

Strategic Uncertainty and Alternative Futures: Evaluating Our Options in the Post-September 11 World

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1. Introduction

Our perception of our world changed dramatically on September 11, 2001. Our sense of safety, security, and certainty were altered, perhaps for years to come, perhaps for the rest of our professional lives. Although it is clear that our personal, political, and business environments have all been altered, it is not immediately clear **how** they have been changed; this is, it is not clear what the details of these changes will be, or how we must respond. We now live in a period of greater strategic uncertainty.

This brief paper summarizes the results of two workshops held by the Reginald H. Jones Center that attempted to provide some insight into the origins of the current conflict that the U.S. faces in the Middle East, as religious (Islam vs. the West) or economic (the developed West vs. the developing Middle East), or a clash of cultures, or some other form not as yet identified¹. The hope was that by developing an understanding of the origins of the conflict, we would develop some insights into the form of the conflict and its duration; this in turn would lead to an understanding of the business implications that might result and strategies that might provide appropriate responses in different strategic contexts. We faced a high level of uncertainty about what had happened and what was likely to happen next, which determined the structure of our workshop.

Recent events continue to underscore the importance of this analysis. Defeating the Taliban may not solve our problems with Al Qaeda. Defeating the Iraqi Army may not solve our problems in Iraq. The strategies that work best will be determined by a

¹ The group found it extremely difficult to determine how to characterize the conflict. In one sense it truly is not a struggle between Western and Islamic states; Japan is not western in its location, and Turkey is structurally and militarily aligned more with the West than with its Islamic neighbors, and the vast majority of states in the Islamic world and the vast majority of their citizens cannot be characterized as violent extremists. Likewise, it is not a struggle confined to the Middle East; Afghanistan is not usually considered part of the Middle East, and yet it is a central part of the current situation. And yet, both characterizations have some validity as well; the September 11 terrorists were indeed motivated by Islamic extremism, and they did originate in the Middle East. In the end the group decided that since the epicenter of

complex interaction of forces that are not immediately apparent. The results of these workshops provided a mechanism for understanding both these forces and their interaction, which we believe will be valuable in planning our responses as events continue to unfold.

1.1. The Role of Scenario Analysis

Scenario analysis is a tool used to deal with strategic uncertainty, when the environment is undergoing rapid and unexpected change, and when the future does not appear to be predictable through simple extrapolation of historical trends applied to the current environment. Most importantly, scenario analysis does not attempt to predict the future, or to identify one single future. Rather, it seeks to identify several futures that are worthy of further study, futures with high impact, and futures that are characterized by new threats and high risk or by high reward.

Instead of predicting a single future, we identify, prepare for, and practice our actions in several futures. In training, an airline pilot will practice losing the right engine, or practice losing half the tail fin, not as a prediction for a problem that he expects that he will encounter, but as preparation for a critical future that he may encounter. We call this kind of preparation *remembering the future*; if the pilot has practiced and prepared then he is likely to enjoy *rapid recognition* if the problem should arise when he is in command, and he is likely to exhibit *rapid response*, successfully avoiding disaster by applying the necessary in-flight corrections.

We have observed similar use of scenarios in other industries. Preparation for changes in consumer attitudes towards the net can facilitate recognizing a change in customer demand for online vs. in-store shopping, which is but one example of preparing for changes in the need for commercial real estate. Preparation for changes in the regulation of financial services or for changes in the legal restrictions on insurance companies' access to health data can allow firms in these industries to rethink their pricing and their software infrastructure, their customer services, their product offerings, and their distribution channels. Anticipating a change in business confidence or a change in global commerce will allow airlines and aviation manufacturers to prepare for changes in investment in their fleets. Scenario analysis is used by groups representing entire industries or by individual firms, and by groups as diverse as national security agencies, non-profits and charities, or high tech businesses.

the current conflict is indeed in the Middle East, for funding as well as fundamentalist activism, this is the characterization that we would use.

1.2. The Method of Scenario Analysis

The best techniques for scenario analysis do not start with a single future, or even with a list of futures. Rather, they start by deriving a set of strategic uncertainties, things that are both **highly uncertain** and **highly significant**. These are things that we just cannot know (they are uncertain), but that we wish we could know because if we knew how they would evolve we could indeed predict the future (they are highly significant). A small subset of these uncertainties will be selected as **strategic drivers** of our scenarios, that is, as the factors that will determine our future. The values taken on by those uncertainties determine a set of scenarios and the conditions that generate them.

Once we have defined our scenarios, we assume in sequence that each one will be the one true future, and we see what the world would look like if this were indeed our future prediction. Then we plan and practice and prepare for it, just in case, and just as we would if we were indeed certain that it was the correct basis for our strategic planning. That is, we test out different strategies and game different responses, so that if and when the scenario actually folds we know what to do and how to do it most effectively.

2. Review of the Strategic Drivers

The greater part of the first scenario session was spent examining alternative sources of strategic uncertainty in the world following September 11. Some were based on the expected duration of the conflict that might result, some were based on the expected severity, and some focused on the breadth or scope of the geographic regions that might be affected. Still others focused on the nature of weapons that one party or another might bring to bear. After discussing a large number of alternative strategic uncertainties, and attempting to determine which might in fact impose structure and determine the others, the following two were selected to be the key **strategic drivers** of our global conflict scenarios:

- **The motivation for the current conflict** — This uncertainty represents the ultimate cause of the current conflict. Is it — ultimately — the type of conflict that has driven history in the West for generations? That is, is it a conflict over access to economic resources, like the colonial wars between France and Britain in North America, or over access to the resources needed for industrialization, like the Japanese actions in the Second World War? Alternatively, is it a war over control over the productive resources of the state, which in many ways motivated the wars for independence among the former colonies of Western empires after the Second World War? Or is it something very different? Is it a conflict to defeat internal and external threats to an ideology, to reassert the

supremacy of an ideology, and to obtain the self-respect, even the salvation, that this ideology promises?

- **Nature of the adversaries** — This uncertainty represents the nature of our adversaries in this conflict. Are we dealing with the armies of traditional sovereign states, or are we dealing with non-sovereign entities? Terrorists, freedom fighters, revolutionaries, guerrillas, brigands, and pirates, motivated by hate of outsiders, by love of a nation or a religion, by fear, or by greed, are very different from each other. But they are also all even more different from the standing army of a traditional state, a central distinction that forms the primary basis of the difference in protection offered soldiers serving a state and other combatants when they are captured in combat. Soldiers in an army are accountable to a commander, who in turn is accountable to a government, which in turn is accountable to its people. This accountability imposes limits on the behavior of soldiers, and indeed imposes limits on the behavior of entire armies. Without this accountability there may be no limits on strategies, tactics, or weapons employed by combatants. Indeed, without this accountability there may be no mechanisms even for ending the conflict, or for determining victory or defeat.

We use these drivers as axes when we lay out our alternatives, with each driver representing an axis, and individual scenarios created by the way that these axes divide up the space of all possible futures. Since these axes are uncertain and since we cannot know how they will evolve and we cannot know their values, we assume **both** extreme values for them (consumers will shop online, or they will not; regulators will permit the use of genetic data by insurance companies when pricing policies or they will not), and see how the different combinations of these extreme values define different scenarios.

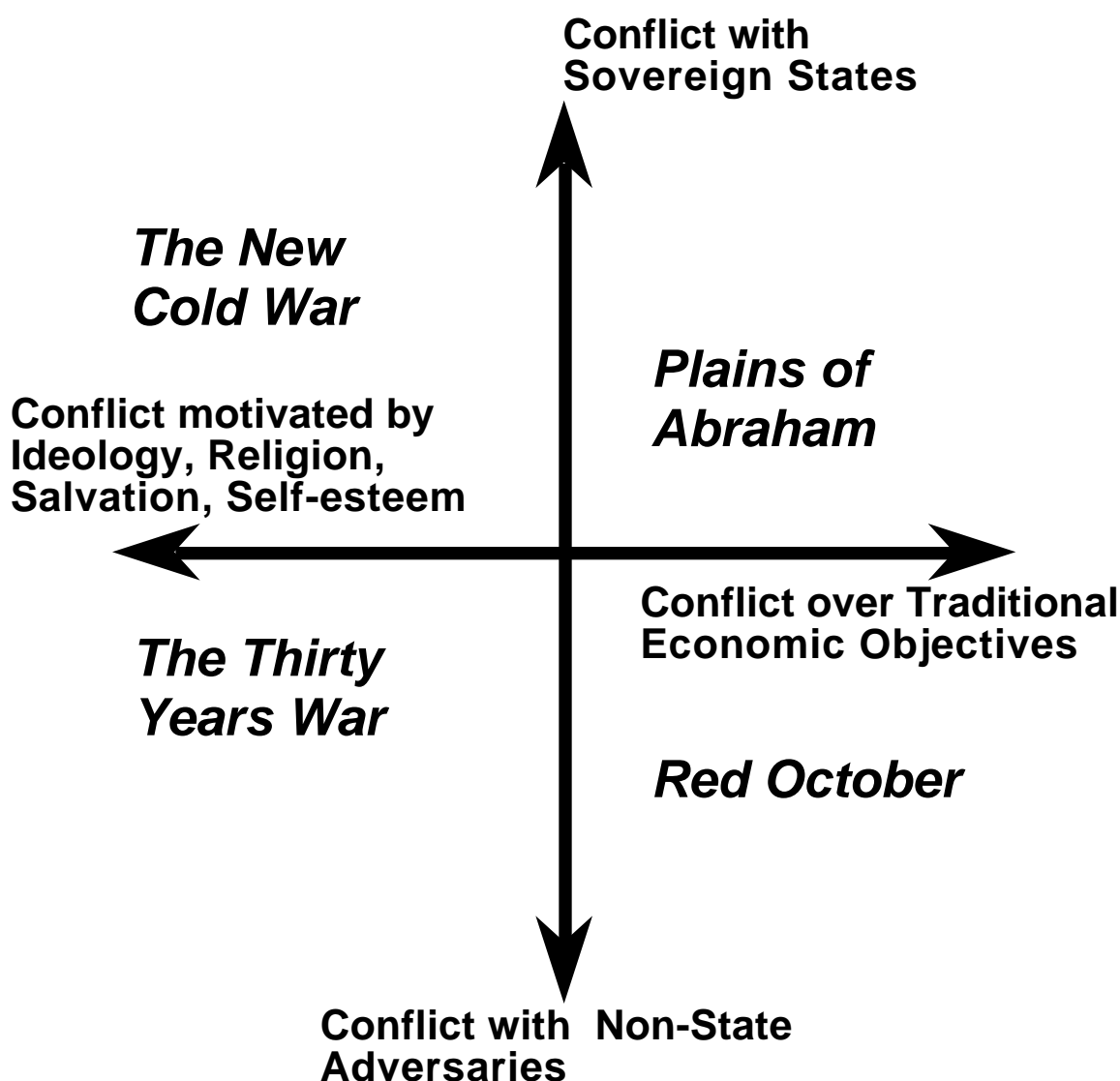
3. The Scenarios

As is customary in the scenario process, after identifying driving uncertainties we assign extreme values to each of these drivers, and then combine these assignments to yield four very different scenarios². These scenarios are intended to describe alternative forms that conflict may take. The names we give to each scenario are intended to be simple and evocative mnemonics, capturing in a single memorable phrase the origins, the look, and the feel of each. The names and the descriptions of each scenario are

² See Pierre Wack's two original papers in the *Harvard Business Review*, "Scenarios: Uncharted Waters Ahead" and "Scenarios: Uncharted Waters Ahead." These are the first two

drawn from a wide range of historical experience. Indeed, the examples have been selected so that they do not refer to events in the Middle East, making it easier to use the scenarios to analyze conflict without constraining our analysis to our prior assessments of the Middle East situation, and to avoid restricting our analysis of the future of conflict in this region by examining the history of conflict in only this region.

The four scenarios, the conditions that generate them, and the relationships among them are depicted in the figure that follows:



- **The Plains of Abraham** — This is the type of conflict for which all Western armies prepared to fight from the height of their colonial empires until the recent present, a war between armies, fought over territory, to achieve military objectives in support of economic goals. The battle of the Plains of Abraham, outside the city of Quebec, represents perhaps the most civilized extreme of this form of conflict. A small regular army of British professional soldiers met an army of French professionals. Although by modern standards the casualties were inconsequential, the outcome was nevertheless clear and was not contested again; the British beat the French, and Canada has been within the British Empire, or the British Commonwealth, ever since. Characteristic of these conflicts, there comes a time when the outcome becomes clear; the weaker party knows it has been beaten, the stronger party knows it has won and knows the weaker party knows it has been beaten, and the weaker party knows that the stronger party knows that the weaker party knows it has been beaten. After this decisive moment, with symmetric knowledge and rational expectations, further conflict becomes pointless and economically impossible to justify.
- **Red October**³ — This scenario represents a conflict that at least in its beginnings is economic, although one of the parties to the conflict may not yet control a sovereign state. The American Revolution, the Russian Revolution, and the Palestinian struggle probably all began this way. Experience suggests that it is difficult to sustain an economic conflict without the power of conscription, that is, without sovereignty, and thus conflicts in this scenario must quickly obtain an ideological basis to assure a supply of willing volunteers. Without ideological support — such as struggle for freedom and rights, or struggle for a particular religion or other ideology — conflict without a state to sustain it will fail.
- **The Thirty Years War** — This scenario represents a conflict in which one of the parties does not yet control a sovereign state and thus is unable to field a disciplined, traditional, professional army, but its forces are sustained by an ideology for which they are willing to fight, to kill, and to die. Tactics may be hit-and-run, either as war of attrition against the other side's army or infrastructure, or as terrorist attacks against civilians, influential individuals, opponents who occupy positions in government or the judicial system, or

³ This scenario is named after the October 1917 coup in which the Bolsheviks took over the Russian Parliament and began the civil war that eventually led to their control of Russia.

simply targets of opportunity likely to provoke a desired response. When the non-sovereign combatants are successful, these conflicts frequently result in their achieving statehood, as in successful wars of independence. Afterwards, these conflicts can then be ended, as *realpolitik* and the interests of statehood, rather than ideology, begin to guide foreign policy. Equally important, although ideology can sustain combatants through to victory, after victory the population demands the benefits that were originally promised, and expects food, shelter, clothing, and the non-material aspects of civilization that determine quality of life. Thus, when these ideological conflicts end parties frequently find that it is surprisingly easy to deal with each other. However, when these conflicts are unsuccessful, they may drag on for decades with little or no chance of success, simply because there is no mechanism for negotiating an end to ideologically-based wars of attrition⁴. Sikh terrorism in India, the *Troubles* in Northern Ireland, and the Tamil Tigers conflict in Sri Lanka have aspects of this form of ongoing conflict, as the current conflict between Israel and its Palestinian neighbors may as well.

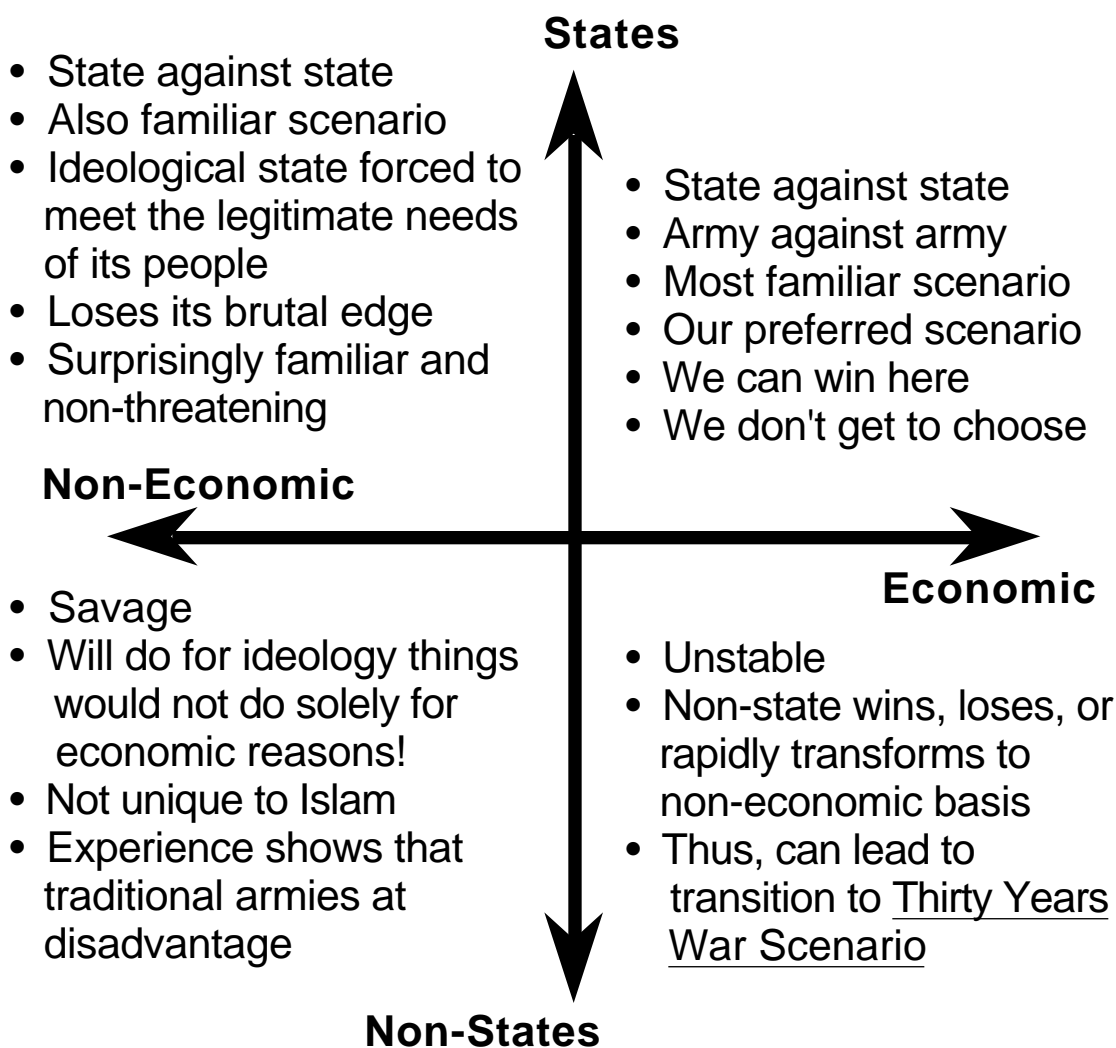
- **The New Cold War** — Some ideological conflicts between states or empires have been real and lasted for generations, or even centuries. The Byzantine Roman Empire (Constantinople) and the early Ottoman Islamic Empire struggled for centuries, though armed conflict was usually minimal. The US and the Soviet Union struggled for decades, but conflict was usually limited to proxy wars (in Africa and South East Asia) and wars to capture the loyalty of undecided blocs to their own ideology. The US and the Soviet Union came close to overt conflict on occasions (the Cuban Missile Crisis, the Berlin Blockade and Airlift) but direct conflict, pitting the armies of the two modern super powers against each other, never occurred⁵.

⁴ A similar point is made by Martin van Creveld in *The Sword and the Olive*, in which he describes the experience of the Israeli Defense Force in attempting to put down the *Intifada*. It is far easier for formal or informal leaders to unleash this form of popular resistance than it is for them to negotiate an end to it.

⁵ An alternative to **The New Cold War** scenario would be one in which conflict were still waged between sovereign states with differing ideologies, but in which the conflict was not cold war but open military hostilities. For a variety of reasons this does not appear to be a viable scenario; in the foreseeable future, Islamic nations do not have the military resources to wage open war upon the rest of the world or upon the Western powers. This is not to say that they would capitulate or end their struggle, but merely suggests that while it is possible that the Islamic region might become implacable foes of the West, this ideological conflict is likely to manifest itself in forms other than direct, traditional military confrontation between standing armies.

4. Examining the Scenarios

Having identified and defined the four scenarios, the next step is to describe each in sufficient detail to support its use in planning.



4.1. Plains of Abraham

In many ways this is the easiest scenario for us to envision, since conflict here is state-against-state and army-against-army. In many ways this is also the easiest scenario for us to engage in, since as the dominant super-power a military conflict against a standing army almost assures a short campaign that rapidly leads to an outcome that we consider satisfactory. This was our most recent experience in Afghanistan, and our previous experience against Serbia and against Iraq in Desert Storm. However, no

single participant, no matter how powerful, can unilaterally pick the future scenario; indeed, when the weaker player picks an alternative scenario, as the Israelis have learned, the state-against-state economic conflict of **Plains of Abraham** may be replaced with another, more deadly scenario. Moreover, as Martin van Creveld notes (***The Transformation of War, Rise and Decline of the State***), the alternative scenarios chosen by the weaker power are often scenarios in which standing armies are surprisingly ineffective (the Israeli Defense Force against the Intifada, the US Army in Vietnam) and indeed in which these armies lose cohesion, self-respect, and professionalism.

4.2. Red October

The **Red October** scenario is one in which the conflict is inherently economic in origin, but one in which one of the combatants is not yet a sovereign state. We have argued that this scenario is inherently unstable because revolutionaries must necessarily achieve either of the first two options, or be doomed to the third:

- They can **win fast** and get a state. This effectively moves the conflict out of this scenario and into the **Plains of Abraham** scenario.
- They can **develop an ideological basis** for their conflict, in order to attract combatants willing to fight and die in a guerilla struggle against a demonstrably more powerful adversary and willing to use the morally repugnant tactics and techniques that this may entail. This changes the basis of the conflict, resulting in a move to **The Thirty Years War** scenario.
- They can **lose** their struggle due to a lack of necessary resources and especially a lack of willing personnel, ending the conflict and the scenario.

Any of these three will end the **Red October** scenario.

4.3. The Thirty Years War

This is potentially the most savage scenario, with combatants willing to take actions in the name of their ideology and their beliefs that they would not contemplate in purely economic conflicts. This lack of restraint is now a global phenomenon, and must not unfairly be attributed solely to Islamic extremists, since the practice now is exhibited by members of a wide range of mainstream religions (Mark Jeurgensmeyer, ***Terror in the Mind of God: The Global Rise of Religious Violence***). As significant as its savagery, this scenario can entail a potentially endless war of attrition, ended only by the exhaustion of all parties (which indeed ended the Thirty Years War itself). We have noted that this is the hardest scenario in which a state and its professional army can be

forced to function. Regrettably, it may be the emerging situation in Israel's current conflict with Palestinian forces, as the struggle increasingly moves beyond the control of those for whom it was about the economic benefits of statehood, and into the control of those for whom it is a religious and cultural struggle against Westernization. There is some danger that displaced Taliban and al Qaeda fighters throughout the Middle East could bring this scenario to much of the Islamic world. Bernard Lewis suggests that the state, as separate and distinct from the ideology of faith, is not as prevalent in the Islamic world as in the West. Moreover, he argues that rejection of Westernization and a reaffirmation of submission to the principles of Islamic faith as a response to conflict with the West is consistent with the history of Islam (***What Went Wrong: Western Impact and Middle Eastern Response, The Middle East: A Brief History of the Last 2,000 Years***).

4.4. The New Cold War

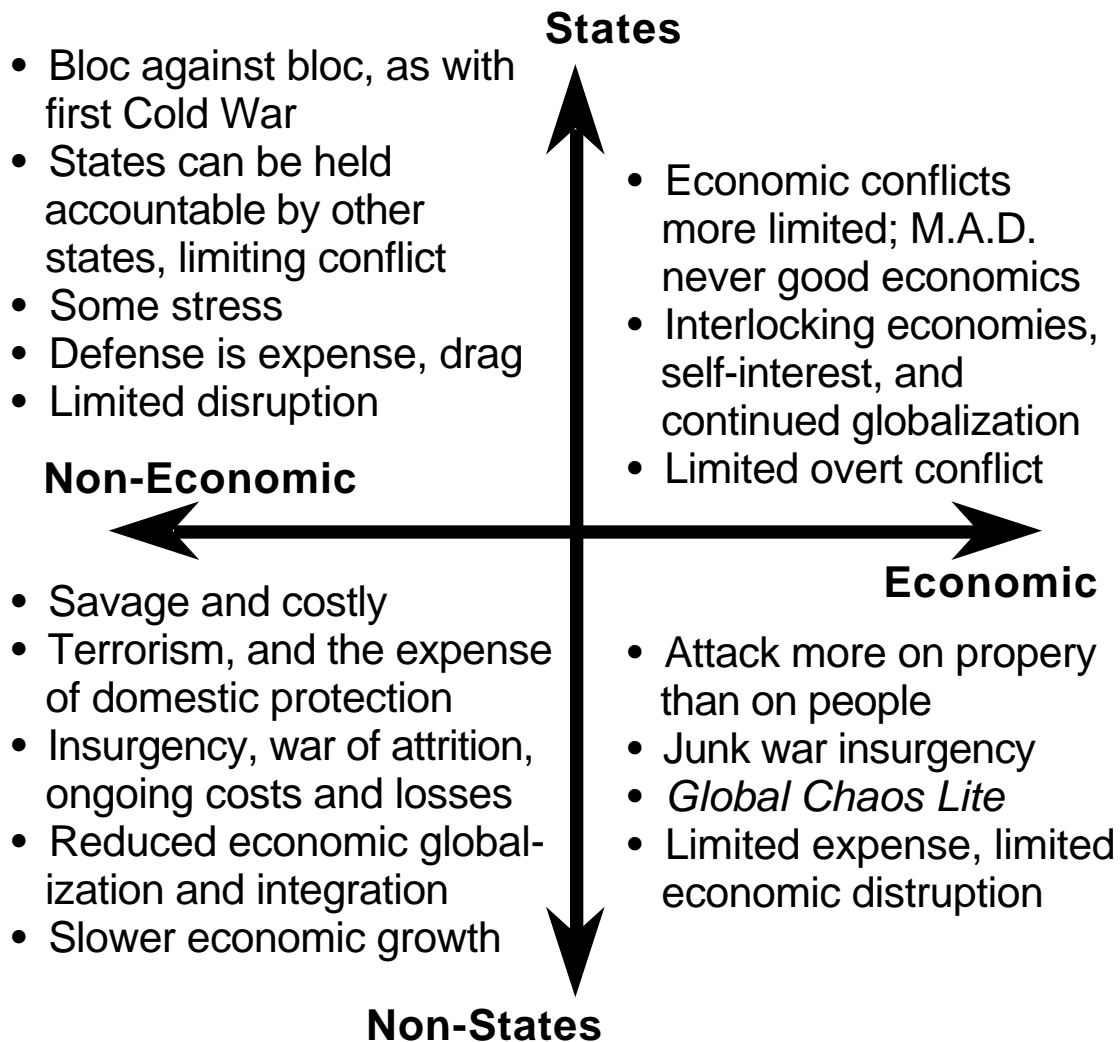
Ultimately, **The Thirty Years War** scenario must end, and often the exit from that scenario entails a victory by the previously stateless combatants and their transition into statehood. Statehood brings with it accountability and obligations. When revolutionaries are victorious, their people expect them to deliver the benefits of statehood. While these initially may revolve around the successful implementation of their ideology, whether it be religious (as in Iran) or over the rights of the proletariat (as in Russia), eventually the population demands economic success and some degree of individual freedom. These new states may not become friends or allies of their recent foes, but they can and indeed must deal with them.

We will always have our disagreements with Iran, but Iran's people will impose enough demands upon their leadership that Iran's focus will be on meeting the demands of its people, within the constraints of its Islamic traditions and within the nature of its Islamic Republic. We will not be the ***Great Satan*** that tempts them from their chosen path and they will not be our ***Axis of Evil***. Conflict in **The New Cold War** scenario, should we be lucky enough to achieve this scenario, has real differences in objectives of states and in the ideology that drives them, but actual combat is rare.

Regrettably, while this scenario is the most attractive transition from **The Thirty Years War** scenario to an alternative form of conflict it is by no means assured, nor is it assured within a reasonable time-frame. As we have seen, the obligations of statehood have not quickly been embraced by North Korea, it has not accepted economic or social policies that would best service its own population, and it remains a significant threat to the peace and security of its neighbors.

5. The Look and Feel of the Four Scenarios

Each of the four scenarios will have a different look and feel for those of us living in them. These differences will determine strategies available to firms, the prospects faced by different industries, and indeed the success of entire economies. In this section we examine the feel of each scenario, in section 6 and 7 we explore strategic implications for two industry sectors.



5.1. The Plains of Abraham

If we knew that the conflict in the Middle East would remain a military conflict between a Western alliance and those states that the alliance considers rogues or supporters of terrorism, the outcome would be clear. In many ways this is the most desirable and least stressful of the four scenarios, because it is a conflict fought between states, over

economic objectives. We believe that states are capable of making rational assessments of costs and benefits, and the costs they are willing to bear should not exceed potential economic gain. Mutual assured destruction is not economically optimal for either party; the lessons of the First and Second World Wars were not forgotten throughout the decades of the Cold War. While not quite the anticipated “*end of history*,” economic globalization, interlocking markets, and mutual dependency probably argue for a minimum of overt military conflict involving major powers. Any direct military conflict would probably be short and the West would in all likelihood emerge victorious. While this could force the conflict into another form, such as **Red October**, if we could assume that we faced only **The Plains of Abraham** we could plan on a conflict that was short and successful, with minimal negative economic implications for the West. Indeed, this scenario might result in economic progress among our former opponents, and could even result in economic opportunities for the West.

5.2. The New Cold War

If the previous scenario was the least familiar to the Western powers, **The New Cold War** scenario will in some ways be the most familiar. At the height of the Cold War, in the 1950s and 1960s, ideology and patriotism were quite strong on both sides of the Iron Curtain. Military preparedness was a principal concern and military budgets were high. However, it was a period of sustained economic prosperity in the United States, and a period of sustained economic rebuilding in Europe and Japan. We might therefore expect that **The New Cold War** scenario would be only somewhat disruptive to the quality of life on our side of the new Islamic divide⁶. The blocs would be different from those of the (first) Cold War, but the maneuvering of the unaligned nations, the cynical opportunism and *realpolitik* of the smaller members of both blocs, and the impacts on the day-to-day life on both sides of the divide would likely be familiar to those who remember the 1960s.

This is a more stressful scenario than **The Plains of Abraham**. While mutual assured destruction is never economically optimal, ideological conflicts follow a different logic and true believers do indeed see some fates as worse than death. The far right in the US argued “*better dead than red*” during the height of the Cold War. While we are optimistically counting on statehood and the obligations of the state to its own people, newly formed and ideologically charged states may experience greater willingness to

⁶ Although the Cold War imposed only limited burdens on the West, it ultimately was catastrophic for the Soviet Bloc. It is not possible to reason fully by analogy, but it is possible that the lack of access to Western capital, technology, and management, and the rejection of Western business techniques, might prove economically quite damaging on the Islamic side of the divide.

bear the burden of proselytizing; the new French Republic in the 1790s spreading the rights of man and <<*liberté, égalité, fraternité*>> in a series of wars that racked Europe for decades, and the Islamic Republic in Iran, in its conflict with Iraq, are both well-known examples. While investments in defense pose a drag on the economy in this scenario, as long as costly armed conflict is curtailed this scenario can support sustained economic growth; the US economy in the 1950s and 1960s, before escalation in Viet Nam, provides clear demonstration.

5.3. The Thirty Years War

This scenario can be very costly for both sides in any conflict, and this is no less true if this is the model that emerges for conflict in the Middle East. The damage to Western infrastructure can be real and enormously expensive, as was the case in the World Trade Center attacks. But this scenario can also entail enormous frictional costs to Western business and to Western society, even when attacks produce no real damage to the infrastructure or institutions of the West. A single ludicrous madman attempting to light his sneaker in flight results in long queues to have our footwear screened before we are permitted to board our flights. After the limited, but real, deaths from anthrax sent through the postal system a hoax, a threat, or an envelope filled with powdered sugar or talcum powder is sufficient to produce an expensive defensive reaction from the postal system, fear among its workers, and a shift to more costly UPS and Fed Ex services (which provide documentation on where the package originated and who paid to send it).

One possible response from the West, the one most frequently attempted by a dominant military power when faced with non-state-based insurgency, is to actively engage the opponent and simply to attempt to outlast their forces in a war of attrition; that is, one response to this scenario is to fight with conventional forces and to bring overwhelming firepower to bear, and to wait the scenario out until the conflict is resolved. The initial expectation of the dominant military power is inevitably that trained troops and overwhelming materiel, when focused on an untrained and under-equipped foe, must prevail. Training and firepower will prevail.

While it is comforting for the West to believe in the inevitable success of the state, the traditional combatant does not always prevail over its non-traditional foe. The British were driven out of India by passive resistance and the French were driven from Algeria by an independence movement whose destruction would have required more force and more casualties on both sides than the French were willing to accept. Desert Storm and Enduring Freedom were relatively painless for Western forces, but these were waged against the forces of states; US experience with counter-insurgency in Somalia or

Beruit has been less encouraging, and suggests that the dominant power may not be willing to accept the terms under which conflict is waged in this scenario. Even when the traditional combatant is willing to persevere, this scenario can play out for decades, as the *Troubles* in Northern Ireland demonstrate.

This scenario is one with which the US has limited experience. The military, the intelligence services, civil defense of domestic infrastructure (homeland security), and the population at large would all experience an alien and threatening environment, and all would undergo significant change. Attempted terrorist attacks on soft civilian targets (transportation, shopping centers, telecommunications, school and hospitals) would increase, and even if they were unsuccessful they would greatly increase the frictional cost of doing business. Attacks on passengers on buses and in taxis could bring urban population centers to a halt, even if casualties were minimal.

Since this scenario is based on ideological conflict, it is likely that it would have profound impacts on ideology in the West as well. Some countries could be expected to reject globalization. Others could be expected to embrace patriotic ideas more explicitly, becoming both more nationalistic and more religious, and consumers could be expected to shift purchasing patterns to reflect their return to traditional values. Conspicuous consumption and self-indulgent extravagance might decline, while purchases for the home, or in support of home-based recreational activities (cocooning) might increase. If levels of fear were great enough, this too might affect purchases, as consumers avoided expensive cars or other items that they felt made them targets for terrorists.

Our industry participants named this scenario “global chaos.” Truly committed ideologues in this scenario are willing to pay any price, resort to any strategy, commit any act of terror, to inflict pain on their “unbelieving” foe. Junk weapons and junk war (*c.f.* Keegan, *War and Our World*) make it easy for any individual to obtain the resources needed to become a terrorist and strike at soft civilian targets. Once terrorists have created the desired level of fear, sustaining it is even easier, with bomb threats replacing bombs and talc or powdered sugar replacing anthrax spores. The resulting uncertainty exhausts the civilian population, while the friction of constant security checks and interruptions of the mail and public transportation create real drains upon the economy. This scenario is likely to entail a rise in patriotism and traditional values in all regions, a reduction in the drive towards globalization of the economy, an increased concern for security, and reduced public displays of any kind that would make an individual a target.

5.4. Red October

Red October is a scenario in which the objectives of Middle Eastern conflict include not just *Modernization* but *Westernization*⁷. Although conflict with non-state entities immediately brings to mind images of terrorists, atrocities against civilian targets, even a repetition of the events of September 11, **Red October** may be one of the more attractive scenarios that the West can face. Its objectives need not result in implacable hostility to Western interests or Western powers. Moreover, if the objectives are met, the successful former-revolutionaries can best deliver what their people want in the context of a state that can make and keep commitments to the West and that can negotiate in ways that the West can understand. Moreover, since the conflict is not inherently ideological, it need not produce an ideological response in the West.

Our industry participants cheerfully named this scenario “global chaos lite.” While terror and junk war remain options of non-state entities locked in combat with states, the economic nature of the conflict provides limits to its intensity that ideological conflicts do not enjoy; thus, this scenario has only limited economic implications. During the early years of the Palestinian conflict, Israelis had to live with the threat of rockets fired into their kibbutzes, and they needed higher levels of security for their airline than was common in most of the rest of the world. However, their society was stable and their economy was productive. Israelis were able to withstand this scenario and building a thriving economy for decades before the conflict’s descent into unbridled ideologically based terrorism.

5.5. Summary of Look and Feel

Not surprisingly, conflicts that are rooted in economics were less intense than conflicts that were rooted in irreconcilable ideological differences. However, participants felt some initial surprise that state-based ideological conflicts were less intense than non-state based, free-lance ideological conflicts. Given the tremendous resources of the formal nation state, state-based conflicts have always been more intense throughout history. The two principal factors at work here are the decreased cost of reaching and attacking soft civilian targets in our highly mobile and highly technological society and the lower accountability of the non-state agent. The second point is most important; states can be punished for their actions by more powerful states, while nearly invisible shadow groups can attack and then vanish at will.

⁷ This is a distinction made by Bernard Lewis in *What Went Wrong*. Modernization entails copying from the infidel West that which is needed to defeat it, such as Western arms, Western military organization, and if necessary Western commerce or Western weapons of mass destruction. In contrast, Westernization entails adoption of Western institutions such as freedom of religion, a separation of church and state, a separation of church and education, and movement towards equal status for women.

6. Economic Implications — Travel and Tourism

Scenarios are useful particularly when we are able to accept them as plausibly deriving from strategic uncertainties; that is, if we admit they follow naturally and inexorably from strategic drivers, which we have already accepted, then we are naturally forced to accept the scenarios that they imply as well. Once we have accepted the scenarios as plausible, we go one step further and accept, for the purposes of the exercise, that each one will inevitably occur; once we have accepted a scenario as an accurate prediction, even if only for planning purposes, we are then able to derive strategies, much as we would for any other known environment. We selected travel and tourism as a first prototypical industry for strategic analysis. This industry was selected for two reasons:

- It is one of the industries where the implications of the scenarios will be most pronounced and differences among the scenarios will be most visible.
- It is an enormously important industry, in terms of sales and employment, as well as its importance as an enabler of other industries in the US and world-wide.

It is easy to overlook that travel and tourism represents one of the largest industry in the US and for much of the service sector travel is the second-largest corporate expense after wages and salaries. It is estimated that in 2000 total spending on travel in the US was \$563 billion, or slightly over 6% of the GDP, and that the travel-industry employment represented 7.85 million jobs⁸. Airline passenger revenue alone was \$78.4 billion. In 2001 Boeing's sale of commercial aircraft was \$35.1 billion, US airlines' fuel purchases were \$16.4 billion, and even the upgrade of in-flight entertainment systems represented expenditures of \$2.2 billion⁹. For some cities (Orlando, Las Vegas), states (Hawaii), and even entire nations (Thailand) travel and tourism represents the largest employer and is the center of the region's economy. It is clear that even a small impact on this industry will be significant for many sectors of the economy, both in the US and elsewhere.

6.1. The Plains of Abraham

⁸ See <http://www.tia.org/Travel/novforecastsummary.asp>, the web site for the Travel Industry Association of America.

⁹ See <http://www.travelbigpicture.com/storyboard4.htm>, the website for Travel Industry World Yearbook for 2001.

This is the scenario we operated in prior to September 11. Economic globalization was espoused by all but the most militant *Greens*. Travel, both for business and for leisure, thrived. It is a comfortable scenario for the industry, and one for which airlines, hotels, cruise lines, and travel agencies have already done much planning.

6.2. The New Cold War

This scenario operated throughout most of the 1950s, 1960s, and 1970s. The world divides into blocs along ideological fault lines. Just as “we” did not go to Moscow and Havana during most of this period, “we” will not go to Baghdad, Teheran, and, perhaps, Ramallah and Riyadh. But, other than occasional stress during times of regional flare-ups in local hot-spots, we can expect that the total volume of travel and tourism — measured in passenger air miles, hotel nights, or spending — will not be dramatically altered in this scenario.

6.3. Thirty Years War

In this, the most chaotic of the four scenarios, the infrastructure of travel proves a vulnerable, visible, and rewarding target for terrorists. Planes are soft targets and any successful attack on aircraft is virtually assured of press coverage. Even unsuccessful attacks require a response, and heightened security and fear of flying increase the frictional costs of doing business and represent a successful attack on a Western economy. Airports are easier to attack than aircraft, since there are large concentrations of passengers queued up for inspection, and by definition you cannot inspect potential terrorists *before* the queues where you inspect them. Hotels are even easier to target than airports. Moreover, the other effects of this scenario include reduced economic growth, or even recession, as a result of the numerous frictional costs caused by attempts to recreate a sense of security. Finally, a decline in economic globalization would reduce the need for long-haul travel. All of these forces together would place intolerable pressure upon airlines and indeed upon all participants in the travel and tourism industry.

Additional factors damaging to airlines would be the potential dramatic increase in the price of oil and thus in the price of aviation fuel, and wild fluctuations in demand for travel after each attack, successful or unsuccessful, that targeted a civilian aircraft. With actuarial tables largely useless, insurance costs for the industry could soar, or insurance coverage might not be available commercially at any price. The danger to US flag carriers and those of its allies would be significantly greater than the risks to neutral carriers, possibly providing some relief to carriers like Singapore Air, Cathay Pacific, and a post-bankruptcy Swiss Air.

Since terrorists prefer to attack large, visible, and famous targets we could expect to see the most dramatic reduction in occupancy at the most famous hotels throughout the Western world. Business and diplomatic travelers would stay in “safe houses.” Leisure and vacation travel would largely vanish, or would move towards smaller and less visible guesthouses.

6.4. Red October

Our **Red October** scenario was a lighter version of **The Thirty Years War** scenario. Accordingly, there would be some danger to traveler and some damage to the travel industry, but episodes would be more regionally contained (the Middle East), less severe, and less frequent than in **The Thirty Years War** scenario. Events like attacks on foreign tourists at Luxor by Muslim fundamentalist terrorists in 1997 would be unlikely; however, attacks by Palestinians on Israeli economic assets anywhere in the world, and against Israeli settlements in historically Arab West Bank territories would continue.

6.5. Summary of Implications for Travel

The upper scenarios are more significantly affected and more damaging for the travel industries than the lower scenarios; in today’s world conflict that is state-based will be more limited, while non-state violence will be more difficult to control. Similarly, the scenarios on the right side are worse than the scenarios on the left; combatants in scenarios that are economically-based are more restricted in their selection of targets, while those that are more ideologically motivated may consider anything legitimate to strike. Since these scenarios are different, with different levels of demand and needs for resource deployment, different degrees of uncertainty and different fluctuations in demand, and different risk exposures, it is necessary to monitor events constantly to determine which scenario is likely to emerge next. Since shifts between or among scenarios cannot always be predicted and cannot be averted by the actions of individual firms, hedging strategies and the avoidance of massive and irrevocable commitments will be increasingly important. This suggests a period of greater uncertainty and slower growth for suppliers to the industry, principally Boeing and Airbus and companies that construct hotels and other travel-related properties such as airports.

7. Economic Implications — Financial Services

We selected a range of financial services — insurance, banking, and investments in general — as a second prototypical industry for analysis, for the following reasons:

- Like travel and tourism, it is an industry where the implications of the scenarios will be most pronounced and differences among the scenarios will be most visible.
- It is an enormously important industry. In some regions, such as the New York Metropolitan Area in the US or the City of London in the UK, it is an important source of employment, of the tax base, and of the regional economy. More importantly, the various sectors within financial services are vital to the functioning of a complex modern economy.

In the New York Metropolitan Area financial services firms account for over 416,000 jobs, or 21.6% of total employment, and an even larger 44.8% of the region's total private sector wages and salaries. Property and casualty insurance is a \$329 billion industry in the US and life insurance is even larger at \$526.9 billion. The securities industry is a \$198 billion industry that employs approximate 750,000 people. It is obvious that these are enormous industries, significant employers, and important pillars of the economy.

Some of the importance can be better understood by thinking of the relationship between investment services and retirement stability, lending services and the sales of consumer durables or new housing starts, or insurance and corporate willingness to assume risk. It is obvious that an increase in the cost of consumer credit results in a reduction of new home starts and sales of automobiles, with enormous knock-on effects for the rest of the economy. Likewise, increases in the cost of capital, or unwillingness to invest in IPOs, dramatically affects small businesses, which have long been an engine of economic growth in the US. More subtle, but perhaps more significant, there are entire industries (shipping, import/export, commercial aviation, commercial construction, pharmaceuticals) that could not exist without insurance, just one of the sectors dramatically affected by which of the scenarios unfold.

7.1. The Plains of Abraham

Once again, **The Plains of Abraham** is the most comfortable, least stressful, and most familiar of the four scenarios. The West will continue to need oil from the Middle East. Middle Eastern states will continue to need Western markets for their oil and Western funds and technology. This scenario will be characterized by economic competition between states, not by armed combat. The financial climate will be as it had been for most of the 1980s and 1990s; that is, it will have its ups and its downs, but it will be familiar.

7.2. The New Cold War

In **The New Cold War** scenario the world has once again fragmented into blocs. We, the Western economies, are locked in an intense ideological struggle with *them*, the states of the Middle East. This is not frequently an armed conflict, but just as we did not invest in the Soviet bloc to a great extent in the 1950s through the 1980s, inter-bloc investments will be limited in this scenario. The West will continue to invest to the degree needed to assure that necessary technology is available to maintain oil production, and Middle Eastern states may play or threaten to play *the oil card* to gain economic concessions, but the *Iron Curtain* of the Cold War will be replaced by an inter-bloc separation based on religion. This will not be maintained by an oppressive and monolithic regime, as was the *Iron Curtain*, but rather will be supported by the willing submission of the population of the region to its predominant faith; a less oppressive term, like the *Black Veil* or the *Silk Chadoor*, would be a more appropriate image. This separation will almost inevitably slow economic growth in the region but need not have a significant effect on Western economies unless oil supplies are affected. Within the West, financial services firms will not be significantly affected other than in ways that they are always affected by slower economic growth or by recessions. Behind the *Silk Chadoor*, an implementation of full Islamic codes such as the abolition of interest may greatly alter the appearance of financial service firms, although many states, such as Saudi Arabia, have found ways to make these codes work within their economies.

7.3. The Thirty Years War

And once again, **The Thirty Years War** is the most chaotic of the four scenarios. Financial markets hate risk. Investors will flee uncertainty; *flight to quality* in this scenario will entail a desire to hold equities of companies that do business at home rather than abroad, to hold bonds instead of equity, and to hold US government debt and US dollars above all. Interest rates will soar for companies seeking to borrow or to issue bonds as a result, adding to the recessionary pressures that characterize this scenario and placing pressure on consumers, on credit card issuers, on weaker banks, and on financial services firms generally. Since the conflict is not state-based, a formal break between Western and Middle Eastern trading blocs or between their economies is unlikely to occur, but there is real danger that ideological extremists will sabotage deals and destroy plants or other assets; this will greatly limit inter-bloc trading, and will increase the costs of financing all such activities.

In general insurance companies will suffer as well. Existing policies may well be rendered unprofitable as investment returns plummet below those that have historically been earned while risk and exposure soar above those represented by actuarial tables. Some market segments within insurance may offer the only exception

to the rather gloomy prospects facing financial services firms. Perceptions of risk are likely to increase even more rapidly than actual exposure as individuals' fears cause them to over-estimate the dangers they face¹⁰; since this will create buyers willing to pay a substantial premium to reduce their exposure it will allow the creation and sale of some profitable new insurance products. Although these products are likely, on average, to be profitable the *lumpiness* of loss (a few large losses as a result of successful terrorist actions, rather than a constant stream of small losses) judicious re-insurance and spreading of risk will be essential.

7.4. Red October

If **Red October** is a lighter version of **The Thirty Years War** scenario, we can expect many of the same trends, albeit in less intense and less damaging forms. Uncertainty will raise interest rates for most corporate borrowers and frictional losses throughout the economy will potentially be a recessionary force, but both will be less intense. Perceptions of risk will be less, and losses due to terrorist actions will be less, so the impacts on the insurance industry should be less dramatic.

7.5. Summary of Implications for Financial Services

Once again, the divisions between the upper state-based scenarios and lower non-state-based scenarios, and between the left ideologically-driven conflicts and the right economically-based conflicts appear critical:

- The state-based conflicts are relatively stable, and hence the impacts on uncertainty and on the economies of contestants are more limited. Likewise, the impact on regional and global financial systems is more limited. Scenarios based on conflicts where one or more of the combatants are not states and are not subject to the accountability and discipline imposed on states tend to have a higher degree of risk and will have more serious financial implications.
- Economically-motivated conflicts tend to be pursued within rules that delimit the nature of targets, if only because economic counter-strikes are seen as real deterrents; the threat of counter-strikes that produce blessed martyrs may not have the same restraining effect. Thus it is the ideological conflicts that produce the highest level of uncertainty and the greatest separation into isolated blocs.

¹⁰ There are ample scientific data sets to demonstrate the individuals are consistently unable to provide accurate estimates of their own exposure to highly significant low probability events. Recent experience among Israelis facing Iraqi missile attacks during the Gulf War or during the current wave of suicide bombings supports the results of earlier studies.

Scenarios have different impacts on financial services, with **The Thirty Years War** being the most damaging and least familiar, and **The Plains of Abraham** being the least damaging and the most familiar. Given the great variation among the scenarios, it will be necessary for financial services firms to monitor for transitions from one scenario to another and to maintain a high degree of flexibility to enable them to respond rapidly and effectively to these transitions.

8. Conclusions

Each scenario has a different look and feel, different implications for consumer confidence, different implications for terrorism and our perceptions of safety or vulnerability, and different implications for economic growth and stability. It is not surprising therefore that as industries, travel and tourism and financial services both are significantly affected by which scenario unfolds. Strategic planning for individual firms within these industries will require anticipation of transitions among scenarios and maintaining a higher degree of flexibility. For example, since traffic levels, load factors, and occupancies may be subject to rapid and unpredictable changes, options on aircraft purchases may be more desirable than irreversible commitments. That is not to say that opportunities will not arise; both individuals and corporate decision makers will have higher levels of risk aversion, which increases their willingness to pay for insurance and creates profitable opportunities. New products will be desired to protect against new forms of risk; since purchasers will have little idea of what their risks actually are, this, too creates opportunities for innovative insurance companies.

Not surprisingly, we found ourselves largely unable to offer policy recommendations. That is, the principal recommendation, if it were possible to implement it, would be to move the scenarios up (state-based) and right (economic). That is, we do not wish to confront an ideological conflict with highly motivated guerrillas and terrorists; we want to fight a set-piece battle over economic objectives against another state, with an army that at this point in time no doubt will be inferior to our own. Regrettably, the choice of scenarios is quite frequently beyond the control of the decision maker. It is possible to create states, but it is not possible to assure that all conflicts become state-based; the existence of South Viet Nam did not preclude motivated Viet Cong or unmotivated local South Vietnamese forces. It is difficult to imagine a scenario in which there would not be a certain number of highly committed Islamic fundamentalists (perhaps idealists would be a better term) who believe that the fate of their people can best be enhanced by returning to the faith, and by rejecting all that is alien or Western, whether they see it as imposed by the West or by their own governments. Seeking to destroy that which they detest can assure continuation of **The Thirty Years War** scenario and the creation of Western-style democracies will not immediately counter this.

We cannot choose our scenarios, but we can use our understanding of the range of scenarios to provide a context for interpreting events. We will not see them as unconnected gains, losses and outrages, nor even as streaks of good and bad luck. Instead, we will be able to interpret them as parts of a pattern, elements of an existing scenario, or early warnings of transitions from one scenario to another. With this insight our policy makers and negotiators will seize opportunities for progress and respond appropriately; without this understanding the best that we can hope for is that our responses do not make the situation worse.

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