## Solvency

**Intermittency is manageable- predictions and constant patterns mean that the impact is negligible**

**Willey 12**

[Lawrence, “Challenges & Rewards for Engineers in Wind”, Mechanical Engineering, August, p. asp//wyo-tjc]

Many **opponents of wind** energy **try to point to the intermittency of wind and the need to provide backup** power or storage. Fortunately, with a holistic systems level view of the grid, **this argument doesn't stand up.** In fact, **large and abrupt changes in demand for electricity can and do adversely affect the output of conventional electric generation sources - such as grid operators facing the sudden loss of a large power plant** - **whereas wind output changes are typically more gradual and predictable**. This is easily understood by thinking of the continuous parade of storm fronts day to day, moving generally west to east in many regions, with wind plant after wind plant in the path of these storms taking their turn to spin up and generate electricity.

#### Wind can solve intermittency, and emissions no need for back up power

MTC, 04

In collaboration with the Massachusetts Technology Collaborative’s Renewable Energy Trust Fund, the Renewable Energy Research Laboratory “Wind Power: Capacity Factor, Intermittency, and what happens when the wind doesn’t blow?” <http://www.umass.edu/windenergy/publications/published/communityWindFactSheets/RERL_Fact_Sheet_2a_Capacity_Factor.pdf>, accessed 10/3/12,WYO/JF

The need for back-up generation Wind power plants have been installed in the United States for long enough that detailed studies have been completed on the impacts and costs of its intermittency. A recent study concluded that, “...the results to date also lay to rest one of the major concerns often expressed about wind power: that a wind plant would need to be backed up with and equal amount of dispatchable generation. It is now clear that, even at moderate wind penetrations, the need for additional generation to compensate for wind variations is substantially less than one-for-one and is often closer to zero.” - Utility Wind Interest Group (UWIG) “Wind Power Impacts on Electric-Power-System Operating Costs, Summary and Perspective on Work Done to Date, November 2003”

## Economy

#### Manufacturing is Key to the US Economy

Oak Ridge National Laboratory 2011

“Innovations in New Technology” <http://www.ornl.gov/adm/partnerships/industrial/ManufactBrochureSml.pdf>, accessed 9/30/12,WYO/JF

The US manufacturing industry is a cornerstone of the American ¶ economy and embodies the innovation and productivity that have ¶ allowed the United States to be the dominant leader in advanced ¶ manufacturing technologies since the early 20th century. A strong ¶ manufacturing base is vital for a balanced economy and critical to our nation’s energy security and defense. Advances in manufacturing technology are imperative to avoid further erosion of our manufacturing base and maintain a competitive edge in the global market.¶ Innovation drives economic growth. New, cutting edge technologies with real-world applications can both revitalize existing manufacturing industries and support the development of new products in emerging ones. ¶ The development and commercial deployment of advanced manufacturing technologies remain essential to America’s long-term economic competitiveness. Manufacturing and materials ¶ research at Oak Ridge National Laboratory is focused on reducing ¶ the energy intensity of US industry, supporting development of new ¶ products, and strengthening our nation’s vitality. ORNL, through its ¶ on going collaborative relationships with more than 1,000 companies ¶ and distinction as the leading Department of Energy Laboratory ¶ for R&D 100 Awards, has demonstrated the ability to work with US ¶ manufacturers to transition technologies that will drive manufacturing ¶ innovations in the coming decades.

## Drought

**water causes wars – he just think they’ll stay small**

**Allouche 11**, research Fellow – water supply and sanitation @ Institute for Development Studies, frmr professor – MIT (Jeremy, “The sustainability and resilience of global water and food systems: Political analysis of the interplay between security, resource scarcity, political systems and global trade,” Food Policy, Vol. 36 Supplement 1, p. S3-S8, January)

Overall, it seems clear that perceived resource scarcity is not an adequate explanation for war at the international level. At the national level, **water and food insecurity are relatively important factors in the causes of civil wars**. At the local level, water scarcity and food insecurity may lead to local political instability and sometimes violent forms of conflict. Armed conflict creates situation of emergency food and water insecurity and has a long-term impact on post-conflict societies. In the near future, it seems that despite climate change, international resource wars are unlikely and resource allocation will be settled through diplomatic negotiation and perhaps most importantly international trade as will be discussed in the next section.

**Thousands of years of data prove**

**Glecik** 5/29/**9**

<http://seedmagazine.com/content/article/the_truth_about_water_wars/> Peter Gleick is co-founder and president of the Pacific Institute in Oakland, California, and a member of the World Economic Forum Global Agenda Council on Water Security and the UN’s Expert Group on Policy Relevance of the World Water Assessment Program. He is editor of the biennial book The World’s Water and has recently begun blogging at Water By the Numbers.

Far more important, and far easier to answer, is the question: Is there any connection between fresh water and conflict, including violent conflict? And the answer has to be an unambiguous “yes.” History going back **5,000 years** is rife with examples where water has been a goal of violence, a target or tool of conflict, or a source of disputes and political strife. Our Water Conflict Chronology, at worldwater.org**, lists hundreds of these examples.** And if there is a strong connection between water and conflicts, two new questions come up: Are the risks of these conflicts growing, and how can we reduce them? I think the answer to the first is, yes, the risks of water-related conflicts appears to be growing.

## Add ON

#### Drought will cause massive energy shut down, blackout’s

Michael Webber, 12

“Will Drought Cause the Next Blackout?” <http://www.nytimes.com/2012/07/24/opinion/will-drought-cause-the-next-blackout.html?_r=0>, accessed 10/12/12,WYO/JF

WE’RE now in the midst of the nation’s most widespread drought in 60 years, stretching across 29 states and threatening farmers, their crops and livestock. But there is another risk as water becomes more scarce. Power plants may be forced to shut down, and oil and gas production may be threatened. Our energy system depends on water. About half of the nation’s water withdrawals every day are just for cooling power plants. In addition, the oil and gas industries use tens of millions of gallons a day, injecting water into aging oil fields to improve production, and to free natural gas in shale formations through hydraulic fracturing. Those numbers are not large from a national perspective, but they can be significant locally. All told, we withdraw more water for the energy sector than for agriculture. Unfortunately, this relationship means that water problems become energy problems that are serious enough to warrant high-level attention. During the 2008 drought in the Southeast, power plants were within days or weeks of shutting down because of limited water supplies. In Texas today, some cities are forbidding the use of municipal water for hydraulic fracturing. The multiyear drought in the West has lowered the snowpack and water levels behind dams, reducing their power output. The United States Energy Information Administration recently issued an alert that the drought was likely to exacerbate challenges to California’s electric power market this summer, with higher risks of reliability problems and scarcity-driven price increases. And in the Midwest, power plants are competing for water that farmers want for their devastated corn crops. Unfortunately, trends suggest that this water vulnerability will become more important with time.

#### Blackouts cause nuclear meltdowns

Huffington Post, 11

“Long Blackouts Pose Risk To U.S. Nuclear Reactors” <http://www.huffingtonpost.com/2011/03/29/blackout-risk-us-nuclear-reactors_n_841869.html>, accessed 10/12/12,WYO/JF

Long before the nuclear emergency in Japan, U.S. regulators knew that a power failure lasting for days at an American nuclear plant, whatever the cause, could lead to a radioactive leak. Even so, they have only required the nation's 104 nuclear reactors to develop plans for dealing with much shorter blackouts on the assumption that power would be restored quickly. In one nightmare simulation presented by the Nuclear Regulatory Commission in 2009, it would take less than a day for radiation to escape from a reactor at a Pennsylvania nuclear power plant after an earthquake, flood or fire knocked out all electrical power and there was no way to keep the reactors cool after backup battery power ran out. That plant, the Peach Bottom Atomic Power Station outside Lancaster, has reactors of the same older make and model as those releasing radiation at Japan's Fukushima Dai-ichi plant, which is using other means to try to cool the reactors. And like Fukushima Dai-ichi, the Peach Bottom plant has enough battery power on site to power emergency cooling systems for eight hours. In Japan, that wasn't enough time for power to be restored. According to the International Atomic Energy Agency and the Nuclear Energy Institute trade association, three of the six reactors at the plant still can't get power to operate the emergency cooling systems. Two were shut down at the time. In the sixth, the fuel was removed completely and put in the spent fuel pool when it was shut down for maintenance at the time of the disaster. A week after the March 11 earthquake, diesel generators started supplying power to two other two reactors, Units 5 and 6, the groups said. The risk of a blackout leading to core damage, while extremely remote, exists at all U.S. nuclear power plants, and some are more susceptible than others, according to an Associated Press investigation. While regulators say they have confidence that measures adopted in the U.S. will prevent or significantly delay a core from melting and threatening a radioactive release, the events in Japan raise questions about whether U.S. power plants are as prepared as they could and should be.

#### Meltdowns cause extinction

Lendman, 2011

(Stephen, Research Associate of the Centre for Research on Globalization, 03/ 13, “Nuclear Meltdown in Japan,”, The People’s Voice <http://www.thepeoplesvoice.org/TPV3/Voices.php/2011/03/13/nuclear-meltdown-in-japan>, accessed 10/12/12,WYO/JF

Reuters said the 1995 Kobe quake caused $100 billion in damage, up to then the most costly ever natural disaster. This time, from quake and tsunami damage alone, that figure will be dwarfed. Moreover, under a worst case core meltdown, all bets are off as the entire region and beyond will be threatened with permanent contamination, making the most affected areas unsafe to live in. On March 12, Stratfor Global Intelligence issued a "Red Alert: Nuclear Meltdown at Quake-Damaged Japanese Plant," saying: Fukushima Daiichi "nuclear power plant in Okuma, Japan, appears to have caused a reactor meltdown." Stratfor downplayed its seriousness, adding that such an event "does not necessarily mean a nuclear disaster," that already may have happened - the ultimate nightmare short of nuclear winter. According to Stratfor, "(A)s long as the reactor core, which is specifically designed to contain high levels of heat, pressure and radiation, remains intact, the melted fuel can be dealt with. If the (core's) breached but the containment facility built around (it) remains intact, the melted fuel can be....entombed within specialized concrete" as at Chernobyl in 1986. In fact, that disaster killed nearly one million people worldwide from nuclear radiation exposure. In their book titled, "Chernobyl: Consequences of the Catastrophe for People and the Environment," Alexey Yablokov, Vassily Nesterenko and Alexey Nesterenko said: "For the past 23 years, it has been clear that there is a danger greater than nuclear weapons concealed within nuclear power. Emissions from this one reactor exceeded a hundred-fold the radioactive contamination of the bombs dropped on Hiroshima and Nagasaki." "No citizen of any country can be assured that he or she can be protected from radioactive contamination. One nuclear reactor can pollute half the globe. Chernobyl fallout covers the entire Northern Hemisphere." Stratfor explained that if Fukushima's floor cracked, "it is highly likely that the melting fuel will burn through (its) containment system and enter the ground. This has never happened before," at least not reported. If now occurring, "containment goes from being merely dangerous, time consuming and expensive to nearly impossible," making the quake, aftershocks, and tsunamis seem mild by comparison. Potentially, millions of lives will be jeopardized. Japanese officials said Fukushima's reactor container wasn't breached. Stratfor and others said it was, making the potential calamity far worse than reported. Japan's Nuclear and Industrial Safety Agency (NISA) said the explosion at Fukushima's Saiichi No. 1 facility could only have been caused by a core meltdown. In fact, 3 or more reactors are affected or at risk. Events are fluid and developing, but remain very serious. The possibility of an extreme catastrophe can't be discounted. Moreover, independent nuclear safety analyst John Large told Al Jazeera that by venting radioactive steam from the inner reactor to the outer dome, a reaction may have occurred, causing the explosion. "When I look at the size of the explosion," he said, "it is my opinion that there could be a very large leak (because) fuel continues to generate heat." Already, Fukushima way exceeds Three Mile Island that experienced a partial core meltdown in Unit 2. Finally it was brought under control, but coverup and denial concealed full details until much later. According to anti-nuclear activist Harvey Wasserman, Japan's quake fallout may cause nuclear disaster, saying: "This is a very serious situation. If the cooling system fails (apparently it has at two or more plants), the super-heated radioactive fuel rods will melt, and (if so) you could conceivably have an explosion," that, in fact, occurred. As a result, massive radiation releases may follow, impacting the entire region. "It could be, literally, an apocalyptic event. The reactor could blow." If so, Russia, China, Korea and most parts of Western Asia will be affected. Many thousands will die, potentially millions under a worse case scenario, including far outside East Asia.

## Fiscal Cliff

#### No compomise

Margaret Collins and Inyoung Hwang, “Stocks Swings to Rise on Fiscal Cliff, Pimco’s Kashkari Says”, 11/8/2012

Stock-market volatility will increase by the end of the year as Congress delays reaching a resolution on extending spending and tax cuts until 2013, according to Pacific Investment Management Co.’s Neel Kashkari.

“There have been little signs of Republicans and Democrats really coming together to solve the fiscal cliff in a bipartisan matter,” Kashkari, 39, who heads global equities at [Newport Beach](http://topics.bloomberg.com/newport-beach/), California-based Pimco, said at the Bloomberg Portfolio Manager conference in New York. His firm manages about $8 billion in stocks and $1.92 trillion in total assets. “More likely, we’re going to see brinkmanship like we saw with the debt ceiling a year ago.” Democrats maintained control of the [U.S. Senate](http://topics.bloomberg.com/u.s.-senate/) in the election results this week as Republicans kept their majority in the[House of Representatives](http://topics.bloomberg.com/house-of-representatives/). Lawmakers face the so-called fiscal cliff, or $607 billion of tax increases and federal spending cuts set to kick in automatically in January. The [Congressional Budget Office](http://topics.bloomberg.com/congressional-budget-office/) has said the economy would contract by as much as 0.5 percent next year if Congress doesn’t act.

#### Won’t pass, huge partisan gulf

Jake Sherman, 11/7

Politico, “No clarity on fiscal cliff after election” <http://hamptonroads.com/2012/11/no-clarity-fiscal-cliff-after-election>, accessed,11/7/12,WYO/JF

The partisan gulf is huge: Senate Democrats want to use money saved from letting tax rates expire to cancel the entire round of cuts to the Pentagon and domestic spending — $1.2 trillion. House Republicans would prefer to find roughly $100 billion to replace the first year of cuts to the Pentagon — and have signaled they’re open to increasing some revenue to help raise the money. Those are the two headline issues, but there’s more. Congress has to raise the nation’s borrowing limit before February, renew the nation’s farm policy, and update the formula by which the government reimburses doctors who care for Medicare patients — in addition to dealing with a host of tax provisions of particular import to corporate America. And once that docket is cleared, awaiting Congress is the once-in-a-generation challenge of overhauling the Tax Code and federal entitlements.

**Obama has no PC for passage**

**Herb and Wasson 10/23** Jeremy Herb and Erik Wasson, writers for the Hill, “GOP: Obama's sequester remark during debate could reshape fiscal cliff talks”, October 23, 2012, http://thehill.com/blogs/defcon-hill/budget-appropriations/263523-obama-sequester-remark-could-reshape-fiscal-cliff-negotiations

President Obama’s vow at Monday’s debate that the sequestration cuts “will not happen” could come back to haunt him during Congress's lame-duck negotiations on the fiscal cliff if he is reelected.¶ Republicans were already licking their chops at Obama’s statement Tuesday, and the White House was quickly backtracking the remark after the debate.¶ Republicans said that Obama has given away leverage in any lame-duck talks.¶ “He has, which is why White House aides were immediately trying to walk it back,” said one GOP House aide.

#### The plan will not trade off, congress has multiple shots

David Dayen, 10/8

“[Fiscal Policy, Even “Avoiding the Cliff,” Looks Negative for 2013](http://news.firedoglake.com/2012/10/08/fiscal-policy-even-avoiding-the-cliff-looks-negative-for-2013/)” <http://news.firedoglake.com/2012/10/08/fiscal-policy-even-avoiding-the-cliff-looks-negative-for-2013/>, accessed 10/12/12,WYO/JF

The thing about the fiscal slope is that it’s a slope. Congress won’t have just one shot at an agreement, but a series of shots. People won’t pay thousands of dollars in new taxes and spending won’t reduce by billions right on January 1. So Congress will have time to ameliorate the situation even if they completely fail by the end of the year. That’s where this chart comes in handy, to increase pressure for a deal.

#### A. MLPs will overcome any partisan issues in Congress:

#### Plan is bipartisan: clean energy investment is gaining support from even the staunchest of Republicans.

Pernick 12

(Ron, co-founder and managing director of clean-tech research and advisory firm Clean Edge, Think Progress, “Crowdsourcing, Limited Partnerships And Other Tools For Financing Our Clean-Energy Future,” July 12, 2012, <http://thinkprogress.org/climate/2012/07/12/515065/crowdsourcing-limited-partnerships-and-other-tools-for-financing-our-clean-energy-future///wyo-mm>)

Admittedly, we live in hyper-partisan times, but the effort to open up the clean-energy investment marketplace to more retail investors is well underway and gaining support across party lines. When even top GOP strategist Karl Rove supports extension of the production tax credit for wind power, you know there’s a glimmer of hope that clean energy can once again be about American jobs and competitiveness, and not a divisive post-Solyndra issue that separates Republicans and Democrats. MLPs, crowdfunding, clean energy-focused real estate investment trusts (REITS) and other emerging tools all offer the promise to bring much-needed capital to the clean-tech marketplace.

#### Bipartisanship key to agenda

**Mason 2011**

[Julie Mason, White House Correspondent, 01.04.11, The Washington Examiner, <http://washingtonexaminer.com/politics/white-house/2011/01/obama-tapping-personal-charm-political-capital-combat-gop#ixzz1MAbvs6wl>, uwyo//amp]

**President Obama is sounding optimistic about prospects for the parties to work together**, but two key battles await to test the limits of his personal and political capital. "I think that there's going to be politics, that's what happens in Washington," Obama told reporters as he headed back to Washington after 11 days in Hawaii. Among the obstacles awaiting him is a re-energized Republican Party itching for confrontation, with plans to begin chipping away at Obama's signature health care reforms followed by a protracted showdown over the federal budget. "**They are going to play to their base for a certain period of time**," Obama said of Republicans, "**but I'm pretty confident that they're going to recognize that our job is to govern and make sure that we are delivering jobs for the American people and that we're creating a competitive economy for the 21st century."**

#### Winners win—unlocks the agenda

Green 10

 (David, professor of political science at Hofstra University, June 11, “The Do-Nothing 44th President”,  <http://www.opednews.com/articles/The-Do-Nothing-44th-Presid-by-David-Michael-Gree-100611-648.html>, accessed 10-31-2011,WYO/JF

**Moreover, there is a continuously evolving and reciprocal relationship between presidential boldness and achievement.** In the same way that nothing breeds success like success, nothing sets the president up for achieving his or her next goal better than succeeding dramatically on the last go around. **This is absolutely a matter of perception, and you can see it best in the way that Congress and especially the Washington press corps fawn over bold and intimidating presidents like Reagan and George W. Bush**. The political teams surrounding these presidents understood the psychology of power all too well. They knew that by simultaneously creating a steamroller effect and feigning a clubby atmosphere for Congress and the press, they could leave such hapless hangers-on with only one remaining way to pretend to preserve their dignities. **By jumping on board the freight train, they could be given the illusion of being next to power, of being part of the winning team. And so, with virtually the sole exception of the now retired Helen Thomas, this is precisely what they did.**

**No impact—at worst they’ll just punt the deadline**

Reuters, 9/21

Lawmakers May Delay 'Fiscal Cliff' Deadlines, [www.foxbusiness.com/2012/09/21/lawmakers-may-delay-fiscal-cliff-deadlines/](http://www.foxbusiness.com/2012/09/21/lawmakers-may-delay-fiscal-cliff-deadlines/), accessed 10/10/12,WYO/JF

Slowly and quietly, the U.S. Congress may be arriving at a consensus on how to avoid falling off the "fiscal cliff" on December 31 - by simply putting off its own deadline for most of the major year-end budget and tax decisions. That approach would delay the day of reckoning while also allowing more time for compromise in a Congress that has battled for two years over how best to reduce huge budget deficits. No formal agreements have been reached, however, and turning a consensus into an actual deal that avoids jolting the markets or economy will depend on the results of the November 6 general election. The "cliff" refers to the year-end deadline for the expiration of hundreds of billions of dollars worth of tax cuts and the triggering of $109 billion in across-the-board spending cuts. The non-partisan Congressional Budget Office has said the scenario could throw the country into recession. Congress created the hazardous end-of-year deadline in August 2011 when it agreed to a deficit deal as a way out of a deadlock over raising the U.S. debt ceiling. In recent weeks, lawmakers of all political stripes, from conservative Republicans to liberal Democrats in the Senate and House of Representatives, have alluded to surprisingly similar hopes for the high-stakes "lame-duck" work session that will follow the November presidential and congressional elections. They would put aside the $109 billion in "automatic" across-the-board spending cuts that otherwise would hit military and domestic programs equally. They would make some new, possibly smaller down payments on deficit-reduction for the near-term. Then they would write a new deadline - maybe March 31 or June 30 - to come up with a grand, $4 trillion deficit-reduction program over 10 years; and devise a new method for forcing a divided Congress to act. The entire exercise would be aimed at finding a long-term fix for U.S. fiscal problems without the jolt of indiscriminate spending cuts and tax hikes that would occur under current law. RUNNING FOR COVER The threat of a possible recession after such blanket spending cuts now preoccupies Washington. Among the fearful are the big-company CEOs represented by the Business Roundtable, for example, and Ben Bernanke, the chairman of the U.S. Federal Reserve, who briefed members of Congress this week after declaring that "I don't think our tools are strong enough to offset the effects of a major fiscal shock" of the cliff. The most vocal Democrats and Republicans in Congress have turned the floors of the House and Senate into pre-election spin rooms as each side tries to pin the blame on the other. But a stream of ideas to delay the December 31 day of doom floats through Capitol Hill brainstorming sessions. \* Liberal Democrat Dick Durbin, the second-ranking Senate Democrat, has alluded to a six-month delay, coupled with a $40 billion to $50 billion deficit-reduction down payment for the first half of the year. \* Conservative Republican Senator Lindsey Graham has touted a "mini deal" in November or December to delay decisions through March. It would contain a $20 billion deficit cut. \* Senate Budget Committee Chairman Kent Conrad, a longtime Democratic deficit hawk, said the "optimum outcome" would give Congress six more months to work out details on revamping the tax code and big government programs like Social Security and Medicare.

## K

**First, Our Interpretation: The resolution asks the question of desirability of USFG action. The Role of ballot is to say yes or no to the action and outcomes of the plan.**

**Second, is reasons to prefer:**

**(\_\_\_) A. Aff Choice, any other framework or role of the ballot moots 9 minutes of the 1ac**

**(\_\_\_) B. It is predictable, the resolution demands USFG action**

**(\_\_\_) C. It is fair, Weigh Aff Impacts and the method of the Affirmative versus the Kritik, it’s the only way to test competition and determine the desirability of one strategy over another**

**Finally, It is a voter for competitive equity—prefer our interpretation, it allows both teams to compete, other roles of the ballot are arbitrary and self serving.**

#### Our method is similar to de Mesquita’s game theory which is 90% accurate

De MESQUITA ’11

(Bruce Bueno; Silver Professor of Politics – New York University and Senior Fellow – Hoover Institution, "Fox-Hedging or Knowing: One Big Way to Know Many Things," [http://www.cato-unbound.org/2011/07/18/bruce-bueno-de-mesquita/fox-hedging-or-knowing-one-big-way-to-know-many-things/-http://www.cato-unbound.org/2011/07/18/bruce-bueno-de-mesquita/fox-hedging-or-knowing-one-big-way-to-know-many-things/](http://www.cato-unbound.org/2011/07/18/bruce-bueno-de-mesquita/fox-hedging-or-knowing-one-big-way-to-know-many-things/-http:/www.cato-unbound.org/2011/07/18/bruce-bueno-de-mesquita/fox-hedging-or-knowing-one-big-way-to-know-many-things/), 7/18)

Given what we know today and given the problems inherent in dealing with human interaction, what is a leading contender for making accurate, discriminating, useful predictions of complex human decisions? In good hedgehog mode I believe one top contender is applied game theory. Of course there are others but I am betting on game theory as the right place to invest effort. Why? Because game theory is the only method of which I am aware that explicitly compels us to address human adaptability. Gardner and Tetlock rightly note that people are “self-aware beings who see, think, talk, and attempt to predict each other's behavior—and who are continually adapting to each other’s efforts to predict each other’s behavior, adding layer after layer of new calculations and new complexity.” This adaptation is what game theory jargon succinctly calls “endogenous choice.” Predicting human behavior means solving for endogenous choices while assessing uncertainty. It certainly isn’t easy but, as the example of bandwidth auctions helps clarify, game theorists are solving for human adaptability and uncertainty with some success. Indeed, I used game theoretic reasoning on May 5, 2010 to predict to a large investment group’s portfolio committee that Mubarak’s regime faced replacement, especially by the Muslim Brotherhood, in the coming year. That prediction did not rely on in-depth knowledge of Egyptian history and culture or on expert judgment but rather on a game theory model called selectorate theory and its implications for the concurrent occurrence of logically derived revolutionary triggers. Thus, while the desire for revolution had been present in Egypt (and elsewhere) for many years, logic suggested that the odds of success and the expected rewards for revolution were rising swiftly in 2010 in Egypt while the expected costs were not. This is but one example that highlights what Nobel laureate Kenneth Arrow, who was quoted by Gardner and Tetlock, has said about game theory and prediction (referring, as it happens, to a specific model I developed for predicting policy decisions): “Bueno de Mesquita has demonstrated the power of using game theory and related assumptions of rational and self-seeking behavior in predicting the outcome of important political and legal processes.” Nice as his statement is for me personally, the broader point is that game theory in the hands of much better game theorists than I am has the potential to transform our ability to anticipate the consequences of alternative choices in many aspects of human interaction. How can game theory be harnessed to achieve reliable prediction? Acting like a fox, I gather information from a wide variety of experts. They are asked only for specific current information (Who wants to influence a decision? What outcome do they currently advocate? How focused are they on the issue compared to other questions on their plate? How flexible are they about getting the outcome they advocate? And how much clout could they exert?). They are not asked to make judgments about what will happen. Then, acting as a hedgehog, I use that information as data with which to seed a dynamic applied game theory model. The model’s logic then produces not only specific predictions about the issues in question, but also a probability distribution around the predictions. The predictions are detailed and nuanced. They address not only what outcome is likely to arise, but also how each “player” will act, how they are likely to relate to other players over time, what they believe about each other, and much more. Methods like this are credited by the CIA, academic specialists and others, as being accurate about 90 percent of the time based on large-sample assessments. These methods have been subjected to peer review with predictions published well ahead of the outcome being known and with the issues forecast being important questions of their time with much controversy over how they were expected to be resolved. This is not so much a testament to any insight I may have had but rather to the virtue of combining the focus of the hedgehog with the breadth of the fox. When facts are harnessed by logic and evaluated through replicable tests of evidence, we progress toward better prediction.

**The criticism is not a reason that traditional approaches to the environment should be abandoned, but rather that state based approaches need to be expanded to include broader scholarship**

**Bryant and Wilson, 1998**

[Raymond and Geoff, Dept. of Geography at King’s College London, “Rethinking environmental management.” Progress in Human Geography 22,3 (1998) pp. 321-343] /Wyo-MB

**Many** other fruitful **interactions** between social science disciplines and subdisciplines could be mentioned (e.g., environmental history, environmental sociology), but these three examples suffice to **illustrate the increasing importance of the social sciences to a reevaluated environmental management**. Thus, and as Figure 1 suggests, environmental management should be a research field largely within the discipline of geography, but which none the less shares an affinity with other social science disciplines and their environmental subdisciplines (cf. Middleton, 1995). **A central goal, therefore, in any effort to re-evaluate environmental management, ought to be to strengthen links to selected disciplines and subdisciplines in such a way as to encourage a more inclusive appreciation of environmental management and environmental managers**. **To revitalize environmental management is also to reassess the definition of this field's scholarly community**. If **environmental management** is to be a more relevant field of study, then it follows that it **ought to reach out to a wider group of scholars** than has hitherto been the case. It is important to emphasize that this question has not even been an issue in most traditional approaches to environmental management ± it was simply understood that the community encompassed only those professional experts linked to the state (e.g., Dorney, 1987; Buckley, 1991; Atchia and Tropp, 1995). Those experts comprised mainly scholars working in the natural sciences and selected `hard' social sciences (e.g., psychology, see Williams, 1987). **A revitalized environmental management must break with this traditionally narrow approach by opening itself to a much more inclusive set of researchers and activists**, not necessarily linked to the state, **and reflecting a wide range of disciplinary influences. The point here is not that `traditional' scholars are no longer relevant to a revitalized environmental management. Rather, it is that the contributions of other researchers hither to excluded from the field need also to be accorded a place in the community**. These researchers may work for various nonstate actors ± environmental NGOs, IFIs, TNCs or grassroots organizations (e.g., people's organizations) ± or work for themselves as independent scholars or consultants. To take but one example, Friends of the Earth routinely commissions critical research on environmental management issues ranging from local-level issues (e.g., highway construction, habitat protection) to global concerns (international mahogany trade). These studies examine the environmental management activities of state agencies, IFIs, businesses, grassroots actors and others and, in doing so, they contribute (at the moment still rather inadvertently!) to the development of the research field (e.g., Friends of the Earth, 1992; 1994). **The adoption of a more inclusive understanding of `scholarly community' in this manner will reinforce over the long term a central message of this article ± namely that, whether understood as a process or as a field of study, environmental management ought not to be the exclusive preserve of state-linked `experts'.**

**We should compare different theoretical approaches to the environment using cost benefit analysis**

**Alonsob et al, 2008**

[Enrique Alonsob, Biodiversity UNESCO Chair, ESCET-Universidad Rey Juan Carlos, Madrid, Spain, and Pablo Martínez de Anguitaa, Department of Environmental Technology, ESCET-Universidad Rey Juan Carlos, Madrid, Spain, and María Ángeles Martínc, Department of Natural Resources, University San Pablo CEU, Madrid, Spain, “Environmental economic, political and ethical integration in a common decision-making framework.” Journal of Environmental Management, Volume 88, Issue 1, July 2008, Pages 154–164, Accessed online via science direct] /Wyo-MB

**A value** is an enduring conception of the preferable which **influences choice and action** (Brown, 1984). Traditionally, neoclassical **utility theory has assumed** a value monism, i.e., **all values are commensurable and ultimately reducible to a single measure: some form of implicit or explicit cost-benefit analysis or calculation** lies behind almost every human action, object and behaviour (Frank, 1997). **Based on this metric, we should be able to measure people's preferences and values for environmental goods.**

**It isn’t enough to just be aware: empirically proven that awareness and consciousness fail to translate into urgency or action ensuring the alt fails.**

**Krakoff 11**

(Sarah, Professor and Associate Dean for Research, University of Colorado Law School, Selected Works from Sarah Krakoff, “Planetarian Identity Formation and the Relocalization of Environmental Law,” January 2011, <http://works.bepress.com/cgi/viewcontent.cgi?article=1004&context=sarah_krakoff//wyo-mm>)

**For a** brief **period between 2005-2008, several factors seemed to heighten both awareness and concern about climate change**. The fourth IPCC report 62 and increased media discussion of climate change in the wake of Hurricane Katrina, among other causes, seemed to increase public knowledge and concern. 63 **Yet awareness and concern have failed to translate into a widespread sense of urgency. Even more troubling, public acceptance that climate change is occurring and is caused by human activity has again declined**. A study by the Pew Center for Research and the Press found that public acceptance that climate change was occurring dropped from seventyone percent in April, 2008 to fifty-seven percent from in October, 2009. During the same period, **public acceptance that any warming was caused by human activity dropped from forty-seven percent to thirty-six percent**. 64

**Energy management is key to resilience and to prevent catastrophic attacks.**

**Coaffee 08**

(Jon, School of Environment and Development, The University of Manchester, PhD in Urban Geography analysing at the impacts of risk, terrorism and security on urban development and planning, Energy Policy, “Risk, resilience, and environmentally sustainable cities,” October 18, 2008, Science Direct//wyo-mm)

Although initial concerns with **the ‘**risk society’ were stimulated by environmentalism**,** more recent appraisals have focused upon the need to counter the occurrence **and impact of international terrorism** and the fear of catastrophic attack against urban areas and their critical infrastructures. **Sites of energy production and transmission are often regarded as being vulnerable to attack, and as requiring increased fortification** (Alexander et al., 2004). **Resilience—reliable supplies and stable costs—is regarded as vital for energy security** (see for example IEA, 2001) due to the growing reliance of developed nations on imported energy and the increased likelihood of supply disruption (Costantini et al., 2007). The geo-political tensions surrounding the attainment of this goal add an entirely new dimension to the traditional pillars of energy security: energy efficiency, diversification of energy supplies, and dealing with volatility (Sahir and Qureshi, 2007; World Bank Report, 2005). This is leading in many cases to national legislation (e.g. the US Energy Policy Act of 2005) that seeks to reduce reliance on foreign energy supply (Mignone, 2007).

#### Solves boom/bust: MLPs are a competitive structure that will create renewable producer stabilization and consolidation, allowing economies of scale to be achieved

Bullock 8.10

[Bruce, director of the Maguire Energy Institute SNL Electric Utility Report, “MLP structure for renewables could mobilize capital, lead to consolidation”, p. ln//wyo-tjc]

Analysts are going to look at it, scrutinize it and try to determine if those things are in place and then they'll also look at other things - good companies, good management teams, are they backed by parent companies that might be able to underwrite some of the risk in the event of a default? They'll look at them very closely, and there will be some companies that will do very well and others that don't. The good companies, well-run companies that are able to put together a good business plan in this area, will do well. And also because MLPs over time have to show increases in distributions to their unit holders, it will also become an opportunity for some consolidation among renewable energy companies. There will be companies that will buy others to build some scale and increase distributions.

**Water wars are real and their K doesn’t apply**

**Dinar 2** Shlomi, Ph.D. candidate at the Johns Hopkins University School of Advanced International Studies, SAIS Review 22.2 (2002) 229-253, Water, Security, Conflict, and Cooperation, "Negotiation and International Relations: A Framework for Hydropolitics”, International Negotiation 5, no. 2

The dichotomy of conflict and cooperation over water and its relationship to national and regional security reflects the reality of hydropolitics. While military clashes have been associated with water, the concept of security does not end with nor does it only imply armed conflict. Because the pursuit of peace, and thus conflict and cooperation, constitutes the flip side of security, water is indeed relevant to the concept of security. It is this phenomenon that traditionalists have cast off as irrelevant and other rejectionists of the environment-security link have ignored.¶ Linking security with the environment does not increase the possibility that nations will engage in more armed action against other states for the sake of natural resources such as water. Albeit minimal, evidence already exists as to the military skirmishes and military threats that have taken place over water. Nations will engage in armed conflict and political disputes over water whether or not scholars acknowledge the link between the environment and security. Similarly, the existence of more than 3,600 water treaties, the oldest dating to 805 AD, demonstrates a rich history of cooperation [End Page 239] over water regardless of scholarly debate on cooperation and the environment. The debateregarding the link between water, conflict, and cooperation is thus futile and has become a scholarly debate marred by polemics and semantics.¶Given its geographical attributes, freshwater truly straddles the notion of sovereignty that traditionalists cherish so deeply and the international or regional conception that environmental globalists hold true. The problems that arise from shared water resources are both national and regional in nature. Similarly, the solutions that are needed to solve such problems are both national and regional. Most importantly for the debate on the environment and security, however, the impediments to cooperation and the instigation of conflict over water are both national and international in their sources. States in particular regions will continue to see water as a national security concern. Even though a regional agreement may be the best solution to states' water problems, they will continue to couch their need to access sufficient and clean freshwater in security and nationalist terms.

**Plan creates unique creative destruction, allows economic progress while sapping power from established firms, and the state**

**Schulz, 10**

Nick Schulz, CREATIVE DESTRUCTION, <http://www.fraseramerica.org/Commerce.Web/product_files/KeyConcepts-CreativeDestruction_US.pdf>, accessed 12-22-2010, WYO/JF

In Schumpeter’s view, a firm’s economic strength emerges over time and from continued technological advancement and organizational restructuring. Creative destruction means **that the establishment of** new techniques, business models, technologies, and markets can destroy an established monopolist’s dominant position**. For Schumpeter, the entrepreneur is the oft-overlooked heart of the economic system. Through the “element of personal initiative,” the entrepreneur is able to unleash “**the perennial gale of creative destruction” that propels economies forward, brings new technology to the market, and saps established firms of their economic power. Schumpeter took great pains to describe the defining characteristics of the capitalist system so as to explain its benefits: generating wealth, innovation, and new products. The dynamic itself was important, not just the end result. For Schumpeter, the order of the word couplet—“creative” followed by “destruction”—was significant. Creativity preceded destruction. Destruction occurs only after generative acts yield innovations and technological advances. **For this reason, Schumpeter believed that the destruction inherent to the capitalist system was a worthy price to pay for economic progress**

**You’re view of economics is wrong you look to a single point in history when you need to look at the past, present and future because of creative destruction**

**McCraw 7(Thomas K. McCraw, Isidor Stratus Professor of Business History at Harvard Business School, "Prophet of Innovation, pg. 352)**

**Since** creative destruction is an evolutionary process, the performance of capitalism must be judged “over time, as it unfolds through decades or centuries.” Here, **Schumpeter criticizes the approach of his fellow economists to the study of big business.** **It is useless**, he says, **to analyze** a large company’s behavior **at a single point in time**—that is, to “accept the data of the momentary situation as if there were no past or future to it.” Yet this is the customary method. The typical economic theorist or government commission does not see the behavior of a major firm, **“on the one hand, as a result of a piece of past history, and, on the other hand,** as an attempt to deal with a situation that is sure to change presently—as an attempt by those firms to keep on their feet, on ground that is slipping away from under them. In other words, the problem that is usually being visualized is how capitalism administers existing structures, whereas the relevant problem is how it creates and destroys them.”16 Creative destruction constantly sweeps out old products, old enterprises, and old organizational forms, replacing them with new ones. “Every piece of business strategy acquires its true significance only against the background of that process and within the situation created by it.” Strateg**y,** he goes on to say, “must be seen in its role in the perennial gale of creative destruction; it cannot be understood irrespective of it or, in fact, on the hypothesis that there is a perennial lull**.” Any investigator who does not recognize these essential characteristics**, Schumpeter concludes, “**does a meaningless job**.”17

#### Cap sustainable: empirics prove

Meltzer 12

(Allan H., University Professor of Political Economy and Public Policy at Carnegie Mellon University, “Why Capitalism?” 2012, pg. 3/wyo-mm)

Opponents of capitalism and free markets frequently claim that one or another of the periodic crises that occur foreshadow the end of capitalism. More recently, such predictions followed the recent financial crisis. The 2008 housing-credit crisis was a serious, but temporary, decline—not a permanent loss of wealth, much less “The end of capitalism,” as some proclaimed at the time. Capitalist systems have weathered many more serious problems and all survived this one.

#### Capitalism won’t fall: current economy too strong, no market pressure, and no currency rivals.

Bremmer and Gordon 12

(Ian and David, USA Today, “Global negativity and 2012: Don't buy it: Fear-mongering is keeping investors on the sidelines. Ignore the hand-wringing -- this is 1979,” January 2012, ProQuest//wyo-mm)

More important, the current state of the global economic and political environment makes it virtually certain that the U.S. will not face major market pressure this year. America's long-term fiscal situation is troubling, but U.S. capital markets are still the world's largest, healthiest and most liquid, and Treasury bills are still the safest global financial asset. The dollar has no credible rival as a reserve currency.