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Foresight into 21st Century Conflict: End of the Greatest Illusion?

by Frank G. Hoffman September 2016



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END OF THE GREATEST ILLUSION?

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# **Executive Summary**

This piece examines the contours of tomorrow's security environment. It briefly examines current conflict data and then generates insights on how changes in today's environment could alter trends in future conflicts. It concludes with a summative forecast on the frequency and character of interstate and intrastate conflict as well as a set of judgments for the national security and policy community. This assessment examines the period between 2016 and 2035. The basic research issue which frames this effort involves defining trend data in interstate and intrastate conflicts and exploring how the contexts that influence trends of the last two decades might evolve.

Despite commentary from numerous authors, according to at least three published institutional reports, current conflict levels are increasing, not decreasing. Moreover, battle-related deaths and other human costs of conflict are sharply up, not declining. Trends from the last 20 years appear to be in transition, which suggests that the cycles of history are once again in motion. Present near-term trends of increased frequency and ferocity of conflict could be reversed (if history is a guide), but one must explain the logic that will take events in a positive direction.

In light of this information, the intelligence and analytical communities must develop an awareness of the geopolitical context that could evolve from a plausible evaluation of drivers in the near future and the potentially grave consequences that may emerge. Contrary to assumptions about linearity in past patterns, trends are not immutable, and they do not proceed in only one direction. Neither perpetual global peace nor persistent conflicts are preordained. Trends are the consequence of a dialectic between several variables; the most important of which have been either overlooked or ignored.

Given the wide disparity of conclusions from divergent schools of thought, how should one evaluate the possibilities of an unknowable future? Few predicted the emergence of the Islamic State five years ago, and only one strategist, Colin Gray, foresaw Russia's aggression into Ukraine. The national security policy community is best served by historically grounded and realistic forecasts instead of illusions that war will go away. In that vein, the following study examines the present and strives to explore the future to 2035. To examine the future, this paper identifies the trends or drivers that might cause crises and create demands for our Nation's Armed Forces.

Most scholars normally expect multiple drivers to cause war and are leery of mono-causality. Therefore, this article examines a total of seven possible drivers to assess possible changes over the forecast period and how they could impact the frequency or casualty levels in either interstate (between states) or intrastate wars (civil, ethnic and societal conflicts):

- Geopolitical Competition
- U.S. Engagement and Capacity Levels
- Alliance Cohesion and Capacity
- Peacekeeping Support
- Democratic Governance
- Resource Competition
- Technological Diffusion

The assessment section of this research project reviews these seven factors. The analysis shows that there are several reasons to think that both interstate and intrastate wars are more likely to occur and with greater consequences than many scholars had recently projected. The number of conflicts is again on the rise as both states and violent actors contend for influence and seek to establish their position. Contrary to optimistic depictions of the present international system, there are powers seeking to alter or undermine the existing order. Furthermore, the alliance system and military power that supported both strategic and conventional deterrence is weakening; there is no consensus supported by the authoritarian leaders in Beijing or Moscow about international norms; and competitors are certainly vying for influence in Asia, the Persian Gulf, and along Europe's frontiers.

History does not move continuously in one direction, and forecasts must examine history to identify key drivers and the conditions which influence the onset of wars. When this project was initiated, the study team hypothesized about the potential for increases in conflict. As this project concluded, the hypothesis was no longer a question but an operative fact. As the data shows, more violence is already occurring. Based on the analysis, the following forecast judgments were developed for consideration by the U.S. security policy community:

- Policy makers should be leery of prognostications about war going away. U.S. security requirements are not and should not be analytically tied to short-term trends like the ongoing number of conflicts.
- Interstate conflict is assessed as increasing in probability after an era in which it was very rare.
- While the likelihood of interstate war is rising, states will also find means short of war to compete for advantage that still produce adverse security implications for the United States.
- Non-state actors will exploit a broader set of military capabilities and are likely to exploit means that will produce higher degrees of violence and lethality.
- While interstate conflict may be infrequent, the proliferation of precision weapons and low-cost, smart munitions is likely to pose higher risks and greater casualties to U.S. forces.



his research project attempts to forecast key aspects of the emerging character of conflict, particularly the frequency and lethality of human conflict.<sup>1</sup> A century ago, Norman Angell's *The Great Illusion* assessed trends in globalization and international trade and made the bold conclusion that war had been rendered unusable as an instrument of rational policy. Published in 1909, this book sold millions of copies, was translated into some two dozen languages, and developed a strong following.<sup>2</sup> It was also wildly misunderstood.

Scholars have commonly held that Angell predicted that future wars would not occur. In fact, he argued that war was futile because it was so expensive and could not be rationally employed to gain territory or resources. Angell was not naïve about the looming clouds in the Europe of his day, but he was naïve about the forces that can lead to war. The great illusion that he referred to was the notion that war had a rational purpose in securing territory and resources. To Angell, economic interdependence and the large-scale costs of conflict made war less rational. He was very clear on this point: "War is not impossible, it is not the likelihood of war which is the illusion, but its benefits." After the First World War, Angell continued to explain his original theory, but became an advocate of collective defense and the League of Nations.

A century later, a new book has emerged with the same commercial success and an equally inaccurate message. Harvard psychiatrist Steven Pinker's *The Better Angels of Our Nature* has rapidly become an international best seller.<sup>4</sup> Pinker paints a picture of human violence in decline over the long term and identifies several drivers and a horde of data elements to explain mankind's evolution from a Hobbesian world of brutish, short and violent lives to a far more benign environment. These drivers include the formation of states, extended trade, feminization, and the emphasis on reason brought about by the Enlightenment (at least for one portion of the globe). Like Angell's, Pinker's book is both popular and distributed internationally. Both authors are brilliant advocates for peace, but each worked well outside his own discipline. They both presented incomplete assessments about the causes of war, and both badly misunderstood the role of power, the influence of nationalism over rationalism, and the character of the international political order.

As with Angell's readers, Pinker's readers have overstated his argument to suggest that war and human conflict have evolved out of existence. Bruno Tertois quipped that "war as we know it, long thought to be an inevitable part of the human condition, has disappeared." <sup>5</sup> Others go further, "we live in a remarkably safe and secure place, a world with fewer violent conflicts and greater political freedom than at virtually any other point in human history." <sup>6</sup> Michael A. Cohen claimed that the world today is "less violent than at any point in human history" due to "a host of global alliances, a near-universal consensus on international rules and norms guiding the use of force and no true military or political competitor to American power." This notion that war is evolving out of existence is a modern version

<sup>&</sup>lt;sup>1</sup> Several of my colleagues at INSS, notably Dr. Seth Carus, Phillip Saunders, Thomas Lynch and T.X. Hammes provided numerous constructive comments. Lionel Beehner from West Point also contributed with critical insights, as did Major Jordan Becker, U.S. Army. I am grateful to Stephen Watts and Bryan Frederick from RAND for insights on databases and trends, and to Alan Dowling, Colonel Pat Garrett, USMC (ret.) and Dr. Theresa Sabonis-Helf from National War College for their input. Two of my research assistants, Evan Zalikow and Ryan Neuhard, contributed diligently to this project.

<sup>&</sup>lt;sup>2</sup> Jacob Heilbrunn, "The Case for Normal Angell," *The National Interest* (September/October 2013), pp. 34–40.

<sup>&</sup>lt;sup>3</sup> Quoted by Ali Wyne, "Disillusioned by the Great Illusion," War on the Rocks, February 7, 2014.

<sup>&</sup>lt;sup>4</sup> Steven Pinker, The Better Angels of our Nature: Why Violence has Declined (New York: Penguin, 2011).

<sup>&</sup>lt;sup>5</sup> Bruno Tertois, "The Demise of Ares, The End of War as We Know It?" The Washington Quarterly, (Summer, 2012), p. 7.

<sup>&</sup>lt;sup>6</sup> Micah Zenko and Michael A. Cohen, "Clear and Present Safety," Foreign Affairs, vol. 91, no. 2, (March/April 2012), p. 80.

<sup>&</sup>lt;sup>7</sup> Michael A. Cohen, "Crisis Inflation: Why the World is Actually Safe for America," *World Politics Review*, May 2015. Accessed at http://www.worldpoliticsreview.com/articles/print/15758.

of an aspiration that can never be realized, and to extend the connection to Angell, it can best be characterized as the Greatest Illusion. Pinker's argument has raised a number of counterarguments. Scholars note that causation is asserted on multiple fronts rather than demonstrated empirically. Sir Lawrence Freedman finds fault in how Pinker fails to consider the power structure of the international system. Also, Ian Roxborough observed that Pinker "seldom takes a long and careful look at the larger global and historical context in which decisions about war and peace are made."

Despite these criticisms, Pinker's arguments have taken root in long-range security forecasts. In an otherwise incisive report, the UK's military futurists concluded that:

Although many people see the 20th and early 21st centuries as being the most violent and bloody in human history, evidence suggests that the frequency and intensity of wars, as well as the number of violent deaths, has been declining sharply *and is likely to continue to fall.*<sup>11</sup>

This report echoes a forecast produced for the U.S. Marine Corps. <sup>12</sup> It projected that "conflict will likely continue to diminish, as well as combat death rates," and conflict will be characterized by "less destruction and fewer casualties." <sup>13</sup> These assessments cite only Pinker as the basis for their conclusions. <sup>14</sup> Neither assessment projects forward beyond the conclusion and data to explore why anyone should accept a linear and progressive evolution for human history. As shown in the next section, conflict data can and does shift, and the numbers of conflicts are *not* in decline. In fact, they (at least for intrastate wars) are actually increasing as is the absolute number of casualties.

This review will show that the context that produced positive trends in the past is evolving and not in society's favor. Current conflict data are examined, and then the reader is offered other drivers of future conflict for consideration. The analysis section concludes with a summative assessment on the potential frequency and character of both interstate and intrastate conflict and a set of proposed policy conclusions for the national security community.

This assessment explores the period between 2016 and 2035. The basic research questions that drive the direction of this research effort are:

- a. What is the current trend data in interstate and intrastate conflicts?
- b. What factors account for trends over the past two decades? Are these contextual factors unique or enduring? How could these factors be changed over the next two decades?
- c. What judgments or forecasts can be drawn about the frequency and human costs of armed conflict?

<sup>&</sup>lt;sup>8</sup> S. Nassim Taleb, "The 'Long Peace' is a Statistical Illusion," Fooled by Randomness blog, November 11, 2012 at http://www.fooledbyrandomness.com/pinker.pdf.

<sup>&</sup>lt;sup>9</sup> Lawrence Freedman, "Stephen Pinker and the Long Peace: alliance, deterrence and decline," *Cold War History*, vol. 14, no. 4 (October, 2014), pp. 657–672.

<sup>&</sup>lt;sup>10</sup> Ian Roxborough, "The Future of War," Sociological Forum, vol. 30, no. 2 (June 2015), p. 464.

<sup>&</sup>lt;sup>11</sup> Ministry of Defence, *Strategic Trends Programme: Global Strategic Trends – Out to 2045.* (Doctrine, Concepts and Development Center, Shrivenham, 2014), p. 96. Accessed at https://www.gov.uk/government/publications/global-strategic-trends-out-to-2045.

<sup>&</sup>lt;sup>12</sup> Futures Directorate, 2015 Marine Corps Security Environment Forecast, Futures 2030–2045, Quantico, VA: U.S. Marine Corps, 2015.

<sup>&</sup>lt;sup>13</sup> Ibid, pp. vi, 67, 72, 76.

<sup>&</sup>lt;sup>14</sup> Each citing Pinker and no other major think tank, policy center or intelligence agency.

# Historical Trends in Frequency and Lethality of War

**Frequency.** Trends in conflict, including the number, type, and lethality of wars, are captured by several databases produced by major schools and institutions in Europe or the United States. Each of these databases varies slightly in their definition of interstate (state-on-state) or intrastate conflicts, and in what constitutes enough fatalities to constitute a major war or conflict. Some institutions use a threshold of only 25 battle deaths in a single year while others use 1,000 total deaths as the bar. The distinctions in coding complicate comparisons but produce similar trends.

To gain a long-term perspective at trends, the Correlates of War (COW) database is a widely-cited source. Figure 1 below shows the results of the last 200 years from the Battle of Waterloo to 2007. Its database has not been updated in the last decade. The data from COW reveals a distinctive cycle or "saw tooth" pattern of recurring increases and decreases in the number of wars of all kinds. In 2011, Pinker claimed that "we may be living in the most peaceful era in our species" existence." The data indicates that claims about today's period of unprecedented peace are exaggerated. The current level of raw aggregated numbers of conflict has precedents in the 1870s and the 1930s.

This data display shows fluctuations over time. It clearly shows the low sample data for major interstate wars. It does indicate that there was a distinctive positive pattern after 1990. Although the aggregate shows cycles, each type of conflict has varied. More ominously, long periods of progress were followed by violent peaks. This pattern should make anyone responsible for securing long-term national defense interests ask critical questions about what conditions impact the frequency of wars and under what conditions is large-scale violence more likely to flare up.

## **Long Term Perspective**

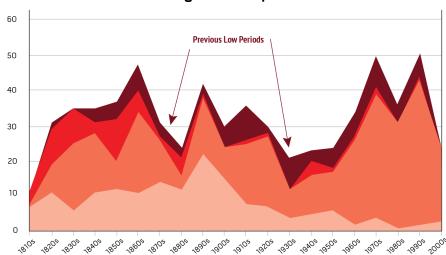


Figure 1: Frequency of Wars from 1816 to 2007.

Non-State Wars: Between or among non-state entities.

Intrastate Wars: Predominantly take place within the recognized territory of a state.

Interstate Wars: Occur between or among recognized states.

Extra-State Wars: Between one or more states and a non-state entity outside the borders of the state. They can be

<sup>&</sup>lt;sup>15</sup> Steven Pinker, "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." *The Wall Street Journal*, September 24, 2011.

<sup>&</sup>lt;sup>16</sup> The Correlates of War provides separate data sets for four different categories of wars:

<sup>&</sup>quot;colonial" to maintain control of a colony or "imperial" to extend an empire.

<sup>&</sup>lt;sup>17</sup> Meredith Reid Sarkees and Frank Wayman, Resort to War: 1816 –2007 (Washington DC: CQ Press, 2010). Accessed at http://cow.dss.uc-davis.edu/data-sets/COW-war.

The chart below (from Sweden's Uppsala Center) captures major conflict data from the last half century. Their accounting method differs from others to some degree as they count three different metrics: the number of armed conflicts (more than 25 battle deaths per year), wars (greater than 1,000 deaths/yr), and interstate wars (between states and with greater than 1,000 deaths/yr). The period from 1991 to 2005 shows a decline in armed conflicts. However, more recent data shows a plateauing of "armed conflicts" (blue line) and an uptick in "wars" (red line) in the last decade.

In the latest update, they record 40 armed conflicts with a minimum of 25 battle related deaths, up by six from 2013. This statistic is the highest number of conflicts reported since 1999. Furthermore, an escalation of several conflicts, including the violence in Syria, resulted in the highest number of battle-related deaths in a single year in the last 25 years. Other respected peace research centers are reporting very similar results. Indeed, the trend lines in Figure 2 clearly suggest that the noted decline in war between 1990 and 2003 embraced by Pinker and the New Peace theory has ended.

The data displayed does not support the generic claim of a "striking decline" in the level of war outside 1990 to 2002. Instead, interstate wars (in the green line at the bottom) have generally been rare, and there has been no significant decline (from a small data population). The decline in intrastate conflicts after 1990 has now flattened out, and such wars are becoming messier and costlier (Syria).

### Number of Armed Conflicts and Wars, 1946-2014

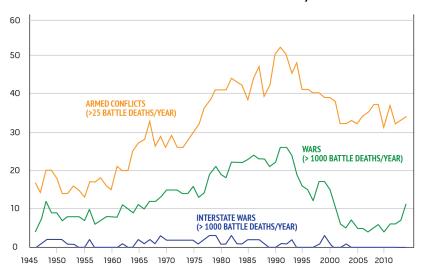


Figure 2: Armed Conflicts and War from 1946 to 2014<sup>20</sup>

<sup>&</sup>lt;sup>18</sup>Therese Pettersson and Peter Wallensteen, "Armed Conflicts, 1946–2014," Journal of Peace Research, vol. 52, no. 4 (2015), pp. 536–540.

<sup>&</sup>lt;sup>19</sup> Scott Gates, Havard Nygard, Havard, Strand and Henrik Urdal, "Trends in Armed Conflict," *PRIO Conflict Trends*, (Oslo, Norway: Peace Research Institute, January 2016).

<sup>&</sup>lt;sup>20</sup> Adapted from Steven Pinker, "The World is Not Falling Apart," *Slate*, December 2014, accessed at http://www.slate.com/articles/news\_and\_politics/foreigners/2014/12/the\_world\_is\_not\_falling\_apart\_the\_trend\_lines\_reveal\_an\_increasingly\_peaceful.2.html.

Lethality. In addition to capturing the number and kind of conflicts, government and scholarly databases measure casualties as an indication of how costly or lethal wars are. Measuring over the last 25 years, in general, total casualties among military combatants have reduced. The reduction in the number of major wars between large states is the principal cause of reduced military casualties. Further reductions in fatalities are partly due to increased levels of force protection and military medicine as evidenced in the wars in Iraq and Afghanistan. More recently, casualties among noncombatants are up as adversaries have employed violent forms of coercion to control populations. Positive trends in human casualties appear to have stopped. From fewer than 25,000 battle-deaths in 2011, the total has jumped to 70,000 in 2013. Available data for 2014 shows a continuation of increased human fatalities to over 100,000 in 2014. In a few short years, the world has moved from a distinctive decline in wars to levels that approach about halfway back to Cold War levels.<sup>21</sup> Figure 3 below measures deaths from all forms of wars from 1988 to 2014. Statistics from Rwanda in 1994 are excluded as they were several orders of magnitude higher. Additionally, this data is considered conservative based on verified sources and does not capture the severe violence in places such as the Congo between 1994 and 2003 in which 3 to 5.4 million people died. The majority of these deaths were not battle-related, but the mortality was certainly related.<sup>22</sup>

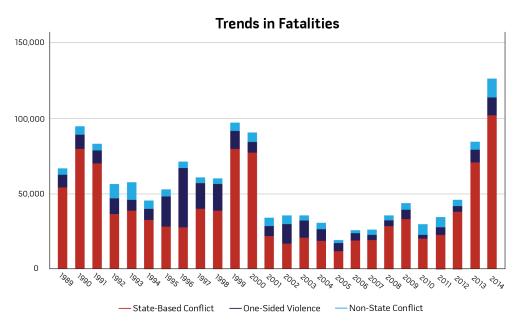


Figure 3: Annual Fatalities from Organized Violence (Excluding Rwanda)<sup>23</sup>

<sup>&</sup>lt;sup>21</sup> Total attacks dropped from 14, 463 to 11, 774, and total fatalities decreased from 32, 727 to 28, 328. The data and criteria used are at http://www.state.gov/j/ct/rls/crt/2015/257526.htm.

<sup>&</sup>lt;sup>22</sup> International Rescue Committee data, accessed at https://www.rescue.org/country/democratic-republic-congo#what-caused-the-current-crisis-in-congo.

<sup>&</sup>lt;sup>23</sup> Uppsala defines and collects data on three kinds of conflict: State-based conflict, Non-state conflict, and "one-sided violence." An armed conflict is a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year. "Armed conflict" is also referred to as "state-based conflict," as opposed to "non-state conflict," where none of the parties are a government. One-sided violence is the use of armed force by the government of a state or by a formally organized group against civilians which results in at least 25 deaths in a year. Definitions available at http://www.pcr.uu.se/research/ucdp/definitions/. The chart is from Erik Melander, "Organized Violence in the World 2015: An assessment by the Uppsala Conflict Data Program," *UCDP Paper Number 9*, (Uppsala, Sweden: Uppsala University, 2015), 4.

Obviously, the increases in casualties relate to ongoing conflicts in Ukraine, Syria and Iraq. It should be noted that the level of violence has not yet surpassed the sheer scale of civilian casualties experienced in Rwanda in the 1990s and the Democratic Republic of Congo before 2004, which include something on the order of 5.4 million noncombatant deaths. However, most of these fatalities were not defined by scholars as "battle-related" deaths and are not counted.<sup>24</sup> Few of these databases capture indirect deaths (from disease or other causes), or the numbers of refugees and displaced persons who have fled their homes and countries to avoid violence. According to the United Nations, over 60 million individuals are now displaced from their homes due to conflict and persecution, nearly a 25 percent increase over 2014.<sup>25</sup> This data clearly indicates that lethality, measured in terms of human fatalities, is increasing. The data from Uppsala University is confirmed by other research groups including the International Institute for Strategic Studies, which documents substantially far more fatalities in recent years.<sup>26</sup>

In addition to counting wars, acts of violent extremism are on the rise and producing casualty totals at the level of intrastate wars. The U.S.-government sponsored National Consortium for the Study of Terrorism and the Response to Terrorism (START) reported some 8,400 terrorist attacks in 2012 with 15,400 fatalities. The number of terrorist attacks jumped 35 percent to 13,500 the next year-- almost all resulting from Islamic extremists. The lethality level is also increasing as these attacks produced more than 17,800 deaths and 32,500 injuries in 2013.<sup>27</sup> The following year saw an 81 percent increase in fatalities, the vast majority of which occurred in five countries (Iraq, Nigeria, Afghanistan, Pakistan, and Syria). 28 The most recent data from the U.S. State Department for 2015 shows a decrease of about 13 percent in both the number of attacks and fatalities.<sup>29</sup> The downturn in attacks may be indicative of ISIS's decline, which has been predicted due to its questionable strategy and the numerous adversaries that they have accumulated.<sup>30</sup> While the data available makes it clear that violence has been increasing lately, there are limitations with public reports that create uncertainty which makes it difficult to confirm data with precision and to independently validate scholarly analyses. Furthermore, the term "terrorism" can be employed imprecisely and conflated with other acts of violence that occur during civil wars and other intrastate conflicts.<sup>31</sup> That warning noted both the frequency and lethality of terrorism appear to be escalating as these groups compete with each other for media attention, funding, and recruits.<sup>32</sup> One clear trend is the noted increase in catastrophic events which generate mass casualties.<sup>33</sup> The number of incidents that kill more than 100 persons at one time is climbing. Throughout the length of the supposedly bloody 20th century,

<sup>&</sup>lt;sup>24</sup>Battle-related deaths include fatalities occurring during battlefield fighting including guerrilla attacks/ambushes, and bombardments of military units, cities and villages etc. The targets are usually military and its installations, will include civilians killed in crossfire, indiscriminate bombings etc. All deaths - military as well as civilian are counted as battle-related deaths.

<sup>&</sup>lt;sup>25</sup> Sergio Pechana and Timothy Wallace, "Around the Globe, a Desperate Flight from Turmoil," *The New York Times*, June 21, 2015, p. 10.

<sup>&</sup>lt;sup>26</sup> International Institute for Strategic Studies, Annual Conflict Survey 2015 (London: Routledge, 2015), p. 78.

<sup>&</sup>lt;sup>27</sup> U.S. Department of State, *Statistical Information on Terrorism in 2013*, Washington, DC 2014, accessed at http://www.state.gov/j/ct/rls/crt/2013/22483.1htm.

<sup>&</sup>lt;sup>28</sup> Source; U.S. State Department, *Country Reports on Terrorism 2014*, Washington, DC, 2015, Table 2, accessed at http://www.state.gov/j/ct/rls/crt/2014/239416.htm; Carol Morello, "Iraq Issues and Syria's Civil War Cause Spike in Terror, Report Says," *The Washington Post*, June 20, 2015, p. A2; Carol Morello, "Iraq Issues and Syria's Civil War Cause Spike in Terror, Report Says," *The Washington Post*, June 20, 2015, p. A2. <sup>29</sup> Total attacks dropped from 14, 463 to 11, 774, and total fatalities decreased from 32,727 to 28,328. The data and criteria used are at http://www.state.gov/j/ct/rls/crt/2015/257526.htm.

<sup>&</sup>lt;sup>30</sup> Thomas F. Lynch, III, *The Islamic State as Icarus: A Critical Assessment of an Untenable Threat*, Washington, DC: Woodrow Wilson Center, 2015.
<sup>31</sup> Anthony Cordesman, "Key Trends in the Uncertain Metrics of Terrorism," Washington, DC: Center for Strategic and International Studies. March 24, 2016.

<sup>&</sup>lt;sup>32</sup> Dan Byman and Jennifer Williams, "Al-Qaeda vs. ISIS: The Battle for the Soul of Jihad," *Newsweek*, March 27, 2015, accessed at http://www.newsweek.com/al-qaeda-vs-isis-battle-soul-jihad-317414.

<sup>&</sup>lt;sup>33</sup> Bruce Hoffman "ISIL is Winning" *Politico*, September 10, 2015, accessed at http://www.politico.com/magazine/story/2015/09/isil-is-winning-213136#ixzz3m7Pwv6AS.

a total of only 14 terrorist attacks have reached this level. In 2014, there were 28 such incidents—most of which were claimed by ISIL or its affiliates.<sup>34</sup>

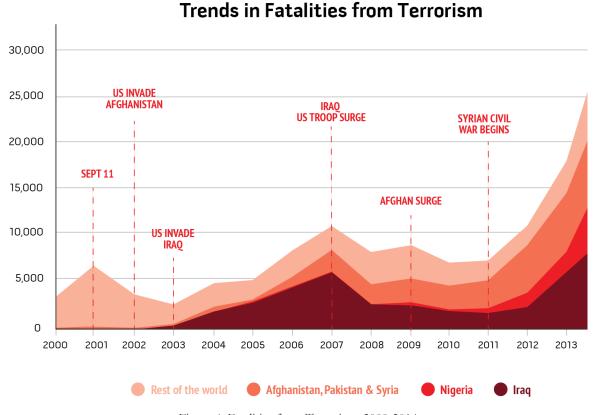


Figure 4: Fatalities from Terrorism, 2000-2014

In summary, several institutional reports show that current conflict levels are not declining, nor are battle-related or civilian deaths decreasing. These present trends could reverse in frequency and ferocity, but a forecast should explain the logic path that will take events in that direction. At present, there is little reason to think that war has become a relic of interest only for historians.

# **Factors Influencing Future Conflict**

How should we evaluate future possibilities for violence? Will we face Professor Colin Gray's projection of *Another Bloody Century* as violent as the 20<sup>th</sup> century was or will we face Pinker's more benign projections in *Better Angels?* Forecasts are a risky business; few predicted the emergence of the Islamic State five years ago, and only one strategist foresaw Russia's aggression into Ukraine.<sup>35</sup> What are the trends or drivers that might cause further crises that will place demands on the Nation's Armed Forces? This is an important question if the U.S. military is to be best postured to deter aggressor and be ready to respond. It is important to develop an appreciation of the geopolitical context that could evolve from a plausible projection of drivers in the near future and the potentially grave consequences

<sup>&</sup>lt;sup>34</sup> Hoffman "ISIL is Winning" Politico.

<sup>35</sup> Colin S. Gray, "The 21st Century Security Environment and the Future of War," Parameters (Winter 2009), p. 21.

that may emerge. What factors or drivers might cause wars to trend along different paths? <sup>36</sup> The literature suggests that we should expect multiple causes or paths in the initiation of wars and be leery of mono-causality. <sup>37</sup> Pinker uses numerous drivers, several of which are unique and for which causation or relevance to war is doubtful. <sup>38</sup> The decreases in violence that he details are the products of certain conditions, and he warns that "if the conditions reverse, violence could go right back up." <sup>39</sup>

The conditions or drivers used in this study were selected upon as a synthesis of trends used by a) past National Intelligence Council forecasts, b) the Joint Staff's published studies on the future Operating Environment, c) the UK's trends assessment, and d) studies produced by RAND. This research does not rehash the usual empirical trends (demographics, youth bulges, infant mortality, and degree of urbanization), which are routinely captured in various futures work and are readily available from the United Nations and World Bank. Demographics, particularly aging, did impact assessments in several factors especially resource demands and alliance cohesion.

This section evaluates the following seven drivers:

- Geopolitical Competition
- U.S. Engagement and Capacity Level
- Alliance Cohesion and Capacity
- Peacekeeping Support
- Democratic Governance
- Resource Competition
- Technological Diffusion

**Geopolitical Competition**. Both geopolitics and the structure or polarity of the international system have been key drivers of conflict in the past. Overlooked by the New Peace theorists like Pinker, the prevailing post-Cold War unipolar power structure contributed much to subdued levels of interstate conflict and war over the past quarter century. However, in the emerging multipolar system, with different players in different dimensions and less relative power differences between states, new dynamics will emerge.

The Cold War's era of relative stability was the product of a bipolar international order, nuclear weapons, and economic independence.<sup>40</sup> The Long Peace of that era, and the more recent period that some call the *Pax Americana*, were relatively stable eras in terms of great power conflict. Yet, there were major periods of violence (Korea and Vietnam, and the Balkans and Iraq wars).<sup>41</sup> A bipolar or unipolar international structure produces stability by minimizing

<sup>&</sup>lt;sup>36</sup> Human Security Project, *The Decline in Global Violence Reality or Myth?* Human Security Report, (Vancouver: Simon Fraser University, February 28, 2014).

<sup>&</sup>lt;sup>37</sup> Jack S. Levy and William R. Thompson, Causes of War (Oxford, UK: Wiley-Blackwell, 2010), p. 213.

<sup>&</sup>lt;sup>38</sup> I am indebted to Stephen Watts and Frederick Bryan of RAND for their insights on drivers and for their views on the benefits of various data sets.

<sup>&</sup>lt;sup>39</sup> Pinker, Better Angels, p. 361.

<sup>&</sup>lt;sup>40</sup> John Lewis Gaddis, *The Long Peace* (Oxford: Oxford University Press 1987); Richard Ned Lebow, "The Long Peace, the End of the Cold War, and the Failure of Realism," *International Organisation*, vol. 48, no. 2 (1994).

<sup>&</sup>lt;sup>41</sup> On the debates over the Long Peace see John Lewis Gaddis, "The Long Peace: Elements of Stability in the Postwar International System," *International Security,* vol. 10, no. 4 (Spring, 1986), pp. 99–142; Alvin M. Saperstein, "The "Long Peace"— Result of a Bipolar Competitive World?" *The Journal of Conflict Resolution,* vol. 35, no. 1 (March 1991), pp. 68–79; Richard Ned Lebow, "The Long Peace, the End of the Cold War, and the Failure of Realism," *International Organization,* vol. 48, no. 2 (Spring 1994), pp. 249–277.

unpredictability as the number of contending powers is reduced. Some scholars assert that this produces a "sense of caution and restraint" that discourages irresponsibility.<sup>42</sup>

The last 25 years represented an era of unprecedented concentration of national power in just about all dimensions in the United States. Many hoped that America's unipolar moment would last, and some argued for its extension to be the central element of U.S. strategy. Nevertheless, true unipolarity across many dimensions of power in one state is rare.<sup>43</sup> A more multipolar structure is emerging, and its subsequent emergence will produce a less stable system. The world will *not* be apolar, but distinctly mixed or multipolar with a varied set of military, political and economic powers.<sup>44</sup> Thus, the United States will increasingly operate in a more multi-polar structure amidst rising powers including China, Russia, India, and economic blocs like the European Union. It will have to compete with other players within this more competitive strategic environment and attempt to sustain its strategic and conventional deterrence without the same degree of dominance enjoyed in the past.<sup>45</sup> America still retains enormous advantages, and its overall power will not quickly dissipate. Notwithstanding, its relative ability to project influence and unilaterally secure its interests will become less pronounced over time.

An altered structure of international order comes with risks. With the rnew forms of military strength, and revisionist states who offset their weakness with reckless and illegal behaviors, the potential for conflict increases appreciably. One possible outcome of this dynamic may be a greater propensity for states to pursue regional hegemony or to resolve outstanding political grievances with confrontation. Alterations to the current power system by China's significant economic development and its rapid military modernization could conceivably produce circumstances in which great power competition erupts into a war.<sup>46</sup>

A transition period has emerged. Scholars of such transition periods argue that historically, periods marked "by hegemonic decline and the simultaneous emergence of new great powers have been unstable and prone to war."<sup>47</sup> Another historically based evaluation of rising powers found that 75 percent of the time, the emergence of rising powers generates war with the existing powers.<sup>48</sup> The ability to contest regional dominance "might lead Chinese leaders to believe that they could deter U.S. intervention in a conflict between it and one or more of its neighbors." <sup>49</sup> Such a calculation might encourage China to apply armed force in the Asia-Pacific region. This concern led to Graham Allison's assessment: "War between the U.S. and China is more likely than recognized at the moment. Indeed, judging by the historical record, war is more likely than not."<sup>50</sup> However, this historical record has to consider how mutual possession of nuclear capabilities changes this trend.<sup>51</sup>

<sup>&</sup>lt;sup>42</sup> Gaddis, *The Long Peace*, p. 222. John Mearsheimer agrees and notes that "deductively, a bipolar system is more peaceful for the simple reason that under it only two major powers are in contention." John Mearsheimer, "Why We Will Soon Miss the Cold War," *The Atlantic Monthly* (August 1990), pp. 2–3.

<sup>&</sup>lt;sup>43</sup> William C. Wohlforth, "The Stability of a Unipolar World," *International Security*, vol. 24, no. 1 (Summer 1999), pp. 5–41.

<sup>&</sup>lt;sup>44</sup> On the prospects of a nonpolar world see Richard N. Haass, "The Age of Nonpolarity," Foreign Affairs (May/June 2008).

<sup>&</sup>lt;sup>45</sup> Eric Heginbotham and Jacob Heim, "Deterring Without Dominance, Discouraging Chinese Adventurism Under Austerity," *The Washington Quarterly*, vol. 38, no. 1 (Spring 2015), pp. 185–199..

<sup>&</sup>lt;sup>46</sup> On Chinese naval modernization see Phil Saunders, et al, *The Chinese Navy*, *Expanding Capabilities*, *Evolving Roles* (Washington, DC: National Defense University Press, 2011).

<sup>&</sup>lt;sup>47</sup> Christopher Layne, "Sleepwalking with Beijing," The National Interest (May/June 2015), p. 45.

<sup>&</sup>lt;sup>48</sup> Graham Alison, Testimony before the Senate Armed Service Committee, April 14, 2015, accessed at http://www.armed-services.senate.gov/imo/media/doc/Allison\_04-14-15.pdf.

<sup>&</sup>lt;sup>49</sup> Eric Heginbotham, et al, *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996–2017* (Santa Monica, CA: RAND, 2015), xxxi; Roger Cliff, *China's Military Power Assessing Current and Future Capabilities*, (New York: Cambridge University Press, 2015). <sup>50</sup> Graham Allison, "The Thucydides Trap: Are the U.S. and China Headed for War?" *The Atlantic*, September 24, 2105.

<sup>&</sup>lt;sup>51</sup> I thank my colleague, Dr. T.X. Hammes, for this particular insight.

Policy makers should have few reasons to be sanguine about such power transitions.<sup>52</sup> Because of its rising power and expanding foreign policy objectives, "China represents and will remain the most significant competitor to the United States for decades to come." <sup>53</sup> Russia's behavior must also be factored in. The current regime in the Kremlin does not accept the post-Cold War settlement or existing international norms; is increasing its military forces size and posture; and thus poses a challenge to global order and regional security in Europe.<sup>54</sup> The paradox is that Russia has numerous weaknesses. As the UK's *Future Operational Environment 2035* noted, "Russia may continue to have a global impact through its trans-regional conduct, bolstered by its sheer size and military power. However, it is likely to be increasingly hindered by demographic decline, dated infrastructure and systemic challenges including corruption and poor governance."<sup>55</sup> Under an autocratic leadership, such weaknesses are likely to continue undermining regional stability.

Overall, in a multipolar system, with different players in different dimensions (political, military, socio-cultural, and economic) and less relative power difference between states, there is a greater likelihood that states will pose a challenge for regional hegemony or try to resolve outstanding political grievances through armed conflict. The structure of the international system is relevant to the character of civil wars and intrastate conflict. In periods of major geopolitical competition, we should expect a higher degree of lethal or "conventional" civil wars. In eras of geopolitical competition, proxy fights can be expected to increase and a general diffusion of shared military capabilities to increase the lethality of civil wars.<sup>57</sup>

Overall, the possibility of direct confrontation between states is higher than the past generation, and the potential for both interstate wars and intrastate proxy wars is judged to be higher than the past two decades.<sup>58</sup>

**U.S. Engagement and Capacity Level.** A related characteristic of the international system during the 1990-2005 period was U.S. leadership and its extensive engagement overseas in political, economic, and security terms. Rather than disengage from Europe or Asia after 1991, the United States preserved its alliance system even enlarging it with the inclusion of former Warsaw Pact members, while modifying its military force posture. It also extensively engaged

<sup>&</sup>lt;sup>52</sup> Shih-yueh Yang, "Power Transition, Balance of Power, and the Rise of China: A Theoretical Reflection about Rising Great Powers," *China Review* vol. 13, no. 2 (Fall 2013), pp. 35–66.

<sup>&</sup>lt;sup>53</sup> Robert D. Blackwill and Ashley J. Tellis, *Revising U.S. Grand Strategy Toward China* (New York: Council on Foreign Relations, 2013); Christopher A. Ford, "Ending the Strategic Holiday: U.S. Grand Strategy and a "Rising" China," no. 18, *Asia Policy* (July 2014), pp. 181–189.

<sup>&</sup>lt;sup>54</sup> Oleksandr Turchynov, "Ukraine's Security Challenges and the Crisis of Global Order," *The American Interest*, September 22, 2015, accessed at http://www.the-american-interest.com/2015/09/22/ukraines-security-challenges-and-the-crisis-of-global-order/; Catrin Einhorn, Hannah Fairchild and Tim Wallace, "Russia Rearms for a New Era," *The New York Times.com*, December 24, 2015, accessed at http://www.nytimes.com/interactive/2015/12/24/world/asia/russia-arming.html?action= click&contentCollection= Middle%20East&module=MostPopularF B&version=Full&region= Marginalia&src=me&pgtype=article.

<sup>&</sup>lt;sup>55</sup> UK Future Operating Environment, 2035, (Shrivenham, UK: Doctrine, Concepts and Development Command, 2015), p. 2.

<sup>&</sup>lt;sup>56</sup> Matthew Burrows and Roger George, "Is America Ready for a Multipolar World," *National Interest.com*, January 20, 2015, accessed at http://nationalinterest.org/print/feature/america-ready-multipolar-world-14964.

<sup>&</sup>lt;sup>57</sup> Stathis N. Kalyvas and Laia Balcells, "International System and Technologies of Rebellion: How the End of the Cold War Shaped Internal Conflict," *American Political Science Review*, vol. 104, no. 3, (August 2010).

<sup>&</sup>lt;sup>58</sup> On the potential for proxy war between major powers, see Erica Borghard, "Making Sense of a Syrian Proxy War Gone Amok," *The National Interest*, October 26, 2015, accessed at http://nationalinterest.org/feature/making-sense-syrian-proxy-war-gone-amok-14167?page=2.

in international forums to advance trade relationships, development, and contain nuclear proliferation.<sup>59</sup> On the eve of a unipolar system, U.S. policy makers sought to lock in a stable context.<sup>60</sup>

No doubt, future U.S. decisions about its place and role in the world will influence the stability of global order. Will that international engagement continue, or will the United States retrench and start focusing on nation building at home?<sup>61</sup> The 2016 electoral debates suggest that a robust international role may not be politically sustainable. Poll findings depict an American populace weary and wary of foreign entanglements. One poll shows 53 percent of respondents saying that the U.S. "should mind its own business internationally" compared to 41 percent who said so in 1995.<sup>62</sup> The costs for U.S. leadership and engagement compete for constrained resources for domestic priorities, and a period of retrenchment is possible. Some argue that it is strategically necessary or useful.<sup>63</sup> Yet, American retrenchment, complete with caps in defense and foreign aid spending, undercuts the capacity of the United States to maintain order. The overall size of the U.S. military has been declining along with its qualitative edge. Explicit in the call for defense strategies built around technological breakthroughs, the so-called Offset Strategy is a concern about declining military superiority.<sup>64</sup> Even the perception of reduced security capacity, much less an actual reduction, reduces deterrence and produces instability in regions where existing unresolved political or territorial disputes remain unresolved.

Foreign observers assess that "America's once predominant influence is fading fast," and they argue that its reduced capacity and will to sustain the existing international order will impact the near future. Foreign leaders also openly question U.S. leadership and credibility with former Secretary General of NATO Anders Fogh Rasmussen noting that he sees "too many signs of American retrenchment and retreat." Other senior foreign leaders have concluded that:

Today, the Pax Americana that ensured a large degree of global stability has begun to fray – most notably in the Middle East and on the Korean Peninsula. The US may still be the world's strongest power, but it is no longer able or willing to play the role of the world's policeman or make the sacrifices needed to guarantee order.<sup>67</sup>

<sup>&</sup>lt;sup>59</sup> American strategy is fairly consistent over time, see Richard. D. Hooker, Jr., "The Grand Strategy of the United States," Washington, DC: Institute for National Strategic Studies, October 2014.

<sup>&</sup>lt;sup>60</sup> Hal Brands, Making the Unipolar Moment (Ithaca, NY: Cornell University Press, 2016), pp. 274–335.

<sup>61</sup> Richard Haass, Foreign Policy Begins at Home, The Case for Putting America's House in Order (New York: Basic Books, 2013).

<sup>&</sup>lt;sup>62</sup> Janet Hook, "Americans Want to Pull Back from the World Stage, Poll Finds," Wall Street Journal, April 30, 2104.

<sup>&</sup>lt;sup>63</sup> Joseph M. Parent and Paul K. MacDonald, "The Wisdom of Retrenchment: America Must Cut Back to Move Forward," *Foreign Affairs*, November/December, 2011. For a response see Colin Dueck, "The Strategy of Retrenchment and Its Consequences," *FPRI E-Note*, April 13, 2015.

<sup>&</sup>lt;sup>64</sup> Ashton Carter, Remarks On Opening DIUx East and Announcing the Defense Innovation Board, As Delivered, Cambridge, Massachusetts, July 26, 2016; Robert Work, speech, as delivered, Reagan Defense Forum: "The Third Offset Strategy," Reagan Presidential Library, Simi Valley, CA, Nov. 7, 2015; Robert Work, "The Third U.S. Offset Strategy and Its Implications for Partners and Allies," speech at the Willard Hotel, Washington, DC, January 28, 2015; Robert Martinage, *Toward a New Offset Strategy Exploiting U.S. Long-Term Advantages To Restore U.S. Global Power Projection Capability* (Center for Strategic and Budgetary Analysis October 2014).

<sup>&</sup>lt;sup>65</sup> Ian Bremmer, "The Absence of Global Leadership Will Shape a Tumultuous 2016," *Time,* December 21, 2015, accessed at http://time.com/4154044/geopolitics-2016/?xid=time\_socialflow\_twitter; David E. Sanger, "Despite Moves by Obama, Asian Nations Are Unsure of U.S. Commitment," *The New York Times,* May 24, A6.

<sup>&</sup>lt;sup>66</sup> David E. Sanger and Jim Yardley, "In the Rise of Trump, Allies See a New Approach by the U.S," *The New York Times*, May 6, 2016, p. A14. <sup>67</sup> From a former German Vice Chancellor and Foreign Minister, Joschka Fischer, "Welcome to the Twenty-first Century," *Project Syndicate*, February 1, 2016, accessed at https://www.project-syndicate.org/commentary/global-order-challenged-in-near-future-by-joschka-fischer-2016-02?barrier=true.

Some respected foreign policy professionals think that American impact in the Middle East is at "the lowest ebb since World War II for U.S. influence and engagement in the region." Richard N. Haass warns that "an America that is distracted and divided is less likely to be willing and able to take the lead in promoting stability in the Middle East, Europe, or Asia, or in meeting global challenges. And, without US leadership, these challenges are likely to go unmet, turning into problems or, worse, crises." <sup>69</sup>

Overall, a perception of U.S. disengagement is likely to produce an increased chance of interstate conflict. Outlier states that do not accept the extant international order may seek opportunities to gain an advantage or even regional hegemony. Previous forecasts have concluded that a declining U.S. unwillingness and/or "slipping capacity to serve as a global security provider would be a key factor contributing to instability." While the United States will retain enormous strategic advantages and sizable military forces, its relative military superiority is declining, and the political will to deploy its advantages constructively could diminish. Disruptive forces are on the increase and have not yet been matched by adaptations in U.S. defense requirements. As noted in a recent report by CSIS, "The result is much more stress than had been expected on a shrinking force." This forecast judges that an increased degree of uncertainty and the perception of declining relative military superiority will generate a corresponding increase in the probability of interstate conflict. A reduced interest in global order is additionally forecasted to increase the likelihood of intrastate conflict.

Alliance Cohesion and Capacity. A critical element of the international system and order of benefit over the past two decades is a set of formal alliances and bilateral security partnerships. For many years, this alliance system was a vital contributor to the long-term security challenge posed by the Cold War. It was equally material to the post-9/11 efforts in Iraq and Afghanistan. Now, many of America's traditional allies face social, demographic and economic challenges that will diminish their contributions. Europe faces a compendium of trends that could produce a "perfect storm" that fragments its integrated progress.<sup>73</sup>

Europe is particularly at risk if it turns inward and focuses on needs closer to home.<sup>74</sup> NATO is recognized by the U.S. government as a critical contributor to its national security, and the Alliance's cohesion and sense of purpose remain strong. However, in the face of austerity spending levels, diminished economic productivity, and reduced demographics, many NATO members have sharply reduced defense spending and could become more domestically-oriented against internal security challenges.<sup>75</sup> The continued graying of Europe, despite recent influxes of immigrants,

<sup>&</sup>lt;sup>68</sup> Yaroslaw Trofimov, "America's Fading Footprint," *Wall Street Journal*, October 10, 2015, C1. On economic decline, see Jonathan Weisman, "At Global Economic Gathering, U.S. Primacy is Seen as Ebbing," *The New York Times*, April 17, 2015, p. 1.

<sup>&</sup>lt;sup>69</sup> Richard N. Haass, "The State of the United States," *Project Syndicate*, March 24, 2016. Accessed at https://www.project-syndicate.org/commentary/america-turning-inward-by-richard-n--haass-2016-03.

<sup>70</sup> National Intelligence Council, Global Trends 2030: Alternative Worlds (Washington, DC: National Intelligence Council, 2012), p. viii.

<sup>&</sup>lt;sup>71</sup> Mark F. Cancian, U.S. Military Forces in FY 2017: Stable Plans, Disruptive Threats, and Strategic Inflection Points (Washington, DC: Center for Strategic and International Studies, May 2016), 11.

<sup>&</sup>lt;sup>72</sup> Craig Cohen, *Capacity and Resolve: Foreign Assessments of U.S. Power* (Washington, DC: Center for International and Strategic Studies, June 2011).

<sup>&</sup>lt;sup>73</sup> Richard N. Haass, "Managing Europe's Perfect Storm," *Project Syndicate*, October 3, 2015.

<sup>&</sup>lt;sup>74</sup> A recent Pew poll suggests that the public foundation for the Alliance is low. When it came to committing to upholding Article 5—which requires NATO members to defend an ally if attacked—a median of 49 percent of respondents thought their country should not defend an ally. Judith Dempsey, "NATO's Allies Won't Fight for Article 5," Strategic Europe blog, Carnegie Foundation, June 15, 2015, accessed at http://carnegieeurope.eu/strategiceurope/?fa=60389.

<sup>&</sup>lt;sup>75</sup> Griff Witte, "Europe Reluctant to Boost Military Spending," *The Washington Post*, March 28, 2014, A9; Olivier de France, "Defence Budgets in Europe: Downturn or U Turn," EU Institute for Security Studies, *Issue Brief 12* (May 15, 2015). Accessed at http://www.iss.europa.eu/uploads/media/Brief\_12\_Defence\_spending\_in\_Europe.pdf.

will pose more than demographic and economic implications.<sup>76</sup> Figure 5 below shows the EU's economic recovery and security spending trends.<sup>77</sup> This trend has stopped as Russian assertiveness raises concerns about peace along Europe's borders.<sup>78</sup>

Overall prospects for a renewal in conventional deterrence by Europe's major powers are limited without a concerted effort, and that does not appear likely. Recent terrorist attacks in France and Belgium will certainly make elected officials acutely aware of border security, domestic intelligence, and counter-terrorism requirements. Resources to significantly enhance conventional force capacity in Europe will be needed but are unlikely to be politically sustained.

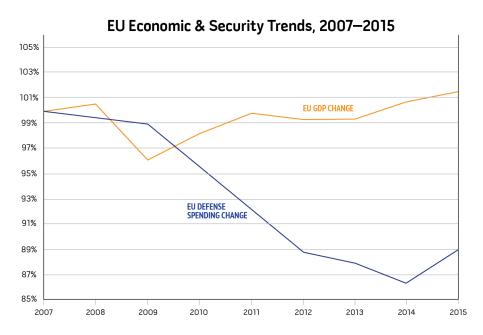


Figure 5: EU Economic and Defense Spending, 2007-2014<sup>79</sup>

The situation is somewhat different in the Pacific region. Throughout the region, China's steadily growing economic might and its rapid military modernization have produced a corresponding awakening. To balance China's aggressive posture, defense spending in the Asia-Pacific area is rising appreciably. America's partners, particularly Japan and South Korea, are taking steps to enhance their defenses. <sup>80</sup> Japan faces many of these challenges with an aging population and

<sup>&</sup>lt;sup>76</sup> David Bloom, "Economic Threats Posed by the Graying of Europe," HBSC, June 10, 2015, accessed at https://globalconnections.hsbc. com/us/en/special-features/hsbc-presents/the-bullwhip-effect-atlanta/economic-threats-posed-by-the-graying-of-europe.

<sup>&</sup>lt;sup>77</sup> The chart is based on Olivier de France, "Defence Budgets in Europe: Downturn or U Turn," 3.

<sup>&</sup>lt;sup>78</sup> A slight improvement is forecast by Alessandro Marrone, Olivier De France, Daniele Fattibene, eds., *Defence Budgets and Cooperation in Europe: Developments, Trends and Drivers* (Rome, Italy: January 2016). That forecast is being borne out according to NATO's headquarters.

<sup>&</sup>lt;sup>79</sup> Katharina Wolf, "Defence spending 2014: the EU picture," EU Institute for Security Studies, May 5, 2015, accessed at http://www.iss.europa.eu/publications/detail/article/defence-spending-2014-the-eu-picture/.

<sup>&</sup>lt;sup>80</sup> Patrick Cronin, "The U.S.-Japanese Alliance: The Cornerstone of Asia's Regional-Security Architecture," *National Interest*, November 7, 2014; Michael Auslin, "Japan's New Realism, Abe Gets Tough," *Foreign Affairs*, January/February 2016.

a severe debt-to-GDP ratio, but it is making an effort to increase security spending. The Abe government is preparing the Japanese military for an expanded role under new security legislation. Yet, demographically, Japan is aging rapidly, and its defense spending represents only 5 percent of its national budget, or one percent of GDP. Japan's debt is already at about 245 percent of its annual gross domestic product -- or more than \$11 trillion. Other Asian partners are in stronger shape. South Korea has a vibrant democratic state with a technologically advanced economy, sound budget, and strong exports. Like Japan, it has an aging population and could be beset by a costly violent conflict with its northern neighbor.

International stability and U.S. interests benefit from its alliance network and partners. Just as happened in 1914, weakening alliance networks and reductions in military preparedness undercut deterrence and increase the risks of major power conflict.<sup>84</sup> Overall, the possibility of interstate war is forecasted to be more likely than the past few decades.

**Resource Competition**. Resource pressures are often cited as a source of conflict. A UK study forecasted that "the need to protect lines of communication, as well as to guarantee access to resources, may increase competition and act as a catalyst for intra- and inter-state conflict." Due to these factors, they concluded that "in 2035 there is likely to be growing competition between states for access to, and influence over, ever-scarcer resources."<sup>85</sup>

Energy has been a significant variable in conflict. Jeff Colgan has shown that 25 percent to 50 percent of interstate wars between 1973 and 2012 had oil-related linkages. The context of that period was marked by dwindling supplies, rampant globalization, and unsteady progress on energy alternatives. This context could be different in the future and thus changes in our expectations about past correlations and causal factors need to be considered.

### **Energy Demand and Global Growth**

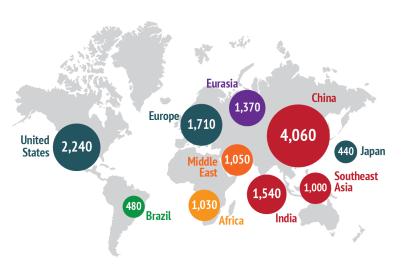


Figure 6: Global Energy Demand, 2035

<sup>&</sup>lt;sup>81</sup> Chieko Tsuneoka, "Japan Ramps Up Military Spending as China Territorial Dispute Lingers," *Wall Street Journal*, December 24, 2015. 1; Roger Cliff, *Japan's Security Role and Capabilities in the 2020s*, Washington, DC; Atlantic Council, November 13, 2015.

<sup>82</sup> Yoichi Funabashi, "Japan's Silver Pacifism," The National Interest (January/February 2016), pp. 25–31.

<sup>83</sup> Marcus Noland, "Six Markets to Watch," Foreign Affairs (January/February 2014).

<sup>&</sup>lt;sup>84</sup> Freedman, p. 661.

<sup>85</sup> UK Future Operating Environment 2035, pp. 4, 11.

<sup>86</sup> Jeff Colgan, "Fueling the Fire: Pathways from Oil to War," International Security, vol. 38, no. 2, Fall 2013), pp. 147–180.

The recent shale/unconventional energy revolution in the United States creates numerous benefits for U.S. consumers.<sup>87</sup> It may also alter geopolitical and geo-economic pressures to compete for energy needs. Not all countries will benefit equally, and they will require adequate supplies of imported energy to maintain their level of growth. There likely will be a rise in energy demand from the developing world.<sup>88</sup> Both China and India will expand their energy demands for a growing transportation sector. As shown in Figure 6, Asia's share of global demand for energy will be significant. By 2035, China will be the largest consumer of energy, accounting for 25 percent of global consumption.<sup>89</sup>

China continues to act assertively in the South China Sea, and it is not clear whether the PRC seeks to dominate this area to protect its access to external markets or to exploit the region's hydrocarbon reserves. Nevertheless, its dependency on oil imports is projected to rise from 59 percent of its usage in 2014 to over 75 percent by 2035. Expanded access to unconventional sources may not satisfy the demand for energy supplies, and China may still perceive itself as economically and politically vulnerable. Overall, energy supplies should be adequate, but access to these resources is a possible vulnerability that generates conflict. While energy may not be a source of competition, water stress may bring on higher levels of conflict. More than half of the world's 276 international basins have no treaty provisions covering them, and many basins are governed by bilateral treaties. Several key river basins are not yet covered by treaties at all. Fresh water shortfalls have caught the attention of the U.S. intelligence community:

Between now and 2040, fresh water availability will not keep up with demand absent more effective management of water resources. Water problems will hinder the ability of key countries to produce food and generate energy, posing a risk to global food markets and hobbling economic growth. 94

The problem will continue to worsen over the forecast period of this study and conceivably increase the chance of water wars between states.<sup>95</sup>

More likely, however, the future could be marked by greater environmental challenges and climate change impacting food security. Some assess the relevance of climate change as a "threat multiplier." There is a possible linkage

<sup>&</sup>lt;sup>87</sup> Commission on Energy and Geopolitics, "Oil Security 2025: U.S. National Security Policy in an Era of Domestic Oil Abundance," Washington, DC: Securing America's Future Energy, 2014.

<sup>&</sup>lt;sup>88</sup> National Intelligence Center, *Global Trends, 2030*, 27–30; UK, *Future Operating Environment 2035*, 26. See also U.S. Energy Information Administration, *International Energy Outlook 2016* (Washington, DC, May 11, 2016).

<sup>89</sup> BP Energy Outlook, Country and Regional Insights-China, 2016.

<sup>&</sup>lt;sup>90</sup> Chris Horton, "Beijing Zeroes In on Energy Potential of South China Sea," *The New York Times*, October 28, 2014, accessed at http://www.nytimes.com/2014/10/29/business/energy-environment/beijing-zeroes-in-on-energy-potential-of-south-china-sea.html?\_r=0; Robert Kaplan, *Asia's Cauldron, The South China Sea and the End of a Stable Pacific* (New York: Random House, 2013).

<sup>&</sup>lt;sup>91</sup> BP Energy Outlook, Country and Regional Insights-China, 2016.

<sup>92</sup> Brahma Chellaney, Water, Peace, and War. Confronting the Global War Crisis (Lanham, MD: Rowman & Littlefield, 2013).

<sup>&</sup>lt;sup>93</sup> Ashok Subramanian, Bridget Brown and Aaron T. Wolf, "Understanding and Overcoming Risks to Cooperation Along Transboundary Rivers," vol. 16, Issue 5, *Water Policy*, (October 2014), p. 826.

<sup>&</sup>lt;sup>94</sup> Director of National Intelligence, *Global Water Security, Intelligence Community Assessment,* (Washington, DC: Office of the Director of National Intelligence, February 2, 2012), p. iii.

<sup>&</sup>lt;sup>95</sup> "Water insecurity from drought, excessive groundwater extraction, and changed seasonal precipitation patterns is affecting — or soon will affect — regions as diverse as the Middle East, South Asia, the Caribbean, northern China, sub-Saharan Africa, the western United States, and many more." Peter Engelke and Russell Sticklor, "Water Wars: The Next Great Driver of Conflict?" *The National Interest*, September 15, 2015, accessed at http://www.nationalinterest.org/feature/water-wars-the-next-great-driver-global-conflict-13842.

<sup>96</sup> Military Advisory Board, National Security and the Threat of Climate Change, Alexandria VA: Center for Naval Analyses, 2007, p. 6.

between environmental impacts, food prices, and political stability.<sup>97</sup> Food security in Asia will continue to grow as a challenge due to rising population requirements and degraded sources of water.<sup>98</sup> Some intrastate conflicts, as in Syria for example, have started as a result of drought and ravaged agricultural regions.<sup>99</sup> In this instance, food insecurity created widespread discontent that spawned the violence that ensued.<sup>100</sup> Moreover, in some ongoing intrastate wars, combatants often exploit food and water resources.<sup>101</sup>

Resource competition is judged to be a sustained source of interstate tension globally. Thus, this forecast concludes that energy requirements are not likely to increase the likelihood of interstate conflict above today's levels. Instead of energy, food/water security will be a major input to instability, especially in the developing world. This variable will most likely impact internal, civil, or intrastate wars. Water wars between states are possible, but not likely. An increased likelihood of instability from the nexus of environmental damage, water pressures, and unstable food prices is probable. Water stress can be ameliorated with technological advances and increasingly more efficient forms of desalinization, but only by advanced societies that can afford it. Periods of food/water scarcity will increase the likelihood of intrastate conflict out to 2035 and beyond.

**Democratic Governance.** A significant factor influencing the incident rate of interstate war is the larger number of democratic governments. Such governments are believed to be restrained from unilateral aggression and are more inclined to non-military forms of competition. Greater accountability of leaders to their domestic constituencies, it is argued, serves as a brake on impulsive actions. <sup>104</sup> While the causal relationship between the marked decrease in interstate wars and the increase in representative government is debated, the trend in a larger set of democratically elected governments is clear. <sup>105</sup>

That said, the proliferation in democracies has stopped and appears less relevant. International challengers to the current order include four non-democratic states (China, Russia, North Korea, and Iran). These states include three nuclear powers, with Iran seeking nuclear capabilities until recently. These countries represent about 20 percent of the global population and 10 percent of global military spending. None of them is expected to evolve dramatically or embrace democratic rule anytime soon. Moreover, the number of countries with elected governments has not materially changed in over 20 years, and trends do not suggest that a marked improvement in the number or maturity of democratically accountable states. Today, 51 states are defined as "not free," and they represent over 35 percent of humanity (2.6B people). Additionally, freedom within countries defined as free is declining qualitatively, as

<sup>&</sup>lt;sup>97</sup> Thomas L Friedman, "The Scary Hidden Stressor," *The New York Times*, March 2, 2013, at www.nytimes.com2013/03/03/opinion/sunday/friedman-the-scary-hidden-stressor-html.

<sup>98</sup> Monika, Barthawal-Datta, Food Security in Asia: Challenges, Policies and Implications (London: IISS 2014).

<sup>&</sup>lt;sup>99</sup> Shane Harris, "Water Wars: Forget the Islamic State." *Foreign Policy*, September 18, 2014, accessed at http://foreignpolicy.com/2014/09/18/water-wars/.

<sup>&</sup>lt;sup>100</sup> Marcus DuBois King, "The Weaponization of Water in Syria and Iraq," vol. 38, no. 4, The Washington Quarterly (Winter 2016), 1p. 66.

<sup>&</sup>lt;sup>101</sup> Kahmira Gander, "ISIS uses water as a weapon in Iraq, by closing dam along Euphrates," *The Guardian*, June 3, 2015; King, "The Weaponization of Water," pp. 166–169.

<sup>&</sup>lt;sup>102</sup> Meghan L. O'Sullivan, "The Entanglement of Energy, Grand Strategy, and International Security," in Andreas Goldthau, ed., *The Handbook of Global Energy Policy* (New York: John Wiley & Sons, 2013).

<sup>&</sup>lt;sup>103</sup> On prospects for efficient, large-scale progress in Israel see David Talbot, "Megascale Desalinization," *MIT Technology Review*, January 2016. <sup>104</sup> Edward Mansfield and Jack Snyder, "Democratization and the Danger of War," *International Security*, vol. 20, no. 1 (Summer 1995), 5–38; James Fearon, "Domestic Political Audiences and Escalation of International Disputes," *American Political Science Review*, vol. 88, no. 3 (September 1994), pp. 1339–1374.

<sup>&</sup>lt;sup>105</sup> Allan Dafoe, "Statistical Critiques of the Democratic Peace," American Journal of Political Science, vol. 55, no. 2 (April 2011), pp. 247–262.

<sup>106</sup> Freedom in the World 2016: Anxious Dictators, Wavering Democracies: Global Freedom under Pressure (New York: Freedom House, 2016).

measured by the Freedom House organization. Their Freedom Index records 10 consecutive years of qualitative decline in democratic values, and the year 2015 showed the highest decline in the number of states with declining freedom as shown in Figure 7 below.

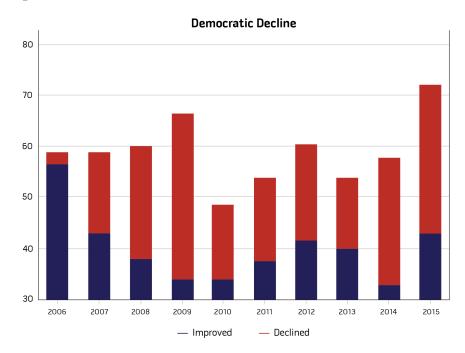


Figure 7: Net Shifts in Freedom 2006-2015<sup>107</sup>

In addition to the quantity of democratic states, their character or quality may well be in decline. The literature notes that emerging democracies are not as stable as mature democratic states. <sup>108</sup> Illiberal democracies are majority ruled, but not necessarily protective of individual freedoms or minorities. They may lack crucial institutional mechanisms, such as an independent judiciary or a free press. There are a number of evolving democratic states today (i.e., Egypt, Pakistan, Iraq, Afghanistan, Turkey) at pivotal points in their development. They represent relatively significant populations in the aggregate (422M today and half a billion at the end of the forecast period). <sup>109</sup> They may not evolve without further instability or internal conflict.

It appears that the world is in the midst of a democratic contraction.<sup>110</sup> Many states are finding liberal and democratic institutions at odds with their desire to sustain control.<sup>111</sup> In the near- to mid-range period, several large, illiberal democracies will be unstable and face significant internal challenges.<sup>112</sup> These states will continue to evolve, and it is

<sup>&</sup>lt;sup>107</sup> Ibid, 3.

<sup>&</sup>lt;sup>108</sup> Fareed Zakaria, "The Rise of Illiberal Democracy," Foreign Affairs (November/December 1997).

<sup>&</sup>lt;sup>109</sup> Population data drawn from *CIA World Factbook*. Accessed at https://www.cia.gov/library/publications/the-world-factbook/rankorder/rankorderguide.html.

<sup>&</sup>lt;sup>110</sup> Mathew Burrows and Maria J. Stephen, Is Authoritarianism Staging a Comeback? Washington, DC: Atlantic Council, 2015.

<sup>&</sup>lt;sup>111</sup> Anne Applebaum, "The Leninist Roots of Civil Society Repression," Vol. 26, Issue 3 Journal of Democracy (October 2015), pp. 21–27.

<sup>&</sup>lt;sup>112</sup> Christopher Walker, "The Authoritarian Threat; The Hijacking of Soft Power," vol. 27, Issue 1, *Journal of Democracy*, (January 2016), pp. 49–63.

likely that an intrastate conflict will occur in one of them. The increase toward autocratic or authoritarian systems will dilute global order, increase instability, and possibly increase anti-U.S. sentiments.<sup>113</sup> There is little reason to cite democratization as a positive influence over the last 20 years, and given the large power base controlled by autocratic states, there is little cause for optimism about declines in interstate wars from this factor. At least for the next decade, the degradation in democratic norms and weaker institutions is forecasted to lead to a slightly higher incidence of interstate conflict as well.

**Peacekeeping Support.** The value of UN peacekeeping operations (PKO) is well recognized as an effective tool for managing conflict.<sup>114</sup> An increase in UN peacekeeping operations correlates with decline in the number of active conflicts in the past. There have been a total of 69 approved UN PKOs historically, and more than 3,000 peacekeepers have died during these missions. Today, there are more than 100,000 UN peacekeepers deployed in 16 missions around the world.<sup>115</sup> The historical trend for uniformed peacekeeping troops since 1998 is show in Figure 8.<sup>116</sup> The UN peacekeeping budget is over \$8 billion per year, and the United States is the largest financial contributor (28 percent). The continued success of UN and regional PKOs is predicated upon continued international support, the availability of countries willing to provide troops, and resources to support them. All three requirements are likely to be weakened in the future.

#### Uniformed Peacekeeping Personnel, 1999-2015

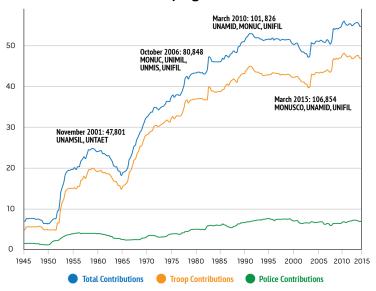


Figure 8: Deployed Personnel for UN Peace Operations, 1999-2015

<sup>&</sup>lt;sup>113</sup> Andrea Kendall-Taylor, "How Democracy's Decline Would Undermine the International Order," Washington, DC: CSIS, *Commentary*, July 15, 2016. Accessed at https://www.csis.org/analysis/how-democracy%E2%80%99s-decline-would-undermine-international-order. There is empirical evidence to suggest that there is variation in types of autocratic regimes as well, Jessica L. Weeks, "Strongmen and Straw Men: Authoritarian Regimes and the Initiation of International Conflict," *American Political Science Review*, vol. 106, Issue 2 (May 2012), pp. 326–347.

<sup>&</sup>lt;sup>114</sup> Joshua S. Goldstein and Steven Pinker, "War Really Is Going Out of Style" *The New York Times*, December 17, 2011, accessed at http://www.nytimes.com/2011/12/18/opinion/sunday/war-really-is-going-out-of-style.html?\_r=0.

<sup>&</sup>lt;sup>115</sup> Richard Gowan, "Ten Trends in Peace Operations," *Peace Operations Review*, June 2015, accessed at http://peaceoperationsreview.org/thematic-essays/10-trends-in-peace-operations/; Stephen Schlesinger, "The dangerous, valuable work of U.N. peacekeepers," *Los Angeles Times*, September 18, 2014; Alex J. Bellamy and Charles T. Hunt, "Twenty-first century UN peace operations: protection, force and the changing security environment," *International Affairs*, vol. 91, no. 6 (November 2015), pp. 1277–1298.

<sup>116</sup> Chart adapted from Peacekeeping Operations Review, accessed at http://peaceoperationsreview.org/featured-data/.

The complexity of PKOs has evolved and increased substantially in the last several evolutions. The number of major civil wars in which UN troops were assigned has jumped from 4 in 2007 to 11 in 2014.<sup>117</sup> These conflicts are more intractable, are influenced by organized crime, and are more violent. Nearly two-thirds of the UN military peacekeepers and nearly 90 percent of personnel deployed today are in countries experiencing high-intensity conflict. Despite getting pulled away from some missions when violence flared up, fatalities among UN peacekeepers have increased in the aggregate. That trend is likely to continue to worsen. Contingencies for PKOs are increasingly complex and call for robust capabilities to impose security instead of relying on the permission of opposing parties. Robust PKOs face severe challenges and require highly trained personnel, effective offensive combat equipment, coherent command and control, and strong leadership in ambiguous environments. The need to enhance PKO forces for such operations has been recognized by a high-level UN assessment.

Still, prospects for successful UN operations are challenged given the evolving security environment.<sup>122</sup> First, international support requires a consensus of major players on the Security Council, which may evaporate due to increased tensions between the West and China or Russia.<sup>123</sup> In the last decade, the number of Security Council vetoes has doubled.<sup>124</sup> Second, the availability of troops is liable to decline if major states face higher security dilemmas at home and cannot financially sustain PKOs. Not surprisingly, given the economic austerity of Europe, UN peacekeeping contributions are significantly in arrears. Magnus Nordenman puts it well, "A newly assertive Russia and a crumbling Middle East has European decision makers worried that their militaries (exhausted by Afghanistan and shrinking due to budget cuts) may be needed closer to home."<sup>125</sup>

Finally, resources and commitments are sliding already. The UN Secretary General has warned of intervention fatigue and higher costs. The US ambassador to the UN felt it necessary to call for increased assistance levels from Europe, and the President has called attention to the importance of these missions. <sup>126</sup> There have even been calls for increased

<sup>&</sup>lt;sup>117</sup> Sebastian von Einsiedel, "Major recent trends in violent conflict," *Occasional Paper* (Tokyo: United Nations University, Centre for Policy Research, 2014).

As reported in the UN report accessed at http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2015\_490.pdf.

<sup>&</sup>lt;sup>119</sup> Jaïr van der Lijn and Timo Smit, "Fatality trends in UN peace operations," *SIPRI Policy Brief*, September, 2015. Accessed at http://books.sipri.org/product\_info?c\_product\_id=500. Somni Sengupta and Jeffrrey Gettleman, "UN Set to Cut Force in Darfur as Fighting Rises," *The New York Times*, December 25, 2014.

<sup>&</sup>lt;sup>120</sup> On the limits of peacekeeping, see James Sloan, "UN Peacekeeping in Darfur, A Quagmire We Cannot Accept," E-International Relations, June 2013, accessed at http://www.e-ir.info/2014/06/03/un-peacekeeping-in-darfur-a-quagmire-that-we-cannot-accept/; James Sloan, *The Militarisation of Peacekeeping in the Twenty-First Century* (Oxford: Hart Publishing, 2011).

<sup>&</sup>lt;sup>121</sup> "Secretary-General's remarks at Summit on UN Peacekeeping," Statement, New York: Office of the Secretary-General, September 26, 2014.

<sup>&</sup>lt;sup>122</sup> Sebastian von Einsiedel and Rahul Chandran, "The High-Level Panel and the Prospects for Reform of UN Peace Operations," *Changing Nature of Conflict, UN Reform,* July 14, 2015, accessed at http://cpr.unu.edu/the-high-level-panel-and-the-prospects-for-reform-of-un-peace-operations.html.

<sup>&</sup>lt;sup>123</sup> Sebastian von Einsiedel, David Malone and Bruno Stagno Ugarte, "The UN Security Council in an Age of Great Power Rivalry," *Working Paper 4* (New York: United Nations University, February 2015).

<sup>124</sup> Ibid, p. 3.
125 Magnus Nordenman, "Why the West Will Ignore Samantha Power's Call for UN Peacekeepers," *Defense One*, March 12, 2015, accessed at http://www.defenseone.com/ideas/2015/03/why-west-will-ignore-samantha-powers-call-un-peacekeepers/107409/.

<sup>&</sup>lt;sup>126</sup> Ambassador Samantha Power, Remarks, Reforming Peacekeeping in Time of Conflict, Washington, DC, at the American Enterprise Institute, November 7, 2015, accessed at https://www.aei.org/publication/remarks-ambassador-samantha-power-reforming-peacekeeping-time-conflict/; Karen DeYoung, "Obama calls for renewed commitment to U.N. peacekeeping missions," *The Washington Post*, September 28, 2015, p. A1.

U.S. military force participation to bolster lagging capacity.<sup>127</sup> The only positive sign is China's increased willingness to participate in such operations.<sup>128</sup> Based upon current pressures and increased political and personnel costs of PKOs, such operations are likely to be fewer and increasingly hard-pressed to preserve the peace. Without the benefit of these valuable conflict mitigation efforts, an increase in both intrastate and interstate conflict is more likely to occur in the future than in the past.

**Technological Diffusion.** In eras of dynamic technological change, the metrics by which military power is conceived, applied, or measured can change radically. The potential impact of major paradigm shifts is not always quickly or accurately assessed at the strategic or operational level of war.<sup>129</sup> Sometimes, new opportunities are missed or not recognized. For example, a U.S. government assessment in 1937 on "Technological Trends and National Policy" failed to foresee jet engines, radar, inertial navigators, nuclear weapons, helicopters, nuclear submarines, rocket-powered missiles, electronic computers, and cruise missiles. They were all developed by 1957.<sup>130</sup>

Technological developments were a growing source of surprise and miscalculation in the 20<sup>th</sup> century, and it will be even more so in the 21<sup>st</sup> century. <sup>131</sup> The evolving character of technology will influence societies and their prospects. <sup>132</sup> New advances will have a commensurate impact on our security as well, often in ways we have not yet imagined. <sup>133</sup> Technology is not the sole driver of military revolutions, but our age is replete with potentially disruptive sources of change that will impact how societies fight. Many of these emerging technologies, such as quantum computing, 3-D printing, robotics, directed energy, and nanotechnology, will have military applications and might be "game changers." <sup>134</sup> Due to these dynamics, the threat of surprise or miscalculation is higher than ever before. <sup>135</sup> The confluence of blinders and blunders can generate armed conflicts by complete accident rather than deliberate policy due to misperception, including underestimates of an opponent's capabilities. <sup>136</sup> The potential for blunder or misperception between leading military forces like the United States and China today are palpable. <sup>137</sup> There are numerous ways a war with China, Russia, or an outlier state might break out, but the principal source is likely to be a miscalculation about capabilities. Peter Singer has concluded, "The lesson from Cold War deterrence that best holds true today is that the most dangerous period was when both the new technology and the new competition were not well understood — which made bluster and escalation seemingly easy remedies to complex problems." <sup>138</sup> We live in such a dangerous period today.

<sup>&</sup>lt;sup>127</sup> Michael O'Hanlon, "American Troops Should Be More Involved in UN Peacekeeping," Brookings blog, available at http://www.brookings.edu/blogs/order-from-chaos/posts/2015/10/02-american-troops-un-peacekeeping-ohanlon.

<sup>&</sup>lt;sup>128</sup> The Economist, "Xi and the Blue Helmets," October 3, 2015, pp. 45–46; Courtney J. Fung, "China's Troop Contributions to UN Peacekeeping," Washington, DC: U.S. Institute of Peace, *Peacebrief 212*, July 2016.

<sup>&</sup>lt;sup>129</sup> As noted by Williamson Murray and Allan Millet, eds., *Military Innovation in the Interwar Period* (New York: Cambridge University Press, 1996). <sup>130</sup> George H. Heilmeier, "Guarding Against Technological Surprise," *Air University Review* (September-October 1976), accessed at http://www.airpower.maxwell.af.mil/airchronicles/aureview/1976/sep-oct/heilmeier.html.

<sup>&</sup>lt;sup>131</sup> Michael Handel, "Intelligence and the Problem of Strategic Surprise," p. 5, in Richard Betts and Thomas Mahnken, eds. *Paradoxes of Strategic Intelligence* (Portland, OR: Frank Cass, 2003).

<sup>&</sup>lt;sup>132</sup> T.X. Hammes, "3D Printing Will Disrupt the World in Ways We Can Barely Imagine," War on the Rocks, December 28, 2015.

<sup>&</sup>lt;sup>133</sup> Zachary Davis, Ronald Lehman, and Michael Nacht, eds., *Strategic Latency and World Power: How Technology is Changing Our Concepts of Security*, (Livermore, CA: Lawrence Livermore National Laboratory, 2014).

<sup>&</sup>lt;sup>134</sup> Shawn Brimley, Ben Fitzgerald, and Kelley Sayler, *Game Changers: Disruptive Technology and US Defense Strategy,* Washington, DC: Center for a New American Security, September 2013.

<sup>135</sup> Defense Science Board, Report of the Defense Science Board 2008 Summer Study on Capability Surprise (Washington, DC, January 2010), p. 142.

<sup>&</sup>lt;sup>136</sup> David C. Gompert, Hans Binnendijk, and Bonny Lin, *Blinders, Blunders, and Wars: What America and China Can Learn* (Santa Monica, CA: RAND, 2014).

<sup>&</sup>lt;sup>137</sup> Alastair Iain Johnston and Mingming Shen, eds. *Perception and Misperception in American and Chinese Views of the Other* (Washington, DC: Carnegie, 2015).

<sup>&</sup>lt;sup>138</sup> Peter Singer, "How the United States Can Win the Cyberwar of the Future," Foreign Policy.com, December 18, 2015.

The policy and strategy implications of these potential developments have not yet been determined, but it is clear that the diffusion of technology reduces the overall superiority that advanced states once possessed.<sup>139</sup> The U.S. intelligence community concurs with this dark conclusion:

A wider spectrum of instruments of war—especially precision-strike capabilities, cyber instruments, and bioterror weaponry—will become accessible. Individuals and small groups will have the capability to perpetrate large-scale violence and disruption—a capability formerly the monopoly of states.<sup>140</sup>

The character of weapons development has often produced incentives that are destabilizing because they are offensive in character and may be best employed preemptively.<sup>141</sup> As noted by RAND recently, "Technological advances in the ability to target opposing forces are creating conditions of conventional counterforce, whereby each side has the means to strike and degrade the other's forces and, therefore, an incentive to do so promptly, if not first."<sup>142</sup> The question now is determining whether or not we are in a transition period due to new technological developments. A strong case can be made that the past era of offensively dominant conventional military capabilities is shifting to a defense dominance.<sup>143</sup> These developments in technology will be an evolutionary shift comparable to cycles in the past. It should result in decreased pressures for the initiation of conflict, particularly conventional conflict.

The same is probably not true for strategic capabilities or new technologies in the space and cyber domains. Managing deterrence and controlling escalation in this era will be increasingly difficult.<sup>144</sup> Crisis instability appears to be growing, given the uncertain balance of capability between nations and the uncertain character of cross-domain technologies.<sup>145</sup> The reliance of states on space or cyber connectivity for both security and economic activity may increase the perceived value or need for preemptive actions; therefore, crisis stability can be severely challenged. Indeed, the most likely source of a conflict may be derived from cyber insecurity.<sup>146</sup> Chinese military theorists appear to be aware of the potential for decisive action and inadvertent escalation in the cyber domain.<sup>147</sup>

In addition to new technological developments, traditional dilemmas in strategic stability could increase in complexity. The impact of nuclear proliferation could significantly influence the character of major conflicts. 148 Scholars attribute the "Long Peace" to nuclear weapons because their existence made optimistic outcomes from war more difficult

<sup>&</sup>lt;sup>139</sup> For a deeply researched examination, see T.X. Hammes, "The Character of Future Conflict," in Richard D. Hooker, Jr, ed., *Global Assessment* (Washington, DC: National Defense University Press, 2016) forthcoming.

<sup>&</sup>lt;sup>140</sup> National Intelligence Council, *Global Trends 2030*, p. 67.

<sup>&</sup>lt;sup>141</sup> Stephen Van Evera, "Offense, Defense, and the Causes of War," *International Security*, vol. 22, No. 4 (Spring, 1998) pp. 5–43.

<sup>142</sup> David Gompert Astrid Cevallos, Cristina L. Garafola, War With China: Thinking Through the Unthinkable, Santa Monica, CA: RAND, 2016.

<sup>&</sup>lt;sup>143</sup> See my NDU colleague's argument at T. X. Hammes, "Technologies Converge and Power Diffuses," Washington, DC: CATO Institute, *Policy Analysis No. 786*, January 27, 2016.

<sup>&</sup>lt;sup>144</sup> Forrest E. Morgan, Karl P. Mueller, Evan S. Medeiros, Kevin L. Pollpeter, and Roger Cliff, *Dangerous Thresholds: Managing Escalation in the 21st Century* (Santa Monica, CA: RAND, 2008); Dean Cheng, "Prospects for Extended Deterrence in Space and Cyber: The Case of the PRC," Washington, DC: Heritage Foundation, January 21, 2016.

<sup>&</sup>lt;sup>145</sup> Avery Goldstein, "First Things First, China, The Pressing Danger of Crisis Instability in U.S.-China Relations," *International Security*, vol. 37, no. 4 (Spring 2013), 49–89; Vincent Manzo, "Deterrence and Escalation in Cross-Domain Operations," *Strategic Forum, Number 272* (Washington, DC: National Defense University, December 2011); David Gompert and Martin Libicki, "Cyber Warfare and Sino-American Crisis Instability," *Survival*, vol. 56, no. 4 (Summer 2014), 7; Paul Bracken, "The Cyber Threat to Nuclear Stability," *Orbis*, vol. 60, Issue 2 (Summer, 2016), 188–203.

<sup>146</sup> Damien Palleta, "When Does a Hack Become an Act of War?" Wall Street Journal, June 13, 2015.

<sup>&</sup>lt;sup>147</sup> "Chinese Shadow Force." Accessed at http://theory.people.com.cn/n1/2016/0104/c386965-28010082.html.

<sup>&</sup>lt;sup>148</sup> W. Seth Carus, "WMD and Trends in Interstate Armed Conflict," unpublished research paper, Washington, DC: Center for the Study of Weapons of Mass Destruction, NDU, December 11, 2015.

for Soviet or U.S. leaders to imagine.<sup>149</sup> Such weapons make the costs and risks of going to war "unambiguously stark."<sup>150</sup> Nuclear proliferation may impact irregular modes of conflict as well. One key question for U. S. strategists is determining how North Korea and Iran will behave if/when they become nuclear capable. Will their security dilemma be resolved, or will they believe that their regime survival is assured and become emboldened enough to strike out with unconventional or proxy forces?<sup>151</sup>

Due to all of the above factors, the diffusion of advanced military capabilities, the uncertain nature of modern technologies, and their relationship to stability are likely to increase the number and lethality of interstate conflicts. The diffusion of technology, especially advanced military hardware and low-cost lethal means, is likely to increase the lethality of intrastate conflict as well.<sup>152</sup>

#### Assessment

The foregoing analysis explored what is possible, what is likely, and what is imaginable in the future prospects for conflict. Any forecast has to understand the context in which prior patterns occurred and must explore the potential alteration of that context which might change observed patterns. Trends are not inevitable straight lines forward into the future. In the strategic and operational environment, the combinations of several trends examined herein could be particularly disturbing. <sup>153</sup> In particular, an assessment should give some weight to the critical driving factors of international conflict—including geopolitical competition and the structure of the international system. <sup>154</sup>

In looking over the various statistics cited in the initial section, it is evident that incidences of intrastate conflict are once again increasing. There are indications of higher casualty levels as well and other human costs, such as displaced persons. Given the last 200 years of recorded data, some modulation can be expected. The second section of this paper has defined the context for a more contested era of geopolitics and aggravating discontinuities that might change the patterns of the past. As discussed earlier, events have spun out of control in the past, such as in 1914, and they could again.<sup>155</sup>

In examining these drivers and their projection into a different future, the potential for continued conflict levels and nonlinear developments appear significant. Table 1 gives a visual summation of vectors and their influence on the frequency of both intra and interstate wars. The directional arrows in this summative table depict the impact of each driver on the frequency of conflict (up for increasing possibility, down for decreasing). This is not a prediction that war is inevitable, but the aggregate of these seven factors suggest that higher levels of conflict can be expected. An era of geopolitical competition with rising powers acquiring advanced weaponry could generate higher levels of tension. Contrary to rosy depictions, the Cold War alliance system is weakening, there is no consensus supported by the authoritarian leaders in Beijing or Moscow about international norms, and competitors are certainly vying for influence in Asia, the Persian Gulf, and along Europe's frontiers. In turn, less cooperation by major states could impede agreements on resource sharing and conflict mitigation efforts to include UN peacekeeping mission. Authoritarian

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<sup>&</sup>lt;sup>149</sup> Gaddis, The Long Peace, p. 231.

<sup>&</sup>lt;sup>150</sup> Mearsheimer, p. 4.

<sup>&</sup>lt;sup>151</sup> Mark S. Bell, "Beyond Emboldenment: How Acquiring Nuclear Weapons Can Change Foreign Policy," *International Security*, vol. 40, no. 1 (Summer 2015), pp. 87–99.

<sup>&</sup>lt;sup>152</sup> Anne Barnard, "Syria and Russia Are Accused of Using Napalm-Like Bombs," The New York Times, August 18, 2016, p. A6.

<sup>&</sup>lt;sup>153</sup> Jeffrey Becker, "Contexts of Future Conflict and War," *Joint Force Quarterly*, no. 74 (3<sup>rd</sup> Quarter 2014), pp. 15–21.

<sup>&</sup>lt;sup>154</sup> As noted by Sir Lawrence Freedman, "Stephen Pinker and the Long Peace," p. 657.

<sup>&</sup>lt;sup>155</sup> Margaret MacMillan, "The Rhyme of History, Lessons of the Great War," Brookings Institution, December 14, 2013, accessed at http://www.brookings.edu/research/essays/2013/rhyme-of-history.

states could engage in aggressive actions including violent repression of internal dissent to buttress their regimes. Resource scarcities, particularly food and water, are likely to induce a higher level of intrastate conflict. The diffusion of advanced technology could induce some states and non-state actors to attempt to resolve their grievances by force; some technologies are likely to generate miscalculations and unanticipated cascading effects.

As the numerous "up" arrows indicate in Table 1, the combined impact of these trends suggests that conditions for conflict are more likely as well as an increase in casualties. Not all of these drivers will evolve to produce major state wars, nor will they peak at the same time. Yet, several are likely to produce instability and increase the possibility of war. The one area where some optimism might be justified involves competition for energy resources. Despite this optimism, energy security concerns and water stress could induce a higher level of intrastate conflict.

	Intrastate Conflict		Interstate Conflict	
Geopolitical Competition	Potential increase in proxy conflicts	Î	Rising potential for rising & failing states to redress grievances	Î
U.S. Engagement Level	Likely to allow minor crises to flare into larger conflicts	Î	Perception of reduced capacity or will weakens alliances & deterrence	Î
Alliance Capacity	Possibly leading to reduced inclination to control local crises	Î	Very likely to reduce deterrence in key regions	Î
Peacekeeping Support	Fewer approved PKO, harder missions	Î	Not likely to impact major powers, spill over in weak states	Î
Democratic Governance	Illiberal states likely to increase civil internal strife	Î	Slight increase due to evolving democracies	Î
Resource Competition	Food/water issues impact food price instability	Î	Not a driver given energy revolution, water tensions	$\longleftrightarrow$
Technological Diffusion	Increased access and use of lethal means	Î	Higher chance of miscalculation and blunder	Î

Table 1: Summary Assessment of Impact on Frequency of Conflict

This assessment is consistent with other studies that note the rising dangers of a world in which there is growing friction between rising and established powers, the diffusion of deadly technologies to VEOs, and mounting economic pressures; these three factors could all markedly increase violent conflict. The UK Strategic Defence Review (SDR) came to a similar judgment by concluding "that the threats faced by the UK . . . have increased in scale, diversity and complexity since 2010." This particular judgment was based on the resurgence of specifically state-based threats and intensifying state competition. The SDR is consistent with the collective U.S. intelligence community's long-range forecast:

The risks of interstate conflict *are increasing* owing to changes in the international system. The underpinnings of the post-Cold War equilibrium are beginning to shift. During the next 15-20 years, the US will be grappling with the degree to which it can continue to play the role of systemic guardian and guarantor.<sup>158</sup>

That judgment, made over 5 years ago, appears to be confirmed by the developments in Asia, Europe, and the Middle East, and this assessment suggests that a more favorable situation or return to positive trends is not likely.<sup>159</sup>

However, this research projection should not be seen as a dystopic exercise. The whole world is not on fire, and foreign forces are not massing on U.S. borders. There have been positive developments in globalization, economics, and reduced domestic violence overall. The United States retains an exceptionally strong position in the world and has enormous resources at its disposal.

Nevertheless, this position is not without challenge, and positive trends could be reversed at great cost to ourselves. The earlier period of decline in conflict frequency was a positive reflection of the benefits of a rules-based international order that was patiently sustained at a modest cost, but that systemic order is on the brink of weakening. Instead of an illusion that human progress is on automatic pilot or a linear glide path, we need to have a realistic appreciation of the human condition: one founded on a few millennia of frequently brutish and violent human history. History strongly suggests that *cycles* of violence can be expected. It is vital not to lose sight of neither that reality, nor U.S. success in sustaining an era of relative peace for a generation. Sustaining that level of stability in the environment projected herein suggests that serious diplomatic and military engagements are needed. More importantly, sustaining peace mandates a broader toolset for a more disordered world. In the content of the peace o

<sup>&</sup>lt;sup>156</sup> Paul B. Stares and Micah Zenko, *Partners in Preventative Action: The United States and International Institutions*, New York: Council on Foreign Relations, Special Report No. 62, September 2011, p. 3.

<sup>&</sup>lt;sup>157</sup> UK National Security Strategy & Strategic Defence and Security Review, p. 15.

<sup>158</sup> National Intelligence Council, Global Trends 2030: Alternative World (Washington, DC, 2012), p. viii.

<sup>&</sup>lt;sup>159</sup> Erik Melander, "Organized Violence in the World 2015, An Assessment by the Uppsala Conflict Data Program," *UCDP Paper No. 9* (Uppsala, Sweden: Uppsala University, 2015).

<sup>&</sup>lt;sup>160</sup> Matt Burrows and Alexander Dynkin, *Global System on the Brink: Pathways toward a New Normal*, Washington DC: Atlantic Council and Russian Primakov Institute, December 2015, p. 4.

<sup>&</sup>lt;sup>161</sup> Michael P. Noonan, "American Geostrategy in a Disordered World," Orbis, vol. 59, Issue 3, (Summer, 2015).

#### **Forecast**

Pinker himself acknowledged that the declines in violence he observed were the direct result of multiple conditions that could change. "If the conditions persist, violence will remain low or decline even further," he assessed, "if they don't, it won't." It is evident that in the recent past they have not. While it is possible that conditions might improve in the long term, this assessment evaluated that as improbable. Thus, based on all of the evidence above, the following proposed forecasts are offered to the national security community:

- U.S. security requirements are not analytically tied to short-term trends like the annual number of ongoing wars. U.S. security requirements are framed by national interests, treaty commitments, obligations to partners and friends, and the assigned strategic objectives established by the National Command Authority.
- Interstate war is assessed as increasing in probability. Violent challengers will arise and disprove the illusion that military power is declining in relevance or utility. Compared to the last two decades, a major power war is more likely in the future.
- While the likelihood of major forms of conventional interstate war is rising, states will find means short
  of armed conflict to compete for influence and advantage that can produce adverse security implications
  for the United States.
- Non-state actors will exploit a broader set of military capabilities and are likely to exploit means that will produce higher degrees of violence and lethality.
- The proliferation of precision weapons and low-cost, smart munitions are likely to pose higher risks and greater casualties to U.S. forces when they are employed. Some technologies will increase the potential consequences and casualties of major power conflict.
- Technological means will be widely distributed from states down to individuals, and this dissemination will result in greater human costs, measured in terms of lost lives, greater numbers of displaced persons, increased levels of poverty, and higher levels of radicalization.

#### Conclusion

While we should recognize the positive trends that have occurred in the past, there are several reasons to think that war is increasingly more likely and with greater consequences than those in the last generation, and a great number of scholars make this same projection. Current data over the past few years disproves the forecasts of numerous analysts who hoped to see war become an historical relic. In very short order, the total number of wars/armed conflicts are again on the rise. With more violence already occurring, policy makers should dismiss illusions about war's demise and examine the future with a long-term and realistic perspective. Closing one eye to history's discontinuous spikes serves only to ensure that periods of punctuated equilibria repeat themselves. The great value of history is its ability to expand our thinking beyond simple extrapolations from the present and to enhance our ability to ask questions, promote reflection, and generate critical thinking.

<sup>&</sup>lt;sup>162</sup> Pinker, Better Angels, p. 671.

<sup>&</sup>lt;sup>163</sup> LtGen Kevin D. Scott, Joint Operating Environment 2035: The Joint Force in a Contested and Disordered World, Washington, DC: Joint Chiefs of Staff (J7), 14 July 2016.

<sup>&</sup>lt;sup>164</sup> Robert Johnson, "Predicting Future War," Parameters, vol. 44, no. 1 (Spring 2014), p. 66.

Looking out to 2035, the onset of war is increasingly more likely. Most projections note persistent disorder and the rising pressures on norms and stability. Major interstate war is particularly more likely if it is ignored by blinders and misconceptions that this project called the "Greatest Illusion." In fact, complacency makes the improbable more likely. To paraphrase Mark Twain, the rumors of war's inexorable demise are greatly exaggerated. The necessity to deter war and respond to flashpoints has not been erased, and the forecasts presented here suggest that the vectors are going in the wrong direction. Rather than embrace the Greatest Illusion, prudent investments and continued attention to the complexities of national security in the 21st century are imperative.



<sup>165</sup> William Burrows, The Future Declassified, Megatrends That Will Undo the World Unless We Take Action (New York: St. Martin's Press, 2014).

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