create such an austere fiscal environment that the other great powers will lack the resources necessary to overtake the United States’ huge power lead. Investments designed to improve overall economic growth and purchases of military weaponry will be crowded out. Compounding these difficulties, although the United States is growing older, it is doing so to a lesser extent and less quickly than all the other great powers. Consequently, the economic and fiscal costs for the United States created by social aging (although staggering, especially for health care) will be significantly lower for it than for potential competitors. **Global aging is** therefore **not only likely to extend U.S. hegemony** (because the other major powers will lack the resources necessary to overtake the United States’ economic and military power lead), **but deepen it as these others states are likely to fall even farther behind the United States**. Thus despite much recent discussion in the international relations literature and some policymaking circles about the likelihood of China (and to a lesser extent the European Union) balancing U.S. power in coming decades, the realities of social aging and its economic and military effects make such an outcome unlikely.6

### No Asian challengers

**Mead 7** (Walter Russell, senior fellow, Council of Foreign Relations. Prof of foreign policy, “China doesn't own the future”, <http://www.latimes.com/news/opinion/sunday/commentary/la-op-mead14oct14,0,113024.story?coll=la-sunday-commentary>, 10/14/2007) SV

Asia's Big Three -- China, India and Japan -- are in rough balance. Any two of them are economically and militarily strong enough to prevent the third from dominating the region. India and Japan could balance China. China and Japan could balance India. And Japan's dreams of dominating the Pacific died in 1945. With the U.S. also prepared to defend the balance of power in Asia, it seems unlikely that China, or any other nation, will waste time and money in the effort to overturn it. China will continue to modernize its military and test the limits of its power. But for it to build armed forces that could overcome the combined might of the U.S., India and Japan is not now, and probably never will be, a feasible project.

## AT: soft power

### **Soft power fails – states will do what is in their own best interests**

Rothman 11 – Steven B. Rothman, PhD, is an assistant professor at Ritsumeikan Asia Pacific University, currently researches and publishes in the areas of international relations theory, soft power, 2011, "Revising the soft power concept: what are the means and mechanisms of soft power?" Journal of Political Power, Volume 4, Issue 1, 2011, 49-64, http://www.tandfonline.com/doi/full/10.1080/2158379X.2011.556346

The above discussion demonstrates one potential mechanism for the perpetuation of soft power via the diffusion of norms. This generally rests on the successfulness of the policy or idea to accomplish the goals – not only of the state wielding soft power, but also the potential success of the target state. Because norm diffusion occurs through competing norms until one becomes clearly dominant against all others, there is less control over the process by each state. States will pursue policies they believe are successful for their goals, and if those policies are successful, the policy will become attractive to others seeking similar goals and most likely adopted by them. The state and policy‐makers have less control over this process because they cannot control the alternative norms that appear to compete against their own. In addition, states will attempt to make their policies or culture successful regardless of what other norms are competing, so it is not clear that states can always use potential soft power resources. Once a policy becomes perceived as ineffective or unsuccessful in international politics, states would rather reject such a policy rendering the soft power resource obsolete.

### **The benefits of soft power are exaggerated – soft power fails because it cannot be applied in specific instances like hard power**

Gray 4-8 Dr. Colinn S. Gray is Professor of International Politics and Strategic Studies at the University of Reading, England. He worked at the International Institute for Strategic Studies (London), and at Hudson Institute (Croton-on-Hudson, NY) before founding the National Institute for Public Policy, a defense-oriented think tank in the Washington, DC, area. Dr. Gray served for 5 years in the Reagan administration on the President’s General Advisory Committee on Arms Control and Disarmament. He has served as an adviser to both the U.S. and British governments. April 8th, 2011, "Hard Power and Soft Power: The Utility of Military Force as an Instrument of Policy in the 21st Century," <http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubid=1059>

Thus, soft power does not lend itself to careful regulation, adjustment, and calibration. What does this mean? To begin with a vital contrast: whereas military force and economic pressure (negative or positive) can be applied by choice as to quantity and quality, soft power cannot. (Of course, the enemy/rival too has a vote on the outcome, regardless of the texture of the power applied.) But hard power allows us to decide how we will play in shaping and modulating the relevant narrative, even though the course of history must be an interactive one once the engagement is joined. In principle, we can turn the tap on or off at our discretion. The reality is apt to be somewhat different because, as noted above, the enemy, contingency, and friction will intervene. But still a noteworthy measure of initiative derives from the threat and use of military force and economic power. But soft power is very different indeed as an instrument of policy. In fact, I am tempted to challenge the proposition that soft power can even be regarded as one (or more) among the grand strategic instruments of policy.

The seeming validity and attractiveness of soft power lead to easy exaggeration of its potency. Soft power is admitted by all to defy metric analysis, but this is not a fatal weakness. Indeed, the instruments of hard power that do lend themselves readily to metric assessment can also be unjustifiably seductive. But the metrics of tactical calculation need not be strategically revealing. It is important to win battles, but victory in war is a considerably different matter than the simple accumulation of tactical successes. Thus, the burden of proof remains on soft power: (1) What is this concept of soft power? (2) Where does it come from and who or what controls it? and (3) Prudently assessed and anticipated, what is the quantity and quality of its potential influence? Let us now consider answers to these questions.

# AT: get off the rock

## AT: Colonize

### No overpopulation now- empty land and food surplus

McNeil 08 [Donald G McNeil, Professor of Economics, “Malthus Redux: Is Doomsday Upon Us, Again?”, http://www.nytimes.com/2008/06/15/world/americas/15iht-15mcneil.13714561.html, 6/15/08]

The whole world has never come close to outpacing its ability to produce food. Right now, there is enough grain grown on earth to feed 10 billion vegetarians, said Joel Cohen, professor of populations at Rockefeller University and the author of "How Many People Can the Earth Support?" But much of it is being fed to cattle, the SUV's of the protein world, which are in turn guzzled by the world's wealthy. Theoretically, there is enough acreage already planted to keep the planet fed forever, because 10 billion humans is roughly where the United Nations predicts that the world population will plateau in 2060. But success depends on portion control; in the late 1980s, Brown University's World Hunger Program calculated that the world then could sustain 5.5 billion vegetarians, 3.7 billion South Americans or 2.8 billion North Americans, who ate more animal protein than South Americans. Even if fertility rates rose again, many agronomists think the world could easily support 20 billion to 30 billion people. Anyone who has ever flown across the United States can see how that's possible: there's a lot of empty land down there. The world's entire population, with 1,000 square feet of living space each, could fit into Texas. Pile people atop each other like Manhattanites, and they get even more elbow room. Water? When it hits $150 a barrel, it will be worth building pipes from the melting polar icecaps, or desalinating the sea as the Saudis do. The same potential is even more obvious flying around the globe. The slums of Mumbai are vast; but so are the empty arable spaces of Rajasthan. Africa, a huge continent with a mere 770 million people on it, looks practically empty from above. South of the Sahara, the land is rich; south of the Zambezi, the climate is temperate. But it is farmed mostly by people using hoes.

### Colonization won’t occur in this millennium at best

Kistler 98 [Walter P.– founder of Kistler Aerospace Corporation, “Humanity’s Future In Space”, July 21, 1998]

4. The Very Long-Range Future of Humanity in Space Will humans ever visit other stars and colonize planets in deep space that offer conditions similar to those on Earth-temperate climate, oceans and continents, an atmosphere similar to ours? Only one in a thousand planetary bodies is likely to meet all those conditions. Since the star closest to Earth lies at a distance of over 4 light years, the right planet circling the right sun at the right distance will hardly be found at a distance of less than 10, 20 or 50 light years from our Sun. The farthest stars in our own galaxy lie at distances of nearly 100,000 light years from us. How will humans ever be able to traverse such distances within their lifetimes? They probably won't! The first travelers to distant stars will not be people, but robotic probes, moving at much less than the speed of light and requiring centuries to investigate distant solar systems. Only after exploratory work is done and we know the nature of our near galactic surroundings can humanity afford to venture further into the cosmos. The only conceivable way this can happen is through means of human colonies living in large space islands similar to those suggested by Jerry O'Neal of Princeton University. There is no way we could imagine those large objects, weighing millions of tons, being able to move with anywhere near the speed of light and so, unless people are put in a stage of suspended animation, many generations will come and go before the "promised land" has been reached. T**he spread of humanity throughout our galactic system will be a very, very slow process, not to be expected in the next century, but perhaps in the next millennium.** However, when we look at the millions of years it took us to evolve in our development, humanity will have plenty of time to progress towards our destiny.

## AT: not sustainable

### Earth is sustainable, and it’s impossible to economically transport a significant number of people without trading off with the resources that enable sustainability

Elhefnawy 9 [Nader - Professor of English at the University of Miami, writer on IR published in journals including International Security, Astropolitics, and Survival, February 2, 2009, “Planetary demographics and space colonization,” online: http://www.thespacereview.com/article/1296/1

The idea that population growth will drive space expansion is an old one. In 1758, the Danish Reverend Otto Diederich Lutken made reference to the settlement of human beings on other planets as a way to alleviate population pressure in his article, “An enquiry into the proposition that the number of the people is the happiness of the realm, or the greater the number of subjects, the more flourishing the state.” It was also much on the mind of Nikolai Fedorov in his development of his important ideas about space travel. The population explosion of the 20th century and the increased concern about the planet’s ecological limitations have kept these concerns alive and well, figuring prominently in visions like Gerard K. O’Neill’s 1976 book The High Frontier, and a great deal of space opera. Today the world is still seeing large-scale migrations, but it seems highly unlikely that they will translate into a “push” off-planet, even were the technology to become available in this century as O’Neill (and many others) have predicted. An important reason is that the affluent, technologically advanced states that are most capable of conducting the effort seem least likely to generate space colonists, given their tendency to receive rather than export immigrants in recent decades. This pattern is reinforced by the fact that their populations are aging, and appear to be either stabilizing or gradually declining—not the demographic picture usually associated with such dramatic expansion. This may suggest that the rich industrialized countries will be the main providers of the money and technology for the enterprise, while the fast-growing developing nations provide a disproportionate share of the colonists, but the facts of the situation are more complex. (O’Neill, certainly, was concerned by the need to redress Third World poverty when he wrote The High Frontier.) However, even assuming that the cooperation necessary to make this highly unequal arrangement work is somehow achieved, the fact remains that most developing states are actually well along the demographic path already taken by the industrialized nations. The pundits who dismiss Europe’s future on demographic grounds, while celebrating (or dreading) the rise of China, tend to overlook the reality that Europe and China are in the same boat with regard to family sizes. The Total Fertility Rate (TFR)> for the People’s Republic of China is actually 1.77 births per woman, well below the replacement level of 2.1, and slightly below Norway’s. (The trend is even more marked among the “overseas” Chinese: the four countries with the lowest TFRs in the world being Hong Kong, Macao, Singapore and Taiwan, respectively.) While countries like the Philippines have higher fertility rates, a similar drop is already evident in several other developing East Asian countries (Burma, Thailand, Vietnam), as well as industrialized Korea and Japan. The same trends are evident in the Middle East as well, contrary to what some sectors of the media proclaim. In Turkey, Algeria, Tunisia, Lebanon and Iran, in fact, birth rates have already fallen below replacement level, with fundamentalist Iran’s 1.7 children per woman below the levels of Finland, Denmark, Luxembourg and France. The trends are less advanced in southern Asia, but still evident there too, with India’s TFR at 2.8 and Bangladesh’s at 3.0. Pakistan’s is 3.6, relatively high, but also representing a sustained drop from nearly twice that in the early 1960s, and likely to fall to 2.3 by 2025 according to a United Nations study. (In the same time frame, India’s birth rate is likely to fall to replacement levels, or very close to them.) The situation is similar in the Western hemisphere, and not only in the United States and Canada. While fertility remains relatively high in Central America (Guatemala’s TFR is 3.6 births per woman), these countries still represent a relatively small share of the population of the region as a whole. In populous Brazil, by contrast, births have fallen to fewer than two per woman, and the same goes for Uruguay, with Argentina not far behind. Cuba’s TFR is among the lowest in the world at 1.6. Even in Mexico, the source of so much consternation in the United States, the figure is under 2.4 and dropping. In short, very high fertility rates have become a thing of the past outside sub-Saharan Africa, and even there the likelihood is that development will mean this changes here as well. Of course, that leaves the possibility of population growth from the other end of the telescope: greater longevity, but the prospects for this also seem to have been exaggerated. For American women, life expectancy improved from 47 years in 1900, to 71 years in 1950—a 50 percent increase in that half-century. From 1950 to 2000, this was extended by another eight to ten years, a much more modest 10–15 percent growth in the same length of time. (The profile of male life expectancy in the US followed a similar course.) This is a broad slowdown in the extension of the human life span, despite the skyrocketing cost of health care. Accordingly, just going by the established trends, life is unlikely to get very much longer in the foreseeable future. Indeed, there are signs that this progress is being reversed, with smoking and obesity commonly attacked as the culprits. Of course, there are those who predict revolutionary advances in medicine which will radically extend life and health in the near future, and perhaps even eliminate death, but there has been little in the way of tangible results to support such promises. Because of these trends, where global population nearly quadrupled in the last century, it may actually crest and start to drop by the middle of this one. Of course, none of this is to dismiss claims that the world faces serious population stresses, or to argue that even slower population growth would not be desirable. According to the Worldwatch Institute, the world economy was already consuming the resources of 1.2 Earths by 1999, a figure that had risen to 1.4 Earths by this year. The addition of two to three billion people in the coming decades as the drop in population growth catches up with the drop in fertility rates, as well as the struggle to give billions more of those already here a decent life, will increase it (all other things being equal). The fact that the increase will overwhelmingly occur in the poorest countries also poses important challenges. Of course, it may seem a world of nine billion people or more on a planet facing ecological degradation and resource crunches will still suffice to drive a torrent of settlers out to the rest of the solar system. However, the same economic constraints discussed above would preclude that. Even were space settlement to appear an attractive palliative under those circumstances, it seems unlikely that a really struggling planetary economy would be up to the job of delivering demographically significant numbers of people to new homes in orbit and beyond and equipping them to live off the resources in space, rather than depending on Earth’s limited stock of them. In other words, the motivation would exist, but not the means, and the opposite also seems to be true: that a world economy capable of building habitable space colonies is likely to be one significantly more prosperous than that of today, rather than poorer. For that reason, life would probably be more comfortable for most of the planet’s inhabitants rather than less, diminishing the “push” factor that has historically been so important in such movements in the past. (That this population would on the whole be older—and in that, hardly the demographic profile of a pioneering culture—should also be noted in such a consideration.) This may mean that, as writers like Hans Moravec and Ray Kurzweil have suggested, it is not human beings, but the robotic “mind children” of humanity, that will leave the Earth to explore the universe beyond it, with the vast majority of the flesh-and-blood humans sitting out the adventure at home.

### There’s no need to colonize – the Earth is sustainable

Shapiro 07 [Robert – Professor Emeritus and Senior Research Scientist in the Chemistry Department of New York University. “Why the Moon? Human survival!”. March 19, 2007]

Physicist Stephen Hawking, and a number of others, have called for humanity to spread out to distant planetsof our Solar System. But there is no need to go so far to protect ourselves. After a few decades—centuries at worst—dust and ash will settle, radioactive materials will decay, and viruses will perish. Earth will once again become the best home for humanity in the Solar System. Return would be easiest if a safe sanctuary were nearby. In the more probable instance that only a limited disaster took place, that nearby sanctuary could also play a valuable role in restoring lost data and cultural materials, and coordinating the recovery. And of course, construction of the rescue base will be much easier if it is only days, rather than months or years, away.

# \*\*Aerospace

### Aerospace is resilient- Their sales rose even through the recession and experts forecast growth

Aviation Today, 8 [Aviation Today, magazine focused on the American aerospace industry, “AIA: Aerospace Resilient In Recession,” December 11, 2008, <http://www.aviationtoday.com/av/topstories/AIA-Aerospace-Resilient-In-Recession_28331.html>, DA 7/20/11]//RS

AIA: Aerospace Resilient In Recession The United States aerospace industry will record its fifth straight year of growth this year and is “in a relatively good position” despite the economic recession, according to the Aerospace Industries Association (AIA). Delivering the organization’s year-end review and 2009 forecast Wednesday in Washington, D.C., AIA President and CEO Marion C. Blakey said total civil, military, space and missile sales are on track to reach $204 billion, an increase of 2.1 percent over 2007. The growth rate is less than in recent years, mainly due to a work stoppage at Boeing that caused industry repercussions, Blakey said. AIA noted strength in shipments, up 7 percent to $197 billion, and backlog, up nearly 10 percent to $404 billion. However, orders for aircraft, parts and equipment declined 14 percent to $234 billion from the record set in 2007. The organization forecasts continued growth in 2009, but at a much more modest pace than in recent years. Sales are expected to reach $214 billion, up 4.8 percent. That increase would be even less had the eight-week Boeing strike not occurred, Blakey said. “The gang-buster trends of the last few years of our industry are almost certainly over for a while,” Blakey said. “But we do not anticipate a severe downturn in the near term, either.”

# \*\*Disease

### **No impact – diseases have evolved to be less dangerous**

Achenbach 3 – Joel Achenbach, Washington Post staff, November 2003, "Our Friend, the Plague," writer http://ngm.nationalgeographic.com/ngm/0311/resources\_who.html

Whenever a new disease appears somewhere on our planet, experts invariably pop up on TV with grave summations of the problem, usually along the lines of, "We're in a war against the microbes"—pause for dramatic effect —"and the microbes are winning."  
War, however, is a ridiculously overused metaphor and probably should be bombed back to the Stone Age.   
Paul Ewald, a biologist at the University of Louisville, advocates a different approach to lethal microbes. Forget trying to obliterate them, he says, and focus instead on how they co-evolve with humans. Make them mutate in the right direction. Get the powers of evolution on our side.  
Disease organisms can, in fact, become less virulent over time. When it was first recognized in Europe around 1495, syphilis killed its human hosts within months. The quick progression of the disease—from infection to death—limited the ability of syphilis to spread. So a new form evolved, one that gave carriers years to infect others.  
For the same reason, the common cold has become less dangerous. Milder strains of the virus—spread by people out and about, touching things, and shaking hands—have an evolutionary advantage over more debilitating strains. You can't spread a cold very easily if you're incapable of rolling out of bed.  
This process has already weakened all but one virulent strain of malaria: *Plasmodium falciparum* succeeds in part because bedridden victims of the disease are more vulnerable to mosquitoes that carry and transmit the parasite. To mitigate malaria, the secret is to improve housing conditions. If people put screens on doors and windows, and use bed nets, it creates an evolutionary incentive for *Plasmodium falciparum* to become milder and self-limiting. Immobilized people protected by nets and screens can't easily spread the parasite, so evolution would favor forms that let infected people walk around and get bitten by mosquitoes.

# \*\*Cyper terror

### No threat of large-scale cyber-terrorism---30 years of empirical evidence proves

Sean Lawson 11, Ph.D. Department of Communication University of Utah "BEYOND CYBER-DOOM: Cyberattack Scenarios and the Evidence of History" Jan 11 mercatus.org/sites/default/files/publication/beyond-cyber-doom-cyber-attack-scenarios-evidence-history\_1.pdf

Despite persistent ambiguity in cyber-threat perceptions, cyber-doom scenarios have remained an important tactic used by cybersecurity proponents. Cyber-doom scenarios are hypothetical stories about prospective impacts of a cyberattack and are meant to serve as cautionary tales that focus the attention of policy makers, media, and the public on the issue of cybersecurity. These stories typically follow a set pattern involving a cyberattack disrupting or destroying critical infrastructure. Examples include attacks against the electrical grid leading to mass blackouts, attacks against the financial system leading to economic losses or complete economic collapse, attacks against the transportation system leading to planes and trains crashing, attacks against dams leading floodgates to open, or attacks against nuclear power plants leading to meltdowns (Cavelty, 2007: 2). Recognizing that modern infrastructures are closely interlinked and interdependent, such scenarios often involve a combination of multiple critical infrastructure systems failing simultaneously, what is sometimes referred to as a “cascading failure.” This was the case in the “Cyber Shockwave” war game televised by CNN in February 2010, in which a computer worm Leaked U.S. diplomatic cables published by WikiLeaks.org seem to corroborate this accusation (Shane & Lehren, 2010).5 spreading among cell phones eventually led to serious disruptions of critical infrastructures (Gaylord, 2010). Even more ominously, in their recent book, Richard Clarke and Robert Knake (2010: 64–68) present a scenario in which a cyberattack variously destroys or seriously disrupts all U.S. infrastructure in only fifteen minutes, killing thousands and wreaking unprecedented destruction on U.S. cities. Surprisingly, some argue that we have already had attacks at this level, but that we just have not recognized that they were occurring. For example, Amit Yoran, former head of the Department of Homeland Security’s National Cyber Security Division, claims that a “cyber- 9/11” has already occurred, “but it’s happened slowly so we don’t see it.” As evidence, he points to the 2007 cyberattacks on Estonia, as well as other incidents in which the computer systems of government agencies or contractors have been infiltrated and sensitive information stolen (Singel, 2009). Yoran is not alone in seeing the 2007 Estonia attacks as an example of the cyberdoom that awaits if we do not take cyber threats seriously. The speaker of the Estonian parliament, Ene Ergma, has said that “When I look at a nuclear explosion, and the explosion that happened in our country in May, I see the same thing” (Poulsen, 2007). Cyber-doom scenarios are not new. As far back as 1994, futurist and best-selling author Alvin Toffler claimed that cyberattacks on the World Trade Center could be used to collapse the entire U.S. economy. He predicted that “They [terrorists or rogue states] won’t need to blow up the World Trade Center. Instead, they’ll feed signals into computers from Libya or Tehran or Pyongyang and shut down the whole banking system if they want to. We know a former senior intelligence official who says, ‘Give me $1 million and 20 people and I will shut down America. I could close down all the automated teller machines, the Federal Reserve, Wall Street, and most hospital and business computer systems’” (Elias, 1994). But we have not seen anything close to the kinds of scenarios outlined by Yoran, Ergma, Toffler, and others. Terrorists did not use cyberattack against the World Trade Center; they used hijacked aircraft. And the attack of 9/11 did not lead to the long-term collapse of the U.S. economy; we would have to wait for the impacts of years of bad mortgages for a financial meltdown. Nor did the cyberattacks on Estonia approximate what happened on 9/11 as Yoran has claimed, and certainly not nuclear warfare as Ergma has claimed. In fact, a scientist at the NATO Co-operative Cyber Defence Centre of Excellence, which was established in Tallinn, Estonia in response to the 2007 cyberattacks, has written that the immediate impacts of those attacks were “minimal” or “nonexistent,” and that the “no critical services were permanently affected” (Ottis, 2010: 72). Nonetheless, many cybersecurity proponents continue to offer up cyber-doom scenarios that not only make analogies to weapons of mass destruction (WMDs) and the terrorist attacks of 9/11, but also hold out economic, social, and even civilizational collapse as possible impacts of cyberattacks. A report from the Hoover Institution has warned of so-called “eWMDs” (Kelly & Almann, 2008); the FBI has warned that a cyberattack could have the same impact as a “wellplaced bomb” (FOXNews.com, 2010b); and official DoD documents refer to “weapons of mass disruption,” implying that cyberattacks might have impacts comparable to the use of WMD (Chairman of the Joint Chiefs of Staff 2004, 2006). John Arquilla, one of the first to theorize cyberwar in the 1990s (Arquilla & Ronfeldt, 1997), has spoken of “a grave and growing capacity for crippling our tech-dependent society” and has said that a “cyber 9/11” is a matter of if, not when (Arquilla, 2009). Mike McConnell, who has claimed that we are already in an ongoing cyberwar (McConnell, 2010), has even predicted that a cyberattack could surpass the impacts of 9/11 “by an order of magnitude” (The Atlantic, 2010). Finally, some have even compared the 7 impacts of prospective cyberattacks to the 2004 Indian Ocean tsunami that killed roughly a quarter million people and caused widespread physical destruction in five countries (Meyer, 2010); suggested that cyberattack could pose an “existential threat” to the United States (FOXNews.com 2010b); and offered the possibility that cyberattack threatens not only the continued existence of the United States, but all of “global civilization” (Adhikari, 2009). In response, critics have noted that not only has the story about who threatens what, how, and with what potential impact shifted over time, but it has done so with very little evidence provided to support the claims being made (Bendrath, 2001, 2003; Walt, 2010). Others have noted that the cyber-doom scenarios offered for years by cybersecurity proponents have yet to come to pass and question whether they are possible at all (Stohl, 2007). Some have also questioned the motives of cybersecurity proponents. Various think tanks, security firms, defense contractors, and business leaders who trumpet the problem of cyber attacks are portrayed as selfinterested ideologues who promote unrealistic portrayals of cyber-threats (Greenwald, 2010)

### No desire for terrorists to carry out cyber attacks---their operations will be small-scale

Spencer Ackerman 11 is an American national security reporter and writer for the Washington Independent "Pentagon Deputy: What if al-Qaeda Got Stuxnet?" Feb 15 www.wired.com/dangerroom/2011/02/pentagon-deputy-what-if-al-qaeda-got-stuxnet/

Points for imagination here: at the RSA information-security conference in San Francisco, Deputy Defense Secretary William Lynn worried aloud about a terrorist group getting ahold of a malware tool like Stuxnet. Sure, al-Qaeda hasn’t launched any cyberattacks so far. Nor have its operatives manifested any ability to design anything as sophisticated as the Stuxnet worm. “But it is possible for a terrorist group to develop cyberattack tools on their own or to buy them on the black market,” Lynn, the Pentagon’s point man on cybersecurity, warned on Tuesday. “As you know better than I, a couple dozen talented programmers wearing flip-flops and drinking Red Bull can do a lot of damage.” Maybe so. But in last week’s congressional mega-hearing from the nation’s intelligence leaders on threats facing the country, no spymaster assessed that al-Qaeda was looking to launch a giant cyberattack. The most likely forecasted method of terrorist assault against the U.S. are “small-scale attacks” like homemade bombs, Director of National Intelligence James Clapper told a House panel. al-Qaeda appears more focused on making inroads to unsuspecting Muslim youth through social media.

### One in three billion chance of nuclear terrorism

John Mueller 10, professor of political science at Ohio State University, Calming Our Nuclear Jitters, Issues in Science & Technology, Winter2010, Vol. 26, Issue 2

In contrast to these predictions, terrorist groups seem to have exhibited only limited desire and even less progress in going atomic. This may be because, after brief exploration of the possible routes, they, unlike generations of alarmists, have discovered that the tremendous effort required is scarcely likely to be successful. The most plausible route for terrorists, according to most experts, would be to manufacture an atomic device themselves from purloined fissile material (plutonium or, more likely, highly enriched uranium). This task, however, remains a daunting one, requiring that a considerable series of difficult hurdles be conquered and in sequence. Outright armed theft of fissile material is exceedingly unlikely not only because of the resistance of guards, but because chase would be immediate. A more promising approach would be to corrupt insiders to smuggle out the required substances. However, this requires the terrorists to pay off a host of greedy confederates, including brokers and money- transmitters, any one of whom could turn on them or, either out of guile or incompetence, furnish them with stuff that is useless. Insiders might also consider the possibility that once the heist was accomplished, the terrorists would, as analyst Brian Jenkins none too delicately puts it, "have every incentive to cover their trail, beginning with eliminating their confederates." If terrorists were somehow successful at obtaining a sufficient mass of relevant material, they would then probably have to transport it a long distance over unfamiliar terrain and probably while being pursued by security forces. Crossing international borders would be facilitated by following established smuggling routes, but these are not as chaotic as they appear and are often under the watch of suspicious and careful criminal regulators. If border personnel became suspicious of the commodity being smuggled, some of them might find it in their interest to disrupt passage, perhaps to collect the bounteous reward money that would probably be offered by alarmed governments once the uranium theft had been discovered. Once outside the country with their precious booty, terrorists would need to set up a large and well-equipped machine shop to manufacture a bomb and then to populate it with a very select team of highly skilled scientists, technicians, machinists, and administrators. The group would have to be assembled and retained for the monumental task while no consequential suspicions were generated among friends, family, and police about their curious and sudden absence from normal pursuits back home. Members of the bomb-building team would also have to be utterly devoted to the cause, of course, and they would have to be willing to put their lives and certainly their careers at high risk, because after their bomb was discovered or exploded they would probably become the targets of an intense worldwide dragnet operation. Some observers have insisted that it would be easy for terrorists to assemble a crude bomb if they could get enough fissile material. But Christoph Wirz and Emmanuel Egger, two senior physicists in charge of nuclear issues at Switzerland's Spiez Laboratory, bluntly conclude that the task "could hardly be accomplished by a subnational group." They point out that precise blueprints are required, not just sketches and general ideas, and that even with a good blueprint the terrorist group would most certainly be forced to redesign. They also stress that the work is difficult, dangerous, and extremely exacting, and that the technical requirements in several fields verge on the unfeasible. Stephen Younger, former director of nuclear weapons research at Los Alamos Laboratories, has made a similar argument, pointing out that uranium is "exceptionally difficult to machine" whereas "plutonium is one of the most complex metals ever discovered, a material whose basic properties are sensitive to exactly how it is processed." Stressing the "daunting problems associated with material purity, machining, and a host of other issues," Younger concludes, "to think that a terrorist group, working in isolation with an unreliable supply of electricity and little access to tools and supplies" could fabricate a bomb "is farfetched at best." Under the best circumstances, the process of making a bomb could take months or even a year or more, which would, of course, have to be carried out in utter secrecy. In addition, people in the area, including criminals, may observe with increasing curiosity and puzzlement the constant coming and going of technicians unlikely to be locals. If the effort to build a bomb was successful, the finished product, weighing a ton or more, would then have to be transported to and smuggled into the relevant target country where it would have to be received by collaborators who are at once totally dedicated and technically proficient at handling, maintaining, detonating, and perhaps assembling the weapon after it arrives. The financial costs of this extensive and extended operation could easily become monumental. There would be expensive equipment to buy, smuggle, and set up and people to pay or pay off. Some operatives might work for free out of utter dedication to the cause, but the vast conspiracy also requires the subversion of a considerable array of criminals and opportunists, each of whom has every incentive to push the price for cooperation as high as possible. Any criminals competent and capable enough to be effective allies are also likely to be both smart enough to see boundless opportunities for extortion and psychologically equipped by their profession to be willing to exploit them. Those who warn about the likelihood of a terrorist bomb contend that a terrorist group could, if with great difficulty, overcome each obstacle and that doing so in each case is "not impossible." But although it may not be impossible to surmount each individual step, the likelihood that a group could surmount a series of them quickly becomes vanishingly small. Table 1 attempts to catalogue the barriers that must be overcome under the scenario considered most likely to be successful. In contemplating the task before them, would-be atomic terrorists would effectively be required to go though an exercise that looks much like this. If and when they do, they will undoubtedly conclude that their prospects are daunting and accordingly uninspiring or even terminally dispiriting. It is possible to calculate the chances for success. Adopting probability estimates that purposely and heavily bias the case in the terrorists' favor- for example, assuming the terrorists have a 50% chance of overcoming each of the 20 obstacles- the chances that a concerted effort would be successful comes out to be less than one in a million. If one assumes, somewhat more realistically, that their chances at each barrier are one in three, the cumulative odds that they will be able to pull off the deed drop to one in well over three billion. Other routes would-be terrorists might take to acquire a bomb are even more problematic. They are unlikely to be given or sold a bomb by a generous like-minded nuclear state for delivery abroad because the risk would be high, even for a country led by extremists, that the bomb (and its source) would be discovered even before delivery or that it would be exploded in a manner and on a target the donor would not approve, including on the donor itself. Another concern would be that the terrorist group might be infiltrated by foreign intelligence.