### 1AC Plan

#### The United States Federal Government should exclude crude oil and natural gas production from Exon-Florio reviews.

### 1AC Investment

#### The United States currently submits all foreign investment deals related to oil and gas production to the Committee on Foreign Investment in the United States, known as CFIUS. These restrictions chill foreign investment and send a signal of US protectionism.

Wilson Center 5-31-12 (Chinese Investment in North American Energy, http://www.wilsoncenter.org/event/chinese-investment-north-american-energy)

While Chinese foreign energy investment is on the rise, the more notable story is China’s shift from a net importer of capital to a nation of massive capital outflows, said Adam Lysenko of the Rhodium Group. Energy investment—initially stalled in the wake of the aborted acquisition of Union Oil Company of California (UNOCAL) by China National Offshore Oil Corporation (CNOOC) in 2005—has increased exponentially with $18.3 billion in bids in 2011 alone. Learning lessons about American protectionism, Chinese firms have changed their strategies since the failed UNOCAL deal and now have made multiple smaller investments that will not attract unwanted political attention. In addition to raw materials, Chinese companies are looking to gain expertise in exploiting these resources for use at home. As for alternative energy, Chinese companies are starting to invest in North American production to get around tariffs. Currently, the Committee on Foreign Investment in the United States (CFIUS) process appears adequate, but the political environment is hurting investment unnecessarily. Lysenko added that many Chinese firms are starting new corporations in the emerging alternative energy industry to avoid CFIUS scrutiny. In order to keep Chinese investments growing, the United States has to find a way to separate national security from politics. While Chinese investment has increased exponentially in the last four years, its total impact should not be exaggerated, said Bo Kong from Johns Hopkins School of Advanced International Studies. CNOOC’s difficulty in acquiring UNOCAL jaded many Chinese investors from investing in the United States, which significantly slowed the flow of investment in the North American energy industry. Chinese companies’ hesitancy to repeat the failure of the UNOCAL deal and American companies’ concerns about both political interference and intellectual property (IP) theft have tempered Chinese investment in North America. However, smaller and more diverse investments on the part of Chinese companies and more safeguards to protect U.S. IP should help accelerate investment in the future. All three Chinese state-owned oil companies are also listed on the New York Stock Exchange, which indicates a willingness to be more transparent. Getting more Chinese companies involved in research and development will lead to a greater respect for international IP laws. Historically, Japan and South Korea were not good stewards of intellectual property, but as both nations started to develop their own technology, they began to respect IP laws. Many feel that increased investment by Chinese firms in research and development will lead to a similar evolution. While China is a resource-hungry and growing country, the real benefit to North American investment is not the energy extracted but rather the techniques and knowledge gleaned from U.S. and Canadian companies, which will allow China’s companies to better extract resources at home.

#### Recent deals don’t matter – case by case basis.

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U.S. President Barack Obama’s administration this week approved a significant business deal involving a Chinese company: the acquisition of Nexen Inc., a global energy company, by the China National Offshore Oil Corp. In the last several months, the administration has approved Chinese purchases of a U.S. biotechnology company and a U.S. battery manufacturer. For those interested in free trade, prosperity and peace, this is good news. Unfortunately, these approvals come against a backdrop of difficulties. With increasing frequency, Chinese investments have run into U.S. national-security concerns from the Committee on Foreign Investment in the United States, or CFIUS, which has scuttled several acquisitions, including one late last year. We’re in the midst of a CFIUS outbreak. Without continuing and visible approvals of Chinese investments, this may damage the health of U.S.-China relations, which are critical to a more stable and prosperous 21st century. The committee reviews commercial transactions when foreign investors -- from Canada, China, Israel, Russia, the U.K., Venezuela or anywhere else -- obtain control of U.S. companies. The U.S. has a policy of welcoming foreign investors, and research shows that an open investment climate fuels economic growth. But the foreign-investment committee is in tension with this open policy. Generally Painless Made up of multiple U.S. government agencies, with the Treasury Department acting as chairman, CFIUS helps ensure that foreign investments don’t threaten national security. Historically, the committee hasn’t found security concerns in more than a small percentage of foreign investments. And the resolution for such cases has generally been painless: CFIUS has requested commitments from foreign buyers -- insisting, for example, that a foreign buyer establish a security plan -- in roughly five to 10 cases each year. The committee has sought to scuttle a deal no more than a couple times a year, on average. Periodically, however, circumstances have caused it to threaten the open investment climate or international trading relationships. I served on the committee from 2006 to 2010 and played a role in a lesser outbreak. But the current outbreak affecting Chinese investments is particularly virulent and harder to contain. The first outbreak occurred in the late 1980s. Japanese investments in the U.S., and Japanese business success more broadly, fueled envy and fear (Mitsubishi’s 1989 purchase of the iconic Rockefeller Center was met with end-of-empire musings by U.S. elites). This gave rise to the first laws with teeth, enabling the committee to review foreign investments and recommend to the President that he block a transaction or force a divestment if necessary to protect national security. Fortunately, the crackdown in that era was self-containing. The mere fact that CFIUS would review investments with an eye toward national security eased concerns about Japanese investment. And the economic slowdown in Japan, coupled with the resurgence of the U.S. in the mid-1990s, ended the perceived threat. The second outbreak began with the 9/11 terrorist attacks and the understandable fears that resulted. In 2006, the committee approved an acquisition of a U.S. port management company by DP World Ltd., owned by the government of Dubai in the United Arab Emirates. Though the UAE is a close U.S. ally and the company is regarded as among the world’s best port- management companies, Congress went berserk. Public sentiment was inflamed by the idea that an Arab company might manage U.S. ports. Foreign Commitments Reacting to congressional pressure, the committee started to seek many commitments from foreign acquirers -- to develop a security plan, screen key personnel, provide data to the committee and the like -- as conditions for approving acquisitions. Although CFIUS had requested these security commitments before, we (it was here that I played an active role) requested these agreements with much greater frequency. It threatened to recommend that the president block the transaction if these commitments weren’t forthcoming. Playing to a hawkish Congress and public, CFIUS showed just how tough it could be. Yet foreign investments in U.S. companies had virtually nothing to do with the terrorist threat. As with the outbreak over the Japanese, this episode was largely a result of perceptions rather than reality. Fortunately, the newly demonstrated CFIUS toughness helped to ease concerns. So, too, did broader successes against terrorists and the creation of homeland-security institutions. There was little damage to U.S. investment policy. All the while, however, the third outbreak was beginning. The Chinese economy was in hyperdrive. Espionage by China against the U.S., and U.S. espionage against China, was rapidly accelerating. By the end of the first decade of the 21st century, alarm over U.S. inability to secure cyberspace, particularly against China, reached fever pitch. That is where we are today. CFIUS treats Chinese investments with profound skepticism. And whereas previous outbreaks were the result of perceived (generally misperceived) threats, the current outbreak is troubling in part because more than perception is at work. The U.S. isn’t wrong to see a threat. But the committee is far too weak a tool to address concerns about Chinese spying. Its authority is limited to transactions that result in foreign control of U.S. companies and doesn’t extend to sales of equipment or services, leases, the development of new businesses or myriad other ways to engage in espionage. The committee too often builds a Maginot Line that results in high costs for U.S.-Chinese relations but little gain for U.S. security. Deals Denied For example, in 2009 it prevented a Chinese company from buying a Nevada gold mine, on grounds that the site was too close to a U.S. defense facility. Since then, several other deals in various parts of the U.S. have foundered on such “proximity” concerns. Yet it is possible for anyone to come within the same proximity to a U.S. defense facility in ways that the committee can’t review, including leasing a building, visiting a property, and driving trucks on nearby public roads. Instead, CFIUS should use a balancing test. It needs to ask: “Is the security gain from preventing this acquisition marginal and easily circumvented, or is the gain significant enough to outweigh potential harm to U.S.-Chinese relations?” The absence of any sort of balancing test has fostered the current outbreak. In the long run, the U.S.-Chinese espionage tension will have to be defused by cooperation and trust. The continued development of mutually beneficial institutions, such as the World Trade Organization, and increasingly close government-to- government relations can reduce each side’s reliance on spying. The current outbreak risks real damage by making it harder for cooperation and trust to grow.

#### there are 2 scenarios –

#### First is protectionism – Global trade is on the brink of collapse- rising US protectionism risks global escalation.

Lincicome 12 (Scott, trade attorney, “Is Missing American Trade Leadership Beginning to Bear Protectionist Fruit? (Hint: Kinda Looks Like It),” June 12, http://lincicome.blogspot.com/2012/06/is-missing-american-trade-leadership.html)

Over the past few years, I and several other US trade-watchers have lamented the United States' dwindling leadership on global trade and economic issues and warned of that trend's troubling potential ramifications. It appears that at least one of our breathless predictions may finally be coming true. Starting in mid-2009 - when it became depressingly clear that the Obama administration viewed trade in mostly political terms and thus would not be advancing a robust, proactive free trade agenda - we free traders expressed grave concern that US recalcitrance could harm not only US companies and workers, but also the entire global free trade system. As I explained in a 2009 oped urging the President to adopt a robust pro-trade agenda (as outlined in this contemporary Cato Institute paper): Since the 1940s, the US has led the charge to remove international barriers to goods, services and investment. The result: a global trade explosion that has enriched American families, spurred innovation, enhanced our security and helped millions escape poverty. Every US president since Herbert Hoover has championed free trade because of its proven benefits.... Because of today's rules-based multilateral trading system and the interdependence of global markets, US fecklessness on trade shouldn't lead to devastating protectionism akin to the Smoot-Hawley-induced tariff wars of the 1930s. But it's still a problem. In 2008, global trade contracted for the first time since 1982, and protectionist pressures abound. The WTO's Doha Round is comatose, even though an ambitious deal could inject US$2 trillion into the reeling global economy. Considering the US has steered every major trade initiative in modern history, any chance for significant progress on trade will disappear without strong American leadership - in word and deed. Since that time, the President has clearly not taken free traders' advice. The WTO's Doha Round is dead, despite a pretty good opportunity to force the issue back in late 2010. The Obama administration took three years to implement already-dusty FTAs with Korea, Panama and Colombia and actually insisted on watering the deals down with new protectionist provisions in order to finally agree to move them. And while countries around the world are signing new trade agreements left and right, we've signed exactly zero and have eschewed important new participants and demanded absurd domestic protectionism in the one agreement that we are negotiating (the TPP). Meanwhile, on the home front the President has publicly championed mercantilism, as his minions quietly pursued myriad efforts to restrict import competition and consumer freedom, embraced competitive devaluation and maintained WTO-illegal policies (while publicly denouncing protectionism, of course). Pretty stark when you lay it all out like that, huh? Despite this depressing state of affairs, it did not appear that the United States' diversion from its long free trade legacy had resulted in a tangible increase in global protectionism (although the death of Doha certainly isn't a good thing). Unfortunately, a new blog post from the FT's Alan Beattie indicates that those chickens may finally be coming home to roost: One of the very few bright spots in governments’ generally grim recent performance of managing the world economy has been that trade protectionism, rampant during the Great Depression, has been relatively absent. That may no longer be the case. The WTO, fairly sanguine about the use of trade barriers over the past few years, warns today that things are getting worrying. The EU made a similar point yesterday. And this monitoring service has been pointing out for a long time that a lot of the new forms of protectionism aren’t counted under the traditional categories, thanks to gaping holes in international trade law. After glancing at the bi-partisan protectionism on display in the 2012 US presidential campaign, Beattie concludes that, on the global trade stage, "things are looking scarier than they have for a while." I'm certainly inclined to agree, and one need only look South to Brazil's frighteningly rapid transition from once-burgeoning free trade star to economically-stagnant, unabashed protectionist to see a scary example of why. And while I agree with Beattie that the world still isn't likely to descend into a 1930s-style trade war - we can thank the WTO and the proliferation of free market economics for that - the rising specter of global protectionism is undoubtedly distressing. And, of course, it has risen just as America's free trade leadership has faded away. Now, as we all know, correlation does not necessarily mean causation, and it's frankly impossible to know just how much the dearth of US trade leadership has actually affected global trade policies. But I think it's pretty safe to say that it certainly hasn't helped matters. Just ask yourself this: how can the US admonish Brazil or any other country about its distressing mercantilism when the President is himself routinely preaching - and his administration is busy implementing - similar policies? How can we decry the global "currency wars" when we're discretely advocating a similar strategy? How can we push back against nations' increasing use of market-distorting subsidies or regulatory protectionism when we're.... I think you get the idea. As I've frequently noted here, it was a Democrat - Secretary of State Cordell Hull - who over 70 years ago began a global free trade movement that until very recently had been led - in word and deed - by Republican and Democratic administrations alike. And while the distressing recent spike in global protectionism may not have been caused by a lack of American trade leadership, it is very, very likely not going to recede until the United States regains its long-held place at the front of the trade liberalization pack.

#### Restrictions on oil and gas investments explode the scope of protectionist reviews

Carroll-Emory International Law Review-09 (James, COMMENT: BACK TO THE FUTURE: REDEFINING THE FOREIGN INVESTMENT AND NATIONAL SECURITY ACT'S CONCEPTION OF NATIONAL SECURITY, 23 Emory Int'l L. Rev. 167)

II. Post 9/11 Application of Exon-Florio After 9/11, the CFIUS process shifted to focus more on threats from non-state actors, most noticeably by including the Department of Homeland Security (DHS) among the departments heading the CFIUS board. This shift in focus resulted in the scrutiny of several transactions that did not fit into the traditional military-based interpretation of national security, such as the Chinese purchase of an oil company and the purchase of the operation of ports by an Arab company. The change in the Exon-Florio process culminated in the passage of FINSA, which codified a much broader interpretation of national security that encompassed energy assets and other critical infrastructure. A. A Shift in Foreign Policy Perspective Unsurprisingly, the terrorist attacks of 9/11 dramatically changed the American perspective on national security, including the scrutiny of foreign investment. When Exon-Florio passed, at the end of the Cold War, U.S. foreign policy was still focused on the realist, state-based model of international relations. 86 This realist model largely envisions foreign policy as a competition between states, in which states struggle to find the proper balance between deterrence and reassurance of other governments regarding their good intentions. 87 According to traditional conceptions of realism, non-governmental actors have little or no significant role to play in international relations. 88 The end of the Cold War and the widening web of globalization broadened the spectrum of foreign policy considerations somewhat, but it was not until after 9/11 that the U.S. national security apparatus really shifted to focus more on a range of non-state security threats. 89 The very nature of the 9/11 attacks made it clear that the instruments of globalization could be used to attack the international order itself, and there was a resultant effort on the part of the United States to secure various commercial facilities, such as airports, [\*180] chemical factories, and ports 90 - exemplified in the formation of the DHS to coordinate domestic security measures against terrorism. Consistent with the realist vision of foreign policy, Exon-Florio had focused on state-based acquisitions of defense-related technologies prior to 9/11, with an emphasis on the unique capabilities acquired by foreign governments or "lost" to the United States present in each transaction. 91 As part of the general paradigm change toward considering threats from non-state actors after 9/11, President Bush added the head of the DHS to the CFIUS board in February 2003. 92 Perhaps not coincidentally, "between January 2003 and December 2005, there were six [CFIUS] investigations, and five withdrawals, more than the previous ten years combined." 93 In 2006, the CFIUS conducted seven investigations, the most ever in a single year. 94 B. The Unocal Incident: Protectionism Run Amok The response to the attempt of CNOOC to purchase Unocal, an American oil company, exemplified the tighter CFIUS approach. 95 CNOOC, a Chinese state-owned oil company, regularly purchased foreign oil companies to create joint-ventures between itself and the foreign companies. 96 The Chinese government recognized that there would be a CFIUS review under the Byrd Amendment, since CNOOC was state-owned, but felt that ultimately there was no security risk and that the transaction would pass the CFIUS review. 97 However, on June 24, 2005, 41 members of Congress from both parties wrote to President Bush urging a thorough CFIUS review of the sale. 98 The letter justified the review by raising questions about "whether CNOOC was using Chinese government funds to make the purchase and whether China [\*181] would be acquiring sensitive technology." 99 Congress followed up this letter with the introduction of a resolution in the House on June 29, 2005, that recognized oil and natural gas as strategic national assets and argued that the purchase of Unocal would allow for the oil reserves to be preferentially sent to China - instead of purchasing them on the open market - thus opening up the possibility of China utilizing the "oil weapon" against the United States. 100 China hawks 101 echoed these arguments, claiming that the deal would give China more leverage over the international oil market and that regardless of the facts of the transaction, the symbolic nature of giving into China's resource goals should be prevented at all costs. 102 Unsurprisingly, hawkish arguments toward China played a large role in congressional opposition to the deal. 103 The Bush administration kept relatively quiet during the Unocal controversy, 104 and eventually CNOOC withdrew their bid in the face of the negative publicity. 105 The most remarkable aspect of this episode was the congressional majority's attempt to implicitly redefine national security. The definition of national security was no longer limited to technologies that were at least arguably related to the national defense industrial complex. Congressional opponents of the Unocal sale used public debate surrounding the deal to include energy assets in an expanded interpretation of national security and continued the long-running congressional struggle to use Exon-Florio and the CFIUS review process as a protectionist tool to prevent foreign investment in U.S. industry. 106 Previous CFIUS reviews focused on technological acquisitions that could allow foreign countries unique access to U.S. military capabilities, 107 in contrast to energy companies, which had no [\*182] direct connection to the military. If national security can also mean "important to the United States economy," as energy assets no doubt are, then the definition of national security differs in no meaningful sense from the original "essential commerce" bill that Reagan threatened to veto in order to strip the economic security provisions.

#### Narrowing the definition of national security to exclude “energy assets” insulates the CFIUS process from protectionist manipulation.

Carroll-Emory International Law Review-9 23 Emory Int'l L. Rev. 167 COMMENT: BACK TO THE FUTURE: REDEFINING THE FOREIGN INVESTMENT AND NATIONAL SECURITY ACT'S CONCEPTION OF NATIONAL SECURITY

Conclusion Exon-Florio should be amended to more narrowly define national security. The open-ended nature of the current definition has allowed the process to become politicized. Instead, national security should be specifically defined so as to prevent acquisition of industries that are critical to the military aspects of our national defense and that have capacities that are not duplicable by other market entities. The definition should also serve to ensure that export control laws are not circumvented by foreign acquisition of American companies. The following proposed definition would once again focus on preventing foreign governments from gaining unique military capabilities through private transactions that could threaten American national security: National Security shall be defined so as to consider the following factors in reviewing foreign acquisitions: A. Potential effect upon assets essential to the military aspects of national defense, specifically those firms whose contributions to the national defense cannot be easily replaced by another domestic corporation; B. Whether the acquisition poses a substantial risk of espionage or terrorism that can be certified by the relevant United States intelligence agencies; C. Whether the acquisition would pose a unique risk of weapons proliferation of critical military assets that cannot be otherwise dealt with by United States laws, particularly to countries that are not allies of the United States; [\*198] D. Economic security, or any other factor not mentioned in this section, shall not be considered by the CFIUS process. 222 Such an interpretation of national security would heavily scrutinize acquisition of, or joint ventures with, Lockheed Martin or any other company that makes a large contribution to the defense industrial base. Certain high-tech companies that produce computer chips that give the U.S. armed forces technological advantages over other countries might also fall under this definition. China should not be allowed to acquire a controlling interest in the present-day equivalent of Fairchild Semiconductor. This proposed definition of national security would be even more limited than the original Exon-Florio signed by President Reagan, as Exon-Florio was designed to apply mainly to defense-based technological acquisitions. 223 The main difference between this definition of national security and the original Exon-Florio legislation is that this definition would codify national security to explicitly prevent protectionist use of the CFIUS for political ends. Any consideration of economic security or protection of energy assets from foreign acquisition would be excluded from this definition, as inclusion of such economic factors can only encourage protectionism and politicization of the CFIUS process. 224 The narrower definition of national security would eliminate the mandatory reviews of every foreign-government-controlled transaction as required by FINSA. 225 Instead, the CFIUS would be given flexibility to decide which transactions truly threaten national security, without being bound to review every governmental acquisition. Narrowing the definition of national security in this manner would allow the CFIUS to focus its resources on real national security threats, rather than waste resources analyzing nearly every transaction involving a foreign governmental takeover. 226 The CFIUS should certainly consider the prospect of terrorism and take every step possible to safeguard against such a risk. In many cases, safeguards such as extra scans on containers should be put in place to minimize the risk of [\*199] terrorism. These safeguards should be applied regardless of whether the ownership is foreign or domestic. 227 Protectionism cannot replace the Department of Homeland Security when it comes to defending critical infrastructure. 228 Besides, the terrorists who struck on 9/11 did not own substantial property within the United States. Nor would the CFIUS regulations have stopped the subsequent terrorist incidents, such as Richard Reid's attempted shoe bomb or the anthrax shipments. In fact, there is no evidence that any company has been used as a front for a terrorist plot. 229 However, transactions should be blocked by the CFIUS on the basis of homeland security only when there is evidence of a clear and present threat of terrorism, or perhaps of espionage or sabotage. If the term "critical infrastructure" must be kept in FINSA, then members of Congress and the CFIUS must do a better job articulating what exactly constitutes critical infrastructure and what they consider the link between foreign ownership of critical infrastructure and threats to national security. 230 Explicitly laying out such guidelines will illustrate the boundaries to foreign investors and will make CFIUS decisions seem less arbitrary and political. 231 Additionally, screening employees of foreign corporations that purchase critical infrastructure can often identify potential security vulnerabilities without taking the drastic step of vetoing a transaction. 232 Limiting the Exon-Florio definition of national security only to military threats may seem odd and reactionary in the post-9/11 world, where unconventional threats abound. However, counter-terrorism requires appropriate tools, and regulating foreign direct investment simply falls short of being a cost-effective method of ensuring homeland security. 233 Focusing on the nationality of a company's ownership in a globalized world only distracts us from real security threats posed by non-state actors. 234 Many terrorist threats do not exist as a result of primary support from any nation, but rather as tactics in service of an ideology. 235 As Jose Padilla, John Walker Lindh, and [\*200] many others have illustrated, no one ethnic group has a monopoly on Al-Qaeda membership or support. Instead of penalizing investments from various Arab states simply because terrorists draw support from that region, homeland security policy should focus on thwarting the terrorists themselves. The CFIUS must return to a focus on state military capabilities because the terrorist threats are from non-state actors, and restricting economic investment from certain nations does not, per se, deal with the threat of terrorism. Just because terrorism is a serious threat does not mean that the CFIUS is the best tool to protect critical infrastructure. In conclusion, 9/11 did radically change the world, and Exon-Florio should change to fit the new realities of homeland security. However, the most effective reform of Exon-Florio is not expansion of the definition of national security to include economic protectionism, but rather a narrowing of the definition to guard against real threats to American security while encouraging beneficial foreign investment. The security challenges of the twenty-first century cannot be met by protectionism. Only by embracing globalization and cooperation can the United States truly achieve national security.

#### And, the current scope of CFIUS reviews undermines US trade leadership and triggers retaliation. The impact is global wars.

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C. Economic Retaliation as a Result of CFIUS Protectionism Continued use of Exon-Florio to protect American economic security could also lead to retaliation by our trading partners. 165 The United States loses much of its credibility on global trade leadership when it caves to political pressure and blocks transactions that do not pose a clear threat to national [\*190] security, as it did during the Dubai Ports incident. 166 If the Exon-Florio power continues to widen to affect foreign investment outside of direct national defense concerns, then other countries will replicate such legislation, and protectionist trade wars will escalate. 167 In fact, France, Russia, India, and Canada have already passed, or are considering, more restrictions on foreign investment as a result of what is seen abroad as U.S. protectionism disguised as the CFIUS blocking deals for national security reasons. 168 Russian legislators directly cited the U.S. example of the CFIUS when they debated the potential restrictions on foreign investment: The government has decided to use [the] experience of the US ... where there are stringent limitations for purchase of assets by foreign investors... . In the US if a foreign company is going to buy more than 5% of shares in a company that fulfills orders of the Department of Defense, [the] permit for such [a] deal is issued by the President. 169 The Russian Economy Minister, German Gref, even made the case that the proposed Russian restrictions on foreign investment would be more liberal than the CFIUS process of the United States. 170 Similarly, India retaliated against CFIUS restrictions on one of its telecom companies by placing similar restrictions on U.S. telecom firms that were attempting to enter the Indian market. 171 The Indian government felt that it needed to exclude U.S. companies as long as the United States was restricting Indian companies' transactions with American firms. 172 Both of these incidents are illustrative of a larger point: as long as the United States restricts [\*191] foreign investment unnecessarily through the CFIUS process, other countries will do likewise, inhibiting global trade. 173 Diagnosing the benefits of free trade goes beyond the scope of this Comment, but there is virtual unanimity among economists on both the benefits of foreign direct investment and free trade to the U.S. economy. 174 Without foreign direct investment, the U.S. economy would lose nearly ten million jobs. 175 A dynamic American economy is crucial to national security because without a strong economy, there would be insufficient revenue for the military and national defense. 176 If the U.S. economy were to contract even further, there could be isolationist pressure to reduce the defense budget and withdraw from international commitments. 177 Moreover, global free trade contributes to global stability by spreading democracy, integrating national economies, and dramatically raising the cost of war. 178 Support for regulation of foreign direct investment centers around unsubstantiated fears that foreign direct investment creates economic instability. 179 According to this theory, foreign ownership of important U.S. assets gives other countries the power to destabilize the U.S. economy. 180 In reality, however, foreign direct investment aligns the interests of other [\*192] countries with the United States. 181 If another country owns substantial assets in the United States, its future is tied to the American economy, and that country would be going against its own interests to take any action that may destabilize the American economy. 182

#### Free trade prevents multiple scenarios world war 3.

Panzner 2008

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Continuing calls for curbs on the flow of finance and trade will inspire the United States and other nations to spew forth protectionist legislation like the notorious Smoot-Hawley bill. Introduced at the start of the Great Depression, it triggered a series of tit-for-tat economic responses, which many commentators believe helped turn a serious economic downturn into a prolonged and devastating global disaster. But if history is any guide, those lessons will have been long forgotten during the next collapse. Eventually, fed by a mood of desperation and growing public anger, restrictions on trade, finance, investment, and immigration will almost certainly intensify. Authorities and ordinary citizens will likely scrutinize the cross-border movement of Americans and outsiders alike, and lawmakers may even call for a general crackdown on nonessential travel. Meanwhile, many nations will make transporting or sending funds to other countries exceedingly difficult. As desperate officials try to limit the fallout from decades of ill-conceived, corrupt, and reckless policies, they will introduce controls on foreign exchange. Foreign individuals and companies seeking to acquire certain American infrastructure assets, or trying to buy property and other assets on the cheap thanks to a rapidly depreciating dollar, will be stymied by limits on investment by noncitizens. Those efforts will cause spasms to ripple across economies and markets, disrupting global payment, settlement, and clearing mechanisms. All of this will, of course, continue to undermine business confidence and consumer spending. In a world of lockouts and lockdowns, any link that transmits systemic financial pressures across markets through arbitrage or portfolio-based risk management, or that allows diseases to be easily spread from one country to the next by tourists and wildlife, or that otherwise facilitates unwelcome exchanges of any kind will be viewed with suspicion and dealt with accordingly. The rise in isolationism and protectionism will bring about ever more heated arguments and dangerous confrontations over shared sources of oil, gas, and other key commodities as well as factors of production that must, out of necessity, be acquired from less-than-friendly nations. Whether involving raw materials used in strategic industries or basic necessities such as food, water, and energy, efforts to secure adequate supplies will take increasing precedence in a world where demand seems constantly out of kilter with supply. Disputes over the misuse, overuse, and pollution of the environment and natural resources will become more commonplace. Around the world, such tensions will give rise to full-scale military encounters, often with minimal provocation. In some instances, economic conditions will serve as a convenient pretext for conflicts that stem from cultural and religious differences. Alternatively, nations may look to divert attention away from domestic problems by channeling frustration and populist sentiment toward other countries and cultures. Enabled by cheap technology and the waning threat of American retribution, terrorist groups will likely boost the frequency and scale of their horrifying attacks, bringing the threat of random violence to a whole new level. Turbulent conditions will encourage aggressive saber rattling and interdictions by rogue nations running amok. Age-old clashes will also take on a new, more heated sense of urgency. China will likely assume an increasingly belligerent posture toward Taiwan, while Iran may embark on overt colonization of its neighbors in the Mideast. Israel, for its part, may look to draw a dwindling list of allies from around the world into a growing number of conflicts. Some observers, like John Mearsheimer, a political scientist at the University of Chicago, have even speculated that an “intense confrontation” between the United States and China is “inevitable” at some point. More than a few disputes will turn out to be almost wholly ideological. Growing cultural and religious differences will be transformed from wars of words to battles soaked in blood. Long-simmering resentments could also degenerate quickly, spurring the basest of human instincts and triggering genocidal acts. Terrorists employing biological or nuclear weapons will vie with conventional forces using jets, cruise missiles, and bunker-busting bombs to cause widespread destruction. Many will interpret stepped-up conflicts between Muslims and Western societies as the beginnings of a new world war.

#### No alternate causes – only FDI is critical to solve conflict escalation

Blanton and Apodaca 2007

Robert G., Department of Political Science, University of Memphis, and Clair, Department of International Relations, Florida International University, The Social Science Journal 44 (2007) 599–619, https://umdrive.memphis.edu/rblanton/public/pubs\_cv\_blanton/soc\_sci\_journal\_2007.pdf

Traditionally, FDI has been a particularly controversial facet of globalization, as the “global reach” of multinationals arguably posed threats to the power and sovereignty of states. Our results, however, imply that FDI is a signiﬁcant force for peace. This impact may be due to the increased commitment implied by FDI. Though trade and portfolio investment ﬂows are often important to countries, they are “arms length” transactions requiring less direct contact between the involved parties. Moreover, trade and portfolio investment ties are generally easier to sever—the “electronic herd” (Friedman, 2000) of investors can quickly move from one market to another, and (in the case of most goods) alternate trading partners can be easily be found. FDI, by comparison, requires more commitment of both the investor and the host country. Such commitment increases the incentives of all involved actors to seek peace. Investors have a deﬁnite stake in the political stability of the area—not only do they face the “spotlight” (Spar, 1998) of negative public scrutiny if they maintain ties with a violent regime, but they are held increasingly responsible for the political practices of host governments (Ottaway, 2001). Host states, who often actively recruit FDI (Oman, 2000), are likewise anxious to maintain a positive, stable business environment to ensure the jobs and potential beneﬁts that FDI may bring. In short, both the host state and market “audience” play a more active role in FDI. While our economic measures were more inﬂuential in the second (intensity) stage, media access affected conﬂict occurrence. This implies that the free ﬂow of information can have a paciﬁc impact upon societies. States can no longer hide their antagonistic behaviors, but will confront the glare of unﬂattering publicity when their actions do not conform to domestic and international norms of behavior. Such scrutiny apparently has a pacifying impact. However, media access did not play a signiﬁcant role in polities in which a conﬂict did occur. Perhaps, once a state decides to repress its polity or to enter into a civil conﬂict, it implicitly accepts the “costs” of negative publicity and disregards them thereafter.

#### Institutions don’t check- Bilateral trade flows are the biggest threat to trade and aren’t covered

Erixon and Sally, directors-ECIPE, 10 (Fredrik and Razeen, European Centre for International Political Economy, TRADE, GLOBALISATION AND EMERGING PROTECTIONISM SINCE THE CRISIS, http://www.ecipe.org/media/publication\_pdfs/trade-globalisation-and-emerging-protectionism-since-the-crisis.pdf)

More worrisome is the non-traditional regulatory protectionism in the pipeline, especially on subsidies and standards, on which WTO disciplines are weak-to-non-existent. These measures are not covered by the Doha agenda. Given the parlous state of WTO negotiations, it will be a long time before the WTO strengthens rules on subsidies, FDI, government procurement, crossborder movement of labour and standards – if it ever happens, that is. These measures are more opaque than border-based protection. Governments and organised interests may well resort to them more frequently, not least to evade existing WTO disciplines. The danger is that, if not contained, they will spread gradually to cover bigger swathes of international trade. That is the 1970s scenario we worry about.

#### Scenario 2 is the economy – Chinese FDI to the US declined sharply in 2012 but could rebound if the US takes steps to liberalize its national security FDI policy towards China.

Hanemann 12-28 (Theo, research director at the Rhodium Group and leads the firm’s cross-border investment work, Chinese FDI in the US in 2012, http://rhgroup.net/notes/chinese-direct-investmnet-in-the-u-s-in-2012-a-record-year-amid-a-gloomy-fdi-environment)

AGAINST THE GLOBAL TREND The recent growth of Chinese investment is even more remarkable in light of an otherwise bleak FDI picture in the United States. Before the global financial crisis, the United States was the world’s premier destination for foreign direct investment with annual inflows of $200-300 billion. When the crisis hit in 2009 FDI dropped by more than half. In 2010 and 2011 inflows have somewhat stabilized but declined again sharply in 2012 in light of the fragile situation in Europe (which the major source of FDI for the US) and uncertainties for the US growth outlook. Preliminary data from the Bureau of Economic Analysis shows that FDI dropped by more than 30% in the first three quarters of 2012, which indicates that the full year figure will come in at levels not seen since the crisis year 2009 (Figure 2). These trends suggest that China could follow other Asian economies in becoming an important source of FDI for the United States. China today accounts for less than 1% of total U.S. inward FDI stock, but it has become one of the few bright spots in an otherwise gloomy FDI environment. Compared to five years ago, FDI flows from European economies and Canada were down by more than 50% in the first three quarters of 2012. FDI from Asia was holding up better, and China is among the few countries that invested more in the United States than five years ago – an increase of more than 300% according to official statistics from the Bureau of Economic Analysis (Figure 3). These estimates are likely too low as the BEA Balance of Payments figures do not account for flows through offshore financial centers. Figures from Rhodium Group’s China Investment Monitor, which account for such flows, suggest that the increase was even more significant, by nearly 1,300% over five years. Growing investment from China increasingly brings benefits for local economies, for example in the form of employment. Today Chinese firms already employ 29,000 people in the United States, up from less than 10,000 just five years ago. THE RIGHT POLICY RESPONSE Developments in 2012 also underscored the political hurdles in the process of China becoming a major source of FDI for the US. Compared to other emerging FDI exporters in the past like Japan or Korea, China is not a military ally of the United States but sees itself balancing U.S. hegemony. This puts Chinese investors in the spotlight for a range of existing national security concerns related to foreign ownership, among them ownership of critical infrastructure, political and industrial espionage and ownership and proliferation of defense-relevant technologies. In addition to national security risks there are specific concerns about the economic impacts of Chinese investment due to the role of the government in China’s economy and existing asymmetries in market access between China and the United States. Unfortunately the past year was a step back for the political debate on these issues. 2012 saw little progress on substance but instead a lot of political games and populist rhetoric, for example a report by two members of the U.S. House Intelligence Committee that attacks Chinese telecommunications firms and dismisses mitigation options, or efforts by lawmakers and lobbyists to undermine a series of Chinese technology acquisitions, including Wanxiang’s purchase of A123 Systems and BGI Shenzhen’s bid for Complete Genomics. The negative headlines from such politicization are damaging the perception of the U.S. as an investment destination in China, despite U.S. openness and the hard work that is done by governors, mayors and other local officials to promote inward investment. Political games are also a distraction from advancing the debate on important questions such as the risks from Chinese investment in infrastructure or competitive neutrality of state-owned enterprises. If the United States wants to maximize benefits from China’s beginning outward FDI boom, policymakers need to stop beating the drums and instead focus on solutions that allow the US to maintain an open investment environment while addressing real concerns. Otherwise Chinese investors will carry their cash elsewhere, for the example Europe, where Chinese FDI has topped $10 billion for the second year in a row, almost double of what the United States received over the past two years (Figure 4). Europe’s greater attraction can mostly be explained by commercial opportunities including privatization programs and troubled industrial assets, but different national security sensitivities and the perception that Europe is more welcoming to Chinese investment than the United States did play a role too. It is too early to declare Europe the winner in the race for Chinese investment, but it is time for Washington to move past politics, emphasize openness and tackle structural reforms to ensure the United States remains a top destination for FDI from China and elsewhere.

#### Energy restrictions destroy investor confidence, which crushes the dollar and triggers economic recession- the vague CFIUS interpretation of national security chills ALL foreign investment.

Carroll-Emory International Law Review-09 (James, COMMENT: BACK TO THE FUTURE: REDEFINING THE FOREIGN INVESTMENT AND NATIONAL SECURITY ACT'S CONCEPTION OF NATIONAL SECURITY, 23 Emory Int'l L. Rev. 167)

B. National Security and Investor Uncertainty The uncertain interpretation of national security in Exon-Florio, combined with the broad sweep of terms like "energy assets" and "critical infrastructure" make the outcome of the CFIUS process nearly impossible to predict. 150 Continuing to construe the term national security broadly could have a chilling effect on all foreign investment within the United States, as it would send a [\*188] signal that the age of openness to foreign direct investment is coming to a close. 151 Broadly defining national security creates costly uncertainty for foreign investors, as even the most sophisticated legal counsel cannot predict which investments will avoid a politicized CFIUS review. 152 According to Alan Greenspan, regulatory uncertainty deters business investment. 153 Defenders of the current process may point out that presidential vetoes are rare, as there have been none issued since 1990, and some controversial transactions, such as the Alcatel Lucent merger, have recently been approved. 154 Although presidential vetoes of transactions remain relatively scarce, the broad sweep of potential investigations can deter foreign direct investment without the president ever formally vetoing a transaction, as was done in the past to CNOOC and Dubai Ports. 155 Even if the foreign enterprises do not touch upon defense technology, fear of an irrational regulatory regime may discourage deals on the margins. 156 As CFIUS reviews of foreign investment in critical infrastructure continue to be based upon mere political expediency, foreign countries may become wary of investing in the dollar if they see that Congress is willing to limit the amount of investment choices available to them. 157 While a wholesale dumping of American assets is unlikely, continual investigations of relatively innocuous foreign transactions like Unocal and Dubai Ports could lead foreigners to reconsider some of their investments. 158 [\*189] Losing foreign investment in the United States could push the dollar down against other currencies, such as the rising euro. 159 A decline in the dollar fueled by investor pullout could cause interest rates to soar, possibly even worsening the current recession. 160 In an era when the dollar is falling in relation to other currencies, and the trade deficit is continuing to widen, the United States cannot afford to discourage foreign investment. 161 Ironically, although foreign investment is one of the major factors maintaining economic growth, public backlash against such investment only deepens. 162 The housing crisis has exacerbated populist concern over the economy, 163 but while the housing crunch is ongoing, foreign investment is more vital than ever to provide liquidity to American markets. 164

#### Economic decline increases the propensity for conventional and nuclear conflict

Harris and Burrows 09

PhD European History @ Cambridge, counselor in the National Intelligence Council (NIC) & member of the NIC’s Long Range Analysis Unit - Mathew, and Jennifer “Revisiting the Future: Geopolitical Effects of the Financial Crisis” <http://www.ciaonet.org/journals/twq/v32i2/f_0016178_13952.pdf>

Of course, the report encompasses more than economics and indeed believes the future is likely to be the result of a number of intersecting and interlocking forces. With so many possible permutations of outcomes, each with ample Revisiting the Future opportunity for unintended consequences, there is a growing sense of insecurity. Even so, history may be more instructive than ever. While we continue to believe that the Great Depression is not likely to be repeated, the lessons to be drawn from that period include the harmful effects on fledgling democracies and multiethnic societies (think Central Europe in 1920s and 1930s) and on the sustainability of multilateral institutions (think League of Nations in the same period). There is no reason to think that this would not be true in the twenty-first as much as in the twentieth century. For that reason, the ways in which the potential for greater conflict could grow would seem to be even more apt in a constantly volatile economic environment as they would be if change would be steadier. In surveying those risks, the report stressed the likelihood that terrorism and nonproliferation will remain priorities even as resource issues move up on the international agenda. Terrorism’s appeal will decline if economic growth continues in the Middle East and youth unemployment is reduced. For those terrorist groups that remain active in 2025, however, the diffusion of technologies and scientific knowledge will place some of the world’s most dangerous capabilities within their reach. Terrorist groups in 2025 will likely be a combination of descendants of long established groups\_inheriting organizational structures, command and control processes, and training procedures necessary to conduct sophisticated attacks\_and newly emergent collections of the angry and disenfranchised that become self-radicalized, particularly in the absence of economic outlets that would become narrower in an economic downturn. The most dangerous casualty of any economically-induced drawdown of U.S. military presence would almost certainly be the Middle East. Although Iran’s acquisition of nuclear weapons is not inevitable, worries about a nuclear-armed Iran could lead states in the region to develop new security arrangements with external powers, acquire additional weapons, and consider pursuing their own nuclear ambitions. It is not clear that the type of stable deterrent relationship that existed between the great powers for most of the Cold War would emerge naturally in the Middle East with a nuclear Iran. Episodes of low intensity conflict and terrorism taking place under a nuclear umbrella could lead to an unintended escalation and broader conflict if clear red lines between those states involved are not well established. The close proximity of potential nuclear rivals combined with underdeveloped surveillance capabilities and mobile dual-capable Iranian missile systems also will produce inherent difficulties in achieving reliable indications and warning of an impending nuclear attack. The lack of strategic depth in neighboring states like Israel, short warning and missile flight times, and uncertainty of Iranian intentions may place more focus on preemption rather than defense, potentially leading to escalating crises. 36 Types of conflict that the world continues to experience, such as over resources, could reemerge, particularly if protectionism grows and there is a resort to neo-mercantilist practices. Perceptions of renewed energy scarcity will drive countries to take actions to assure their future access to energy supplies. In the worst case, this could result in interstate conflicts if government leaders deem assured access to energy resources, for example, to be essential for maintaining domestic stability and the survival of their regime. Even actions short of war, however, will have important geopolitical implications. Maritime security concerns are providing a rationale for naval buildups and modernization efforts, such as China’s and India’s development of blue water naval capabilities. If the fiscal stimulus focus for these countries indeed turns inward, one of the most obvious funding targets may be military. Buildup of regional naval capabilities could lead to increased tensions, rivalries, and counterbalancing moves, but it also will create opportunities for multinational cooperation in protecting critical sea lanes. With water also becoming scarcer in Asia and the Middle East, cooperation to manage changing water resources is likely to be increasingly difficult both within and between states in a more dog-eat-dog world.

#### And conflict is highly likely – several studies prove

Royal 2010

Jedediah, Director of Cooperative Threat Reduction at the U.S. Department of Defense, “Economic Integration, Economic Signaling and the Problem of Economic Crises,” in Economics of War and Peace: Economic, Legal and Political Perspectives, ed. Goldsmith and Brauer, pg. 213-215

Less intuitive is how periods of economic decline may increase the likelihood of extern conflict. Political science literature has contributed a moderate degree of attention to the impact of economic decline and the security and defense behavior of interdependent states. Research in this vein has been considered at systemic, dyadic and national levels. Several notable contributions follow. First, on the systemic level, Pollins (2008) advances Modelski and Thompson’s (1996) work on leadership cycle theory, finding that rhythms in the global economy are associated with the rise and fall of a pre-eminent power and the often bloody transition from one pre-eminent leader to the next. As such, exogenous shocks such as economic crisis could usher in a redistribution of relative power (see also Gilpin, 1981) that leads to uncertainty about power balances, increasing the risk of miscalculation (Fearon, 1995). Alternatively, even a relatively certain redistribution of power could lead to a permissive environment for conflict as a rising power may seek to challenge a declining power (Werner, 1999). Seperately, Pollins (1996) also shows that global economic cycles combined with parallel leadership cycles impact the likelihood of conflict among major, medium and small powers, although he suggests that the causes and connections between global economic conditions and security conditions remain unknown. Second, on a dyadic level, Copeland’s (1996, 2000) theory of trade expectations suggests that ‘future expectation of trade’ is a significant variable in understanding economic conditions and security behavious of states. He argues that interdependent states are likely to gain pacific benefits from trade so long as they have an optimistic view of future trade relations, However, if the expectations of future trade decline, particularly for difficult to replace items such as energy resources, the likelihood for conflict increases, as states will be inclined to use force to gain access to those resources. Crisis could potentially be the trigger for decreased trade expectations either on its own or because it triggers protectionist moves by interdependent states. Third, others have considered the link between economic decline and external armed conflict at a national level. Blomberg and Hess (2002) find a strong correlation between internal conflict and external conflict, particularly during periods of economic downturn. They write, The linkages between internal and external conflict and prosperity are strong and mutually reinforcing. Economic conflict tends to spawn internal conflict, which in turn returns the favor. Moreover, the presence of a recession tends to amplify the extent to which international and external conflict self-reinforce each other. (Blomberg & Hess, 2002. P. 89) Economic decline has been linked with an increase in the likelihood of terrorism (Blomberg, Hess, & Weerapana, 2004), which has the capacity to spill across borders and lead to external tensions. Furthermore, crises generally reduce the popularity of a sitting government. ‘Diversionary theory’ suggests that, when facing unpopularity arising from economic decline, sitting governments have increase incentives to fabricate external military conflicts to create a ‘rally around the flag’ effect. Wang (1996), DeRouen (1995), and Blomberg, Hess, and Thacker (2006) find supporting evidence showing that economic decline and use of force are at least indirectly correlated. Gelpi (1997), Miller (1999), and Kisangani and Pickering (2009) suggest that the tendency towards diversionary tactics are greater for democratic states than autocratic states, due to the fact that democratic leaders are generally more susceptible to being removed from office due to lack of domestic support. DeRouen (2000) has provided evidence showing that periods of weak economic performance in the United States, and thus weak Presidential popularity, are statistically linked to an increase in the use of force. In summary, recent economic scholarship positively correlated economic integration with an increase in the frequency of economic crises, whereas political science scholarship links economic decline with external conflict at systemic, dyadic and national levels. This implied connection between integration, crisis and armed conflict has not featured prominently in the economic-security debate and deserves more attention.

#### Collapse inevitable now – investment is key.

Papola 1/30/

13 (John, Contributer at Forbes, “Think Consumption Is The 'Engine' Of Our Economy? Think Again.” <http://www.forbes.com/sites/beltway/2013/01/30/think-consumption-is-the-engine-of-our-economy-think-again/>)

Have you heard that the economy is like a car? It’s the most popular analogy in financial reporting and political discourse. The American people are repeatedly told by financial pundits and politicians that consumption is an “engine” that “drives” economic growth because it makes up 70% of GDP. One notable Nobel-winning economics pundit with a penchant for bizarre growth theories even recently noted that an economy can be “based on purchases of yachts, luxury cars, and the services of personal trainers and celebrity chefs.” Conversely, other economists including Nobel-winner Joseph Stiglitz claim that our economy is stuck in “first gear” due to inequality: too much income is concentrated among too few rich people who tend to save larger share of their income and thus have a lower “marginal propensity to consume”. The Keynesian message is clear: if you want to put the economic pedal to the metal, get out there and consume! Not so fast, Speed Racer. The systematic failure by Keynesian economists and pundits to distinguish between consuming and producing value is the single most damaging fallacy in popular economic thinking. This past Christmas, we produced a playful video called “Deck the Halls with Macro Follies” exploring the history of this popular myth. If the economy were a car, consumer preferences would surely be the steering wheel, but real savings and investment would be the engine that drives it forward. A History of Macro Follies The historical record on economic growth conflicts with this consumption doctrine. Economic growth (booms) and declines (bust) have always been led by changes in business and durable goods investment, while final consumer goods spending has been relatively stable through the business cycle. Booms and busts in financial markets, heavy industry and housing have always been leading indicators of recession and recovery. The dot-com boom and bust, the Great Depression and our current crisis all exhibit the pattern. For example, during our past two decades of booms and busts, investment collapsed first, bringing employment down with it. Consumption spending actually increased throughout the 2001 recession (financed, in part, by artificially easy credit) even as employment was falling along with investment. During our continuing crisis, consumption spending returned to its all-time high in 2011–yet investment to this day remains at decade lows, producing the worst recovery in growth and employment since the Great Depression. Labor force participation hasn’t been this low since the 1980s. But why? As John Stuart Mill put it two centuries ago, “the demand for commodities is not the demand for labor.” Consumer demand does not necessarily translate into increased employment. That’s because “consumers” don’t employ people. Businesses do. Since new hires are a risky and costly investment with unknown future returns, employers must rely on their expectations about the future and weigh those decision very carefully. As economic historian Robert Higgs’ pioneering work on the Great Depression suggests, increased uncertainty can depress job growth even in the face of booming consumption. As recent years have demonstrated, consumer demand that appears to be driven by temporary or unsustainable policies is unlikely to induce businesses to hire. The past several decades in America have been marked by a collapse of real savings encouraged by artificially easy credit from the Fed, along with explosive growth in government spending. All these combined to bring about a debt-fueled spending binge, with disastrous consequences. Increased investment drives economic growth, while retrenched investment leads to recession and reduced employment–and it always has. Those who blame our stagnation on a lack of consumer demand rely on a toxic brew of dubious data and dangerous theory. Before I Can Consume, I Must Produce for Others By definition, GDP is a summary of final sales for new goods and services and not of all economic activity. Raw materials, intermediate goods and labor costs, which comprise the bulk of business spending are not treated in GDP, but are rather rolled up in the final sale price of the “consumer” spending. Only capital equipment, net inventory changes and purchase of newly constructed homes constitute “investment” according to GDP. This framing of the data makes the “consumption drives the economy” a foregone conclusion. But this is circular reasoning. Where do these “consumers” get their money to spend? Before we can consume, we need to produce and earn a paycheck. And paychecks have to flow to productive — that is value-creating — behavior, or value is simply being transferred and destroyed. Our various demands as consumers are enabled by our supply as workers/producers for others. That’s the classical “Law of Markets”, often referred to as Say’s Law, in a nutshell. For employees, those paychecks are income, but for the employers, wages represent most business’ single largest expense. Yet GDP does not treat employee wages or materials as “investment spending” — even though any business owner regards salaries as the most important and largest investment that they make. Instead, employee wages appear in GDP data as consumption when income is spent on final goods like food, clothing, gadgets, and vacations. Moreover, since GDP is an accounting summary, it adds consumption and investment spending together. But this summarizing masks the fact that these two activities are actually in opposition in the short run. In order to invest more today, we have to save more and consume less. As a result, GDP in-and-of-itself reveals nothing about what grows an economy; at best, it demonstrates how large the economy is and whether it’s growing or shrinking. Digging below the surface of GDP reveals a structure of value-adding production far more complex than the simplistic analysis given by most media reports. According to government data, more than 70% of Americans earn their incomes from employment in domestic business. Yet the retail sector of our economy, for example, only contributed 6% of GDP. Bureau of Labor Statistics (BLS) data on employment show that only about 11% of employed Americans work in “sales and related occupations”. That leaves a great deal of economic activity and employment to the “business to business” sector, which composes most of the real economy. Most of the value-adding activities occurred between a vast structure of businesses and workers starting with raw materials and blueprints and coming together over months (sometimes years when R&D is included) before a final sale can be made. At each stage, the activity is funded not by current “consumer spending” but through a combination of new investment and savings such as each company’s reinvested earnings. The farther from a final good a business’s output is, the more it relies on credit markets and the more it is subject to distortions on the savings and investment side. And since employment is spread across this time structure with relatively few working in final retail stage, savings and investment changes have dramatic impacts on employment. Organic Growth My wife Lisa and I have personal experience with dynamics that the top-down Keynesian view ignores. Several years ago we launched a side-business designing, manufacturing and selling reusable all-in-one cloth diapers to moms interested in saving money and cutting down on trash. We called them “weehuggers”. To start the business, we got a small capital contribution from my brother-in-law in exchange for equity in the company. These savings were put to use buying the raw materials, designing the diaper prints, hiring sets of skilled people both to sew the diapers and to build the website. Designing, testing and producing the product and website took over a year. Almost none of that activity was included in GDP for that year, except through the “consumer spending” of people we paid. Throughout this stage, no “product” existed for others to demand or for us to sell and generate income. The time Lisa and I spent building the company was also a very real form of investment itself. This so-called “sweat equity” is just as much of an investment as a financial contribution. When we finally began selling our product to customers, the income generated was barely enough to cover the real costs. We re-invested all of it into new inventory for the business, keeping nothing for ourselves in the hopes of improving our approach. Consumption didn’t create our output. Investment did. After an additional year of persistent re-investment, we realized that we would need even more investment to make the business viable. Our costs were too high per diaper and our local production capacity was too low to keep up with demand. Moms loved weehuggers and we struggled to keep the product in stock. Yet we felt the competition didn’t permit us to raise our prices. The only way to make the business grow would have been to secure enough capital to invest in a major manufacturing facility with higher productivity equipment and division of labor. We chose instead to focus on a business where both of us, as former MTV Networks creatives, believed we could add more value: our new media company Emergent Order. Our recent video“Macro Follies” is just one of the fruits of that decision. We followed our passion, but we were also guided through market prices and profits toward the best way for us to create value for others. Don’t Put the Shopping Cart Before the Horse There is a fundamental illogic to the notion that an economy can be grown by encouraging consumption. When a person consumes, by definition, they use things up. The very process leaves us with less than before. Growing the availability of valuable goods and services for society by using them up is not just an impossibility—it’s an absurdity. Consumption is the goal, but it is production that is the means. For most of human history, ordinary people had to spend their lives growing food. Today, we have many billions more people on the planet. And yet food is cheaper, better and of greater variety than ever before. Still, almost nobody works in agriculture. We didn’t create this wealthy, amazing world… by eating. We did it by saving our seed corn, investing and ultimately inventing our way out of farming jobs. Thank heavens we did. There are important lessons for public policy that come from these classical insights. Any program which accelerates the consumption of value, or worse, the destruction of value, ultimately make our society poorer. Despite what Keynes and his modern followers claim, Wars, natural disasters, terrorist attacks, faked alien invasions, or programs that encourage us to destroy our used cars — all make us poorer. These schemes reduce the amount of valuable goods and services available for society. Some may consider unemployment benefits to be a necessary policy on humanitarian grounds, but they by no means “stimulate” the economy. The recipient, after all, is consuming without producing any value for others. Disincentives for people to be productive, which have exploded in recent years, not only reduce employment, but reduce output and growth as well. This last point used to be widely believed by economists–including the immensely popular and polarizing economist, Paul Krugman, whose own 2009 textbook blamed extended unemployment benefits as one of the main reasons for decades of European stagnation and high “structural” unemployment. Now, I fear that a decade of Keynesian macro follies may have brought Eurosclerosis to America. Savings and investment which enable increased productivity, greater specialization and trade are the true engines of economic growth. Increasing consumption is a result of that growth, never the cause of it. If we want sound and sustainable economic growth, each of us has to discover the most valuable ways to serve others and contribute to the supply of wealth before we can take from it. Much like everyone else, even Santa Claus must produce all year long before people get to enjoy their presents.

#### And the plan is a quick injection of capital critical to economic recovery

Xu et al 12 (Ting, China and Economy consultant for Bertelsmann Stiftung, with Thieß Petersen and Tianlong Wang, Cash in Hand: Chinese Foreign Direct Investment in the U.S. and Germany, June,

http://www.bfna.org/sites/default/files/publications/Cash%20in%20Hand%20Second%20Edition%20final.pdf)

Although Chinese FDI has drawn increasing attention in the U.S. and Germany, China still holds less than 0.2 percent of the FDI stocks in both Germany and the U.S. This fact does not match up to the status of the three countries’ leading roles in the global economy. As China continues its economic development and its per-capita income grows, it will enter a new stage of foreign direct investment where its FDI in the U.S. and the EU will continue to experience strong growth. There will be profound implications to the trend, particularly given the current stage of global financial recovery. While the banking sector institutions continue to deleverage as a result of the financial crisis, unleashing investment potential from China can potentially play a much bigger role in bringing those countries that are facing a credit crunch back to growth.

### 1AC Gas

#### China is limiting itself to “hands off” oil and gas deals – these small partnerships don’t secure technical expertise to develop Chinese shale – this puts them decades behind gas targets

Mandel 7-17 (Jenny, Reporter for EnergyWire, a daily publication covering the unconventional oil and gas sectors, Previous positions with E&E include editing Land Letter and writing news and feature stories for Greenwire, ClimateWire, and other news outlets, “Will U.S. shale technology make the leap across the Pacific?,” EnergyWire: Tuesday, July 17, 2012, http://www.eenews.net/public/energywire/2012/07/17/1)

Modes of tech transfer Despite the challenges, the allure of a massive new domestic energy source has the Chinese government and private and state-owned companies moving cautiously toward development. Today, virtually all of the key intellectual property behind shale gas extraction lies with North American companies, and one of the first steps the Chinese have taken is to pour money into U.S. and Canadian ventures where those technologies are in use. In 2010 and 2011, China National Offshore Oil Corp. (CNOOC) paid $2.3 billion for partial stakes in plays by Chesapeake Energy Corp. in Texas, Wyoming and Colorado. Earlier this year, Sinopec bought into Oklahoma City-based Devon Energy Corp.'s holdings across Louisiana, Mississippi, Colorado, Ohio and Michigan in a $2.5 billion deal. Chinese companies have also aggressively pursued investment deals in Canadian shale projects. But Johns Hopkins' Kong said attempts by Chinese companies to negotiate North American on-the-job training have been blocked. The deal with Chesapeake, for example, limited the interaction of CNOOC personnel with sensitive technologies by restricting the company's right to send workers into gas fields, Kong said. "The Chinese companies have agreed deliberately not to send their oil workers to American gas fields and not to participate in boardroom decisions," Kong said. "The Chinese companies have agreed to this long-term, slow, gradual approach to gaining know-how in the North American energy sector." The caution stems mostly from a political firestorm that broke out when, in 2005, CNOOC tried to buy Unocal Corp. in an $18.5 billion deal that was eventually withdrawn in the face of opposition from Congress. Since then, there has been a general awareness among Chinese players of the need to move slowly and avoid raising red flags (E&ENews PM, Aug. 2, 2005). So what do Chinese investors gain from these North American investments, then, if not direct access to fracking technologies? "By investing in the U.S. ... they benefit from the spill-over effect," Kong said. They have some personnel involved with the projects, even if they're not learning the nitty-gritty of how to develop a fracking plan, and may be able to pick up some very high-level management expertise that is relevant at home. Home or away? Jane Nakano, a fellow with the Center for Strategic and International Studies' Energy and National Security program, stressed that investing in U.S. projects is not China's most effective means of technology transfer, especially given companies' failure to crack the personnel firewall. "If it's just a matter of getting profits from what comes out of each well or each project, then the amount of money they're pouring into North America does not make economic sense," she said. Rather, Nakano said Chinese gas interests would be best served by opening the domestic market to foreigners. "The most straightforward way would be for them to involve Western or non-Chinese technology holders more proactively" at home, she said. There has been limited involvement by major non-Chinese companies. In 2007, Houston-based Newfield Exploration Co. did a resource study with PetroChina. Royal Dutch Shell PLC has worked with PetroChina under a broader partnership agreement. And Exxon Mobil Corp. has had limited dealings with Sinopec. The first round of bidding on government shale gas leases, which occurred last summer, was open only to state-owned companies, and the final bids awarded parcels to just two large firms. There is speculation that the second round, which could come as early as this month, will expand participation to privately owned companies or even foreign bidders. There are other configurations that could also serve to carry the needed intellectual property into Chinese gas fields. In addition to joint ventures in North America or China with the supermajors, firms could hire foreign service companies to carry out work in China, observing their approach. Chinese companies or government interests could buy up some of the cash-strapped U.S. gas companies that are struggling to stay afloat until U.S. prices rise again and bring their expertise back to the Far East. They could buy U.S. shale resources -- even small ones like those held by individual property owners -- outright, then dictate the terms of development so as to ensure full access to the technologies used. Outside of industry, government-to-government interactions tout cooperation on shale gas, among other forms of energy that could help both U.S. and Chinese carbon emissions reduction efforts. And Chinese scientists work to develop home-grown strategies for shale gas production modeled on what has worked elsewhere. The University of Alberta's Jiang said Chinese shale interests, including both government and industry players, are undecided on how to move forward and how much to focus on domestic development versus lower-cost production overseas. "I don't think they have reached a conclusion one way or the other," he said. As a result, the country pursues "a two legs walking approach -- on the one side they want to explore domestic possibilities, on the other they want to explore possibilities with lower ... prices" elsewhere. That likely means a timeline of a decade, at a minimum, before Chinese shale gas resources are well-understood and a clear path to their development emerges, and potentially as long as two decades, observers say. In the meantime, the Chinese will continue to pursue contracts for natural gas imports to satisfy the strong and growing demand.

#### US gas companies currently negotiate passive deals for Chinese companies because of CFIUS restrictions.

Knowledge @ Wharton 12 (China's Underground Race for Shale Gas, aug 21, http://knowledge.wharton.upenn.edu/arabic/article.cfm?articleid=2851)

Meanwhile, in the U.S., shale gas leaders, such as Devon Energy and Chesapeake Energy, have been reluctant to impart their technology know-how to the firms' Chinese investors, Sinopec and the China National Offshore Oil Corporation (CNOOC), respectively, notes Bo Kong, assistant research professor at the Johns Hopkins University School for Advanced International Studies (SAIS) in Washington, D.C. The Chinese and U.S. companies designed deals giving the Chinese passive, minority stakes to avoid disapproval by the Committee on Foreign Investment in the U.S. (CFIUS), which axed CNOOC's 2005 bid for Unocal. Also, the Sinopec-Devon and CNOOC-Chesapeake deals were struck at a time when the U.S. shale gas industry was at its peak. Today, with gas prices declining and companies such as Chesapeake struggling financially, Chinese companies may be able to negotiate better terms, says CATF's Sung.

#### Only the US has the expertise necessary for China to develop its shale resources- increased Chinese access to US drilling techniques and regulatory methods is critical.

Forbes, manager- Shale Gas Initiative at the World Resources Institute, 12 (Sarah, also the Senior Associate for the Climate and Energy Program at the World Resources Institute, HEARING BEFORE THE U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION: “CHINA’S GLOBAL QUEST FOR RESOURCES AND IMPLICATIONS FOR THE UNITED STATES; CHINA’S PROSPECTS FOR SHALE GAS AND IMPLICATIONS FOR THE U.S.,” January 26, http://pdf.wri.org/testimony/forbes\_testimony\_china\_shale\_gas\_2012-01-26.pdf)

Are there risks as well as opportunities for U.S. companies? From a global perspective, the oil and gas industry is integrated; companies work together on projects all over the world, owning shares in projects and hiring service providers as required for operations. Because of the variation in geology, most of what is needed to develop any oil or gas play is local “know-how,” not technology that is subject to patents. These unique features of the globalized industry result in less dependency on intellectual property protection and the risks of sharing technologies abroad as compared with other industries. For example, while the basic drilling and fracturing technologies needed for shale gas development are relatively uniform, the extraction methodologies depend most heavily on the site-specific geological features of the shale play being developed. Horizontal drilling first occurred in the United States in 1929 and fracing has been performed since 1949 39 . Geological factors that are unique to each well site (e.g., natural gas content, natural fractures of the rock, fracturing ability of the source rock) impact the staging of the fractures, the pressure of the hydraulic fracturing, and the fracturing fluid mixture. It is the experience gained from working many drill sites, in different basins and plays, which is the driving force behind U.S. shale gas development. Chinese companies currently possess the ability to drill wells horizontally and have some experience with fracing 40 , but operators and service providers in the United States currently have a clear global advantage based on the substantial experience with drilling and fracing shales to produce gas and the know-how to use these techniques effectively to maximize output 41 . This being said, the oil industry in China is a very domestic business (especially onshore) and has historically provided international companies with very limited access to onshore resources. Any international involvement typically comes from the creation of partnerships between Chinese companies and foreign companies, which is already happening with shale plays in China, as demonstrated by the PetroChina-Shell and CNOOC-BP JVs. A key question is whether the future shale gas industry in China will be modeled after the offshore oil industry (which includes more JVs) or the onshore oil and gas industry. Future cooperation between governments and businesses should not be limited to financial investments or knowledge sharing on operational practices. Although the United States currently stands as the only country with domestic experience in large-scale shale gas development, the experiences have not been all positive. U.S. regulatory structures, information flow, and enforcement capacities have generally not kept pace with the speed of development in shale formations. Stakeholders affected by U.S. shale gas development have not reached agreement on the risks associated with fracing, although experts agree that practices and regulations should be improved in order for the United States to develop its shale gas resources in an environmentally and socially responsible manner 42 . The growing understanding within state governments of both the level of environmental risks and how to manage them are valuable experiences for Chinese regulators and industrial entities to be aware of and take into account while pursuing and designing Chinese domestic development.

#### Chinese gas producers lack expertise to drill – foreign acquisitions key.

Haas and Katakey 2/19/13 (Reporters for Bloomberg, “China’s Shale Gas No Revolution as Price Imperils Output: Energy” <http://www.bloomberg.com/news/2013-02-19/china-s-shale-gas-no-revolution-as-price-imperils-output-energy.html>)

“China’s production targets are not realistic,” Chris Faulkner, chief executive officer of Dallas-based shale driller Breitling Oil and Gas Corp., which is in talks in China, said in an e-mail. “The only way China is going to be able to meet its output goals is for the government to pour money into exploration and development and ease up on the price controls.” By dictating fuel prices in a centrally controlled economy, China has discouraged investment in shale because drillers risk losing money. The result: China National Petroleum Corp. and China Petrochemical Corp., the two largest gas producers, didn’t win exploration blocks in the last auction while companies with zero gas-drilling experience did. Missing targets to develop the world’s biggest reserves of shale means China’s imports from foreign gas markets will be greater than anticipated. Such purchases might benefit suppliers of liquefied natural gas from Exxon Mobil Corp. to Woodside Petroleum Ltd., while bolstering supply from nations like Turkmenistan that pipe gas to China. Second Auction China is spending $17 billion a year on natural gas imports, about half in the form of liquefied natural gas. The country will open a record number of LNG receiving terminals this year, proving a boon for more than $100 billion of projects being built by companies such as Exxon Mobil and Chevron Corp. in Australia and Papua New Guinea. The lack of shale enthusiasm was evident in December at the government’s latest and biggest auction of blocks of land containing natural gas trapped in shale rock strata. Coal miners and provincial government investment firms with no experience of shale drilling were among winning bidders. The bids by the big two gas producers and China National Offshore Oil Corp., the largest offshore oil producer, failed. Awarding shale gas prospects to inexperienced companies in the second auction and government price controls on natural gas are likely to ensure imports continue to rise. China imported $8.3 billion worth of liquefied natural gas last year, up 41 percent from 2011. Piped gas comes mainly from Turkmenistan. ‘Massive Subsidy’ “If you want to kick start this industry quickly from zero now, you need to either introduce a massive subsidy or allow free market forces to prevail,” James Hubbard, an analyst at Macquarie Group, said. “You’ve got 20 blocks that have just been awarded to companies no one has ever heard of.” The government would need to increase the subsidy to 1.5 yuan (24 U.S. cents) a cubic meter from the current 0.4 yuan to effectively spur growth, Hubbard said. The 0.4 yuan subsidy is 17.5 percent of the current 2.28 yuan price that Beijing residents pay for piped gas. “More incentives need to be introduced,” Wang Guoqiang, chairman of China-based oilfield service provider SPT Energy Group Inc., said in an interview on Jan. 29. Wang is investing more in Central Asia and the Middle East to hedge the prospect that China’s shale industry doesn’t take off. Lacking Technology Natural gas in New York has declined 4.9 percent this year. The fuel fell to a decade low of $1.91 per million British thermal units in April last year from a record of $13.92 per million Btu in Sept. 2005 as the U.S. ramped up commercial production of shale gas. The U.S. ousted Russia as the world’s biggest gas producer in 2009. Futures rose 1.1 percent to $3.19 per million Btu on the New York Mercantile Exchange as of 11:52 a.m. Singapore time. Drillers in China have yet to produce shale gas commercially, with Royal Dutch Shell Plc helping CNPC to sink the nation’s first horizontal well in 2011. Total SA, Europe’s third-largest oil company, said last week it was in “advanced talks” with a Chinese partner to explore for shale gas. Cnooc Ltd. and China Petrochemical, also known as Sinopec Group, have invested more than $5.7 billion in so-called unconventional oil and gas assets overseas, yet they find their technology lacking at home. No Experience “None of these companies have the below-ground experience of oil producers,” Neil Beveridge, a Hong Kong-based analyst at Sanford C. Bernstein, said in an interview. “They need to partner with other companies to even come close to the targets.” Two phone calls each to Sinopec and CNPC’s offices today seeking comment were not answered and no voicemail was available to leave messages. Without unlocking shale gas reserves, China’s only option is to import more LNG.

#### Chinese shale development key to displace their coal use—renewables cant be scaled up fast enough.

Hanger 12 (John, Special Counsel at the law firm Eckert Seamans, and former Secretary of the Pennsylvania Department of Environmental Protection and Commissioner of the Pennsylvania Public Utility Commission, “China Gets Cracking on Fracking: The Best Environmental News Of The Year?,” Aug 14, http://johnhanger.blogspot.com/2012/08/china-gets-cracking-on-fracking-good.html)

China sits on natural gas reserves that are estimated to be 50% higher than the massive gas reserves in the USA. http://news.nationalgeographic.com/news/energy/2012/08/120808-china-shale-gas/. Despite this gargantuan gas resource, coal provides China 80% of its electricity, compared to 34% in the USA, as of May 2012. Why the difference? The shale gas boom that is now more than 10 years long in the USA is just getting started in China and so the Chinese remain heavily reliant on coal to make electricity and for their total energy. Around the world, the basic energy choice is coal or gas. China is just the biggest example of this fundamental fact. China's reliance on coal means that its economic growth brings skyrocketing carbon emissions and other air pollution. Indeed, Chinese air quality is infamous around the world, and smog has been so thick that Beijing airport has been unable to land planes for short periods. As of 2011, China was responsible for 29% of the world's carbon emissions, while the US produced 16%, even though the US economy is still considerably bigger than China's. Moreover, US carbon emissions are declining to 1992 levels, but China's emissions skyrocket. Though China is building substantial new wind, solar, and nuclear generation, those investments are not enough to cut Chinese coal consumption, given economic growth that is still 7% in what some describe as an economic slowdown. Shale gas, however, could be big enough to actually displace significant amounts of coal in China. More gas in China means less mercury, soot. lead, smog, and carbon emissions. China's energy plans call for shale gas to provide 6% of its total energy as soon as 2020. If it achieves that goal, China will avoid more than 500 million tons of carbon pollution per year or about 1.5% of today's total carbon emissions.

#### Increasing demand for Chinese coal production causes water shortages which threaten economic collapse and political instability.

Schneider 11 (Keith, senior editor for Circle of Blue-a nonprofit focusing on resource shortages founded in 2000, Choke Point: China—Confronting Water Scarcity and Energy Demand in the World’s Largest Country, Feb 15, http://www.circleofblue.org/waternews/2011/world/choke-point-china%E2%80%94confronting-water-scarcity-and-energy-demand-in-the-world%E2%80%99s-largest-country/)

By any measure, conventional and otherwise, China’s tireless advance to international economic prominence has been nothing less than astonishing. Over the last decade alone, 70 million new jobs emerged from an economy that this year, according to the World Bank and other authorities, generated the world’s largest markets for cars, steel, cement, glass, housing, energy, power plants, wind turbines, solar panels, highways, high-speed rail systems, airports, and other basic supplies and civic equipment to support a modern economy. Yet, like a tectonic fault line, underlying China’s new standing in the world is an increasingly fierce competition between energy and water that threatens to upend China’s progress. Simply put, according to Chinese authorities and government reports, China’s demand for energy, particularly for coal, is outpacing its freshwater supply. Students of Chinese history and geography, of course, understand that tight supplies of fresh water are nothing new in a nation where 80 percent of the rainfall and snowmelt occurs in the south, while just 20 percent of the moisture occurs in the mostly desert regions of the north and west. What’s new is that China’s surging economic growth is prompting the expanding industrial sector, which consumes 70 percent of the nation’s energy, to call on the government to tap new energy supplies, particularly the enormous reserves of coal in the dry north. The problem, say government officials, is that there is not enough water to mine, process, and consume those reserves, and still develop the modern cities and manufacturing centers that China envisions for the region. “Water shortage is the most important challenge to China right now, the biggest problem for future growth,” said Wang Yahua, deputy director of the Center for China Study at Tsinghua University in Beijing. “It’s a puzzle that the country has to solve.” The consequences of diminishing water reserves and rising energy demand have been a special focus of Circle of Blue’s attention for more than a year. In 2010, in our Choke Point: U.S. series, Circle of Blue found that rising energy demand and diminishing freshwater reserves are two trends moving in opposing direction across America. Moreover, the speed and force of the confrontation is occurring in the places where growth is highest and water resources are under the most stress—California, the Southwest, the Rocky Mountain West, and the Southeast. Modernization vs. Water Resources In December, we expanded our reporting to China. Circle of Blue—in collaboration with the China Environment Forum (CEF) at the Washington-based Woodrow Wilson International Center for Scholars—dispatched four teams of researchers and photographers to 10 Chinese provinces. Their assignment: to report on how the world’s largest nation and second-largest economy is achieving its swift modernization, despite scarce and declining reserves of clean fresh water. In essence, Circle of Blue and CEF completed a national tour of the extensive water circulatory system and vast energy production musculature that makes China go. The result of our reporting is Choke Point: China. In a dozen chapters—starting today and posted weekly online through April—Choke Point: China will report in text, photographs, and interactive graphics the powerful evidence of a potentially ruinous confrontation between growth, water, and fuel that is already visible across China and is virtually certain to grow more dire over the next decade. Choke Point: China, though, is not a narrative of doom. Rather, our journalists and photographers found a powerful narrative in two parts and never before told. The first important finding—left largely unsaid in and outside China—is how effectively the national and provincial governments enacted and enforced a range of water conservation and efficiency measures. Circle of Blue met the engineers, plant managers, and workers who operate China’s robust and often state-of-the-art energy and water installations. We interviewed the academics and government executives who oversee the globally significant water conservation policies and practices that have been essential to China’s new prosperity. Those policies, we found, sharply reduced waste, shifted water from agriculture to industry, and slowed the growth in national water consumption. Though China’s economy has grown almost eight-fold since the mid-1990s, water consumption has increased 15 percent, or 1 percent annually. China’s major cities, including Beijing, are retrofitting their sewage treatment systems to recycle wastewater for use in washing clothes, flushing toilets, and other grey-water applications. Here in Baotou, a desert city of 1.5 million in Inner Mongolia, the giant Baotou Iron and Steel Company plant, one of the world’s largest, produces 10 million metric tons of steel annually in a region that receives mere inches of rainfall a year. The plant—which is 49 square kilometers and employs 50,000 workers—recycles 98 percent of its water, a requirement of a 1997 law that prompted owners of industrial plants to conserve water. Three Trends Converging We also discovered a second vital narrative that most industrial executives and government authorities we interviewed were either not fully aware of or were reluctant to acknowledge: the tightening choke point between rising energy demand and declining freshwater reserves that forms the central story line of the next era of China’s unfolding development. Stripped to its essence, China’s globally significant choke point is caused by three converging trends:Production of coal has tripled since 2000 to 3.15 billion metric tons a year. Government analysts project that China’s energy companies will need to produce an additional billion metric tons of coal annually by 2020, representing a 30 percent increase. Fresh water needed for mining, processing, and consuming coal accounts for the largest share of industrial water use in China, or roughly 120 billion cubic meters a year, a fifth of all the water consumed nationally. Though national conservation policies have helped to limit increases, water consumption nevertheless has climbed to a record 599 billion cubic meters annually, which is 50 billion cubic meters (13 trillion gallons) more than in 2000. Over the next decade, according to government projections, China’s water consumption, driven in large part by increasing coal-fired power production, may reach 670 billion cubic meters annually — 71 billion cubic meters a year more than today. China’s total water resource, according to the National Bureau of Statistics, has dropped 13 percent since the start of the century. In other words China’s water supply is 350 billion cubic meters (93 trillion gallons) less than it was at the start of the century. That’s as much water lost to China each year as flows through the mouth of the Mississippi River in nine months. Chinese climatologists and hydrologists attribute much of the drop to climate change, which is disrupting patterns of rain and snowfall. “It’s just impossible, if you haven’t lived it or experienced it, to understand change in China over the past 25 years, and especially since 1992,” said Kang Wu, a senior fellow and China energy scholar at East-West Center in Hawaii. “It’s a new world. It’s a new country. The worry in China and in the rest of the world is can they sustain it? They want to double the size of the economy again in 10 years. How can they do that? It’s a paradox from an economic point of view. They need a resource balance to meet demand, short-term and long-term. If you look out 10, 20, 30 years, it just looks like it’s not possible.” Rapid GDP Growth Will Continue In interviews, national and provincial government leaders, as well as energy industry executives, said China has every intention of continuing its 10 percent annual economic growth. “We believe that this is possible and we can do this with new technology, new ways to use water and energy,” said Xiangkun Ren, who oversees the coal-to-liquids program for Shenhua Group, the largest coal company in the world. Xiangkun acknowledged that avoiding the looming choke point will not be easy. The tightening loop is already visible in the jammed rail lines, huge coal truck traffic jams, and buckling roads that Circle of Blue encountered in Inner Mongolia—the country’s largest coal producer—and which are responsible for transporting billions of tons of coal from existing mines to market. Energy prices are steadily rising, putting new inflationary pressure on the economy. Even as China has launched enormous new programs of solar, wind, hydro, and seawater-cooled nuclear power, all of which use much less fresh water, energy market conditions will get worse without new supplies of coal, the source of 70 percent of the nation’s energy. China’s economy and the new social contract with its citizens, who have come to expect rising incomes and improving opportunities, is at risk, say some authorities.

#### And, pollution from coal causes environmental protests that threaten CCP rule.

LeVine 12 (Steve, author of The Oil and the Glory, Foreign Policy contributor, CHINA The Cost of Coal , The Weekly Wrap -- Aug. 3, 2012, <http://oilandglory.foreignpolicy.com/posts/2012/08/03/the_weekly_wrap_aug_3_2012_part_i>)

China's moment of coal truth: A question that has vexed us for some time is when we will witness an inflection point in ordinary Chinese tolerance for the coal-borne pollution in their air. At that time, we have argued, we will likely also see a sharp turn away from coal consumption, and more use of cleaner natural gas -- Communist Party leaders will see to it for reasons of political survival. With this shift will come important knock-on events, including a materially smaller increase in projected global CO2 emissions. According to Bernstein Research, that tipping point may now be past. In a note to clients yesterday, Michael W. Parker and Alex Leung argue that the moment of truth became apparent to them in two pollution protests over the last month in the cities of Shifang and Qidong. In the former, violent July protests resulted in the scrapping of a planned metals plant; in the latter last week, the ax fell on a waste pipeline connected to a paper mill, again because of an agitated local citizenry. Their paper's title -- Who Are You Going to Believe: Me or Your Smog-Irritated, Burning, Weeping, Lying Eyes? -- is a reference to what the authors regard as a general outside blindness to a conspicuous new political day. One reason no one is noticing, they say, is the curse of history itself. The record of surging economies -- comparing China with, say Japan -- suggests that a burning aspiration for cleaner surroundings over economic betterment should reach critical mass in China only in about a decade. Yet, "the clear signal from Shifang and Qidong is that China has reached the point today, where the population is ready to take to the streets in protest of worsening environmental conditions," the two researchers write. They go on: Since we all agree that the Chinese government is focused on social harmony, the practical implication is that the government will do whatever is required to ensure that people aren't in the streets protesting not just food prices or lack of jobs, but also the environment. Few observers seem to classify the environment as the kind of issue that could excite the Chinese population into the street or the kind of issue that could result in changing political decision making and economic outcomes. And yet that is exactly what we are seeing.

#### Pollution causes CCP collapse and nuclear war

Yee and Storey 2002

Herbert Yee, Professor of Politics and International Relations at the Hong Kong Baptist University, and Ian Storey, Lecturer in Defence Studies at Deakin University, 2002 The China Threat: Perceptions, Myths and Reality, RoutledgeCurzon, pg 5

The fourth factor contributing to the perception of a China threat is the fear of political and economic collapse in the PRC, resulting in territorial fragmentation, civil war and waves of refugees pouring into neighbouring countries. Naturally, any or all of these scenarios would have a profoundly negative impact on regional stability. Today the Chinese leadership faces a raft of internal problems, including the increasing political demands of its citizens, a growing population, a shortage of natural resources and a deterioration in the natural environment caused by rapid industrialisation and pollution. These problems are putting a strain on the central government's ability to govern effectively. Political disintegration or a Chinese civil war might result in millions of Chinese refugees seeking asylum in neighbouring countries. Such an unprecedented exodus of refugees from a collapsed PRC would no doubt put a severe strain on the limited resources of China's neighbours. A fragmented China could also result in another nightmare scenario - nuclear weapons falling into the hands of irresponsible local provincial leaders or warlords.'2 From this perspective, a disintegrating China would also pose a threat to its neighbours and the world.

#### Decline causes multiple scenarios for war - Chinese nationalism sparks lashout

Friedberg 2011

(July/August, Aaron L., professor of politics and international affairs at the Woodrow Wilson School at Princeton University, Hegemony with Chinese Characteristics, The National Interest, lexis)

Such fears of aggression are heightened by an awareness that anxiety over a lack of legitimacy at home can cause nondemocratic governments to try to deflect popular frustration and discontent toward external enemies. Some Western observers worry, for example, that if China’s economy falters its rulers will try to blame foreigners and even manufacture crises with Taiwan, Japan or the United States in order to rally their people and redirect the population’s anger. Whatever Beijing’s intent, such confrontations could easily spiral out of control. Democratic leaders are hardly immune to the temptation of foreign adventures. However, because the stakes for them are so much lower (being voted out of office rather than being overthrown and imprisoned, or worse), they are less likely to take extreme risks to retain their hold on power.

#### Japan-China war escalates – none of their impact defense applies

Bush 2010

Richard C., October 2010, China-Japan Security Relations, Director of the Center for North East Asian Policy Studies @ Brookings, http://www.brookings.edu/papers/2010/10\_china\_japan\_bush.aspx

These trends plus the salience of naval and air operations suggest that a clash between Japan’s formidable forces and China’s expanding ones is not impossible. As the recent clash demonstrates, the most likely site is the Diaoyu/Senkaku Islands, which are unpopulated but which each country believes strongly to be its sovereign territory. Indeed, a group of American specialists who reviewed Japan-China security relations in 2005 and 2006 concluded that “the prospect of incidents between Chinese and Japanese commercial and military vessels in the East China Sea has risen for the first time since World War II. If an incident occurs, it could result in the use of force—with consequences that could lead to conflict.” Further, trouble over oil and gas fields in the East China Sea is not out of the question. To be clear, civilian leaders in China and Japan do not desire a conflict or a serious deterioration in bilateral relations. Each country gains much from economic cooperation with the other. Yet even if objective interests dictate a mutual retreat from the brink, they might be unable to do so. Once a clash occurred, other factors would come into play: military rules of engagement, strategic cultures, civil-military relations, civilian crisis management mechanisms, and domestic politics. In the end, leaders may lose control and regard some outcomes, especially the appearance of capitulation, as worse than a growing conflict. Let us explore a Senkaku scenario in detail. It would likely begin as China’s Marine Surveillance Force (MSF) challenges the perimeters that the Japan Coast Guard (JCG) maintains around the Senkaku/Diaoyu Islands. Because the JCG’s rules of engagement are ambiguous, a JCG ship then rams an MSF vessel. Surface ships of the People’s Liberation Army Navy and Japan’s Maritime Self-Defense Force hurry to the area and take up positions. Planes of Japan’s air force and China’s Air Force soon hover overhead. Submarines lurk below. Ships of the two navies maneuver for position. And although fairly tight rules of engagement regulate the units of each military, those rules might not be exactly appropriate for this situation, leaving local commanders discretion to act independently in the heat of the moment. Chinese strategic culture, with its emphasis on preemption and preserving initiative, could come into play. Perhaps the captain of a PLAN ship sees fit to fire at an MSDF vessel. The Japanese vessel returns fire, because its commander believes that doing so is the proper response and does not wish to be overruled by cautious civilian bureaucrats in Tokyo. Planes of the two air forces get involved. The longer the encounter goes on, predicts one American bb naval expert, the more likely it is that Japan’s “significantly more advanced naval capabilities would, if employed, almost certainly cause the destruction of PLAN units, with significant loss of life.” Quite quickly, commanders in the field would have to inform their headquarters in each capital about the incident. Would they convey a totally accurate picture, or would they shade reality to put themselves in the best possible light? Would they necessarily know exactly what happened? When a Chinese naval fighter jet collided with a U.S. reconnaissance aircraft off the island of Hainan in April 2001, the local command probably lied to those higher up about which side was responsible. By the time the Central Military Commission in Beijing reported to civilian leaders, the story of the encounter between the two planes was very different from the truth. Failure to tell “the whole truth,” however, is certainly not unique to the PLA. In the Diaoyu/Senkaku scenario, the odds are that civilian and military decision-makers in Tokyo and Beijing would not receive a completely accurate picture. They would have to respond in a fog of uncertainty, giving free rein to a variety of psychological and organizational factors that would affect the handling of information. The military services would have a monopoly on information, impeding the voicing of contrarian views. The preexisting beliefs of each side about the other would distort their views of the reports from the field. Each side also would be likely to judge its own actions in the best possible light and those of the adversary in the worst. Groupthink, the temptation to shade reports so that they are consistent with what are assumed to be the leaders’ views and a tendency to withhold contrarian views in a tense situation would be at play. So, there is a real chance that decision-makers in each capital would receive a picture of the incident that was at variance with the “facts,” a picture that downplayed the responsibility of its units and played up that of the other side. Working with distorted information, they then would have to try to prevent the clash from escalating into a full-blown crisis without appearing to back down. At that point, crisis management institutions in each capital would come into play, and they most likely would not respond well. Policymakers in each capital might miscalculate in responding.

#### Draws in other powers.

Malik 2010

Sino-Japanese Balance Must Be Maintained, Ahmad Rashid Malik is a Japan Foundation Fellow and author of an important volume on Pakistan-Japan relations, http://www.panorientnews.com/en/news.php?k=484

Sino-Japanese relations revolve around acute sensitivities. A tempest in a teacup can easily turn into a political typhoon. Both Japan and China are powerful countries. Their relationship is an ancient relationship, but it is often held together by a very weak thread that can be broken at any time on any issue. This creates many challenges, not only for Japan and China, but also for the many nations which maintain important relations with both of them. A Sino-Japanese rivalry that gets out of hand would present a formidable destabilizing element that would confuse the policies of many nearby nations. In spite of the great need for a constructive Sino-Japanese relationship, these nations have a tendency to clash even on rather marginal issues. In regard to the highly emotional, territorial issue presented by the Senkaku / Diaoyu Islands dispute, international law in fact provides more questions than answers. More assertive military policies by either side could easily trigger a large-scale conflict that would benefit no nation.

#### Extinction.

Nye et al., Professor @ Harvard, 2K

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Major war in Europe is inconceivable for at least a generation, but the prospects for conflict in Asia are far from remote. The region features some of the world’s largest and most modern armies, nuclear-armed major powers, and several nuclear-capable states. Hostilities that could directly involve the United States in a major conflict could occur at a moment’s notice on the Korean peninsula and in the Taiwan Strait. The Indian subcontinent is a major flashpoint. In each area, war has the potential of nuclear escalation. In addition, lingering turmoil in Indonesia, the world’s fourth-largest nation, threatens stability in Southeast Asia. The United States is tied to the region by a series of bilateral security alliances that remain the region’s de facto security architecture. In this promising but also potentially dangerous setting, the U.S.-Japan bilateral relationship is more important than ever. With the world’s second-largest economy and a well equipped and competent military, and as our democratic ally, Japan remains the keystone of the U.S. involvement in Asia. The U.S.-Japan alliance is central to America’s global security strategy.

#### The CCP would lash out for power, and they would use bioweapons

Renxin 05 Renxin, Journalist, 8-3-2K5 (San, “CCP Gambles Insanely to Avoid Death,” Epoch Times, www.theepochtimes.com/news/5-8-3/30931.html)

Since the Party’s life is “above all else,” it would not be surprising if the CCP resorts to the use of biological, chemical, and nuclear weapons in its attempt to postpone its life. The CCP, that disregards human life, would not hesitate to kill two hundred million Americans, coupled with seven or eight hundred million Chinese, to achieve its ends. The “speech,” free of all disguises, lets the public see the CCP for what it really is: with evil filling its every cell, the CCP intends to fight all of mankind in its desperate attempt to cling to life. And that is the theme of the “speech.” The theme is murderous and utterly evil. We did witness in China beggars who demanded money from people by threatening to stab themselves with knives or prick their throats on long nails. But we have never, until now, seen a rogue who blackmails the world to die with it by wielding biological, chemical, and nuclear weapons. Anyhow, the bloody confession affirmed the CCP’s bloodiness: a monstrous murderer, who has killed 80 million Chinese people, now plans to hold one billion people hostage and gamble with their lives. As the CCP is known to be a clique with a closed system, it is extraordinary for it to reveal its top secret on its own. One might ask: what is the CCP’s purpose to make public its gambling plan on its deathbed? The answer is: the “speech” would have the effect of killing three birds with one stone. Its intentions are the following: Expressing the CCP’s resolve that it “not be buried by either heaven or earth” (direct quote from the “speech”). But then, isn’t the CCP opposed to the universe if it claims not to be buried by heaven and earth? Feeling the urgent need to harden its image as a soft egg in the face of the Nine Commentaries. Preparing publicity for its final battle with mankind by threatening war and trumpeting violence. So, strictly speaking, what the CCP has leaked out is more of an attempt to clutch at straws to save its life rather than to launch a trial balloon. Of course, the way the “speech” was presented had been carefully prepared. It did not have a usual opening or ending, and the audience, time, place, and background related to the “speech” were all kept unidentified. One may speculate or imagine as one may, but never verify. The aim was obviously to create a mysterious setting. In short, the “speech” came out as something one finds difficult to tell whether it is false or true.

#### **Outweighs and causes extinction**

Ochs 2

Past president of the Aberdeen Proving Ground Superfund Citizens Coalition, Member of the Depleted Uranium Task force of the Military Toxics Project, and M of the Chemical Weapons Working Group [Richard Ochs, , June 9, 2002, “Biological Weapons Must Be Abolished Immediately,” <http://www.freefromterror.net/other_articles/abolish.html>]

Of all the weapons of mass destruction, the genetically engineered biological weapons, many without a known cure or vaccine, are an extreme danger to the continued survival of life on earth. Any perceived military value or deterrence pales in comparison to the great risk these weapons pose just sitting in vials in laboratories. While a “nuclear winter,” resulting from a massive exchange of nuclear weapons, could also kill off most of life on earth and severely compromise the health of future generations, they are easier to control. Biological weapons, on the other hand, can get out of control very easily, as the recent anthrax attacks has demonstrated. There is no way to guarantee the security of these doomsday weapons because very tiny amounts can be stolen or accidentally released and then grow or be grown to horrendous proportions. The Black Death of the Middle Ages would be small in comparison to the potential damage bioweapons could cause. Abolition of chemical weapons is less of a priority because, while they can also kill millions of people outright, their persistence in the environment would be less than nuclear or biological agents or more localized. Hence, chemical weapons would have a lesser effect on future generations of innocent people and the natural environment. Like the Holocaust, once a localized chemical extermination is over, it is over. With nuclear and biological weapons, the killing will probably never end. Radioactive elements last tens of thousands of years and will keep causing cancers virtually forever. Potentially worse than that, bio-engineered agents by the hundreds with no known cure could wreck even greater calamity on the human race than could persistent radiation. AIDS and ebola viruses are just a small example of recently emerging plagues with no known cure or vaccine. Can we imagine hundreds of such plagues? HUMAN EXTINCTION IS NOW POSSIBLE. Ironically, the Bush administration has just changed the U.S. nuclear doctrine to allow nuclear retaliation against threats upon allies by conventional weapons. The past doctrine allowed such use only as a last resort when our nation’s survival was at stake. Will the new policy also allow easier use of US bioweapons? How slippery is this slope?

#### Investment in the U.S. solves – gives China the expertise to experiment with different geography

Yang 8/08/12 (Catherine, Senior-level Washington, D.C.-based business journalist and communications professional, with in-depth experience in China, technology, economics, and other policy issues. , “China Drills Into Shale Gas, Targeting Huge Reserves Amid Challenges” <http://news.nationalgeographic.com/news/energy/2012/08/120808-china-shale-gas/>)

Hills and water have shaped the story of Chongqing, in China's southwest. At the confluence of the Yangtze and Jialing rivers, the Sichuan Province city became China's first inland port open to foreign commerce in 1891. In the 1930s and '40s, Chongqing served as China's wartime capital, although the mountain ranges on all four sides provided less of a buffer than hoped against Japanese air raids. Now a new chapter in Chongqing's history is being written, as hydraulic fracturing rigs assembled this summer in this undulating landscape to drill into one of China's first shale gas exploration sites. (Related Pictures: "A Rare Look Inside China's Energy Machine") Technology to force natural gas from its underground source rock, shale, has transformed the energy picture of the United States in the past six years, and China—sitting on reserves some 50 percent larger than those of the U.S.—has taken note. Hydraulic fracturing, or fracking, is a made-in-the-U.S.A. process that China aims to import. (Related Interactive: "Breaking Fuel From the Rock") On June 9, state-owned oil giant Sinopec started drilling the first of nine planned shale gas wells in Chongqing, expecting by year's end to produce 11 billion to 18 billion cubic feet (300 to 500 million cubic meters) of natural gas—about the amount China consumes in a single day. It's a small start, but China's ambitions are large; by 2020, the nation's goal is for shale gas to provide 6 percent of its massive energy needs. (Related Quiz: "What You Don't Know About Natural Gas") Because natural gas generates electricity with half the carbon dioxide emissions of coal, China's primary power source, the hope is that shale development, if it is done in an environmentally sound manner, will help pave the way to a cleaner energy future for the world's number one greenhouse gas producer. "Clean, rapid shale gas development in China would reduce global emissions," says Julio Friedmann, chief energy technologist at the U.S. Department of Energy's Lawrence Livermore National Laboratory in California, which has been working with the Chinese on environmentally sound fracking practices. But challenges lie ahead in China's effort to replicate the U.S. shale gas revolution. Early indications are that China's shale geology is different. And above ground, China lacks the extensive pipeline network that has enabled the United States to so quickly bring its new natural gas bounty to market. A daunting issue is whether water-intensive energy development can flourish in China given the strains the nation already faces on water and irrigation-dependent agriculture. Even though there are more questions at this point than answers, China is determined to move ahead. "China now realizes it has incredible opportunity to find another major fuel source other than coal," says Albert Lin, chief executive of EmberClear, an Alberta, Canada-based energy project developer that is a partner of China's largest power producer, China Huaneng Group. Large Reserves, Uncertain Promise Shale gas now makes up 25 percent of the U.S. natural gas supply, less than a decade after Devon Energy and other independent U.S. companies paired high-volume hydraulic fracturing with horizontal drilling to force natural gas from fissures in the soft black rock layer a mile or more underground. Development started near Dallas-Fort Worth, but it has since spread across the country, from Wyoming to Pennsylvania. The process has stirred intense debate over local land, water, and air pollution issues, including the accidental leakage of the potent greenhouse gas methane. (Related: "Natural Gas Stirs Hope and Fear in Pennsylvania" and "Air Pollution From Fracked Wells Will Be Regulated") But the flood of new natural gas onto the U.S. energy market has been a key factor in displacing coal. Coal's share of U.S. electricity production has dropped from almost 50 percent to 34 percent in just three years. Largely as a result of that trend, the United States is on track for its energy-related carbon dioxide emissions in 2012 to be 11 percent lower than in 2005, the U.S. Energy Information Administration (EIA) projects. In China, where coal now generates 80 percent of electricity, there is great potential to curb greenhouse gas emissions by substituting natural gas. A preliminary EIA assessment of world shale reserves last year indicated that China has the world's largest "technically recoverable" resources—with an estimated 1,275 trillion cubic feet (36 trillion cubic meters). That's 20 percent of world resources, and far more than the 862 trillion cubic feet (24 trillion cubic meters) in estimated U.S. shale gas stores. (Related: "Can China Go Green?") But not all shale deposits are alike. The best targets are marine deposits, formed by millions of years of heat and pressure from dead organic material that mixed with mud at the bottom of ancient seas. The decay produces methane, the main component of natural gas. Experts say Sichuan Province and the Tarim Basin in Xinjiang Province in the northwest hold promising marine deposits. Five other areas identified by the EIA as potential shale plays in China, including Inner Mongolia's Ordos Basin and parts of northern China, are more likely to hold non-marine deposits, lacking the rich stores of organic material. Still, from initial drilling in the more promising regions, "we know there's [at least] 6 to 8 trillion cubic meters of recoverable shale gas and maybe more" in China, says Friedmann. (Related Quiz: "What You Don't Know About World Energy") Other attributes of China's shale might pose additional challenges. It's believed that many of the deposits are mixed with clay. Clay's pliable, bendable quality makes it more difficult to fracture or break than shale containing more brittle quartz. In addition, shale in Sichuan is 1.2 to 3.7 miles (2 to 6 kilometers) below ground. On the higher end, that's deeper than many of the U.S. deposits, and the mountainous terrain above ground increases the difficulty and cost of drilling. One of the top producing U.S. shale plays, Haynesville in east Texas and western Louisiana, has relatively deep deposits—1.9 to 2.5 miles (3 to 4 kilometers) below ground, notes Bruce Hill, senior geologist at the Clean Air Task Force, a Boston nonprofit that works to lessen fracking's environmental impact. The U.S. experience would suggest that deep fracking can be done, but China's geology has yet to be fully explored. "There is no cookbook for doing shale gas," says Edward Chow, senior fellow at the Center for Strategic and International Studies in Washington, D.C. China needs to do "a lot of experimentation and go through trial and error, examining different shales." Seeking Best Location As home to Asia's longest river, the Yangtze, and a network of existing natural gas pipelines, Sichuan is seen by outside experts as a logical place for China to launch its shale gas industry, especially compared to remote Tarim Basin, which lacks any of the vital infrastructure for producing or transporting gas. Still, the water demand of fracking—requiring millions of gallons—presents a serious concern, says David Fridley, a staff scientist at the U.S. Department of Energy's Lawrence Berkeley lab in California. China's per capita water availability is only a quarter of the world average, according to the World Bank. And Sichuan, which produces 10 percent of China's grain, uses a great deal of its water resources for agriculture. Other issues might also hamper development. The same geologic forces that formed Sichuan's steep mountains present sizeable seismic risk. It was in this region that a devastating earthquake killed 70,000 people in 2008; its epicenter was 215 miles (350 kilometers) northwest of Chongqing. Fracking has been linked with small earthquakes in England, and underground disposal of fracking wastewater has been traced to tremors in Ohio and Texas in the United States. (Related: "Tracing Links Between Fracking and Earthquakes" and "Report Links Energy Activities To Higher Quake Risk") Obtaining know-how also could be a stumbling block. "If they want to develop shale gas in five years, [China] has to partner with companies that really understand drilling and completion practices, says Friedmann. State-owned China National Offshore Oil Corporation (CNOOC) entered into a joint venture with U.S. shale gas leader Chesapeake Energy two years ago, in a move experts viewed as a bid to gain access to expertise. In January, Sinopec, China's number two oil company, purchased a one-third stake in several new ventures of industry pioneer Devon Energy for $900 million and commitment to cover $1.6 billion of future drilling costs. But it's unclear how much access to shale gas technology China will gain through those deals. Bo Kong, assistant research professor at the Johns Hopkins University School of Advanced International Relations in Washington, D.C., notes that the Chinese firms hold minority stakes in the companies, with U.S. partners restricting technology transfer. The head of Sinopec, Fu Chengyu, is seen as taking a more politically cautious approach to collaboration with U.S. energy firms after opposition from Washington in 2005 killed his bid, when he headed up CNOOC, to take over the former Unocal Oil Company. (Similar controversy over foreign control of strategic U.S. assets has erupted over CNOOC's $15.1 billion bid last month to buy Calgary, Canada-based Nexen, which has substantial oil and gas drilling operations in the U.S. Gulf of Mexico.) The smaller independent North American gas companies likely welcome Chinese investment, because their own finances have been pummeled by the low natural gas prices their own operations have wrought. But it will be deals with the big international oil companies on China's own turf that likely will bring shale gas expertise to the world's largest energy consumer, experts say. In March, Shell\* signed the first shale gas production-sharing agreement ever in China, with state-owned China National Petroleum Corporation (CNPC), also known as PetroChina. ExxonMobil, BP, Chevron, and the French company Total also have embarked on shale gas partnerships in China. In its 12th Five-Year Plan (2011-2015), China set the goal of producing 229.5 billion cubic feet (6.5 billion cubic meters) of shale gas by 2015; the United States produced about 30 times more shale gas in 2011. But while the U.S. shale gas revolution amounted to roughly a seven-fold increase in production in the past five years, China's aim is to ramp up shale production at least ten-fold between 2015 and 2020.