## \*\*\* 1NC

### 1NC—DA

#### Immigration – will pass – momentum.

THE HILL 2 – 5 – 13 [Hoyer favors Obama's immigration plan over Senate's, <http://thehill.com/homenews/house/281209-hoyer-favors-obamas-immigration-plan-over-senates>]

Hoyer's position aligns him with President Obama as lawmakers tread carefully into the immigration-reform debate that's sure to consume a great deal of Capitol Hill's political oxygen this year.

"It's somewhat a subject[ive] judgment whether the borders are secure or not secure," Hoyer told reporters in the Capitol. "Nobody believes that the borders in a democratic, open country are ever going to be totally non-porous.

"I think the two [citizenship and security] are related," he added, "but ought not to be contingent upon the other."

Often a third rail in Washington, the issue of immigration reform has moved near the top of Congress's priority list this year largely as a result of November's elections, in which more than 70 percent of Hispanic voters chose Obama over GOP contender Mitt Romney.

Hoping to undercut that trend, Republicans – long opposed to comprehensive reform, particularly so-called "amnesty" provisions that would carve a pathway to citizenship for the nation's estimated 11 million illegal immigrants – have appeared much more open to an overhaul since the election.

Last week, a bipartisan group of influential senators unveiled a sweeping package that would bolster border security and guest worker programs – both desired by Republicans – while creating a pathway to citizenship for those living in the country illegally, a demand from the Democrats.

The Senate's plan would make the citizenship benefits “contingent upon securing the border" – a step Obama rejected when he outlined a similar plan a few days later.

The House Judiciary Committee held its first hearing on the thorny subject Tuesday, with the Senate vowing to follow later this month.

Hoyer said Tuesday that he's hopeful Congress will send a comprehensive reform bill to Obama this year.

"The Democrats want to see a comprehensive immigration bill, [and] I think the Republicans, frankly, think they need to be supportive of a comprehensive immigration bill," he said. "So combine the wants and the needs [and] I think there are good prospects."

#### Obama PC is key.

FOLEY 1 – 15 – 13 reporter for the Huffington Post in Washington, D.C. She previously worked at The Washington Independent [Elise Foley, Obama Gears Up For Immigration Reform Push In Second Term, <http://www.huffingtonpost.com/2013/01/15/obama-immigration-reform_n_2463388.html>]

Obama has repeatedly said he will push hard for immigration reform in his second term, and administration officials have said that other contentious legislative initiatives -- including gun control and the debt ceiling -- won't be allowed to get in the way. At least at first glance, he seems to have politics on his side. GOP lawmakers are entering -- or, in some cases, re-entering -- the immigration debate in the wake of disastrous results for their party's presidential nominee with Latino voters, who support reform by large measures. Based on those new political realities, "it would be a suicidal impulse for Republicans in Congress to continue to block [reform]," David Axelrod, a longtime adviser to the president, told The Huffington Post.

Now there's the question of how Obama gets there. While confrontation might work with Republicans on other issues -- the debt ceiling, for example -- the consensus is that the GOP is serious enough about reform that the president can, and must, play the role of broker and statesman to get a deal.

It starts with a lesson from his first term. Republicans have demanded that the border be secured first, before other elements of immigration reform. Yet the administration has been by many measures the strictest ever on immigration enforcement, and devotes massive sums to policing the borders. The White House has met many of the desired metrics for border security, although there is always more to be done, but Republicans are still calling for more before they will consider reform. Enforcing the border, but not sufficiently touting its record of doing so, the White House has learned, won't be enough to win over Republicans.

In a briefing with The Huffington Post, a senior administration official said the White House believes it has met enforcement goals and must now move to a comprehensive solution. The administration is highly skeptical of claims from Republicans that immigration reform can or should be done in a piecemeal fashion. Going down that road, the White House worries, could result in passage of the less politically complicated pieces, such as an enforcement mechanism and high-skilled worker visas, while leaving out more contentious items such as a pathway to citizenship for undocumented immigrants.

#### Plan drains it.

Ratafia-Brown et al. 10 [EXECUTIVE SUMMARY, ANALYSIS OF THE SOCIAL, ECONOMIC AND ENVIRONMENTAL EFFECTS OF MAINTAINING OIL AND GAS EXPLORATION AND PRODUCTION MORATORIA ON AND BENEATH FEDERAL LANDS, Assessment of the Combined Relative Impacts of Maintaining Moratoria and Increased Domestic Onshore and Offshore Oil and Gas Resource Estimates, Science Applications International Corporation (SAIC), Gas Technology Institute (GTI), Jay Ratafia-Brown, SAIC, Rick Irby, SAIC, Kent Perry, GTI, February 15, 2010, http://www.naruc.org/resources.cfm?p=353]

2.1.3 Brief Overview of the Debate on Whether to Remove or Maintain the Moratoria

As noted, debate between pro- and anti-development concerns has been part of the OCS development and moratoria equation. Opposition to offshore development originated and still exists in many coastal communities, particularly in California, Florida, and some Atlantic coastal states. Opposition stems from concerns about potential environmental effects from oil spills, drilling discharges and seismic surveys to fish and other marine life and the potential effects to coastal areas, coastal wetlands and salt marshes.14 Opposition also includes concerns about potential economic impacts on other industries (such as the tourism, recreation and fishing industries) and social damage to coastal communities.15 In a statement by President Clinton on the U.S. House of Representatives action to lift the Outer Continental Shelf (OCS) moratoria in 1995, he noted that “America's coastlines are simply too important to our economy and our way of life.”16 (MMS has developed a table summarizing the oil and gas exploration and production activities and their potential to impact environmental and socioeconomic resources).17

#### Key to Chinese and Indian relations.

LA Times 11/9/12 [Other countries eagerly await U.S. immigration reform, http://latimesblogs.latimes.com/world\_now/2012/11/us-immigration-reform-eagerly-awaited-by-source-countries.html]

"Comprehensive immigration reform will see expansion of skilled labor visas," predicted B. Lindsay Lowell, director of policy studies for the Institute for the Study of International Migration at Georgetown University. A former research chief for the congressionally appointed Commission on Immigration Reform, Lowell said he expects to see at least a fivefold increase in the number of highly skilled labor visas that would provide "a significant shot in the arm for India and China." There is widespread consensus among economists and academics that skilled migration fosters new trade and business relationships between countries and enhances links to the global economy, Lowell said. "Countries like India and China weigh the opportunities of business abroad from their expats with the possibility of brain drain, and I think they still see the immigration opportunity as a bigger plus than not," he said.

#### Nuclear war.

Schaffer 2 [Spring 2002, Teresita—Director of the South Asia Program at the Center for Strategic and International Security, Washington Quarterly, Lexis]

Washington's increased interest in India since the late 1990s reflects India's economic expansion and position as Asia's newest rising power. New Delhi, for its part, is adjusting to the end of the Cold War. As a result, both giant democracies see that they can benefit by closer cooperation. For Washington, the advantages include a wider network of friends in Asia at a time when the region is changing rapidly, as well as a stronger position from which to help calm possible future nuclear tensions in the region. Enhanced trade and investment benefit both countries and are a prerequisite for improved U.S. relations with India. For India, the country's ambition to assume a stronger leadership role in the world and to maintain an economy that lifts its people out of poverty depends critically on good relations with the United States.

### 1NC—K

#### Death and misfortune are inevitable – the joy of life comes in accepting things as they are – plans to save the world only bring more suffering

Slabbert 1 [Jos, Taoist teacher and philosopher, “Tao te Ching: How to Deal with Suffering” http://www.taoism.net/theway/suffer.htm]

Dealing with loss Express yourself completely, then keep quiet. Be like the forces of nature: when it blows, there is only wind; when it rains, there is only rain; when the clouds pass, the sun shines through. If you open yourself to the Tao, you are at one with the Tao and you can embody it completely. If you open yourself to insight, you are at one with insight and you can use it completely. If you open yourself to loss, you are at one with loss and you can accept it completely. Open yourself to the Tao, then trust your natural responses; and everything will fall into place. (Chapter 23) The word "open" is repeated often in this poem. Most people think the only way to handle suffering is to withdraw and to close yourself. The poet is clearly saying in this poem that the opposite is true: If you open yourself to loss, you are at one with loss and you can accept it completely. This openness, a willingness and courage to face reality, is the only way to deal with suffering, particularly inescapable suffering. But the openness the poet is describing is more than just facing reality. It is facing reality in total harmony with the Tao: If you open yourself to the Tao, you are at one with the Tao and you can embody it completely. It is only when you "embody" the Tao that you can face suffering with true equanimity. You will then have the openness that insight into your own nature and the natural way of Tao brings you. The right approach to suffering is only possible when you have reduced your ego to a minimum. The less ego you have, the less you suffer. Facing death with unresolved agendas is a terrible form of suffering. You will have to let go of selfish interests and futile aims to concentrate on dealing with the moment. **It is the acceptance of the inevitable that makes suffering bearable**. On his death bed, his family mourning, he is serene, for he knows Death, like Life, is an illusion: there is no beginning and no end. There is only the endless flow of Tao. The man of Tao has no fear, for he walks with Tao. (The Tao is Tao, 154) Agendas A good traveler has no fixed plans and is not intent upon arriving. (Chapter 27) Plans, aims, objectives and agendas have become the routes of suffering for so many people, and not only the ambitious. Agendas often take spontaneity and joy out of life. In the process, many people have become bad travelers, concentrating only on their objectives, and arriving at their destinations only to find that even their destinations are not really worth the trouble. Having no fixed plans? This does not sound like survival in a modern technological environment, does it? I mean, who but the extremely fortunate have the luxury of not having agendas running their lives? In most cases, one could justifiably point out, agendas are forced on you by your professional and familial obligations. You do not really have a choice, do you? How could one then become a good traveler through life in this modern world? I think the key lies in the second line of the quotation. One should not be "intent upon arriving". You should adopt an attitude of detachment. The moment your aims become egocentric, your suffering increases. The less your own ego is involved, the less seriously you will take life, and the more you will enjoy the journey. It is easier said than done, though, particularly when the job you are doing seems to be devoid of meaning, and the activities on your agenda tedious. They might even go against what you truly believe. It is clear. To become a good traveler in the modern world often entails more than just a change of attitude. It could also mean changing your life style, even your profession. It could mean taking risks in the process. But liberation has always been a risky undertaking, hasn’t it? People are willing to take risks for the most mundane things like profit and possession. Why not take a few risks when your spiritual progress is at stake? Truly good travelers often leave the beaten track and become masters of their own far more adventurous journeys. Tampering with the world Do you want to improve the world? I don't think it can be done. The world is sacred. It can't be improved. If you tamper with it, you'll ruin it. If you treat it like an object, you'll lose it. (Chapter 29) If anything, the Twentieth Century will be called the century of social engineering. Simplistic ideologies, like fascism, were used to try to change the world, with terrible consequences inducing suffering on a scale never seen before in the history of the human being. A savage economic system based on greed - capitalism - has ravaged the world. Yet, the human being has not learnt from this. Still, politicians show their ignorance by tampering with the sacred. It is the age of management, that euphemistic word for manipulating society. It is still happening. What else are many political programs but tampering with the sacred and ruining it in the process? It is the source of endless suffering. Forcing issues Whoever relies on the Tao in governing men doesn't try to force issues or defeat enemies by force of arms. For every force there is a counterforce. Violence, even well intentioned, always rebounds upon oneself. The Master does his job and then stops. He understands that the universe is forever out of control, and that trying to dominate events goes against the current of the Tao. (Chapter 30) Understanding that the universe is out of control is the key to wisdom and patience. No amount of tampering with the universe will change this. In fact, the more we tamper with it, the more damage we will do.

#### No one knows what is good and bad. Reject the aff’s judgments, even if we lose all life on earth.

Kirkland 98 [Russell Kirkland, Associate Professor of Religion (and Asian Studies), “"Responsible Non-Action" In a Natural World: Perspectives from the Nei-Yeh, Chuang-Tzu, and Tao-Te Ching,” 1998, University of Georgia, http://kirkland.myweb.uga.edu/rk/pdf/pubs/ECO.pdf]

Why It Is Wrong to Resent Unexpected Changes In Chuang-tzu 18, we find two famous stories in which a man experiences a sudden and deeply personal transformation, a transformation that strikes others around him as deeply troubling.5 In one, the philosopher Hui-tzu goes to offer his sympathies to Chuang-tzu upon the event of the death of Chuang's wife. In the next story, a willow suddenly sprouts from the elbow of a fictional character. In each story, a sympathetic friend is shocked and dismayed to find that the first character in each story is not shocked and dismayed by the unexpected turn of events. In each story, the first character patiently and rationally explains the nature of life, and counsels his companion to accept the course of events that life brings to us, without imposing judgment as to the value of those events. In each case, the reader learns that it is foolish and inappropriate to feel emotional distress at such events, for a proper understanding of the real nature of life leads us to accept all events with the same equanimity, even those events that might have once sticken us as deeply distressing. In the Taoist classic Huai-nan-tzu, one finds a famous story of a man who suddenly finds himself the unexpected owner of a new horse. His neighbors congratulate him on his good fortune, until his son falls from the horse and breaks his leg. The man's neighbors then act to console him on his bad fortune, until army conscriptors arrive and carry off all the able-bodied young men, leaving the injured young man behind as worthless. The lesson of the story is that when an event occurs, we are quick to judge it as fortunate or unfortunate, but our judgments are often mistaken, as later events often prove.6 And one of the most heavily stressed lessons of the Chuang-tzu is that humans quickly judge events on the basis of what we accept on the basis of simplistic assumptions — e.g., that life is inherently better than death — and that the wise person learns to question and discard such assumptions, and forego such judgments regarding events. When Chuang-tzu's wife died, Chuang-tzu does not argue that the world is a better place for her absence, or that his life is improved by his sudden new freedom. In fact, there is no issue in the passage of whether the world is better off with Chuang-tzu's wife alive or dead. The only issue in the passage is that people are born and that people later die, and to ignore that basic fact would display culpable stupidity. The very same lesson is impressed upon the reader of the previous passage, regarding the sudden transformation of a character's elbow. What we are taught in that passage is that life is a process of ineluctable change and transformation, and that humans would be profoundly wrong and clearly silly to object to such change. Another element of the lesson is that the nature of human life is not separate from, or other than, the nature of nonhuman life. When one says that "life is ineluctable change, and we must accept such change with serenity," one is speaking about "life" in such a way that it clearly involves the lives of individual humans just as fully as it involves the events that occur in the broader world, and vice versa. Imagine the story of the death of Chuang-tzu's wife involving, instead, the death of the species we call whooping cranes: Chuang-tzu would, in that case, patiently point out to his deeply caring but deeply shallow friend that he had indeed felt grief to see such beautiful birds come to their end, but had gone on to engage in appropriate rational reflection upon the nature of life, and had come to accept the transitory nature of all such creatures, just as in the present story Chuang-tzu had come to accept the transitory nature of his own spouse. If one must learn to accept with serenity the death of someone we love, someone without whose life our own life would have never been what it is, wouldn't the author urge us to accept that the death of some birds, birds that have never played a role in our lives the way that one's deceased spouse had done, is an event that we should accept with equanimity? If change catches up with us, even to the extent that the planet that we live on should become permanently devoid of all forms of life, the response of the author of these passages would logically be that **such is the nature of things**, and that crying over such a sudden turn of events would be very silly indeed, like a child crying over a spilt glass of milk, or the death of some easily replaceable goldfish. The only reason that a child cries over the death of a goldfish is that he or she has become irrationally attached to that creature as it exists in its present form, and has formed an immature sentimental bond to it. As adults, we appreciate the color and motion of fish in our aquaria, but seldom cry over the death of one of its inmates: we know very well that to cry over the death of such a fish would be silly and a sign of juvenile behavior. As our children grow, we teach them, likewise, never to follow their raw emotional responses, but rather to govern their emotions, and to learn to behave in a responsible manner, according to principles that are morally correct, whether or not they are emotionally satisfying. If, for instance, one were to see a driver accidentally run over one's child or beloved, one's first instinct might be to attack the driver with a righteous fury, falsely equating emotional intensity and violent action with the responsible exercise of moral judgment. In general, we work to teach ourselves and each other not to respond in that way, to take a course of self-restraint, curbing emotion, lest it propel us into actions that will later, upon calm reflection, be revealed to have been emotionally satisfying but morally wrong. If I saw my child run down by a car, it might give me great emotional satisfaction to drag the driver from her car and beat her to death. But it might well turn out that she had in fact done nothing wrong, and had been driving legally and quite responsibly when a careless child suddenly ran into her path, giving her no time to stop or to evade the child. Because we have all learned that the truth of events is often not apparent to the parties that are experiencing them, we generally work to learn some degree of self-control, so that our immediate emotional reaction to events does not mislead us into a foolish course of action. Now if we take these facts and transfer them into our consideration of Chuang-tzu and Mencius on the riverbank, that episode should, logically, be read as follows. If Mencius feels an emotional urge to jump into the river to save the baby, his emotional response to the baby's presence there must be seen as immature and irresponsible. After all, one might muse, one never knows, any more than the man with the horse, when an event that seems fortunate is actually unfortunate, or vice versa. What if the baby in the water had been the ancient Chinese equivalent of Adolf Hitler, and the saving of young Adolf — though occasioned by the deepest feelings of compassion, and a deep-felt veneration for "life" — led to the systematic extermination of millions of innocent men, women, and children? If one knew, in retrospect, that Hitler's atrocities could have been totally prevented by the simple moral act of refraining from leaping to save an endangered child, would one not conclude, by sound moral reasoning, that letting that particular baby drown would have represented a supremely moral act? How, Chuang-tzu constantly challenges us, **how can we possibly know what course of action is truly justified?** What if, just for the sake of argument, a dreadful plague soon wipes out millions of innocent people, and the pathogen involved is soon traced back to an organism that had once dwelt harmlessly in the system of a certain species of bird, such as, for instance, the whooping crane? In retrospect, one can imagine, the afflicted people of the next century — bereft of their wives or husbands, parents or children — might curse the day when simple-minded do-gooders of the twentieth-century had brazenly intervened with the natural course of events and preserved the cursed specied of crane, thereby damning millions of innocents to suffering and death. We assume that such could never happen, that all living things are somehow inherently good to have on the planet, that saving the earthly existence of any life-form is somehow inherently a virtuous action. But our motivations in such cases are clearly, from a Taoist point of view, so shallow and foolish as to warrant no respect. If Mencius, or a sentimental modern lover of "life," were to leap into the river and save a floating baby, he or she would doubtless exult in his or her selfless act of moral heroism, deriving a sense of satisfaction from having done a good deed, and having prevented a terrible tragedy. But who can really know when a given event is truly a tragedy, or perhaps, like the horse that breaks a boy's leg, really a blessing in disguise. Since human wisdom, Chuang-tzu suggests, is inherently incapable of successfully comprehending the true meaning of events as they are happening, when can we ever truly know that our emotional urge to save babies, pretty birds, and entertaining sea-mammals is really an urge that is morally sound. The Taoist answer seems to be that we can never be sure, and **even if the extinction** of Chuangtzu's wife or of the whooping crane really **brought no actual blessing to the world, such events are natural and proper in the way of life itself, and to bemoan such events is to show that one is no more insightful about life than a child who sentimentally cries over the loss of a toy**, a glass of milk, a beloved pet, or even her mommy, run over by a drunken driver. The Taoist lesson seems, in this regard, to be the same in each case: things happen, and some things cause us distress because we attach ourselves sentimentally to certain people, objects, and patterns of life; when those people, objects, or patterns of life take a sudden or drastic turn into a very different direction, a mature and responsible person calms his or her irrational emotions, and takes the morally responsible course of simply **accepting the new state of things**.

### 1NC—CP

#### TEXT: The United States Department of the Interior should ask the legislative branch if it should reduce leasing restrictions on conventional natural gas production in the United States Outer Continental Shelf. The United States Department of the Interior should fully implement the outcome that the legislative branch requests.

#### The CP advocates LESS CHANGE than the status quo – if the counterplan solves as well as the AFF that means presumption flips negative.

#### Consultation is crucial to bring Congress in as a full partner and avoid inter-branch struggles and micromanagement

Linda S. Jamison, Deputy Director of Government Relations at the Center for Strategic and International Studies, Spring 1993 (“Executive-Legislative Relations after the Cold War” – The Washington Quarterly) p. lexis

Likewise, the president must show his willingness and sincerity in dealing with Congress. Presidential initiatives are more likely to survive congressional scrutiny and the formal oversight process when the president is willing to treat Congress as a full partner in formulating and creating policy. The consultative process is especially useful when the president considers the use of military force to carry out foreign policy objectives. Congress must be brought in on the decisions to commit U.S. troops to combat. The paper also includes further recommendations for how the executive branch can improve and consolidate its strategy toward Congress. The thoughtful recommendations derived from the Iran-contra debacle serve as a warning that future failures to build consensus will produce similar constitutional struggles, which thus will continue to plague U.S. foreign policy. Among the paper's observations, the most compelling is that the system of shared powers will never work effectively until the executive recognizes Congress as a full and competent partner in the making of policy -- a need that has become even more imperative over the years as the boundaries between foreign policy and domestic policy have become more diffuse and vague.

#### Effective inter-branch cooperation is vital to United States leadership – avoiding unilateral presidential actions is essential

Robert A. Pastor, Professor of Political Science at Emory University and Director of the Latin American and Caribbean Program at Emory’s Carter Center, Autumn 1991 (“Congress and U.S. Foreign Policy: Comparative Advantage or Disadvantage” – The Washington Quarterly) p. lexis

The constitutional relationship between the two branches is not the problem; indeed, the interbranch model provides the best vehicle for U.S. leadership in a complex world. The essence of forging "a new engagement" between Congress and the president is attitudinal -- to recognize that both branches are responsible for conflicts and that they occur as much because of presidential arrogance as of congressional assertiveness. If, for example, President Bush, flush with the success of a military victory, chooses either to ignore the Congress on an important issue or to bash the minority who voted for continuation of sanctions rather than war, he will rapidly transform interbranch comity into partisan conflict. The way to make the United States a more effective global actor is for each branch to modify its approach to take account of the other's perspective. An assertive Congress can be a positive force, and a lever in international negotiations, as Thomas Mann has shown, when the two branches respect and maintain the delicate balance between them. Interbranch politics is often viewed as a liability in foreign policy making, but with sensitivity to the distinct roles of each institution, the president and Congress can transform the process to the comparative advantage of the United States.

### 1NC—Warming

#### Natgas is a bridge to nowhere—it increases warming.

Romm 12—Senior Fellow @ American Progress [Dr. [Joe Romm](http://thinkprogress.org/author/joe/) (Ph.D. in physics from MIT), “[Natural Gas Is A Bridge To Nowhere — Absent a Serious Price for Global Warming Pollution](http://thinkprogress.org/climate/2012/01/24/407765/natural-gas-is-a-bridge-to-nowhere-price-for-global-warming-pollution/),” Think Progress, Jan 24, 2012 at 2:30 pm, Pg. http://thinkprogress.org/climate/2012/01/24/407765/natural-gas-is-a-bridge-to-nowhere-price-for-global-warming-pollution/]

Building lots of new gas plants doesn’t make much sense since we need to sharply reduce greenhouse gas emissions in the next few decades if we’re to have any chance to avoid catastrophic global warming. We don’t want new gas plants to displace new renewables, like solar and wind, which are going to be the  some of the biggest, sustainable job creating industries of the century.

Late last year, some of the leading (center-right) economists in the country — Nicholas Z. Muller, Robert Mendelsohn, and William Nordhaus — concluded in a top economic journal that [the total damages from natural gas generation exceed its value-added at a low-ball carbon price of $27 per ton](http://thinkprogress.org/romm/2011/10/13/332882/economics-coal-fired-power-plants-air-pollution-damages/)! At a price of $65 a ton of carbon, the total damages from natural gas are more than double its value-added!

For the record, stabilizing at 550 ppm atmospheric concentrations of CO2, which would likely still be catastrophic for humanity, would require a price of $330 a metric ton of carbon in 2030, the International Energy Agency (IEA) [noted back in 2008.](http://www.grist.org/article/six-degrees-of-preparation)

The fact that natural gas is a bridge fuel to nowhere was in fact, first demonstrated by the IEA in its big June 2011 report on gas — see [I](http://thinkprogress.org/climate/2012/01/24/407765/romm/2011/06/07/238578/iea-golden-age-of-natural-gas-scenario-warming-climate-change/)[EA’s “Golden Age of Gas Scenario” Leads to More Than 6°F Warming and Out-of-Control Climate Change](http://thinkprogress.org/romm/2011/06/07/238578/iea-golden-age-of-natural-gas-scenario-warming-climate-change/).  That study — which had both coal and oil consumption peaking in 2020 — made abundantly clear that if we want to avoid catastrophic warming, we need to start getting off of all fossil fuels.

Then came a remarkable [new study](http://thinkprogress.org/romm/2011/09/09/315845/natural-gas-switching-from-coal-to-gas-increases-warming-for-decades/) by Tom Wigley of the National Center for Atmospheric Research (NCAR) that concluded:

In summary, our results show that the substitution of gas for coal as an energy source results in increased rather than decreased global warming for many decades.

 “Relying more on natural gas would reduce emissions of carbon dioxide, but it would do little to help solve the climate problem,” says Wigley, who is also an adjunct professor at the University of Adelaide in Australia. “It would be many decades before it would slow down global warming at all, and even then it would just be making a difference around the edges.”

Natural gas might have been a “bridge” to a low-carbon future 30 years ago when the term was first introduced, but now its primary value would be to reduce the cost of meeting a near-term CO2 target in the U.S. in the context of a rising CO2 price.

#### It displaces renewables and make runaway warming inevitable

Romm 11—Senior Fellow @ American Progress [Dr. [Joe Romm](http://thinkprogress.org/author/joe/) (Ph.D. in physics from MIT), “[IEA’s “Golden Age of Gas Scenario” Leads to More Than 6°F Warming and Out-of-Control Climate Change](http://thinkprogress.org/climate/2011/06/07/238578/iea-golden-age-of-natural-gas-scenario-warming-climate-change/),” Think Progress, Jun 7, 2011 at 12:50 pm, pg. http://thinkprogress.org/climate/2011/06/07/238578/iea-golden-age-of-natural-gas-scenario-warming-climate-change/

The International Energy Agency has just issued a special report titled, “[Are We Entering a Golden Age of Gas?](http://www.iea.org/press/pressdetail.asp?PRESS_REL_ID=415)”  The answer to that question is “yes” only if you are a natural gas producer who doesn’t care much about humanity.  For the rest of us, the report makes clear natural gas by itself does nothing to avert catastrophic climate change.  Quite the reverse.

The UK Guardian‘s [story](http://www.guardian.co.uk/environment/2011/jun/06/natural-gas-climate-change-no-panacea) put it well:

Natural gas is not the “panacea” to solve climate change that fossil fuel industry lobbyists have been claiming, according to new research from the International Energy Agency.

Reliance on gas would lead the world to a 3.5C temperature rise, according to the IEA. At such a level, global warming could run out of control, deserts would take over in southern Africa, Australia and the western US, and sea level rises could engulf small island states.

Not exactly a champagne moment.

UPDATE:  I’ve added a featured comment (and link) by Tyler Hamilton, business columnist at The Toronto Star.

Ironically, the IEA report is built around what it calls “The Golden Age of Gas Scenario (GAS Scenario)” — except, of course,  the acronym for “Golden Age of Gas Scenario” should be GAG Scenario not GAS Scenario.  And GAG is exactly what the planet would do if the dash to gas becomes our primary energy policy, rather than a high and rising price for CO2.

The reason is clear.  Absent a high CO2 price, gas displaces as much low-carbon electricity as it does high-carbon coal.  That was precisely the point made by Nobuo Tanaka, executive director of the IEA, at a London press conference:

“While natural gas is the cleanest fossil fuel, it is still a fossil fuel. Its increased use could muscle out low-carbon fuels such as renewables and nuclear, particularly in the wake of Fukushima. An expansion of gas use alone is no panacea for climate change.”

The Guardian notes, “The IEA also warned that gas could push out renewables, if governments come under pressure to reduce renewables subsidies and opt for gas instead, as gas companies have been urging.

The report itself makes clear that in the GAG scenario:

Natural gas displaces coal and to a lesser extent oil, driving down emissions, but it also displaces some nuclear power, pushing up emissions…. This puts emissions on a long-term trajectory consistent with stabilising the concentration of greenhouse gases in the atmosphere at around 650 ppm, suggesting a long-term temperature rise of over 3.5°C.

Note that the GAG scenario assumes that not only does oil production peak in 2020 — but so does coal!

Yet we still get 650 ppm and more than 6°F warming even with that incredibly optimistic assumption — and with the additional optimistic assumption that industrial coal consumption (and CO2 emissions) only rises 22% from 2008 to 2020.  And assuming we don’t have a lot of that gas leaking into the air (see [New study questions shale gas as a bridge fuel](http://thinkprogress.org/climate/2011/06/07/238578/romm/2011/04/12/207875/shal-gas-bridge-fuel/) and [Is natural gas cleaner than coal?](http://thinkprogress.org/climate/2011/06/07/238578/romm/2011/05/25/208173/is-natural-gas-cleaner-than-coal/)).

Oh yes, and then we have the assumption that we can actually stabilize at 650 ppm.  In fact, once we go above 450 ppm, the carbon-cycle feedbacks are going to accelerate and shoot us to much higher levels of greenhouse gas concentrations  — see “[NSIDC bombshell: Thawing permafrost feedback will turn Arctic from carbon sink to source in the 2020s, releasing 100 billion tons of carbon by 2100](http://thinkprogress.org/romm/2011/02/17/207552/nsidc-thawing-permafrost-will-turn-from-carbon-sink-to-source-in-mid-2020s-releasing-100-billion-tons-of-carbon-by-2100/).”

In any case, 650 ppm is probably sufficient to lead to the ultimate disintegration of the Greenland ice sheet and many tens of feet of sea level rise — see [New study of Greenland under “more realistic forcings” concludes “collapse of the ice-sheet was found to occur between 400 and 560 ppm” of CO2](http://thinkprogress.org/romm/2010/03/23/205696/greenland-ice-sheet-collapse-global-warming-science/).  That SLR is likely to kick in sooner rather than later — see [JPL bombshell: Polar ice sheet mass loss is speeding up, on pace for 1 foot sea level rise by 2050](http://thinkprogress.org/romm/2011/03/10/207664/jpl-greenland-antarctica-ice-sheet-mass-loss-accelerating-sea-level-rise-1-foot-by-2050/).

#### Fugitive methane emissions increases warming—The transition to renewables will be too late

Chameides 7/20/12—Professor of the Environment Earth & Ocean Sciences @ Duke University [[Bill Chameides](http://www.huffingtonpost.com/bill-chameides) (Fellow of the American Geophysical Union and Chief scientist @ Environmental Defense.), “Natural Gas: A Bridge to a Low-Carbon Future or Not?,” Huffington Post, Posted: 07/20/2012 5:22 pm, pg. http://www.huffingtonpost.com/bill-chameides/-natural-gas-a-bridge-to\_b\_1690857.html

Chapter 2. Climate Threatened by Sinister Methane Leakage

Interestingly enough, with the advent of fracking for shale gas and the consequent jump in estimates of natural gas resources (see [here](http://www.sciencedaily.com/releases/2011/08/110824134238.htm) and [here](http://www.eia.gov/analysis/studies/worldshalegas/)), the use of natural gas as a transition fuel actually seems to be feasible. Good news for the climate, one might conclude.

Not really, scientists like Bob Howarth of Cornell University, protested. Why? Before answering that, you need to know a couple of background facts. First, methane, the major component of natural gas, is itself a very potent greenhouse gas -- some 21 times more effective a warmer than CO2 on a 100-year basis. And second, when we use natural gas, there are inevitably fugitive emissions, leaks during mining, transport, and consumption that allow methane to escape into the atmosphere where it can do its global warming thing. What Howarth argued in a [much-debated paper](http://www.springer.com/about%2Bspringer/media/springer%2Bselect?SGWID=0-11001-6-1128722-0) published last year is that the leakage rates are so high that, contrary to conventional wisdom, transitioning from coal to natural gas would actually lead to more global warming than just sticking with coal, even though coal is the most carbon-intensive of the fossil fuels.

Since the paper's publication, other investigators and studies have weighed in on the matter, including RealClimate's [Gavin Smith](http://www.realclimate.org/index.php/archives/2011/04/fracking-methane/); the Council on Foreign Relations' [Michael Levi](http://blogs.cfr.org/levi/2011/04/15/some-thoughts-on-the-howarth-shale-gas-paper/); [Ramón Alvarez](http://www.pnas.org/content/early/2012/04/02/1202407109.full.pdf%2Bhtml) of Environmental Defense Fund and co-authors; and another Cornell scientist, [Lawrence Cathles](http://dotearth.blogs.nytimes.com/2012/02/29/a-fresh-scientific-defense-of-the-merits-of-moving-from-coal-to-shale-gas/). But a definitive conclusion has been elusive because the actual magnitude of these fugitive emissions remains very poorly defined.

Chapter 3. Methane Leakage Exonerated?

The upshot of the debate about the importance of fugitive emissions has led to a general consensus that we need a very thorough investigation into the leakage issue. In short we need to first pin down the magnitude of fugitive emissions and then cut them down by locking the methane up. (See [here](http://www.pnas.org/content/early/2012/04/02/1202407109.abstract) and [here](http://www.nicholas.duke.edu/thegreengrok/frackingworkshop).)

But now Cornell's Cathles argues in a [new paper](http://bit.ly/NiAsaG) published last week in the journal Geochemistry Geophysics Geosystems that fugitive emissions may not be that sinister after all. Or at least not if natural gas is indeed used as a bridge fuel that is first phased in as coal and some oil are phased out and then eventually is itself phased out in favor of carbon-free energy sources.

Assuming periods of 50, 100, and 200 years to make the transition from coal to natural gas to renewables, Cathles's model calculations indicate that the long-term (i.e., multiple decades to century timescales) climate impacts of the fugitive methane emissions are relatively small. The reason is that methane has a relatively short lifetime in the atmosphere -- [about 12 years](http://epa.gov/methane/scientific.html). And so once natural gas is no longer used as a fuel, the methane in the atmosphere from fugitive emissions will be removed from the atmosphere and so the warming from those emissions will be essentially gone. CO2 on the other hand is long-lived and so, Cathles argues, over the long term using natural gas instead of coal or oil is preferable because less CO2 will have been emitted in that scenario. Well, it is preferable provided we use natural gas as a transition fuel that eventually gives way to even cleaner renewables and/or nuclear. And then there's the issue of the short-term climate effects from fugitive emissions.

Chapter 4. The Question of the Short Term

Cathles's point about the transient effects of methane fugitive emissions is well taken. But there is a potential catch and it relates to short-term climate effects. During the transition period, when fugitive methane from using natural gas would build up in the atmosphere, there is a possibility, depending upon the magnitude of the methane emissions, that we would experience more short-term warming than if we were to have stuck with coal and oil. We might think of this as the transient version of the Howarth argument.

Now, as long as the fugitive emissions are small or the Earth system is "reversible," the transient Howarth scenario does not seem all that worrisome. But what if the emissions are large? And what if the disturbances from global warming are not reversible? Then we would have a problem. The transition to natural gas would lead to more warming for a period of time until natural gas is phased out and the excess methane is removed from the atmosphere. With the exit of the excess methane, the extra warming would also go away. Cathles seems to argue that all would be well:

"Even when methane leakage is so large (L = 10% of consumption) that substituting gas for coal and oil increases global warming in the short term, the benefit of gas substitution returns in the long term."

But it is not all that obvious that the impacts from global warming are reversible. If fragile ecosystems like coral reefs are decimated by a decade or two of extra methane-induced warming, can we be sure that they will recover once the methane is flushed from the atmosphere? Probably not.

Now for this to be a concern, fugitive emissions would need to be large -- about 10 percent or more. That's' a very remote possibility. Even so, Cathles's interesting results notwithstanding, I don't think we can ignore fugitive emissions and just assume they're too small to care about. And in any event from an economic and environmental point of view, the less of that stuff the better.

Epilogue

Cathles would agree. In fact he concludes his paper with the policy recommendation that leakage of methane related to natural gas production, transport, and use be reduced to about 1 percent. Let's call it the one-percent solution.

### 1NC—China

#### Collapse is inevitable—a convergence of constraints on the system will force a transition to a localized economy—no policy can solve.

Korowicz 11 [David Korowicz is a physicist and human systems ecologist, the director of The Risk/Resilience Network in Ireland, a board member of FEASTA - The Foundation for the Economics of Sustainability, “In the world, at the limits to growth,” May 14, 2011, http://www.feasta.org/2011/05/14/in-the-world-at-the-limits-to-growth/]

From the sidelines we hear that a UN Food and Agricultural Organisation index measuring the price of a basket of food commodities surpassed the 2008 record and oil prices remain well above $100 a barrel. This is in the context of a battered world economy and a global credit crisis that far from being resolved, has merely been displaced. The United States and Japan’s credit rating is on negative watch, and the Euro hangs in balance. And while nobody will shout about it, there are many global banks who are only standing because governments and central banks are deploying all their declining powers to prevent the banks’ bluff being called and all hell breaking lose. Food and energy prices are pushing popular revolutions in the Gulf, North Africa, and China which in turn are pushing up food and energy prices. All of this seems elliptical to our inward conversations. Yet the real threats to our economy and society over the coming few years are from these things we have little control over. Even were our economy in the rudest of health, it could still face ruin. That is because we are dependent upon, and interwoven with, the globalised economy. And the globalised economy cannot stand the convergence in real time of constraints in its primary enabling energy resource-oil; its primary human constraint-food, and loss of trust in the credit that makes economic life possible. This convergence marks the end of economic growth, and initiates powerful destabilising shocks and stresses to the globalised economy. Because of this, across the political spectrum, people are claiming solutions for a predicament that cannot be solved. They are claiming a level of insight and dominion over systems they can barely intuit and over which they have little and declining control. The electorate assumes there must be a solution to get us out of recession, a way to reverse what we have come to call ‘austerity’. More than that, we demand the right to the realisation of their expectations- our pensions and purchasing power, jobs and savings, health and education services. Through these assumptions we enter the collective delusion about where we’ve been, where we are, and where we’re going. Part of the reason for this omission is a world-view maladapted to the conditions in which we now find ourselves. World-views comprise the meanings and assumptions through which our lives are understood; they embody the myths, stories and emotional attachments that frame our place in a complex world. They are social, and also define how we become socialised. We share a common world-view formed in the context of our past experience, and in particular, that of economic growth and the profound influence it brought to the human experience. We have become accustomed to the reassuring thought that at the end of every recession, no matter how deep or long, growth and prosperity will again take off. There is a sense that economic growth, though sometimes wayward, is the natural order of things. It is a powerful idea both redemptive and optimistic. Growth is part of the glue that holds together the social contract between the rich and poor, and between citizen and state. It stands behind our expectations of technology, the rise of China, population growth, and pensions. Growth shaped the specialisation of our occupational roles and the forms of social relations. It acclimatised us to increasing wealth, both personal and in the goods and services we expect from society and the state. We are now claiming as rights, services that only fifty years ago would have been considered miracles. It shaped our identity as the tormented consumer and the anxious lover. Growth is very recent, two hundred years or so, and resilient, bouncing back from world wars and a great depression. It’s been the driving dynamic of the integrated, de-localised system that has tied our welfare to trillions of transactions across the world. It has been so stable, and we have become so habituated to it that we barely notice what has transpired, the inherent complexity obscured by attenuation in simple things and services-my phone rings, I take a bus, my money works to buy my bread. Bread was once hard won from our local environs and required a large share of our time or income. Now it is of slight cost, accessible with trivial effort, but requires the integrated dance of complex transport, IT, banking, electric grid infrastructure; factories supplying factories, supplying factories; and the economies of scale and supply-chains that depend upon a globalised world. Not only have our dependencies become more and more de-localised and complex, they have also become more dependent on high speed flows of good and services. The real-time flow of deliveries is an integral part of modern production processes. If deliveries are halted, for example, by a large-scale systemic banking collapse, the flow can be arrested, and economic production halted. The longer production is halted, the deeper the supply-chain failure extends, and the greater the entropic decay, from rust, for example. And the longer the down time, the harder it would be to re-boot the economy, and the greater the risk of a terminal systemic collapse in the global economy. Indeed internationalised production flows are as important for the viability of our complex economy as energy flows, they are two of a number of co-dependent systems that integrate the globalised economy. If spare parts for our national grid could not be replaced due to some supply chain failure, having plenty of fuel may not matter, electricity might not be delivered. And electricity failure would compromise other critical infrastructure such as banking infrastructure, IT systems, sewage and water. Our globalised economy is an emergent property of billions of people, businesses and institutions interacting through physical and mental worlds. Individuals, companies, and governments may have limited control in time and space, but the more our intentions and actions interact in the world, the greater the chance our intentions are lost. There has been no master controller. Like rafters down a white-water river, we do not set the route or the rate, we are tossed and buffeted. We can trim the craft, avoid an obstacle, and if wise ensure we do not tip it over. But the driving dynamic is riding down an energy gradient. Our identification with national or inter-national political economy and the psycho-drama therein obscures our real dependencies. So while national economies may have an individual character, they have no autonomous existence in anything like their present form outside the globalised economy, just as an arm, lung or heart cannot declare independence from the human body. Continuing the analogy, our global economy’s metabolism has become increasingly complex and high speed. The globalised economy is more than the sum of its parts, but without the contributions of each, the whole would be diminished or fatally compromised. Because of this we might say that our local welfare is embedded within a high-speed de-localised fabric of exchange. Misreadings In The Birth of Plenty: How the prosperity of the modern world was created , William Bernstein writes “prosperity is not about physical objects or natural resources. Rather, it is about institutions….” He lists four: secure property rights, the scientific method, capital markets, and communications. While his institutions are certainly important, essential even, they could not have developed without the energy and other resources that underpin the economy. It is like claiming I live by my wits, charm and intelligence, while assuming food and water are a trivial side-show. A reasonable assumption in an age of abundance when our basic needs are met without comment, and what counts in terms of social status are personal and contextual differentiation. In such a way we privilege human culture, and its sense of ingenuity and control over its own destiny. Like the God of Genesis, we looked upon our civilisation, its extent and complexity, and saw that it was good and ingenious. We thought we did this! And if we did this, surely we can do anything we set our minds to. If there are challenges to our civilisation, from climate change or resource constraints, they can be surmounted, for we have faith in our abilities. Our self-reflection through economic growth provided the super-structure for the humanist idea of progress, which the political philosopher John Gray dubbed the “displaced religious impulse”. As our self-regard has grown, our real dependencies-on soil and bees, forests, natural gas, rivers and rain, worms and sticky hydro-carbons, beasts and ferrous oxides-have been largely framed as issues of managerial utility. Our welfare is assumed to depend upon politicians, entrepreneurs, competitiveness, the knowledge economy, our innate inventiveness, and so on. Outside of utility, the environment has been sentimentalised or used as a signifier of higher feeling. Yet our feet of clay are that our economy and civilisation exist only by virtue of resource flows from our environment. The only laws in economics are the laws of physics, everything else is contingent, supposition or vanity. An economy, growing in size and complexity, is firstly a thermodynamic system requiring increasing energy flows to grow and avoid decay. Waste, be it greenhouse gasses or landfill is also a natural outcome of such a thermodynamic process. News from Elsewhere It’s been part of the background noise for over half a century, warnings about resource scarcity, biodiversity loss, soil erosion or climate change. But impacts were always on the imaginative horizon. Sometime, far enough into the future to be re-assuring to a species that evolved with a clear preference for the short-term. Or on the hinterland between our safe European home and the barbarian other, where starvation, environmental disasters, angry mobs and crazy despots have always demanded our attention, at least while on TV. Yes we can! Yes we can! - chanted the posse of teenagers following Al Gore through a pavilion in Poznan, Poland for the annual gathering of climate policy acronyms. When not distracted by the ever-present, we’ve responded to these warnings with treaties and laws, technology and exhortation. Of course, every ecological indicator kept getting worse. And we kept on about treaties and laws, and break-through technologies. Our mythic world-views gave us the shared faith that we may not be there yet, but we could, once a brilliant scheme is in place, a climate law passed, technologies adopted, evil bankers restrained, or once people just realised our predicament. Yes We Can! Yes We Can! Indeed, we could transcend our grubby selfishness and short-termism so we tied together the belief that we could will ecological sustainability and global equity. Still, our resource and environmental sink demands keep increasing, ecological indicators decline and inequality rises. The reality is that we are locked into an economy adapted to growth, and that means rising energy and resource flows and waste. By lock-in, we mean that our ability to change major systems we depend upon is limited by the complexity of interdependencies, and the risk that the change will undermine other systems upon which we depend. So we might wish to change the banking or monetary system, but if the real and dynamic consequences lead to a major bank freeze lasting more than a couple of days we will have major food security risks, massive drops in economic production, and risks to infrastructure. And if we want to make our food production and distribution more resilient to such shocks, production will fall and food prices will need to be higher, which will in the short-to-medium term drive up unemployment, lead to greater poverty, and pose even greater risks to the banking system. It is an oxymoron to say we can do something unsustainable forever. How would you know if we were approaching a limit, the end of growth? By warnings? Listen. By the great and the good, standing shoulder-to-shoulder, saying “Ladies & gentleman we have a really big problem!”? Politicians and civil servants, the IMF and the OECD, all missed the credit crisis of 2007, despite having expertise in the area and an abundant historical literature about asset bubbles. They embody the dogmatism of the age, they are a pivot point about which are world-views are confirmed. They mirror the authority of the court of Pope Urban VIII, stuffed with astronomer-astrologers, the economists of their age, confirming the earth centric universe against Galileo and Copernicus before him. What the Galileos of today are saying is that we are at or near the peak of global oil production now. That as affordable oil declines, the global economy must contract. That we do not have the time, nor resources to keep the economy growing by substituting for oil with efficiency measures, renewable or nuclear energy, or technology. That talk of an electric car future, advanced IT-renewable energy convergent infrastructure, and global super-grids is a fancy. The most obvious problem with focusing on this vision at the horizon is that you don’t see that the ground is opening up beneath your feet. We will not get to that horizon because all the things you need to get there- monetary and financial systems, purchasing power and economies of scale, production systems, infrastructure and global trust networks-will be undermined by the convergence of a peak of global oil production, a peak of food production, and a giant credit bubble. The ground will open up, we will fall, and our visions will fall further and further from our grasp. They are saying that global food production is hitting an array of ecological constraints, while population growth and changing diets are driving up demand. They note that current food production is massively subsidised through fossil fuel inputs, and that as those inputs become less available, and people become poorer due to economic contraction, food productivity and access will be undermined. In totality, we are at the edge of an evolving systemic crisis. Peak oil and food constraints are likely to undermine the stability of our integrated globalised economy. The core pillars of that economy: critical infrastructure, production flows, economies of scale, the financial and monetary system, behavioural adaptation, resource access and energy flows-are likely to begin forcing contagious failure. The driving force of this failure is likely to be the fastest and most unstable process-the impact of energy and food constrained economic growth, and an already vulnerable monetary and financial system dependent upon continuing growth. Tightening binds Whatever of Ireland’s economic woes, the real debt bubble is global. The debt relative to GDP is far greater now in the US, UK, and much of Europe, than it ever was leading up to the great depression. Like many countries we responded to our debt bubble with more debt, we just shifted it onto the sovereign or the printing press. The indebted world, even without oil and food price rises is straining at the limits of debt servicing and credibility. Yet it is demanding even more credit, while its ability to service the debt is being undermined by debt deflation, austerity, rising job losses, and defaults. The bank lenders of that money can only lose so much before they are too are insolvent. Rising food and energy prices are driving the deflationary forces even harder. And if central banks misinterpret the cause of food and oil price rises, and raise interest rates, the deflationary pressures risk becoming cyclonic. The cost of essentials and debt servicing rise, while income declines. Discretionary spending will collapse, job losses and defaults rise, income will declines further. This re-enforcing spiral of decline will increase, and spread to more and more countries. The fear of contagion from peripheral Eurozone defaults are not merely that they could topple French, UK, and German banks, but that this could brink down US banks and effectively shut down the global financial system in very short shift. The destabilising force is not just that the banks are already in a precarious position, but a monstrous pile of derivative contracts worth ten to twenty times the global economy that hangs over the financial system. Some of those contracts are effectively insurance against default. If bank defaults start spreading, then other banks and the shadow financial system will be forced to cover obligations on default, or increase premiums on their insurance. This may cause a fire-sale of assets, whereby the banks bluff is called, and they are shown to have values far below what is required for solvency. What everybody wants and needs is a sudden and explosive increase in the production of real goods and services (GDP) to make their continual debt requirements serviceable. But that, even were it remotely possible, would require a big increase in oil flows through the global economy, just as global oil production has peaked and begins its decline. It cannot happen. This means that the global financial system is essentially insolvent now. The only choice is default or inflation on a global scale. It mean banks are insolvent, because their assets (loans) cannot be repaid; or they can be solvent (assuming appropriate action taken) but their depositors cannot redeem their deposits at anything like their real value. It means the vast overhang of stocks and bonds, including pensions, and insurance cannot be realised in real goods. It means our monetary systems, dependent on fiat money, fractional reserve banking, and interest can only collapse. High oil and food prices are essentially probing the limits of the stability of the globalised economy. They will probe until there is a major collapse in global economic production. At which point our energy prices may fall, but our real income and purchasing power will fall faster. And markets will discover this truth quicker than monetary authorities and governments. Its expression will be in deeper and deeper economic stresses and major systemic banking collapses. Official responses will become more and more impotent, as their fundamental economic and policy tools no longer work, and their patina of control becomes hollow. If and when banking system contagion spreads to supply-chain contagion we may face existential challenges. Even were we to have the perfect monetary and financial system, without debt and well controlled, peak oil and food would present an unprecedented shock. As incomes shrunk while essentials such as food and energy become more expensive, non-discretionary spending would be squeezed out. In the developed world, non-discretionary goods and services are just about all we produce. So the result would still be mass unemployment. Our critical infrastructure would still be increasingly vulnerable for various reasons, and monetary instability would still destabilise supply-chains. Facing Ourselves & Facing Our Future We are at the beginning of a process in which our world-views crash against a fundamentally unstable financial system and ecological constraints. A time where we will learn that what was, will never return; and what was expected, can never be. We are facing a time of loss and uncertainty. A time of bank-runs, lost savings and pensions, of mass unemployment, electricity and mobile phone black-outs, of hunger and empty super-market shelves. A localised economy will no longer be something environmentalists aspire to develop; rather it will be forced upon us as bank failures, monetary uncertainty, and lost purchasing power sever links in the web of the global economy. But we no longer have indigenous economies to fall back upon. The gap between expectations and what can be realised is historically a major source of popular anger, and can ignite a cycle of fear, blame, violence, scape-goating, and authoritarian leadership from either left or right. It can give the avaricious the power and cover to appropriate wealth that might better be used for collective welfare. Yet who gave us the right to our expectations? They were built on the semi-blind self-organisation of a complex human society over generations. They were built on deep threads of human behaviour-competition and cooperation, mating selection and status-that result from our evolution over the history of life on earth. They were built on the deposits of ancient sunlight hidden below the Earth’s surface, the minerals in soil, and the global climate that provided the stability for our species to flourish. As a species there is no one to blame, unless we cling to the delusion that we are the displaced God who transcended our own ecology. Yes, we can and will build a largely local economy out of the ruins of a collapsed globalised one. It will be a much poorer one and one where we will have lost much of what we take for granted. It can also provide a good life, where our basic needs are met, where meaningful lives can be lived, and a rich texture of experience found. But in the interim we face a huge resilience gap between the basic welfare and social needs once provided by integration with the globalised growth economy and what is available without it. We need to prepare for sudden shocks such as freezes in the banking system, and its effect on food access say, and the more strategic changes we require in agriculture, monetary systems, employment, and governance. The problem with such preparations is that in many cases they are likely to be too late. This is because the risk of severe financial shocks is rising all the time, and the issues are complex and often unclear. In addition real preparation would require a new and wide consensus on the nature of our predicament. But the emergence of such a consensus would lead to people and institutions taking rational action such as withdrawing deposits from banks, cashing in financial assets, or the refusing of credit. Such action would begin the re-enforcing process of supply-chain contagion and a systemic collapse in the globalised economy.

#### Growth makes ecological collapse inevitable—multiple reasons

Speth 8 [James Gustave Speth, law professor, Served as President Jimmy Carter’s White House environmental adviser and as head of the United Nations’ largest agency for international development Prof at Vermont law school, former dean of the Yale School of Forestry and Environmental Studies, former Professor of Law at Georgetown University Law Center, teaching environmental and constitutional law, former Chairman of the Council on Environmental Quality in the Executive Office of the President, co-founder of the Natural Resources Defense Council, *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability*, ISBN: 9780300145304, EBrary, pg. 6-9]

The underlying drivers of today’s environmental deterioration have been clearly identified. They range from immediate forces like the enormous growth in human population and the dominant technologies deployed in the economy to deeper ones like the values that shape our behavior and determine what we consider important in life. Most basically, we know that environmental deterioration is driven by the economic activity of human beings. About half of today’s world population lives in abject poverty or close to it, with per capita incomes of less than two dollars a day. The struggle of the poor to survive creates a range of environmental impacts where the poor themselves are often the primary victims— for example, the deterioration of arid and semiarid lands due to the press of increasing numbers of people who have no other option. But the much larger and more threatening impacts stem from the economic activity of those of us participating in the modern, increasingly prosperous world economy. This activity is consuming vast quantities of resources from the environment and returning to the environment vast quantities of waste products. The damages are already huge and are on a path to be ruinous in the future. So, a fundamental question facing societies today— perhaps the fundamental question— is how can the operating instructions for the modern world economy be changed so that economic activity both protects and restores the natural world? With increasingly few exceptions, modern capitalism is the operating system of the world economy. I use “modern capitalism” here in a broad sense as an actual, existing system of political economy, not as an idealized model. Capitalism as we know it today encompasses the core economic concept of private employers hiring workers to produce products and services that the employers own and then sell with the intention of making a profit. But it also includes competitive markets, the price mechanism, the modern corporation as its principal institution, the consumer society and the materialistic values that sustain it, and the administrative state actively promoting economic strength and growth for a variety of reasons. Inherent in the dynamics of capitalism is a powerful drive to earn profits, invest them, innovate, and thus grow the economy, typically at exponential rates, with the result that the capitalist era has in fact been characterized by a remarkable exponential expansion of the world economy. The capitalist operating system, whatever its shortcomings, is very good at generating growth. These features of capitalism, as they are constituted today, work together to produce an economic and political reality that is highly destructive of the environment. An unquestioning society-wide commitment to economic growth at almost any cost; enormous investment in technologies designed with little regard for the environment; powerful corporate interests whose overriding objective is to grow by generating profit, including profit from avoiding the environmental costs they create; markets that systematically fail to recognize environmental costs unless corrected by government; government that is subservient to corporate interests and the growth imperative; rampant consumerism spurred by a worshipping of novelty and by sophisticated advertising; economic activity so large in scale that its impacts alter the fundamental biophysical operations of the planet— all combine to deliver an ever-growing world economy that is undermining the planet’s ability to sustain life. The fundamental question thus becomes one of transforming capitalism as we know it: Can it be done? If so, how? And if not, what then? It is to these questions that this book is addressed. The larger part of the book proposes a variety of prescriptions to take economy and environment off collision course. Many of these prescriptions range beyond the traditional environmental agenda. In Part I of the book, Chapters 1– 3, I lay the foundation by elaborating the fundamental challenge just described. Among the key conclusions, summarized here with some oversimplification, are: • The vast expansion of economic activity that occurred in the twentieth century and continues today is the predominant (but not sole) cause of the environmental decline that has occurred to date. Yet the world economy, now increasingly integrated and globalized, is poised for unprecedented growth. The engine of this growth is modern capitalism or, better, a variety of capitalisms. A mutually reinforcing set of forces associated with today’s capitalism combines to yield economic activity inimical to environmental sustainability. This result is partly the consequence of an ongoing political default— a failed politics— that not only perpetuates widespread market failure— all the nonmarket environmental costs that no one is paying— but exacerbates this market failure with deep and environmentally perverse subsidies. The result is that our market economy is operating on wildly wrong market signals, lacks other correcting mechanisms, and is thus out of control environmentally. The upshot is that societies now face environmental threats of unprecedented scope and severity, with the possibility of various catastrophes, breakdowns, and collapses looming as distinct possibilities, especially as environmental issues link with social inequities and tensions, resource scarcity, and other issues. • Today’s mainstream environmentalism— aptly characterized as incremental and pragmatic “problem solving”—has proven insufficient to deal with current challenges and is not up to coping with the larger challenges ahead. Yet the approaches of modern-day environmentalism, despite their limitations, remain essential: right now, they are the tools at hand with which to address many very pressing problems. The momentum of the current system— fifty-five trillion dollars in output in 2004, growing fast, and headed toward environmental disaster— is so great that only powerful forces will alter the trajectory. Potent measures are needed that address the root causes of today’s destructive growth and transform economic activity into something environmentally benign and restorative. • In short, my conclusion, after much searching and considerable reluctance, is that most environmental deterioration is a result of systemic failures of the capitalism that we have today and that long-term solutions must seek transformative change in the key features of this contemporary capitalism. In Part II, I address these basic features of modern capitalism, in each case seeking to identify the transformative changes needed.

#### Extinction

Taylor 8 [Graeme Taylor is a social activist committed to constructive global transformation and the coordinator of BEST Futures, a project supporting sustainable solutions through researching how societies change and evolve, *Evolution's Edge: The Coming Collapse and Transformation of Our World*, Pomegranate Press, 2008, ISBN: 9781550923810, EBrary, pg. 120-1]

Biophysical systems are made up of many interacting and interdependent components. Because ecosystems continually process energy and information from their surrounding environments, they must constantly adjust (equilibrate) in response to changing conditions. Individual species risk extinction when they lose critical habitat and genetic diversity, and with these the ability to adapt to environmental stressors. Not only are healthy species genetically diverse, but healthy ecosystems are composed of a wide variety of interdependent species. Diversity increases a system’s resilience, which is its ability to absorb shocks and adapt to changes. Larger and more complex ecosystems that are not tightly entwined are more resilient than smaller and simpler systems. If the existence of an entire system is dependent on the health of a few species, it may easily collapse when those species are stressed. Systemic resilience is lost with the destruction of ecosystem biodiversity, increasing the likelihood of widespread biophysical collapse. Human-induced stresses are threatening to degrade many major ecosystems beyond threshold points — the points at which additional degradation will trigger irreversible collapse. Because the long-term viability of human societies is utterly dependent on the long-term viability of the biophysical systems that support them, the long-term sustainability of human systems requires the maintenance and restoration of ecosystem integrity, biodiversity and resilience.

#### Growth spurs warming.

Taylor 8 [Graeme Taylor is a social activist committed to constructive global transformation and the coordinator of BEST Futures, a project supporting sustainable solutions through researching how societies change and evolve, *Evolution's Edge: The Coming Collapse and Transformation of Our World*, Pomegranate Press, 2008, ISBN: 9781550923810, EBrary, pg. 35-9]

Increasing climate change Human economic activities are raising global temperatures through adding greenhouse gases that trap heat from the sun in the atmosphere. 20 These pollutants are primarily carbon dioxide, methane and nitrous oxide. Concentrations of carbon dioxide, which are higher than they have been for 650,000 years, are rising faster each year. This means that the rate of global warming is accelerating. When climate scientists predict rising temperatures they are talking about longterm global trends. In the short term, weather cycles and regional variations can produce colder or hotter temperatures than average — for example the La Niña effect produced unusually cold weather in the Northern Hemisphere in the winter of 2007/8. 21 The Intergovernmental Panel on Climate Change (IPCC) forecasts that if current trends continue, average global temperatures will probably rise between 3.2˚F-7.2˚F (1.8˚C - 4˚C ) by the end of the century. However, it is possible that temperatures will increase as little as 2˚F (1.1˚C) or as much as 11.5˚F (6.4˚C). The implications of increasing temperatures can be seen in Figure 5. Global warming adds energy to the atmosphere, causing weather patterns to change and extreme events to occur more frequently. Over the last 100 years, average global temperatures have risen by 1.4˚F (0.8˚C). Although this appears to be only a small increase, it has been enough to provoke major shifts in the Earth’s climate. Glaciers are retreating, coral reefs are bleaching, deserts are advancing, storms are strengthening, rainforests are burning and polar ice is melting. It is easy to see that if an increase of less than 1.8˚F (1˚C) is already having serious impacts, then further increases are likely to have disastrous consequences. The IPCC estimates that if average global temperatures rise by more than 3.6˚F (2˚C), it will probably trigger rapid, major, and irreversible impacts, including the extinction of hundreds of thousands of species, the conversion of rainforests to dry savannah, the spread of deserts, increasing drought in dry areas of the planet, increasing precipitation and floods in wet areas, falling crop yields and rising sea levels. 26 The impacts of rising temperatures are explained in detail by Mark Lynas in his award-winning book Six Degrees. 27 It is not possible to accurately calculate the impacts or costs of climate change since, for example, we can’t put a value on the hundreds of thousands of species that will go extinct if temperatures rise by even a few degrees. The Stern Review on the economics of climate change concluded that rising temperatures “create risks of major disruption to economic and social activity, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th century.” 29 At higher temperatures the consequences will be catastrophic. Much of the planet will become uninhabitable, and most of the species alive today will go extinct. It will be almost impossible to maintain advanced civilizations in these conditions. The threat of runaway global warming is worrying an increasing number of scientists. 30 If the natural processes that keep the Earth’s climate in equilibrium are seriously damaged, it may become impossible to prevent global temperatures from getting hotter year after year — even if all further greenhouse gas emissions are stopped. Some climate change tipping points have already been passed: for example, the Earth’s ability to reflect sunlight is declining as the massive ice sheets that air-condition our planet melt, and the ability of oceans and soils to absorb carbon dioxide has been sharply reduced. Global warming will not only have to be stopped, but also reversed to reduce temperatures back to a level at which biophysical processes can maintain an equilibrium — an equilibrium which was lost in the 1980s when average global temperatures rose higher than 0.9˚F (0.5˚C) above pre-industrial levels. If this isn’t done quickly, global warming will trigger an irreversible destructive cycle in which a warming atmosphere and warming oceans will destroy the rainforests, ocean algae and other vital ecosystems that remove carbon from the air. This danger is explained in David Spratt’s and Philip Sutton’s book Climate Code Red: the case for emergency action.³¹ An indication that we have already passed a dangerous tipping point is that the permafrost in Artic regions has already begun to thaw and release increasing quantities of methane, a greenhouse gas that is more than 20 times stronger than carbon dioxide. 32 It is estimated that up to 10,000 billion tons (9071 billion tonnes) of carbon exists as frozen gas hydrates (methane plus water) in permafrost and under the world’s oceans. 33 David Viner, a senior scientist at the Climatic Research Unit at the University of East Anglia, said “When you start messing around with these natural systems, you can end up in situations where it’s unstoppable. There are no brakes you can apply. This is a big deal because you can’t put the permafrost back once it’s gone.” 34 Research on ocean sediments indicates that dramatic climate change can occur very quickly. Audrey Dallimore, a scientist with Natural Resources Canada, said that “Neolithic Chinese culture collapsed 4,000 years ago because the climate changed so fast the culture couldn’t sustain itself. With natural climate change cycles, it appears there is no warning; there is no lead-up. Change was profound and happened in less than a decade …. Modern day atmospheric and ocean patterns suggest the same magnitude of climate change seen in the 4,000-year-old geologic evidence is happening now. It really is a ‘sit up and listen change.’ Something very different is happening.” 35 Catastrophic global warming is not an imaginary scenario. Of the five mass extinctions of life that have occurred in the history of our planet, four were caused by climate change. According to Gregory Ryskin, a professor of chemical engineering at Northwestern University, “explosive clouds of methane gas, initially trapped in stagnant bodies of water and suddenly released, could have killed off the majority of marine life and land animals and plants at the end of the Permian era” — a great extinction that wiped out 95% of the marine species and 70% of the land species that existed 250 million years ago. 36 In 2006, the Stern Review estimated that emissions of carbon dioxide would need to drop more than 80% by 2050 to keep the increase in global temperatures under 3.6˚F (2˚C). In order to meet these targets many experts believe that industrialized nations will have to reduce emissions by up to 90% from present levels and developing nations such as China, India and Brazil will also have to make major reductions. 37 In their 2007 forecast, the International Energy Agency pointed out that, “Even if governments actually implement, as we assume, all the policies they are considering to curb energy imports and emissions, both would still rise through to 2030.” In their best scenario, these additional atmospheric pollutants will increase average global temperatures by 5.4˚F (3˚C). 38 The report fails to mention that the current best case scenario will be enough to destroy one third of all the species on Earth as well as trigger runaway global warming. The UN’s Human Development Report 2007/2008 was blunter: “There is now overwhelming scientific evidence that the world is moving towards the point at which irreversible ecological catastrophe becomes unavoidable …. There is a window of opportunity for avoiding the most damaging climate change impacts, but that window is closing: the world has less than a decade to change course.” 39 In reality we probably do not have even 10 years to stop catastrophic global warming — recent authoritative studies indicate that global warming is accelerating three times faster than the worst forecasts of the Intergovernmental Panel on Climate Change. 40 For example, American studies indicate that rather than sea levels rising by around 15.75” (40 cm) by 2100 as predicted by the IPCC, the true rise may be as much as 78” (2 meters) — an amount that will inundate islands and major coastal cities around the world. Dr. James Hansen, the director of NASA’s Goddard Institute for Space Studies said, “[T]he Earth is getting perilously close to climate changes that could run out of control.” 41 This is serious stuff. The evidence not only indicates that climate change will do massive environmental and economic damage in the coming decades, but that the survival of most life on Earth is threatened by runaway global warming. So why have governments not declared climate change to be a global emergency?

#### Growth makes war and conflict inevitable.

Trainer 98 [Ted Trainer, Lecturer in Sociology at the University of New South Wales, 1998, "Our Unsustainable Society: Basic Causes, Interconnections, and Solutions," The Coming Age of Scarcity: Preventing Mass Death and Genocide in the Twenty-first Century, edited by Michael N. Dobkowski and Isidor Wallimann, Published by Syracuse University Press, ISBN 0815627440, p. 91-92]

Some of the most disturbing implications of the limits-to-growth analysis of the global situation arise regarding the problems of peace and conflict. The foregoing argument has been that only a few can have the life-styles that we in rich countries have, and we can have them only for a historically short period, because there are not enough resources for all to rise to anything like the living standards we take for granted. But we who have per capita incomes averaging sixty times those of the poorest half of the world’s people are obsessed with getting richer as fast as possible and without end. Now, if we and all others continue to pursue that goal, as population doubles, and resources become scarcer, there can be no other conceivable outcome than increasing levels of conflict in the world. Much of the foregoing argument has been that we have an empire, a sphere of influence, without which our living standards could not be as high as they are. We have to be extensively involved in military activity to secure our lines of supply from the empire. We could not be sure of getting all that oil from the Middle East if we did not have aircraft carriers in the Mediterranean, rapid deployment forces specially trained and ready to fly into trouble spots, minesweepers able to clear vital shipping lanes, the military presence that stands as a warning to others that they had better not interfere with “our” oil fields, and the contingency plans for dealing with any rebel tribesmen or any sectional uprising that might cut the pipelines. We must be able to protect our allies, interests, trading arrangements, and clients. United States Army Gen. M. D. Taylor said that “U.S. military priorities must be shifted. . . towards insuring a steady flow of resources from the Third World.” He referred to “a fierce competition among industrial powers for the same raw materials markets sought by the United States” and “growing hostility displayed by have-not nations towards their affluent counterparts” (Cypher 1981). Speaking to American soldiers at Camp Stanly, Korea, President Johnson said, “Don’t forget, there are two hundred million of us in a world of three billion. They want what we’ve got—and we’re not going to give it to them!” Ashley says that “expansion is a prime source of conflict. War is mainly explicable in terms of differential growth in a world of scarce and unevenly distributed resources” (1980, 3, 126). Nettleship makes the same point: “War is an inevitable result of the struggle between [end page 91] economies for expansion” (1975, 497). Chase-Dunn says that “warfare appears as a normal and periodic form of competition within the capitalist world economy... . World wars regularly occur during a period of economic expansion” (1989, 108, 163). In other words, the main source of conflict and war in the world is the ceaseless quest for greater wealth and power. We have no chance of achieving a peaceful world until nations stop being greedy and work out how to live without constantly striving to grow richer. Yet, the supreme commitment in our economy is to rapid and ceaseless growth!

#### Collapse now is best, growth guarantees extinction.

Barry 8 [Dr. Glen Barry, President and Founder of Ecological Internet, an online portal for the global environmental movement, Ph.D. in Land Resources from the University of Wisconsin-Madison, M.S. in Conservation Biology and Sustainable Development from the University of Wisconsin-Madison, and B.A. in Political Science from Marquette University, 2008, “Economic Collapse And Global Ecology,” Earth Meanders, January 14th, Available Online at http://www.countercurrents.org/barry140108.htm, Accessed 09-09-2008]

Humanity and the Earth are faced with an enormous conundrum—sufficient climate policies enjoy political support only in times of rapid economic growth. Yet this growth is the primary factor driving greenhouse gas emissions and other environmental ills. The growth machine has pushed the planet well beyond its ecological carrying capacity, and unless constrained, can only lead to human extinction and an end to complex life. With every economic downturn, like the one now looming in the United States, it becomes more difficult and less likely that policy sufficient to ensure global ecological sustainability will be embraced. This essay explores the possibility that from a biocentric viewpoint of needs for long-term global ecological, economic and social sustainability; it would be better for the economic collapse to come now rather than later. Economic growth is a deadly disease upon the Earth, with capitalism as its most virulent strain. Throw-away consumption and explosive population growth are made possible by using up fossil fuels and destroying ecosystems. Holiday shopping numbers are covered by media in the same breath as Arctic ice melt, ignoring their deep connection. Exponential economic growth destroys ecosystems and pushes the biosphere closer to failure. Humanity has proven itself unwilling and unable to address climate change and other environmental threats with necessary haste and ambition. Action on coal, forests, population, renewable energy and emission reductions could be taken now at net benefit to the economy. Yet, the losers—primarily fossil fuel industries and their bought oligarchy—successfully resist futures not dependent upon their deadly products. Perpetual economic growth, and necessary climate and other ecological policies, are fundamentally incompatible. Global ecological sustainability depends critically upon establishing a steady state economy, whereby production is right-sized to not diminish natural capital. Whole industries like coal and natural forest logging will be eliminated even as new opportunities emerge in solar energy and environmental restoration. This critical transition to both economic and ecological sustainability is simply not happening on any scale. The challenge is how to carry out necessary environmental policies even as economic growth ends and consumption plunges. The natural response is going to be liquidation of even more life-giving ecosystems, and jettisoning of climate policies, to vainly try to maintain high growth and personal consumption. We know that humanity must reduce greenhouse gas emissions by at least 80% over coming decades. How will this and other necessary climate mitigation strategies be maintained during years of economic downturns, resource wars, reasonable demands for equitable consumption, and frankly, the weather being more pleasant in some places? If efforts to reduce emissions and move to a steady state economy fail; the collapse of ecological, economic and social systems is assured. Bright greens take the continued existence of a habitable Earth with viable, sustainable populations of all species including humans as the ultimate truth and the meaning of life. Whether this is possible in a time of economic collapse is crucially dependent upon whether enough ecosystems and resources remain post collapse to allow humanity to recover and reconstitute sustainable, relocalized societies. It may be better for the Earth and humanity's future that economic collapse comes sooner rather than later, while more ecosystems and opportunities to return to nature's fold exist. Economic collapse will be deeply wrenching—part Great Depression, part African famine. There will be starvation and civil strife, and a long period of suffering and turmoil. Many will be killed as balance returns to the Earth. Most people have forgotten how to grow food and that their identity is more than what they own. Yet there is some justice, in that those who have lived most lightly upon the land will have an easier time of it, even as those super-consumers living in massive cities finally learn where their food comes from and that ecology is the meaning of life. Economic collapse now means humanity and the Earth ultimately survive to prosper again. Human suffering—already the norm for many, but hitting the currently materially affluent—is inevitable given the degree to which the planet's carrying capacity has been exceeded. We are a couple decades at most away from societal strife of a much greater magnitude as the Earth's biosphere fails. Humanity can take the bitter medicine now, and recover while emerging better for it; or our total collapse can be a final, fatal death swoon. A successful revolutionary response to imminent global ecosystem collapse would focus upon bringing down the Earth's industrial economy now. As society continues to fail miserably to implement necessary changes to allow creation to continue, maybe the best strategy to achieve global ecological sustainability is economic sabotage to hasten the day. It is more fragile than it looks. Humanity is a marvelous creation. Yet her current dilemma is unprecedented. It is not yet known whether she is able to adapt, at some expense to her comfort and short-term well-being, to ensure survival. If she can, all futures of economic, social and ecological collapse can be avoided. If not it is better from a long-term biocentric viewpoint that the economic growth machine collapse now, bringing forth the necessary change, and offering hope for a planetary and human revival.

#### China war wouldn’t go nuclear

**Record 1** − Professor of Strategy and International Security at the Air War College

(Jeffrey, “Thinking about China and War”, http://www.airpower.au.af.mil/airchronicles/apj/apj01/win01/record.html#record)

Assuming the absence of mindless escalation to a general nuclear exchange, a war between China and the United States would be constrained by limited military capacity and political objectives. For openers, neither China nor the United States is capable of invading and subjugating the other, and even if the United States had the ability to do so, avoidance of a land war on the Asian mainland has long been an injunction of American strategy. The objectives of a Sino-American war over Taiwan or freedom of navigation in the South China Sea would be limited—just as they were in the Sino-American war in Korea. And since the outcome in either case would be decided by naval and air forces, with regular ground forces relegated to a distinctly secondary role, a war over Taiwan or the South China Sea would also be limited in terms of the type of force employed. This was not the case in the Korean War, in which ground combat dominated. (To be sure, the US position on the ground would have been untenable without air dominance.)

#### The US would quickly demolish China.

**Ross 5**, staff writer – the National Interest

(Robert, “Assessing the China Threat,” The National Interest, Fall)

The outcome of any war between the United States and China would be devastating for Chinese interests. As General Zhu Chenghu recently observed, China has "no capability to fight a conventional war against the United States." Indeed, **China would face near inevitable defeat,** with the military, political and economic costs far outweighing any costs incurred by the United States. China would risk losing its entire surface fleet, and it would expose its coastal territory, including its port facilities and its surface vessels at port, to U.S. air and missile strikes. The economic costs would also be devastating. China would **lose access to Western technologies** for many years after the war. It would also lose its peaceful international environment and risk its "peaceful rise" as its economy shifted to long-term war-footing and its budget contended with a protracted U.S.-Chinese arms race, undermining domestic infrastructure development and long-term civilian and defense technology development. Finally, the political costs would be prohibitive. A military loss to the United States could well destroy the nationalist credentials of the **Chinese Communist Party and cause its collapse.**

#### No escalation. Everyone would take our side.

**Kissinger**, Former Secretary of State, 6/13/**’5**

(Henry, “China: Containment Won’t Work,” Washington Post)

In a U.S. confrontation with China, the vast majority of nations will seek **to avoid choosing sides.** At the same time, they will generally have greater incentives to participate in a **multilateral system with America than to adopt an exclusionary Asian nationalism**. They will not want to be seen as pieces of an American design. India, for example, perceives ever closer common interests with the United States regarding opposition to radical Islam, some aspects of nuclear proliferation and the integrity of the Association of Southeast Asian Nations. It sees no need to give these common purposes an ideological or anti-Chinese character. It finds no inconsistency between its dramatically improving relations with the United States and proclaiming a strategic partnership with China. American insistence on an ideological crusade and on a Cold War-type of containment might accelerate such gestures. And it would risk inflaming India's Muslim population.

#### Nuclear winter doesn’t exist—Robock is cooking the numbers

Seitz 11—Research fellow in physics @ Harvard University [Russell Seitz (Ph. D in applied physics @ Harvard University), “Nuclear winter was and is debatable,” Nature, 475, 37 (07 July 2011) pg. http://tinyurl.com/7jr3sxz]

Alan Robock's contention that there has been no real scientific debate about the 'nuclear winter' concept is itself debatable (Nature 473, 275–276; 2011). This potential climate disaster, popularized in Science in 1983, rested on the output of a one-dimensional model that was later shown to overestimate the smoke a nuclear holocaust might engender. More refined estimates, combined with advanced three-dimensional models (see http://go.nature.com.proxy.library.emory.edu/kss8te), have dramatically reduced the extent and severity of the projected cooling.

Despite this, Carl Sagan, who co-authored the 1983 Science paper, went so far as to posit “the extinction of Homo sapiens” (C. Sagan Foreign Affairs 63, 75–77; 1984). Some regarded this apocalyptic prediction as an exercise in mythology. George Rathjens of the Massachusetts Institute of Technology protested: “Nuclear winter is the worst example of the **misrepresentation of science** to the public in my memory,” (see http://go.nature.com.proxy.library.emory.edu/yujz84) and climatologist Kerry Emanuel observed that the subject had “become notorious for its lack of scientific integrity” (Nature 319, 259; 1986).

Robock's single-digit fall in temperature is at odds with the subzero (about −25 °C) continental cooling originally projected for a wide spectrum of nuclear wars. Whereas Sagan predicted darkness at noon from a US–Soviet nuclear conflict, Robock projects global sunlight that is several orders of magnitude brighter for a Pakistan–India conflict — literally the difference between night and day. Since 1983, the projected worst-case cooling has fallen from a Siberian deep freeze spanning 11,000 degree-days Celsius (a measure of the severity of winters) to numbers so unseasonably small as to call the very term 'nuclear winter' into question.

#### Limited retaliation strategy prevents nuclear winter. Use of counterforce targeting prevents city fires and the release of soot.

Powell 89—Professor of Poli Sci @ Harvard University [Robert Powell, “Nuclear Deterrence and the Strategy of Limited Retaliation,” The American Political Science Review, Vol. 83, No. 2 (Jun., 1989), pp. 503-519]

Conclusions - Although mutually assured destruction may be the technological state of affairs, there are still several conceptual approaches to nuclear deterrence. Recent formal work has focused on brinkmanship crises in which states exert coercive pressure by manipulating the risk of an unlimited nuclear exchange. I have attempted to extend the formal analysis of nuclear deterrence theory to the strategy of limited retaliation in which states exert coercive pressure by inflicting limited amounts of damage on an adversary in order to make the threat of future punishment more credible.

The strategy of limited retaliation has been modeled as a simple game of sequential bargaining. The game's equilibrium suggests that states prefer to have relatively smaller, less-destructive limited options. Moreover, each state also finds counterforce options desirable even though these options are incapable of limiting the total amount of damage an adversary can inflict on the state. When one-sided incomplete information is added to the model, the escalatory dynamic described by the game's unique sequential crisis equilibrium shows that as the crisis continues, the states become less and less likely to escalate further. The challenger also becomes less and less confident that it is facing an irresolute adversary. Moreover, a large reduction in the destructiveness of the defender's limited options may make the probability of a nuclear exchange smaller. A smaller reduction in the destructiveness of these options, however, may reduce crisis stability and make a nuclear exchange more likely. Finally, uncertainty and incomplete information play a crucial role in enhancing deterrence. Doubts about the defender's resolve may deter a state from making a challenge that it would have been certain to make had it been completely confident about the defender's resolve.

\*Robock concludes that 150 nuclear bombs need to be used to trigger nuclear winter

\*Counterforce = Targeting military installation. Avoiding cities

## \*\*\* 2NC

### Ext. Romm 11—Renewables

#### Natgas will inhibit renewables—relative price and sunk cost. They will not read a better card on this issue

Jones 8/29/12—Ciriacy-Wantrup Fellow @ University of California-Berkeley. Research focuses on the intersections between energy, environment, and society [Dr. [Christopher F. Jones](http://www.huffingtonpost.com/christopher-f-jones) (Held fellowships @ Harvard University Center for the Environment and the University of Virginia Miller Center of Public Affairs., “Natural Gas: Bridge or Dead End?,” Huffington Post, Posted: 08/29/2012 11:25 am, pg. http://www.huffingtonpost.com/christopher-f-jones/bridge-or-dead-end\_b\_1837015.html]

Natural gas is often touted as a bridge fuel: an interim step between the heavily polluting fossil fuels we depend on today and the clean renewable energy systems we hope for tomorrow. But the infrastructure we deploy to increase natural gas may actually inhibit the transition to solar and wind power. Rather than a bridge, natural gas may be a dead end.

The idea of natural gas as a bridge draws on three main points. First, natural gas produces significantly [less carbon dioxide](http://www.ucsusa.org/clean_energy/our-energy-choices/coal-and-other-fossil-fuels/how-natural-gas-works.html#enviroimpacts) than coal or oil. Second, it releases fewer impurities like [sulfur and mercury](http://www.epa.gov/cleanenergy/energy-and-you/affect/natural-gas.html) compared with other fossil fuels. Third, many experts anticipate that obtaining even [20 percent of our energy from renewables](http://www.20percentwind.org) in the next couple decades will be difficult. Natural gas, [advocates argue](http://www.pickensplan.com/theplan), offers a more realistic large-scale carbon reduction strategy in the short-term because we have already addressed many of the technical challenges of producing, transporting, and consuming it.

These considerations merit attention from the pragmatic environmentalist. Greatly reducing carbon emissions without lowering overall energy consumption is a laudable goal if it can be done in an environmentally responsible manner. Yet in addition to thinking about how we build a natural gas bridge, it is imperative that we devote equal attention to how we get off. A good bridge requires off-ramps. If we consider the role of infrastructure in energy transitions, this might be harder than we think.

Critics of natural gas have typically focused on issues of pollution rather than infrastructure. First, there has been widespread opposition to 'fracking' shale gas reserves, a process that may [contaminate drinking water](http://www.scientificamerican.com/article.cfm?id=fracking-linked-water-contamination-federal-agency), [trigger minor earthquakes](http://www.cnn.com/2012/06/15/us/fracking-earthquakes/index.html), and produce many other environmental consequences. Second, there are debates over whether natural gas really has a beneficial impact on climate. It may produce less greenhouse gas, but leaks of [methane](http://epa.gov/methane/scientific.html) might more than [offset these gains](http://www.huffingtonpost.com/bill-chameides/-natural-gas-a-bridge-to_b_1690857.html). These are important issues, but it is also worth examining the impact that expanding natural gas infrastructure will have on renewable energy systems.

Building a natural gas bridge will require a significant expansion of infrastructure: drilling wells for production, pipelines for distribution, and a range of devices for consumption including power plants, home furnaces, and industrial ovens. Investing in these systems will increase the supply of natural gas and lower its costs through economies of scale. As a result, consumers will find it cheaper and easier to use natural gas. This is a straightforward account of what infrastructure does -- it facilitates certain types of behaviors.

What is less appreciated is the fact that infrastructure cuts two ways. These systems will not simply provide an advantage for natural gas; they will make it progressively harder and more expensive to transition to renewables. We can examine this point by thinking about relative prices and sunk costs.

Relative prices often matter more than absolute prices for energy transitions. For consumers, it is not simply the price of an energy source that matters; it is how much more or less that energy source costs than other options. Right now, natural gas is already cheaper than solar and wind for electricity production in most analyses. With significant investments in natural gas infrastructure, this price gap is only likely to grow. Therefore, even though the absolute price of renewable energy will not change, wind and solar will become lss attractive to consumers because they will cost relatively more.

What's more, these inequalities are likely to become more extreme over time due to sunk costs. Most of the systems designed to burn natural gas, like furnaces and electrical generating equipment, are expensive and designed to last for decades. Once large sums have been paid to purchase such systems, short-term price changes matter far less to consumers. Even if natural gas triples in price, prior investments in these systems will still act as a disincentive for switching to renewables. The sunk costs in infrastructure, therefore, further suggest that once we get on the bridge, it will be hard to get off.

We need not be resigned to this fate. The key is to think not simply about building a bridge, but also about building off-ramps.

Careful policy measures can enable a more compelling coexistence of natural gas and renewables. For example, one option would be to place a tax on natural gas (as well as coal and oil) that begins in ten years and increases by a set amount every five years. The proceeds for this tax could be dedicated to renewable energy development, either in the form of research grants or production incentives. This would ensure that renewable energy sources will continue to receive investment and that they become comparatively more attractive over time, rather than less. Another approach would be to insist that any investment in natural gas infrastructure be matched by a corresponding investment in solar or wind. Any policy decision on natural gas must also include regulations to address fracking concerns and methane leakages.

Natural gas could be an ally of the pragmatic environmentalist. But we must be careful that infrastructural investments do not hinder a renewable energy future. Without off-ramps, a bridge is simply a dead end.

### Ext. Chameides 12—Methane

#### 4% will get leaked

Kenworthy 12—Senior Fellow with the Public Lands team @American Progress [Tom Kenworthy, “[Natural Gas Industry Must Tighten Up Methane Leaks — And Save $2 Billion Per Year In The Process](http://thinkprogress.org/climate/2012/03/29/454445/natural-gas-industry-methane-leaks-save-2-billion/),” Think Progress, Mar 29, 2012 at 9:38 am, pg. http://tinyurl.com/8zrz2ws

In a stunning [report](http://thinkprogress.org/romm/2011/09/09/315845/natural-gas-switching-from-coal-to-gas-increases-warming-for-decades/) last year, the National Center for Atmospheric Research concluded that substituting natural gas for coal as an energy source would actually increase global warming for many decades—unless methane leakage rates can be kept below 2%.

Even though we don’t know much about the actual leakage rate for methane—the major component of natural gas and a far more potent greenhouse gas than CO2—that NCAR study is bad news. It’s especially bad for shale gas, in part because hydraulic fracturing is believed to have a higher life-cycle leakage rate during the production and transport phases of development.

In a separate NOAA study in February, researchers found that natural gas companies in a Colorado field were losing about 4% of methane during production, and that doesn’t include the losses from leaks in the pipeline and distribution system.

The task of controlling fugitive methane leaks is critical if switching to natural gas is going to do anything to aide the fight against climate change.

### 2NC O/V—Unsustainable

#### And biological laws prove we only need to win one warrant to win the debate—converging factors prove collapse is inevitable.

Taylor 8 [Graeme Taylor is a social activist committed to constructive global transformation and the coordinator of BEST Futures, a project supporting sustainable solutions through researching how societies change and evolve, *Evolution's Edge: The Coming Collapse and Transformation of Our World*, Pomegranate Press, 2008, ISBN: 9781550923810, EBrary, pg. 108-9]

It is easier for societies to manage problems that are temporary and/or local in nature than problems that are sustained and/or generalized. For example, it is easier for a society to manage a single failed harvest than long-term climate change, a work stoppage in one factory than a national strike, a border dispute than all-out warfare. The work of Jack Goldstone, a sociologist at George Mason University, indicates that societies are more likely to break down when they face multiple converging stresses. He wrote, “Massive state breakdown is likely to occur only when there are simultaneously high levels of distress and conflict at several levels of society — in the state, among elites, and in the populace.” 6 While converging stresses can result from disparate developments (e.g. a harvest failure occurring at the same time as invasion), they are often caused by cascading crises (e.g. a harvest failure causes famine which then triggers a rebellion). As crises interact with each other the problems multiply and become more difficult to manage. The large number of interacting problems facing humanity in the coming decades increases the probability of major crises. Enormous threats are posed by climate change, energy shortages, water scarcity, food shortages, loss of biodiversity, growing economic inequality, increasing global financial instability and conflicts over scarce resources. Other growing threats also exist, such as pandemics and the proliferation of nuclear weapons. 7 While any of these issues will be extremely difficult to manage by itself, in combination they will be unmanageable. For example, until recently UN food estimates have assumed that both the weather and energy prices will remain relatively stable for the foreseeable future. 8 But what will happen to agricultural production if the costs of irrigation, fertilizers and transportation continue to rise due to declining oil supplies? What will happen if this problem is compounded by other factors such as climate change? And what will be the political consequences in China, India and other countries if these interacting crises produce a deadly combination: a global depression, inflation, increasing food shortages and growing unemployment? Scenarios such as these are the recipe for the type of perfect storm that could cause the catastrophic collapse of the world system. 9 Global crises could start almost anywhere. Since societal systems have complex and chaotic dynamics, 10 it is not possible to make precise predictions about the future. Nevertheless, it is possible to define system parameters — the operating conditions and resources that a society must have to survive. The biological Law of the Minimum (Liebig’s Law) states that the population of any species is limited by the necessity (water, food, suitable climate) in least supply. This means that it will only take a shortage of one irreplaceable global resource to trigger a global crisis. Although we are not yet in a position to predict which resource will run out when, we do know that resource shortages are inevitable because the industrial system requires constantly increasing quantities of energy, water, metals, fiber, grains and other critical resources in order to function. We also know that the availability of many resources is declining due to overexploitation, pollution and climate change. Many experts believe that oil production will peak and begin to decline sometime between 2008 and 2015. 12 While the first 150 years of industrialization were powered by wood and coal, the rapid expansion of the industrial system after 1900 closely corresponds with the rapid expansion of oil production. Since oil is the most important source of energy on the planet today, when production begins to decline, the global economy is likely to go into a severe depression. This chart indicates how vulnerable our industrial civilization is to resource shortages. We could create similar charts to show how rapidly other essential resources such as groundwater, topsoil, wood, fish, natural gas, lead, zinc or copper are being depleted, and how rapidly the planet’s air, earth and water are being polluted. In terms of the long existence of humans on earth, the Industrial Age is only a brief, passing phenomena. Non-renewable fossil fuels made mechanization possible. Mechanization has allowed our species to expand and consume both renewable and non-renewable resources at an unsustainable rate. Now the resources are almost running out, major ecosystems are failing, and industrial civilization is about to collapse.

#### Prefer our evidence—it’s based on physical capacities of the earth while theirs is theory

Heinberg 10 [Richard Heinberg, journalist, teaches at the Core Faculty of New College of California, on the Board of Advisors of the Solar Living Institute and the Post Carbon Institute, “Life After Growth,” March 4, 2010, http://www.countercurrents.org/heinberg040310.htm]

In nature, growth always slams up against non-negotiable constraints sooner or later. If a species finds that its food source has expanded, its numbers will increase to take advantage of those surplus calories—but then its food source will become depleted as more mouths consume it, and its predators will likewise become more numerous (more tasty meals for them!). Population "blooms" (that is, periods of rapid growth) are always followed by crashes and die-offs. Always.

Here's another real-world example. In recent years China's economy has been growing at eight percent or more per year; that means it is more than doubling in size every ten years. Indeed, China consumes more than twice as much coal as it did a decade ago—the same with iron ore and oil. The nation now has four times as many highways as it did, and almost five times as many cars. How long can this go on? How many more doublings can occur before China has used up its key resources—or has simply decided that enough is enough and has stopped growing?

It makes sense that economies should follow rules analogous to those that govern biological systems. Plants and animals tend to grow quickly when they are young, but then they reach a more or less stable mature size. In organisms, growth rates are largely controlled by genes. In economies, growth seems tied to factors such as the availability of resources—chiefly energy resources ("food" for the industrial system). During the 20th century, cheap and abundant fossil fuels enabled rapid economic expansion; at some point, therefore, fossil fuel depletion could put a brake on growth. It is also possible that industrial wastes could accumulate to the point that the biological systems that underpin economic activity (such as forests, crops, and human bodies) begin to fail.

But economists generally don't see things this way. That's probably because most current economic theories were formulated during an anomalous historical period of sustained growth. Economists are merely generalizing from their experience: they can point to decades of steady growth in the recent past, and so they simply project that experience into the future. Moreover, they have ways to explain why modern market economies are immune to the kinds of limits that constrain natural systems; the two main ones concern substitution and efficiency.

If a useful resource becomes scarce, its price will rise, and this creates an incentive for users of the resource to find a substitute. For example, if oil gets expensive enough, energy companies might start making liquid fuels from coal. Or they might develop other energy sources undreamed of today. Economists theorize that this process of substitution can go on forever. It's part of the magic of the free market.

Increasing efficiency means doing more with less. In the U.S., the number of inflation-adjusted dollars generated in the economy for every unit of energy consumed has increased steadily over recent decades (the amount of energy, in British Thermal Units, required to produce a dollar of GDP has been dropping steadily, from close to 20,000 BTU per dollar in 1949 to 8,500 BTU in 2008). That's one kind of economic efficiency. Another has to do with locating the cheapest sources of materials, and the places where workers will be most productive and work for the lowest wages. As we increase efficiency, we use less—of either resources or money—to do more. That enables more growth.

Finding substitutes for depleting resources and upping efficiency are undeniably effective adaptive strategies of market economies. Nevertheless, the question remains open as to how long these strategies can continue to work in the real world—which is governed less by economic theories than by the laws of physics. In the real world, some things don't have substitutes, or the substitutes are too expensive, or don't work as well, or can't be produced fast enough. And efficiency follows a law of diminishing returns: the first gains in efficiency are usually cheap, but every further incremental gain tends to cost more, until further gains become prohibitively expensive.

Unlike economists, most physical scientists recognize that growth within any functioning, bounded system has to stop sometime.

### 2NC Wall—AT: Tech Solves

#### 1.) We need to get rid of the growth mindset to solve

Taylor 8 [Graeme Taylor is a social activist committed to constructive global transformation and the coordinator of BEST Futures, a project supporting sustainable solutions through researching how societies change and evolve, *Evolution's Edge: The Coming Collapse and Transformation of Our World*, Pomegranate Press, 2008, ISBN: 9781550923810, EBrary, pg. 84-5]

We will not be able to avoid the environmental collapse of our world and the economic collapse of our civilization by technological means alone. As long as the world system is organized by values that promote materialism and violence, global consumption will continue to increase and the environment will continue to degrade. In order to preserve the environment we need not only better technologies but also better values. Satish Kumar, the editor of Resurgence magazine, says that in addition to efficiency we need sufficiency. 81 Sufficiency is learning to be satisfied with enough; it is taking care of real needs rather than false greeds. The consumer culture has no concept of enough: millionaires want to be billionaires, and billionaires want to own even more. In reality no one needs to be a millionaire in order to be happy. In fact consuming more than we need is not only immoral in a hungry world, but it is also the road to environmental destruction, emotional and spiritual poverty, war and economic ruin. We would all be far happier living in a peaceful world without poverty, pollution, disease, crime and war. But a peaceful and sustainable world will only be possible if we learn about limits — if we learn to live within the planet’s biophysical limits; if we learn to share the planet’s limited resources; if we learn to give more and take less and if we learn to be satisfied with enough.

#### 3.) There is no incentive to develop sustainable tech—political institutions are too slow

Speth 8 [James Gustave Speth, law professor, Served as President Jimmy Carter’s White House environmental adviser and as head of the United Nations’ largest agency for international development Prof at Vermont law school, former dean of the Yale School of Forestry and Environmental Studies, former Professor of Law at Georgetown University Law Center, teaching environmental and constitutional law, former Chairman of the Council on Environmental Quality in the Executive Office of the President, co-founder of the Natural Resources Defense Council, *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability*, ISBN: 9780300145304, EBrary, pg. 114-5]

The needed rates of technological improvement are thus high, and they must be continuously sustained. And there are many, many areas where such technological changes must occur, beyond those affecting carbon dioxide emissions— in agriculture, construction, manufacturing, transportation, and elsewhere. In the carbon dioxide example, almost half the required rate of change is needed simply to compensate for the effects of economic growth. It is like running up a down escalator— a very fast down escalator. Perhaps it can be done. I am doubtful,10 but here is a key point: it is not being done today, and no government that I know of is systematically, adequately promoting the universal, rapid, and sustained penetration of green technology, at home and abroad, on the scale required. Governments are, however, profoundly committed to promoting growth. Real speed is required for technological change to stay well ahead of growth, but the social and political institutions that can create the incentives for rapid technological change can be slow to respond, as can the needed science and technology. The development of international environmental law and regulation is painfully slow, for example. But the world economy and urbanization surge ahead, faster than societies can respond. Chlorofluorocarbons were produced for decades before scientists raised concerns. Then it took a decade to agree on a phaseout, which took another decade. Yet the problem was relatively simple compared to most, and the response was fast by international standards. Our capacity to anticipate and respond effectively today has not greatly improved. Yet by the time today’s university students reach leadership positions, the world economy will likely be twice its current size.

#### 5.) Tech can’t solve all environmental problems and masks the true problem of consumption

Godhaven 9 [Merrick Godhaven is an environmental writer and activist. He co-authored the Corporate Watch report Technofixes: A Critical Guide to Climate Change Technologies. The Guardian, “Swapping technologies fails to address the root causes of climate change,” July 15, 2009, http://www.guardian.co.uk/environment/cif-green/2009/jul/15/technofix-climate-change]

Technology is part of the solution to climate change. But only part. Techno-fixes like some of those in the Guardian's Manchester Report simply cannot deliver the carbon cuts science demands of us without being accompanied by drastic reductions in our consumption. That means radical economic and social transformation. Merely swapping technologies fails to address the root causes of climate change. We need to choose the solutions that are the cheapest, the swiftest, the most effective and least likely to incur dire side effects. On all counts, there's a simple answer—stop burning the stuff in the first place. Consume less. There is a certain level of resources we need to survive, and beyond that there is a level we need in order to have lives that are comfortable and meaningful. It is far below what we presently consume. Americans consume twice as much oil as Europeans. Are they twice as happy? Are Europeans half as free? Economic growth itself is not a measure of human well-being, it only measures things with an assessed monetary value. It values wants at the same level as needs and, while it purports to bring prosperity to the masses, its tendency to concentrate profit in fewer and fewer hands leaves billions without the necessities of a decent life. Techno-fixation masks the incompatibility of solving climate change with unlimited economic growth. Even if energy consumption can be reduced for an activity, ongoing economic growth eats up the improvement and overall energy consumption still rises. We continue destructive consumption in the expectation that new miracle technologies will come and save us. The hope of a future techno-fix feeds into the pass-it-forward, do-nothing-now culture typified by targets for 2050. Tough targets for 2050 are not tough at all, they are a decoy. Where are the techno-fix plans for the peak in global emissions by 2015 that the IPCC says we need? Even within the limited sphere of technology, we have to separate the solutions from the primacy of profit. We need to choose what's the most effective, not the most lucrative. Investors will want the maximum return for their money, and so the benefits of any climate technologies will, in all likelihood, be sold as carbon credits to the polluter industries and nations. It would not be done in tandem with emissions cuts but instead of them, making it not a tool of mitigation but of exacerbation. Climate change is not the only crisis currently facing humanity. Peak oil is likely to become a major issue within the coming decade. Competition for land and water, soil fertility depletion and collapse of fisheries are already posing increasing problems for food supply and survival in many parts of the world. Technological solutions to climate change fail to address most of these issues. Yet even without climate change, this systemic environmental and social crisis threatens society, and requires deeper solutions than new technology alone can provide. Around a fifth of emissions come from deforestation, more than for all transport emissions combined. There is no technological fix for that. We simply need to consume less of the forest, that is to say, less meat, less agrofuel and less wood. Our level of consumption is inequitable. Making it universal is simply impossible. The scientist Jared Diamond calculates that if the whole world were to have our level of consumption, it would be the equivalent of having 72 billion people on earth. With ravenous economic growth still prized as the main objective of society by all political leaders the world over, that 72 billion would be just the beginning. At 3% annual growth, 25 years later it would be the equivalent of 150 billion people. A century later it would be over a trillion. Something's got to give. And indeed, it already is. It's time for us to call it a crisis and respond with the proportionate radical action that is needed. We need profound change—not only government measures and targets but financial systems, the operation of corporations, and people's own expectations of progress and success. Building a new economic democracy based on meeting human needs equitably and sustainably is at least as big a challenge as climate change itself, but if human society is to succeed the two are inseparable. Instead of asking how to continue to grow the economy while attempting to cut carbon, we should be asking why economic growth is seen as more important than survival.

#### 7.) Tech will be too slow to save us

Orlov 11 [Dmitry Orlov is the author of the award-winning book *Reinventing Collapse: The Soviet Example and American Prospects*. Born in Russia, he moved to the US while a teenager, and has traveled back repeatedly to observe the Soviet collapse during the late eighties and mid-nineties. He is an engineer who has worked in many fields, including high-energy physics research, e-commerce and internet security. “Definancialization, Deglobalization and Relocalization,” Editors: Richard Douthwaite is co-founder of Feasta, an Irish economic think tank focused on the economics of sustainability. He is also a council member of Comhar, the Irish government's national sustainability council. He acted as economic adviser to the Global Commons Institute from 1993 to 2005, during which time GCI developed the Contraction and Convergence approach to dealing with greenhouse gas emissions which has since been backed by many countries. Gillian Fallon is a writer, journalist, and editor with a particular interest in food security. *Fleeing Vesuvius: Overcoming the Risks of Economic and Environmental Collapse*, New Society Publishers, 2011, ISBN: 0865716994, pg. 173-174]

One accusation I often hear is that I fail to grasp the power of technological innovation and the free-market system. If I did, apparently I would have more faith in a technologically advanced future where all of our current dilemmas are swept away by a new wave of eco-friendly sustainability. My problem is that I am not an economist or a businessman: I am an engineer with a background in science. The fact that I’ve worked in several technology start-up companies doesn’t help either. I know roughly how long it takes to innovate: come up with the idea, convince people that it is worth trying, try it, fail a few times, eventually succeed and then phase it in to real use. It takes decades. We do not have decades. We have already failed to innovate our way out of this. Not only that, but in many ways technological innovation has done us a tremendous disservice. A good example is innovation in agriculture. The so-called “green revolution” has boosted crop yields using fossil-fuel inputs, creating generations of agro-addicts dependent on just one or two crops. In North America, human hair samples3 have been used to determine that fully 69% of all the carbon came from just one plant: maize. So, what piece of technological innovation do we imagine will enable this maize-dependent population to diversify their food sources and learn to feed themselves without the use of fossil-fuel inputs? We think that technology will save us because we are addled by it. Efforts at creating intelligent machines have failed, because computers are far too difficult to program, but humans turn out to be easy for computers to program. Everywhere I go I see people poking away at their little mental-support units. Many of them can no longer function without them: they wouldn’t know where to go, who to talk to, or even where to get lunch without a little electronic box telling them what to do. These are all big successes for maize plants and for iPhones, but are they successes for humanity? Somehow I doubt it. Do we really want to eat nothing but maize and look at nothing but pixels, or should there be more to life? There are people who believe in the emergent intelligence of the networked realm — a sort of artificial intelligence utopia, where networked machines become hyperintelligent and solve all of our problems. And so our best hope is that in our hour of need machines will be nice to us and show us kindness? If that’s the case, what reason would they find to respect us? Why wouldn’t they just kill us instead? Or enslave us. Oh, wait, maybe they already have!

### Envt UQ

#### Uniqueness goes our way—growth has wrecked every measure of environmental well being.

Speth 10—James Gustave Speth, law professor, Served as President Jimmy Carter’s White House environmental adviser and as head of the United Nations’ largest agency for international development Prof at Vermont law school, former dean of the Yale School of Forestry and Environmental Studies, former Professor of Law at Georgetown University Law Center, teaching environmental and constitutional law, former Chairman of the Council on Environmental Quality in the Executive Office of the President, co-founder of the Natural Resources Defense Council [May, 2010, “Towards a New Economy and a New Politics,” *Solutions*, http://www.thesolutionsjournal.com/node/619]

A social crisis of extreme and growing inequality has been unraveling America’s social fabric for several decades. A tiny minority has experienced soaring incomes and accumulated grand fortunes, while wages for working people have stagnated despite rising productivity gains and poverty has risen to a near 30-year high. Social mobility has declined, record numbers of people lack health insurance, schools are failing, prison populations are swelling, employment security is a thing of the past, and American workers put in more hours than workers in other high-income countries.3

An environmental crisis, driven by excessive human consumption and waste and a spate of terrible technologies, is disrupting Earth’s climate, reducing Earth’s capacity to support life, and creating large-scale human displacement that further fuels social breakdown.

And a political crisis is reflected in governmental paralysis and a democracy that is weak, shallow, and corrupted—the best democracy that money can buy.4-7

The case for fundamental change is underscored especially by the urgency of environmental conditions.1 Here is one measure of that problem: All that human societies have to do to destroy the planet’s climate and biota and leave a ruined world to future generations is to keep doing exactly what is being done today, with no growth in the human population or the world economy. Just continue to release greenhouse gases at current rates, just continue to impoverish ecosystems and release toxic chemicals at current rates, and the world in the latter part of this century won’t be fit to live in. But, of course, human activities are not holding at current levels—they are accelerating dramatically. It took all of history to build the $7 trillion world economy of 1950; recently, economic activity has grown by that amount every decade. At typical rates of growth, the world economy will now double in size in less than 20 years. We are thus facing the possibility of an enormous increase in environmental deterioration, just when we need to move strongly in the opposite direction.

Accelerating environmental deterioration is most starkly revealed in the global trends—trends in which the U.S. economy and U.S. politics are deeply complicit. About half the world’s wetlands and a third of the mangroves are gone. An estimated 90 percent of the large predatory fish are gone, and 75 percent of marine fisheries are now overfished or fished to capacity. Twenty percent of the corals are gone, and another 20 percent severely threatened. Half the world’s temperate and tropical forests are gone. The rate of deforestation in the tropics continues at about one acre per second. Species are disappearing at rates about 1,000 times faster than normal. The planet has not seen such a spasm of extinction in 65 million years, since the dinosaurs disappeared. Over half the agricultural land in drier regions suffers from some degree of deterioration and desertification. Persistent toxic chemicals can now be found by the dozens in essentially each and every one of us.

Human impacts are now large relative to natural systems. The Earth’s stratospheric ozone layer was severely depleted before the change was discovered. Most importantly, human activities have pushed up atmospheric carbon dioxide by more than a third and increased other greenhouse gases as well, with the result that we have started, in earnest, the dangerous process of warming the planet and disrupting the climate. Everywhere, Earth’s ice fields are melting. Industrial processes are fixing nitrogen, making it biologically active, at the same rate that nature is; one consequence is the development of hundreds of dead zones in the oceans due to over-fertilization. Each year, human actions already consume or destroy about 40 percent of nature’s photosynthetic output, leaving too little for other species. Freshwater withdrawals doubled globally between 1960 and 2000 and now represent over half of accessible runoff. The Colorado, Yellow, Ganges, and Nile Rivers, among others, no longer reach the oceans in the dry season.

To seek something new and better, a good place to begin is to ask why today’s system of political economy is failing so broadly. Environmentally, the answer is that key features of the system work together to produce a reality that is highly destructive. An unquestioning society-wide commitment to economic growth at almost any cost; powerful corporate interests whose overriding objective is to grow by generating profit, including profit from avoiding the environmental costs they create and from replicating technologies designed with little regard for the environment; markets that systematically fail to recognize environmental costs unless corrected by government; government that is subservient to corporate interests and the growth imperative; rampant consumerism spurred by an addiction to novelty and by sophisticated advertising; economic activity now so large in scale that its impacts alter the fundamental biophysical operations of the planet—all combine to deliver an ever-growing world economy that is **undermining the ability of the planet to sustain life**.1

This environmental reality is linked powerfully with growing social inequality and the erosion of democratic governance and popular control. Only a powerful democratic reality can guide and regulate the economy for environmental and social ends, and only a society that is cohesive and fair is likely to rise fully to shared challenges like the environment. Unfortunately, Americans today live and work in a system of political economy that cares profoundly about profits and growth and that cares about society and the natural world mainly to the extent it is required to do so. It is thus up to us as citizens to inject values of fairness, solidarity, and sustainability into this system, and government is the primary vehicle we have for accomplishing this. But typically, we fail at this assignment because our politics is too enfeebled and government is excessively under the thumb of powerful corporations and concentrations of great wealth. Consider the similarity between the recent financial collapse and the ongoing environmental deterioration. Both result from a system in which those with economic power are propelled, and not restrained by government, to take dangerous risks for the sake of great profit.

The prioritization of economic growth and economic values is at the root of the systemic failures and resulting crises America is now experiencing. Today, the reigning policy orientation holds that the path to greater well-being is to grow and expand the economy. Productivity, wages, profits, the stock market, employment, and consumption must all go up. This growth imperative trumps all else. It can undermine families, jobs, communities, the environment, and a sense of place and continuity because it is confidently asserted and widely believed that growth is worth the price that must be paid for it. Growth is measured by tallying GDP at the national level and sales and profits at the company level, and pursuit of GDP and profit is the overwhelming priority of national economic and political life.

But an expanding body of evidence is now telling us to think again.8-18 Economic growth may be the world’s secular religion, but for much of the world it is a god that is failing—underperforming for most of the world’s people and, for those in affluent societies, now creating more problems than it is solving. The never-ending drive to grow the overall U.S. economy undermines communities and the environment. It fuels a ruthless international search for energy and other resources; it fails at generating the needed jobs; and it rests on a manufactured consumerism that is not meeting the deepest human needs. Americans are substituting growth and consumption for dealing with the real issues—for doing things that would truly make the country better off. Psychologists have pointed out, for example, that while economic output per person in the United States has risen sharply in recent decades, there has been no increase in life satisfaction, and levels of distrust and depression have increased substantially.1,19,20

### AT: Econ Decline Causes War

#### 1. Empirics prove no war—prefer the largest data set.

Miller 1—Morris Miller is an adjunct economics professor at the University of Ottawa [Jan.-Mar, 2001, “Poverty: A Cause of War?” *Peace Magazine*, http://peacemagazine.org/archive/v17n1p08.htm]

Economic Crises?

Some scholars have argued that it is not poverty, as such, that contributes to the support for armed conflict, but rather some catalyst, such as an economic crisis. However, a study by Minxin Pei and Ariel Adesnik shows that this hypothesis lacks merit. After studying 93 episodes of economic crisis in 22 countries in Latin American and Asia since World War II, they concluded that much of the conventional thinking about the political impact of economic crisis is 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 semi-democracies, the ruling elites responded to crises by increasing repression (thereby using one form of violence to abort another)."

#### 3. There is no causal relationship between the economy and conflict—the best study proves.

Brandt and Ulfelder 11—\*Patrick T. Brandt, Ph.D. in Political Science from Indiana University, is an Assistant Professor of Political Science in the School of Social Science at the University of Texas at Dallas. \*\*Jay Ulfelder, Ph.D. in political science from Stanford University, is an American political scientist whose research interests include democratization, civil unrest, and violent conflict. [April, 2011, “Economic Growth and Political Instability,” Social Science Research Network]

These statements anticipating political fallout from the global economic crisis of 2008–2010 reflect a widely held view that economic growth has rapid and profound effects on countries’ political stability. When economies grow at a healthy clip, citizens are presumed to be too busy and too content to engage in protest or rebellion, and governments are thought to be flush with revenues they can use to enhance their own stability by producing public goods or rewarding cronies, depending on the type of regime they inhabit. When growth slows, however, citizens and cronies alike are presumed to grow frustrated with their governments, and the leaders at the receiving end of that frustration are thought to lack the financial resources to respond effectively. The expected result is an increase in the risks of social unrest, civil war, coup attempts, and regime breakdown.

Although it is pervasive, the assumption that countries’ economic growth rates strongly affect their political stability has not been subjected to a great deal of careful empirical analysis, and evidence from social science research to date does not unambiguously support it. Theoretical models of civil wars, coups d’etat, and transitions to and from democracy often specify slow economic growth as an important cause or catalyst of those events, but empirical studies on the effects of economic growth on these phenomena have produced mixed results. Meanwhile, the effects of economic growth on the occurrence or incidence of social unrest seem to have hardly been studied in recent years, as empirical analysis of contentious collective action has concentrated on political opportunity structures and dynamics of protest and repression.

This paper helps fill that gap by rigorously re-examining the effects of short-term variations in economic growth on the occurrence of several forms of political instability in countries worldwide over the past few decades. In this paper, we do not seek to develop and test new theories of political instability. Instead, we aim to subject a hypothesis common to many prior theories of political instability to more careful empirical scrutiny. The goal is to provide a detailed empirical characterization of the relationship between economic growth and political instability in a broad sense. In effect, we describe the conventional wisdom as seen in the data. We do so with statistical models that use smoothing splines and multiple lags to allow for nonlinear and dynamic effects from economic growth on political stability. We also do so with an instrumented measure of growth that explicitly accounts for endogeneity in the relationship between political instability and economic growth. To our knowledge, ours is the first statistical study of this relationship to simultaneously address the possibility of nonlinearity and problems of endogeneity. As such, we believe this paper offers what is probably the most rigorous general evaluation of this argument to date.

As the results show, some of our findings are surprising. Consistent with conventional assumptions, we find that social unrest and civil violence are more likely to occur and democratic regimes are more susceptible to coup attempts around periods of slow economic growth. At the same time, our analysis shows no significant relationship between variation in growth and the risk of civil-war onset, and results from our analysis of regime changes contradict the widely accepted claim that economic crises cause transitions from autocracy to democracy. While we would hardly pretend to have the last word on any of these relationships, our findings do suggest that the relationship between economic growth and political stability is neither as uniform nor as strong as the conventional wisdom(s) presume(s). We think these findings also help explain why the global recession of 2008–2010 has failed thus far to produce the wave of coups and regime failures that some observers had anticipated, in spite of the expected and apparent uptick in social unrest associated with the crisis.

#### 4. Even if decline causes war, these wars are good—they won’t cause extinction but they will ensure the economy collapses.

Lewis 98 [Chris H. Lewis, Instructor in the Sewall American Studies Program at the University of Colorado, 1998, "The Paradox of Global Development and the Necessary Collapse of Modern Industrial Civilization," The Coming Age of Scarcity: Preventing Mass Death and Genocide in the Twenty-first Century, edited by Michael N. Dobkowski and Isidor Wallimann, Published by Syracuse University Press, ISBN 0815627440, p. 56]

Most critics would argue, probably correctly, that instead of allowing underdeveloped countries to withdraw from the global economy and undermine the economies of the developed world, the United States, Europe, and Japan and others will fight neocolonial wars to force these countries to remain within this collapsing global economy. These neocolonial wars will result in mass death, suffering, and even regional nuclear wars. If First World countries choose military confrontation and political repression to maintain the global economy, then we may see mass death and genocide on a global scale that will make the deaths of World War II pale in comparison. However, these neocolonial wars, fought to maintain the developed nations’ economic and political hegemony, will cause the final collapse of our global industrial civilization. These wars will so damage the complex economic and trading networks and squander material, biological, and energy resources that they will undermine the global economy and its ability to support the earth’s 6 to 8 billion people. This would be the worst-case scenario for the collapse of global civilization.

### AT: Diversionary War

#### No evidence backs diversionary theory.

Reiter 9—Dan Reiter is professor and chair of political science at Emory University [Aug 17, 2009, *How Wars End*, ch. 2, “Bargaining, Information, and Ending Wars,” pg. 9-10, Princeton University Press]

Irnportantly, the assumption that Wars are always on balance costly for each side is not uncontroversial. Some feminist approaches contend that states may fight for the sake of lighting, as wars serve patriarchy by reinforcing gender identity.3 A more mainstream critique is that leaders go to war for domestic political reasons, such that a war-avoiding bargain might not be reachable even when both sides knew who would win, as lighting itself provides domestic political benefits from a war to both win- ner and loser.4 Under some conditions, especially if a state is undergoing democratization or if a national leader is experiencing domestic political problems such as unrest or economic downturn, a state may see war as a way to rally the public around the leader and stave off domestic political challenges.5 The proposition that leaders go to war when facing domestic difficulties is often called the "diversionary" hypothesis.

However, the evidence that leaders choose war to solve internal political problems is thin. The underlying assumption is that going to war en- genders a rally round the flag effect that boosts the popularity of leaders, but leaders reap this benefit only under very narrow conditions (which often cannot be controlled by the attacking state), and even the biggest rallies are short-lived.6 Importantly, there is almost no smoking gun historical evidence of a leader launching a war primarily as a means of solving domestic political problems. At most, politicians have occasionally speculated about diversionary action, such as Secretary of State William Seward's (ignored) April 1861 suggestion to President Abraham Lincoln that the United States provoke crises with European powers as a means of staving off civil war between the Union and the seceding southern states.7 A Russian minister is famously thought to have declared just after the outbreak ofthe 1904-O5 Russo-japanese War that, "We need a little, victorious war to stem the tide of revolution," but the story is likely too good to be true.8 Leaders sometimes see indirect relationships between starting war and reaping domestic political benefits, such as the possibility that Lyndon Johnson escalated the Vietnam War in 1965 to protect his Great Society program from domestic political attack.9 Some quantitative studies have found that the presence of internal problems like declining economic growth, rising inflation, partial democratization, or declining leader popularity are correlated with an (often slightly) increased likelihood in the use of force. However, these relationships are often limited in scope, occurring only under certain economic or political conditions.10 Any possible diversionary effects might in turn be moderated by the tendency of states to avoid provoking other states that might have diversionary incentives.11

#### No empirical support for diversionary war.

Boehmer 10—Charles R. Boehmer is professor of political science at the University of Texas, El Paso and Ph.D. in Political Science from Pennsylvania State University [“Economic Growth and Violent International Conflict: 1875–1999,” *Defence and Peace Economics*, 2010, Vol. 21(3), June, pp. 249–268, EBSCO]

In contrast, studies of diversionary theory make state-level (monadic) or dyadic arguments. Most studies to date have been monadic and only a few have examined strategic diversionary behavior from a dyadic perspective. Of central importance to this study are those theories of diversionary conflict arguing that economic crisis induces foreign conflicts. However, while diversionary theory has been popular, the bulk of extant research examines the foreign policy of the United States (Ostrom and Job, 1986; James and Oneal, 1991; Morgan and Bickers, 1992; DeRouen, 1995; Hess and Orphanides, 1995; Wang, 1996; Fordham, 1998; Mitchell and Moore, 2002; Foster, 2006). Meernik (1994) and Meernik and Waterman (1996) find no evidence of diversionary behavior.

#### Prefer our ev—best data set.

Boehmer 7—Charles R. Boehmer received his Ph.D. from The Pennsylvania State University in 2002 and is an Assistant Professor of Political Science at The University of Texas at El Paso. [December, 2007, “The Effects of Economic Crisis, Domestic Discord, and State Efficacy on the Decision to Initiate Interstate Conflict,” *Politics & Policy*, Volume 35, Issue 4, pages 774–809, accessed online through Wiley]

Studies of diversionary conflict typically claim that lower rates of economic growth and domestic unrest increase the risk of militarized interstate conflict. Research shows that these factors are also related to regime changes. Lower rates of economic growth and domestic conflict should increase the risk that governments are overthrown. This article investigates the comparative risk of economic growth and domestic turmoil on militarized interstate conflict and regime changes on a sample of over 100 countries from 1920-92. I find that higher rates of economic growth are related to violent militarized interstate conflicts and reduce the risk of regime changes. Democracy and economic development likewise provide internal stability and interstate peace. Yet the risk of regime change increases rapidly relative to involvement in an interstate conflict for states affected by high levels of domestic conflict, suggesting that any diversionary strategies are a risky gambit that have a high chance of failure.

### 2NC Resource Wars Turn

#### Growth will cause resource shortages, collapse the economy, and risk escalating competition and nuclear war.

Taylor 8 [Graeme Taylor is a social activist committed to constructive global transformation and the coordinator of BEST Futures, a project supporting sustainable solutions through researching how societies change and evolve, *Evolution's Edge: The Coming Collapse and Transformation of Our World*, Pomegranate Press, 2008, ISBN: 9781550923810, EBrary, pg. 185-6]

The financial and social inequality of the global economy is destabilizing and dangerous. 35 Growing income gaps between rich nations and poor nations and within countries like the United States, China and India can be managed as long as average incomes keep rising. But if shortages of essential goods and rising prices lower the standards of living of hundreds of millions of people — if people who are middle class today become poor tomorrow, and people who are poor today become hungry tomorrow — then there will be massive social unrest. In early 2008 rising food prices triggered protests and riots around the world. 36 Most people will tolerate bad government if they have economic security and hope for a better future. But if they lose that hope, then anger and despair can easily be channelled into intergroup violence and/or demands for radical political change. 37 While governments can use economic measures, laws and force to stabilize financial and political disturbances, there is little that they can do to solve problems caused by biophysical limits to growth and environmental degradation. Resource shortages restrict the supply of goods with the consequence that they must be rationed either with higher prices that make them unaffordable for poorer consumers, or by limiting availability — e.g. by turning off the supply of water or electricity for part of each day. Because resource shortages and other environmental problems cannot be resolved by the current global system, they are likely to be the root causes of increasing global economic crises. Countries are becoming increasingly concerned about their access to water, energy and mineral resources. For example, both China and India are making major investments in African resources: by 2010 China will probably be the continent’s major trading partner. 38 Fears of being excluded from critical supplies are leading to new strategic alliances and a new arms race — in 2007 the US, Japan, India, Australia and Singapore held joint naval exercises, while Russia and China held joint military exercises that were observed by the leaders of the Shanghai Cooperative Organization (China, Russia, Kazakhstan, Uzbekistan, Tajikistan and Kyrgyzstan). 39 The focus of this competition is control over the oil and gas resources of the Middle East and Central Asia — objectives clearly articulated by the former US Secretary of State Zbigniew Brzezinski in his book The Grand Chessboard. 40 We should not forget that competition over resources helped start two world wars. We are now in a situation that is similar to the years leading up to the First World War — while no country desires war, no major power believes that it can afford to be denied access to critical resources. This is the American dilemma in Iraq — political leaders do not want to stay and be bogged down in an unending war, and yet they are afraid that if they withdraw from the region they could lose access to vital energy supplies. 41 If global resource consumption continues to expand, competition over increasingly scarce resources will grow. The competition will initially be primarily political and economic in nature, but as prices rise and economies are destabilized, there will be more and more willingness to use military means to guarantee access to strategic resources. The danger is that at some point competition and confrontation will escalate into a war involving major powers armed with weapons of mass destruction.

### AT: Kuznets Curve (EKC)

#### Kuznet’s curve is false and fails to apply to climate change

Simms and Johnson 10 [Andrew Simms founded the climate change, energy and interdependence programmes at nef, and is author of Ecological Debt: Global Warming and the Wealth of Nations. Until the end of 2010, he was Policy Director at nef. Andrew writes regularly for the national press and is on the boards of Greenpeace UK, the climate campaign 10:10 and The Energy and Resources Institute Europe. Victoria Johnson is the acting head of the climate change and energy programme at nef. Victoria has a BSc in Environmental Sciences, a MSc (awarded with distinction) in Climate Change, both from the University of East Anglia, and a PhD in Atmospheric Physics at Imperial College. “Growth isn't Possible,” new economics foundation, January 25, 2010, pg. 43-4, http://www.policyinnovations.org/ideas/policy\_library/data/01564/\_res/id=sa\_File1/Growth\_Isnt\_Possible.pdf]

There was a time when the relationship between carbon emissions and economic growth seemed so simple. Until recently, it was often argued that the relationship between income and CO 2 emissions followed the Environmental Kuznets Curve (EKC) model. The EKC evolved from Simon Kuznets’s original thesis on economic growth and income inequality. 156 Kuznets postulated that with economic growth, income inequality first increases over time, and then at a certain point begins to reverse. In theory, then, the relationship between economic growth and income inequality placed on a graph takes on the shape of an inverted-U. In environmental economics, the EKC proposes a relationship between environmental pollution and economic activity. 157 The theory again suggests an early rise in pollution that later reverses its relationship with growth. Several attempts have been made to determine whether the EKC paradigm can be applied to per capita emissions of CO 2 in the form of a Carbon Kuznets Curve. 158 Some early literature on the subject does suggest that there is a relationship between per capita income in a country and the per capita or gross emissions in the country. 159, 160 There is now unequivocal evidence, however, that in the case of carbon emissions, the EKC simply represents idiosyncratic correlations and holds no predictive power. 161 For example a recent study published in the journal Proceedings of the National Academy of Sciences found that income was the biggest driver of ever increasing emissions. 162 Of nine regions, which included developed regions such as the USA, Europe, Japan, and developing regions such as China, India, all showed a strong correlation of increasing emissions and income. The problems of directly applying the EKC paradigm to greenhouse gases are twofold. First, key greenhouse gases have a long atmospheric lifetime 163 compared to other environmental pollutants, such as particulates. Their long atmospheric lifetime means that their environmental impact is transboundary, i.e., their effect on the climate is not restricted to the region within which they are produced. Given the asymmetries of the stages of economic development between nations, in principle the EKC model for global climate change cannot work, and the connection between control of domestic emissions in higher-income countries and the benefits to their citizens is very weak. Calculations based on direct national emissions are also misleading because they fail to account for the ‘embedded’ carbon of goods manufacture abroad and consumed domestically. For example, the effect of much of Britain’s heavy industry and manufacturing having been ‘outsourced’ to less wealthy countries creates the impression that Britain pollutes less, now that it is richer. In fact, the pollution has largely been outsourced too. It still exists, but not on Britain’s official inventory of emissions (see Box 12). Second, we are constrained by the arrow of time. There is clear evidence to suggest that both developed and developing economies would begin the decline on the inverted-U curve well beyond concentrations of greenhouse gases that are classed as safe. 164 In other words, by the time we got to the less polluting slope of the curve, we would already have gone over the cliff of irreversible global warming; it would be too late to be green.

### 2NC O/V—Envt

#### Ecosystem destruction causes extinction and terminates growth. Collapse now is our only opportunity to reorient the system.

Taylor 8 [Graeme Taylor is a social activist committed to constructive global transformation and the coordinator of BEST Futures, a project supporting sustainable solutions through researching how societies change and evolve, *Evolution's Edge: The Coming Collapse and Transformation of Our World*, Pomegranate Press, 2008, ISBN: 9781550923810, EBrary, pg. 110-12]

The consequences of system failure

We don’t have to look to the ancient past to see the consequences of societal collapse — the world is full of failed and failing states. In the last few decades many societies have collapsed, with consequences ranging from war, genocide and ethnic cleansing to civil wars and economic ruin. Some examples are Cambodia, Rwanda, Yugoslavia, Afghanistan, Iraq, Somalia and the Soviet Union. In almost every case government services such as law and order, public health care and education almost disappeared, living standards sharply declined, mortality rates rose and criminal gangs took control of entire regions. While failed states are a major source of conflict, terrorism and drugs, they do not destabilize the global economy. 13 The real danger to the survival of our species does not come from the collapse of individual nations, but from the collapse of major ecosystems and the global economy as a whole. The global economy was able to recover from the Great Depression of the 1930s because major ecosystems were intact and the world was still full of undiscovered resources. But if the next great depression is caused by a combination of climate change and resource shortages, the world may not have the ecological or economic resilience to recover. Attempts may be made to try to avert a global depression through intensifying the exploitation of already degraded ecosystems. If this is done, a vicious cycle of environmental, economic and social destruction will ensue. Environmental crises will rapidly escalate, triggering a cascade of uncontrollable economic and political crises. At some point interacting crises would converge and create a perfect storm that causes the catastrophic collapse of the global system. As both international and national institutions begin to fail, wars will break out over scarce resources. The fall of the Roman Empire would be repeated on a global scale, but with wars fought with weapons of mass destruction. As ecosystems, economies and social institutions progressively collapse, human populations will sharply decline due to starvation, disease and warfare, and cities will be abandoned. Survivors will have to learn how to use primitive technologies to eke out livings in devastated environments. Social and biophysical systems may be damaged to the point where it becomes impossible to support advanced civilizations on Earth. The industrial system, which has been able to manage crises and changes for over two hundred years, is becoming increasingly unable to cope with interacting environmental, economic and social crises. As the global economy begins to fail, it will become more disorganized and dysfunctional. However, at this stage disaster is not inevitable. Two (but only two) future outcomes are possible: the global system will either continue to disintegrate to the point where it suffers irreversible damage and collapse, or it will reorganize itself into a new type of sustainable system. Although most of the human societies and civilizations that ever existed have disappeared, not everyone has suffered catastrophic collapse. Some met the challenges of changing conditions by developing new and more environmentally relevant worldviews, technologies and institutions. The weakening of the existing system is not only a time of great danger, but a time of great opportunity. We are now entering a time of increasing global crises that can only result in either the catastrophic collapse of our unsustainable industrial system or its transformation into a sustainable planetary civilization. We are already well into the first part of this process — growing global crises. The question is no longer whether our unsustainable system will eventually collapse; the question now is whether humanity has the time and ability to avert disaster through creating a sustainable planetary civilization.

## \*\*\* 1NR

**2NC O/V—Envt**

**And we have the shortest time frame for action.**

**Ulansey 6** [David, Professor of Philosophy and Religion, Ph.D. from Princeton, “The Impending Mass Extinction and How to Stop It,” http://www.energybulletin.net/node/23694]

My talk at the Be-In will be about the fact that the world's biologists and ecologists have reached a consensus that UNLESS humanity immediately halts its dismantling of the natural world-- through habitat destruction, pollution, invasive species, and climate change-- half of all species of life on earth will be extinct in less than 100 years. In fact, as scientists are learning more about climate change, the expected time frame of the mass extinction is rapidly shrinking, and estimates are now coming in that half of all species will be extinct in 35 to 50 years. This means that WE DON'T HAVE 35 YEARS to solve the problem, since by then it will be FAR past the point of no return. The reality is that to prevent the looming mass extinction, a critical mass of humanity must undergo a radical transformation in its behavior within the next 5 TO 10 YEARS. Of course this sounds impossible-- but so in their time did the fall of the Soviet Union, or the birth of new religions like Christianity or Buddhism!

**2NC Turn—Environment**

**Growth is using up finite resources—a consensus of scientists agree our current way of life will result in extinction.**

**Speth 8** [James Gustave Speth, law professor, Served as President Jimmy Carter’s White House environmental adviser and as head of the United Nations’ largest agency for international development Prof at Vermont law school, former dean of the Yale School of Forestry and Environmental Studies, former Professor of Law at Georgetown University Law Center, teaching environmental and constitutional law, former Chairman of the Council on Environmental Quality in the Executive Office of the President, co-founder of the Natural Resources Defense Council, *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability*, ISBN: 9780300145304, EBrary, pg. 39-41]

Implications These eight global-scale environmental problems, as well as acid deposition and ozone layer depletion, do not exist in isolation— they are constantly interacting with one another, typically worsening the situation. The loss of forests, for example, contributes to biodiversity loss, climate change, and desertification. Climate change, acid rain, ozone depletion, and water reductions can in turn adversely affect world forests. Changing climate will affect everything. Among other things, it is likely to worsen desertification, lead to both additional flooding and increased droughts, reduce freshwater supplies, adversely affect biodiversity and forests, and further degrade aquatic ecosystems. What is one to make of all this? A number of prominent scientists have taken a hand at describing what all these trends mean. In 1998, ecologist Jane Lubchenco, in her address as president of the American Association for the Advancement of Science, drew the following conclusions: “The conclusions . . . are inescapable: during the last few decades, humans have emerged as a new force of nature. We are modifying physical, chemical, and biological systems in new ways, at faster rates, and over larger spatial scales than ever recorded on earth. Humans have unwittingly embarked upon a grand experiment with our planet. The outcome of this experiment is unknown, but has profound implications for all of life on Earth.”72 In 1994, fifteen hundred of the world’s top scientists, including a majority of living Nobel Prize– winners, issued a plea for more attention to environmental problems: “**The earth is finite**,” they stated. “**Its ability to absorb wastes and destructive effluents is finite**. **Its ability to provide food and energy is finite. Its ability to provide for growing numbers of people is finite**. Moreover, **we are fast approaching many of the earth’s limits**. **Current economic practices that damage the environment, in both developed and underdeveloped nations, cannot be continued with the risk that vital global systems will be damaged beyond repair**.”73 The Millennium Ecosystem Assessment was a massive four-year effort involving 1,360 scientists and other experts worldwide to assess conditions and trends regarding the world’s ecosystems. At the conclusion of this unprecedented effort in 2005, the board governing the assessment issued the following statement: “Nearly two thirds of the services provided by nature to humankind are found to be in decline worldwide. In effect, the benefits reaped from our engineering of the planet have been achieved by running down natural capital assets. “In many cases, it is literally a matter of living on borrowed time. By using up supplies of fresh groundwater faster than they can be recharged, for example, we are depleting assets at the expense of our children. . . . “Unless we acknowledge the debt and prevent it from growing, we place in jeopardy the dreams of citizens everywhere to rid the world of hunger, extreme poverty, and avoidable disease— as well as increasing the risk of sudden changes to the planet’s life-support systems from which even the wealthiest may not be shielded. “We also move into a world in which the variety of life becomes ever-more limited. The simpler, more uniform landscapes created by human activity have put thousands of species under threat of extinction, affecting both the resilience of natural service and less tangible spiritual or cultural values.”74 In 2007, the Bulletin of the Atomic Scientists moved its Doomsday Clock closer to midnight, citing environmental threats.75 The Doomsday Clock reminds us that today’s alarming environmental trends have consequences far beyond the environment. They can also contribute to conflicts over human access to water, food, land, and energy; ecological refugees and humanitarian emergencies; failed states; and armed movements spurred by declining circumstances. They are profound affronts to fundamental fairness and justice in the world and discriminate against both those too poor and powerless to hold their own against these tides and voiceless future generations. And they bring large economic costs. The Stern Review estimated that the total cost of a business-as-usual approach to climate change could be “around a 20% reduction in current per capita consumption, now and forever.” And that’s just from climate change.76

**2NC Warming Turn**

**Warming is inevitable without degrowth­—it’s try or die.**

**Siegel 9** –Lee Siegel is the author of four books and a winner of the National Magazine Award. He has published over 600 articles, essays, and reviews in numerous publications, including the Atlantic Monthly, Time, The New Yorker, The Economist, The Guardian, the New York Times and The Wall Street Journal. [November 22, 2009, “Is Global Warming Unstoppable?” http://www.unews.utah.edu/old/p/112009-1.html]

Nov. 22, 2009 - In a provocative new study, a University of Utah scientist argues that rising carbon dioxide emissions - the major cause of global warming - cannot be stabilized unless the world's economy collapses or society builds the equivalent of one new nuclear power plant each day.

"It looks unlikely that there will be any substantial near-term departure from recently observed acceleration in carbon dioxide emission rates," says the new paper by Tim Garrett, an associate professor of atmospheric sciences.

Garrett's study was panned by some economists and rejected by several journals before acceptance by Climatic Change, a journal edited by renowned Stanford University climate scientist Stephen Schneider. The study will be published online this week.

The study - which is based on the concept that physics can be used to characterize the evolution of civilization - indicates:

Energy conservation or efficiency doesn't really save energy, but instead spurs economic growth and accelerated energy consumption.

Throughout history, a simple physical "constant" - an unchanging mathematical value - links global energy use to the world's accumulated economic productivity, adjusted for inflation. So it isn't necessary to consider population growth and standard of living in predicting society's future energy consumption and resulting carbon dioxide emissions.

"Stabilization of carbon dioxide emissions at current rates will require approximately 300 gigawatts of new non-carbon-dioxide-emitting power production capacity annually - approximately one new nuclear power plant (or equivalent) per day," Garrett says. "Physically, there are no other options without killing the economy."

Getting Heat for Viewing Civilization as a "Heat Engine"

Garrett says colleagues generally support his theory, while some economists are critical. One economist, who reviewed the study, wrote: "I am afraid the author will need to study harder before he can contribute."

"I'm not an economist, and I am approaching the economy as a physics problem," Garrett says. "I end up with a global economic growth model different than they have."

Garrett treats civilization like a "heat engine" that "consumes energy and does 'work' in the form of economic production, which then spurs it to consume more energy," he says.

"If society consumed no energy, civilization would be worthless," he adds. "It is only by consuming energy that civilization is able to maintain the activities that give it economic value. This means that if we ever start to run out of energy, then the value of civilization is going to fall and even collapse absent discovery of new energy sources."

Garrett says his study's key finding "is that accumulated economic production over the course of history has been tied to the rate of energy consumption at a global level through a constant factor."

That "constant" is 9.7 (plus or minus 0.3) milliwatts per inflation-adjusted 1990 dollar. So if you look at economic and energy production at any specific time in history, "each inflation-adjusted 1990 dollar would be supported by 9.7 milliwatts of primary energy consumption," Garrett says.

Garrett tested his theory and found this constant relationship between energy use and economic production at any given time by using United Nations statistics for global GDP (gross domestic product), U.S. Department of Energy data on global energy consumption during1970-2005, and previous studies that estimated global economic production as long as 2,000 years ago. Then he investigated the implications for carbon dioxide emissions.

"Economists think you need population and standard of living to estimate productivity," he says. "In my model, all you need to know is how fast energy consumption is rising. The reason why is because there is this link between the economy and rates of energy consumption, and it's just a constant factor."

Garrett adds: "By finding this constant factor, the problem of [forecasting] global economic growth is dramatically simpler. There is no need to consider population growth and changes in standard of living because they are marching to the tune of the availability of energy supplies."

To Garrett, that means the acceleration of carbon dioxide emissions is unlikely to change soon because our energy use today is tied to society's past economic productivity.

"Viewed from this perspective, civilization evolves in a spontaneous feedback loop maintained only by energy consumption and incorporation of environmental matter," Garrett says. It is like a child that "grows by consuming food, and when the child grows, it is able to consume more food, which enables it to grow more."

Is Meaningful Energy Conservation Impossible?

Perhaps the most provocative implication of Garrett's theory is that conserving energy doesn't reduce energy use, but spurs economic growth and more energy use.

"Making civilization more energy efficient simply allows it to grow faster and consume more energy," says Garrett.

He says the idea that resource conservation accelerates resource consumption - known as Jevons paradox - was proposed in the 1865 book "The Coal Question" by William Stanley Jevons, who noted that coal prices fell and coal consumption soared after improvements in steam engine efficiency.

So is Garrett arguing that conserving energy doesn't matter?

"I'm just saying it's not really possible to conserve energy in a meaningful way because the current rate of energy consumption is determined by the unchangeable past of economic production. If it feels good to conserve energy, that is fine, but there shouldn't be any pretense that it will make a difference."

Yet, Garrett says his findings contradict his own previously held beliefs about conservation, and he continues to ride a bike or bus to work, line dry family clothing and use a push lawnmower.

An Inevitable Future for Carbon Dioxide Emissions?

Garrett says often-discussed strategies for slowing carbon dioxide emissions and global warming include mention increased energy efficiency, reduced population growth and a switch to power sources that don't emit carbon dioxide, including nuclear, wind and solar energy and underground storage of carbon dioxide from fossil fuel burning. Another strategy is rarely mentioned: a decreased standard of living, which would occur if energy supplies ran short and the economy collapsed, he adds.

"Fundamentally, I believe the system is deterministic," says Garrett. "Changes in population and standard of living are only a function of the current energy efficiency. That leaves only switching to a non-carbon-dioxide-emitting power source as an available option."

"The problem is that, in order to stabilize emissions, not even reduce them, we have to switch to non-carbonized energy sources at a rate about 2.1 percent per year. That comes out to almost one new nuclear power plant per day."

"If society invests sufficient resources into alternative and new, non-carbon energy supplies, then perhaps it can continue growing without increasing global warming," Garrett says.

Does Garrett fear global warming deniers will use his work to justify inaction?

"No," he says. "Ultimately, it's not clear that policy decisions have the capacity to change the future course of civilization."

**2NC Transition O/V**

**More evidence—collapse spurs a transition to sustainable societies.**

**Lewis 98** [Chris H. Lewis, Instructor in the Sewall American Studies Program at the University of Colorado, 1998, "The Paradox of Global Development and the Necessary Collapse of Modern Industrial Civilization," The Coming Age of Scarcity: Preventing Mass Death and Genocide in the Twenty-first Century, edited by Michael N. Dobkowski and Isidor Wallimann, Published by Syracuse University Press, ISBN 0815627440, p. 44-45]

I will argue that we are witnessing the collapse of global industrial civilization. Driven by individualism, materialism, and the endless pursuit of wealth and power, the modern industrialized world’s efforts to modernize and integrate the world politically, economically, and culturally since World War II are only accelerating this global collapse. In the late-twentieth century, global development leaves 80 percent of the world’s population outside the industrialized nations’ progress and affluence (Wallimann 1994). When the modern industrialized world collapses, people in the underdeveloped world will continue their daily struggle for dignity and survival at the margins of a moribund global industrial civilization. With the collapse of the modern world, smaller, autonomous, local and regional civilizations, cultures, and polities will emerge. We can reduce the threat of mass death and genocide that will surely accompany this collapse by encouraging the creation and growth of sustainable, self-sufficient regional polities. John Cobb has already made a case for how this may work in the United States and how it is working in Kerala, India. After the collapse of global civilization, modern peoples will not have the material resources, biological capital, and energy to reestablish global civilization. Forced by economic necessity to become dependent on local resources and ecosystems for their survival, peoples throughout the world will work to conserve and restore their [end page 44] environments. For the societies that destroy their local environments and economies, as modern people so often do, will themselves face collapse and ruin.

**Growth is unsustainable and will cause agricultural collapse, nuclear war and environmental destruction culminating in extinction – only economic collapse causes cultural shift that solves.**

Johnny **Djordjevic**, March **1998**. BA Global Economics, Paper in Global Sustainability at UC, Irvine. “Sustainability,” Senior Seminar for Instructor: Peter A. Bowler, http://www.dbc.uci.edu/~sustain/global/sensem/djordj98.html.

Max Weber believed in the power of an idea. This political theorist discussed how Calvinism was one idea that perpetuated the rise of capitalism. Few people ever examine the power of an idea, but if one examines and contemplates this theory, a realization comes across: that ideas drive society. The key premise is that some values of our society must be altered in order to avert catastrophic consequences. The way of life in developed countries is "the origin of many of our most serious problems"(Trainer, 1985). Because developed countries have high material living standards and consume massive quantities of all resources, "hundreds of millions of people in desperate need must go without the materials and energy that could improve their conditions while these resources flow into developed countries, often to produce frivolous luxuries"(Trainer, 1985). People's way of life seems to be a glaring example of values leading to high rates of personal consumption of resources and the waste of these same materials. In addition to overconsumption, the services used to supply our society with goods, (examples of these goods would be food, water, energy, and sewage services.) tends to be wasteful and expensive. Production is organized in such a way, (usually highly centralized) that travel becomes an enormous burden. Another consideration is that our population is expected to increase to rise to eleven billion within the next half century. Considering the mineral and energy resources needed in the future, these estimates must also include the consumption of a population almost doubled from its current status and these same figures must include an expected increase in the affluence of developed countries. "If we are willing to endorse an already affluent society in which there is continued growth on this scale,(american resource use increasing 2% each year), then we are assuming that after 2050 something like 40 times as many resources can be provided each year as were provided in the 1970's, and that it is in order for people in a few rich countries to live in this superaffluent way while the other 9.5 billion in the world do not"(Trainer, 1985). The environment is in danger from our pursuit of affluence. Serious worries come from predictions about the atmosphere. The burning of fossil fuels will raise temperatures and result in climatic effects. Rising temperatures could have horrific effects. First of all, food production could seriously be imperiled even by increases of only one degree celcius. If the temperature should increase by five degrees scientists predict the coastal island nations would be submerged and possibly trigger the next ice age. Another environmental concern deals with the soil. Our agricultural practices disregard the value of recycling food waste. Also, the use of pesticides and chemicals in agriculture lead to the poisoning of the soil and topsoil loss through erosion. Yields per acre for grain are falling and "we do not produce food in ways that can be continued for centuries"(Trainer, 1985). Even more disturbing is the deforestation of rainforests. This results in the extinction of many species, concentration of carbon dioxide, the loss of many potential medical breakthroughs, and possibly the disruption of rainfall. Opponents of the deforestation fail to realize that our expensive way of life and greedy economic system are the driving forces. "Nothing can be achieved by fighting to save this forest or that species if in the long term we do not change the economic system which demands ever-increasing production and consumption of non-necessities"(Trainer, 1985). There also lies a problem in the Third World. Developed countries high living standards and quest for an ever-increasing quality of life lead to Third World poverty and the deprivation of the Third World's access to its own resources. As Third World countries get deprived of materials, the developed world consumes and imports over half of their resources. A few developed countries seem to be consuming the globe's resources and this consumption rate is always increasing. "The rich must live more simply that the poor may simply live"(Trainer, 1985). The Third World is exploited in many ways. One way is that the best land in a developing country is used for crops exported to developed countries, while citizens of the Third World starve and suffer. Another way is the poor working conditions of the Third World. A third exploitation can be overlooked but no less disgusting; "The world's greatest health problem could be simply by providing water for the perhaps 2.000 million people who now have to drink form rivers and wells contained by human and animal wastes. Technically it is a simple matter to set up plants for producing iron and plastic pipes. But most of the world's iron and plastic goes into the production of luxurious cars, soft-drink containers, office blocks and similar things in rich countries"(Trainer, 1985). The threat of nuclear war and international conflict rises with countries of all kinds entranced with the logic and idea of materialism. Perhaps the most dangerous and likely chances for a nuclear conflict arise from the competition for dwindling resources by developed countries. Similar events can be seen all across the globe. Major superpowers get themselves involved in domestic matters not concerning them, providing arms and advice to try and obtain the inside track on possible resources. International tension will rise in the competition for resources and so will the "ever-increasing probability of nuclear war"(Trainer, 1985). As developed countries pursue affluence they fail to see the inherent contradiction in this idea; as growth is the quest, the quality of life will decrease. For a healthy community, there exists a list of non-material conditions which must be present, "a sense of purpose, fulfilling work and leisure, supportive social relations, peace of mind, security from theft and violence, and caring and co-operative neighborhoods"(Trainer, 1985). And as developed countries think their citizens are the happiest in the world, "In most affluent societies rates of divorce, drug-taking, crime, mental breakdown, child abuse, alcoholism, vandalism, suicide, stress, depression, and anxiety are increasing"(Trainer, 1985). Despite all the gloomy facts and sad stories, there is a solution, to create a sustainable society. Rather than being greedy and only thinking about the self, each individual must realize the impacts of his/her selfish tendencies, and disregard their former view of the world. One must come into harmony with what is really needed to survive, and drawn a strict distinction between what is necessity and what is luxury. Not every family needs three cars, or five meals a day or four telephones and two refrigerators. Countries do not need to strive for increasing growth, less materials could be imported/exported and international tension could be greatly reduced. The major problems seem not to step from the determination of what a sustainable society is, but on how to get people to change their values. This task is not an easy one. People must be forced to realize the harmful and catastrophic consequences lie in their meaningless wants and greed. The problem of cognitive dissonance is hard to overcome, but it is not impossible. The solution to this dilemma lies in castastrophe. The only event that changes people's minds is social trauma or harm. The analogy is that a person who refuses to wear a seat belt and one day gets thrown through his/her windshield will remember to wear the seat belt after the accident. The logic behind this argument is both simple and feasible. So the question of dissonance is answered in part, but to change a whole society obviously takes a bigger and more traumatic event to occur. **An economic collapse** or ice age **would trigger a new consciousness leading to a sustainable society**. The power of an idea should never be underestimated. Hitler's idea of the Aryan race lead to the Holocaust, Marx's idea of socialism lead to Stalin's reign and the deaths of over 50 million people. But ideas change be changed, disregarded and adopted. As developed countries find themselves engaging in a greedy philosophy, once that realization is made, the first step to a better society is taken. Our current path will lead to massive suffering all across the world, with extinction a distinct possibility. Global sustainability must be adopted by every person on the planet, (starting in the developed world), otherwise **the world will cease to support life**.

**AT: Nuke War**

**No escalation**

**Quinlan 9** [Michael, Former Permanent Under-Sec. State—UK Ministry of Defense, “Thinking about Nuclear Weapons: Principles, Problems, Prospects”, p. 63-69]

Even if initial nuclear use did not quickly end the fighting, the supposition of inexorable momentum in a developing exchange, with each side rushing to overreaction amid confusion and uncertainty, is implausible. It fails to consider what the situation of the decisionmakers would really be. Neither side could want escalation. Both would be appalled at what was going on. Both would be desperately looking for signs that the other was ready to call a halt. Both, given the capacity for evasion or concealment which modem delivery platforms and vehicles can possess, could have in reserve significant forces invulnerable enough not to entail use-or-lose pressures. (It may be more open to question, as noted earlier, whether newer nuclear weapon possessors can be immediately in that position; but it is within reach of any substantial state with advanced technological capabilities, and attaining it is certain to be a high priority in the development of forces.) As a result, neither side can have any predisposition to suppose, in an ambiguous situation of fearful risk, that the right course when in doubt is to go on copiously launching weapons///

. And none of this analysis rests on any presumption of highly subtle or pre-concerted rationality. The rationality required is plain. The argument is reinforced if we consider the possible reasoning of an aggressor at a more dispassionate level. Any substantial nuclear armoury can inflict destruction outweighing any possible prize that aggression could hope to seize. A state attacking the possessor of such an armoury must therefore be doing so (once given that it cannot count upon destroying the armoury pre-emptively) on a judgement that the possessor would be found lacking in the will to use it. If the attacked possessor used nuclear weapons, whether first or in response to the aggressor's own first use, this judgement would begin to look dangerously precarious. There must be at least a substantial possibility of the aggressor leaders' concluding that their initial judgement had been mistaken—that the risks were after all greater than whatever prize they had been seeking, and that for their own country’s, survival they must call off the aggression. Deterrence planning such as that of NATO was directed in the first place to preventing the initial misjudgement and in the second, if it were nevertheless made, to compelling such a reappraisal. The former aim had to have primacy, because it could not be taken for granted that the latter was certain to work. But there was no ground for assuming in advance, for all possible scenarios, that the chance of its working must be negligible. An aggressor state would itself be at huge risk if nuclear war developed, as its leaders would know. It may be argued that a policy which abandons hope of physically defeating the enemy and simply hopes to get him to desist is pure gamble, a matter of who blinks first; and that the political and moral nature of most likely aggressors, almost ex hypothesi, makes them the less likely to blink. One response to this is to ask what is the alternative—it can only be surrender. But a more positive and hopeful answer lies in the fact that the criticism is posed in a political vacuum. Real-life conflict would have a political context.

**2NC—China Impact**

**US nuclear primacy fists the Chinese.**

**Lieber**, Professor of Poli Sci – Notre Dame, and Press, Professor of Poli Sci – University of Pennsylvania, **‘7**

(Keir and Daryl, “Superiority Complex,” The Atlantic, July/August)

But meanwhile, the United States steadily improved its “counterforce” capabilities—those nuclear weapons most effective at targeting an enemy’s nuclear arsenal. Even as it reduced the number of weapons in its nuclear arsenal, the U.S. made its remaining weapons more lethal and accurate. The result today is a global nuclear imbalance unseen in 50 years. And nowhere is U.S. nuclear primacy clearer—or potentially more important—than in the Sino-U.S. relationship.

China has approximately 80 operationally deployed nuclear warheads, but only a few of them—those assigned to single-warhead DF-5 intercontinental ballistic missiles (ICBMs)—can reach the continental United States. (There is no definitive, unclassified count of China’s DF-5 ICBMs, but official U.S. statements have put the number at 18.) China has neither modern nuclear ballistic-missile submarines nor long-range nuclear bombers. Moreover, China’s ICBMs can’t be quickly launched; the warheads are stored separately, and the missiles are kept unfueled. (Unlike the solid fuel used in U.S. missiles, the liquid fuel used to propel Chinese ICBMs is highly corrosive.) Finally, China lacks an advanced early-warning system that would give Beijing reliable notice of an incoming attack.

This small arsenal fulfilled China’s strategic requirements in the 20th century, but it is now obsolete. The current Chinese force was designed for a different era:when China was a poor nation with a limited role on the world stage, and when U.S. and Soviet missiles were too inaccurate to carry out a disarming strike—even against Beijing’s small force. But China’s international presence is expanding, and America’s counterforce capabilities have soared. Moreover, one of the biggest constraints that would deter American leaders from contemplating a disarming strike is fading away. In the past, a U.S. preemptive attack would have generated horrific civilian casualties, but that may soon cease to be the case.

**It would be an easy win.**

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(Keir and Daryl, “Superiority Complex,” The Atlantic, July/August)

By putting its nuclear forces on alert, however, China’s leaders would compel a U.S. president to make a very difficult decision: to accede to blackmail (by agreeing to a cease-fire and pressuring the Taiwanese to renounce independence), to assume that the threat is a bluff (a dangerous proposition, given that each Chinese ICBM carries a city-busting 4,000-kiloton warhead), or to strike the Chinese missiles before they could be launched. How do America’s growing counterforce capabilities affect this scenario? First, American nuclear primacy may prevent such a war in the first place. China’s leaders understand that their military now has little hope of defeating U.S. air and naval forces. If they also recognize that their nuclear arsenal is vulnerable—and that placing it on alert might trigger a preemptive strike—the leaders may conclude that war is a no-win proposition. Second, if a war over Taiwan started anyway, U.S. nuclear primacy might help contain the fighting at the conventional level. Early in the crisis, Washington could quietly convey to Beijing that the United States would act decisively if China put its vulnerable nuclear arsenal on alert. Finally, if China threatened to launch nuclear attacks against America’s allies, its territory, or its forces in Asia, nuclear primacy would make a preemptive first strike more palatable to U.S. leaders. Any decision to attack China’s ICBM force, though, would be fraught with danger. A missile silo might have escaped detection. Furthermore, a strike on China’s 18 ICBMs would leave Beijing with roughly 60 shorter-range nuclear missiles with which to retaliate against U.S. forces and allies in the region. However, in the aftermath of a “clean” disarming strike—one that killed relatively few Chinese—American leaders could credibly warn that a Chinese nuclear response would trigger truly devastating consequences, meaning nuclear attacks against a broader target set, including military, government, and possibly even urban centers. In light of warnings from Chinese defense analysts and from within China’s military that it might use nuclear weapons to avoid losing Taiwan, an American president might feel compelled to strike first. In this terrible circumstance, he or she would reap the benefits of the past decade’s counterforce upgrades. But America’s growing counterforce strength is a double- edged sword. To date, China’s nuclear modernization has progressed very slowly. Beijing is working to deploy new mobile ICBMs and ballistic-missile submarines, but U.S. estimates of when these systems will become operational have repeatedly been pushed back. However, as China’s role in the world changes, and especially as its leaders come to appreciate American counterforce capabilities, Beijing will face increasing pressure to accelerate and expand these programs—and it may already be doing so. Because America has spent decades honing its antisubmarine- warfare skills and technology, a few new Chinese nuclear-armed submarines wouldn’t substantially reduce Beijing’s vulnerability.

**We would decisively win.**

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(Keir and Daryl, “Superiority Complex,” The Atlantic, July/August)

Perhaps as important, the United States is pursuing a slew of nonnuclear weapons that will provide officials options they may find more palatable if they decide to attack an adversary’s nuclear arsenal. These include precision “bunker buster” conventional bombs, high-speed long-range cruise missiles, and conventionally armed ballistic missiles—each of which could be used to destroy enemy missile silos. Furthermore, Washington is undertaking initiatives—including advances in antisatellite warfare and in wide-area remote sensing, designed to find “relocatable” mobile missile launchers—that will make China’s nuclear forces vulnerable. Even a missile-defense system substantially boosts U.S. offensive counterforce capabilities. Critics of this system are right in claiming that it could not shield America from even a modest nuclear attack (e.g., 25 warheads), because it would be easily overwhelmed by decoy warheads and the “penetration aids” that would accompany an adversary’s missiles. But it could enhance offensive nuclear capabilities, by “mopping up” a small number of incoming warheads that survived a U.S. first strike.

**China’s way behind militarily**

**Bandow 8** (Doug, former senior fellow at the Cato Institute and former columnist with Copley News Service. “Turning China into the Next Big Enemy.” http://www.antiwar.com/bandow/?articleid=12472)

But the Defense Department is even more worried that the Chinese are spending too much, which is essentially defined as developing a military which one day could confront American forces – successfully. It's a fair concern, since Beijing's military build-up is transforming the international environment far more quickly than most American analysts had expected. The PRC has numerous reasons for seeking to create a superior military. The Pentagon notes that China probably is developing forces for use in such contingencies "as conflict over resources or disputed territories." Moreover, Beijing's growing "capabilities will increase Beijing's options for military coercion to press diplomatic advantage, advance interests, or resolve disputes in its favor." As Washington well knows, international political influence is more likely to follow a larger military. Russia has regained regional clout, but remains a smaller global player; Europe is an economic giant but a military midget. Beijing seems intent on twinning soft and hard power to enhance its global clout. Despite the multiple ends, however, the PRC appears to have two more basic goals with its military build-up. The first is to enable the PRC to compel Taiwan, through use of military force, if necessary, to accept some form of reunification. The second is to deter the U.S. from intervening to stop China from using coercion. As the Pentagon observes, "A potential military confrontation with Taiwan, and the prospect of U.S. military intervention, remain the PLA's most immediate military concerns." Indeed, much of the PRC's military program seems directed at creating a credible deterrent to America. The Pentagon reports: "China's nuclear force modernization, as evidenced by the fielding of the new DF-31 and DF-31A intercontinental-range missiles, is enhancing China's strategic strike capabilities. China's emergent anti-access/area denial capabilities – as exemplified by its continued development of advanced cruise missiles, medium-range ballistic missiles, anti-ship missiles designed to strike ships at sea, including aircraft carriers, and the January 2007 successful test of a direct-ascent, anti-satellite weapon – are expanding from the land, air, and sea dimensions of the traditional battlefield into the space and cyber-space domains." It's an impressive list. But America's military capabilities remain far greater. Why does the PRC need anti-ship missiles for use against aircraft carriers? Because it lacks even one carrier, while the U.S. controls the seas with 12 carrier groups. This country dominates most other military fields as well. America's nuclear missile arsenal is much bigger, more sophisticated, and more deadly than that possessed by China. Washington already is reaching into space with its missile defense program.