# 1AC

### 1ac plan

#### The executive branch of the United States federal government should offer to ease restrictions on general licenses for non-tourist travel between the United States and Cuba.

### 1ac engagement

#### Contention 1 is ENGAGEMENT:

#### Migration talks with Cuba are *ongoing* – but *de-linking* is key to progress

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Earlier this month, Panamanian security forces seized an undeclared stash of weapons aboard the North Korean ship Chong Chon Gang. The revelation that the shipment was from Havana has sparked interesting speculation, with some commentators making references to the Cuban Missile Crisis of 1962.¶ Just a day after the ship was stopped, Cuban authorities claimed ownership of the sugar and weapons found. Cuba's Ministry of Foreign Affairs released a statement saying that the weapons were obsolete, from the mid-twentieth century, and were headed to North Korea for repair as part of an agreement between the two countries.¶ Cuba's explanation sought to calm the hype surrounding the incident and seems to be accurate in describing the weapons as outdated. If what they say is correct, then this incident in Panama was a political mistake, which, to paraphrase Talleyrand, is "worse than a crime." The arms may be obsolete, but nevertheless, shipment and transfer to North Korea is a violation of UN sanctions. (Given North Korea's aggressive behavior, the Security Council, acting under chapter VII of the UN Charter, explicitly prohibits any military-related transaction with the Pyongyang regime.)¶ This incident reveals a serious lack of institutional coordination between Cuba’s branches of government. It could not come at a worse time, just after the announcement of a new wave of economic reforms by Vice President Murillo and on the eve of migration talks with United States. The nature of diplomacy means that although they are officially about migration, these negotiations will include other topics. If President Raul Castro is serious about order and efficiency, as he has stated, then this situation qualifies as a major fiasco and should result in several dismissals.¶ This will also have serious repercussions for foreign policy. Those confiscated weapons are not in themselves a threat to the United States or world peace, but Cuba will now have to answer to the Security Council committee that administers UN sanctions. Worse, Cuba’s image in the world is already harmed by a link to a regime with one of the worst human-rights records and erratic international behavior. The Democratic People's Republic of Korea is not of the people, nor is it democratic or a republic. It is a dynastic regime, with each new descendant of the house of Kim worse than the last. Cubans should know better. Just last April 5, former president Fidel Castro urged the North Korean leadership to behave reasonably and "prevent a war in Korea."¶ The Cuban leadership should prepare for serious damage control. Cuba remains on the U.S. State Department's list of state sponsors of terrorism, even though the Bush administration removed North Korea from it. Cuba should keep its distance from North Korea’s dog-and-pony show and fully cooperate with the UN. It's not enough to cobble together a paragraph about Cuba's commitment to world peace and disarmament. Havana, as a member of the international community, must declare its unequivocal rejection of attempts by North Koreans to sneak into the club of nuclear powers. It is time to set priorities: Cuba should focus on creating a friendly international environment for its ongoing reforms. Everything else is secondary.¶ Something Always Happens¶ Taking place on the eve of the resumption of bilateral talks based on the 1994-95 U.S.-Cuban migration accords, the detention of the Chong Chon Gang evokes an old pattern in bilateral relations between Havana and Washington. Not only have relations been held hostage by Cold War logic, they have also suffered from unexpected pitfalls. "Something always happens," say the pessimists. The instant the news broke about the ship being confiscated by Panamanian president Ricardo Martinelli, Congresswoman Ileana Ros-Lehtinen and Senator Marco Rubio demanded the talks be called off and reiterated that Cuba must remain on the list of terrorist-sponsoring countries. That is exactly the opposite of what the reaction should be.¶ It is time for policymakers in Havana and Washington to learn some crisis management, linking or separating issues as convenient to national interests, rather than leaving them up to the circus of the radicals on both sides. The United States should focus its superpower efforts where the threat warrants: Pyongyang. The discovery of this Cuban-North Korean violation offers an opportunity to further isolate the North Korean regime, adding measures of monitoring and control of any transaction with the country. North Korea is a threat to peace in East Asia, a violator of the nuclearnonproliferation system and a known smuggler of weapons to conflict zones such as the Congo or Yemen. Cuba is none of these things.¶ Any action against Cuba should take place within the multilateral framework of the sanctions against North Korea. It is up to the Security Council to get full cooperation from Cuba on this incident, in such a way that intensifies North Korea's isolation. As White House press secretary Jay Carney declared: “if it’s determined that materials found on board that vessel violate sanctions, then the body that levied the sanctions…would handle enforcement matters.” Abandoning negotiations on the implementation of migration agreements or continuing to unfairly keep Cuba on the list of terrorism-sponsoring countries distracts from efforts to place greater pressure on North Korea.¶ Cuba must answer for its alleged violation of UN Security Council resolutions 1718, 1874 and 2094. But Senator Rubio would like the United States to approach the situation like a butcher, when what is needed is a surgeon. U.S. diplomacy is sophisticated enough to correct its flawed policy towards Cuba while at the same time supporting multilateral pressure exerted by the UN’s seamless application of sanctions against the DPRK. It is not in the national interest to obfuscate clear multilateral standards of nonproliferation applied to any military transaction with the DPRK with arbitrary and unilateral double standards on terrorism applied to Cuba. There is plenty of evidence that North Korea has violated the nuclear nonproliferation regime, while none exists that Cuba participated or sponsored any terrorist act in the last twenty years.¶ Avoiding Another Mistake¶ The resumption of migration talks between Cuba and the United States is an opportunity to launch a new positive cycle in the bilateral relationship. High-level negotiations on topics amenable to give and take creates incentives for goodwill gestures, even in areas that are not officially included on the agenda—such as the imprisonment of U.S. aid worker Alan Gross and the inclusion of Cuba on the state sponsors of terrorism list. An act of goodwill by one party may be reciprocated by the other. Official face-to-face communication safeguards against one party pocketing unilateral concession without reciprocating.¶ Assuming there is no faction in Havana interested in "egging on" hostility between the two countries for their own benefit—a notion that is too conspiratorial but that cannot be dismissed outright—Cuba’s decision to ship obsolete Soviet military equipment in a North Korean ship was irresponsible. By following through with the bilateral talks while demanding application of the UN resolutions, President Obama's administration has made the wise decision not to respond to irresponsible behavior with more of the same. Hopefully it will remain on that course.

#### Offering to ease *travel restrictions* *spurs cooperation* on mutual interests – like the *environment* and *disaster prevention*

García Iturbe 13 (Dr. Néstor García Iturbe, leading academic and foreign affairs expert of the Cuban Communist Party, “What should Obama do? The view from Cuba,” International Institute for the Study of Cuba, 2-18-2013, http://cubastudies.org/what-should-obama-do-the-view-from-cuba/)

Cuba’s official position¶ The revolutionary government of Cuba has always shown interest in the study of this issue and its willingness to analyze the proposals created for better climate between the two countries. The story picks up a number of facts that confirm what was said.¶ Our position was recently expounded in the speech of the Minister of Foreign Affairs of Cuba, Bruno Rodriguez Parrilla, before the General Assembly of the United Nations, on November 13, 2012, when he said:¶ “I reiterate, on behalf of President Raúl Castro Ruz, the commitment of the Government of Cuba to move toward normalization of relations with the United States, through respectful dialogue, without preconditions, on a reciprocal basis of sovereign equality and without detracting from our independence and sovereignty.¶ “Again today I present again to the Government of the United States the proposed agenda for bilateral talks aimed at moving towards normalization of relations, which includes as core issues, the lifting of the economic, commercial and financial blockade, exclusion from the arbitrary and illegitimate terrorist country list, the repeal of the Cuban Adjustment Act and the policy of “wet foot, dry foot,” compensation for economic and human damages, the return of the territory occupied by the Guantanamo Naval Base, the end of radio and television aggression, and the cessation of financing internal subversion.¶ “An essential element of this agenda is the release of the five Cuban antiterrorist fighters unjustly and cruelly imprisoned and held in this country. An act of justice or, at least, a humanitarian solution would win the gratitude of my people and our government’s response.¶ “I also offer to the government of the United States to negotiate agreements for cooperation in areas of mutual interest, such as fighting drug trafficking, terrorism, human trafficking and for the full normalization of migratory relations and the mitigation and prevention of natural disasters, environmental protection and preservation of our common seawaters. We also propose resuming talks, unilaterally suspended by the counterparty, on migration issues and the restoration of the postal service. “¶ The possible behaviour of the Obama administration in the period 2013-2017 and the position that Cuba could take¶ To make a prediction about the likely behaviour of the Obama administration in the period 2013-2017 it is necessary to take as a base one of the scenarios that might arise regarding foreign policy toward Cuba.¶ We will take as a hypothesis the most favorable of these, which once again confirms our willingness to analyze and discuss the problems between the two countries. That is, let us assume that all contact is made through respectful dialogue, without preconditions, on a reciprocal basis of sovereign equality and, in defense of the interests of each country, without any loss to the independence and sovereignty of either.¶ An analysis along these lines, with mutual interest and practical solutions appropriate in the interests of both countries, would solve more than half of the problems that exist between the two nations. The selected areas are those in which the U.S. president holds powers that allow him to change the existing situation.¶ In my proposal, the ball is thrown to the U.S. camp, but in a way that they can catch and return it to Cuba, to facilitate that exchange is initiated and to achieve the best possible result.¶ How to order the items on the Agenda? What would be the first items to discuss?¶ The most logical would be to start with those situations where there is already some kind of progress or agreement, whether signed or implied, between the parties. The agreements and results obtained in the first points, that may not be the most important, would allow each party to a study how to complete the discussion, what is the disposition of the other party and also show progress in the process that has begun.¶ I will point out what I consider the most important and urgent because there are many that could be dealt with.¶ Migration talks¶ Travel to Cuba and remittances from Cubans living in the United States was one of the initial concerns of the Obama administration in its first term. The action taken, which many people refer to as “lifting travel restrictions to Cuba,” did not even go as far as introducing the restrictions as they were applied in the Clinton era.¶ Cubans living in other countries are not subject to these regulations, so they have complete freedom to travel and send money to relatives in Cuba. It is only those who reside in the United States who do not enjoy such freedoms.¶ President Obama could order the Departments of State, Commerce and Treasury to issue regulations on the specificities related to these trips, which would allow him to take steps in terms of increasing them.¶ The resumption of these talks could give a great boost to the whole process. It is a point of great interest in both the United States and Cuba for the number of people who are involved.¶ Cuba has just issued new immigration regulations, to which the United States will surely have to respond.

#### That’s because the plan doesn’t try to *change interests* – just *insulates* disagreements

Rueckert 13 (Phineas Rueckert, Research Associate at the Council on Hemispheric Affairs, “U.S.-Cuba Mail and Migration Talks: Opportunities and Limitations of Mutual Interest Cooperation,” Council on Hemispheric Affairs, 7-3-2013, http://www.coha.org/u-s-cuba-mail-and-migration-talks-opportunities-and-limitations-of-mutual-interest-cooperation/)

On June 18-19, Cuban and U.S. diplomats met with their postal service counterparts in Washington to discuss the possibility of ending the 50-year ban on direct mail service between the two nations, which has been in effect since 1963. On June 18, “knowledgeable sources” reported to El Nuevo Herald that the State Department and Cuban Foreign Ministry officials will hold talks to discuss migration policy starting July 17. 1¶ While these bilateral talks are an important step forward for both countries, on their own they do not signify a transformation of U.S.-Cuban relations or portend the emergence of a relationship of “mutual respect” between Washington and Havana. In the best-case scenario, these talks will lead to further discussions of specific issues of mutual interest, such as environmental and counterterrorism cooperation. However, until Washington can show that it has the political will to achieve durable results in its dealings with Cuba—as opposed to mere self-interest in resolving short-term issues—such negotiations will likely not amount to anything more than a transient, and ultimately meaningless, convergence of low-value interests.¶ Officials have stressed that these negotiations are of a technical nature, and “that they did not indicate a change in U.S. policy toward Cuba.” 2 While the fact that the two countries are talking despite the continued detentions of Alan Gross and the Cuban Five (now four) is significant, the talks seem to imply a logistical confluence of interests as opposed to a more comprehensive rapprochement.¶ Mutual-Interest Cooperation¶ In the past, the United States and Cuba have been able to cooperate on certain issues by using a category-by-category approach to bilateral relations based on mutual interest, rather than seeking to repair ties through sweeping reforms. Such categories include cooperation in counternarcotics, “fence line” negotiations at Guantánamo Bay, and coast guard security. 3 As early as the 1970s, the United States (under the Carter Administration) worked with the Castro regime on areas of mutual concern, for example, signing the Cuba–United States Maritime Boundary Agreement in 1977, which helped to determine the international borders between the two nations. In the same vein as these past reforms, the direct mail and migration talks present an opening for the countries to further discuss issues of mutual interest. When asked about the mail service negotiations, Mavis Anderson, Senior Research Fellow at the Latin America Working Group responded:¶ “….beyond reestablishing this important link between Cubans and U.S. citizens…[the mail service negotiation] builds confidence between our two nations, perhaps provides a platform for small forays into issues beyond postal service, and demonstrates (hopefully) that Cuba and the United States can come to an agreement on issues of mutual interest.”¶ Mutual-interest cooperation may be the most practical way for the United States and Cuba to move towards a rapprochement. Issues like the suspension of postal service between the two countries are minor impediments that are more of a hassle than anything else, and serve little practical or political purpose. As it stands, postcards and letters sent between the two countries must go through a middleman country (usually Mexico). Restoring direct mail between the United States and Cuba would merely cut this step out of the process—at once benefiting the struggling U.S. Postal Service and citizens on both sides of the U.S.-Cuba divide.¶ Cuba-U.S. Migration: A Series of Unconventional Policies¶ The negotiations on migration could initiate a more significant and impassioned conversation than the reestablishment of direct mail has, although this possibility by no means presupposes an immediate or straightforward path leading to a rapprochement.¶ Migration between the two countries is a highly contentious issue rooted in a prolonged series of sporadic agreements and negotiations. The first formalized agreement on migration came in the form of the Cuban Adjustment Act of 1966, which accords Cuban migrants preferential treatment from the Attorney General of the United States on account of their perceived persecution within their country, and does not force them to “apply for political asylum or prove that they are refugees.” 4 While this accord was initially intended as a response to political conditions within Cuba during the 1960s, it remains active today as the act was given no formal end date. It is still used to justify regularization of Cuban refugees once they reach the United States, even if they did so illegally.¶ In 1980, the United States and Cuba attempted to coordinate a more open migration policy—leading to the Mariel Boatlift, an emigration of more than 125,000 Cubans to Miami. 5 This policy ended up backfiring for President Carter, as about 10 percent of these refugees were later discovered to be either criminals or mentally institutionalized individuals, termed lumpens or “undesirables.” Furthermore, the affair cost the United States $700 million USD. 6 While the boatlift had negative political implications for Carter, it did eventually force the United States’ hand on migration policy. The same accords that returned the 2,746 lumpens to Cuba created a legal means for 20,000 Cubans per year to receive permanent visas to live in the United States. 7¶ When Cuba entered the “Special Period in a Time of Peace,” the economic near-collapse that followed the dissolution of the Soviet Union, a rising number of Cubans sought to migrate illegally to the United States by boat—and almost 40,000 illegal migrants were intercepted by the U.S. Coast Guard in 1994. 8 As a response to increased illegal migration, the 1994 Cuban Migration Agreement aimed to normalize migration between the two countries. This agreement reinforced the policy of granting 20,000 immigration visas per year and opened up other means for legal immigration, such as family-based immigration initiatives. 9 It also indicated that: “The United States [would discontinue] its practice of granting parole to all Cuban migrants who reach U.S. territory in irregular ways.” 10 Regrettably, the United States has largely disregarded this commitment, on account of its “wet-foot, dry-foot” policy, which admits illegal Cuban migrants to the United States if they reach land, but returns them to the island if the U.S. Coast Guard intercepts them at sea.¶ The Cuban Migration Agreement instituted biannual migration talks between representatives of the two nations, which proved to be an important means for mutual-interest cooperation despite perpetually strained relations between the United States and Cuba on other issues. In 2003, however, President George W. Bush suspended these biannual talks on account of their “lack of progress.” 11 President Obama briefly restarted migration talks in 2009, but they were frozen in 2011 with the sentencing of Alan Gross, a USAID contractor who was detained for illegally disseminating communications equipment to the Jewish community in Cuba. Importantly, since Obama’s election, both countries have loosened their respective travel restrictions—Obama in April 2009 and Cuban President Raúl Castro in January 2013—thereby allowing more fluid movement between the longstanding rivals. The demonstrated intention to resume migration talks further suggests that Washington and Havana are at least recognizing that the demand for bilateral contact is increasing among citizens of both countries.¶ Conclusion¶ The direct mail and migration talks are undoubtedly an important logistical step forward for U.S.-Cuban relations. They may even be symbolic of a positive, albeit incremental, change in the overall nature of negotiations. However, it is important to keep in mind that they are just talks. President Obama and Secretary of State John Kerry need to demonstrate that they have the political resolve to improve U.S.-Cuban relations, which will eventually involve tackling grittier, more substantive issues such as Alan Gross, the Cuban Five, and the decades-old economic embargo that still remains in place. In other words, a category-by-category approach to bilateral relations based on mutual interest can only ameliorate relations to a certain extent. According to Larry Birns, Director of the Council on Hemispheric Affairs, “U.S. policy [towards Cuba] is to prevent the functioning of diplomacy.” As long as this policy is in place, movements toward a rapprochement will continue to be slow, uneven, and ultimately insufficient.

#### Improving *environmental cooperation* is key to *global sustainable development* AND *environmental leadership*

Conell 9 (Christina Conell, Research Associate, Council on Hemispheric Affairs, M.P.P. Public Policy, University of Virginia, B.A. Latin American Studies, Spanish Language, University of Virginia, “The U.S. and Cuba: Destined to be an Environmental Duo?” 6-12-2009, [http://www.coha.org/the-us-and-cuba-an-environmental-duo/)](http://www.coha.org/the-us-and-cuba-an-environmental-duo/%29//TL)

•Cuba’s abundant natural resources need to be protected with heightened vigilance ¶ •Lifting the trade embargo would open up the possibility for a constructive partnership between Cuba and the U.S. by developing compatible and sustainable environmental policies¶ •With the support of the U.S., Cuba could become a model for sustainable preservation and environmental protection on a global scale ¶ Through accidents of geography and history, Cuba is a priceless ecological resource. The United States should capitalize on its proximity to this resource-rich island nation by moving to normalize relations and establishing a framework for environmental cooperation and joint initiatives throughout the Americas. Cuba is the most biologically diverse of all the Caribbean Islands. Since it lies just 90 miles south of the Florida Keys, where the Atlantic, the Caribbean and the Gulf of Mexico intersect, the U.S. could play a key role in environmental conservation as well as the region in general. However, when it comes to environmental preservation, the Obama administration is obstructing progress and hindering any meaningful cooperation with its current U.S.- Cuba policy. ¶ Climate change and environmental degradation are two of the most pressing contemporary issues. If President Obama is sincerely committed to environmental sustainability, he must forge international partnerships to implement this objective. Where better to begin than in the U.S.’s own backyard, where Cuba has a huge presence. Only then can Cuba and the United States move forward to find joint solutions to environmental challenges. ¶ Environmental Riches and Implications ¶ Cuba’s glittering white sand beaches, extensive coral reefs, endemic fauna and diverse populations of fish compose the Caribbean’s most biologically diverse island. Based on a per hectare sampling when compared to the U.S. plus Canada, Cuba has 12 times more mammal species, 29 times as many amphibian and reptile species, 39 times more bird species, and 27 times as many vascular plant species. Equally important, adjacent ocean currents and the island nation’s close proximity, carry fish larvae into U.S. waters, making protection of Cuba’s coastal ecosystems vital to replenishing the U.S.’s ailing fisheries. Therefore, preserving the marine resources of Cuba is critical to the economic health of North America’s Atlantic coastal communities. ¶ The U.S. and Cuba also share an ancient deepwater coral system that stretches up to North Carolina. The island’s 4,200 islets and keys support important commercial reef fish species such as snapper and grouper as well as other marine life including sea turtles, dolphins and manatees in both countries. Fifty percent of its flora and 41 percent of its fauna are endemic, signifying the importance of protecting the island’s resources in order to safeguard the paradisiacal vision that Christopher Columbus observed when landing on the island in 1492. ¶ Oro Negro and Dinero ¶ The recent discovery of oil and natural gas reserves in the Florida straits in Cuban waters has attracted foreign oil exploration from China and India, both eager to begin extraction. Offshore oil and gas development could threaten Cuba’s and Florida’s environmental riches. Together, Cuba and the U.S. can develop policies to combat the negative results coming from the exploitation of these resources. The increased extraction and refining of oil in Cuba could have detrimental effects on the environment. Offshore drilling is likely to increase with the discovery of petroleum deposits in the Bay of Cárdenas and related areas. Excavation increases the possibility of oil spills, which would in turn destroy the surrounding ecosystem, including fisheries and coral reef formations. The amount of pollutants released into the air from refining crude oil and the amount of wayward oil residuals would also increase with drilling and extraction. Those conversant with the very sensitive habitat issues are calling for immediate consultations aimed at anticipating what should be done. ¶ However the U.S.’s enormous oil usage and its development requirements will cultivate economic growth on the island. Washington must work with Cuba to create an ecological protection plan not only to establish an environmentally friendly public image, but to make it a reality as well. Degradation of the environment will deprive Cuba, in the long run, of one of its most important sources of present and future revenue: tourism. Consequently, it is in the mutual interests of the U.S. and Cuba to develop a cooperative relationship that will foster tourism and growth in a sustainable manner. ¶ Sustainability through Collaboration ¶ In many parts of the country communism has inadequately acted as a seal to preserve elements of Cuba’s past as the centralized government prohibited private development by not giving special permission. A number of tourist resorts already dot the island, but Cuba has been largely exempt from mass tourist exploitation due to frozen relations with the U.S. Although the island remains underdeveloped, Fidel Castro has used his unchecked power to back policies, which have been heedless to environmental considerations, thus damaging some of the island’s pristine ecosystem that once defined the island. Roughly the size of Pennsylvania, Cuba is the largest Caribbean island, and if preservation and conservation measures are planned and carried out in a cognizant manner, it could become a paradigm for sustainable development at the global level. ¶ The Obama administration’s recent easing of travel restrictions on Cuban Americans visiting relatives on the island could be of immense importance not only to Cuban families, but also to the preservation of Cuba’s unique and increasingly threatened coastal and marine environments. Such a concession on Washington’s part would mark a small, but still significant stride in U.S.-Cuba relations, yet the travel restrictions still remain inherently discriminatory. The preposterous regulations that allow only a certain category of Americans into Cuba signify only a meager shift in U.S. policy towards Cuba. ¶ The 50-year-old U.S. embargo against the island has resoundingly failed to achieve its purpose. Obama’s modifications fall short of what it will take to reestablish a constructive U.S.-Cuba relationship. Cuba’s tropical forests, soils, and maritime areas have suffered degradation as a result of harmful policies stemming from a Soviet-style economic system. Cuba’s economy could be reinvigorated through expanded tourism, development initiatives and an expansion of commodity exports, including sugarcane for ethanol. U.S. policy toward Cuba should encourage environmental factors, thereby strengthening U.S. credibility throughout the hemisphere. ¶ An environmental partnership between the U.S. and Cuba is not only possible, but could result in development models that could serve as an example for environmental strategies throughout the Americas. The U.S. has the economic resources necessary to aid Cuba in developing effective policy, while the island provides the space where sustainable systems can be implemented initially instead of being applied after the fact. Cuba’s extreme lack of development provides an unspoiled arena for the execution of exemplary sustainable environmental protection practices. ¶ Waste Not, Want Not¶ Although the government of Cuba has established state-based agencies to develop sustainable environmental practices, the island’s resources are left to be used at the government’s discretion. It is estimated that throughout Cuba, about 113.5 billion gallons of water contaminated with agricultural, industrial and urban wastes are dumped into the sea annually and more than 3.27 billion gallons find their way into its rivers. As direct dumping of untreated industrial waste into rivers, aquifers, and the sea is the norm, Cuban scientists estimate that this volume of industrial liquid waste pollutes roughly 486 gallons of clean water per year. The majority of this contamination stems from four industries, all state owned and operated, nickel excavation, sugar refineries, oil refineries, and rice farms.¶ A 1994 Cuban press release disclosed that the Soto Alba nickel plant on the Moa Bay dumped more than 3.17 billion gallons of untreated liquid waste into the sea every day. The waste contained 72 tons of aluminum, 48 tons of chromium, 15 tons of magnesium, and 30 tons of sulfuric acid. By way of comparison, the treatment standards for wastewater in the U.S. limit the concentration of chromium to a maximum of 0.32 milligrams per liter, 12 times less than the daily dumping into the Moa Bay by only one of the three nickel plants operating in the area. In the sugar industry, more than 15.85 billion gallons of liquid waste are dumped into caves by the 151 operating sugar mills on the island creating the most enduring environmental problem. These alarming figures highlight the precipitous position of Cuba’s environment. While Cuban citizens increasingly are aware of the importance of environmental conservation, the government continues to exploit the island’s resources for state use without hindrance of being environmentally sound. Environmentalists maintain that the Cuban government must take responsibility for enforcing the environmental laws it has enacted and agreements it has signed.¶ For Cubans and foreigners alike, the beaches of Cuba constitute the principle tourist attraction in the country, but even these have not escaped wasteful government exploitation. The famous beaches east of Havana have been the victims of sand removal for use by the Cuban government in the construction industry. In addition to coastal destruction, like many of its Caribbean neighbors, Cuba faces deforestation, over-cultivation of land and compaction of soils due to the use of heavy farm machinery and strip mining. These practices have resulted in high salinity in soils and heavy land erosion. Furthermore, poor water quality in freshwater streams has affected the wildlife habitat, which is in turn influenced by runoff from agricultural practices, erosion due to deforestation, and sedimentation of freshwater streams. Cuba must act in a responsible manner to stop environmental degradation and preserve its tourist industry as an early step to salvage its inert economy.¶ Beginning Concerns¶ The environmental degradation that began during the colonial era has transcended time as a result of Castro’s political and economic paradigm. Only in the last 40 years, with the development of the Commission for the Protection of the Environment and the Conservation of Natural Resources (COMARNA), has Cuba begun to address growing environmental concerns. COMARNA consolidated all of the agencies with environmental responsibilities, as a step towards giving them the power to influence all environmental issues. Although COMARNA was all-inclusive, it lacked independent authority, so its activities achieved few tangible results. The sad fact was that the centralized agency only succeeded in aiding the state in squandering resources.¶ In reality, establishing the agency was a modest concession to ease environmental concerns, but the truth lingered that Cuba’s wealth of natural resources remained under the auspices of the government. COMARNA acknowledged the appeals for conservation by the international community, yet it allowed for the misuse of natural resources by the State. By way of example, the centralized Cuban agency built thousands of miles of roads for the development of non-existent state agricultural enterprises and dams where there was hardly any water to contain.¶ In 1981, Cuba enacted Law 33 in an attempt to legitimize their environmental laws and regulations, yet Law 33 played only a miniscule role in guiding the extraction of natural resources and the conservation of ecological life on the island. Lauded as a law ahead of its time, Law 33 purportedly covers all the regulations concerning the environment and the protection and use of Cuban national resources, even though it produced few results.¶ The statute includes a section comparing the “wise use of natural resources by communist countries versus the indiscriminate use of natural resources by the capitalistic world.” In this regard, the document is more a piece of political propaganda than a law meant to be rigorously enforced. Moreover it palls in comparison to international environmental protection guidelines and has relatively limited significance within the country since the Cuban government is responsible for the operation of the bulk of the industries and is therefore the principal polluter and consumer of natural resources. Thus Law 33 exonerates the Cuban government from enforcing stricter conservation standards by making a system that looks efficient, but in reality may not be so. A closer analysis on Law 33 exposes its inherent lack of efficacy and applicability.¶ Attempts to Move Forward¶ In 1994, Cuba developed the Ministry of Science, Technology and the Environment (CITMA) in order to absorb the tasks of the unproductive COMARNA. CITMA attempts to steer the implementation of environmental policy, the rational use of natural resources, and the adoption of sustainable development programs. Law 81 developed out of the necessity to give the Ministry a more sharply defined role in the government by replacing the outdated Law 33. Law 81, the Law of the Environment, was enacted in 1997 and presents a comprehensive framework law that covers all aspects of the environment ranging from air, water and waste, to historic preservation and coastal zone management. Although it details inspections and an enforcement plan, the law is ultimately ineffective due to its overarching nature, which makes it difficult to enforce. Law 81 may replace a necessary revision of Law 33; however, it remains vague in its enforcement procedures. For example, Law 81, Article 81 states that national resources will be used in accordance with the provisions that “their rational use will be assured, for which their quantitative and qualitative continuity will be preserved, recycling and recovery systems will be developed, and the ecosystems to which they belong safeguarded.” This portion of the provision elucidates the ambiguous nature of the law, as it continues to delineate objectives without coming up with specific implementation strategies.¶ In 1997, the Earth Summit, a conference sponsored by the United Nations aimed at aiding governments in rethinking economic development and finding ways to halt the destruction of irreplaceable natural resources and pollution of the planet was held in New York. At the Summit, Cuban officials were refreshingly blunt in acknowledging the environmental degradation present on their island. In a pamphlet distributed at the conference, the Havana government stated that “there have been mistakes and shortcomings, due mainly to insufficient environmental awareness, knowledge and education, the lack of a higher management demand, limited introduction and generalization of scientific and technological achievements, as well as the still insufficient incorporation of environmental dimensions in its policies. The authorities also pointed to the insufficient development plans and programs and the absence of a sufficiently integrative and coherent judicial system,” to enforce environmental regulations. After the Earth Summit, Cuba designed and implemented a variety of programs, administrative structures, and public awareness initiatives to promote sound environmental management and sustainable development. Although the conference spurred motivation in environmental matters, Cuba still lacked the economic resources needed to support its share of environmental protection responsibilities due to the loss of its financial ties with the former Soviet Union.¶ The Earth Summit came after the fall of the Soviet Union and the tightening of the U.S. blockade against Cuba in 1992, which resulted in a 35% retrenchment of the Cuban GDP. The Special Period, referring to the cut off of economic subsidies that had regularly come from the former Soviet Union, witnessed a decrease in many environmentally damaging activities both by choice and by necessity. The end of aid from the Russia also resulted in many decisions aimed at resuscitating the Cuban economy. The economic crisis increased pressure to sacrifice environmental protection for economic output. Although development slowed due to economic concerns, the island’s forests were particularly overworked for firewood and finished wood exports. However, the crisis also provided the impetus for pursuing sustainable development strategies. The principle motivating such change has been a realization that if Cuba does not preserve its environment, it will, at the very least, lose its attraction to tourists.¶ Diverging Views¶ Unlike the U.S., which still has never ratified the Kyoto Protocol, Cuba signed the document in 1997, which calls for the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with the global climate system. This legally binding international agreement attempts to tackle the issue of global warming and the reduction of greenhouse gas emissions. The U.S., although a signatory of the Kyoto Protocol, has neither ratified nor withdrawn from the Protocol. The signature alone is merely symbolic, as the Kyoto Protocol is non-binding on the United States unless ratified. Although in 2005 the United States was the largest per capita emitter of carbon dioxide from the burning of fossil fuels, it experienced only a modest decline of 2.8 percent from 2007 to 2008. This decline demonstrates that the U.S. has the framework to reverse Cuba’s substandard environmental track record. By aiding Havana, Washington would be able to brand itself as an active conservationist. Such a label would enable the U.S. to create a valuable ecological public image in the international arena.¶ The developmental assistance and economic growth potential that might stem from a U.S.-Cuba partnership might aid in developing enforceable implementation strategies. Even though Cuba’s written regulations characteristically lack feasible, implementable standards. Cuban laws, currently in effect, do provide a foundation for greater conservation activity in the future. The Cuban government does show an interest in encouraging sustainable development initiatives in the future, yet its laws are all based on maintaining a centralized government featuring a command economy. For example, CITMA appears to be trying to affect change, but many aspects of Cuba’s bureaucracy are rooted in the past and it remains difficult to update the ways of an outdated administrative substructure. If the embargo is lifted without a robust partnership and plans for environmental sustainability, the invasion of U.S. consumerism may seriously damage the island.¶ Fear of “Cancunization”¶ Many Cuba well-wishers fear if President Obama lifts the trade embargo, the invasion of raw capitalism could destroy Cuba’s relatively pristine environment. Although the Cuban government points to its environmental laws and the government agency which was established to develop a sustainable environmental policy, these measures have done little up to now to affect substantial change. In several distinct sectors, Cuba seems to remain unprepared for the lifting of the embargo and the island inevitably could face a flood of investors from the United States and elsewhere, eager to exploit the beautiful landscapes of the island, at great cost and risk.¶ After years of relying on government subsidies and protectionism, this rapid growth could generate irreparable shock waves through the economy. Oliver Houck, a professor at Tulane University who aided the Cuban government in writing its environmental protection provisions, said “an invasion of U.S. consumerism, a U.S.-dominated future, could roll over it (Cuba) like a bulldozer,” when the embargo ends. The wider Caribbean region has experienced water contamination, mangrove destruction and sewage problems due to large quantities of tourists and inadequate plumbing. Therefore, U.S. tourism regulations need to be in place in order to protect the precious ecosystem of the island and prohibit over development. Collaboration between the U.S. and Cuba would be mutually beneficial, as the U.S. could use Cuba as a laboratory of sustainable development and U.S. tourism would stimulate Cuba’s stagnant economy, if its negative impact could be controlled. Both countries must agree upon a mutual plan for development.¶ The Environmental Defense Fund (EDF) has conducted research in Cuba since 2000, working with Cuban partners on scientific investigations and strategies for protecting coastal and marine resources. Operating under a special license from the United States government, EDF experts are collaborating with Cuban scientists on research projects aimed at ensuring that if Cuba taps offshore oil and gas reserves, it will be done in an environmentally concious way. The US should establish more partnerships like these as President Obama has the legal authority to institute far-reaching cooperation with Cuba on joint marine environmental projects. These partnerships should be implemented as the first step in creating an elaborate alliance for environmental protection between the two countries.¶ If the embargo is lifted, symbols of meretricious American capitalism are likely to invade the once relatively isolated island. Opinion columnist Cynthia Tucker has commented on such matters: “Mickey Mouse is sure to arrive, bringing with him the aptly predicted full frontal assault of American culture and consumer goods,” suggesting that if Obama lifts the embargo, a functioning system of environmental protection supported by both the U.S. and the Cuban public must be present for the island to be protected.¶ It is Cuba’s lack of development that makes the island attractive to tourists and although tourism boosts the economy, it also could have detrimental effects on the environment. If the embargo is lifted, strict development restrictions need to be in place in order to prevent further environmental exploitation. Currently, without a severe shift in enforcement of environmental laws and the formation of a hard-working U.S.-Cuba partnership, the Caribbean’s most biodiverse island will continue to be damaged. The key to a new dynamic in the U.S.-Cuba relationship might be to embark on a series of strategic actions that aim to establish a bilateral relationship for sustainable development and associated activities based on mutual respect and the autonomy of each country’s sovereignty and traditions.

#### Ecological *resiliency* is *at the tipping point* – sustainable development is key to survival

UNDP 12 (United Nations Development Programme, Biodiversity and Ecosystems Team, guided by senior management in UNDP, “The Future We Want: Biodiversity and Ecosystems—Driving Sustainable Development; United Nations Development Programme Biodiversity and Ecosystems Global Framework 2012-2020,” 2012, p.13, http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/biodiversity/UNDP-Biodiversity-and-Ecosystems-Global-Framework-2012-2020.pdf)

Human survival and wellbeing depend upon biodiversity and healthy ecosystems, and the goods and¶ services they provide. Yet, in recent decades, the world has experienced unprecedented biodiversity loss and¶ ecosystem degradation, undermining the very foundations of life on Earth.¶ Rapid demographic changes, overconsumption, and the use of technologies that damage the environment,¶ now combined with climate change, are pushing our planet to its limits. Severe shortages of food, water and¶ energy are predicted as human pressure on the planet’s climatic, geophysical, atmospheric and ecological¶ processes approach a level at which abrupt global environmental change is likely to occur. Scientists believe¶ we are beginning to transgress the planetary boundaries within which societies have been sustained for the¶ past 10,000 years.ii¶ The loss of biodiversity and ecosystems is a challenge for us all, but it¶ is a particular challenge for the world’s poor. Many of the 1.2 billion¶ people living in severe poverty, on less than US$ 1 a day, depend¶ directly on nature for food, clean water, fuel, medicine, shelter,¶ and reduced vulnerability to climate change and natural disasters.¶ Dependent on ecosystem goods and services for their livelihoods¶ and subsistence, the poor stand to suffer disproportionately from¶ potentially catastrophic changes to fragile ecosystems in coming¶ decades. Ultimately, however, all societies stand to lose.iii¶ The international community faces some stark choices—the current¶ global development model is unsustainable.iv The links between¶ biodiversity and ecosystems and the goods and services they¶ provide, and the roles these play in our economies, are not fully¶ understood or valued. As a result, biodiversity and ecosystems are¶ not managed to protect their present and future values, and the¶ costs of their loss and degradation are escalating.v UNDP’s 2012¶ Human Development Report for Africa ‘Towards a Food Secure¶ Future’ confirms that the loss of biodiversity and ecosystems has negative effects on many aspects of human¶ wellbeing, such as food and energy security, access to clean water and raw materials, and vulnerability to¶ natural disasters.vi¶ The need for global action to eradicate poverty and make growth and consumption sustainable, while¶ combating climate change and respecting planetary¶ boundaries, is urgent and clear. Major changes are¶ required in order to incorporate inclusive, resilient and sustainable development in global and national¶ development policies, and in institutions, attitudes, and decision-making processes.vii

#### Regardless, *perception* of U.S. leadership *spurs* global action – checks short-term extinction

Khosla 9 (Ashok Khosla, President, International Union for Conservation of Nature, former Director, United Nations Environment Programme, recipient of the 2002 Sasakawa Prize, the Nobel Prize of the environmental community, authored over 300 professional papers, including 30 official UNEP documents, Ph.D. experimental physics, Harvard University, “A new President for the United States: We have a dream,” 1-27-2009, http://www.iucn.org/news\_homepage/?2595/new-President-for-the-United-States-We-have-a-dream)

With all the fanfare and show business skills they possess, Americans last week welcomed their new President with an unprecedented display of support and joy. The remarkable resonance President Obama has evoked with his fellow citizens should also encourage a new hope beyond their nation -- and indeed throughout the world.¶ A rejuvenated America, with a renewed purpose, commitment and energy to make its contribution once again towards a better world could well be the turning point that can reverse the current decline in the state of the global economy, the health of its life support systems and the morale of people everywhere. This extraordinary change in regime brings with it the promise of a deep change in attitudes and aspirations of Americans, a change that will lead, hopefully, to new directions in their nation’s policies and action. In particular, we can hope that from being a very reluctant partner in global discussions, especially on issues relating to environment and sustainable development, the United States will become an active leader in international efforts to address the Millennial threats now confronting civilization and even the survival of the human species.¶ For the conservation of biodiversity, so essential to maintaining life on Earth, this promise of change has come not a moment too soon.¶ It would be a mistake to put all of our hopes on the shoulder of one young man, however capable he might be. The environmental challenges the world is facing cannot be addressed by one country, let alone by one man. At the same time, an inspired US President guided by competent people, who does not shy away from exercising the true responsibilities and leadership his country is capable of, could do a lot to spur the international community into action. To paraphrase one of his illustrious predecessors, “the world asks for action and action now.” What was true in President Roosevelt’s America 77 years ago is even more appropriate today.¶ From IUCN’s perspective, the first signals are encouraging. The US has seriously begun to discuss constructive engagement in climate change debates. With Copenhagen a mere 11 months away, this commitment is long overdue and certainly very welcome. Many governments still worry that if they set tough standards to control carbon emissions, their industry and agriculture will become uncompetitive, a fear that leads to a foot-dragging “you go first” attitude that is blocking progress. A positive intervention by the United States could provide the vital catalyst that moves the basis of the present negotiations beyond the narrowly defined national interests that lie at the heart of the current impasse.¶ The logjam in international negotiations on climate change should not be difficult to break if the US were to lead the industrialized countries to agree that much of their wealth has been acquired at the expense of the environment (in this case greenhouse gases emitted over the past two hundred years) and that with the some of the benefits that this wealth has brought, comes the obligation to deal with the problems that have resulted as side-effects. With equitable entitlement to the common resources of the planet, an agreement that is fair and acceptable to all nations should be easy enough to achieve. Caps on emissions and sharing of energy efficient technologies are simply in the interest of everyone, rich or poor. And both rich and poor must now be ready to adopt less destructive technologies – based on renewables, efficiency and sustainability – both as a goal with intrinsic merit and also as an example to others.¶ But climate is not the only critical global environmental issue that this new administration will have to deal with. Conservation of biodiversity, a crucial prerequisite for the wellbeing of all humanity, no less America, needs as much attention, and just as urgently. The United States’ self-interest in conserving living natural resources strongly converges with the global common good in every sphere: in the oceans, by arresting the precipitate decline of fish stocks and the alarming rise of acidification; on land, by regenerating the health of our soils, forests and rivers; and in the atmosphere by reducing the massive emission of pollutants from our wasteful industries, construction, agriculture and transport systems.¶ Historically, American consumers have acquired highly inefficient habits in the way they use natural resources – energy, materials, water. And these consumers produce enough wastes, particularly greenhouse gases, to overwhelm nature’s capacity to absorb them. US corporations have invented remarkable products that have been the source of material wellbeing for hundreds of millions around the world, but have used production systems whose unintended fallout threatens the very viability of life on our planet. These consumption patterns and production methods must change, but that does not mean going back to the Stone Age. An average citizen of Switzerland, whose per capita GDP is higher than USA’s emits one third as much CO2 as an American. And in other societies and cultures, a full and happy life can be had for one third of what the Swiss consume. Doing more with less is possible – usually by doing it differently -- and now it has become essential, an issue of planetary survival.¶ Today, our self-worth seems largely to be measured by what we have, what we use and what we possess. Both nature and the economy are telling us that we have to identify ourselves with what we are, what we save and what we contribute – human beings living in harmony with each other and with nature. Judging from his inauguration address, President Obama has clearly understood this. Can we hope that the citizens of his great nation can also do so? The fact that they elected him suggests, hopefully, that they have affirmed with a resounding “Yes, we can!”¶ And surely they and the rest of us have no longer a choice: just as clearly, we must.

#### Independently, cooperation on travel is key to *data sharing* and global pandemic *containment*

Discovery News 13 (Discovery News, “Could Cuba Help U.S. Fight Tropical Diseases?” 2-11-2013, http://news.discovery.com/human/cuba-help-fight-tropical-diseases-dengue-fever.htm)

When it comes to issues like the spread of infectious disease, increased collaboration with Cuba may just be good medicine. The Gist U.S. scientists and doctors are looking to Cuba for help with infectious diseases.¶ Cuban scientists are experts on diseases like dengue fever, which has become more common in the U.S.¶ Political relations with the Communist country and recent shakeups in Congress may stand in the way of cross-country collaboration.¶ In the wake of this month's Republican electoral shakeup in Congress, talk of lifting the U.S. travel ban to Communist Cuba is pretty much off the table. But President Barack Obama still has the executive power to ease the amount of red tape faced by U.S. medical researchers who can travel to the island.¶ For some, such a move might awaken fears of radical socialism, but others say when it comes to issues like the spread of tropical and infectious disease from global warming, increased collaboration with a neighbor is just good medicine.¶ "I think because of climate change, because some of these infectious diseases are coming through in epic forms, collaboration between all countries is more needed than ever," said Gail A. Reed, the International Director of MEDICC, an American non-profit organization working to enhance global health cooperation with Cuba.¶ Hepatitis, chikungunya, bird flu and H1N1 are all diseases that concern U.S. epidemiologists. But dengue fever, the most common of mosquito-born illnesses, is one of the biggest. This summer, the Centers for Disease Control reported that five percent of residents in Key West, Fla. had been exposed to the deadly virus.¶ Dengue was eradicated in the United States in the 1940s, with just a few cases creeping across the U.S.-Mexico border in the 1980s. It is endemic to most of the Caribbean, but not to Cuba. In fact, strong research and preventative measures have won Havana's Pedro Kouri Cuban Tropical Medicine Institute special status as a World Health Organization Collaborating Center for Dengue Study and Control.¶ "In that sense, U.S. scientists are very interested in collaborating with Cuba because they have a history of investigations and successful research not only into the impact but the viral origins," Reed said.¶ That interest dates to before the 1959 Cuban Revolution that brought Fidel Castro to power. In 1889, the American Public Health Association requested that the United States government annex Cuba from Spain to protect Americans from Yellow Fever.¶ Panic over the disease helped fuel the 1898 Spanish American War, says Pedro Orduñez, a Cuban doctor who has published extensively on U.S.-Cuba medical research in both Washington and Havana.¶ "Health in Cuba is the icon of the revolution," noted Orduñez, explaining that Cuba's invention of a broad-based primary care system helped it assert its sovereign identity.¶ That faltered during the 1991 collapse of the Soviet Union, Cuba's main economic backer. Thousands of Cuban rafters set sail for Florida, and many of the Cubans who remained began to suffer epidemics such as optic neuropathy, a temporary blindness associated with certain nutritional deficiencies.¶ As a result, the U.S. government loosened some U.S. travel and trade restrictions on humanitarian aid. That, in turn, pried open collaborative doors a little further, allowing new organizations such as MEDICC to create U.S.-Cuba medical exchanges. In 2001, Cuba offered full-ride scholarships for up to 500 U.S. students at its Latin American Medical School, and the U.S. government obliged.¶ Dr. Sitembile Sales, a 2010 U.S. graduate of the Latin American Medical School in Havana, is grateful both nations allowed her to access the Cuban government's medical scholarship. She says it gave her invaluable training for crises and epidemics anywhere. During her third year of medicine, she was thrown onto 24-hour hospital rounds for two dengue fever epidemics.¶ "There were meetings with our professors saying this is war, we have an attack … there's no room for mistakes," she told Discovery News. "The good thing is that people never dropped like flies because we never let them get to that point."¶ Obstacles still abound. Sales needed a special student license to travel to Cuba, and a general license that allows American professionals to conduct research there is not as general as it sounds.¶ Researchers must scrutinize every aspect of their trip to make sure their spending and collaborative habits do not infringe upon U.S. sanctions. That means knowing what research equipment they can carry without a separate license, how much money they can spend in country and on what, how their work will be disseminated later, and under what specific contexts they can collaborate with or learn from the Cuban people.¶ For example, researchers have to ask for a different license if they plan to attend a Cuba-sponsored science conference or workshop, and in Cuba, most events are government run. Obtaining a U.S. license for conferences or research equipment involves mounds of paperwork and an answer can take months. Interest groups say these factors slow down the process of participating in projects that would otherwise prove to be a quick and efficient way of obtaining important medical data or learning new methods for curbing an epidemic.¶

#### Lack of Cuban medical data ensures containment failure – the *only country* which doesn’t report

Porcelain 13 (Sherri L. Porcelain, Adjunct Professor and Senior Lecturer in Global Public Health in World Affairs, and Director of the Disaster Research Program for Global Public Health, Department of International Studies, Senior Research Associate at the Institute for Cuban and Cuban-American Studies, and Instructor, Department of Epidemiology and Public Health, Miller School of Medicine, University of Miami, Ph.D. International Relations, International Development, and International Health Policy, University of Miami, Masters in Public Health, University of Miami, Certification in Primary Health Care Strategies in Developing Countries, University of London, Certification in Disaster Assistance Response Team Field Assessment Training, Office of Foreign Disaster Assistance / USAID, “Cuba’s Silence is Dangerous to Your Health,” Focus on Cuba, Iss.197, 8-5-2013, http://ctp.iccas.miami.edu/FOCUS\_Web/Issue197.htm)

After a century hiatus, cholera, malaria and dengue have returned to Cuba. This is no surprise since Cuba’s deteriorated water, sewage, sanitation and housing systems all create the ideal environment for rapid disease spread. Dengue, a mosquito borne viral disease, and cholera, a bacterial infection contracted by drinking water or eating food contaminated with a strain of cholera, present threats to both the local population and tourists visiting the island.¶ Luis Suarez Rosas, a physician with Cuba’s National School of Medicine, accurately captures the paradox of Cuban health care today in using the term epidemiologic silence to describe Cuba’s official position on disease outbreak information. Cuba is a unique case study because of its long history of highly trained infectious disease specialists as seen in the yellow fever response in the early 1900s, and the prominence of the Pedro Kouri Tropical Medicine Institute founded in 1937. Yet, today, the policy to call dengue euphemistically as a febrile illness or cholera as a gastrointestinal illness represents an unethical national public health policy affecting individuals beyond their national borders. This choice to withhold information derails global public health goals to inform and protect travelers; it also encourages rumors and creates confusion. Suarez Rosas, using dengue as a recent example, explains how this artificial epidemiologic silence does not help patients, nor does it address the risk or the perception of the severity of the disease. Additionally, it does not respond to the culprit, the aedes aegypti mosquito, which also carries the yellow fever virus.¶ While both the Center for Disease Control and Prevention (CDC) and the Pan American Health Organization (PAHO) provide health alerts and identify health problems, their information often relies upon the official reporting of information. However, the Program for Monitoring Emerging Diseases (ProMED), operating under the International Society for Infectious Disease, is an internet-based information system created in 1994 with the purpose of sharing emerging and re-emerging infectious disease information. ProMED mail welcomes all sources of information, including independent journalists who have reported outbreaks long before the Cuban government forced to make an official statement. ProMED continues to share information about the re-emergence of cholera in Cuba’s Manzanillo (Granma) Province in 2012 that spread through eastern provinces, and reached the western capital of Havana.¶ In June 2013, an independent journalist from Hablemos Press reported approximately 30 cases of malaria in Cuba. The Cuban government claimed these cases are imported by tourists or from returning residents that traveled to an endemic area. Imported cases of malaria are not new; however, the history of Cuba’s denials of other re-emerging diseases compels one to question the veracity of the government’s official report.¶ Malaria expert John Beier, Professor of Public Health Sciences at the University of Miami Miller School of Medicine, states that Cuba is receptive to malaria since the mosquito has not been eliminated. It is also important to acknowledge that local pocket of transmissions can exist through imported cases from other areas in the region, such as Hispaniola where malaria is known to exist. During rainy season, and when vector population increases, the risk of transmission increases as well. Still no official government report exists.¶ Sharing good epidemiologic evidence in a timely fashion is a reasonable expectation for global public health cooperation to be maintained. Promoting global health security begins with greater transparency on potential health threats. These are not state secrets as proposed during the 1980s and 1990s denial of Cuba’s dengue re-emergence, along with the incarceration of health professionals who released such data.¶ Cuba’s policy to withhold information on infectious disease threats for the purpose of protecting their health image, or their tourism industry is unacceptable in an era where rapid and frequent transport across borders occurs. International travelers and concerned citizens everywhere must realize that mosquitoes and microbes do not require their own passport stamp for entry into the United States, and the intrepid stowaways may arrive with their presence undetected.¶ Based upon what we know and don’t know-¶ We need to:¶ Promote greater awareness about mosquito avoidance and cholera, dengue and malaria prevention for travelers to Cuba. While other countries may have higher reported cases, their risk is documented through transparency in their reporting. On June 27, 2013 the U.S. Interests Section in Havana, Cuba posted an alert message for U.S. citizens regarding road safety and traffic related deaths and injuries. This is an important health and safety message, so why not extend this to other public health issues such as dengue, malaria, and cholera?¶ Become more proactive and use Rapid Diagnostic Kits (RDK) for early identification of diseases such as dengue and malaria. This could be especially important to Travel Medicine Clinics where licensed and trained health professionals have the ability to do accurate testing and patient histories. Dr. Kunjana Mavunda, Medical Director and Tropical Disease Specialist at International Travel Clinic in South Miami, Florida supports this approach. “I’ve been looking at these rapid diagnostic kits as part of the patient care and it is important that you get a good history of the patient and identify potential exposure risks.” She indicated that Cuba’s neglected infrastructure makes it ripe for potential disease spread.¶ Generate a wider dialogue concerning Cuba’s epidemiologic silence. Notwithstanding the issues surrounding dengue, malaria and cholera, a bird flu spread remains a possibility. The 2003 Severe Acute Respiratory Syndrome (SARS) coronavirus scare originated in South China and today the Middle East Respiratory Syndrome (MERS), another coronavirus, lurks nearby. Will anyone hold Cuba accountable for failure to report early outbreaks? What about possible impact in South Florida?¶ Global health security depends upon the rigor of good science, the willingness of nations to uphold policies to protect both their citizens and visitors, and the timely reporting of potential health threats. A world that is forced to rely on rumors puts everyone at risk. Consequently, silence is dangerous to your health.

#### Drug-resistant pandemics are *inevitable* and have an *invisible threshold*

Conniff 13 (Richard Conniff, science journalist, writes for Time, Smithsonian, Atlantic Monthly, The New York Times Magazine, National Geographic, Audubon Magazine, included in The Best American Science and Nature Writing in 2000, 2002, and 2006, Guggenheim Fellowship, Loeb Journalism Award, “Guardians Against a Global Pandemic: Inside the battle to protect all of us from the next Superbug,” Men’s Health, 4-8-2013, http://www.menshealth.com/health/guardians-against-global-pandemic?fullpage=true)

Last September, a 49-year-old Qatari man who'd recently traveled to Saudi Arabia was hospitalized in Doha with a nasty respiratory illness. He deteriorated rapidly, and doctors promptly airlifted him to a London hospital, where he wound up on life support with kidney and lung failure. From respiratory tract samples, investigators soon teased out an unknown coronavirus—the same one that had just killed an otherwise healthy 60-year-old in Saudi Arabia.¶ For one tense moment, epidemiologists thought they might be witnessing a replay of the devastating 2003 SARS epidemic, also brought on by a coronavirus. But the threat this time looked worse: Three million people were about to descend on Saudi Arabia for the hajj, a Muslim pilgrimage to Mecca already well known for the overnight global redistribution of illnesses via passenger jet.¶ Disease detectives of all specialties caught the next available flights into the heart of the potential outbreak. Epidemiologists tracked down anyone who had been even remotely associated with the victims. Veterinarians wearing protective gear went to a farm that one of the victims had visited; they took samples from hundreds of domestic and wild animals in order to identify the species from which the virus had jumped to humans. This effort, unseen by the public but involving hundreds of experts around the world, soon established that the disease did not, in fact, spread easily from one person to another. The hajj wasn't a hot zone after all.¶ It was a lucky break. As of early March, the new virus had sickened only 14 people and killed eight. But the episode was also a reminder that the supply of emerging diseases in the modern world is almost eye-bleedingly endless, and that they can turn up anywhere. One such pathogen, West Nile virus, killed 243 people in the United States last year. And a Denver hospital last summer experienced an alarming outbreak of a notorious New Delhi "superbug," a bacteria with broad resistance to almost all antibiotics. Health officials will tell you that the Big One, a disease outbreak on the order of the influenza pandemic of 1918, could happen any day—and that sooner or later it almost certainly will.¶ They'll also tell you that men in particular need to pay attention to the potential hazards: We travel more than women, particularly for business. Our trips tend to take us to more-remote destinations. So maybe it shouldn't come as a surprise that we also have a much higher incidence of malaria, dengue fever, hepatitis, and Legionnaires' disease (which last year killed 13 people in Quebec City, and three at a downtown Chicago Marriott hotel)—and perhaps other diseases yet unknown. (Nervous about germs? Pick up a copy of Don't Get Sick, a panic-free pocket guide to living in a germ-filled world.)¶ The good news? Science has become remarkably adept at identifying and containing potential outbreaks right at the start, even in the most remote locations, and often when only a handful of people—rather than hundreds—have become sick. In other words, they generally halt the outbreak before it can turn up on a 747 bound for New York City.¶ Some of the credit goes to rapidly advancing technologies, from Internet data mining to DNA fingerprinting. In the early 1980s, for instance, it took 3 devastating years to identify the virus that causes AIDS. With modern gene sequencing, says Columbia University virus hunter W. Ian Lipkin, M.D., it would take just 48 hours today. And part of the credit belongs to governments, which have learned painful lessons about the consequences of allowing a new disease to get out of hand: Since 1981, AIDS has killed more than 30 million people worldwide, with no end in sight. (How dangerous is AIDS in 2013? Here's What You Need to Know About HIV Today.) ¶ But if we are lucky enough to see another year pass without some pandemic lurching up out of nowhere to kill vast swaths of humanity, it's mainly because of the people who now constantly watch for early signs of trouble—as well as the ones who parachute in when things go wrong to save lives and stop epidemics. They tend to be unusual characters, people who can chat casually about "flavors" of Ebola and about the addictive thrill of their work on the front lines of possible outbreaks. But they also know firsthand what it takes to keep the world safe—and how to stay healthy themselves, even as people all around them die.¶ At CDC headquarters in Atlanta one day recently, as the coronavirus investigation was wrapping up, a daily map of trouble spots included an Ebola outbreak in the Democratic Republic of the Congo, Marburg fever in Uganda, cholera in Haiti, polio in Pakistan, and dengue fever in Portugal. Hantavirus, which is transmitted through urine, droppings, or saliva mainly from deer mice (and which also disproportionately affects men), had recently killed three vacationers at Yosemite National Park, and a case of Crimean-Congo hemorrhagic fever had just turned up in, of all places, Glasgow, Scotland.¶ It is a dangerous world out there, especially because of the kinds of travel we now consider normal. In his office in the division of global migration and quarantine at the CDC, director Martin Cetron, M.D., plays a computerized display tracking a single day's passenger flights, streams of yellow lights gently flowing in from the farthest corners of the earth, coalescing in bright megalopolitan splotches of light, then radiating outward again. "This is what makes me nervous," he says.¶ Nearly a billion people a year cross international borders, some of them inevitably carrying infections. Each international flight landing on U.S. runways also carries, on average, 1.6 live mosquitoes. In 1999, one theory holds, some of these jet-setting mosquitoes may have delivered West Nile encephalitis to New York. West Nile has since spread to 48 states and killed about 1,500 in the United States. As bad as that outbreak was, afflictions that are far more widespread may yet come if what Dr. Cetron calls the "invisible infrastructure" of disease prevention ever falters.

#### The impact is *extinction* – reporting and containment are key

Collins 10 (Brenda Collins, Science Writer at Henry M. Jackson Foundation, National Institute of Allergy and Infectious Diseases, National Institutes for Health, former Adjunct Professor of Microbiology, Marymount University, Ph.D. Microbiology, Meharry Medical College, B.A. Biology, University of Evansville, “The perfect microbial storm,” Baltimore Biology Examiner, 4-8-2010, http://www.examiner.com/article/the-perfect-microbial-storm)

According to the National Institute of Allergy and Infectious Diseases (NIAID), infectious diseases remain a worldwide problem and leading causes of death for the following reasons:¶ 1) emergence of new infectious diseases, examples HIV/AIDS, severe acute respiratory syndrome (SARS), Lyme borreliosis (Lyme disease)¶ 2) re-emergence of old infectious diseases, examples, dengue, tuberculosis (TB), malaria¶ 3) persistence of intractable infectious diseases, examples, Guillain-Barre syndrome (GBS), sexually transmitted diseases, Hepatitis B.¶ Emerging infectious diseases or more aptly, newly recognized diseases, and re-emerging infectious diseases, also known as previously recognized diseases have significantly increased in the last two decades. These infections include “deliberately emerging diseases,” namely, bioterrorism like anthrax.¶ Emerging diseases are not unique to modern life, but have appeared as notable epidemics, e.g., the Black Death (plague), smallpox, cholera, throughout recorded history. The common denominator among these emerging diseases over the ages is probably a set of circumstances that in combination contributed to or created the arrival of disease in abundance. In today’s complex world, a variety of factors continue to provide ample opportunities for disease emergence, and with international travel, present a case for the “perfect microbial storm.”¶ In addition to the increasing globalization with people, animals, and products traversing the world, other factors that give impetus to emerging and re-emerging diseases are: climate changes, war and civil unrest, poverty, urbanization, decreased vaccination compliance, and indiscriminate use of antimicrobials and pesticides among others. Also, impinging wildlife and the commingling of multiple species, particularly under stressful conditions, has facilitated the extended range of hosts of pathogens and promoted species jump.¶ About 60% of emerging human pathogens are zoonotic, meaning acquired from animals, and more than 70% of those are from wildlife. The zoonotic source is not limited to animal contact but more often arises from consumption of infected meat or animal products such as unpasteurized dairy products. Of major concern are vector-borne (e.g., ticks, mosquitoes) infections that can be transmitted from wildlife to domestic animals and to humans. Extremely large populations of deer in the eastern U.S. (for instance, Missouri) are a considerable factor in the emergence of new tick-borne diseases such as STARI, the putative etiological agent being the bacterium, Borrelia lonestari.¶ Virulence traits can also evolve resulting in wider transmission and altered pathogenicity. Gene mutation acted upon by natural selection, recombination, and other evolutionary forces serve to further variation in the genetic constitution of potential pathogens. High mutation rates are especially notable in viruses because of their relatively small genomes and short generation times.¶ Emerging and re-emerging diseases have been and probably will always be a challenge to human survival. To mitigate the “perfect microbial storm,” strategies are needed to increase and integrate disease surveillance systems from the local level to global networks. For instance, the U.S. Centers for Disease Control and Prevention (CDC) has initiated a program assigning veterinarians with human public health experience to international agencies and hotspots around the world. Monitoring and response activities to areas of concern should greatly impact the prevention of disease emergence.

### 1ac enforcement

#### Contention 2 is ENFORCEMENT:

#### Massive sanctions *licensing* and *investigation* *backlogs* are resulting in *enforcement failures* now – collapses *financial intelligence* and risks *WMD proliferation* in the *immediate* term

Levin, et al 12 (Carl Levin, senior U.S. Senator (D) Michigan, Chairman of the Senate Committee on Armed Services, former special assistant attorney general, Michigan Attorney General’s Office, graduate of Swarthmore College and Harvard Law School; Tom Coburn, junior Senator (R) Oklahoma, M.D. University of Oklahoma Medical School, B.S. Accounting, Oklahoma State University; David S. Cohen, Undersecretary for Terrorism and Financial Intelligence, U.S. Department of the Treasury, former attorney at Wilmer Cutler Pickering Hale and Dorr LLP, specializing in defense of regulatory investigations into financial fraud and anti-money laundering and sanctions compliance, J.D. Yale Law School, B.A. Cornell University; Leigh H. Winchell, Assistant Director for Programs, Homeland Security Investigations, U.S. Immigration and Customs Enforcement, U.S. Department of Homeland Security; “U.S. Vulnerabilities to Money Laundering, Drugs, and Terrorist Financing: HSBC Case History,” testimony before the U.S. Senate, Permanent Subcommittee on Investigations, of the Committee on Homeland Security and Governmental Affairs, 7-17-2012, http://www.gpo.gov/fdsys/pkg/CHRG-112shrg76061/html/CHRG-112shrg76061.htm)

OPENING STATEMENT OF SENATOR LEVIN¶ Senator Levin. Good morning, everybody. Today's hearing ¶ will examine the money-laundering, drug-trafficking, and ¶ terrorist-financing risks created in the United States when a ¶ global bank uses its U.S. affiliate to provide U.S. dollars and ¶ access to the U.S. financial system to a network of high-risk ¶ affiliates, high-risk correspondent banks, and high-risk ¶ clients.¶ Most international banks have a U.S. affiliate. They use it ¶ in part to compete for U.S. clients and business, but also to ¶ provide themselves with access to the U.S. financial system. ¶ Global banks want access to U.S. dollars because they are ¶ accepted internationally, they are the leading trade currency, ¶ and they hold their value better than any other currency. They ¶ want access to U.S. wire transfer systems because they move ¶ money across international lines quickly, securely, and to the ¶ farthest corners of the Earth. They want to clear U.S. dollar ¶ monetary instruments like travelers checks, bank checks, and ¶ money orders. And they want the safety, efficiency, and ¶ reliability that are the hallmarks of U.S. banking.¶ The problem here is that some international banks abuse ¶ their U.S. access. Some allow affiliates operating in countries ¶ with severe money-laundering, drug-trafficking, or terrorist-¶ financing threats to open up U.S. dollar accounts without ¶ establishing safeguards at their U.S. affiliate. Some operate ¶ in secrecy jurisdictions. Some allow poorly managed or corrupt ¶ foreign banks to make use of an affiliate's U.S. dollar ¶ account. Others allow high-risk clients to use those accounts ¶ without taking adequate anti-money laundering (AML) steps. Some ¶ even allow their affiliates to pressure their U.S. cousins to ¶ ease up on U.S. AML restrictions or look the other way when ¶ they spot suspicious activity. The end result is that the U.S. ¶ affiliate can become a sinkhole of risk for an entire network ¶ of bank affiliates and their clients around the world playing ¶ fast and loose with U.S. rules.¶ The consequences are the ones you would expect from ¶ operating a U.S. bank with inadequate safeguards against money ¶ laundering. The U.S. bank can end up aiding and abetting ¶ transactions that fund terrorists, drug cartels, corrupt ¶ dictators, and tax cheats, because all of them want access to ¶ the U.S. financial system, too, and for the same reasons. ¶ Wrongdoers can use U.S. dollars and U.S. wire transfers to ¶ commit crimes, arm terror groups, produce and transport illegal ¶ drugs, loot government coffers, and even pursue weapons of mass ¶ destruction. That is why our country has made combating money ¶ laundering and terrorist financing a national security ¶ imperative.¶ For the last decade, this Subcommittee has contributed to ¶ the battle against money laundering and terrorist financing by ¶ exposing problems that increase U.S. vulnerabilities to abuse. ¶ In 2001, for example, this Subcommittee released a report ¶ showing how U.S. banks that offer accounts to foreign banks, ¶ engaging in what is known as correspondent banking, can become ¶ conduits for illegal proceeds involving organized crime, drug ¶ trafficking, or financial fraud. Back then, most U.S. banks ¶ opened a correspondent account for any foreign bank with a ¶ banking license. After our hearing, U.S. banks took a harder ¶ look and assessed the risks before opening a correspondent ¶ account. In 2002, Congress cited our hearings when enacting ¶ tougher AML laws in the PATRIOT Act, including in that Act a ¶ provision making it a legal obligation for U.S. banks to ¶ conduct a due diligence review before opening an account for a ¶ foreign bank.¶ Tougher AML laws have helped deny criminals access to the ¶ U.S. financial system. But as our report that we are releasing ¶ today shows, enormous problems remain.¶ To illustrate those problems, today's hearing focuses on a ¶ case study involving HSBC, one of the largest banks in the ¶ world. Headquartered in London, HSBC has a network of over ¶ 7,200 offices in more than 80 countries, 300,000 employees, and ¶ 2011 profits of nearly $22 billion. HSBC has been among the ¶ most active banks in Asia, the Middle East, and Africa. It ¶ first acquired a U.S. presence in the 1980s; today its leading ¶ U.S. affiliate is HSBC Bank USA, sometimes called ``H-BUS.'' ¶ That HBUS affiliate now has 470 branches across the United ¶ States and 4 million customers here.¶ HBUS is the key U.S. nexus for the entire HSBC worldwide ¶ network. In 2008, HBUS processed 600,000 wire transfers per ¶ week; in 2009, two-thirds of the U.S. dollar payments that HBUS ¶ processed came from HSBC affiliates in other countries. One ¶ HSBC executive told us that a major reason why HSBC opened its ¶ U.S. bank was to provide its overseas clients with a gateway ¶ into the U.S. financial system.¶ Now, add on top of that, HBUS's history of weak AML ¶ controls, and you have a recipe for trouble. In 2003, the ¶ Federal Reserve and New York State Banking Department took a ¶ formal enforcement action requiring HBUS to revamp its AML ¶ program. HBUS, which was then converting to a nationally ¶ chartered bank under the supervision of the Office of the ¶ Comptroller of the Currency (OCC) made changes, but even before ¶ the OCC lifted its order in 2006, the bank's AML program began ¶ deteriorating. In September 2010, the OCC issued a supervisory ¶ letter, 31 pages long, describing a long list of severe AML ¶ deficiencies, and followed in October 2010 with a cease and ¶ desist order requiring HBUS to revamp its AML program a second ¶ time.¶ The OCC cited, among other problems, a massive backlog of ¶ unreviewed alerts identifying potentially suspicious activity; ¶ a failure to monitor $60 trillion in wire transfers and account ¶ activity; a failure to examine risks at HSBC's overseas ¶ affiliates before providing them correspondent banking ¶ services; and a failure, over a 3-year period, to conduct AML ¶ checks on more than $15 billion in bulk cash transactions with ¶ those same affiliates.¶ To examine the issues, the Subcommittee issued subpoenas, ¶ reviewed more than 1.4 million documents, and conducted ¶ extensive interviews with HSBC officials from around the world, ¶ as well as officials at other banks, and with Federal ¶ regulators. HSBC has cooperated fully with our investigation.¶ The Subcommittee's work identified five key areas of ¶ vulnerability exposed by the HSBC history. The five areas ¶ involve the following:¶ First, providing U.S. correspondent accounts to high-risk ¶ HSBC affiliates without performing due diligence, including a ¶ Mexican affiliate with unreliable AML controls.¶ Second, failing to stop deceptive conduct by HSBC ¶ affiliates to circumvent a screening device designed to block ¶ transactions by terrorists, drug kingpins, and rogue nations ¶ like Iran;¶ Third, providing bank accounts to overseas banks with links ¶ to terrorist financing;¶ Fourth, clearing hundreds of millions of dollars in bulk ¶ U.S. dollar travelers checks, despite serious suspicious ¶ circumstances;¶ And, finally, offering bearer share accounts, a high-risk ¶ account that invites wrongdoing by facilitating hidden ¶ corporate ownership.¶ Let us take each in turn.¶ First, the issue of high-risk affiliates. HSBC operates ¶ affiliates in 80 countries, including jurisdictions facing ¶ major money-laundering, drug-trafficking, or terrorist-¶ financing challenges as well as weak AML laws and oversight. ¶ Yet, until recently, HSBC's London-based parent company, known ¶ as the HSBC Group, instructed its affiliates to assume that ¶ every HSBC affiliate met the group's AML standards and ¶ automatically was told to provide it with correspondent banking ¶ services. HBUS did as told and opened U.S. correspondent ¶ accounts for more than 80 HSBC affiliates, ignoring our law, ¶ the American law requiring due diligence reviews before opening ¶ U.S. accounts for foreign banks.¶ HBUS's dealings with an HSBC affiliate in Mexico illustrate ¶ the money laundering dangers. HSBC Mexico (HBMX), operates in a ¶ high-risk country battling drug cartels; it has had high-risk ¶ clients such as casas de cambios; and it has offered high-risk ¶ products such as U.S. dollar accounts in the Cayman Islands, a ¶ jurisdiction known for secrecy and money laundering. HBMX also ¶ has a long history of severe AML deficiencies. You add all that ¶ up and the U.S. bank should have treated HBMX, the Mexican ¶ affiliate, as a high-risk account for AML purposes. But it did ¶ not.¶ Instead, HBUS treated HBMX as such a low-risk client bank ¶ that it did not even monitor their account activity for ¶ suspicious transactions. In addition, for 3 years, from mid-¶ 2006 to mid-2009, HBUS conducted no monitoring of a banknotes ¶ account used by HBMX to physically deposit billions of U.S. ¶ dollars from clients, even though large cash transactions are ¶ inherently risky and Mexican drug cartels launder U.S. dollars ¶ from illegal drug sales. Because our tough AML laws in the ¶ United States have made it hard for drug cartels to find a U.S. ¶ bank willing to accept huge unexplained deposits of cash, they ¶ now smuggle U.S. dollars across the border into Mexico and look ¶ for a Mexican bank or casa de cambio willing to take the cash. ¶ Some of those casas de cambios had accounts at HBMX, which in ¶ turn took all the physical dollars that it got, transported ¶ them by armored car or aircraft back across the border to HBUS ¶ for deposit into its U.S. banknotes account, completing the ¶ laundering cycle.¶ Over 2 years, from 2007 to 2008, HBMX shipped $7 billion in ¶ physical U.S. dollars to HBUS. That was more than any other ¶ Mexican bank, even one twice HBMX's size. When law enforcement ¶ and bank regulators in Mexico and the United States got wind of ¶ the banknotes transactions, they warned HBMX and HBUS that such ¶ large dollar volumes were red flags for drug proceeds moving ¶ through the HSBC network. In 2008, after warnings from ¶ regulators, HBMX stopped taking large deposits of U.S. dollars, ¶ but for years, HBUS provided an easy gateway into our financial ¶ system for suspicious cash from their foreign affiliate in ¶ Mexico.¶ Next, a second problem involves actions taken by some HSBC ¶ affiliates to circumvent a U.S. ban on bank transactions ¶ involving designated drug traffickers, terrorists, or rogue ¶ regimes such as Iran. To enforce that ban, the U.S. Treasury ¶ Department's Office of Foreign Assets Control (OFAC) has ¶ developed a list of prohibited persons which banks use to ¶ develop what is known as an ``OFAC filter'' to identify and ¶ stop prohibited or suspicious transactions.¶ The Subcommittee found that for years HSBC affiliates in ¶ Europe and the Middle East acted to circumvent the OFAC filter ¶ when sending U.S. dollar transactions involving Iran through ¶ their accounts at HBUS. Although they viewed these transactions ¶ as legal under a U.S. exception for so-called ``U-turn'' ¶ transactions, the affiliates did not want to trigger the OFAC ¶ filter and undergo the individualized reviews required to make ¶ sure that they were legal. So they stripped out or omitted any ¶ reference to Iran from the paperwork. An outside auditor hired ¶ by HBUS has found that, from 2001 to 2007, HSBC affiliates sent ¶ nearly 25,000 transactions involving Iran, worth over $19 ¶ billion, through HBUS and other U.S. accounts while concealing ¶ any link to Iran in 85 percent of the transactions.¶ HSBC's chief compliance officer and other senior executives ¶ in London knew what was going on, but allowed the deceptive ¶ conduct to continue. While some HBUS officials in the United ¶ States claim not to have known they were processing undisclosed ¶ Iranian transactions, documents show that key HBUS officials ¶ were informed early on. HBUS compliance and payment executives ¶ repeatedly told HSBC affiliates that they had to use fully ¶ transparent Iranian transactions, but when faced with evidence ¶ that the affiliates were secretly circumventing the OFAC ¶ filter, nobody in HBUS confronted those affiliates, brought the ¶ issue to a head, and forced the transactions to the light. ¶ Problems also arose when some HSBC affiliates tried to ¶ circumvent the OFAC filter to send potentially prohibited ¶ transactions involving other countries like Sudan or North ¶ Korea.¶ OFAC programs are aimed at exposing and disabling the ¶ financial dealings of some of the most dangerous persons and ¶ regimes in the world, including terrorists, persons involved ¶ with weapons of mass destruction, drug traffickers, and rogue ¶ jurisdictions. The OFAC filter is the key to blocking ¶ prohibited transactions from polluting the U.S. financial ¶ system. Global financial institutions have a special ¶ responsibility to respect OFAC prohibitions, but that is not ¶ what happened here. While HSBC affiliates may have been aiming ¶ simply at avoiding processing delays, circumventing OFAC ¶ safeguards can also facilitate transactions undertaken by some ¶ of the world's worst wrongdoers.¶ A third issue involves the fact that HSBC is active in ¶ regions of the world with significant terrorism challenges ¶ while demonstrating a worrisome willingness to do business with ¶ banks that have links to terrorist financing. One example ¶ involves Al Rajhi Bank, the largest private bank in Saudi ¶ Arabia. After the September 11, 2001 terrorist attack on the ¶ United States, evidence emerged that the bank's key founder was ¶ an early financial benefactor of al-Qaeda and that it provided ¶ accounts to suspect clients.¶ In 2005, HSBC Group told its affiliates to sever ties with ¶ that bank, but they made an exception for HSBC Middle East. ¶ Four months later, without explaining why, HSBC Group reversed ¶ itself and said that all of its affiliates could decide whether ¶ to do business with Al Rajhi Bank. HBUS chose to close its Al ¶ Rajhi accounts. Over the next 2 years, however, its own bankers ¶ and bankers from other HSBC affiliates pressed HBUS to resume ¶ ties with Al Rajhi Bank. And in 2006, after Al Rajhi Bank ¶ threatened to pull all of its business from HSBC unless HBUS ¶ reinstated its U.S. dollar banknotes account, HSBC gave in. And ¶ over the next 4 years, HBUS supplied Al Rajhi Bank with nearly ¶ $1 billion in U.S. dollars, stopping only when HSBC made a ¶ global decision to exit the banknotes business altogether.¶ The fourth area of concern involves HBUS's willingness to ¶ clear suspicious bulk travelers checks for foreign banks. From ¶ 2005 to 2008, on a regular basis, HBUS cleared $500,000 or more ¶ per day in bulk travelers checks for the Hokuriku Bank of ¶ Japan. Routinely, these checks arrived in large stacks of ¶ sequentially numbered checks signed and countersigned with the ¶ same illegible signature. Forced by the Office of the ¶ Comptroller (OCC) of the Currency--to investigate, HBUS found ¶ the Japanese bank could not provide any ``know your client'' ¶ information or any explanation of why two dozen of its ¶ customers, supposedly in the used-car business, were often ¶ depositing $500,000 a day in U.S. dollar travelers checks ¶ purchased from the same bank in Russia. Under OCC pressure, ¶ HBUS stopped clearing the travelers checks in 2008, but kept ¶ open the correspondent account, despite the Japanese bank's ¶ poor AML controls. In less than 4 years, HBUS provided over ¶ $290 million in U.S. dollars to a Japanese bank for the benefit ¶ of Russians, again, supposedly in the used-car business.¶ Finally, there is HBUS's willingness to offer accounts to ¶ bearer share corporations. These corporations are prime ¶ vehicles for money laundering and other illicit activity by ¶ providing anonymity through assigning legal ownership of the ¶ corporation to whoever has physical possession of its shares. ¶ Over a decade, HBUS opened accounts for 2,000 such ¶ corporations, despite warnings by internal auditors and outside ¶ regulators that the accounts posed high money-laundering risks. ¶ Documents show that the actual account owners deliberately ¶ pressured the bank to help hide their identities. One such ¶ account was used by a father-son team of Miami Beach hotel ¶ developers who were later convicted of tax fraud for hiding ¶ $150 million in assets.¶ Bearer share accounts, suspicious travelers checks, banks ¶ with terrorist-financing links, hidden transactions dodging ¶ OFAC safeguards, and Mexican drug money--none of them represent ¶ the types of transactions we want in a U.S. bank. If the parent ¶ corporation of a global bank cannot do a better job policing ¶ its affiliates, we should not be providing a bank charter to ¶ their U.S. affiliate. If the U.S. affiliate cannot do a better ¶ job of standing up to affiliate pressures and safeguarding the ¶ U.S. financial system, Federal regulators should consider ¶ whether to pull its charter.¶ HSBC Group recently issued a policy statement declaring ¶ that all of its affiliates would be subject to the highest AML ¶ standards among them; that its affiliates would start sharing ¶ information to strengthen their AML defenses; and that all ¶ affiliates would be subject to diligence reviews. HBUS has more ¶ than doubled the size of its AML compliance department, put in ¶ a new AML monitoring system, and closed over 395 high-risk ¶ correspondent accounts. These are all good steps, but we saw ¶ this movie before in 2003. The recent commitments are welcome. ¶ Apologies and commitments to improve are also welcome. But ¶ accountability for past conduct is essential, and that is what ¶ has been missing here.¶ It is bad enough that a single bank such as HSBC exposes ¶ the U.S. financial system to multiple-money laundering risks. ¶ It is made worse when there is a failure of anti-money ¶ laundering oversight by the regulator which is supposed to ¶ oversee our biggest banks--the OCC. It is of great concern to ¶ the Subcommittee, and it should be of great concern to every ¶ American, that the OCC tolerated the mounting AML problems at ¶ HBUS for 5 years, without taking any formal or informal ¶ enforcement action. In addition, when the OCC decided the ¶ problems had gone far enough, it lowered HBUS's consumer ¶ compliance rating instead of its safety and soundness rating. ¶ Every other Federal banking agency treats anti-money laundering ¶ deficiencies as a matter of safety and soundness of the bank. ¶ Only the OCC treats anti-money laundering deficiencies as if ¶ they were a matter of consumer protection law. Anti-money ¶ laundering safeguards are not aimed at protecting bank ¶ customers; they are aimed at protecting the entire American ¶ public from wrongdoers seeking to misuse the U.S. financial ¶ system.¶ The new leadership at the OCC needs to move swiftly to ¶ correct the previous oversight shortfalls and to assure that ¶ promised changes at HSBC are implemented promptly and ¶ effectively.¶ Our report contains many recommendations to address the ¶ abuses that we have identified. Among the most important are ¶ the following:¶ HBUS should identify which of its sister affiliates are ¶ high risk, subject them to enhanced monitoring, and in ¶ particular, review whether it should close the account of ¶ HSBC's Mexican affiliate.¶ HBUS should beef up its OFAC compliance program by auditing ¶ affiliate transactions to see if they are circumventing the ¶ safeguards that protect our country and other countries from ¶ terrorists, drug traffickers, and rogue jurisdictions.¶ HBUS should close accounts with banks suspected of ¶ involvement in terrorist financing, revamp its travelers check ¶ controls, and eliminate bearer share accounts.¶ HSBC should require affiliates to share information to ¶ strengthen their anti-money laundering defenses, and should ¶ continue to beef up its compliance program which was given ¶ short shrift in the past.¶ At the OCC, the agency should follow the lead of other ¶ regulators and treat anti-money laundering compliance as a ¶ matter of safety and soundness of banks.¶ The new OCC leadership needs to get the OCC moving against ¶ money laundering by identifying statutory violations, not just ¶ identifying failures of banks as Matters Requiring Attention, ¶ in the face of significant anti-money laundering deficiencies.¶ Global banks have caused the world a lot of heartache. Our ¶ focus today is one global bank that failed to comply with rules ¶ aimed at combating terrorism, drug trafficking, and the money ¶ laundering that fuels so much of what threatens the global ¶ community. I want to thank my staff for their extraordinary ¶ work. I want to thank Senator Coburn for all of his support and ¶ for the work of his staff. And I now turn to him for his ¶ opening statement.¶ OPENING STATEMENT OF SENATOR COBURN¶ Senator Coburn. Thank you, Mr. Chairman. I normally submit ¶ an opening statement for the record and make a few short ¶ comments. I will not do that today because of the gravity of ¶ the problem that we face, and I want to make sure my words are ¶ heard and part of the record.¶ I agree with most of what we heard Senator Levin say. I ¶ want to thank him for his tireless work on this issue. He is ¶ one of my favorite bulldogs in terms of when he gets a hold of ¶ something, he really does not let go of it. I do not always ¶ agree with the number of teeth that he loses when he grabs hold ¶ of it, but the fact is that he does grab hold of it.¶ I would also like to thank both the Office of the ¶ Comptroller of the Currency and HSBC Bank, and the reason I am ¶ thanking them is because in the years that I have been on this ¶ Subcommittee and this Committee, which is 8 years now, I have ¶ never seen the type of cooperation that we received both from a ¶ government agency and a private entity. OCC provided a number ¶ of people for interviews as well as essential documents about ¶ the regulatory process. HSBC Bank officials likewise sat for ¶ dozens of interviews and handed over millions of pages of ¶ documents. Some of today's witnesses were flown in from posts ¶ around the world.¶ As Chairman Levin laid out in his statement, the ¶ Subcommittee's investigation into anti-money laundering and ¶ anti-terror finance efforts at HSBC has covered quite a bit of ¶ ground. PSI examined in detail the types of vulnerabilities our ¶ Nation faces from criminals and terrorists who want to take ¶ advantage and abuse our banking system and take away our ¶ freedoms. What we learned is that the United States faces some ¶ very unique risks, both because of our post-September 11, 2001 ¶ security needs and because of the strength of our financial ¶ system, which attracts worldwide attention.¶ Every day, countless transactions denominated in U.S. ¶ dollars occur around the world. This is good for our economy, ¶ which benefits from a strengthened currency and increased ¶ economic activity. But criminals around the globe are also ¶ drawn to U.S. banks, which offer the attractive option of ¶ making illicit funds look legitimate. If they can pass criminal ¶ proceeds through a U.S. bank unnoticed and untouched, the funds ¶ are unlikely ever to be stopped or ever be recovered.¶ This hearing raises the big and important questions. Banks ¶ want to obey the law, but also grow their businesses. What ¶ happens when the two goals conflict? Banks want to know their ¶ customers, but some customers want privacy. How do we resolve ¶ this? As we write AML policy, we should look for ways to get ¶ all boats rowing in the same direction, letting banks and ¶ government each do what they do best as we all work to combat ¶ crime and terror.¶ At HSBC, we uncovered a number of troubling examples in ¶ which weak AML systems may have let criminal or terrorist funds ¶ pass through. In Mexico, for example, as the Chairman said, ¶ billions of U.S. dollars flowed from the HSBC affiliate in ¶ Mexico. The Mexico affiliate was the single largest exporter of ¶ U.S. dollars in Mexico to HBUS. U.S law enforcement and the ¶ regulatory entities have concluded that because of the volume ¶ of money, it likely came from proceeds of the illegal drug ¶ trade--not a far assumption.¶ In another case, an Iranian bank was allowed to initiate ¶ U.S. dollar transactions that HSBC would process through the ¶ United States without explaining where they came from. At the ¶ time, however, there were severe legal restrictions on any ¶ payments coming from or going to Iran, most often meaning they ¶ would be manually inspected. HSBC's affiliate in London coached ¶ the Iranian bank on how to get the payments through the United ¶ States without inspection and simply requested the bank send ¶ transactions that would not violate U.S. law. In effect, it ¶ relied exclusively on an Iranian bank to comply with a law ¶ intended to catch payments from Iranian banks. The bank or the ¶ officials that made the decision were either naive or willfully ¶ blind.¶ This is why tough AML laws are important. If illicit funds ¶ can be tracked and stopped, there are fewer places for ¶ criminals and terrorists to hide. And while our focus has been ¶ on the problems we found at HSBC Bank, we also have to ¶ emphasize that similar problems exist at other banks. For ¶ example, Citibank, Bank of America, Wachovia, Western Union, ¶ and others have come under scrutiny for laundering drug cartel ¶ profits.¶ The purpose of this hearing, then, is not just to make an ¶ example of HSBC as if it were an anomaly. Rather, this hearing ¶ is to help Congress understand what kind of risks this Nation ¶ faces and what we should do to reduce them. If we can get a ¶ better handle on the risks by looking closely at the operations ¶ of a single bank, we can write better laws and achieve our true ¶ goals: Stopping crime and preventing terror.¶ With that in mind, I believe there are several lessons we ¶ can learn from the problems that we uncovered at HSBC Bank.¶ First, banks around the world operate under different laws, ¶ creating different sensitivities to money laundering. While ¶ this seems apparent, it was not clear how much this would ¶ affect a bank with worldwide affiliates until we took a closer ¶ look. In the case of HSBC, its bank in the United States ¶ operated differently even than its own affiliates in London, ¶ Mexico, and the Middle East. Failure to recognize this can lull ¶ us into thinking we can rely on foreign banks to carry out U.S. ¶ law.¶ Second, bank regulators are sometimes better at identifying ¶ money-laundering vulnerabilities than knowing how to fix them. ¶ Throughout this inquiry, it became clear the Office of the ¶ Comptroller of the Currency was aware of many of HSBC's AML ¶ weaknesses, which it frequently pointed out. It was often at a ¶ loss, however, to prescribe how HSBC could eliminate the ¶ weaknesses. And so its record of enforcement at HSBC resembles ¶ a lapdog rather a watchdog that we sorely need.¶ We have also learned recently that investigators from ¶ Treasury's own Office of Inspector General have cited OCC ¶ personnel for unethical practices. This, unfortunately, does ¶ not seem to be an isolated incident, and we will go into ¶ greater detail in that as we see the facts unfold. Taken ¶ together with our Subcommittee's findings in this ¶ investigation, these conflicts are startling and suggest ¶ Congress should give closer scrutiny to the OCC's actions.¶ The purpose here is to stop criminals from hiding their ¶ illicit funds and preventing terrorists from having the freedom ¶ to plot and plan. The metrics we use to measure a bank's AML ¶ compliance need to focus less on form and more on substance. ¶ How well are we achieving our goal?¶ This Subcommittee has shown the kinds of vulnerabilities ¶ that we now face. Too often what we found left us very ¶ troubled, both for the risks to our Nation and for the level of ¶ effort we saw to eliminate them. HSBC made its share of ¶ mistakes, for which it is now being held accountable.¶ But what we must all remember is that money laundering ¶ always begins with a crime, and this ultimately is what we mean ¶ to fight. To the extent that this hearing results in criminals ¶ and terrorists having fewer options to rob and harm the public, ¶ we will count it a success.¶ It may be impossible to stop all money laundering. Most of ¶ what we call money laundering in a certain context is a benign ¶ transaction in another. Buying travelers checks is innocent ¶ behavior for the tourist, but suspicious behavior when they are ¶ purchased in bulk by terrorists or drug lords. This does not ¶ mean we should not try to stop criminals from laundering their ¶ money through U.S. banks, but we need to do so wisely.¶ I appreciate the efforts that HSBC has made thus far to ¶ improve their AML systems, and I sincerely hope they stick. I ¶ look forward to hearing from their witnesses, as well as from ¶ the OCC, and appreciate their appearance before us today.¶ Thank you, Mr. Chairman.¶ Senator Levin. Thank you very much, Senator Coburn.¶ I would now like to call our first panel of witnesses for ¶ this morning's hearing: The Hon. David S. Cohen, the Under ¶ Secretary for Terrorism and Financial Intelligence at the U.S. ¶ Department of the Treasury; and Leigh Winchell, the Assistant ¶ Director for Investigative Programs at the U.S. Immigration and ¶ Customs Enforcement (ICE). I very much appreciate both of you ¶ being with us this morning. We look forward to your testimony.¶ Pursuant to our Rule VI, all witnesses who testify before ¶ the Subcommittee are required to be sworn, so at this time I ¶ would ask you both to please stand and raise your right hand. ¶ Do you swear that the testimony you are about to give before ¶ this Subcommittee will be the truth, the whole truth, and ¶ nothing but the truth, so help you, God?¶ Mr. Cohen. I do.¶ Mr. Winchell. I do.¶ Senator Levin. We will use a timing system today. About 1 ¶ minute before the red light comes on, you will see the lights ¶ change from green to yellow. That will give you an opportunity ¶ to conclude your remarks. Your written testimony, of course, ¶ will be printed in the record in its entirety, so please try to ¶ limit your oral testimony to 7 minutes.¶ Mr. Cohen, we are going to have you go first, followed by ¶ Mr. Winchell, and after we have heard your testimony, we will ¶ then turn to questions. Please proceed, Mr. Cohen.¶ TESTIMONY OF HON. DAVID S. COHEN,\1\ UNDER SECRETARY FOR ¶ TERRORISM AND FINANCIAL INTELLIGENCE, U.S. DEPARTMENT OF THE ¶ TREASURY¶ Mr. Cohen. Thank you, Chairman Levin and Senator Coburn. ¶ Thank you for inviting me to testify today. I am pleased to ¶ have the opportunity to discuss the importance of the Treasury ¶ Department's efforts to identify and combat money laundering ¶ and terrorist financing in the U.S. banking sector.¶ ¶ \1\ The prepared statement of Mr. Cohen appears in the Appendix on ¶ page 94.¶ ¶ At the outset, it is important to recognize that the United ¶ States maintains one of the strongest and most effective anti-¶ money laundering and counter-terrorist financing regimes in the ¶ world. This is a testament to the work of the Congress, ¶ including this Subcommittee, the regulators, the enforcement ¶ agencies, and the financial institutions themselves. But the ¶ scale, efficiency, and sophistication of the United States' ¶ financial system--particularly its banking sector--make it a ¶ prime target for those who seek to conceal and move illicit ¶ money. This involves not just money launderers, of course, but ¶ also terrorists, weapon proliferators, drug lords, and ¶ organized crime figures, who all at some point rely on the ¶ financial system to store, move, and launder the funds ¶ supporting or derived from their operations.¶ Treasury's ability to protect the integrity of the U.S. ¶ financial system from abuse and to combat critical threats to ¶ our national security and foreign policy depends to a ¶ significant extent on the implementation by U.S. financial ¶ institutions of robust programs to prevent money laundering, ¶ terrorist financing, and sanctions evasion.¶ This morning I would like to briefly address why effective ¶ anti-money laundering, counter-terrorist financing, and ¶ sanctions compliance programs are so critical to our national ¶ security and the integrity of our financial system, as well as ¶ some of the steps we are taking, along with our partners in ¶ Congress, the Executive Branch, and internationally, to improve ¶ the effectiveness of our anti-money laundering, counter-¶ terrorist financing, and sanctions compliance regime.¶ Although it is difficult to measure with precision, by any ¶ estimate, the total amount of dirty money moved through and ¶ concealed within the U.S. financial system is massive--in the ¶ hundreds of billions annually. The sheer volume of money moving ¶ through the banking system in particular makes banks both the ¶ most vulnerable financial institutions for money laundering and ¶ terrorist financing and the most important line of defense ¶ against money laundering and terrorist financing. Our ¶ regulatory framework, overseen by Treasury's Financial Crimes ¶ Enforcement Network (FinCEN), along with the Federal functional ¶ regulators, was built to require financial institutions to ¶ implement risk-based anti-money laundering programs, to collect ¶ and report useful information to law enforcement and national ¶ security authorities for the purpose of combating the full ¶ range of illicit finance. This regulatory framework assists ¶ banks in identifying and managing risk and creates the ¶ foundation of financial transparency required to apply targeted ¶ financial measures, such as sanctions against specific actors ¶ or prohibitions against specific activity.¶ To implement targeted financial sanctions, banks must ¶ screen clients and transactions against the Specially ¶ Designated Nationals (SDN) list, maintained by the Treasury's ¶ Office of Foreign Assets Control. This is a list of drug ¶ traffickers, weapons proliferators, terrorists, officials from ¶ rogue regimes, and other threats to our national security whose ¶ U.S. assets are frozen and who are generally forbidden from ¶ engaging in any transactions in the U.S. financial system.¶ Despite the importance of robust anti-money laundering and ¶ sanctions compliance programs, recent civil enforcement actions ¶ by OFAC, FinCEN, and the Federal banking regulators illustrate ¶ that sometimes financial institutions fail to implement ¶ adequate programs, exposing the U.S. financial system to ¶ significant risks of money laundering and resulting in illicit ¶ actors gaining access to the U.S. financial system.¶ We have seen, for example, an instance where a bank failed ¶ effectively to monitor its correspondent banking relationship ¶ with high-risk customers, resulting the processing of $420 ¶ billion in cross-border financial transactions with 13 high-¶ risk Mexican casas de cambio from 2004 to 2007. We have also ¶ seen several cases where foreign banks stripped out the names ¶ of Iran or other sanctioned entities in wire transaction ¶ messages routed through the United States, resulting in ¶ billions of dollars of benefits to sanctioned parties.¶ These and other similar cases have resulted in criminal ¶ fines and forfeitures of more than $4.6 billion over the past 6 ¶ years. These cases raise important questions about ¶ vulnerabilities in the framework of anti-money laundering and ¶ counter-terrorist financing requirements that require immediate ¶ attention. As a result, Treasury is working closely with our ¶ interagency partners and the private sector to better ¶ understand the compliance challenges faced by financial ¶ institutions, clarify U.S. Government expectations of financial ¶ institutions, and strengthen the overall anti-money laundering ¶ and counter-terrorist financing regulatory structure.¶ In addition to continuing to impose sanctions on weapons ¶ proliferators, narcotics traffickers, transnational criminals, ¶ human rights abusers, and terrorist financiers, my office is ¶ also focused on improvements to our regulatory framework. One ¶ of our most important initiatives is to examine whether the ¶ customer due diligence rules, the foundation of financial ¶ transparency, should be improved.¶ Earlier this year, FinCEN issued an Advance Notice of ¶ Proposed Rulemaking suggesting ways to clarify, consolidate, ¶ and strengthen customer due diligence requirements for ¶ financial institutions, including an obligation to collect ¶ beneficial ownership information. We are also focused on ¶ combating the use of shell companies and other opaque legal ¶ structures that facilitate illicit financial activity. We ¶ strongly support legislation requiring disclosure of beneficial ¶ ownership information in the company formation process. And ¶ because strengthening anti-money laundering and counter-¶ terrorist financing regimes internationally directly benefits ¶ the integrity of the U.S. financial system, my office works ¶ with others in the U.S. Government through the Financial Action ¶ Task Force, the International Monetary Fund, the World Bank, ¶ and the United Nations to encourage foreign jurisdictions to ¶ implement measures to combat illicit finance.¶ I began my testimony this morning by noting that the United ¶ States is home to one of the strongest anti-money laundering ¶ and counter-terrorist financing regimes in the world. In order ¶ to continue as the world leader in financial integrity, ¶ something we can and must do, we are obligated to push ¶ ourselves to identify where we can do better and to work ¶ tirelessly to get there. Today's hearing is one important step ¶ on this road, and I look forward to continuing to work with ¶ this Subcommittee to achieve this critical goal. Thank you.¶ Senator Levin. Thank you very much, Mr. Cohen. Mr. ¶ Winchell.¶ TESTIMONY OF LEIGH H. WINCHELL,\1\ ASSISTANT DIRECTOR FOR ¶ PROGRAMS, HOMELAND SECURITY INVESTIGATIONS, U.S. IMMIGRATION ¶ AND CUSTOMS ENFORCEMENT, U.S. DEPARTMENT OF HOMELAND SECURITY¶ Mr. Winchell. Good morning, Chairman Levin and Senator ¶ Coburn. Thank you for the opportunity to appear before you ¶ today and discuss the efforts of the U.S. Immigration and ¶ Customs Enforcement to combat transnational criminal ¶ organizations and the illicit proceeds used to fund their ¶ criminal activities.¶ ¶ \1\ The prepared statement of Mr. Winchell appears in the Appendix ¶ on page 99.¶ ¶ Over the past two decades, transnational organized crime ¶ has transformed in size, scope, and impact, posing a ¶ significant threat to the national and international security. ¶ While the globalization of organized crime is not new, the ¶ magnitude, pace, and violence accompanying the illicit ¶ activities is alarming.¶ For example, in the past 5 years, we have seen an ¶ unprecedented level of drug-related violence south of our ¶ border which has claimed over 47,000 lives since 2006.¶ The fight against transnational organized crime is one of ¶ the highest priorities of ICE. With the most expansive ¶ investigative authority and the largest investigative force in ¶ the Department of Homeland Security (DHS), we work closely ¶ across agency and international boundaries with our law ¶ enforcement partners, creating a united front to disrupt and ¶ dismantle transnational criminal organizations. This is aided ¶ by our expansive global footprint. With a force of nearly 7,000 ¶ special agents assigned to more than 200 U.S. cities in 71 ¶ offices in 47 countries worldwide, our domestic and ¶ international network of agents all work in concert to target ¶ transnational crime.¶ One of the most effective methods of dismantling a ¶ transnational criminal organization is to attack the criminal ¶ proceeds that is the lifeblood of their operations. In fiscal ¶ year 2011, Homeland Security Investigation special agents ¶ initiated nearly 4,300 financial investigations, resulting in ¶ nearly 1,800 arrests, over 1,000 criminal convictions, more ¶ than 7,700 seizures worth approximately $359 million, including ¶ $331 million in currency and monetary instruments.¶ In 2010, ICE initiated a financial investigative project in ¶ the State of Arizona following an increase in cash activity at ¶ financial institutions along the U.S. and Mexican international ¶ border. As a result of recent changes in Mexican financial ¶ regulations, many criminal organizations were forced to explore ¶ new ways to exploit legitimate financial systems in order to ¶ launder their proceeds. A new trend emerged, known as the ¶ repatriation of the U.S. dollar, and coupled with the Mexican ¶ black market peso exchange, has led to an increase in ¶ identified U.S. currency along the southwest border region, in ¶ the last year and a half or so, approximately two-thirds of $1 ¶ billion in the form of outbound international wires or ¶ cashier's check purchases from border branches of U.S. ¶ financial institutions, mostly to Mexico.¶ In 2005, ICE initiated Operation Firewall as an effort to ¶ raise worldwide awareness of the dangers posed by the cross-¶ border movement and smuggling of illicit funds. Operation ¶ Firewall targets methods used to move and smuggle currency by ¶ focusing on all aspects of illicit cash movements. Since its ¶ inception, Operation Firewall has resulted in more than 5,700 ¶ arrests, totaling more than $553 million, and the arrest of ¶ 1,182 individuals. These efforts include 367 international ¶ seizures totaling nearly $258 million and 253 international ¶ arrests.¶ In August 2009, ICE officially launched the National Bulk ¶ Cash Smuggling Center (BCSC) as a 24/7 investigative support ¶ and operations facility. Since its inception, the BCSC ¶ initiated over 500 criminal investigations, resulting in ¶ millions of dollars seized. The center has also provided ¶ training and outreach to over 21,000 Federal, State, and local ¶ law enforcement.¶ ICE's interaction with the financial institutions from an ¶ anti-money laundering perspective is multilayered. Through our ¶ Cornerstone Outreach Initiative, ICE HSI special agents share ¶ lessons learned, best practices, and money-laundering ¶ typologies with the AML personnel from financial institutions ¶ throughout the world. As part of these outreach efforts, ¶ special agents show how the bank systems and processes can and ¶ are being exploited. By sharing this information, the financial ¶ institutions are better able to understand the threats, ¶ inherent vulnerabilities, and build counter measures into their ¶ training and automatic monitoring systems. These outreach ¶ presentations take place at local branch bank locations as well ¶ as through speaking engagements at AML conferences such as ¶ those hosted by the Association of Certified Anti-Money ¶ Laundering Specialists (ACAMS).¶ In late 2009, HSI expanded their working relationship with ¶ the private sector through ACAMS to assist bank AML specialists ¶ to better identify and monitor financial activity related to ¶ non-traditional criminal groups. This expanded working ¶ relationship allows the members to learn more about current ¶ active financial indicators related to those crimes. The ¶ members can then incorporate what they have learned into ¶ creating models and filters within their AML software to more ¶ accurately identify financial transactions indicative of those ¶ crimes. The CAMS certification, obtained through ACAMS, is the ¶ most widely recognized AML certification among compliance ¶ professionals worldwide.¶ Since its inception, HSI special agents have conducted over ¶ 11,800 Cornerstone presentations and trained over 243,000 ¶ participants worldwide. This outreach has resulted in the ¶ initiation of over 447 criminal investigations, led to the ¶ arrest of approximately 330 individuals, 280 indictments, and ¶ over $666 million seized.¶ Recognizing the magnitude of transnational organized crime, ¶ ICE will continue to work closely with our law enforcement ¶ partners as well as with the industry to identify potential ¶ vulnerabilities that could be exploited by terrorists and other ¶ criminal organizations to earn, move, and store their illicit ¶ proceeds.¶ I want to thank you again for the opportunity to appear ¶ before you today, and I would be pleased to answer any ¶ questions at this time.¶ Senator Levin. Thank you both. Let us start with a 7-minute ¶ first round.¶ Mr. Winchell, in your prepared testimony you talk about ¶ bulk cash, and we will be seeing a lot of discussion of that, ¶ about drug cartels smuggling U.S. dollars from the United ¶ States into Mexico, finding a Mexican bank or a casa de cambio ¶ willing to accept the cash, after which the financial ¶ institution brings or tried to bring the dollars back to the ¶ United States.¶ Now, why would a drug cartel bother to smuggle U.S. dollars ¶ across the border into Mexico only to send those dollars or try ¶ to send those dollars back here again for deposit in our bank? ¶ Explain that circle. And why is it that process takes place? I ¶ tried in my opening statement to do it, but I would like to ¶ hear you try it also.¶ Mr. Winchell. The laws that were initiated in Mexico ¶ involving the banking industry set certain limits on the amount ¶ of U.S. currency that could go into banks in any particular ¶ period of time; $7,000 for a business and $4,000 per individual ¶ per month, I believe, are what the figures are. Bulk cash is ¶ moved south across the border as the proceeds of their illicit ¶ activity in the United States and pooled in Mexico. They are ¶ sold then to money brokers anywhere between 4 to 7 percent ¶ discounted rate. That may be casas de cambios and others that ¶ they use then to move in bulk cash back across the United ¶ States border into U.S. institutions and then wired back into ¶ Mexico and exchanged at the current rate between Mexican ¶ dollars and pesos, and in essence completing the laundering ¶ process of cleaning the money.¶ Senator Levin. But to put it simply, they cannot just ¶ directly deposit these drug sales money into U.S. banks because ¶ we have a Know Your Customer requirement. Is that correct?¶ Mr. Winchell. That would be correct, sir. They have to find ¶ someone in Mexico that would be complicit with their activity.¶ Senator Levin. But they want that money to be in U.S. ¶ banks, to get there and to be laundered.¶ Mr. Winchell. Yes, sir.¶ Senator Levin. So the short answer is they cannot do it ¶ directly, so they have to go through this process of sending it ¶ to a Mexican bank, if they can, and then having it returned ¶ cleansed. Is that correct?¶ Mr. Winchell. That is correct.¶ Senator Levin. Now, what is the relationship between the ¶ strength of a drug cartel and the ability of that drug cartel ¶ to launder money? Is it clear that the more it is able to ¶ launder its money, the stronger the cartel is?¶ Mr. Winchell. Their profits fuel their activity. The more ¶ profit they have, in other words, the more legitimate money ¶ they can appear to have, the more they can fuel their illicit ¶ activity and then diversify their criminal activity. So the ¶ larger the cartel, the richer the cartel, the more powerful ¶ they get.¶ Senator Levin. But also they will be more powerful if they ¶ can launder that money so that they can then diversify?¶ Mr. Winchell. Absolutely.¶ Senator Levin. All right. So that, again, we have all this ¶ huge violence on the border. We have drug cartels down in ¶ Mexico and drug groups here as well fighting for power, ¶ bringing violence to their streets and to our streets. And if ¶ they can successfully launder money, they are stronger. Is that ¶ accurate?¶ Mr. Winchell. That would be very accurate.¶ Senator Levin. OK. Mr. Cohen, would you agree that the more ¶ a terrorist can get their money through our system, the ¶ stronger a terrorist group will be?¶ Mr. Cohen. I would, Mr. Chairman.¶ Senator Levin. All right. Now, even though they have new ¶ rules down in Mexico, as you have just pointed out, I think ¶ starting in 2010, are illicit drug proceeds still being ¶ laundered into U.S. financial institutions, Mr. Cohen?¶ Mr. Cohen. I think there is no question that there ¶ continues to be a problem with money laundering in U.S. ¶ financial institutions coming from Mexico, from the casas de ¶ cambio and other institutions in Mexico, as well as from other ¶ sources where illicit proceeds are placed into the U.S. ¶ financial system.¶ Senator Levin. And, therefore, even though there have been ¶ changes in the laws, for instance, in Mexico and other efforts ¶ made to clamp down on the ability to launder money for these ¶ groups, the terrorist groups or drug cartels, it is still going ¶ on, and the efforts have continued. Can you give us some of the ¶ new efforts that are being made, the new challenges, Mr. Cohen, ¶ in this area of money laundering?¶ Mr. Cohen. Well, to pick up on what Mr. Winchell was ¶ discussing earlier, with respect to Mexico, obviously there is ¶ a substantial amount of legitimate trade with Mexico and a ¶ substantial amount of legitimate U.S. dollars that are spent in ¶ Mexico. And what we see is these Mexican financial institutions ¶ working with casas de cambio and then working with U.S. ¶ financial institutions to take in U.S. dollars from the Mexican ¶ economy. Dirty money is layered in with legitimate funds and ¶ placed into U.S. financial institutions. That continues to be a ¶ serious problem even after the really very important and ¶ aggressive steps that the Mexican Government has taken to ¶ restrict the ability of businesses and individuals to deposit ¶ U.S. dollars directly into Mexican financial institutions.¶ We have also seen some displacement of the money-laundering ¶ cycle, so instead of the drug dollars just moving into Mexico, ¶ because of the steps the Mexican Government has taken, we have ¶ seen some of these dollars move further south in coming back ¶ into the U.S. financial system from countries further into ¶ Central America.¶ Senator Levin. Now, when law enforcement or bank regulators ¶ see a bank in a country with drug-trafficking challenges ¶ transporting large volumes of U.S. dollars to the United ¶ States, is a red flag that illegal drug proceeds might be ¶ involved?¶ Mr. Cohen. I think financial institutions have in their ¶ anti-money laundering programs a whole series of factors that ¶ they look at to determine whether what is happening is normal, ¶ typical behavior or something out of the ordinary and whether ¶ it spikes in the amount of bulk cash coming in or other sort of ¶ anomalous activity. Those are the sorts of things that a well-¶ tuned anti-money laundering program should identify and cause a ¶ financial institution to look at more carefully.¶ Senator Levin. OK. Senator Coburn.¶ Senator Coburn. Thank you.¶ Mr. Cohen, in your testimony, you stated that when ¶ safeguards are not stringently enforced, illicit actors are ¶ able to take advantage of the U.S. financial system. If they ¶ were all enforced 100 percent of the time, basically what I am ¶ hearing is they would still be able to take advantage of the ¶ U.S. financial system because when you blend good with bad from ¶ a legitimate organization--so what are the next steps to limit ¶ that down?¶ Mr. Cohen. Well, Senator Coburn, I would draw a distinction ¶ between the OFAC list, the SDN list, and anti-money laundering ¶ programs in responding to this question. A properly functioning ¶ compliance program with respect to the SDN list should prohibit ¶ anybody on that list from getting access to any U.S. financial ¶ institution because banks can run the filter, run the names, ¶ and if a transaction is coming through from someone who is on ¶ the SDN list, it should be stopped.¶ Preventing money laundering is a more difficult task, and ¶ the regulatory structure that we have implemented and that ¶ Congress has legislated through the Bank Secrecy Act and the ¶ PATRIOT Act and other amendments to Title 31 require a risk-¶ based approach by financial institutions to have an anti-money ¶ laundering program that is appropriate given the risk that the ¶ bank faces across the range of its activities.¶ Every bank is going to approach this in a slightly ¶ different way, and every bank has a slightly different risk ¶ profile given its customer base domestically and how they ¶ interact with affiliates and non-affiliates overseas.¶ I do not think anyone expects to ever achieve a financial ¶ system where there is absolutely no money laundering, but it is ¶ also the case that when financial institutions do not implement ¶ robust anti-money laundering programs across the range of their ¶ activities that is appropriately tuned to the risk that they ¶ face, there is a greater opportunity for illicit acts to get ¶ access to----¶ Senator Coburn. So whose responsibility is it to see that ¶ the banks do just that?¶ Mr. Cohen. Well, I think it is all of our responsibility--¶ --¶ Senator Coburn. No, but it is specific to the Treasury, ¶ right?¶ Mr. Cohen. Sure.¶ Senator Coburn. It is the Treasury Department. Who in the ¶ Treasury Department is responsible for that? What agency?¶ Mr. Cohen. Well, my office is responsible for helping to ¶ set policy. We have obviously the OCC, which is part of the ¶ Treasury Department, that is a bank regulator. It undertakes ¶ its regulatory activities independently from the Secretary of ¶ the Treasury by statute.¶ Senator Coburn. Right.¶ Mr. Cohen. There are obviously other bank regulators as ¶ well that regulate other financial institutions.¶ Senator Coburn. But it is not necessarily that we do not ¶ have enough good regulations. Part of the problem is that the ¶ regulations we have are not being monitored and enforced ¶ properly. Would you agree with that statement?¶ Mr. Cohen. Senator, I think as we continue to work on the ¶ issue of money laundering, I think we need to look both at the ¶ regulatory structure itself and see whether there are ¶ modifications that would be appropriate. And I also think we ¶ need to look at how effectively the regulators are overseeing ¶ financial institutions----¶ Senator Coburn. Well, I think we have seen that. Our ¶ investigation is going to show a lot of lack of effectiveness. ¶ As a matter of fact, it does show a lot of a lack of ¶ effectiveness. So the point I am trying to get to is we can ¶ write all the rules and regulations in the world, but if they, ¶ in fact, are not carried out by the bureaucracy assigned to do ¶ that, it does not matter. So the whole point is: Do we write a ¶ whole bunch more regs? Do we make it even more complicated?¶ One of the questions I had for you I am not going to ask. I ¶ will, if I may, Mr. Chairman, send supplemental questions to ¶ both of these witnesses. Of the people that are doing it ¶ right--and I am going to ask HSBC this, too. What is the cost ¶ of compliance with this as a percentage of the volume in their ¶ banks? And is there going to become a point at which it is not ¶ worth dealing with us? In other words, can we do it more ¶ effectively and more efficiently? And are we doing the right ¶ things?¶ Mr. Cohen. Well, Senator, I think we are looking at, as I ¶ said, whether the regulatory structure needs some modification, ¶ not to make it more complicated but to make it more effective. ¶ I think we are looking at whether the financial institutions ¶ themselves need to do a better job in complying with the ¶ regulations. And we are working very closely with the bank ¶ regulators across the spectrum of regulators, both bank ¶ regulators and the regulators in the securities industry, to ¶ talk about how we all can do a better job of overseeing ¶ compliance in the regulated industries.¶ Senator Coburn. Thank you.¶ Mr. Winchell, just one question. I am going to submit my ¶ questions for the record to both of you, if I might, and have ¶ you respond to them, hopefully in a timely fashion. You talked ¶ about your outreach efforts have resulted in the initiation of ¶ 950 criminal investigations. Did HSI agents identify the ¶ illicit funds or did the banks?¶ Mr. Winchell. It was usually the banks that--I would think ¶ I would be safe in answering that question. Our outreach ¶ efforts are an attempt to educate them on the red flags, and ¶ then they would bring those to our----¶ Senator Coburn. So you are getting some response?¶ Mr. Winchell. Yes, sir.¶ Senator Coburn. All right. And does your Trade Transparency ¶ Unit include partnerships with countries other than Central and ¶ South America?¶ Mr. Winchell. Our Trade Transparency Unit continues to ¶ grow.¶ Senator Coburn. But where is it now? Is it mainly Central ¶ and South America?¶ Mr. Winchell. It is primarily Central and South America, ¶ but it is expanding towards the Philippines and others, now.¶ Senator Coburn. And one thing I will ask you. Prepaid cards ¶ and stored value devices seems to be a new, novel method. I ¶ would love in the response to my questions from both of you on ¶ that, how are we going to handle that one? That one seems even ¶ more difficult.¶ Mr. Winchell. That one is a bit of a challenge for us; ¶ particularly as the individual crosses back and forth across ¶ the border in bearer form, it is basically a bearer instrument. ¶ Of greater concern to us are the loadable and reloadable cards.¶ Senator Coburn. All right. Thank you, Mr. Chairman.¶ Senator Levin. Thank you very much, Senator Coburn.¶ I just have one more question. You touched on this in the ¶ answer to Senator Coburn's question. Just explain for us, if ¶ you would, Mr. Cohen, very simply, what the SDN list is, what ¶ the OFAC filter is, and how the OFAC filter relates to the SDN ¶ list and why these are important.¶ Mr. Cohen. Sure. The SDN list is the compilation of ¶ individuals and entities that have been subject to sanctions ¶ under the range of sanctions programs that OFAC and the ¶ Treasury Department implement. These sanctions programs cover ¶ illicit actors like terrorist financiers, weapons ¶ proliferators, transnational organized criminal groups, ¶ narcotics traffickers, as well as rogue regimes--Iran, North ¶ Korea, Syria, and others. Everybody who is subject to sanctions ¶ under those sanctions programs appears on the SDN list. This is ¶ a list that is published by OFAC, available to every financial ¶ institution, and by and large, financial institutions ¶ incorporate this list into their compliance programs and screen ¶ transactions coming through their financial institutions ¶ against this list, because everybody who appears on that list ¶ is forbidden from dealing with any U.S. person, including any ¶ U.S. financial institution, and their assets are to be frozen.¶ It is critically important that financial institutions run ¶ the OFAC list in their filters so that our sanctions programs ¶ are effectively implemented. We rely on financial institutions ¶ to ensure that those for whom we have applied sanctions are not ¶ able to access the U.S. financial system. That makes our ¶ sanctions programs, which at root are designed to pursue our ¶ most important national security and foreign policy objectives, ¶ as effective as they can be.¶ Senator Levin. How effective is the OFAC filter, in your ¶ judgment?¶ Mr. Cohen. There are some notable examples of situations ¶ where financial institutions have taken steps to try and evade ¶ the OFAC filter. We have over the course of the last 5 or 6 ¶ years entered into a number of significant settlements with ¶ major financial institutions that all have essentially the same ¶ fact pattern, which is that the foreign financial institution ¶ was stripping information from transaction messages running ¶ through the United States as a means to evade their U.S. ¶ partners' OFAC filter. Those are very important cases for us ¶ and I think illustrate how seriously we take this issue. But, ¶ at the same time, I think by and large, U.S. financial ¶ institutions do a good job of incorporating into their ¶ compliance programs the list of names and entities that are on ¶ the OFAC SDN list and screening transactions to prevent access ¶ to their institutions by those who are subject to sanctions.¶ Senator Levin. Will you put in your words now--I asked Mr. ¶ Winchell this before. Put in your words why it is that these ¶ entities we are trying to keep out of our financial system try ¶ to get into our financial system. Why is it that they make this ¶ effort, in your words?¶ Mr. Cohen. I think the simple answer is if you can run ¶ money through the United States, it helps to create an air of ¶ legitimacy to those funds that makes it easier for you to then ¶ make use of those funds for whatever purpose you want to put ¶ them to. And if this is dirty money that you are trying to ¶ portray as clean funds, being able to run it try the U.S. ¶ financial system helps you achieve that objective.¶ Senator Levin. And makes you stronger.¶ Mr. Cohen. It helps you achieve whatever illicit objective ¶ it is that you are trying to achieve, whether it is weapons ¶ proliferation, terrorist financing, or any of the other ¶ activities that are the subject of our sanctions, all of which ¶ we are trying to combat by weakening their financial support.¶ Senator Levin. It helps you achieve the very activities ¶ that we are trying to stop.¶ Mr. Cohen. It does.¶ Senator Levin. Do you have any additional questions?¶ Senator Coburn. No, but I would make one observation. The ¶ better we get, the more they are going to want to be here. That ¶ is one. And number two is it is hard for us to know what an ¶ excellent anti-money laundering system is because we can always ¶ do better. But I would remind us that the cost of that is borne ¶ by the banks, which is ultimately the American consumer. And so ¶ efficiency in how we do this and the worry about too much--in ¶ other words, for the next regulation, what are we achieving for ¶ it? Cost-effectiveness has got to be part of our concern as we ¶ look to handle this.¶ Thank you, Mr. Chairman.

#### The plan is key to resolve enforcement *backlogs* and generate effective *financial intelligence*

Landau French 9 (Anya Landau French, Director for the U.S.-Cuba Policy Initiative at the New America Foundation, former Senior Fellow at the Lexington Institute, former International Trade Advisor to Chairman Max Baucus, Senate Finance Committee, M.A. International Education, George Washington University, B.A. English, “Options for Engagement: A Resource Guide for Reforming U.S. Policy toward Cuba,” Lexington Institute, April 2009, pp.42-43, http://www.lexingtoninstitute.org/library/resources/documents/Cuba/ResearchProducts/options-for-engagement.pdf)

Allocation of security resources to administer travel controls¶ In 2003, the top Republican and Democrat on the Senate Finance Committee, Senators ¶ Chuck Grassley of Iowa and Max Baucus of Montana, conducted a joint investigation of ¶ the U.S. Treasury Department’s efforts to track and shut down global financial networks ¶ exploited by terrorists. As part of their investigation, they inquired into the focus and ¶ resources of the Treasury Department’s Office of Foreign Assets Control (OFAC), which is ¶ charged with sanctions enforcement against both countries and global terrorist and narcoterrorist groups. ¶ The Finance Committee investigation revealed that in 2002 (shortly after the September ¶ 11th attacks and before the war in Iraq), in an office of about 128 staff and supervisory ¶ personnel, OFAC was dedicating roughly 15% of its resources to administering and ¶ enforcing the Cuba travel sanctions. OFAC had 21 staff assigned to the Cuba travel ban, ¶ while two were assigned to tracking the financial networks of Osama Bin Laden, and two ¶ were investigating Saddam Hussein’s finances.188 Senators Baucus, Grassley and a number ¶ of other members of Congress vigorously protested what they saw to be a misallocation of ¶ resources in the global financial war on terrorism. ¶ Senator Baucus returned to the issue of OFAC resource allocations in April 2004. The ¶ Treasury Department informed him it had not reallocated the 21 staff working on Cuba, ¶ but showed 16 staff dedicated to tracking the global financial networks of Osama Bin ¶ Laden, Al Qaeda and affiliated groups.189 When Senator Baucus again asked for updated ¶ information on OFAC’s allocation of staff resources in 2005, the Treasury Department ¶ declined to say how many fulltime employees (or their equivalent) worked on the Cuba ¶ travel ban. The Department said this was because all staff were cross-trained and often ¶ jumped from program to program.190¶ In an effort to force greater accountability on OFAC’s resource allocation, Senator Baucus, ¶ joined by Senator Pat Roberts, then-Chairman of the Senate Select Committee on ¶ Intelligence, authored an amendment that would have required the Treasury Department ¶ to justify and report on its allocation of OFAC resources. The amendment, which the ¶ Senate agreed to, was attached to S.2845, the National Intelligence Reform Act of 2004.191¶ The provision did not become law (it was eventually struck from the bill in final conference ¶ negotiations between the House and Senate). ¶ Despite the statutory requirement that the President regulate travel to Cuba, the Obama ¶ Administration could reduce the ban’s administrative and enforcement burden at OFAC ¶ and free up resources that could be dedicated to other OFAC country programs, such ¶ as Sudan or Iran, or to designated terrorist groups. Currently, there are 12 categories of ¶ travelers who are allowed to travel to Cuba, most by specific license, or in some cases, such ¶ as for government officials, by general license authority (travelers have assumed authority ¶ but must prove their eligibility if challenged). Specific license applications can often ¶ take weeks or months to evaluate and approve. If all currently eligible non-tourist Cuba ¶ travel were subject to general license authority, rather than the time-consuming pre-trip ¶ licensing process**,** OFAC could redirect considerable resources to more urgent intelligence ¶ and enforcement missions.¶ Allocation of port of entry resources focused on travelers to and from Cuba has also ¶ become a subject of debate. In the fall of 2003, the Bush Administration stepped up port ¶ of entry inspections of travelers to Cuba, during which time authorities searched 85% ¶ of passengers’ baggage returning from Cuba.192 A 2007 GAO investigation found that ¶ U.S. authorities had stepped up enforcement after tougher travel regulations promulgated ¶ in 2004 increased the “risk” of embargo violations. The GAO concluded that the high ¶ level of scrutiny of Americans returning from Cuba “may strain CBP’s [Customs and ¶ Border Protection] ability to carry out its mission of keeping terrorists, criminals, and ¶ other inadmissible aliens from entering the country.”193

#### That’s key to *disrupting* AND *deterring* WMD proliferation – *prerequisite* to *all* counter-measures

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Neither the use of financial sanctions as a tool to apply pressure on governments nor controversies and diverse interpretations of their effects are new. An early example from classical Greece is the Megarian Decree, under which Athens introduced a trade embargo on Megara merchants during the Pericles era.1 Aristophanes,2 Thucydides3 and others4 offered¶ very different views: some suggested that it was effective, while Thucydides regarded it as a pretext for the war that followed.¶ The U.N. first introduced sanctions in the 1920s, but it employed them seldom in the years that followed. It was the 1990s that witnessed a significant growth in the use of such coercive measures.5 Aimed at global security threats in ways that could be effective but less radical than the use of force,6 their scope has widened, ranging from aggression and conflict to international terrorism and proliferation of weapons of mass destruction (WMD).7 Multilateral sanctions have been considered and applied due to proliferation concerns in several countries,8 but the most recent ones focus on non-state actors, the Islamic Republic of Iran, and the Democratic People’s Republic of Korea (DPRK).9 Originally, counter-proliferation measures revolved chiefly around export controls, but these are now supplemented by financial control requirements for both governmental and private sector actors.¶ At the same time, “follow-the-money” approaches to crime control have been applied at both the national and international levels.10 Financial¶ controls have been increasingly employed to address serious crime and security problems ranging from organized criminal group activities to corruption and the support of terrorism. These can be used for investigative and intelligence-gathering objectives—they assist in identifying co-conspirators, facilitators, and supporters—as well as for deterrence, disruption, punishment and confiscation purposes. The most recent addition to the list of unlawful practices targeted with this approach is the financing of WMD proliferation. In February 2012, the Financial Action Task Force (FATF), a body setting international standards on money laundering and terrorism finance, revised its Recommendations and incorporated the issue of proliferation finance.11 New Recommendation 7 is entitled “Targeted financial sanctions related to proliferation” and states that:¶ Countries should implement targeted financial sanctions to comply with United Nations Security Council resolutions relating to the prevention, suppression and disruption of proliferation of weapons of mass destruction and its financing. These resolutions require countries to freeze without delay the funds or other assets of, and to ensure that no funds and other assets are made available, directly or indirectly, to or for the benefit of, any person or entity designated by, or under the authority of, the United Nations Security Council under Chapter VII of the Charter of the United Nations.12¶ There is no legal and universally adopted definition of “proliferation finance.” However, the FATF’s working definition can be used for our purposes here:¶ Proliferation finance refers to the act of providing funds or financial services which are used, in whole or in part, for the manufacture, acquisition, possession, development, export, trans-shipment, brokering, transport, transfer, stockpiling or use of nuclear, chemical or biological weapons and their means of delivery and related materials (including both technologies and dual use goods used for non-legitimate purposes), in¶ contravention of national laws or, where applicable, international obligations.13¶ This paper focuses on proliferation finance, outlines relevant provisions of the U.N. Security Council Resolutions (UNSCRs) and the challenges facing the international community in their implementation. While it suggests that there is a good deal of work towards consistent and effective implementation, it points to some concrete measures and areas where counter-proliferation finance efforts could focus.14¶ II. U.N. SECURITY COUNCIL RESOLUTIONS AND PROLIFERATION FINANCE¶ Chapter VII of the U.N. Charter provides that when the Security Council establishes a threat or breach of the peace or acts of aggression, it has the power to introduce measures ranging from “provisional measures” to the use of force.15 Article 41 lays down the legal basis on which sanctions can be applied:¶ The Security Council may decide what measures not involving the use of armed force are to be employed to give effect to its decisions, and it may call upon the Members of the United Nations to apply such measures. These may include complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations.16¶ The obligations stemming from Resolutions issued under Chapter VII of the U.N. Charter are generally mandatory. Yet, room for interpretation exists in the language of some provisions. For instance, when the Resolutions state that Security Council “decides” or that Member States “shall” do something, there is no debate about their mandatory nature. However, when Member States are “called upon” to take certain measures,¶ some argue that these provisions are not mandatory, while others believe that they are mandatory nonetheless. Such diverse interpretations obviously affect different countries’ implementation and practices.¶ The international community has reached a broad consensus on the need to prevent WMD proliferation, but the use of financial controls to this effect is novel to both government agencies and the private sector. How exactly the new counter-proliferation tools can be integrated with or supplement more traditional controls is not entirely clear—even in countries strongly supportive of the new measures.¶ It is important to clarify what sort of measures are provided for by the various UNSCRs. The UNSCRs most relevant to a review of financial vigilance measures are:¶ 1540, 1673, 1810, 1887, 1977 on non-state actor proliferation;¶ 1695, 1718, 1874 on DPRK; and¶ 1696, 1737, 1747, 1803, and 1929 on Iran.¶ These Resolutions establish Committees and occasionally Expert Groups in order to support and monitor their implementation. Their measures cover not only export- and border-control issues, but also:¶ financial controls and vigilance;¶ activity-based financial prohibitions;¶ specific vigilance measures and actions on designated banks;¶ freezing of assets;¶ international cooperation and information sharing; and¶ financial and technical assistance.¶ Resolution 1540 requires that States refrain from supporting by any means non-State actors from developing, acquiring, manufacturing, possessing, transporting, transferring or using nuclear, chemical or biological weapons and their delivery systems.17 The Resolution obliges States to establish domestic controls to prevent the proliferation of nuclear, chemical and biological weapons, and their means of delivery, including by establishing appropriate controls over related materials.18¶ It also mandates that States:¶ [A]dopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage¶ in any of the foregoing activities, participate in them as an accomplice, assist or finance them.19¶ Subsequently, the Security Council stressed the need for work under this and successor Resolutions to be coordinated with that of Committees operating under counter-terrorism Resolutions. Thus, UNSCR 1810 urged the enhanced cooperation “between the 1540 Committee, the Security Council Committee established pursuant to resolution 1267 (1999), concerning Al-Qaida and the Taliban, and the Security Council Committee established pursuant to resolution 1373 (2001) . . . .”20¶ With respect to Iran, UNSCR 1737 (2006) and subsequent Resolutions, the Security Council has adopted measures that include:¶ An embargo on providing to Iran proliferation-sensitive nuclear and ballistic missile-related items listed in the main text or in annexes;21¶ A ban on the procurement of any arms and related materiel from Iran and a ban on the supply of seven categories of conventional weapons and related materiel to Iran;22¶ A travel ban and an assets freeze on specific persons and entities listed in annexes. This assets freeze also applies to any individuals or entities acting on behalf of, or at the direction of, the designated persons and entities, and to entities owned or controlled by them.23¶ The UNSCR financial measures regarding Iran are more specific than those relative to non-state actors. Some are broad-based and preventive in nature, but they contain specific and targeted sanctions as well. They also refer to obligations of both governments and financial institutions.¶ UNSCR 1737 contains several financial measures. Among other things, it requires that all States:¶ [S]hall . . . take the necessary measures to prevent the provision to Iran of any technical assistance or training, financial assistance, investment, brokering or other services, and the transfer of financial resources or ser-vices, related to the supply, sale, transfer, manufacture or use of the prohibited items, materials, equipment, goods and technology specified [in paragraphs 3 and 4].24¶ It further mandates that all States:¶ [S]hall freeze the funds, other financial assets and economic resources which are on their territories at the date of adoption of this resolution or at any time thereafter, that are owned or controlled by the persons or entities designated in the Annex, as well as those of additional persons or entities designated by the Security Council or by the Committee as being engaged in, directly associated with or providing support for Iran’s proliferation sensitive nuclear activities or the development of nuclear weapon delivery systems, or by persons or entities acting on their behalf or at their direction, or by entities owned or controlled by them, including through illicit means . . . .25¶ UNSCR 1803 introduced provisions that applied the measures of Paragraph 12 of UNSCR 1737 to expanded lists of persons and entities and increasingly called for vigilance over all trade and finance—as well as financial institutions—to prevent any support to Iran’s nuclear proliferation activities.26 It also focused on financial institutions and two specific Iranian banks by:¶ Call[ing] upon all States to exercise vigilance over the activities of financial institutions in their territories with all banks domiciled in Iran, in particular with Bank Melli and Bank Saderat, and their branches and subsidiaries abroad, in order to avoid such activities contributing to the proliferation sensitive nuclear activities, or to the development of nuclear weapon delivery systems, as referred to in resolution 1737 (2006).27¶ UNSCR 1929 expanded the measures and extended some to explicitly cover insurance and re-insurance.28 Additional measures applied to financial institutions as UNSCR 1929 called upon States to:¶ [T]ake appropriate measures that prohibit financial institutions within their territories or under their jurisdiction from opening representative offices or subsidiaries or banking accounts in Iran if they have information that provides reasonable grounds to believe that such financial services could contribute to Iran’s proliferation-sensitive nuclear activities or the development of nuclear weapon delivery systems.29¶ With respect to DPRK, UNSCRs 1695 (2006) and especially 1718 (2006) and 1874 (2009) introduced a regime intended to force DPRK to comply with demands related to its nuclear and ballistic missile programs. The measures in this regime include:¶ An embargo on the supply of nuclear, ballistic missiles and other weapons of mass destruction program-related items listed in UNSC documents;30¶ A complete arms embargo with the exception of small arms and light weapons and their related materiel, which can be supplied using con-trolled channels and after prior notification to the Security Council;31¶ Individual targeted sanctions in the form of a travel ban and an assets freeze on designated persons and entities;32 and¶ A ban on the export of luxury goods to the North Korea.33¶ UNSCR 1718 mandated a freeze of:¶ [F]unds, other financial assets and economic resources which are on their territories at the date of the adoption of this resolution or at any time thereafter, that are owned or controlled, directly or indirectly, by the persons or entities designated by the Committee or by the Security Council as being engaged in or providing support for, including through other illicit means, DPRK's nuclear-related, other weapons of mass destruction-related and ballistic missile related programmes, or by persons or entities acting on their behalf or at their direction, and ensure that any funds, financial assets or economic resources are prevented from being made available by their nationals or by any persons or entities within their territories, to or for the benefit of such persons or entities.34¶ Extending further previous sanctions, UNSCR 1874 called upon Member States:¶ [T]o prevent the provision of financial services or the transfer to, through, or from their territory, or to or by their nationals or entities organized under their laws (including branches abroad), or persons or financial institutions in their territory, of any financial or other assets or resources that could contribute to the DPRK’s nuclear-related, ballistic missile-related, or other weapons of mass destruction-related programs or activities, including by freezing any financial or other assets or resources on their territories or that hereafter come within their territories, or that are subject to their jurisdiction or that hereafter become subject to their jurisdiction, that are associated with such programs or activities and¶ applying enhanced monitoring to prevent all such transactions in accordance with their national authorities and legislation.35¶ UNSCR 1874 also called upon:¶ [A]ll Member States and international financial and credit institutions not to enter into new commitments for grants, financial assistance, or concessional loans to the DPRK, except for humanitarian and developmental purposes directly addressing the needs of the civilian population, or the promotion of denuclearization, and also calls upon States to exercise enhanced vigilance with a view to reducing current commitments.36¶ In practical terms, implementing such measures may require new domestic legislation; the introduction of preventive measures and monitor-ing; enhanced enforcement capacity; and actions to be taken by private-sector entities, especially financial institutions.¶ Two categories of measures can be usefully distinguished in these provisions. One category includes targeted financial sanctions centered on actors of concern, while the other is based on activities that support proliferation efforts or programs.¶ Targeted financial sanctions generally “entail the use of financial instruments and institutions to apply coercive pressure on transgressing parties—government officials, elites who support them, members of non-governmental entities—in an effort to change or restrict their behavior.”37 This type of measure can thus target specific persons or entities, their assets, and their transactions because of their involvement in proliferation activities. Occasionally, the names of targets are cited in the main text of Resolutions.38 More often, however, the list of targeted actors is appended.¶ For example, UNSCR 1737 Paragraph 5’s provisions on asset freezes cited earlier should be applied to any other persons or entities “engaged in, directly associated with or providing support for Iran’s proliferation sensitive nuclear activities or the development of nuclear weapon delivery systems, or by persons or entities acting on their behalf or at their direction, or by entities owned or controlled by them, including through illicit means . . . .”39 It also required that all States “shall ensure that any funds, financial assets or economic resources are prevented from being¶ made available by their nationals or by any persons or entities within their territories, to or for the benefit of these persons and entities.”40 The provisions cited above regarding specific Iranian banks and entities of the Islamic Republic of Iran Shipping Lines also fall in this category. An example from the DPRK regime is provided by Paragraph 8(d) of UNSCR 1718 as cited above.¶ On the other hand, activity-based measures relate to specific actions and transactions, such as financing or insurance, linked to proliferation efforts. For example, UNSCR 1540 requires states to establish “appropriate laws and regulations to control export, transit, trans-shipment and re-export and controls on providing funds and services related to such export and trans-shipment such as financing . . . .”41 According to UNSCR 1540, financial controls should be available for application to any exports of controlled items, regardless of destination.42 How and when these legal instruments are applied is left to the discretion and best judgment of the national authorities in the exporting state concerned.¶ There are also provisions that require countries to apply activity-related controls against particular countries, such as Iran and DPRK. An illustration of this type are the measures of Paragraph 6 of UNSCR 1737 regarding technical assistance or training, financial assistance, etc., related to the prohibited items specified in that resolution.43 More recently, UNSCR 1929 mandates that States “prevent the provision to Iran by their nationals or from or through their territories of technical training, financial resources or services, advice, other services or assistance related to the supply, sale, transfer, provision, manufacture, maintenance or use” of specified conventional arms and related materiel.44 In such cases, the Security Council targets financial, commercial and service flows connected to activities supportive of programs of concern in these countries while allowing other transactions with these countries that are not subject to restrictions.¶ The exhaustive listing of requirements and obligations of U.N. Member States is beyond the scope of this paper, but it is clear that they vary not only by type of measure, but also by the particular targets, the implementing national authorities, and the responsibilities of individuals and private sector entities.¶ III. IMPLEMENTATION CHALLENGES¶ A review of Member State reports to the various U.N. Security Council sanctions committees on what they have done to implement the Resolutions discussed here reveals a wide variety of approaches with respect to financial vigilance. Many States refer to their money laundering, terrorism or terrorism-finance laws as measures responsive to the UNSCRs. Other States simply notify national authorities of the UNSCRs’ passage. A small number of governments have considered or introduced specific new measures and laws. France, for instance, has passed a law with three separate offenses against the finance of proliferation of nuclear, chemical, and biological weapons.45 On the other extreme, some countries have not even filed a required progress report to the relevant committees.46¶ This global asymmetry of national laws against proliferation finance is matched by the asymmetry in the existence, strength and application of national export controls. While there is no systematic and comprehensive review of these diverse laws and practices, it is crystal clear that there is plenty of room for improving the way the global community addresses proliferation threats.¶ The challenges are legion. We have already noted the lack of a universal definition of the term “proliferation finance” and the uncertainty about which obligations stemming from the different UNSCRs are mandatory, even when they are under Chapter VII of the U.N. Charter. This uncertainty is of course not coincidental, as it indicates the diverse interests, priorities, and objectives of the members of the Security Council. Consensus has not been reached even within the group of the five perma-nent members of the Security Council. The ambiguity of terms, such as “financial services,” “other services,” “Iranian-controlled bank,” “reasonable grounds to believe,” and “entity under control,”—which are neither defined nor operationalized—makes it unclear what concrete steps are required.47¶ A complicating factor for both government bodies and financial institutions is the existence of related sanction regimes and financial controls at the regional and national level, notably by the EU48 and the U.S.49 These controls go beyond the requirements of the Security Council, have extra-territorial implications, and have been the subject of frequent additions and amendments, reflecting geo-political developments and perceptions of proliferation risks.¶ Beyond legal uncertainties, other implementation difficulties range from lack of capacity and awareness, political will, commercial concerns, and lack of coordination to the neglect of guidance and outreach to the private sector.50 One particular issue worth dwelling upon is the issue of proliferators’ increased sophistication in recent years and the connection between proliferators and other crime or security concerns.¶ Proliferating networks appear to be involving multiple production facilities, more countries, intermediaries, and trans-shipment points, all while compartmentalizing operations and occasionally breaking procurement down to parts and small amounts, which are difficult to detect or trace. As the FATF notes, “while proliferators previously attempted to buy or sell whole manufactured systems with the effective control systems, there is a growing trend to purchase or sell more elementary components. Proliferation networks continuously seek out and exploit weaknesses in the global export control system and international financial system.”51¶ Moreover, rising trade volumes coupled with technological advances have led to more complex trading patterns, rendering export controls more difficult to manage and maintain. In the area of WMD components, the same FATF report has noted the difficulty in dealing with “dual-use” goods with both commercial applications and applications for WMD.52 By masking WMD-related procurement activities as legitimate trade, proliferators tend to exploit global commerce by operating in and¶ through countries with high volumes of cross-border trade or free-trade zones, where their illicit shipments may escape close scrutiny.¶ Even though we lack perfect knowledge of the social organization of proliferation networks and their interface with organized criminal groups or public officials, there is information to suggest that they resort to nominees, front companies, informal channels and methods employed in the commission of other offences (e.g., Customs, commercial and subsidy frauds, tax evasion, corruption, trade-based money laundering, etc.).¶ The open-source literature has not yet discussed proliferation finance in detail. Indeed, this topic may be neglected even within governments and international organizations. Typically, agencies and countries do not share such information, which has hampered some study efforts. Yet we do know that financial institutions’ suspicious activity reports have triggered some such cases.53 We also know that financial transaction information has served well intelligence gathering, investigative, and prosecutorial efforts in various countries.54 Quite often, investigations and prosecutions were initiated under laws targeting money laundering, fraud or corruption.¶ As proliferators seek to circumvent sanctions and other measures, their open-account, nominee, compartmentalized and deceptive practices become harder for financial institutions and government agencies to detect. Additionally, as efforts focus on the financial sector, proliferators may make more use of informal financial and trade networks, which are misunderstood in many parts of the world and difficult to monitor.55 Quite extensive informal financial, remittance, and trade networks operate in key areas—such as South and Southeast Asia, the Middle East, the Caribbean and South America—have been connecting jurisdictions of concern and neighboring countries.¶ Whether or not sanction regimes and financial controls are successful in producing the intended outcomes, they generate effects and raise the cost of proliferation efforts. Past experiences show that among the unintended consequences of sanctions is a certain criminalization of both¶ public- and private-sector actors in target and neighboring countries through which illegal flows are routed.56 Criminal infrastructures, methods, networks, and associations brought about by the demand for prohibited goods and services survive sanctions regimes and pose a longer-term governance threats.¶ Confronting such threats necessitates the consideration of five key points emerging from research into financial crime and specifically relevant to money laundering, terrorism finance and corruption that are common to proliferation finance. These five key points consist of the need for: (1) evidence-based policy making; (2) practices that transcend the current fragmentation of controls that focus on particular offenses; and (3) a strategic approach that (4) includes outreach and partnership with the private sector as well as the academic community and (5) ensures that data on the global flows of information, commerce and finance are collected, rendered traceable, analyzed, and matched in order to identify irregular and suspicious activities, to piece together the bigger picture of serious financial misconduct and networks, illuminating the economic activity currently taking place in the shadows.¶ Briefly, here are the main issues from each point:¶ 1) Too much crime control and policy has been based on assumptions, suspicions and theories rather than carefully collected and strong evidence about the problem at hand.57 As with terrorism finance, we must gather the facts and understand well proliferation activities and networks, their division of labor and methods of operation.¶ 2) Unusual activities that raise suspicion and initial investigations will often not flag a particular underlying offense. The details about the motives and aims of the offenders emerge gradually as inquiries progress. The same applies to sanctions violations and proliferation efforts. Firewalls and strict division of labor that discourage or prevent sharing of information among different control agencies undermine the fight against serious crime and security threats.¶ 3) Given the plethora of challenges facing the implementation of a counter-proliferation finance regime, success and effectiveness is a long-term goal that can be reached progressively and systematically. The project is complex, sensitive and in need of consensual knowledge and a thoughtful sequencing of immediate steps and medium term objectives, while anticipating and minimizing as much as possible adverse consequences.¶ 4) The best ideas and sustainable solutions can only be achieved through multi-stakeholder interactions and collaborations. Guidance from government agencies help private sector entities and compliance officers better identify irregular and problematic accounts, clients or transactions and report them to appropriate authorities, such as the Financial Intelligence Units. Better quality and targeted reporting assists investigations and intelligence analysis as it often provides information otherwise unavailable to government agencies. Risk-based approaches can only be done effectively, when the risks are properly identified, understood and prioritized. Academic and research institutions can assist in this effort by creating new technologies enhancing controls and by engaging in systematic, comprehensive and critical analysis of data and evidence contributing to improved rule-making, policy construction, planning, facilitating multi-stakeholder interactions and training.¶ 5) Research has shown that significant numbers of abuses, irregular and suspicious commercial activities involving billions of U.S. dollars in value every year go undetected due to lack of transparency, traceability and analysis of these transactions on their own and in comparison with the financial data that relate to them. This is a major vulnerability undermining all financial controls the global community has been implementing over the years.58 As Passas and Flynn point out:¶ The fundamental challenge that remains to be faced head on is how the global flows of information/intelligence, finance, trade and services can be made traceable and analyzed at the same time, in the same place. This is the only way one can piece together the puzzle so as to reveal a comprehensive picture of how criminal global networks are able to move and benefit from billions of dollars of profits generated from illicit activities.59¶ IV. CONCLUSION¶ Proliferation of WMD is a top priority security concern, and financial controls are a recent and necessary addition to the international community’s toolkit. The policy implications of the challenges discussed in this paper can be a rather lengthy report per se. The urgent needs include clearer UNSCR mandates, guidance to implementers, and analysis of the relationship correspondence between them and regional or national sanction¶ regimes. One helpful precedent to consider is the approach taken by the U.N. Office on Drugs and Crime, which published legislative guides for the implementation of recent and complex international conventions against transnational organized crime and against corruption.60 The task there was to explain what is necessary for effective implementation without interpreting the conventions. This took painstaking effort to negotiate and reach consensus on their language and requirements, while giving examples of implementation in different legal traditions. Given the sensitivity around proliferation finance issues and controls, an equivalent initiative on UNSCRs would be welcome by Member States and the private sector. The FATF’s forthcoming methodology for the assessment of compliance with its new 40 Recommendations could possibly pave the ground for more harmonized approaches too.¶ The study of proliferation cases and the mapping of proliferation networks, their operations, and their nexus with conventional, informal, and illegal actors is a necessary step towards the construction of an evidence-based strategy in cooperation with the private sector as well as academia.¶ An important issue raised above is the need to rethink crime control beyond specific offenses and defenses against them. The same methods, routes, and infrastructures can be used for a whole range of crimes: offenders most often do not specialize in one crime. Crime controls, especially for serious security threats, must be better organized and coordinated. Financial controls are sometimes resisted as an unnecessary distraction from border and export controls. Increasingly, they are seen as very useful supplements to all kinds of serious crime. Ideally, they do not just supplement other controls but they all get integrated, which is arguably the only way in which national, regional, and international efforts will be truly effective.¶ Awareness-raising, training- and capacity-building, gaming exercises, technical assistance to countries and international bodies, further elaborations and operationalization of the risk-based approach to tackling financial crimes, expert panels, and committees are all important actions and recommendations. Nevertheless, the critical objective in this global effort is to appreciate that counter-proliferation and serious crime control is one and the same enterprise. If we adequately control proliferation, we will control financial and other crime. If we effectively control serious crime in general, we will also detect, capture, and disrupt proliferation attempts. In¶ order to accomplish this, we must address the challenge of the three global flows: commercial, financial and informational. Research and policy energies and brainpower ought to be invested in the quite-feasible61 task of collecting and analyzing the data; rendering them traceable; matching them; producing investigative leads; building the “big picture” of crime and security threats; and leading to pragmatic, sustainable strategies.

#### Current risks are *ahistorical* – *cascading* *breakouts* AND *non-state* *acquisition* make *deliberate* AND *accidental* nuclear conflict inevitable

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SUMMARY: a re-visit of past proliferation helps understand the¶ dangers of the further spread of nuclear weapons.¶ Notwithstanding the establishment of an international non-¶ proliferation regime and occasional, selective, and sometimes¶ vigorous, country-specific non-proliferation policies, the¶ fight against the spread of nuclear weapons has not been¶ recognized in the past as an overriding policy objective by¶ the international community jointly or severally¶ (introduction). It will be argued that is largely due an¶ overly sanguine assessment of the consequences of past¶ proliferation, which has been less benign than is suggested by¶ the reassuring persistence of the taboo on the use of nuclear¶ weapons (part 1). Future proliferation’s consequences appear¶ all the more dire as a consequence of a misunderstanding of¶ the past, which meshes in with new and worrying technical,¶ operational and strategic developments (part 2).¶ ‘Proliferation futures’ will be examined in this combined¶ light of a flawed narrative and new developments, which may¶ lead eventually to the deliberate or inadvertent use of¶ nuclear weapons (part 3). In order to avoid such an outcome,¶ policy recommendations will be flagged (conclusion).¶ A LESS THAN OVERRIDING OBJECTIVE¶ At first blush, the prevention of the spread of nuclear¶ weapons appears as a rare and important feature of global¶ consensus spanning close to half a century. This is clearly¶ the case not only in multilateral declaratory undertakings¶ such as the 1978 Final Document of the UN Special Session on¶ Disarmament (1), notable for its universal nature committing¶ all member states of the United Nations at the time, which¶ states¶ inter alia¶ that “Non proliferation of nuclear weapons¶ is a matter of universal concern”(§36)…”It is imperative…to¶ prevent the proliferation of nuclear weapons”(§65).¶ Previously, and more operationally, the Nuclear Non-¶ Proliferation Treaty, opened to signature on 1 May 1968, laid¶ out the elements of an international regime which has over the¶ years acquired quasi-universal status, with only India, Israel¶ and Pakistan holding out, while only one state (North Korea)¶ has opted out. The NPT in turn built open an initially modest¶ set of safeguards established by the International Atomic¶ Energy Agency after its creation in 1957 and which have¶ developed extensively into an ever-more intrusive system of¶ inspections materialized in particular by the so-called¶ Additional Protocols formalized in 1997 which have been¶ acceded to by 115 states and which another 25 have signed (2).¶ Out of the 44 countries(3) possessing at least one operational¶ nuclear reactor, 35 have ratified the Protocols and three¶ others (India, Iran, and Israel) have signed them . Even the¶ three countries which never joined the NPT have not signaled¶ their intent to act against the non-proliferation aims of the¶ NPT. Only North Korea breaks what is in effect a universal¶ declaratory pattern to which countries pay collective and¶ individual obeisance in words, if not always in deeds.¶ However, this does by no means amount to an over-riding policy¶ imperative, at either the multilateral or national levels. On¶ occasion, the UN as a whole has given an overriding importance¶ to non-proliferation as opposed to other aspects of¶ international relations but on a highly selective basis: such¶ was the case of the imposition of mandatory UN Security¶ Council sanctions against South Africa, when that country’s¶ work on a nuclear test site was uncovered in 1977 (4); and¶ again in the wake of the Gulf War of 1991, when the Security¶ Council mandated the nuclear, biological and chemical¶ disarmament of Iraq(5). But these policies were country-¶ specific, not general in nature. Similarly, non-proliferation¶ only rarely and usually selectively, takes precedence over¶ other elements of bilateral relations between given states.¶ Israel takes firm exception to nuclear wannabees insofar that¶ they deny its right to existence, but is little interested¶ beyond. American militancy against Pakistan’s nuclear¶ ambitions withered when Islamabad’s help was required after¶ the Soviet invasion of Afghanistan; in 2005, Washington¶ spectacularly conceded to India privileges which are normally¶ reserved to bona fide NPT signatories when it signed its¶ bilateral nuclear agreement with that country, a precedent¶ which China is now tempted to grant Pakistan… Russia, France,¶ Britain or other industrialized states take a no less ‘pick¶ and choose’ approach. Despite the misgivings and reservations¶ of some, the 45 member states of the Nuclear Suppliers Group¶ did not prevent the lifting of restrictions vis à vis India¶ flowing from the US-India nuclear agreement (6). The weakening¶ of the NPT entailed by that agreement took second-place to¶ other considerations, such as India’s economic or strategic¶ importance.¶ There is thus a substantial contrast between non-proliferation¶ as an objective and its actual level of priority. In itself,¶ this is neither unusual in international relations (how many¶ other lofty goals are simultaneously proclaimed and¶ neglected?) nor readily avoidable, as the examples cited above¶ demonstrate. However, nuclear weapons have by general¶ acknowledgement (which rests on an all-too reliable set of¶ unimpeachable physics and an even less debatable set of¶ practical data from nuclear use and testing) a unique ability¶ to instantaneously destroy entire populations. That¶ consideration would normally have given non-proliferation a¶ higher rank and a broader remit in the order of international¶ priorities, even if one takes fully into account the¶ Realpolitik requirements of the Cold- and post-Cold-War eras.¶ There are strong and mutually reinforcing empirical and¶ logical reasons which explain this disconnect in the past and¶ which continue to inform the manner in which prospective¶ further proliferation is being approached.¶ In empirical terms, two facts stand out: runaway nuclear¶ proliferation has not occurred and nuclear weapons have not¶ been used, in anger or by accident, since the bombing of¶ Hiroshima and Nagasaki. As long as proliferation had remained¶ confined to countries which were in alliance with the United¶ States, such as the United Kingdom and France (which tested¶ their first devices in 1952 and 1960 respectively), there was¶ little additional fear of a breaking of the taboo on nuclear¶ use in either Washington or Moscow –although the US was even¶ less happy than the USSR at French nuclear ambitions. However,¶ a go-it alone nuclear Red China rang loud alarm bells when it¶ was set to test in 1964, leading both to rumblings about a¶ decapitating Soviet or Soviet-American strike (7)and, more¶ practically, to the drafting of the NPT which sought to limit¶ the nuclear club to those countries having tested before¶ January 1, 1967. This was an era in which runaway¶ proliferation had been hitherto considered as a mainstream¶ scenario(8): in a world with nuclear free agents (the¶ expression ‘rogue state’ had not yet been coined)such as¶ unpredictable Red China, nuclear use would occur. Neither¶ development has happened. Proliferation has remained limited¶ to a limited set of countries (the five ‘official’, the three¶ ‘de facto’, the North Korean ‘sort-of’, the Iranian putative,¶ nuclear powers), and roll-back has occurred willy-nilly:¶ nuclear South Africa disarmed; quasi-nuclear Sweden, once-¶ aspiring or potential Argentina, Brazil, Canada, Germany,¶ Iraq, Italy, Libya, South Korea, Switzerland, Syria, Taiwan¶ eventually renounced the nuclear road; along with the¶ liquidation of the nuclear legacies in Belarus, Kazakhstan and¶ Ukraine. The “system”, however defined (from the role of the¶ NPT to preemptive military strikes against Iraq and Syria by¶ way of defense guarantees within NATO or to Sweden and¶ Ukraine) has more or less worked during the last decades of¶ the XXth century. Nor has the formal advent to nuclear¶ military status, of India and Pakistan in 1998 led to use,¶ while the prospect of Mao’s China running amok have been¶ superseded by a quiescent nuclear doctrine in the Middle¶ Kingdom.¶ The power of this empirical evidence appears in the choice of¶ our leaders’ words. Dire forecasts, and corresponding¶ practical calls for concrete action, are made (rightly) by¶ (mostly Western leaders) about the possible consequences of¶ Iran going nuclear; pie-in-the-sky speeches are made about the¶ need to eliminate all nuclear weapons: but what is largely¶ missing is the bridging language between these two levels of¶ concern of the sort Kennedy used to address the perceived¶ challenge of short-term run-away nuclear proliferation and its¶ implied consequences: in his March 1963 press conference (see¶ endnote 8) he was linking non-proliferation to the prospective¶ test ban treaty (9).¶ Largely missing but not entirely so, as non-state¶ proliferation resulting in nuclear terrorism has been¶ (correctly) seized upon after 9/11 by Presidents Bush jr. and¶ Obama, leading to the first global Nuclear security Summit in¶ Washington DC in April 2010. But however necessary it may be¶ address that fear, which had been identified earlier by able¶ novelists (10), it has not (mercifully) yet materialized in¶ empirical terms either.¶ The empirical evidence which informs non-proliferation’s¶ policy status sustains, and is sustained in turn by, reasoning¶ on the supposed inherent stability of deterrence, in all of¶ its declensions: unilateral, bilateral or even multilateral.¶ Given their disproportionate power, nuclear weapons cannot serve to achieve limited policy goals, thus excluding their use as Clausewitzian weapons; further, the possession of nuclear weapons may even inhibit actions which an aggressive non-nuclear power would otherwise contemplate versus a nuclear power. Stalin at the head of a still clearly non-nuclear USSR blockaded Berlin, an action which none of his nuclear armed successors sought to emulate. As a non-nuclear power, Red China bombed Taiwan repeatedly. The worst of it ceased after Beijing acquired nuclear weapons. Possession of nuclear weapons, possibly after a learning curve, appears to selfdeter escalatory aggressive behavior.¶ Bilateral deterrence between two nuclear powers has long been deemed to moderate direct confrontation and to deflect aggressive behavior towards proxies (11).Although no such theoretical consensus exists vis à vis the possible stability of multi-cornered possession of nuclear weapons, the case has been made by powerful authors such as Ken Waltz or Pierre Gallois (12). In practice, a global multipolar nuclear order was established to some extent since the 1960s, with the USSR, the US and China forming a strategic triangle which was perceived as such by the authors of the Nixon-to-Beijing visit. A regional multipolar dispensation arguably also exists between China, India and Pakistan. These relationships have apparently not led to instabilities greater than (or even as great as) those which have characterized the US-Soviet nuclear standoff.¶ In short, proliferation has been a manageable, slow-motion process, nuclear weapons have not been used nor has the probability of their use appear to have increased (rather the opposite). Its overall status is satisfactory, provided some adjustments are made in terms of securing material from nonstate actors, even if the policy mix sustaining it is messy and occasionally fraught –as so many things are in international life. Difficult case-specific situations such as Iran today will continued to be handled as such, as Iraq was yesterday.¶ THE PAST IS NOT WHAT IT USED TO BE¶ The problem with this reassuring reading of the past is that it is not entirely true. Yes, the NPT had a major material effect by gradually making non nuclear the new normal. Yes again, defense guarantees by the US weaned Germany, Italy (13), South Korea, Taiwan and even neutral Sweden away from the nuclear road, followed by the US-French-British assurances to post-Soviet Ukraine. Yes too, various levels of coercion worked in Iraq, Libya and Syria. But no, the practice of even the most ‘classical’ bilateral deterrence was not nearly as reassuring as the mainstream narrative inherited from the Cold War would have it. Nor can we consider that our elements for empirical judgment as methodologically satisfactory in terms of their breadth and depth. These two negatives will be examined in turn.¶ Nuclear archives, as other sensitive governmental archives, open up usually after an interval of decades and even then with varying levels of culling and redaction. Even oral histories tend to follow this pattern, as ageing witnesses feel freer to speak up. Hence a paradox: when the Soviet- American nuclear confrontation was central to our lives and policies during the Cold War, we didn’t how bad things really where; now that we are beginning to know, there is little public interest given the disappearance of the East-West contest. Yet there are lessons of general interest which can be summarized as follows: 1) the Cuban missile crisis brought us much closer to the brink than the acute sense of danger which prevailed at the time, for reasons which are germane to the current situation: massive failures of intelligence on Soviet nuclear preparations and dispositions in Cuba, notably on tactical nukes and on the operational readiness of a number of IRBMs and their warheads; dysfunctional or imperfect command and control arrangements (notably vis à vis Soviet submarines), unintentionally mixed signals on each antagonist’s actions). These are effectively laid out in Michael Dobb’s book, “One Minute to Midnight”(14). 2) the safety and security of nuclear forces are subject to potentially calamitous procedural, technical or operational mishaps and miscalculations, somewhat along the lines of what applies to related endeavors (nuclear power and aerospace). Scott Sagan in his “Limits of Safety”(15) provides compelling research on the American Cold War experience. It would be interesting to have a similar treatment on the Soviet experience…Although it can be argued that today’s nuclear arsenals are much smaller and easier to manage reliable, and that the technology for their control has been vastly improved, several facts remain:¶ the US has continued to witness serious procedural lapses in the military nuclear arena (16); the de-emphasis of the importance of nuclear weapons in the US force structure is not conducive to treating them with the respect which is due to their destructive power; other nuclear powers do not necessarily benefit from the same technology and learning curves as the older nuclear states, and notably the US; cheek-to-jowl nuclear postures, which prevailed in the Cuban missile crisis and which help explain why World War III nearly occurred, and which characterize India and Pakistan today.¶ Despite the dearth of detail on Indian and Pakistani nuclear crisis management, we know that the stability of nuclear deterrence between India and Pakistan is by no means a given, with serious risks occurring on several occasions since the mid-1980s(17).¶ At another level of analysis, we have to recognize the limits of the database on which we ground our policies on nonproliferation. The nuclear age, in terms of operationally usable devices, began in 1945, less than seventy years, less than the age of an old man. The fact that there has been no accidental or deliberate nuclear use during that length of time is nearly twice as reassuring as the fact that it took more than thirty years (18) for a nuclear electricity generating plant to blow up, in the form of the Chernobyl disaster of 1986. But given the destructive potential of nuclear weapons, twice as much reassurance (in the form of no use of nuclear weapons for close to seventy years) is probably not good enough. Furthermore, the Chernobyl disaster involved the same sort of errors of judgment, procedural insufficiencies and crisis-mismanagement visible in Scott Sagan’s book, not only or even mainly, flawed design choices: inadvertence at work, in other words of the sort which could prevail in a time-sensitive, geographically constrained Indo- Pakistani or Middle Eastern conflict. Give it another seventy years to pass judgment?¶ The same empirical limits apply to the number of actors at play: we have simple bipolar (US-USSR/Russia or India/Pakistan) and complex bipolar (US/France/UK/NATO-Soviet Union/Russia) experience; we’ve had US-Soviet-Chinese or Sino- Indian-Pakistani tripolarity; and we’ve had a number of unipolar moments (one nuclear state vis à vis non-nuclear antagonists). But we mercifully have not had to deal with more complex strategic geometries –yet- in the Middle East or East Asia. We only know what we know, we don’t know what we don’t know.¶ A historical narrative which is not reassuring and an empirical record that is less than compelling need to inform the manner in which we approach further proliferation.¶ PROLIFERATION PUSH AND PULL¶ Ongoing proliferation differs from that of the first half-century of the nuclear era in three essential ways: on the demand side, the set of putative nuclear actors is largely focused in the most strategically stressed regions of the world; on the supply side, the actual or potential purveyors of proliferation are no longer principally the first, industrialized, generation of nuclear powers; the technology involved in proliferation is somewhat less demanding than it was during the first nuclear age. Taken together, these changes entail growing risks of nuclear use.¶ Demand is currently focusing on two regions, the Middle East and East Asia (broadly defined) and involves states and, potentially, non-state actors. In the Middle East, Iran’s nuclear program is the focus of the most intense concerns. A potential consequence in proliferation terms would be to lead regional rivals of Iran to acquire nuclear weapons in term: this concern was vividly in 2007 by the then President of France, Jacques Chirac (19) who specifically mentioned Egypt and Saudi Arabia. The likelihood of such a “proliferation chain-reaction” may have been increased by President Obama’s recent repudiation of containment as an option (20): short of Iran being persuaded or forced to abandon its nuclear ambitions, the neighboring states would presumably have to contemplate security options other than a Cold War style US defense guarantee. Given prior attempts by Iraq, Syria and Libya to become nuclear powers, the probability of a multipolar nuclear Middle East has to be rated as high in case Iran is perceived as having acquired a military nuclear capability. Beyond the Middle East, the possibility of civil war in nuclear-armed Pakistan leading to state failure and the possibility of nukes falling out of the hands of an effective central government. There are historical precedents for such a risk, most notably, but not only(21) in the wake of the collapse of the Soviet Union: timely and lasting action by outside powers, such as the US with the Nunn-Lugar initiative, and the successor states themselves has prevented fissile material from falling into unauthorized hands in significant quantities. Pakistan could pose similar problems in a singularly more hostile domestic environment. As things stand, non-state actors, such as post-Soviet mafiya bosses (interested in resale potential) or Al Qaeda (22) have sought, without apparent success, to benefit from opportunities arising from nuclear disorder in the former USSR and Central Asia. Mercifully, the price Al Qaeda was ready to pay was way below the going rate (upwards of hundreds of $million) for the sorts of services provided by the A.Q.Khan network (see below) to some of his clients.¶ Although North Korea’s nuclear ambitions appear to be both more self-centered and more containable than is the case for Iran, the possibility of state collapse in combination with regional rivalry leave no room for complacency.¶ More broadly we are facing the prospect of a multipolar nuclear Middle East, linked to an uncertain nuclear Pakistan already part of a nuclear South Asia tied via China to the Korean nexus in which nuclear America and Russia also have a stake. More broadly still, such a nuclear arc-of-crisis from the Mediterranean to the Sea of Japan, would presumably imply the breakdown of the NPT regime, or at least its reversion to the sort of status it had during the Seventies, when many of its currently significant members had not yet joined (23), unloosening both the demand and supply sides of proliferation.¶ On the supply side, “old style” proliferation relied on official cooperation between first-generation nuclear or nuclearizing powers, of which the Manhattan project was a forerunner (with American, British and Canadian national contributions and multinational scientific teams), followed inter alia by post-1956 French-Israeli, post-1958 US-UK, pre- 1958 USSR-China cooperation. If India relied heavily on the “unwitting cooperation” , notably on the part of Canada and the US involved in the Atoms for Peace CIRUS research reactor, Pakistan set up the first dedicated, broad spectrum, cross-border trading network to make up for the weakness of its limited industrial base. This import-focused organization thus went beyond traditional espionage-aided efforts (as practiced by the USSR during and after the Manhattan project) or case-by-case purloining or diversion of useful material on the global market (as practiced by Israeli operatives). Even before the Pakistani network had fulfilled its primary task of supplying the national program, it began its transformation into an export-oriented venture.¶ Libya, Iran, North Korea and a fourth country which remains officially unnamed became the main outlets of what became the world’s first private-sector (albeit government originated and, presumably, supported) proliferation company which was only wound down after strong Western pressure on Pakistan after 9/11. Although the by-now richly documented A.Q. Khan network (24) appears to have ceased to function in its previous incarnation, it has powerfully demonstrated that there is an international market for proliferation which other operators can expect to exploit. Furthermore, budding, resource-weak nuclear powers have a strong incentive to cover the cost of their investment by selling or bartering their nuclear-related assets, including delivery systems. The fruits of state-to-state cooperation between Iran, North Korea and Pakistan are clearly apparent in the close-to-identical genealogy of their nuclear-capable ballistic missiles of the No- Dong/Ghauri/Shahab families displayed in military parades and test launches. Not all such cooperation consists of televised objects.¶ Even in the absence of game-changing breakthroughs, technical trends facilitate both demand and supply-side proliferation. For the time being, the plutonium route towards the bomb remains essentially as easy and as difficult as from the earliest years of the nuclear era. Provided a country runs a (difficult-to-hide) research or a power reactor from which low-irradiated fuel can be downloaded at will (such as CANDUtype natural uranium reactors), reprocessing is a comparatively straightforward and undemanding task. Forging and machining a multiple-isotope metal which is notorious for its numerous physical states and chemical toxicity is a substantial challenge, with the companion complications of devising a reliable implosion mechanism. Nuclear testing is highly desirable to establish confidence in the end-result. Opportunities for taking the plutonium-proliferation road may increase somewhat as new techniques (such as pyro-processing) come on stream. Developments in the enriched uranium field have been more substantial in facilitating proliferation. The development of lighter and more efficient centrifuges make it easier for a state to extract enriched uranium speedily in smaller and less visible facilities. Dealing with the resulting military-level HEU is a comparatively undemanding task. The long-heralded advent of industrially effective and reliable laser enrichment technology may eventually further increase ease of access. Downstream difficulties would still remain. Although implosion-mechanisms are not mandatory, they are desirable in order both to reduce the critical mass of U235 for a nuclear explosion and to make for a lighter and smaller more-readily deliverable weapons package.¶ In sum, incremental improvements increase the risk of proliferation. However, non-state actors are not yet, and will not be on the basis of known technical trends, in a position to master the various steps of the two existing military nuclear fuel cycles, which remain the monopoly of states. Nonstate actors would need the active complicity from (or from accomplices within) states, or benefit from the windfall of state collapse, to acquire a military nuclear capability. The threat of nuclear terrorism continues to be subordinated to developments involving state actors, a remark which is not meant to be reassuring since such developments (see above) are increasingly likely as proliferation spreads to new states and as state failure threatens in the ‘arc of proliferation’ extending from the Mediterranean to North-East Asia. Furthermore, non-state actors can be satisfied with levels of nuclear reliability and performance which states could not accept. A difficult-to-deliver or fizzle-prone nuclear device would not provide a state with the level of deterrence needed to shield it from pre-emptive or retaliatory action, whereas a terrorist group would not be seeking such immunity. A road or ship-delivered imperfect device, which would be closer to a radiological bomb than to a fully-fledged atomic weapon would provide its non-state owners with immense potential. The road to a non-state device does not need to be as well-paved.¶ NUCLEAR FUTURES¶ ‘New’ lessons from a revisited past and current trends in nuclear proliferation, will tie into a number of characteristics of contemporary international relations with potentially destabilizing consequences, leading to an increasing likelihood of nuclear use. Four such characteristics will be singled out here both because of their relevance to nuclear crisis management and because of their growing role in the world system in the age of globalization:¶ - Strategic upsets¶ - Limits of imagination¶ - Unsustainable strains¶ - Radical aims¶ The 2008 French Defence and National Security White Paper (25) developed the concept of ‘ruptures stratégiques’ (strategic upsets) to describe the growing tendency of the world system to generate rapid, unexpected, morphing upsets of international security as a consequence of globalization broadly defined against the backdrop of urbanizing populations generating economic growth and environmental and resource constraints. In themselves, such upsets are not novel (see inter alia, a pandemic such as the Black Death in 1348-49, the Great Depression not to mention World Wars or indeed the major and benign strategic upset of 1989-1991) but the very nature of globalization and the relationship between human activity and the Earth’s ability to sustain them) mean more, and more frequent as well as more complex upsets. If this reading is correct –and the Great financial crisis, the Arab revolutions, the accession of China to superpower status can be mentioned as examples which followed the publication of the White paper- then the consequences in the nuclear arena will be twofold. First, nuclear doctrines and dispositions which were conceived under a set of circumstances (such as the Cold War or the India-Pakistan balance of power) may rapidly find themselves overtaken by events. For instance it is easier to demonstrate that US and Russian nuclear forces still visibly bear the imprint of their 1950s template than it is to demonstrate their optimal adaptation to post-post-Cold War requirements. Second, more challenges to international security and of a largely unforeseeable nature mean greater strains placed on the ability of nuclear powers to manage crises against the backdrop of their possession of nuclear weapons. In many, indeed most, cases, such ‘ruptures stratégiques’ will no doubt be handled with nuclear weapons appearing as irrelevant: hypothetical security consequences of an epidemic (such as the interhuman transmission of the H5N1 bird flu virus) or prospective conflicts resulting from climate change do not have prima facie nuclear aspects. But beyond the reminder that we don’t know that as a fact, the probability is, under the ‘rupture stratégique’ hypothesis, that there will be more occasions for putting all crisis management, including nuclear, to the test.¶ Human societies tend to lack the imagination to think through, and to act upon, what have become known as ‘black swan’ events (26): that which has never occurred (or which has happened very rarely and in a wholly different context) is deemed not be in the field of reality, and to which must be added eventualities which are denied because their consequences are to awful to contemplate. The extremes of human misconduct (the incredulity in the face of evidence of the Holocaust, the failure to imagine 9/11) bear testimony to this hard-wired trait of our species. This would not normally warrant mention as a factor of growing salience if not for the recession into time of the original and only use of nuclear weapons in August 1945. Non-use of nuclear weapons may be taken for granted rather than being an absolute taboo. Recent writing on the reputedly limited effects of the Hiroshima and Nagasaki bombs (27) may contribute to such a trend, in the name of reducing the legitimacy of nuclear weapons. Recent (and often compelling) historical accounts of the surrender of the Japanese Empire which downplay the role of the atomic bombings in comparison to early research can produce a similar effect, even if that may not have been the intention (28). However desirable it has been, the end of atmospheric nuclear testing (29) has removed for more than three decades the periodic reminders which such monstrous detonations made as to the uniquely destructive nature of nuclear weapons. There is a real and growing risk that we forget what was obvious to those who first described in 1941 the unique nature of yet-to-be produced nuclear weapons (30). The risk is no doubt higher in those states for which the history of World War II has little relevance and which have not had the will or the opportunity to wrestle at the time or ex post facto with the moral and strategic implications of the nuclear bombing of Japan in 1945.¶ Unsustainable strains are possibly the single most compelling feature of contemporary proliferation. Tight geographical constraints –with, for instance, New Delhi and Islamabad located within 300 miles of each other-; nuclear multipolarity against the backdrop of multiple, criss-crossing, sources of tension in the Middle East (as opposed to the relative simplicity of the US-Soviet confrontation); the existence of doctrines (such as India’s ‘cold start’) and force postures (such as Pakistan’s broadening array of battlefield nukes) which rest on the expectation of early use; the role of non-state actors as aggravating or triggering factors when they are perceived as operating with the connivance of an antagonist state (in the past, the assassination of the Austrian Archduke in Sarajevo in 1914; in the future, Hezbollah operatives launching rockets with effect against Israel or Lashkar-e-Taiba commandos doing a ‘Bombay’ redux in India?): individually or in combination, these factors test crisis management capabilities more severely than anything seen during the Cold War with the partial exception of the Cuban missile crisis. Even the overabundant battlefield nuclear arsenals in Cold War Central Europe, with their iffy weapons’ safety and security arrangements, were less of a challenge: the US and Soviet short-range nuclear weapons so deployed were not putting US and Soviet territory and capitals at risk.¶ It may be argued that these risk factors are known to potential protagonists and that they therefore will be led to avoid the sort of nuclear brinksmanship which characterized US and Soviet behavior during the Cold War in crises such as the Korean war, Berlin, Cuba or the Yom Kippur war. Unfortunately, the multiple nuclear crises between India and Pakistan demonstrate no such prudence, rather to the contrary. And were such restraint to feed into nuclear policy and crisis planning –along the lines of apparently greater US and Soviet nuclear caution from the mid-Seventies onwards-, the fact would remain that initial intent rarely resists the strains of a complex, multi-actor confrontation between inherently distrustful antagonists. It is also worth reflecting on the fact that during the 1980s, there was real and acute fear in Soviet ruling circles that the West was preparing an out-of-the-blue nuclear strike, a fear which in turn fed into Soviet policies and dispositions (31).¶ The Cold War was a set of crises and misunderstandings which came within a whisker of a nuclear holocaust; India and Pakistan’s nuclear standoff is deeply unstable not least as a result of the interaction with non-state actors; a multipolar nuclear Middle East would make the Cuban missile crisis look easy in comparison.¶ Great conflicts tend to occur when one or several of the antagonists views the status quo as sufficiently undesirable and/or unsustainable to prompt forceful pro-action. Notwithstanding widespread perceptions to the contrary, this was not the case of the USSR and the United States during the Cold War. The US had chosen a policy of containment, as opposed to roll-back, of the Soviet Empire within its limits established as a result of World War II. The Soviet Union seized targets of opportunity outside of its 1945 area of control but avoided direct confrontation with US forces. Messianic language from the USSR on the global victory of communism or from the US about the end of the Evil Empire did not take precedence over the prime Soviet concern of preserving the Warsaw Pact and the US pursuit of containment – and, no less crucially, their mutual confidence that they could achieve these aims without going to war one with the other.¶ No such generalization can be made about the Middle East, a region in which the very existence of a key state (Israel) is challenged while others have gone to war with each other (e.g. Iran-Iraq war, the Gulf War of 1990-1991), or are riven by deep internal conflicts. Actors such as Hezbollah, with its organic and functional links with Islamic Iran and Alawite Syria add to the complexities and dangers. Extreme views and actions vis à vis the strategic status quo are widely prevalent. Although the India-Pakistan relationship corresponds to something akin to the US-Soviet ‘adversarial partnership’, that does not apply to radical non-state actors prevalent in Pakistan with more or less tight links to that country’s military intelligence services (ISI, Inter-Services Intelligence). The potential for danger is compounded by the variety of such groups: the Pashtu-related Pakistani Taliban (TTP), Kashmiri-related groups, Jihadi militants from the core provinces of Punjab and Sind… Their common characteristics are extreme radicalism, high levels of operational proficiency, and shared enmity of India. Their potential for triggering a conflict between the two countries is substantial, above and beyond the intentions of government officials.

#### Optimists are *wrong* – *cascading* prolif ensures *extinction*

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Proliferation Optimism: Proliferation optimism was revived in the academy in Kenneth Waltz’s 1979 book, Theory of International Politics.[[1]](#footnote-1)[29] In this, and subsequent works, Waltz argued that the spread of nuclear weapons has beneficial effects on international politics. He maintained that states, fearing a catastrophic nuclear war, will be deterred from going to war with other nuclear-armed states. As more and more states acquire nuclear weapons, therefore, there are fewer states against which other states will be willing to wage war. The spread of nuclear weapons, according to Waltz, leads to greater levels of international stability. Looking to the empirical record, he argued that the introduction of nuclear weapons in 1945 coincided with an unprecedented period of peace among the great powers. While the United States and the Soviet Union engaged in many proxy wars in peripheral geographic regions during the Cold War, they never engaged in direct combat. And, despite regional scuffles involving nuclear-armed states in the Middle East, South Asia, and East Asia, none of these conflicts resulted in a major theater war. This lid on the intensity of conflict, according to Waltz, was the direct result of the stabilizing effect of nuclear weapons. Following in the path blazed by the strategic thinkers reviewed above, Waltz argued that the requirements for deterrence are not high. He argued that, contrary to the behavior of the Cold War superpowers, a state need not build a large arsenal with multiple survivable delivery vehicles in order to deter its adversaries. Rather, he claimed that a few nuclear weapons are sufficient for deterrence. Indeed, he even went further, asserting that any state will be deterred even if it merely suspects its opponent might have a few nuclear weapons because the costs of getting it wrong are simply too high. Not even nuclear accident is a concern according to Waltz because leaders in nuclear-armed states understand that if they ever lost control of nuclear weapons, resulting in an accidental nuclear exchange, the nuclear retaliation they would suffer in response would be catastrophic. Nuclear-armed states, therefore, have strong incentives to maintain control of their nuclear weapons. Not even new nuclear states, without experience in managing nuclear arsenals, would ever allow nuclear weapons to be used or let them fall in the wrong hands. Following Waltz, many other scholars have advanced arguments in the proliferation optimist school. For example, Bruce Bueno de Mesquite and William Riker explore the “merits of selective nuclear proliferation.”[[2]](#footnote-2)[30] John Mearsheimer made the case for a “Ukrainian nuclear deterrent,” following the collapse of the Soviet Union.[[3]](#footnote-3)[31] In the run up to the 2003 Gulf War, John Mearsheimer and Steven Walt argued that we should not worry about a nuclear-armed Iraq because a nuclear-armed Iraq can be deterred.[[4]](#footnote-4)[32] And, in recent years, Barry Posen and many other realists have argued that nuclear proliferation in Iran does not pose a threat, again arguing that a nuclear-armed Iran can be deterred.[[5]](#footnote-5)[33] What’s Wrong with Proliferation Optimism? The proliferation optimist position, while having a distinguished pedigree, has several major problems. Many of these weaknesses have been chronicled in brilliant detail by Scott Sagan and other contemporary proliferation pessimists.[[6]](#footnote-6)[34] Rather than repeat these substantial efforts, I will use this section to offer some original critiques of the recent incarnations of proliferation optimism. First and foremost, proliferation optimists do not appear to understand contemporary deterrence theory. I do not say this lightly in an effort to marginalize or discredit my intellectual opponents. Rather, I make this claim with all due caution and with complete sincerity. A careful review of the contemporary proliferation optimism literature does not reflect an understanding of, or engagement with, the developments in academic deterrence theory in top scholarly journals such as the American Political Science Review and International Organization over the past few decades.[[7]](#footnote-7)[35] While early optimists like Viner and Brodie can be excused for not knowing better, the writings of contemporary proliferation optimists ignore the past fifty years of academic research on nuclear deterrence theory. In the 1940s, Viner, Brodie, and others argued that the advent of Mutually Assured Destruction (MAD) rendered war among major powers obsolete, but nuclear deterrence theory soon advanced beyond that simple understanding.[[8]](#footnote-8)[36] After all, great power political competition does not end with nuclear weapons. And nuclear-armed states still seek to threaten nuclear-armed adversaries. States cannot credibly threaten to launch a suicidal nuclear war, but they still want to coerce their adversaries. This leads to a credibility problem: how can states credibly threaten a nuclear-armed opponent? Since the 1960s academic nuclear deterrence theory has been devoted almost exclusively to answering this question.[[9]](#footnote-9)[37] And, unfortunately for proliferation optimists, the answers do not give us reasons to be optimistic. Thomas Schelling was the first to devise a rational means by which states can threaten nuclear-armed opponents.[[10]](#footnote-10)[38] He argued that leaders cannot credibly threaten to intentionally launch a suicidal nuclear war, but they can make a “threat that leaves something to chance.”[[11]](#footnote-11)[39] They can engage in a process, the nuclear crisis, which increases the risk of nuclear war in an attempt to force a less resolved adversary to back down. As states escalate a nuclear crisis there is an increasing probability that the conflict will spiral out of control and result in an inadvertent or accidental nuclear exchange. As long as the benefit of winning the crisis is greater than the incremental increase in the risk of nuclear war, threats to escalate nuclear crises are inherently credible. In these games of nuclear brinkmanship, the state that is willing to run the greatest risk of nuclear war before back down will win the crisis as long as it does not end in catastrophe. It is for this reason that Thomas Schelling called great power politics in the nuclear era a “competition in risk taking.”[[12]](#footnote-12)[40] This does not mean that states eagerly bid up the risk of nuclear war. Rather, they face gut-wrenching decisions at each stage of the crisis. They can quit the crisis to avoid nuclear war, but only by ceding an important geopolitical issue to an opponent. Or they can the escalate the crisis in an attempt to prevail, but only at the risk of suffering a possible nuclear exchange. Since 1945 there were have been many high stakes nuclear crises (by my count, there have been twenty) in which “rational” states like the United States run a risk of nuclear war and inch very close to the brink of nuclear war.[[13]](#footnote-13)[41] By asking whether states can be deterred or not, therefore, proliferation optimists are asking the wrong question. The right question to ask is: what risk of nuclear war is a specific state willing to run against a particular opponent in a given crisis? Optimists are likely correct when they assert that Iran will not intentionally commit national suicide by launching a bolt-from-the-blue nuclear attack on the United States or Israel. This does not mean that Iran will never use nuclear weapons, however. Indeed, it is almost inconceivable to think that a nuclear-armed Iran would not, at some point, find itself in a crisis with another nuclear-armed power and that it would not be willing to run any risk of nuclear war in order to achieve its objectives. If a nuclear-armed Iran and the United States or Israel have a geopolitical conflict in the future, over say the internal politics of Syria, an Israeli conflict with Iran’s client Hezbollah, the U.S. presence in the Persian Gulf, passage through the Strait of Hormuz, or some other issue, do we believe that Iran would immediately capitulate? Or is it possible that Iran would push back, possibly even brandishing nuclear weapons in an attempt to deter its adversaries? If the latter, there is a real risk that proliferation to Iran could result in nuclear war. An optimist might counter that nuclear weapons will never be used, even in a crisis situation, because states have such a strong incentive, namely national survival, to ensure that nuclear weapons are not used. But, this objection ignores the fact that leaders operate under competing pressures. Leaders in nuclear-armed states also have very strong incentives to convince their adversaries that nuclear weapons could very well be used. Historically we have seen that in crises, leaders purposely do things like put nuclear weapons on high alert and delegate[d] nuclear launch authority to low level commanders, purposely increasing the risk of accidental nuclear war in an attempt to force less-resolved opponents to back down. Moreover, not even the optimists’ first principles about the irrelevance of nuclear posture stand up to scrutiny. Not all nuclear wars would be equally devastating.[[14]](#footnote-14)[42] Any nuclear exchange would have devastating consequences no doubt, but, if a crisis were to spiral out of control and result in nuclear war, any sane leader would rather be facing a country with five nuclear weapons than one with thirty-five thousand. Similarly, any sane leader would be willing to run a greater risk of nuclear war against the former state than against the latter. Indeed, systematic research has demonstrated that states are willing to run greater risks and, therefore, more likely to win nuclear crises when they enjoy nuclear superiority over their opponent.[[15]](#footnote-15)[43] Proliferation optimists miss this point, however, because they are still mired in 1940s deterrence theory. It is true that no rational leader would choose to launch a nuclear war, but, depending on the context, she would almost certainly be willing to risk one. Nuclear deterrence theorists have proposed a second scenario under which rational leaders could instigate a nuclear exchange: a limited nuclear war.[[16]](#footnote-16)[44] By launching a single nuclear weapon against a small city, for example, it was thought that a nuclear-armed state could signal its willingness to escalate the crisis, while leaving its adversary with enough left to lose to deter the adversary from launching a full-scale nuclear response. In a future crisis between a nuclear-armed China and the United States over Taiwan, for example, China could choose to launch a nuclear attack on Honolulu to demonstrate its seriousness. In that situation, with the continental United States intact, would Washington choose to launch a full-scale nuclear war on China that could result in the destruction of many more American cities? Or would it back down? China might decide to strike hoping that Washington will choose a humiliating retreat over a full-scale nuclear war. If launching a limited nuclear war could be rational, it follows that the spread of nuclear weapons increases the risk of nuclear use. Again, by ignoring contemporary developments in scholarly discourse and relying exclusively on understandings of nuclear deterrence theory that became obsolete decades ago, optimists reveal the shortcomings of their analysis and fail to make a compelling case. The optimists also error by confusing stability for the national interest. Even if the spread of nuclear weapons contributes to greater levels of international stability (which discussions above and below suggest it might not) it does not necessarily follow that the spread of nuclear weapons is in the U.S. interest. There might be other national goals that trump stability, such as reducing to zero the risk of nuclear war in an important geopolitical region. Optimists might argue that South Asia is more stable when India and Pakistan have nuclear weapons, but certainly the risk of nuclear war is higher than if there were no nuclear weapons on the subcontinent. In addition, it is wrong to assume that stability is always in the national interest. Sometimes it is, but sometimes it is not. If stability is obtained because Washington is deterred from using force against a nuclear-armed adversary in a situation where using force could have advanced national goals, stability harms, rather than advances, U.S. national interests. The final gaping weakness in the proliferation optimist argument, however, is that it rests on a logical contradiction. This is particularly ironic, given that many optimists like to portray themselves as hard-headed thinkers, following their premises to their logical conclusions. But, the contradiction at the heart of the optimist argument is glaring and simple to understand: either the probability of nuclear war is zero, or it is nonzero, but it cannot be both. If the probability of nuclear war is zero, then nuclear weapons should have no deterrent effect. States will not be deterred by a nuclear war that could never occur and states should be willing to intentionally launch large-scale wars against nuclear-armed states. In this case, proliferation optimists cannot conclude that the spread of nuclear weapons is stabilizing. If, on the other hand, the probability of nuclear war is nonzero, then there is a real danger that the spread of nuclear weapons increases the probability of a catastrophic nuclear war. If this is true, then proliferation optimists cannot be certain that nuclear weapons will never be used. In sum, the spread of nuclear weapons can either raise the risk of nuclear war and in so doing, deter large-scale conventional conflict. Or there is no danger that nuclear weapons will be used and the spread of nuclear weapons does not increase international instability. But, despite the claims of the proliferation optimists, it is nonsensical to argue that nuclear weapons will never be used and to simultaneously claim that their spread contributes to international stability. Proliferation Anti-obsessionists: Other scholars, who I label “anti-obsessionists” argue that the spread of nuclear weapons has neither been good nor bad for international politics, but rather irrelevant. They argue that academics and policymakers concerned about nuclear proliferation spend too much time and energy obsessing over something, nuclear weapons, that, at the end of the day, are not all that important. In Atomic Obsession, John Mueller argues that widespread fears about the threat of nuclear weapons are overblown.[[17]](#footnote-17)[45] He acknowledges that policymakers and experts have often worried that the spread of nuclear weapons could lead to nuclear war, nuclear terrorism and cascades of nuclear proliferation, but he then sets about systematically dismantling each of these fears. Rather, he contends that nuclear weapons have had little effect on the conduct of international diplomacy and that world history would have been roughly the same had nuclear weapons never been invented. Finally, Mueller concludes by arguing that the real problem is not nuclear proliferation, but nuclear nonproliferation policy because states do harmful things in the name of nonproliferation, like take military action and deny countries access to nuclear technology for peaceful purposes. Similarly, Ward Wilson argues that, despite the belief held by optimists and pessimists alike, nuclear weapons are not useful tools of deterrence.[[18]](#footnote-18)[46] In his study of the end of World War II, for example, Wilson argues that it was not the U.S. use of nuclear weapons on Hiroshima and Nagasaki that forced Japanese surrender, but a variety of other factors, including the Soviet Union’s decision to enter the war. If the actual use of nuclear weapons was not enough to convince a country to capitulate to its opponent he argues, then there is little reason to think that the mere threat of nuclear use has been important to keeping the peace over the past half century. Leaders of nuclear-armed states justify nuclear possession by touting their deterrent benefits, but if nuclear weapons have no deterrent value, there is no reason, Ward claims, not to simply get rid of them. Finally, Anne Harrington de Santana argues that nuclear experts “fetishize” nuclear weapons.[[19]](#footnote-19)[47] Just like capitalists, according to Karl Marx, bestow magical qualities on money, thus fetishizing it, she argues that leaders and national security experts do the same thing to nuclear weapons. Nuclear deterrence as a critical component of national security strategy, according to Harrington de Santana, is not inherent in the technology of nuclear weapons themselves, but is rather the result of how leaders in countries around the world think about them. In short, she argues, “Nuclear weapons are powerful because we treat them as powerful.”[[20]](#footnote-20)[48] But, she maintains, we could just as easily “defetish” them, treating them as unimportant and, therefore, rendering them obsolete. She concludes that “Perhaps some day, the deactivated nuclear weapons on display in museums across the United States will be nothing more than a reminder of how powerful nuclear weapons used to be.”[[21]](#footnote-21)[49] The anti-obsessionists make some thought-provoking points and may help to reign in some of the most hyperbolic accounts of the effect of nuclear proliferation. They remind us, for example, that our worst fears have not been realized, at least not yet. Yet, by taking the next step and arguing that nuclear weapons have been, and will continue to be, irrelevant, they go too far. Their arguments call to mind the story about the man who jumps to his death from the top of a New York City skyscraper and, when asked how things are going as he passes the 15th story window, replies, “so far so good.” The idea that world history would have been largely unchanged had nuclear weapons not been invented is a provocative one, but it is also unfalsifiable. There is good reason to believe that world history would have been different, and in many ways better, had certain countries not acquired nuclear weapons. Let’s take Pakistan as an example. Pakistan officially joined the ranks of the nuclear powers in May 1998 when it followed India in conducting a series of nuclear tests. Since then, Pakistan has been a poster child for the possible negative consequences of nuclear proliferation. Pakistan’s nuclear weapons have led to further nuclear proliferation as Pakistan, with the help of rogue scientist A.Q. Khan, transferred uranium enrichment technology to Iran, Libya, and North Korea.[[22]](#footnote-22)[50] Indeed, part of the reason that North Korea and Iran are so far along with their uranium enrichment programs is because they got help from Pakistan. Pakistan has also become more aggressive since acquiring nuclear weapons, displaying an increased willingness to sponsor cross-border incursions into India with terrorists and irregular forces.[[23]](#footnote-23)[51] In a number of high-stakes nuclear crises between India and Pakistan, U.S. officials worried that the conflicts could escalate to a nuclear exchange and intervened diplomatically to prevent Armageddon on the subcontinent. The U.S. government also worries about the safety and security of Pakistan’s nuclear arsenal, fearing that Pakistan’s nukes could fall into the hands of terrorists in the event of a state collapse or a break down in nuclear security. And we still have not witnessed the full range of consequences arising from Pakistani nuclear proliferation. Islamabad has only possessed the bomb for a little over a decade, but they are likely to keep it for decades to come, meaning that we could still have a nuclear war involving Pakistan. In short, Pakistan’s nuclear capability has already had deleterious effects on U.S. national security and these threats are only likely to grow over time. In addition, the anti-obsessionists are incorrect to argue that the cure of U.S. nuclear nonproliferation policy is worse than the disease of proliferation. Many observers would agree with Mueller that the U.S. invasion of Iraq in 2003 was a disaster, costing much in the way of blood and treasure and offering little strategic benefit. But the Iraq War is hardly representative of U.S. nonproliferation policy. For the most part, nonproliferation policy operates in the mundane realm of legal frameworks, negotiations, inspections, sanctions, and a variety of other tools. Even occasional preventive military strikes on nuclear facilities have been far less calamitous than the Iraq War. Indeed, the Israeli strikes on nuclear reactors in Iraq and Syria in 1981 and 2007, respectively, produced no meaningful military retaliation and a muted international response. Moreover, the idea that the Iraq War was primarily about nuclear nonproliferation is a contestable one, with Saddam Hussein’s history of aggression, the unsustainability of maintaining the pre-war containment regime indefinitely, Saddam’s ties to terrorist groups, his past possession and use of chemical and biological weapons, and the window of opportunity created by September 11th, all serving as possible prompts for U.S. military action in the Spring of 2003. The claim that nonproliferation policy is dangerous because it denies developing countries access to nuclear energy also rests on shaky ground. If anything, the global nonproliferation regime has, on balance, increased access to nuclear technology. Does anyone really believe that countries like Algeria, Congo, and Vietnam would have nuclear reactors today were it not for Atoms for Peace, Article IV of the NPT, and other appendages of the nonproliferation regime that have provided developing states with nuclear technology in exchange for promises to forgo nuclear weapons development? Moreover, the sensitive fuel-cycle technology denied by the Nuclear Suppliers Group (NSG) and other supply control regimes is not even necessary to the development of a vibrant nuclear energy program as the many countries that have fuel-cycle services provided by foreign nuclear suppliers clearly demonstrate. Finally, the notion that nuclear energy is somehow the key to lifting developing countries from third to first world status does not pass the laugh test. Given the large upfront investments, the cost of back-end fuel management and storage, and the ever-present danger of environmental catastrophe exemplified most recently by the Fukushima disaster in Japan, many argue that nuclear energy is not a cost-effective source of energy (if all the externalities are taken into account) for any country, not to mention those developing states least able to manage these myriad challenges. Taken together, therefore, the argument that nuclear nonproliferation policy is more dangerous than the consequences of nuclear proliferation, including possible nuclear war, is untenable. Indeed, it would certainly come as a surprise to the mild mannered diplomats and scientists who staff the International Atomic Energy Agency, the global focal point of the nuclear nonproliferation regime, located in Vienna, Austria. The anti-obsessionsists, like the optimists, also walk themselves into logical contradictions. In this case, their policy recommendations do not necessarily follow from their analyses. Ward argues that nuclear weapons are irrelevant and, therefore, we should eliminate them.[[24]](#footnote-24)[52] But, if nuclear weapons are really so irrelevant, why not just keep them lying around? They will not cause any problems if they are as meaningless as anti-obsessionists claim and it is certainly more cost effective to do nothing than to negotiate complicated international treaties and dismantle thousands of warheads, delivery vehicles, and their associated facilities. Finally, the idea that nuclear weapons are only important because we think they are powerful is arresting, but false. There are properties inherent in nuclear weapons that can be used to create military effects that simply cannot, at least not yet, be replicated with conventional munitions. If a military planner wants to quickly destroy a city on the other side of the planet, his only option today is a nuclear weapon mounted on an ICBM. Therefore, if the collective “we” suddenly decided to “defetishize” nuclear weapons by treating them as unimportant, it is implausible that some leader somewhere would not independently come to the idea that nuclear weapons could advance his or her country’s national security and thereby re-fetishize them. In short, the optimists and anti-obsessionists have brought an important perspective to the nonproliferation debate. Their arguments are provocative and they raise the bar for those who wish to argue that the spread of nuclear weapons is indeed a problem. Nevertheless, their counterintuitive arguments are not enough to wish away the enormous security challenges posed by the spread of the world’s most dangerous weapons. These myriad threats will be considered in the next section. Why Nuclear Proliferation Is a Problem The spread of nuclear weapons poses a number of severe threats to international peace and U.S. national security including: nuclear war, nuclear terrorism, emboldened nuclear powers, constrained freedom of action, weakened alliances, and further nuclear proliferation. This section explores each of these threats in turn. Nuclear War. The greatest threat posed by the spread of nuclear weapons is nuclear war. The more states in possession of nuclear weapons, the greater the probability that somewhere, someday, there is a catastrophic nuclear war. A nuclear exchange between the two superpowers during the Cold War could have arguably resulted in human extinction and a nuclear exchange between states with smaller nuclear arsenals, such as India and Pakistan, could still result in millions of deaths and casualties, billions of dollars of economic devastation, environmental degradation, and a parade of other horrors. To date, nuclear weapons have only been used in warfare once. In 1945, the United States used one nuclear weapon each on Hiroshima and Nagasaki, bringing World War II to a close. Many analysts point to sixty-five-plus-year tradition of nuclear non-use as evidence that nuclear weapons are unusable, but it would be naïve to think that nuclear weapons will never be used again. After all, analysts in the 1990s argued that worldwide economic downturns like the great depression were a thing of the past, only to be surprised by the dot-com bubble bursting in the later 1990s and the Great Recession of the late Naughts.[[25]](#footnote-25)[53] This author, for one, would be surprised if nuclear weapons are not used in my lifetime. Before reaching a state of MAD, new nuclear states go through a transition period in which they lack a secure-second strike capability. In this context, one or both states might believe that it has an incentive to use nuclear weapons first. For example, if Iran acquires nuclear weapons neither Iran, nor its nuclear-armed rival, Israel, will have a secure, second-strike capability. Even though it is believed to have a large arsenal, given its small size and lack of strategic depth, Israel might not be confident that it could absorb a nuclear strike and respond with a devastating counterstrike. Similarly, Iran might eventually be able to build a large and survivable nuclear arsenal, but, when it first crosses the nuclear threshold, Tehran will have a small and vulnerable nuclear force. In these pre-MAD situations, there are at least three ways that nuclear war could occur. First, the state with the nuclear advantage might believe it has a splendid first strike capability. In a crisis, Israel might, therefore, decide to launch a preemptive nuclear strike to disarm Iran’s nuclear capabilities and eliminate the threat of nuclear war against Israel. Indeed, this incentive might be further increased by Israel’s aggressive strategic culture that emphasizes preemptive action. Second, the state with a small and vulnerable nuclear arsenal, in this case Iran, might feel use ‘em or loose ‘em pressures. That is, if Tehran believes that Israel might launch a preemptive strike, Iran might decide to strike first rather than risk having its entire nuclear arsenal destroyed. Third, as Thomas Schelling has argued, nuclear war could result due to the reciprocal fear of surprise attack.[[26]](#footnote-26)[54] If there are advantages to striking first, one state might start a nuclear war in the belief that war is inevitable and that it would be better to go first than to go second. In a future Israeli-Iranian crisis, for example, Israel and Iran might both prefer to avoid a nuclear war, but decide to strike first rather than suffer a devastating first attack from an opponent. Even in a world of MAD, there is a risk of nuclear war. Rational deterrence theory assumes nuclear-armed states are governed by rational leaders that would not intentionally launch a suicidal nuclear war. This assumption appears to have applied to past and current nuclear powers, but there is no guarantee that it will continue to hold in the future. For example, Iran’s theocratic government, despite its inflammatory rhetoric, has followed a fairly pragmatic foreign policy since 1979, but it contains leaders who genuinely hold millenarian religious worldviews who could one day ascend to power and have their finger on the nuclear trigger. We cannot rule out the possibility that, as nuclear weapons continue to spread, one leader will choose to launch a nuclear war, knowing full well that it could result in self-destruction. One does not need to resort to irrationality, however, to imagine a nuclear war under MAD. Nuclear weapons may deter leaders from intentionally launching full-scale wars, but they do not mean the end of international politics. As was discussed above, nuclear-armed states still have conflicts of interest and leaders still seek to coerce nuclear-armed adversaries. This leads to the credibility problem that is at the heart of modern deterrence theory: how can you threaten to launch a suicidal nuclear war? Deterrence theorists have devised at least two answers to this question. First, as stated above, leaders can choose to launch a limited nuclear war.[[27]](#footnote-27)[55] This strategy might be especially attractive to states in a position of conventional military inferiority that might have an incentive to escalate a crisis quickly. During the Cold War, the United States was willing to use nuclear weapons first to stop a Soviet invasion of Western Europe given NATO’s conventional inferiority in continental Europe. As Russia’s conventional military power has deteriorated since the end of the Cold War, Moscow has come to rely more heavily on nuclear use in its strategic doctrine. Indeed, Russian strategy calls for the use of nuclear weapons early in a conflict (something that most Western strategists would consider to be escalatory) as a way to de-escalate a crisis. Similarly, Pakistan’s military plans for nuclear use in the event of an invasion from conventionally stronger India. And finally, Chinese generals openly talk about the possibility of nuclear use against a U.S. superpower in a possible East Asia contingency. Second, as was also discussed above leaders can make a “threat that leaves something to chance.”[[28]](#footnote-28)[56] They can initiate a nuclear crisis. By playing these risky games of nuclear brinkmanship, states can increases the risk of nuclear war in an attempt to force a less resolved adversary to back down. Historical crises have not resulted in nuclear war, but many of them, including the 1962 Cuban Missile Crisis, have come close. And scholars have documented historical incidents when accidents could have led to war.[[29]](#footnote-29)[57] When we think about future nuclear crisis dyads, such as India and Pakistan and Iran and Israel, there are fewer sources of stability that existed during the Cold War, meaning that there is a very real risk that a future Middle East crisis could result in a devastating nuclear exchange.

#### AND, bioweapons *acquisition* and *weaponization* are increasingly likely – *enforcement* is key

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Because of their relative ease of purchase and development, biological weapons have been called¶ “the poor man’s nuclear bomb.” This paper examines the extent to which such weapons are likely¶ to spread – in particular, to terrorist hands – and whether the United States and its allies effectively¶ control their proliferation. It concludes that while we can and should take useful steps, biological¶ weapons will proliferate and we will be unable to retard this proliferation as effectively as we¶ retarded nuclear proliferation over the past 60 years.¶ BIOLOGICALWEAPONS: WHY AND HOW¶ Discussion of biological weapons is complicated by their diversity and their unfamiliarity. It¶ helps, therefore, to focus on five “reference cases”:2¶ (1) use of anthrax (a bacterium) in a major outdoor aerosol attack;¶ (2) use of smallpox (a virus) in an indoor aerosol attack (for example, through a building heating,¶ ventilation, and air conditioning [HVAC] system);¶ (3) dissemination of a toxin,3 such as botulinum, through the food supply, for example through¶ cold drinks;¶ (4) spread of foot and mouth disease (a virus that does not affect humans) in cows, pigs, and sheep;¶ (5) the invention and dispersal of a pathogen that does not have the attributes of pathogens that¶ exist in nature. All biological agents that appear on U.S. agency threat lists now exist (or in the case¶ of smallpox, used to exist) in nature. This last case – sometimes now called “Case 5” or “Case X”4–¶ is less pressing, but obviously more open-ended and therefore most complex.¶ Military thinking about biological weapons has long noted both their attractiveness and their¶ limitations. Though it is sometimes said that there is no history of their use, examples are numerous,¶ including the medieval practice of throwing cadavers into walled cities, British impregnation¶ of blankets with smallpox, and Japanese infliction of plague on Chinese populations.5 After World¶ War II several nations invested in more sophisticated versions of these weapons. The United States¶ ran an extensive program until 1969. Britain, which had planned an anthrax attack on Germany¶ in 1943, extensively contaminated an island off Scotland through anthrax field trials. In submissions¶ to United Nations inspectors, Iraq acknowledged a program into the early 1990s.6 Long after¶ forswearing biological weapons through the Biological Weapons Convention (BWC), Russia¶ employed tens of thousands of people in an ongoing biological weapons program. Intelligence¶ estimates reported in the press reference a number of other countries as having experimented with¶ biological weapons – in particular, North Korea.7¶ There is no doubt that some biological agents can be weapons of mass destruction. Anthrax is¶ prevalent in every program. Bacillus anthracis, the bacterium that causes the disease of anthrax,¶ commonly exists in a dormant, sporulated form that germinates in a benign environment such as the¶ human lymphatic system to produce the disease-causing bacillus. A gram or so of anthrax mailed to¶ Senator Daschle was reported to have contained over one trillion spores. Ten thousand anthrax¶ spores, if untreated, will induce death in the average person.8 Thus, in theory, if perfectly distributed,¶ one gram can kill millions of people. Of course, perfect distribution is unattainable9 – but if the¶ material were increased to a kilogram and released over an urban area, it could reasonably be¶ expected to infect more than a hundred thousand people.¶ Smallpox is perhaps the most feared of agents because, unlike anthrax, it is contagious. Victims¶ shed the virus; if uninhibited, a smallpox shedder can be expected to infect two or three others.¶ Smallpox is also highly lethal, killing about 30 percent of those who contract it. The horror of the¶ disease drove the world to unite in eradicating it three decades ago… yet ironically, because of our¶ success in that noble endeavor, we find ourselves more vulnerable today to a deliberate smallpox¶ outbreak. Much of the world population is now in the same position as the Incas when the Spanish¶ inadvertently introduced this disease into the New World – they have no immunity (either by experience¶ or by vaccination10) against the disease.11¶ A state might pursue biological weapons as a means of deterrence or coercion. Beyond the dangers¶ of state use, however, these programs risk leakage12 of capabilities to terrorists that are notably¶ higher than with nuclear programs. The small size and low visibility of biological agents make them¶ more vulnerable to theft or acquisition by bribery. Moreover, biological agents do not require substantial¶ delivery systems. Even if terrorists do not obtain weapons from states, they may nonetheless¶ tap into the knowledge developed in state programs to accelerate their own abilities to produce¶ and employ biological weapons.¶ While biological weapons are thought of predominantly as mass casualty weapons, there are,¶ unfortunately, other uses that may make them attractive to terrorists – in particular, their employment¶ as narrowly targeted weapons, as weapons of mass disruption, and as campaign, rather than¶ incident, weapons.¶ Targeted weapons. Terrorists typically have focused on particular targets of symbolic and practical¶ value. It is sometimes thought that biological weapons, though effective mechanisms for¶ inducing terror, are not readily targeted because winds and other uncertainties make aerosol¶ attacks difficult to focus. Yet the anthrax letters sent in the fall of 2001 demonstrate that B.¶ anthracis can be aimed at particular people or sets of people. Similarly, an aerosol bacterial or viral¶ attack can be disseminated through the air intake of a critical building. Toxins have successfully¶ been used as assassination weapons.13 Even a large food supply contamination could be aimed at¶ a relatively narrow target – for example, a military base. Foot and mouth disease or crop attacks¶ can be aimed at a nation’s economy rather than its people.¶ Weapons of mass disruption. In addition to their human toll, the anthrax letters gravely disrupted¶ the U.S. mail system. An attack of this kind at a time tax payments are due or a continued¶ attack that impeded all billing and payment systems would have substantial effects on the¶ American economy. More generally, biological weapons could be deployed as area denial weapons.¶ The anthrax letters closed four major facilities. It took three months to return the Hart Senate¶ Office Building to use, two years to complete clean-up of the Brentwood and Trenton postal facilities,¶ and three years before the American Media Building in Florida was decontaminated. The¶ total cost of these four efforts was almost $250 million.¶ A broader attack would be extremely disruptive. We have only a rudimentary understanding of¶ decontamination, including how to decontaminate, how to measure what we have decontaminated,¶ how to preserve electronic and optical equipment, how to preserve precious assets such as paper¶ records and paintings, and, above all, “how clean is clean?” – that is, to what standard we need to¶ decontaminate. We also have very limited assets for what is presently our most effective means of¶ decontamination, producing and spraying chlorine dioxide gas. A meticulous analysis has calculated¶ that with present technologies and engaging all potential assets, the cleanup of an aerosol dissemination¶ of one kilo of B. anthracis over Manhattan would take 42 years.14¶ Anthrax is not alone as a contamination problem. An aerosol release of a virus such as smallpox¶ or SARS in a subway system, tunnel or airport would have similar area denial effects with grave¶ economic consequences. In both civilian and military contexts, we also should be concerned about¶ biological attacks on ports, not only for their effects on people but for their effects on commerce¶ and on the flow of military goods. In a foreign contingency, for example, 95 percent of military¶ supplies are carried by sea. It is not uncommon for there to be only one port of debarkation¶ abroad. That port will depend on immovable assets and on civilians who are likely to be unwilling¶ to enter a contaminated area.¶ Biological weapons can also achieve mass disruption by attacks on our economic system. The¶ damage from Cases 3 (poisoning the food supply) and 4 (attacking animals) can readily be envisioned.¶ The 2001 British foot and mouth disease outbreak is estimated to have cost the UK on the¶ order of $15 billion.15 It also proved psychologically and politically disruptive; by all accounts, the¶ government’s credibility and authority suffered severely.¶ Campaign terrorism. Terrorist attacks are commonly thought of as time-bound “incidents.”¶ However traumatic the assaults on two of our embassies in Africa, on Khobar Towers and the Cole¶ in the Middle East, or on the twin towers and the Pentagon on 9/11, when they were over, they were¶ over. Terrorist capabilities to perpetuate those attacks were, at least for the moment, exhausted,¶ and our abilities to respond with heightened security permitted us to resume, among other things,¶ commercial air traffic, embassy business, use of the Pentagon, and visits by our warships to foreign¶ ports. Subconsciously, these experiences feed an American vision of warfare generally and terrorism¶ particularly: that others may surprise us and the effects may be traumatic, but after an attack¶ there will be a lull, we will regroup and implement more effective protection, and in the longer¶ term, our resilience, diversified strength, and unity will enable us to prevail.¶ Unfortunately, biological weapons particularly lend themselves to another less desirable paradigm:¶ campaign terrorism rather than incident terrorism. Biological attacks are not likely to be limited¶ by the supply of material. Supply is measured in grams and kilos. While scaling from grams to¶ kilos typically requires moving from laboratory bench systems to more substantial, but still roomsized,¶ production, if you can manufacture one kilo, you can manufacture many.16 Attackers do not¶ need substantial or very visible launch vehicles – a backpack sprayer will do. Attackers can stand at¶ a distance, attack and then relocate across considerable distances. We are not likely to be aware of¶ an attack until several hours (assuming that sensors detect it) or even several days (if we have to¶ await manifestations of infection) after it is launched. Attackers are therefore likely to be able to¶ attack,move, reload, and attack again, and again, and again. Without warning or instantaneous alert¶ systems, we have no significant defenses against this mode of assault. On the morning of 9/11 we¶ could shut down the air transport system. We cannot shut down the atmosphere.¶ Put more colloquially, when we think in “incident” terms, we envision a competition rather like¶ football. The other side may run a devastating play, but then we expect that we will huddle and¶ take the offense ourselves. Unfortunately, bioterrorism, more than any other form of terror, is likely¶ to be more like what the rest of the world calls “football” and we call “soccer.” It admits of no¶ time out and of no distinct phases of offense and defense; rather it is a continuous flow. This will,¶ of course, be no game, but rather a particularly brutal form of battering, without remission.¶ Once realized, this ability to “reload”17 and attack repeatedly with biological weapons is likely to¶ be very attractive to terrorists. It will give them a supreme opportunity to hold us hostage. A kilo¶ of anthrax used first in Washington, then in Detroit, then in San Francisco, with subsequent¶ threats to use it elsewhere (or recurrently in these places) is likely to panic the nation. Published¶ statements suggest that our antibiotic stocks are limited and anthrax vaccine supplies more so.¶ Even if the vaccine were instantly available (an unrealistic assumption), in unlimited supply (an¶ equally unrealistic assumption), all our population could take it (ignoring children, pregnant¶ women, et. al.), and it were universally effective for those who took it (this is not the case), it still¶ would take some 35 days for the vaccine to be effective.18 Against this backdrop, policy makers¶ should be focused on the factors that affect the abilities of terrorists to develop, proliferate, or use¶ biological weapons19¶ It is difficult to assess and convey the challenges associated with developing biological weapons¶ because discussion and experimentation are inhibited by our desire to avoid educating states and¶ terrorists. We are less knowledgeable than we are about nuclear, chemical and conventional¶ weapons because since 1969, the United States has quite properly foresworn an offensive program.¶ 20 Our pre-1969 work was undertaken for military ends with precision, quality assurance,¶ safety and other requirements that would be unlikely to apply to other states, not to mention terrorist¶ organizations. Certainly new technologies that enable biological weapons have emerged¶ since the era of the previous offensive program. We therefore have a suspect base of experience¶ from which to extrapolate.¶ In the main, though, the “difficulty in assessing difficulty” is that the range of possible biological¶ weapons is vast, the routes to success are varied, and the field is dynamic. As the science rapidly¶ advances, today’s Nobel Prize complexity becomes tomorrow’s graduate work. If generalizations¶ are suspect, we can, nonetheless, gain some perspective by focusing on the five reference cases and¶ noting five problems that affect them all. An aspiring biological terrorist must (a) acquire a¶ pathogen; (b) amplify it (that is, grow it in substantial quantity with adequate virulence); (c) be¶ able to weaponize it (that is, stabilize it in a form that will permit both interim storage and ultimate¶ effective release); (d) field test it; and (e) disperse it.¶ HOW HARD ARE THESE TASKS?¶ Acquisition is modestly, but not dramatically, difficult. Three simple routes are to buy, steal, or¶ harvest a pathogen. B. anthracis, Clostridium botulinum (the organism that produces botulinum¶ toxin), and various strains of the foot and mouth virus are available for purchase because widespread¶ research is relevant to constraining natural occurrences of the diseases they cause. Smallpox¶ is known to be kept only at a facility in Russia and at the CDC in the United States. Access for¶ research is tightly controlled.¶ Restrictions on the purchase of the available pathogens have tightened over the last few years.21¶ Responsible sellers examine the credentials and credibility of buyers, but commerce in many¶ pathogens is widespread; front organizations can be created and sympathetic scientists (or underpaid¶ alumni of the Soviet program) can be conduits. Microbiologists and veterinarians are notorious¶ for maintaining extensive, badly inventoried and poorly secured samples of pathogens.¶ Experts acknowledge that smallpox might be found in a laboratory anywhere in the world.¶ To appreciate some quantitative sense of the problem, consider that some 1,500 facilities in the¶ United States are estimated to stock pathogens.22 A “putative listing” by Western experts of¶ “biotechnology entities” in the former Soviet Union has well over 500 entries.23 SARS – no longer¶ known to exist in human populations – is estimated to be preserved in 175 laboratories around the¶ world. Harvesting a pathogen is less visible than buying or stealing, and opportunities are prevalent.¶ All pathogens (except smallpox) are extant, and particularly so in parts of the world that are¶ associated with terrorists.24¶ Of course, there are complications. A strain may be available but not potent, or it may be insufficiently¶ concentrated or difficult to collect. A would-be procurer may be deterred by his own vulnerability,¶ and even a highly motivated group may run into difficulties. Aum Shinrikyo, for example,¶ attempted to develop biological weapons before the group dispersed Sarin on the Tokyo subway¶ system in March of 1995. They are reported to have dispatched members to Africa to attempt¶ to collect samples of Ebola, but without success. They then ordered an anthrax strain from a¶ Japanese type culture organization. Their order was filled without complication, but the cult had¶ mistakenly requested a benign veterinary vaccination strain.25 As a result, when they mounted a¶ device to aerosolize and spray anthrax slurry from the rooftop of their offices in Northern Japan,¶ they succeeded in infecting no one, though neighbors complained about the smell.26¶ On the other hand, most experts think that a potent sample of foot and mouth viruses – endemic¶ in many parts of the world – can be obtained simply by wiping a cloth under an infected cow’s nose.¶ Case X opportunities for states27 or terrorists to modify existing pathogens or to create their own¶ “super pathogens” are proliferating.28 At the simplest level, antibiotic resistant anthrax can be created¶ by culturing naturally occurring samples, spreading an antibiotic over the plate, and selecting¶ only for bacteria that manifest resistance. By repeating this process over a number of generations¶ (anthrax takes about 30 minutes to divide and produce a new generation under good culturing¶ conditions) antibiotic resistant pathogens can be obtained.¶ Contemporary graduate students transfer genes between bacteria as a routine part of their education.¶ Cutting-edge techniques in the most sophisticated U.S. labs include gene shuffling – randomly¶ redistributing genes among large numbers of specimens, followed by selecting among them¶ for a desired characteristic, then random shuffling among the agents that exhibit this characteristic,¶ further selecting from among this group, further shuffling, and so on. By molecular breeding¶ a scientist can, in weeks, induce processes that would normally take millennia, and achieve unpredictable¶ outcomes.29¶ Amplification is at about the same level of complexity/simplicity as acquisition, with similar variability.¶ Modern pharmacology grew out of the brewing and dyeing industries. A number of related¶ industries, particularly makers of biological insecticides, have adapted fermenting tools and dissemination¶ technologies to their own ends. Bacterial pathogens can be produced with the same techniques.¶ Bench-level production, generating a few liters of liquid agent or a few grams of dry agent every¶ week, would be familiar to those trained in biology. The necessary equipment would also be easy¶ to obtain at costs in the range of a few tens of thousands of dollars. Large fermenters are controlled¶ for export, but until recently fermenters at or below 100 liters were obtainable without restriction.¶ (Now the restrictions reach to 20 liters, still substantial enough to produce significant quantities of¶ agent.30) Related equipment, such as sterilizers to avoid contamination and centrifuges to separate¶ an agent from the medium in which it is grown, is unregulated and inexpensive. Most bacteria can¶ be amplified by a single perpetrator with craftsman level skills.¶ Small-scale production lines can be proliferated and their product stored to yield substantial¶ quantities of agent. Ten fully operating twenty-gram production lines might yield a kilo of agent¶ within two months, but multiplying production lines demands more manpower, entails greater¶ expense, increases complications, provokes more visibility and incurs more risks of accident and¶ error. Raising production volumes through larger and more sophisticated equipment would be¶ more attractive, but it requires larger, more expensive, more visible, and more complicated equipment¶ and supporting infrastructure. Processes that would produce a kilogram of material in a single¶ batch would demand mechanical and engineering skills as well as biological expertise.¶ Unfortunately, these skills are not particularly subtle and the equipment is widely available on used¶ material markets at prices in the hundreds of thousands of dollars.31¶ Techniques for proliferating viruses are also well known. Whereas bacteria is supported in protein¶ cultures, viruses typically require a medium of living cells. Smallpox for example, may be¶ grown in eggs; the eggs are then mashed in a blender and the product purified. Generations of¶ medical students learned to do this before smallpox was eradicated. Alternatively, viruses can be¶ grown in, and harvested from, animals or tissue cultures.¶ Weaponization would be the most difficult and time consuming step in the process. While collection¶ and purification knowledge is widespread among ordinary scientists, weaponization is¶ obviously a military subject and much of the knowledge that surrounds it is classified.¶ The central challenge for an aerosol attack would be to produce a pathogen formulation in sizes¶ that would be within the human respiratory range and could be reliably stored,32 handled, and¶ spread as a stable aerosol rather than clump and fall to the ground. Mastering these somewhat contradictory¶ requirements is tricky. The challenge becomes greater as attackers seek higher concentrations¶ of agent and higher efficiency in dissemination.33 A terrorist or state that would disperse¶ anthrax, smallpox or similar agents might be satisfied with an inefficient and awkward, but more¶ easily produced, liquid medium; it might aim for a dry powder that would be more difficult to¶ refine, but easier to store and transport; or it might hedge its bets by pursuing both routes.¶ If a powder is produced, there will also be challenges in keeping too much of the resulting product¶ from floating away. Open literature discusses techniques such as adding silica or researchgrade¶ graphite as an effective means to this end. Micro-encapsulation (a more sophisticated technique¶ that applies wet-form preparations) and charge neutralization are also often discussed, but¶ these technologies demand more equipment and skill.¶ Though they pose substantial challenges, the evidence suggests that problems of weaponization¶ can be solved for a number of agents and/or that these problems can be circumvented by using¶ means of dispersion that are less challenging than an aerosol attack. Several such methods are¶ noted below in the section on dispersion.¶ Field testing was a substantial focus of energy and dollars for our offensive biological weapons¶ program and for the Russians. The Japanese use of pathogens against Chinese populations during¶ World War II may predominantly have been for test purposes. Testing would be a substantial difficulty¶ for a less endowed state, attempting to act secretly, and it would be a particular challenge for¶ terrorists. Any Case X pathogen will obviously require more testing than an established pathogen.¶ Today, states and terrorist groups may choose to test by cruder methods or not at all. Aum¶ Shinrikyo apparently tested chemical weapons against sheep in Australia and then, as noted,¶ sprayed anthrax from the rooftop of its offices in Japan. A terrorist could decide to release an¶ untested or rudimentarily tested pathogen on a target population and observe the consequences.¶ (If the anthrax letters of 2001 were not the work of a “super patriot” as suggested by the FBI, they¶ may have had this purpose.) The absence of testing introduces uncertainties, but does not appear¶ to pose fundamental difficulties.¶ Dispersion by physical contact is relatively straightforward. It can be accomplished, for example,¶ by transferring foot and mouth virus from one cow to another by rubbing cloth under the nostrils¶ of each in succession or by impregnating blankets with smallpox. Aerosol dissemination¶ potentially infects greater numbers, faster, but is more complex. Aerial dissemination is now a¶ common practice for crops, but this involves large droplet sizes dispersed over open fields.¶ Dispersion control for human targets is notably more difficult: the targets are often in urban¶ areas and particles that are readily inhaled by humans are mainly in the one to five micron range¶ – smaller than those dispersed in a normal crop dusting effort. Some testing of dispersion methods¶ will be required. Aum had difficulty running liquid anthrax slurry through a spray device –¶ the system clogged. If weaponization problems have been solved, however, aerosol dispersion is¶ not likely to pose a significant challenge. For an adequately weaponized agent (especially a powder)¶ many sources in the open literature suggest that simple backpack sprayers will be sufficient.34¶ A dispersed biological agent would be vulnerable to winds and degradation from sunlight.¶ Anthrax survives in summer sunlight for only two and a half hours.35 Smallpox would degrade¶ even faster. Here, too, however, there is a range of possible solutions. At the most sophisticated¶ level, coatings will inhibit degradation. More simply, the problem may be attenuated by using an¶ outdoor aerosol at night and only under desired weather conditions.¶ Alternatively, an attacker may circumvent weather concerns by dispersing an agent through a¶ heating or air conditioning system. Within a subway system, the piston effect of trains will drive dispersion¶ while protecting from environmental influences. As the Indian victims of British smallpox¶ epidemic found, blankets can spread the disease when impregnated with virus from smallpox scabs.¶ Humans can be intentional or unwitting carriers as well. If botulinum can be infiltrated into a central¶ mixing vat, a producer of beer will unwittingly effect distribution on behalf of an attacker.¶ The highly contagious foot and mouth disease captured, as described above, by wiping a cloth¶ under a cow’s nose, can be disseminated by wiping the same cloth under another cow’s nose. The¶ virus,which is the most contagious known,will then move with winds and with the movement of the¶ cattle involved. (Livestock in a modern economy are extraordinarily mobile and concentrated.)¶ Three overarching conclusions emerge from this analysis:¶ First, there is a large range of biological weapons; it is too facile to speak generally of their simplicity¶ or complexity of development. It is altogether too easy to harvest some agents and apply¶ them to some uses; other uses require some craftsmanlike¶ skills for amplification and perhaps adaptation;¶ some catastrophic opportunities with aerosolized¶ weapons require substantial effort and absent classified¶ military knowledge will take considerable trial and error¶ before they are likely to be mastered.¶ Second, notwithstanding the above, it seems fair to say¶ that biological weapons as they are now understood (for example in Cases 1-4) fall between conventional¶ explosives and nuclear weapons. On one hand, the technologies have not yet been integrated¶ and weaponization mastered by substantial numbers of terrorists the way explosives have.¶ On the other hand, it is much easier and cheaper to master and covertly exercise these skills than¶ it is with nuclear weapons. Over time, the skills associated with biological weapons are likely to be¶ acquired and exercised, first in more rudimentary forms and then with increasing sophistication.¶ Only a thin wall of terrorist ignorance and inexperience now protects us.¶ Third, there is a frightening category of biological weapons – those that do not exist in nature –¶ in the wings. The ability to generate these Case X weapons is proliferating with the expansion and¶ spread of biological knowledge and biotechnology, and their diversity will make it harder to predict¶ and harder to defend against their use than against pathogens that exist in nature. Preparing¶ for them will be yet more difficult and more dangerous than preparing for nuclear weapons.¶ OUR ABILITY TO LIMIT PROLIFERATION AND DEVELOPMENT OF BIOLOGICALWEAPONS¶ Confronted by weapons of mass destruction, a wise country pursues non-proliferation as a part¶ of its repertoire of defensive steps. World efforts to prevent nuclear proliferation have been difficult,¶ but for six decades they have substantially constrained the spread of these weapons. We must make¶ similar efforts with respect to illegitimate uses of biotechnology – attempting to control pathogens,¶ equipment, people, and the pursuit or publication of certain kinds of knowledge.¶ Unfortunately, the principal international agreement in this respect, the 1972 Biological¶ Weapons Convention,36 focuses on state programs and has no functional force. The BWC does not¶ limit the flow of pathogens or equipment and it makes no significant effort to regulate research.¶ The three and a half page document simply declares37 that the signatory nations undertake “never¶ in any circumstances to develop, produce, stockpile, or otherwise acquire and retain” biological¶ weapons (Article I); that they will destroy existing stockpiles (Article II); that they foreswear helping¶ others to develop such weapons (Article III); and that they will not permit others to develop¶ such weapons in their territories (Article IV). Breaches of these commitments are subject to complaint¶ to the UN Security Council (Article VI). A 2001 attempt to begin to provide teeth for the¶ Convention by establishing monitoring procedures was rejected by the United States and others on¶ the grounds that it would be ineffective, while potentially damaging national security and permitting¶ theft of intellectual property.38¶ Clearly, the United States and the community of nations can achieve more to inhibit terrorist¶ access to biological weapons than we have so far through the BWC. There is real value in initiatives¶ that increase proliferators’ risks of detection, multiply their obstacles, and raise their costs.¶ However, our non-proliferation initiatives must be accompanied by a clear-eyed view of the likely¶ limits of our success. Unfortunately, the relative simplicity of the five steps described above and¶ the diversity of routes through which they may be accomplished suggests that, though proliferation¶ of biological weapons may be constrained and complicated,¶ non-proliferation initiatives will likely fail¶ against a determined and resourceful adversary.

#### Impact is extinction – *no burnout*

Sandberg, et al 8 (Anders Sandberg, Research Fellow, Future of Humanity Institute, Oxford University; Jason G. Matheny, Ph.D. candidate, Health Policy and Management, Bloomberg School of Public Health, Johns Hopkins University, special consultant, Center for Biosecurity, University of Pittsburgh Medical Center; and Milan M. Ćirković, Senior Research Associate, Astronomical Observatory of Belgrade, Assistant Professor of Physics, University of Novi Sad, Serbia and Montenegro; “How can we reduce the risk of human extinction?” Bulletin of the Atomic Scientists, 9-8-2008, <http://www.thebulletin.org/web-edition/features/how-can-we-reduce-the-risk-of-human-extinction>)

The risks from anthropogenic hazards appear at present larger than those from natural ones. Although great progress has been made in reducing the number of nuclear weapons in the world, humanity is still threatened by the possibility of a global thermonuclear war and a resulting nuclear winter. We may face even greater risks from emerging technologies. Advances in synthetic biology might make it possible to engineer pathogens capable of extinction-level pandemics. The knowledge, equipment, and materials needed to engineer pathogens are more accessible than those needed to build nuclear weapons. And unlike other weapons, pathogens are self-replicating, allowing a small arsenal to become exponentially destructive. Pathogens have been implicated in the extinctions of many wild species. Although most pandemics "fade out" by reducing the density of susceptible populations, pathogens with wide host ranges in multiple species can reach even isolated individuals. The intentional or unintentional release of engineered pathogens with high transmissibility, latency, and lethality might be capable of causing human extinction. While such an event seems unlikely today, the likelihood may increase as biotechnologies continue to improve at a rate rivaling Moore's Law.

### 1ac solvency

#### Contention 3 is SOLVENCY:

#### The executive can *unilaterally* ease restrictions on *non-tourist* travel

Sullivan 12 (Mark P. Sullivan, Specialist in Latin American Affairs, Congressional Research Service, “Cuba: U.S. Restrictions on Travel and Remittances,” CRS Report for Congress RL31139, 11-9-2012, http://www.fas.org/sgp/crs/row/RL31139.pdf)

Overview of the U.S. Restrictions¶ Since the United States imposed a comprehensive trade embargo against Cuba in the early 1960s,¶ there have been numerous policy changes to restrictions on travel to Cuba. The embargo¶ regulations do not ban travel itself, but place restrictions on any financial transactions related to¶ travel to Cuba, which effectively result in a travel ban. Accordingly, from 1963 until 1977, travel¶ to Cuba was effectively banned under the Cuban Assets Control Regulations (CACR) issued by¶ the Treasury Department’s Office of Foreign Assets Control (OFAC) to implement the embargo.¶ In 1977, the Carter Administration made changes to the regulations that essentially lifted the¶ travel ban. In 1982, the Reagan Administration made other changes to the CACR that once again¶ restricted travel to Cuba, but allowed for travel-related transactions by certain categories of¶ travelers. Under the Clinton Administration, there were several changes to the Treasury¶ Department regulations, with some at first tightening the restrictions, and others later loosening¶ the restrictions.¶ Under the George W. Bush Administration, the travel regulations were tightened significantly,¶ with additional restrictions on family visits, educational travel, and travel for those involved in¶ amateur and semi-professional international sports federation competitions. In addition, the¶ categories of fully-hosted travel and people-to-people educational exchanges unrelated to¶ academic coursework were eliminated as permissible travel to Cuba. The Bush Administration¶ also cracked down on those traveling to Cuba illegally, further restricted religious travel by¶ changing licensing guidelines for such travel, and suspended the licenses of several travel service¶ providers in Florida for license violations.¶ Under the Obama Administration, Congress took action in March 2009 (P.L. 111-8) to ease[d]¶ restrictions on travel by Cuban Americans to visit their family in Cuba and on travel related to the¶ marketing and sale of agricultural and medical goods to Cuba. In April 2009, President Obama¶ went even further by announcing that all restrictions on family travel and on remittances to family¶ members in Cuba would be lifted, and on September 3, 2009, the Treasury Department issued¶ regulations implementing these policy changes. In January 2011, President Obama took further¶ action to ease[d] restrictions on travel and remittances to Cuba by providing new general licenses for¶ travel involving educational and religious activities and restoring a specific license authorizing¶ travel for people-to-people exchanges. The Administration also restored a general license for any¶ U.S. person to send remittances to Cuba (up to $500 per quarter) and created a general license for¶ remittances to religious organizations. Finally, the Administration also expanded the U.S. airports¶ eligible to provide services to flights to and from Cuba. In most respects, with the exception of¶ the expansion of eligible airports, these new measures appear to be similar to policies that were¶ undertaken by the Clinton Administration in 1999 but were subsequently curtailed by the Bush¶ Administration in 2003 and 2004.¶ The President has the authority to ease restrictions on travel to Cuba. For example, the President¶ could choose to authorize travel to Cuba under a general license for all eligible categories of¶ travel. Lifting all the restrictions on travel, however, would require legislative action. This is¶ because of the codification of the embargo in Section 102(h) of the Cuban Liberty and¶ Democratic Solidarity Act of 1996 (P.L. 104-114); that act conditions the lifting of the embargo,¶ including the travel restrictions, on the fulfillment of certain democratic conditions in Cuba.¶ Although the Administration retains flexibility through licensing authority to ease travel¶ restrictions, the President may not lift all restrictions on travel as set forth in the CACR.¶ Moreover, a provision in the Trade Sanctions Reform and Export Enhancement Act of 2000¶ (§910(b) of P.L. 106-387, Title IX) prevents the Administration from licensing travel for tourist¶ activities, and defines such activities as any activity not expressly authorized in the 12 broad¶ categories of travel set forth in the CACR regulations. This legislative provision essentially¶ circumscribes the authority of the executive branch to issue travel licenses for activities beyond¶ the broad categories of travel allowed, and would have to be amended, superseded by new¶ legislation, or repealed in order to expand categories of travel to Cuba or lift travel restrictions¶ altogether.

# 2AC

### 2ac a2 complexity theory

#### Even if predictions aren’t perfect acting on relative confidence of scenarios materializing is good---the alt is etiher political paralysis or pure reaction

**Ulfelder 11** Jay Ulfelder is Research Director for the Political Instability Task Force, Science Applications International Corporation "Why Political Instability Forecasts Are Less Precise Than We’d Like (and Why It’s Still Worth Doing)" May 5 dartthrowingchimp.wordpress.com/2011/05/05/why-political-instability-forecasts-are-less-precise-than-wed-like-and-why-its-still-worth-doing/

If this is the best we can do, then what’s the point? Well, consider the alternatives. For starters, we might decide to skip statistical forecasting altogether and just target our interventions at cases identified by expert judgment as likely onsets. Unfortunately, those expert judgments are probably going to be an even less reliable guide than our statistical forecasts, so this “solution” only exacerbates our problem.¶ Alternatively, we could take no preventive action and just respond to events as they occur. If the net costs of responding to crises as they happen are roughly equivalent to the net costs of prevention, then this is a reasonable choice. Maybe responding to crises isn’t really all that costly; maybe preventive action isn’t effective; or maybe preventive action is potentially effective but also extremely expensive. Under these circumstances, early warning is not going to be as useful as we forecasters would like.¶ If, however, any of those last statements are false–if responding to crises already underway is very costly, or if preventive action is (relatively) cheap and sometimes effective–then we have an incentive to use forecasts to help guide that action, in spite of the lingering uncertainty about exactly where and when those crises will occur.¶ Even in situations where preventive action isn’t feasible or desirable, reasonably accurate forecasts can still be useful if they spur interested observers to plan for contingencies they otherwise might not have considered. For example, policy-makers in one country might be rooting for a dictatorship in another country to fall but still fail to plan for that event because they don’t expect it to happen any time soon. A forecasting model which identifies that dictatorship as being at high or increasing risk of collapse might encourage those policy-makers to reconsider their expectations and, in so doing, lead them to prepare better for that event.¶ Where does that leave us? For me, the bottom line is this: even though forecasts of political instability are never going to be as precise as we’d like, they can still be accurate enough to be helpful, as long as the events they predict are ones for which prevention or preparation stand a decent chance of making a (positive) difference.

### 2ac prolif slow

#### Slow prolif prevents crisis stability

Tellis 02 (Ashley Tellis, senior advisor to the U.S. Ambassador in New Delhi, “The Strategic Implications of a Nuclear India,” Orbis, Volume 46, Issue 1)

While this posture augurs well for crisis stability where sudden emergencies are concerned, it becomes less relevant when long intervals of strategic warning are available or when a crisis evolves slowly. Under these circumstances, the nuclear capabilities in all the relevant states would progressively increase in readiness depending on the rate at which strategic components are alerted, integrated (if necessary), and mobilized in accordance with preplanned contingency procedures. Once such activities are under way, the relatively low peacetime readiness of the various strategic forces would no longer provide crisis stability, because operational dormancy disappears irrevocably once the process of strategic alerting is completed.

### 2ac a2 burnout

#### Burnout has been scientifically disproven – empirics prove diseases can cause extinction and spread

Keim 8 (Brandon Keim, Wired Science, citing peer-reviewed research published in PLoS-ONE, “Disease Can Cause Extinction of Mammals,” Wired Magazine, 11-5-2008, http://www.wired.com/wiredscience/2008/11/yes-disease-can/)

Disease can drive a mammal species to extinction: this doesn’t seem surprising, but until today it hadn’t been proven. And now that it has, members of our own mammalian species might understandably feel uneasy.¶ The extinction in question took place a century ago on Christmas Island, an uninhabited Indian Ocean atoll to which a merchant ship inadvertently carried flea-ridden black rats. Within a decade, both of the island’s native rat species were extinct.¶ Scientists have argued whether the native rats were outcompeted by the newcomers, or fell victim to diseases carried by the fleas. According to DNA analysis of remaining native rat specimens, infection was widespread within the population after contact, and nonexistent before — suggesting that disease caused the die-off.¶ Resolving this argument has implications for another debate, over the hypothesis that disease can be so lethal and contagious as to drive a mammal species extinct. This had been observed in snails and amphibians, but not in mammals.¶ The authors of the study, published today in Public Library of Science ONE, hope conservationists will take heed: accidentally-introduced pathogens could wipe out endangered species. But to me, the findings also have human implications. Some would say that the rats were vulnerable because they lived on an island; but the Earth is an island, too.

### 2ac a2 coloniality k

#### Cuba’s Socialist government controls terms of foreign investment – has control to check worst neoliberal abuses.

Feinberg ‘12

Richard E. Feinberg is professor of international political economy at the School of International¶ Relations and Pacific Studies, University of California, San Diego. He is also the book reviewer for the Western Hemisphere section of Foreign Affairs magazine. HERE’S A LITTLE BIT ON THE EPISTEMOLOGY OF THIS STUDY. IT’S FAR FROM THE CAPITALIST FRONT THEY’LL ACCUSE IT OF BEING. From the author: This project is deeply indebted to the Cuban economists who have devoted their careers to studying their nation’s insertion into the global economy. ¶ Most notably, the experts of the Center for the Study of the Cuban Economy (CEEC) of the University of Havana provided essential¶ theoretical insights and empirical inputs. Pioneers who have led the way in the study of foreign investment in¶ Cuba – they include Paolo Spadoni and Julio Cerviño. I would also like to express my deep gratitude to those many¶ professionals in the foreign investment community who have, understandably, preferred to remain¶ anonymous but without whose candor this study would not have been possible. “The New Cuban¶ Economy What Roles for Foreign Investment?” – December – http://www.brookings.edu/~/media/research/files/papers/2012/12/cuba%20economy%20feinberg/cuba%20economy%20feinberg%209.pdf

All seven case studies claim successful, profitable operations. Yet all find it challenging to operate¶ in the Cuban context. The top complaint by far is the labor contract system. Other common complaints¶ include price controls that cap profit margins, state interference with the supply chain, and¶ tensions with their Cuban partners over business priorities.¶ • In capitalist societies, there is constant jockeying among firms, governments, and workers’¶ associations over the rules governing labor markets. For JVs operating in Cuba, there¶ is no debate: the state exercises total control. JV management bristles at its inability to set¶ wages and bonuses to optimize productivity and labor discipline. Of even greater concern¶ is the exorbitant tax on labor extracted through the dual currency system, which attacks¶ profitability and seriously impairs international competitiveness. For some JVs, the high¶ labor tax is patently inconsistent with the Cuban insistence on export performance requirements.

#### Extinction comes first – no other prior questions

Bostrom 12 – Professor of Philosophy at Oxford, directs Oxford's Future of Humanity Institute, Interview with Ross Andersen, correspondent at The Atlantic, 3/6, “We're Underestimating the Risk of Human Extinction”, http://www.theatlantic.com/technology/archive/2012/03/were-underestimating-the-risk-of-human-extinction/253821/)

Bostrom, who directs Oxford's Future of Humanity Institute, has argued over the course of several papers that human extinction risks are poorly understood and, worse still, severely underestimated by society. Some of these existential risks are fairly well known, especially the natural ones. But others are obscure or even exotic. Most worrying to Bostrom is the subset of existential risks that arise from human technology, a subset that he expects to grow in number and potency over the next century.¶ Despite his concerns about the risks posed to humans by technological progress, Bostrom is no luddite. In fact, he is a longtime advocate of transhumanism---the effort to improve the human condition, and even human nature itself, through technological means. In the long run he sees technology as a bridge, a bridge we humans must cross with great care, in order to reach new and better modes of being. In his work, Bostrom uses the tools of philosophy and mathematics, in particular probability theory, to try and determine how we as a species might achieve this safe passage. What follows is my conversation with Bostrom about some of the most interesting and worrying existential risks that humanity might encounter in the decades and centuries to come, and about what we can do to make sure we outlast them.¶ Some have argued that we ought to be directing our resources toward humanity's existing problems, rather than future existential risks, because many of the latter are highly improbable. You have responded by suggesting that existential risk mitigation may in fact be a dominant moral priority over the alleviation of present suffering. Can you explain why? ¶ Bostrom: Well suppose you have a moral view that counts future people as being worth as much as present people. You might say that fundamentally it doesn't matter whether someone exists at the current time or at some future time, just as many people think that from a fundamental moral point of view, it doesn't matter where somebody is spatially---somebody isn't automatically worth less because you move them to the moon or to Africa or something. A human life is a human life. If you have that moral point of view that future generations matter in proportion to their population numbers, then you get this very stark implication that existential risk mitigation has a much higher utility than pretty much anything else that you could do. There are so many people that could come into existence in the future if humanity survives this critical period of time---we might live for billions of years, our descendants might colonize billions of solar systems, and there could be billions and billions times more people than exist currently. Therefore, even a very small reduction in the probability of realizing this enormous good will tend to outweigh even immense benefits like eliminating poverty or curing malaria, which would be tremendous under ordinary standards.

#### Discussions of American Latin American policies are non-violent and educationally beneficial

Giordano and Li 12 - \*Paolo, PhD in Economics from the Institut d'Etudes Politiques de Paris, Lead Economist @ the Integratoin and Trade Sector of the IADB, \*\*Kun, Research Fellow @ IADB

(“An Updated Assessment of the Trade and Poverty Nexus in Latin America,” p. 375-377)

Despite the move towards more open trade regimes, Latin American economies are still ¶ relatively closed to international trade. Under the pressure of globalisation, it is likely that in the ¶ coming years the region will need to open further and adjust to compete in an increasingly ¶ challenging global environment. Latin America being one of the most unequal regions of the ¶ world, the assessment of the trade and poverty nexus is crucial to devise policies aiming at ¶ better distributing the gains from trade. Latin America-specific research on this topic will ¶ provide policymakers and stakeholders with evidence necessary to underpin a debate which ¶ seems to be nurtured more by anxiety than rigorous knowledge. ¶ In this light, it is useful to refer to a few conclusions with the aim of building up a solid base ¶ for policy debates and future research.¶ There is a gap in the availability of methodologies to explore the link between macro policy ¶ reforms like trade liberalisation and micro-economic determinants of welfare and poverty. It is ¶ therefore crucial to invest in the generation of data and research techniques, to adapt the ¶ research agenda to the specificity of Latin America and to consider qualitative issues that are ¶ difficult to measure. Meanwhile, normative statements referring to the trade policy nexus should ¶ cautiously consider the limitations of current positive knowledge.¶ Trade openness, inequality and poverty are wide multidimensional concepts. Measuring and ¶ attributing causal relations among these variables without carefully qualifying the specific ¶ dimensions explored or the particular transmission mechanisms at play may be misleading. It is ¶ important to disentangle the specific dimension of the trade and poverty nexus from the wider ¶ debate on globalisation and financial integration, the competing concepts of relative and ¶ absolute inequality and the objective and subjective dimension of poverty and deprivation.¶ Despite the impossibility to rigorously and unambiguously assert that trade openness is ¶ conducive to growth and poverty reduction, the preponderance of evidence supports this ¶ conclusion. However, the majority of empirical macro studies also show that the impact of trade ¶ on growth and poverty is also generally small and that the causes of indigence are to be found ¶ elsewhere. But it is in fact extremely arduous to find evidence that supports the notion that trade ¶ protection is good for the poor. The question is therefore how to make trade and growth more ¶ pro-poor and not how to devise improbable alternatives to trade integration aiming at improving ¶ the livelihood of the poor.¶ Specific evidence on Latin America reveals that deductive generalisations of the neoclassical ¶ trade theory and global cross-country empirical studies may be of little help in understanding ¶ the trade and poverty nexus in the region. Several factors may explain why the integration of ¶ Latin America into the global economy may not necessarily bring about rising wages of ¶ unskilled workers and poverty reduction. The most compelling arguments are related to the ¶ existence of rigidities in the labour markets, the historical pattern of protection that created rents ¶ in unskilled intensive sectors, the emergence of low wage countries such as China and India that ¶ shifts the comparative advantage of Latin American economies, and institutional factors that ¶ protract the effects of an initial unequal distribution of factor endowments against the poor.¶ Trade liberalisation may in fact be associated with rising inequality. But country case studies ¶ present contrasting indications. Although there is some evidence of rising inequality in the ¶ aftermath of trade opening, such as in the case of Mexico, Colombia, Argentina and Chile, it ¶ seems that the specific effects of trade liberalisation are small or indirect. Skill-biased technical ¶ change, often directly related with the increase of foreign direct investment or with capital ¶ account liberalisation, seems to have a stronger explanatory power than trade liberalisation. ¶ There is also little evidence that trade opening has generated more informality. On the other ¶ hand, the case of Brazil, where trade liberalisation seems to have contributed to the reduction of ¶ wage inequality, is illustrative of the conditions under which trade reforms may have ¶ progressive distributive effects¶ The empirical analysis addressing the direct effect of trade integration on poverty reveals a ¶ similar landscape. Trade integration seems to be good for the poor but the effects are small. ¶ Generalisations should be taken with a great deal of caution because this is a domain where data ¶ may present considerable shortcomings. In any event it seems that foreign trade reforms are ¶ more important for poverty reduction than unilateral ones or than the national component of ¶ reciprocal trade reforms. The countries of the region may therefore expect further contributions ¶ of trade integration to poverty reduction, particularly from the liberalisation of the agriculture ¶ sector where the greatest pockets of residual protectionism are still concentrated. However, ¶ predicting ex ante the pro-poor effects of trade reforms is an extremely sensitive task highly¶ dependent on the quality of the data and the correct specification of the simulation instruments. ¶ It is hard to overstate the importance of strengthening the capacity of policymaking in this area.

#### Non-proliferation isn’t discriminatory

**Graham 94** – former director, US Arms Control and Disarmament Agency (Thomas, 9/13, http://dosfan.lib.uic.edu/acda/speeches/graham/spnp94gr.htm, AG)

Some charge that the NPT is discriminatory, because it recognizes five nuclear powers while prohibiting the acquisition of nuclear weapons by other states. While the NPT reflects the reality that five nuclear-weapon states existed in 1968, it does not legitimize the permanent possession of nuclear weapons. Far from it. Rather, the NPT regime creates a system of shared obligations among its parties: while non-nuclear-weapon states promise not to acquire nuclear weapons, nuclear-weapon states promise to undertake measures to reduce and eliminate their nuclear arsenals. In fact, the NPT is the only global treaty that requires all its parties to pursue measures related to cessation of the nuclear arms race and to nuclear disarmament. For the nuclear-weapon states, this provision is clearly aimed at their nuclear arsenals. For its part, the United States has undertaken massive reductions in its nuclear arsenal both as a result of the START I and II treaties as well as unilateral measures and bilateral agreements. In addition, President Clinton called in May of this year for the progressive reduction and elimination of all weapons of mass destruction and their means of delivery. The U.S. is currently destroying approximately 2000 nuclear weapons a year, which is as fast as is technically possible. In addition, I note that yesterday, at the Y-12 Plant in Oak Ridge, Tennessee, the IAEA commenced application of safeguards on approximately ten tons of highly enriched uranium (HEU), thereby fulfilling the pledge that President Clinton made last September that the U.S. would make available for application of IAEA safeguards HEU and plutonium removed from the U.S. nuclear deterrent. The U.S. anticipates placing additional material under IAEA safeguards, with the initial quantity of plutonium to come under safeguards before the end of the year. All of these initiatives demonstrate unmistakably that the U.S. is serious about its commitments under article VI of the NPT.

#### ALT causes hyper-conservativism

Robert J. Lifton 11, 2011, Witness to an Extreme Century: A Memoir, p. 405-406

With all of the American angst during the first year or so of the Obama administration, one may readily forget the power of the historical moment of his election in 2008. BJ and I had a few friends in to watch the returns on the sleek television set in our living room, which we had purchased four years earlier for a similar gathering that had resulted in a roomful of despair and suspicion of fraud in relation to the Bush victory. But this time, in 2008, the television set did not betray us, and my reaction of not just joy but ecstasy, including tears, was hardly mine alone. What was special to me, though, was the quick realization that the outcome meant an end to the country's superpower syndrome. But was that the case? Only partly, it turns out. Certainly Obama and his administration have renounced the principle of American omnipotence in favor of more modest claims about our capacities and influence in the world. Apocalypticism and totalistic behavior have given way to something closer to Camus's "philosophy of limits" with an acceptance of ambiguity, nuance, and complexity. And most important, there has been a specific rejection of nuclearism and a call for abolition of the weapons.¶ Yet despite all that, the syndrome lingers in crucial areas that specifically connect with my work. Concerning nuclear abolition, Obama has not followed through with clear American policies, despite an impressive convocation of world leaders on the subject of nuclear danger. On revelations of torture, and more recently of illegitimate medical experiments in relation to torture, Obama has mostly tried to sidestep the issue and avoid legal culpability of those involved. Finally, his decision to send added troops to Afghanistan seems to me to be the stuff of war-making, and atrocity-producing, blunder. In all three cases there is a certain clinging to the very American omnipotence being renounced. I have found myself torn between joining a considerable segment of the left in a condemnation of shortcomings that perpetuate elements of the superpower syndrome, and an alternative inclination to defend Obama as an incremental reformer who needs more time.¶ I took the latter position in a series of discussions with Howard Zinn, who denounced Obama as "a Chicago politician" and a hypocrite. I still don't agree with that judgment but I am also willing to take a public stand of strong opposition to Obama policies on Afghanistan and on American torture and recently revealed experimentation. Yet I remain sensitive as well to the importance of supporting the Obama administration in the face of new waves of right-wing American totalism and potential violence in the backlash over the election of our first African-American president.

#### Commonly accepted methodological standards are sufficient to demonstrate the truth value of our advantage claims – reject totalizing claims about their knowledge base

Majone 81 (Giandomenico Majone, “Policies as Theories,” Policy Studies Review Annual, vol.5, ed. Irving Louis Horowitz, p.16-17, googlebook)

Some form of conventionalism is the ines-¶ capable logical consequence of fallibilism. If¶ there is no demonstrative certainty for the con-¶ clusions of science, their ‘truth' or, at any rate,¶ their acceptability as scientific results, must be¶ established by convention: through a con-¶ sensus of experts in the field, and the fulfilment¶ of certain methodological and professional¶ canons the rules of the scientific game.¶ The problem of testing the correctness of a¶ policy or decision is analogous to that of¶ determining the truth of a scientific theory.¶ According to the received view of policy analy-¶ sis—in which policy-making is equated to deci-¶ sion-making, and the latter is formalized as a¶ means-end relationship - a decision is correct¶ “if it can be shown to attain some specific¶ objective, where the objective can be specified¶ without describing the decision itself” [12,¶ p. 49]. Such a proof requires that three condi-¶ tions be simultaneously satisfied: (a) it must be¶ possible to detect the specific effects of the¶ decision against a noisy background of con-¶ comilant decisions, measurement errors, and¶ random fluctuations of the system; (b) a well-¶ tested theory connecting means and ends is¶ available; and (c) there is agreement on goals.¶ If even one of these conditions is violated, no¶ objective test of correctness is possible. It has¶ been argued that in such a case agreement on¶ policy is the only practicable test of ‘good\*¶ policy: policy-makers may agree on policy¶ itself, even if they do not agree on goals or¶ theory. But even more important than such di-¶ rect agreement on policy as a test of correct-¶ ness, is agreement on procedures, on the rules¶ of the policy game. In the law, in public admin-¶ istration and. to an increasing extent, also in¶ business administration, decisions are accepted¶ not because they can be shown to produce¶ desired outcomes, but because of a generalized¶ agreement on decision-making procedures.¶ Reliance on detailed procedures, whether in en-¶ vironmental regulations, in the licensing of¶ nuclear power plants, or in industrial quality¶ control, greatly increases the costs of decision-¶ making but it is also an unavoidable conse-¶ quence of the cognitive and social complexity¶ of today's problems. As long as the correctness¶ or fairness of the outcome can be determined¶ unambiguously, the manner in which the deci-¶ sion is taken is largely immaterial: only results¶ count. But when the factual or value premises¶ are moot, when no objective criterion of truth¶ exists, procedural aspects acquire special sig-¶ nificance.¶ Belief in the possibility of discovering correct¶ solutions for a wide variety of problems has¶ probably served a useful ideological function in¶ the early stages of development of systems and¶ policy analysis. Today, the traditional preoc-¶ cupation with analytic methods stressing out-¶ come rather than process must give way to a¶ broader approach, in which procedural design¶ (alternative methods of structuring the decision¶ process) assumes primary importance. Natur-¶ ally, the criteria for choosing among decision-¶ making procedures are not the same as those¶ used in choosing among alternatives for a par-¶ ticular decision. While in the latter case effec-¶ tiveness and efficiency are the dominant cri-¶ teria of choice, the metacriterion for evaluating¶ procedures is legitimacy -the capacity of a¶ procedure to elicit generalized acceptance for¶ the decisions it produces, regardless of their¶ substantive consequences. One hopes, of¶ course, that good procedures will increase the¶ probability of good decisions, but, as Popper¶ has often remarked, it is impossible to justify¶ the rules of a game (including the rules of the¶ scientific game) only in terms of success.¶ Science as craft work¶ The work of the scientist requires knowledge¶ that is acquired only through practice and pre-¶ cept and which therefore is not scientific in¶ character. Earlier traditions in the philosophy¶ of science, being mainly concerned with the¶ epistemological problem of truth, have ignored¶ the craft aspects of scientific knowledge. Yet.¶ without an appreciation of these aspects “there¶ is no possibility of resolving the paradox of the¶ radical difference between the subjective, inten-¶ sely personal activity of creative science, and¶ the objective, impersonal knowledge which¶ results from it” [15. p. 75].¶ Craft knowledge is a repertoire of proce-¶ dures and judgments that are partly personal,¶ partly social. Thus, when a scientist¶ decides whether a batch of data is of acceptable¶ quality, he applies standards that derive from¶ his own experience, but also reflect the profes-¶ sional norms of his teachers and colleagues, as¶ well as culturally determined criteria of ade-¶ quacy. Personal and social judgments are also¶ involved in data manipulation, in the choice of¶ tools and models, in the selection of evidence,¶ and in the construction of an argument.¶ The importance of craft knowledge and ex-¶ perience is even greater in policy analysis.¶ Because the conclusions of a policy study can-¶ not be proved in the sense in which a theorem¶ is proved, or even in the manner of the pro-¶ positions of natural science, they must satisfy¶ generally accepted criteria of adequacy. Such¶ criteria are derived not from abstract logical¶ canons but from craft experience, depending as¶ they do on the special features of the problem,¶ on the quality of data and limitations of avail-¶ able tools, on the time constraints imposed on¶ the analysts, and on the requirements of the¶ client.

#### A consensus of statistical and historical evidence confirms our AFF and knowledge production

Pinker 11 (Steven Pinker, Professor of Psychology at Harvard University, “Violence Vanquished: We believe our world is riddled with terror and war, but we may be living in the most peaceable era in human existence. Why brutality is declining and empathy is on the rise,” 9-24-2011, <http://online.ws> j.com/article/SB10001424053111904106704576583203589408180.html?mod=googlenews\_wsj)

On the day this article appears, you will read about a shocking act of violence. Somewhere in the world there will be a terrorist bombing, a senseless murder, a bloody insurrection. It's impossible to learn about these catastrophes without thinking, "What is the world coming to?" With all its wars, murder and genocide, history might suggest that the taste for blood is human nature. Not so, argues Harvard Prof. Steven Pinker. He talks to WSJ's Gary Rosen about the decline in violence in recent decades and his new book, "The Better Angels of Our Nature." But a better question may be, "How bad was the world in the past?" Believe it or not, the world of the past was much worse. **Violence has been in decline for thousands of years, and today we may be living in** **the most peaceable era in the existence of our species**. The decline, to be sure, has not been smooth. It has not brought violence down to zero, and it is not guaranteed to continue. But it is a persistent historical development, visible on scales from millennia to years, from the waging of wars to the spanking of children. This claim, I know, invites skepticism, incredulity, and sometimes anger. We tend to estimate **the** probability **of an event** from the ease with which we can recall examples, and scenes of carnage are more likely to be beamed into our homes and burned into our memories than footage of people dying of old age. There will always be enough violent deaths to fill the evening news, so **people's** impressions of violence will be disconnected from **its** actual likelihood. Evidence of our bloody history is not hard to find. Consider the genocides in the Old Testament and the crucifixions in the New, the gory mutilations in Shakespeare's tragedies and Grimm's fairy tales, the British monarchs who beheaded their relatives and the American founders who dueled with their rivals. Today the decline in these brutal practices can be quantified. A look at the numbers shows that over the course of our history, humankind has been blessed with six major declines of violence. The first was a process of pacification: the transition from the anarchy of the hunting, gathering and horticultural societies in which our species spent most of its evolutionary history to the first agricultural civilizations, with cities and governments, starting about 5,000 years ago. For centuries, social theorists like Hobbes and Rousseau speculated from their armchairs about what life was like in a "state of nature." Nowadays we can do better. Forensic archeology—a kind of "CSI: Paleolithic"—can estimate rates of violence from the proportion of skeletons in ancient sites with bashed-in skulls, decapitations or arrowheads embedded in bones. And ethnographers can tally the causes of death in tribal peoples that have recently lived outside of state control. These investigations show that, on average, about 15% of people in prestate eras died violently, compared to about 3% of the citizens of the earliest states. Tribal violence commonly subsides when a state or empire imposes control over a territory, leading to the various "paxes" (Romana, Islamica, Brittanica and so on) that are familiar to readers of history. It's not that the first kings had a benevolent interest in the welfare of their citizens. Just as a farmer tries to prevent his livestock from killing one another, so a ruler will try to keep his subjects from cycles of raiding and feuding. From his point of view, such squabbling is a dead loss—forgone opportunities to extract taxes, tributes, soldiers and slaves. The second decline of violence was a civilizing process that is best documented in Europe. Historical records show that between the late Middle Ages and the 20th century, European countries saw a 10- to 50-fold decline in their rates of homicide. The numbers are consistent with narrative histories of the brutality of life in the Middle Ages, when highwaymen made travel a risk to life and limb and dinners were commonly enlivened by dagger attacks. So many people had their noses cut off that medieval medical textbooks speculated about techniques for growing them back. Historians attribute this decline to the consolidation of a patchwork of feudal territories into large kingdoms with centralized authority and an infrastructure of commerce. Criminal justice was nationalized, and zero-sum plunder gave way to positive-sum trade. People increasingly controlled their impulses and sought to cooperate with their neighbors. The third transition, sometimes called the Humanitarian Revolution, took off with the Enlightenment. Governments and churches had long maintained order by punishing nonconformists with mutilation, torture and gruesome forms of execution, such as burning, breaking, disembowelment, impalement and sawing in half. The 18th century saw the widespread abolition of judicial torture, including the famous prohibition of "cruel and unusual punishment" in the eighth amendment of the U.S. Constitution. At the same time, many nations began to whittle down their list of capital crimes from the hundreds (including poaching, sodomy, witchcraft and counterfeiting) to just murder and treason. And a growing wave of countries abolished blood sports, dueling, witchhunts, religious persecution, absolute despotism and slavery. The fourth major transition is the respite from major interstate war that we have seen since the end of World War II. Historians sometimes refer to it as the Long Peace. Today we take it for granted that Italy and Austria will not come to blows, nor will Britain and Russia. But centuries ago, the great powers were almost always at war, and until quite recently, Western European countries tended to initiate two or three new wars every year. The cliché that the 20th century was "the most violent in history" ignores the second half of the century (and may not even be true of the first half, if one calculates violent deaths as a proportion of the world's population). Though it's tempting to attribute the Long Peace to nuclear deterrence, non-nuclear developed states have stopped fighting each other as well. Political scientists point instead to the growth of democracy, trade and international organizations—all of which, the statistical evidence shows, reduce the likelihood of conflict. They also credit the rising valuation of human life over national grandeur—a hard-won lesson of two world wars. The fifth trend, which I call the New Peace, involves war in the world as a whole, including developing nations. Since 1946, several organizations have tracked the number of armed conflicts and their human toll world-wide. The bad news is that for several decades, the decline of interstate wars was accompanied by a bulge of civil wars, as newly independent countries were led by inept governments, challenged by insurgencies and armed by the cold war superpowers. The less bad news is that civil wars tend to kill far fewer people than wars between states. And the best news is that, since the peak of the cold war in the 1970s and '80s, organized conflicts of all kinds—civil wars**,** genocides**,** repression by autocratic governments, terrorist attacks—have declined throughout the world, and their death tolls have declined even more precipitously. The rate of documented direct deaths from political violence (war, terrorism, genocide and warlord militias) in the past decade is an unprecedented few hundredths of a percentage point. Even if we multiplied that rate to account for unrecorded deaths and the victims of war-caused disease and famine, it would not exceed 1%. The most immediate cause of this New Peace was the demise of communism, which ended the proxy wars in the developing world stoked by the superpowers and also discredited genocidal ideologies that had justified the sacrifice of vast numbers of eggs to make a utopian omelet. Another contributor was the expansion of international peacekeeping forces, which really do keep the peace—not always, but far more often than when adversaries are left to fight to the bitter end. Finally, the postwar era has seen a cascade of "rights revolutions"—a growing revulsion against aggression on smaller scales. In the developed world, the civil rights movement obliterated lynchings and lethal pogroms, and the women's-rights movement has helped to shrink the incidence of rape and the beating and killing of wives and girlfriends. In recent decades, the movement for children's rights has significantly reduced rates of spanking, bullying, paddling in schools, and physical and sexual abuse. And the campaign for gay rights has forced governments in the developed world to repeal laws criminalizing homosexuality and has had some success in reducing hate crimes against gay people. \* \* \* \* Why has violence declined so dramatically for so long? Is it because violence has literally been bred out of us, leaving us more peaceful by nature? This seems unlikely. Evolution has a speed limit measured in generations, and many of these declines have unfolded over decades or even years. Toddlers continue to kick, bite and hit; little boys continue to play-fight; people of all ages continue to snipe and bicker, and most of them continue to harbor violent fantasies and to enjoy violent entertainment. It's more likely that human nature has always comprised inclinations toward violence and inclinations that counteract them—such as self-control, empathy, fairness and reason—what Abraham Lincoln called "the better angels of our nature." Violence has declined because historical circumstances have increasingly favored our better angels. The most obvious of these pacifying forces has been the state, with itsmonopoly on the legitimate use of force. A disinterested judiciary and police can defuse the temptation of exploitative attack, inhibit the impulse for revenge and circumvent the self-serving biases that make all parties to a dispute believe that they are on the side of the angels. We see evidence of the pacifying effects of government in the way that rates of killing declined following the expansion and consolidation of states in tribal societies and in medieval Europe. And we can watch the movie in reverse when violence erupts in zones of anarchy, such as the Wild West, failed states and neighborhoods controlled by mafias and street gangs, who can't call 911 or file a lawsuit to resolve their disputes but have to administer their own rough justice. Another pacifying force has been commerce, a game in which everybody can win. As technological progress allows the exchange of goods and ideas over longer distances and among larger groups of trading partners, otherpeople become more valuable alive than dead. They switch from being targets of demonization and dehumanization to potential partners in reciprocal altruism. For example, though the relationship today between America and China is far from warm, we are unlikely to declare war on them or vice versa. Morality aside, they make too much of our stuff, and we owe them too much money. A third peacemaker has been cosmopolitanism—the expansion of people's parochial little worlds through literacy, mobility, education, science, history, journalism and mass media. These forms of virtual reality can prompt people to take the perspective of people unlike themselves and to expand their circle of sympathy to embrace them. These technologies have also powered an expansion of rationality and objectivity in human affairs. People are now less likely to privilege their own interests over those of others. They reflect more on the way they live and consider how they could be better off. Violence is often reframed as a problem to be solved rather than as a contest to be won. We devote ever more of our brainpower to guiding our better angels. It is probably no coincidence that the Humanitarian Revolution came on the heels of the Age of Reason and the Enlightenment, that the Long Peace and rights revolutions coincided with the electronic global village. Whatever its causes, the implications of the historical decline of violence are profound. So much depends on whether we see our era as a nightmare of crime, terrorism, genocide and war or as a period that, in the light of the historical and statistical facts, is blessed by unprecedented levels of peaceful coexistence. Bearers of good news are often advised to keep their mouths shut, lest they lull people into complacency. But this prescription may be backward. **The** discovery that fewer people are victims of violence can thwart cynicism among compassion-fatigued news readers who might otherwise think that the dangerous parts of the world are irredeemablehell holes. And a better understanding of what drove the numbers down can steer us toward doing things that make people better off **rather than congratulating ourselves on how moral we are**. As one becomes aware of the historical decline of violence, the world begins to look different. The past seems less innocent, the present less sinister. One starts to appreciate the small gifts of coexistence that would have seemed utopian to our ancestors: the interracial family playing in the park, the comedian who lands a zinger on the commander in chief, the countries that quietly back away from a crisis instead of escalating to war. For all the tribulations in our lives, for all the troubles that remain in the world, the decline of violence is an accomplishment that we can savor—and an impetus to cherish the forces of civilization and enlightenment that made it possible..

#### Disease is an impact turn – if you don’t try to dominate disease, they cause mass death

Dr. Christian Enemark, 3-1-2005, Visiting Fellow of the John Curtin School of Medical Research at ANU where he serves as Deputy Director of the National Centre for Biosecurity.'INFECTIOUS DISEASES AND INTERNATIONAL SECURITY', The Nonproliferation Review, 12(1), 107-125

In pursuing international cooperation, a threshold issue is how to win political acceptance for the idea that some infectious diseases pose a threat to security as well as to health. To securitize infectious diseases is to seek some of the overriding political interest and superior financial resources associated with more traditional (military) concepts of security. Labeling something a security issue lends it a sense of urgency, attracts greater public attention, and implicitly demands resources.1 There is a strong humanitarian imperative to mitigate the huge potential and actual loss of life resulting from infectious disease, but humanitarian motivations alone are not sufficient to address this problem. In appealing to national governments\*/still the principal players in the international arena\*/infectious diseases need to be portrayed in such a way as to stimulate concerns about national interests. Historically, governments have shown greater enthusiasm toward their own security than they have toward humanitarian causes.A good introduction to the way in which infectious diseases impact security is to examine their relevance to military operations throughout history. The historian Livy described an outbreak of plague in the Carthaginian and Roman armies during the siege of Syracuse in 212 BC. The Carthaginians, less accustomed than the Romans to the city’s moist climate, suffered greater casualties from the disease and were defeated shortly afterward.2 In the thirteenth century, the Mongol invasions helped spread various epidemics of plague between East Asia and Eastern Europe. The sixteenth century demise of the Aztec empire came about mostly because the Spanish conquerors brought smallpox and measles with them to the New World. During World War I, an outbreak of typhus in Serbia in 1915 was so severe that the fighting on both sides stopped for six months.And disease was relevant in April 2003 when Canada’s health minister suggested that medical staff from the Canadian Forces could help relieve pressure on Toronto hospital staff treating patients with SARS. The military replied that it was already critically short of physicians to look after its troops. At the time, Canada was preparing for a major deployment to Afghanistan. Had the SARS outbreak in Toronto become so bad as to require medical personnel from Canadian military units to assist, those units would not have been able to deploy overseas.3 In one sense, infectious diseases are already an ‘‘established’’ security threat in the form of biological warfare. Weapons for deliberately disseminating pathogenic micro­organisms potentially pose direct security threats to many countries. BW is not a new threat like emerging and re-emerging infectious diseases, and it fits more easily within traditional conceptions of security. For these reasons, attempts to link disease and security via the problem of BW tend to resonate more strongly with the public and policymakers. But biological weapons are just one part of a spectrum of risks associated with the biological sciences. The spectrum encompasses natural disease outbreaks, accidents arising from otherwise benign activities such as medical research with pathogens, and the use of disease as a weapon of war or terror.5

#### Securitizing the environment is good – builds public awareness – and link turns their scholarship args

Matthew 02 (Richard A, associate professor of international relations and environmental political at the University of California at Irvine, Summer, ECSP Report 8:109-124)

In addition, environmental security's language and findings can benefit conservation and sustainable development."' Much environmental security literature emphasizes the importance of development assistance, sustainable livelihoods, fair and reasonable access to environmental goods, and conservation practices as the vital upstream measures that in the long run will contribute to higher levels of human and state security. The Organization for Economic Cooperation and Development (OECD) and the International Union for the Conservation of Nature (IUCN) are examples of bodies that have been quick to recognize how the language of environmental security can help them. The scarcity/conflict thesis has alerted these groups to prepare for the possibility of working on environmental rescue projects in regions that are likely to exhibit high levels of related violence and conflict. These groups are also aware that an association with security can expand their acceptance and constituencies in some countries in which the military has political control, For the first time in its history; the contemporary environmental movement can regard military and intelligence agencies as potentialallies in the struggle to contain or reverse humangenerated environmental change. (In many situations, of course, the political history of the military--as well as its environmental record-raise serious concerns about the viability of this cooperation.) Similarly, the language of security has provided a basis for some fruitful discussions between environmental groups and representatives of extractive industries. In many parts of the world, mining and petroleum companies have become embroiled in conflict. These companies have been accused of destroying traditional economies, cultures, and environments; of political corruption; and of using private militaries to advance their interests. They have also been targets of violence, Work is now underway through the environmental security arm of the International Institute for Sustainable Development (IISD) to address these issues with the support of multinational corporations. Third, the general conditions outlined in much environmental security research can help organizations such as USAID, the World Bank, and IUCN identify priority cases--areas in which investments are likely to have the greatest ecological and social returns. For all these reasons, IUCN elected to integrate environmental security into its general plan at the Amman Congress in 2001. Many other environmental groups and development agencies are taking this perspective seriously (e.g. Dabelko, Lonergan& Matthew, 1999). However, for the most part these efforts remain preliminary.' Conclusions Efforts to dismiss environment and security research and policy activities on the grounds that they have been unsuccessful are premature and misguided. This negative criticism has all too often been based on an excessively simplified account of the research findings of Homer-Dixon and a few others. Homer-Dixon’s scarcity-conflict thesis has made important and highly visible contributions to the literature, but it is only a small part of a larger and very compelling theory. This broader theory has roots in antiquity and speaks to the pervasive conflicts and security implications of complex nature-society relationships. The theory places incidents of violence in larger structural and historical contexts while also specifying contemporarily significant clusters of variables. From this more generalized and inclusive perspective, violence and conflict are revealed rarely as a society’s endpoint and far more often as parts of complicated adaptation processes. The contemporary research on this classical problematic has helped to revive elements of security discourse and analysis that were marginalized during the Cold War. It has also made valuable contributions to our understanding of the requirements of human security, the diverse impacts of globalization, and the nature of contemporary transnational security threats. Finall,y environmental security research has been valuable in myriad ways to a range of academics, policymakers, and activists, although the full extent of these contributions remains uncertain, rather than look for reasons to abandon this research and policy agenda, now is the time to recognize and to build on the remarkable achievements of the entire environmental security field.

#### Nuclear weapon rhetoric good – empowers anti-prolif movements

Babst 97, retired government scientist and Coordinator of the Nuclear Age Peace Foundation's Accidental Nuclear War Studies program, Krieger, President of the Nuclear Age Peace Foundation, and Aldridge, former aerospace engineer, now leads the Pacific Life Research Center, ’97 (Dean, David, and Bob, November, “The self-destructiveness of nuclear weapons: a dangerous and costly mental block” Canadian Business and Current Affairs, Vol 29 No 97 p 11-19)

There is worldwide reluctance to think about the self-destructive consequence of the use of nuclear weapons. Though understandable, this reluctance is dangerous and costly. It prevents public discourse and political engagement by citizens of the nuclear-weapons states concerning one of the most important issues of our time. The lack of public attention in nuclear-weapons states tothe self-destructiveness of nuclear weapons has allowed humankind to place itself in danger of annihilation, and to spend some $8 trillion over the course of the nuclear age doing so. Denial of the dangers or likelihood of nuclear-weapons use has created a dangerous mental block that must be overcome. We owe it to ourselves and to our posterity to break through this mental block and directly confront the dangers of annihiliaton, including self-annihilation, inherent in reliance on nuclear arsenals. We reasoned that if the citizens in nuclear-weapons states understood that the use of a hundred or so nuclear weapons could turn the world into an unbearable place in which to live, they would take a less complacent view of maintaining nuclear arsenals. We believed that an awareness of the self-destructive consequences of the use of nuclear arsenals would lead to a general understanding that nuclear weapons are a source of insecurity rather than security. This understanding, we reasoned, would lead to a desire to rid the world of nuclear weapons as soon as possible. We discovered, however, that virtually nothing was being published on the subject of the self-destructive consequences of the use of nuclear weapons. The fact that an issue as important as this one was not even being discussed in the mass media alerted us to the existence of widespread public denial regarding this issue. We also realized that the issue of nuclear arsenals and their use was not even entering into public debate during elections in the nuclear-weapons states. As we looked into this situation further, we found many other indications of public denial of the suicidal dangers of nuclear arsenals. We have listed some of these indications below.

#### Value to life is inevitable, subjective, and they don’t control the link to it.

**Shermer, 8** –Michael, founder of the Skeptics Society and Editor of Skeptic Magazine, “"The Meaning of Life, the Universe, and Everything"”—Commencement Speech at Whittier College, 5/23/08 http://www.whittier.edu/News/Articles/2008CommencementSpeech.aspx

Purpose is personal, and there are countless activities people engage in to satisfy this deep-seated need.There are, however, a handful of powerful means by which we can bootstrap ourselves toward higher goals that have proven to be especially beneficial to both individuals and society. Science tells us that there are five things you can do to create meaning and purpose in your life. Here they are: 1. Love and family—the bonding and attachment to others increases one's sphere of moral inclusion to care about others as much as, if not more than, oneself. And here I shall take a moment to acknowledge the courage of the California State Supreme Court to increase the possibility of marital happiness to the tens of thousands of gays and lesbians in our state who wish to enjoy the same rights and liberties as everybody else. 2. Meaningful work and career—the sense of purpose derived from discovering one's passion for work drives people to achieve goals so far beyond the needs of themselves that they lift all of us to a higher plane, either directly through the benefits of the work, or indirectly through inspiration. And here let me shift my politics slightly rightward to tell you that not only is it okay to make a lot of money, it is a moral virtue to earn your way to wealth and prosperity, and that market capitalism—conjoined with liberal democracy—is the best hope for humanity's future that we have. 3. Recreation and play—it is vital to take time off from work, get away from the office, hang out with your friends, see new places, veg out, goof off, and explore new activities with no purpose other than their shear enjoyment. (In other words, build into your purpose no purpose at all.) 4. Social and political involvement—as a social primate species endowed by evolution with the moral emotions of guilt and pride, shame and joy, we have a social obligation to our local community and our larger society to participate in the process of determining how best we should live together, and a moral duty to reach out and help those in need. Research shows that those who do so are happier and more fulfilled people. 5. Transcendency and spirituality—a capacity unique to our species, as far as we can tell, that includes aesthetic appreciation, spiritual reflection, and transcendent contemplation through a variety of expressions such as art, music, dance, exercise, meditation, prayer, quiet contemplation, and religious revere, connecting us on the deepest level with that which is outside of ourselves.

#### Link should have been triggered in 2009 and 2011

#### Extinction outweighs value to life – even if individual life is worthless, that can’t be true for all of humanity.

Arendt ’54 “Europe and the Atom Bomb” The Commonweal 60:578-580

Ultimately, this argument rests on the conviction that it is better to be dead than to be a slave. It is based on a political philosophy that, since the ancients, has considered courage to be the political virtue par excellence, the one virtue without which political freedom is wholly impossible. Originally, the time-honored conviction that courage is the highest political virtue was based on a pre-Christian philosophy which deemed that life is not the most sacred good and that there are conditions on which it is not worth having. For the ancients such conditions existed whenever the individual man was utterly delivered to the necessities of preserving sheer animal life, and therefore was judged incapable of freedom. This could happen in the case of slavery, say, or in the case of incurable illness; in both instances, suicide was considered to be the appropriate solution demanded by courage as well as by human dignity. With the victory of Christianity in the Western World and especially of the originally Hebrew conviction of the sacredness of life as such, this code of individual morality as it had been known throughout the ancient world lost its absolute validity. Wars could be justified on religious grounds, but not on the ground of secular political freedom as such. By the same token wholesale slaughter, so well known in the ancient world, might happen, but it could no longer be justified. By and large, Western civilization was agreed that, in the words of Kant, nothing should happen during a war that would make a future peace impossible. This agree­ment is no longer universal. With the appearance of atomic weapons, both the Hebrew-Christian limitation on violence and the an­cient appeal to courage have for all practical purposes become meaningless, and with them, the whole political and moral vocabulary in which we are accustomed to discuss these matters. Limitations can be applied in reality only to foreseeable developments; they cannot reckon with that "surprise technique" which Raymond Aron recently analyzed as the central event of the first World War, and which, as long as we are caught in the process of progressing technicalization, will inev­itably produce new "miracle" weapons. Under existing circumstances, as a matter of fact, nothing is more probable than these "miracles." In fact, of course, even our present potentialities for destruction have already far outstripped the matter-of­course limitations of previous wars. And this situation has placed in jeopardy the very value of courage itself. The fundamental human condition of courage is that [hu]man[ity] is not immortal, that he sacrifices a life that one day will be taken from him in any case. No human courage would be conceivable if the condition of in­dividual life were the same as that of the species. Greece's immortal gods had to leave this one virtue, courage, to mortal men; all other human virtues could appear in divine shape, could be deified and wor­shipped as divine gifts. Courage alone is denied to the immortals; because of the everlasting presence of their existence, the stakes are never high enough. If life were not normally taken from mortal man one day anyhow, he could never risk it. The stakes would be too high, the courage required would be literally inhuman, and life would not only appear to be the highest good, it would become the central human concern, overruling all other considerations. CLOSELY connected with this fact is another limitation of human courage—the conviction that posterity will understand, remember and respect the individual mortal's sacrifice. Man can be courageous only as long as he knows he is survived by those who are like him, that he fulfills a role in something more permanent than himself, "the enduring chronicle of mankind," as Faulkner once put it. Thus in antiquity, when wars were likely to end with the extermination or enslavement of whole peoples, the victor felt obliged to preserve for posterity the deeds and the greatness of the enemy. So Homer sang the praise of Hector, and Herodotus reported the history of the Persians. Courage, under the circumstances of modern war­fare, has lost much of its old meaning. By putting in jeopardy the survival of [humanity]~~mankind~~ and not only indi­vidual life or at the most the life of a whole people, modern warfare is about to transform the individual mortal [hu]man into a conscious member of the human race, of whose immortality he needs to be sure in order to be courageous at all and for whose survival he must care more than for anything else. Or, to put it another way, while there certainly are conditions under which individual life is not worth having, the same cannot be true for [humanity]~~mankind~~. The moment a war can even conceivably threaten the continued existence of [hu]man[ity] on earth, the alternative between liberty and death has lost its old plausibility

#### Empirics are an effective process for prediction, even if they fail at explanation

Walt 5 (Stephen M. Walt, Professor in the Kennedy School of Government at Harvard University, “The Relationship Between Theory and Policy in International Relations,” Annu. Rev. Polit. Sci. 2005. 8:23–48, p.25-26, http://www.iheid.ch/webdav/site/political\_science/shared/political\_science/3452/walt.pdf)

Policy decisions can be influenced by several types of knowledge. First, policy makers invariably rely on purely factual knowledge (e.g., how large are the opponent’s forces? What is the current balance of payments?). Second, decision makers sometimes employ “rules of thumb”: simple decision rules acquired through experience rather than via systematic study (Mearsheimer 1989).3 A third type of knowledge consists of typologies, which classify phenomena based on sets of specific traits. Policy makers can also rely on empirical laws. An empirical law is an observed correspondence between two or more phenomena that systematic inquiry has shown to be reliable. Such laws (e.g., “democracies do not fight each other” or “human beings are more risk averse with respect to losses than to gains”) can be useful guides even if we do not know why they occur, or if our explanations for them are incorrect. Finally, policy makers can also use theories. A theory is a causal explanation— it identifies recurring relations between two or more phenomena and explains why that relationship obtains. By providing us with a picture of the central forces that determine real-world behavior, theories invariably simplify reality in order to render it comprehensible. At the most general level, theoretical IR work consists of “efforts by social scientists. . .to account for interstate and trans-state processes, issues, and outcomes in general causal terms” (Lepgold & Nincic 2001, p. 5; Viotti & Kauppi 1993

#### The alternative to science is genocide—science promotes open thinking and discussion that is key to preventing fear-mongering and fascism

Gleick 9 Dr. Peter Gleick is president of the Pacific Institute, an internationally recognized water expert and a MacArthur Fellow, “New McCarthyism: Fear of science and the war on rationality,” <http://www.sfgate.com/cgi-bin/blogs/gleick/detail??blogid=104&entry_id=47022>

As more and more of the world looks to knowledge, education, and science as the routes out of poverty and conflict, parts of America seems to be slipping back toward the Dark Ages, when fear of knowledge and science led to an impoverishment of civilization that had lasting effects for centuries. I've recently returned from two weeks in northern Europe and a series of scientific water meetings and discussions with people from over 130 countries. They read the news from the United States with incredulity. America is still seen as the place to come for aspiring students and scientists around the world. Our public universities, despite assaults on budgets, independence, and knowledge, still struggle to maintain their excellence. But my friends and colleagues from overseas are increasingly shocked, as are many of us in the U.S., by the expanding efforts of home-grown extremists to undermine rational discourse, eliminate the use of fact and science in policymaking, and shut down public debate over the vital issues of our times through hate, vitriol, and ad hominem attacks. Looking through the eyes of my overseas colleagues, what do we see? We see a debate over providing health care to every American that is based -- not on facts or civilized discourse -- but on screaming mobs shutting down public discussions and the use of straw man arguments to promote fear among the public and policymakers. Yet every major country of Europe provides basic health care for its population. We see President Obama appoint one of the nation's best scientists in the areas of energy, environment, and national security -- Dr. John Holdren -- to be his Science Advisor, and then have right-wing mouthpieces like Glenn Beck spread ad hominem lies about him because of their fear that facts and actual science may once again inform Presidential action. This should be a recognizable tactic to us -- lying about a person to diminish their effectiveness. In fact, these extremists want to undermine the forward-looking policies that would prevent the very draconian measures they say they deplore. We see unambiguous evidence that climate change is already affecting human health and the global economy -- evidence often collected by world-leading American scientists and scientific institutions -- while public opinion polls show that the American people continue to be misled about the risks facing us by conservative pundits who ignore, misunderstand, or intentionally misuse that science to mislead the public into fear of change. Yet we already see huge economic and environmental opportunities in adapting to the reality of climate change. Fear is an effective tool -- as hate groups and extremists know. It is no accident that repressive regimes of all kinds -- fascists, the Nazis, Stalin, religious states, madrasses -- use tools of hatred, anti-intellectualism, and fear to control knowledge, universities, and intellectuals. Fear grows best when sown in fields of ignorance, while science, rationality, and education are the greatest weapons modern societies have against irrational fear. No wonder Beck and his ilk have intellectuals in their sights; so do the leaders of Iran, and Burma, and the Taliban, and North Korea, for similar reasons. What does this have to do with water -- the ostensible focus of my blog? Nothing and everything. I try to focus on numbers here and what they mean for international and local water issues. Yet water policy, or any policy, must also be based on rationality, facts, and civil discourse. Similarly, solving any bad water contamination problem requires one of two approaches: don't let the contamination into our water supply in the first place, or apply the right filters to clean it up when it does. The same rule applies to those who would pollute our public discourse with hate and noise: don't let their vitriol into our media supply or filter it out before it can poison our democracy.

#### Fears of epistemological bias are unfounded and exaggerated – even if our claims aren’t perfect, they are likely accurate and wholesale rejection is the worst approach

**Martin 1** – Professor of Geography at Cambridge (Ron, “Geography and public policy: the case of the missing agenda,” Progress in Human Geography 25,2 (2001) pp. 189–210 <http://geography.fullerton.edu/550/public%20policy.pdf>

A second source of the prejudice against policy study, however, is the charge that it all too readily becomes hijacked or subverted by the organizations, research grant bodies and government departments that commission and fund it. The complaint is that through their funding, and their selection and assessment procedures, these institutions set the agenda, define the issues, control access to data and even influence the nature of policy research. After all, critics argue, no government or other policy-making body is likely to commission or welcome research which it believes could be strongly critical of its policy programmes. In this sense, it is claimed, government-funded policy research is likely to be compromised in its scope and orientation from the very start. At the same time, attempts by government and research funding agencies to define what are ‘socially relevant’ (or even worse, ‘socially useful’) fields of research are seen as prone to bias or even blatant instrumentalism (see Johnston, 1997, on a related point). To compound matters, the complaint goes, research that is critical of government policy or runs counter to what the government wants to hear, is either ignored or may even be used to attack the academics who produced it. For many, therefore, policy studies threaten the very independence of interest, thought and method that is the hallmark of academic research. As Harvey (1974) and Leach (1974) bemoaned, in the earlier debate on geography and policy referred to above, the fear is that public policy and other social-problem orientated research simply becomes subservient to the state, and thereby serves to preserve and strengthen the status quo.

Few would deny the reality of these problems, but they can also be exaggerated and too easily used as an excuse not to engage in policy research at all. Public policy research does not mean the surrender of intellectual independence and integrity. It does not mean that research becomes subservient to the particular political interests of the state. What it does mean, however, is that to be persuasive, research has to be relevant and practical and, above all, backed up by persuasive empirical investigation and clear and logical argument. Policy-makers are less able to ignore or reject policy research – even if it is highly critical of policies – if that research is well founded methodologically and empirically. And it is also easier to shift policy-makers’ views if criticism is constructive, that is accompanied with positive suggestions for improving or changing policy. Taking issue with, and winning over, policy-makers is not easy, but is precisely part of the reason why this sort of academic activity needs to be undertaken. To engage in this activity, however, geographers need to expunge the ‘purity’ versus ‘policy’ mentality that permeates the discipline. They need to elevate the academic quality, and hence the status, of policy-relevant research. And they also need to identify where they stand with respect to the key issues in terms of which public policies should be judged (social equity and inclusion, social justice, citizenship, democracy, and so on), and how ‘geography’ and ‘place’ matter for the conduct and content of policy discourse.

# 1AR

### 1ar disease sec good

#### critical to sustain funding for global pandemic preparedness and assistance

Alexander Kelle, July 2005, Lecturer in International Politics (MA, PhD Frankfurt) and Professor, Department of Peace Studies, University of Bradford, Bradford Regime Review Paper No.2, Bioterrorism and the Securitization of Public Health in the United States of America - Implications for Public Health and Biological Weapons Arms Control, <http://www.bradford.ac.uk/acad/sbtwc/regrev/Kelle_SecuritizationinUS.pdf>

This paper set up to trace the securitization of public health in the US. As has been shown, the Sarin gas attack in Tokyo and the Oklahoma City bombing in 1995 triggered calls for an expansion of countermeasures to the perceived rise in the bioterrorist threat, with these measures increasingly focussing on the merger of public health and biodefense. One indicator for the successful securitization of parts of the US public health system can be found in the terminology employed for some of the legislative measures enacted or organisational structures set up in response to these calls: the Metropolitan Medical Strike Teams established under the 1996 Nunn-Lugar-Domenici Act are an early example in this process of utilizing a terminology traditionally reserved for military or security forces to describe a newly established public health unit. Likewise, following the change in language used to label legislative measures shows a development from acts of Congress primarily concerned with Weapons of Mass Destruction in general terms in the mid-1990s – in which public health preparedness plays a secondary role at best – to the primary concern about health and biosecurity expressed in titles like the 2002 Public Health Security and Bioterrorism Preparedness and Response Act. The changing discourse about public health and biodefense has, as shown above, alsoled to a substantial increase in funding and shifting budgeting priorities. Thus,not only have a new threat – bioterrorism – and a new object to be secured – the public’s health – been identified, but also new countermeasures to address the new threat been enacted. To use the terminology of Waever,the threat-defense sequence of successful securitization has come full circle. The securitization of public health in the United States is a fact of life and not likely to be reversed in the foreseeable futureas it is a function of bioterrorism being perceived as the number one security threat to US security.Given the probable durability of the underlying threat perception the question arises what the potential implications will be for public health. For the increased federal funding for public health preparedness to result in a positive development of the public health infrastructure in general it would have to increase cooperation among the three levels of government(federal-state-local), address the basic needs of the public health system and not just focus on specialized anti-bioterrorism measures or equipment and provide the increased funding made available since 2002 on a continuous basis. However, it is questionable whether such a positive course of developments is likely to materialize. As far as the cooperation between the federal, state, and local levels of government is concerned,recent studies have shown the problems to be overcome for the public health system to be effectively integrated in the anti-bioterrorism effort. One report focussing on the strategic national stockpile (SNS) for example concluded thatthere is a clear disconnect between the provision of the medicines and other supplies by the federal government on one hand, and the capacities to distribute these supplies on the state and local level.99However, the coordination problem does not seem to be limited to capabilities to logistically handle a public health emergency on the state and local levels. Rather, there still seems to be confusion about the threat assessment underlying the anti-bioterrorism policies of the federal government. This complicates planning of the response to this threat across the three levels of government. In addition, as one recent survey has revealed, there is still a sigificant proportion of public health officials on the state and local levels which do not rank bioterrorism as one of the most important public health issues. They instead identify behavioral health, chronic diseases, and access to basic health care as their top priorities in the coming years.100 Not surprisingly then, these members of the public health workforce – instead of preparing for an event of bioterrorism which might never materialize –see a greater utility in concentrating resources on public health’s long established core missions. The US is one of the most important actors in the BW prohibition regime. Seen in a historical perspective, the US unilateral renunciation of BW was instrumental in paving the way for the 1972 BWC, and ever since successive US governments have placed a heavy emphasis during BWC review conferences on treaty compliant behavior of other BWC states parties. One of the normative guideposts for states to follow in order to be in compliance with their obligations under the BWC stems from the convention’s Article IV, which gives expression to the internalization norm.101 On first glance, it could seem that the expansion of public health related programs, the search for better BW countermeasures through the massive increase in biodefense related biomedial research activities is in line with the regime’s internalization norm. However, as the above quoted criticism by Leitenberg and others shows, some of these very activities are pushing the boundaries of what is permissible under the provisions of the BWC. To the extent that other states will follow the US lead in these activities, the meaning of another regime norm, that of BW non-acquisition, might become increasingly contested over time. On a more positive note, one could argue that another regime norm, identified in the previous briefing paper as a potential beneficiary of the securitization of public health, i.e.the assistance norm, might be strengthened as a result of US policies at the intersection of public health and national security. One could argue that all these civilian biodefense efforts will ultimately lead to improved defensive capabilities to counter a BW attack. Under BWC Article VIIthis should put the US in a much better position to come to other states’ assistance**.**

### 1ar science good

#### The scientific method is a form of predictions that solves and is fully defensible—it’s objective and requires a degree of academic consensus not present in any other field

**Sullivan 98** (Phillip A., professor of aerospace engineering at the University of Toronto’s Institute for Aerospace Studies, “An Engineer Dissects Two Cases Studies”, A House Built on Sand: Exposing Postmodernist Myths about Science, edited by Noretta Koertge)

The Process of Scientific Discovery This story illustrates all the characteristics of scientific discovery, and two points are relevant here. First, unless there is political interference, flawed or weak arguments of even the most respected scientists are rapidly exposed. Furthermore, eager for recognition and priority, individual scientists are quick to promote novel explanations. Thus, when scientists finally do agree on the solution to a problem, this agreement is not solely the result of negotiation; it is forged by the evidence. The second point is that interpretation of this evidence is often complex, being in many ways akin to the assembly of an elaborate jigsaw puzzle. The result of any individual theoretical or experimental investigation is at best ambiguous, and its ultimate meaning is dependent on other investigations. In the initial assembly stages, the available puzzle pieces may suggest many interpretations and may provoke much controversy, so rhetoric and reputation can play major roles in persuasion. As additional investigations are undertaken, however, any consensus on interpretation that develops often has such compelling consistency or can allow such spectacular predictions that it becomes increasingly difficult to deny that it reflects objectivity. [11](http://www.questiaschool.com/read/62417656) Finally, as the sound-speed story shows, for questions at the frontier of science, assembly of the puzzle may take decades and longer. It follows that to make a convincing case, advocates of relativism in science cannot simply point to the disputes and controversies surrounding a puzzle that is still being assembled. Rather, they must demonstrate that social factors have entered the content of Chalmers's "good science." For the purposes of this discussion, I understand "good science" to be those propositions that are part of an accepted scientific consensus and that have an established record of successful prediction. Both of the two case studies I examine here concern aspects of mature disciplines that, when used appropriately, are capable of making accurate predictions. [12](http://www.questiaschool.com/read/62417656)

#### Science is the only objective field—their indicts of science don’t assume its ability to be de-politicized and detached

**Sullivan 98** (Phillip A., professor of aerospace engineering at the University of Toronto’s Institute for Aerospace Studies, “An Engineer Dissects Two Cases Studies”, A House Built on Sand: Exposing Postmodernist Myths about Science, edited by Noretta Koertge)

On the Nature of Science Scientists usually work in a framework of unstated assumptions. According to English astronomer John Barrow, these include the following ( 1988, 24-26): There is an external world separable from our perception. The world is rational: "A" and "not A" cannot be simultaneously true. The world can be analyzed locally; that is, we can examine a process without having to take into account all the events occurring elsewhere. We can separate events from our perception of them. There are predictable regularities in nature. The world can be described by mathematics. These presuppositions hold everywhere and at all times. In discussing these assumptions, English biologist Lewis Wolpert observes that they "may not be philosophically acceptable, but they are experimentally testable and they are consistent with the ability of science to describe and explain a very large number of phenomena" ( Wolpert 1993, 107). In other words, notwithstanding the ongoing debates among philosophers and theoretical scientists about the implications of certain features of quantum mechanics, the day-to-day practice of scientists is best characterized by the doctrine that philosophers call *scientific realism* ( Sparkes 1991, 187). In contrast, a characteristic feature of twentieth-century Western thought is the growing influence of the doctrine of *relativism*, which asserts that there are no absolutes in morals, values, or knowledge. Experimental confirmation just after World War I of Einstein's theory of relativity in physics played a major role in spreading acceptance of the doctrine among intellectuals ( Johnson 1984, esp. 1-11), but it has no philosophical relationship to Einstein's theory. Australian philosopher A. W. Sparkes suggested that those who believe so allow their thinking to be dominated by a "mere pun" ( Sparkes 1991, 206). The application of this doctrine to scholarship has been, at best, problematical and is increasingly controversial. More of a moral position than a coherent theory of knowledge, the main consequence has been its advocates' denial of the possibility of objectivity, even as an ideal. Classicist Mary Lefkowitz described its effect on history, noting that taken to its logical conclusion, relativism reduces history to fiction. Motive becomes more important than evidence, and the credibility of views of an individual on controversial matters is judged by that individual's class, race, or gender ( 1996, 49-52). That is, a form of ad hominem argument takes precedence over the evaluation of the intrinsic merits of evidence ( Sparkes 1991, 105-6). Relativism seems to be taken as axiomatic by current cultural critics of science. For example, as described by Australian philosopher Alan Chalmers, sociologists distinguish between "weak" and "strong" programs. In weak programs, social factors affect both the choice of topic to be investigated and the pace of investigation, but in strong programs, "social influences can affect the content of good science" ( Chalmers 1990, 96). Although nobody having any sense of the history of science denies the weak version, most sociological accounts accept the strong or relativistic version. Philosopher Susan Haack listed the claims made by relativists: Social values are inseparable from scientific inquiry. The purpose of science is the achievement of social goals. Knowledge is nothing but the product of negotiation among the members of the scientific community. Knowledge, facts and reality are nothing more than social constructions. Science should be more democratic. The physical sciences are subordinate to (i.e., are a subdiscipline of social science. [4](http://www.questiaschool.com/read/62417656)  The critiques I present here illustrate two points. First, advocates of relativism have not provided a single convincing instance of cultural factors entering the theoretical propositions of what Chalmers calls "good science." Second, as claimed by biologist Paul Gross and mathematician Norman Levitt, because most cultural studies of sci- ence do not understand the content of the subject they critique, they are severely flawed. [5](http://www.questiaschool.com/read/62417656) Thus they divert attention from serious issues in the practice of science worthy of detached analysis.

### 1ar VTL

#### Value to life is inevitable and only their depiction of it allows autonomy to be decreased – we’ll set our value to life at 100%

**Schwartz – 2** (Lisa, professional metaphysician, Medical Ethics: A case based approach, “The Value of Life: Who Decides and How?”, p. 112)

The second assertion made by supporters of the quality of life as a criterion for decision making is closely related to the first, but with an added dimension. This assertion suggests that the determination of the value of the quality of a given life is a subjective determination to be made by the person experiencing that life. The important addition here is that the decision is a personal one that, ideally, ought not to be made externally by another person but internally by the individual involved. Katherine Lewis made this decision for herself based on a comparison between two stages of her life. So did James Brady. Without this element, decisions based on quality of life criteria lack salient information and the patients concerned cannot give informed consent. Patients must be given the opportunity to decide for themselves whether they think their lives are worth living or not. To ignore or overlook patients’ judgment in this matter is to violate their autonomy and their freedom to decide for themselves on the basis of relevant information about their future, and comparative consideration of their past. As the deontological position puts it so well, to do so is to violate the imperative that we must treat persons as rational and as ends in themselves.

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