



# Rationality of irrational wars

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Research paper

## **Abstract**

The causes of wars as an essential policy tool of a state has been the main research question for many scholars. A number of conventional theories were born to explain this phenomenon as well as to prevent its recurrence between states. The assumptions of most of these theories have been constructed based on rationality and the cost-benefit analysis of a prospective war even though wars have proven to be irrational by the outcome of extensive empirical investigations. During a war, the ratio of cost to its benefit significantly rises as unexpected events take place, which affects state leaders' perception towards military activities. Despite the fact that a war-period cost-benefit analysis would dictate state leaders to immediately halt military operations, decision-makers became committed to the prewar strategy and decided to realize their goal at any cost. In other words, even if the prewar evaluation of a strategy seemed rational to state leaders, decision-makers become irrational as the war continues and its cost increases. The thesis is designed to answer the following question: why do state leaders persist fighting irrational wars once a pre-war cost estimate considerably deviates from the original strategy?

To answer this question, the research paper employs prospect theory to the analysis of two cases: The First World War and Iraq-Iran War. Based on theoretical assumptions, it is hypothesized that state leaders fall into the trap of sunk costs that had already been incurred before the main war related decisions.

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## INTRODUCTION

War is one of the most devastating political tools applied by many states throughout history. According to Clausewitz (1989:605), war starts with the suspension of political and economic relations between states and this new condition then further deteriorates with entirely different principles and rules governing this new setting. This new condition seems to be regarded not as the suspension of intercourse between states but as the continuation of it, irrespective of the means and rules it applies.

This new form of political intercourse always brings about an inordinate number of death and causes considerable economic and non-economic costs for the parties involved. That is why its causes have been the central research question of many scholars and experts from different schools since the First World War. Enormous amounts of resources and time have been spent to answer the following simple question: why do state leaders go to war? According to James Fearon (1995), there are three groups of scholars trying to answer this question based on the concept of rationality. The first group of scientists argues that wars are the outcome of rational calculation. This group of scholars takes leaders as rational decision-makers. The second group of people thinks that war is a rational decision for state leaders who do not pay the cost that is carried by soldiers and ordinary citizens but reap its benefit. The third group of people argues that decision makers are aware of the potential cost of any military engagement but due to a number of reasons, they still end up in fighting irrational wars. From this perspective, war occurs not only because of the anarchy, rational miscalculation, disagreement about relative power (Blainey, 1973) and imbalance of power between conflicting parties, but also because of the commitment problems by state leaders who have a strong incentive to misrepresent private information about its military capabilities.

As it was already mentioned, the traditional explanation for the occurrence of war is based mainly on rational choice theory, which considers state leaders as rational decision-makers (Groom, 2007). According to Simon (1985), the term “rationality” focuses on human behavior that is appropriate to specified goals and plans depending on the context of a given state of the world. The appropriateness is formed as a result of a cost-benefit analysis of the intended action. The concept itself takes its root from

expected utility theory according to which, an actor's decided course of action depends on his/her preferences, which in turn are affected by his/her expected utility (Luce and Raiffa, 1957). State leaders as rational actors try to increase their satisfaction by giving preference to those actions with higher expected utility. In other words, the utility of the selected course of action by a state leader must be greater than the utility of any other available course of actions. Based on utility function, we can also predict a state leader's future decisions (Morrow, 1985). The prediction of future rational actions requires the calculation of the actor's expected utility, which in its turn, requires the utility function of all possible scenarios. Such scenarios must be multiplied by the subjective probability function of the occurrence of these future actions (Savage 1972).

Subjectivity pertains to the condition under which a state leader takes decisions. That is the main reason why the rational choice model necessitates a definition of the possible states of the world, the available choices for the actor, the utility function of all possible courses of actions and the subjective probability distribution of those actions (Morrow, 1985). At the cusp of any crisis, a state leader may have the possibility to pursue one of the following actions each of which carries high or low utility for him/her: a) to halt the crisis and offer negotiation, b) to preserve the status quo, c) to initiate an attack. If we denote each decision as a letter a, b, c respectively and attach higher or lower utility to them, the selected decision will be the one with the highest utility. In more detail, initiating an attack (c) has the highest utility, while preserving the status quo (b) has the lowest one. We may therefore range the possible course of actions as:  $c > a > b$ .

As it was mentioned by Fearon (1995), rational state leaders may end up in fighting irrational wars even though the prewar expected utility function had yielded positive results for that decision. In other words, there may be a disparity between the expected utility of one particular choice and the actual utility of that course of action, depending on the changing nature of realities. For example, during the Iran-Iraq War (1980-1988) Saddam Hussein assessed this disparity between expected utility and actual utility in 1982, after the second year of war, as his prewar calculation did not reflect the reality. Saddam appreciated the fragile political system in Iran after the 1979 revolution as a chance to attack Iran and counted on the assistance of foreign

countries who were vulnerable to the perceived threat of Islamic ideologies that might trespass on their own territories (Sterner, 1984). In contrast to Saddam Hussein's prewar calculation, Iran successfully mobilized its troops and retaliated immediately against Iraq, destroying the latter's oil production facilities. As a result, Saddam Hussein immediately changed his course of action and tried to launch a peaceful negotiation with Iran.

Empirical studies that focused on measuring the utility of war show how the level of prudence has dwindled away as the great majority of war initiators failed to avoid humiliating defeat. For the first time in history, Correlates of War (COW), Militarized Interstate Dispute (MID) and National Material Capabilities (NMC) conducted a joint investigation to analyze whether the wars that occurred between 1815-1991 were rational. As a result of this analysis, scholars found out that 55 percent of seventy-nine large interstate wars ended with the victory of initiators (Lindley, 2005). From Lindley's perspective, (2005:18) it is striking to see how success rate decreases throughout the history of warfare. Lindley argues that since 1900 43% of forty-seven wars ended with the heavy defeat of initiators whereas from 1945 onwards, the percentage of victory has decreased even further to 33% in twenty-three wars (2005). Based on Lindley's analysis, we can argue that since 1945, 77% of states leaders' decisions to go to war were irrational or were based on miscalculation. Taking into account the overall cost of war, it is very difficult to conclude that wars a product of a rational calculation considering its destructive features (Levy, 2010).

This disparity can be partially explained by the concept of "bounded rationality", according to which state leaders may not be able to process all available information due to external situations such as time constraints. Under such constraints, state leaders find it extremely difficult to process all available information. Furthermore, it is assumed that not all necessary information is available for rational decision-making in the first place, thus adding to the difficulty (Simon, 1985). We can estimate that as the decision-maker increases his/her decision-making capacity by minimizing the external effect and gaining new information, he/she should improve the previously taken decision by adjusting it to new realities. This improvement is known as a Bayesian analysis, according to which the probability of future event can be statistically estimated based on prior knowledge of related circumstances (Fearon,

1995). As the circumstances change, new knowledge will increase the decision-maker's ability to make more rational decisions. Saddam Hussein's new decision on halting the war with Iran after the second year of military engagement was based on the new information he had gained in the course of action as a result of which the degree of probability of his victory decreased. We can estimate that that was one of the main reasons behind Saddam Hussein's decision in 1982.

Having said that, it is also obvious that state leaders, in many cases, do not act rationally even if the strategically important information is available. During the First World War, Germany launched the Spring Offensive against the Allied Forces in 1918 when the degree of probability of Germany's victory was extremely low. The same is true for Nazi Germany during the Second World War when Hitler stubbornly persisted in fighting against the Allies towards the end of the war. During both wars, expected utility function and the concept of bounded rationality fail to explain the behavior of Germany since Germany had in its disposal all necessary information to make a rational decision. In other words, German military leaders were well aware of their country's unstable financial situation and military capability, and so their persistence to continue fighting waters down the abovementioned assumptions of both expected utility model and Bayesian theorem. The basic idea motivating this paper is to find out why state leaders persist in engaging in irrational wars even though the probability of victory weakens during the course of military actions.

### **1.1. The purpose of the study**

Many researchers have taken the concept of war as a single, one-time decision of a state leader by avoiding the details of how these leaders' behavior might change as a war stretches out over years and its cost increases. Even with highly developed analytical skills, no one can consider in advance all possible scenarios of the events that may occur during a war. On the other hand, people are more likely to avoid considering the potential negative consequences that are in sharp contrast to their original strategy, instead tending to focus on those scenarios that are in absolute harmony with their intention. In the light of the abrupt development of events during a war, the pre-war strategy may lose its ground and bring about two options for state leaders: (i) adhere to the strategy, which is presumably irrational; (ii) dismiss the plan



and stop the costly operation. Fortunately, it is not difficult to find the historical cases where state leaders chose one of these two options. The decisions taken by German leadership during the First World War are congruent with the concept of irrationality since the main decision makers in Germany were committed to the overall strategy. Saddam Hussein's endeavors to stop the costly war with Iran fit well with the rational model.

The main aim of this paper is to answer the question of why state leaders firmly insist on continuing a military operation even if they know that the chances for victory no longer exist. The general aim of this paper is to draw the attention of readers to the impact of the incurred cost of military preparation on decision-makers. We assume that cost incurred before a military decision frames the decision-maker's freedom of choice and turns them into irrational actors. The study also endeavors to contribute to the debate on the causes of war by applying Prospect theory. Furthermore, the theoretical analysis of two decision-making processes in Germany during the First World War and in Iraq during the Iran-Iraq War may have an added value to the literature on war.

## **1.2. Research questions**

Given the fact that the concept of rationality is based on the cost and benefit of actions, it is important to understand which cost – the cost that may emerge in the future or the cost that has already been incurred - state leaders consider while making a decision. Once the actual cost exceeded the estimated cost in the course of actions, decision-makers become irrational by following the strategy that does not reflect the reality. Thus, the paper is designed to answer the following research question:

### **Why do state leaders continue costly wars?**

In order to answer the main research question, the thesis aims to address the following sub-questions:

- 1) How did the German leadership modify its behavior in the domain of loss during the First World War?

- 2) How did the policy of the German decision-makers change as the situation in terms of new reference point changed in Germany?
- 3) How did the foreign military and financial assistance impact Saddam Hussein's war strategy vis-à-vis Iran?

### **1.3. Organization of the thesis**

The rest of the paper is designed in the following way:

Chapter 2 presents the literature review of the most relevant studies by reviewing existing literature on war. In this part, the main explanatory variables of wars are deeply investigated in the light of the different theoretical assumptions provided by distinguished scholars.

Chapter 3 introduces the statements of theoretical assumptions, which are tested vis-à-vis empirical findings in chapter 5. In this chapter, the independent and dependent variables of the analysis are explained.

Chapter 4 is dedicated to the explanation of the overall methodology of the research paper. This part discusses the type of research design chosen and defines the conceptualization and operationalization of employed variables. The chapter also presents the methodology of data collection.

Chapter 5 carries the main analytical part of the paper. It presents the results of the empirical analysis of the First World War and the Iran-Iraq War. In this part, both cases are analyzed to test the theoretical assumptions of prospect theory.

Chapter 6 serves as a conclusion to this paper by providing the answers to the main research questions. The chapter also deals with the limitations of the study and includes suggestions for further studies.

### **1.4. Significance of the study**

The results derived from the analytical part of this paper carry the elements of both theoretical and social importance.

Prospect theory, which serves as the theoretical background of this analysis, has never been tested in either of these case studies. The analytical results of this investigation, which has been empirically tested, will contribute to the ongoing debate about the causes of war among major IR theories. The results will offer researchers the possibility to break the orthodoxy that has been shared by a number of IR scholars by introducing the impact of sunk-cost instead of future cost on decision-makers' cost-benefit analysis.

The social importance of this study lies in the fact that if we understand the impact of cost on decision-makers' behavior during a war, we can estimate the same effect of war preparation costs (i.e. costs that would have been incurred before the war) on decision-makers. The cost-effect may help us to understand how state leaders are dragged into costly conflicts by becoming risk seekers as the cost of military preparation increases. In other words, if a state leader becomes aware of the fact that the incurred cost frames him/her and increases his/her propensity towards risk, he/she may become more rational and war may be avoided.

## CHAPTER 2. LITERATURE REVIEW

In this part, the literature on war is organized based on three levels of analysis – individual, state and system, which were indicated by Kenneth Waltz in his book *Man, the State and War* (1979).

### 2.1. Individual level analysis

Individual level analysis associates the causes of war with egoistic human nature that inevitably provokes people to gain ultimate power (Waltz, 1979). The main driving force behind the individual's quest for power is survival. The human nature of a state leader affects the way he/she understands and perceives reality. He/she identifies the cost and effect of actions based on this personal perception of reality. Realism builds on the notion of rationality on human nature and argues that wars are the outcome of the calculation of selfish state leaders (Forde, 1959). Basically, the desire of state leaders to gain more power, territory and resources can be realized by the results of cost-benefit analysis, which are frequently applied to justify the state leaders' aggressive policy towards another state (Levy, 2010). Besides human nature, a decision-making procedure has an important impact on the overall policy outcome (Levy, 2010). According to decision-making theories, the foreign policy of a state as an outcome of final choices made by state leaders cannot be determined or predicted by the systematic procedures and institutional constraints (Ibid, 2010). This decision-making structure can be reshaped if the future of a state is undermined. On the other hand, structural theories argue that within the structural framework and organizational boundaries, all decision-makers perceive the reality in the same way and thus the foreign policy outcome produced along with the same structural lines should be similar (Groom, 2007). This approach carries an element of state level analysis, which considers the impact of individuals on policy outcomes to be limited. Decision-making theories are based on the assumption that all decision-makers are rational and the rationality of their behavior is or should be reflected in the final policy outcome.

Most of these theories try to explain the rationality of war as a tool for realizing and defending the national interest. Rationality as a concept in policy-making may be seen as reflective of rational choice theory according, which claims that state leaders resort to war if the calculation of cost and benefit bears positive results. The concept in the

realm of political science takes its root from neoclassical economics. The concept is framed with the assumption that agents face with trade-offs and that the choice he/she makes should increase his/her utility or happiness. The main problem with this model stems from the fact that utility and happiness cannot be easily identified and measured. This is the main reason why the behavior of state leaders is analyzed based on expected utility, which is presented in an orderly way with values assigned to it. The advocates of rational choice theory put forward the assumption that wars are a rational means to realize the political objective of a state.

Within the framework of expected utility theory, political leaders are rational in a sense that they prefer the actions that offer them higher utility and minimum risk (Neumann and Morgenstern, 1953). Despite the fact that the concept of utility cannot be physically measured, Neumann and Morgenstern tried to solve the problem by offering a four-dimensional approach to the analysis of rationally taken decisions. More specifically: Given the fact that decision-makers in most cases come across different choices with varying levels of risk and probabilities, to make the rational choice, the preferences of individuals should be based on four axioms. These are completeness, transitivity, continuity, and Archimedean property.

In contrast, Bruce Bueno de Mesquita (1980) sketches his assumption based on the cost of war and concludes that state leaders are not rational. De Mesquita focused on the impact of risk and uncertainty on a state leader's behavior by indicating that war-related decisions are heavily influenced by leaders' propensity towards risk and by the growing uncertainty about the adequate response of other state leaders. Mesquita clearly states that state leaders are irrational in their choice of war. He goes further by indicating that war would be highly unlikely if states and actors were rational in calculating its actual cost and estimating its repercussions. Harrison Wagner (1984) criticized this author's contribution by referring to the fact that Bueno de Mesquita oversimplified the conflict and ignored the possible changing nature of probability if a third state joined the conflict and aligned with one of the conflicting parties, as a result of which precise calculation of cost and benefit becomes difficult.

Apart from conventional IR theories, a number of scholars have borrowed theories and models from diverse disciplines to explain the causes of war from different

perspectives. One of these theories, prospect theory, has been taken from behavioral economics, and brings a new dimension to the understanding of the decision-making process by emphasizing the changing circumstances of the reality. The theory serves as a theoretical background of this thesis paper. It has been extensively applied to the realm of foreign policy by Jack Levy who described the main assumptions of the theory in his article *Prospect Theory, Rational Choice, and International Relations* (1997). According to Levy, the main drawback of rational choice theory is that it ignores the effect of a reference point based on which a leader's preference towards a choice is shaped. From his point of view, expected utility theory builds its assumptions on the cost and benefit of future assets by ignoring the effect of the actual cost that has been spent to preserve the status quo. As Levy highlights, (ibid: 88), "...expected utility theory assumes that an actor's utility for a particular good is a function of net asset level of that good and that preferences over outcomes do not depend upon current asset. Current assets affect marginal utilities and preferences over strategies, not preferences over outcomes or terminal states".

## **2.2. State level analysis**

The second level of analysis seems to be less abstract than individual level analysis. At this level, the behavior of a state can be analyzed at three sub-levels: (1) at a state level, where the state is perceived as a unitary actor; (2) at an organizational level, which takes the state as a constellation of different organizations; and (3) at a bureaucratic level, where the policy outcome is formalized through a bargaining process among the leaders of different organizations within a state (Allison, 1969). At the first level, the state becomes a main unitary actor in the explanation of war. War occurs because of the dyadic interactions of states and is framed within a number of theories such as that of international rivalries (Thompson, 2001), which emphasizes the importance of territorial proximity of states for wars; the "steps-to-war" model (Senese and Vasquez, 2008) according to which the occurrence of wars depends on different issues such as territory and natural resources; the "Bargaining model of war" (Blainey, 1988), which puts emphasis on the rationality attached to the trade-off between war and negotiations between countries; economic interdependence theory (Montesquieu, 1989), according to which economic independence between states

eradicates possibilities of the escalation of conflicts; imperialism and war (Lenin, 1916), which considers wars as a tool of imperial powers to exploit peripheries; coalitional models (Snyder, 1991), which supports the idea that wars depend on how elite creates international coalition over the benefits and cost of war shared among the members of society; the Diversionary Theory of War (Bodin, 1955; Mueller, 1973), which is based on the assumption that states leaders prefer war to mobilize internal power groups at conflict with one another; the Democratic Peace Theory (Doyle, 1983) according to which democratic states hardly fight each other; and finally, the “Clash of Civilization” theory (Huntington, 1996), which is based on the idea that wars will emerge because of the differences in civilizations around the world.

At the organization level, Allison (1969) focuses on the standard operation procedures (SOP) that frame the freedom of choice of the leaders sitting on the top of these organizations. According to him, the foreign policy outcome of a state is the production of the intense interaction between government organizations whose behavior is mainly shaped by principles, rules and procedures. If we apply the organizational level analysis to the explanation of the First World War and the Second World War, the conclusion will be that the war emerged mainly because of the orders handed out to different commanders, of the capacities of different military units, and of the procedures designed to react to emerging crises.

The bureaucratic level of analysis of state behavior grants much more flexibility to different organizations within a state each of which attempts to maximize its own interest. Allison (1969) argues that the outcome does not depend on the overall strategy, which is proposed by state level analysis, but rather that the final political decision is produced as a result of intense bargaining among different actors within a state. Each actor attempts to maximize his/her own utility or the interest of the organization he/she represents. The interest of the organization may range from increasing the budget share for that organization to stamping his/her personality on the final decision. As is stated by Lieberfeld (2005: 8): “The interests of the state are further disaggregated by bureaucratic-politics explanations that assume that governments consist of factions, one or more of which may promote war in order to advance its interests in the intra-elite competition for power”. Both world wars do not fit into this model since the decision-making process was centralized by the Supreme

Army Command (in German: Oberste Heeresleitung or OHL) and the Fuhrer's Office respectively. In the Iran-Iraq War, Saddam Hussein held his absolute monopoly over the decision-making process.

Robert Putnam's two-level-game theory (1988), also fits to the state level analysis according to which the negotiations between countries are realized at two levels, also fits with the state level analysis. The first of these levels considers the negotiations between states in international relations. The success of this first level is dependent on the second level state representative are tasked with convincing the state's internal audience to ratify the agreement of the negotiations. Each level consists of "win" sets and the larger these "win" sets are, the higher the probability of ratification is. Based on Putnam's theory, we can estimate that cramped "win" sets may lead to breaking off the negotiation and the parties may end up in an inadvertent war. However, the assumptions that are put forward by Putnam can be accepted only in democratic countries where the parliament can impose its power over the executive branch. In all abovementioned cases, the role of parliament in decision-making process was very limited.

Peter Liberman explained the causes of war from the economic interdependence perspective. According to this author, if a state pursues an offensive policy, the fear of peacetime trade barriers, embargos and high tariffs will entice the state to go to war. Defensive states, on the other hand, prefer autarky (Liberman, 1999). The author further mentions: "Trade disruption reduces a nation's access to resources that contribute to prosperity and growth in peacetime, and military industrial mobilization in wartime. Theoretically, either threats of wartime blockade and threats of peacetime barriers could provoke states to seek autarky by conquering valuable territories. Only the former kind of threats, however— whether real or misperceived—are frightening enough to lead a state to risk a major war in order to expand its resources" (Liberman, 1999:63). Liberman goes further and explains that the value of autarky and trade also depends on the intensity and duration of conflict.

Dale Copeland (2015) argues that war is an irrational policy tool due to the fact that it undermines economic relations between two states. Basically, from Copeland's perspective, the current irrational war derives its rationality from the future state of



trade relations between the two countries even though the current economic affairs between two states are in harmony. As he mentions: “trade expectation theory introduces a new causal variable, the expectations of future trade, examining its impact on the overall expected value of the trading option if a state decides to forgo war” (Copeland, 2015:6).

Copeland believes that economic interdependence fosters peace only when a state believes that the economic relations will conceivably flourish in the foreseeable future. It should be noted that Copeland did not take into consideration the impact of globalization since international trade organizations, namely the World Trade Organization (WTO), can guarantee the constant flow of future trade between member countries.

### **2.3. System-level analysis**

A system level analysis of war starts with the assumption that the international system is in a state of anarchy, whereby the absence of centralized power increases uncertainty among states (Waltz, 1979). According to the neorealism, due to uncertainty in the world system, states feel forced to compete for power in order to secure their existence (Jervis, 1976) as a result of which war becomes inevitable. Despite the benign intention of states, different assumptions of the realist school such as security dilemma, the balance of power, deterrence, and spiral model explain how two states end up at war with one another.

On the other hand, it should be mentioned that a system level analysis of war turns a blind eye to the fact that anarchy depends on the perception of a state leader. In that regard, it is quite challenging to estimate whether Ludendorff or Saddam Hussein made their decision based on their fear stemming from system level vulnerability. Basically, based on the constructivist view, the anarchic order as an explanatory variable cannot be taken as granted, instead, its existence for the state leader should be investigated accordingly (Wendt, 1992). Wendt presents a new alternative to the realist explanation of war in his article *Anarchy is what States Make of it: The Social Construction of Power Politics* in which he describes anarchy, one of the main explanatory factors of war in neorealism, as a socially constructed reality. We can

induce from his analysis that a war breaks out because of fear and uncertainty, which have been constructed with the elements of ideological affiliation or beliefs on the part of a state leader.

#### **2.4. Discussion of findings**

The individual level analysis does not come without deficiencies. The realist assumption of individual's behavior fails to explain why the OHL generals persisted in fighting the war by launching the Spring Offensive in 1918 even though they knew that the war could not be won. Given the fact that Russia and France were defeated by 1918, the German position seemed propitious as it could have offered peace negotiations to Great Britain and could have dictated the terms of the final agreement instead of depleting all available resources for nothing. As is well described by Georg Alexander von Muller, chief of the Imperial Naval Cabinet of the German Empire, in contrast to the destruction of Russian Empire, Britain is the natural ally of Germany and its defeat would not contribute to the long-term goal of Germany (Geiss, 1984). Furthermore, the realist assumption seems to lose its validity when state leaders become committed fighters even if they fail to tilt the balance of power back in their direction and fight recklessly to the point of complete defeat.

The same argument holds true for the expected utility theory. The theory fails to consider the changing nature of environment, which has a huge impact on a state leader's calculation. In more details, the declaration of war goes through a gamut of activities such as military built-up, economic sanctions, and mobilization of human and economic resources, all of which carry enormous costs. These costs bounce off decision-makers and invigorate their appetite for war. The timing of cost-benefit analysis has a huge impact on the final outcome of a calculation. First of all, we should find out when the analysis takes place: before or after the cost of military preparation has been incurred. If it takes before the preparation process, it is impossible to take into account all possible scenarios that would happen within such a long period since military build-up requires years to be accomplished.

For expected utility theory, the reference point is the status quo and at that point the utility equals to zero. From that point, the state leader calculates the cost and benefit of a future decision: go or not to go to war. Taking into account the accrued cost of

military preparation, we can argue that the status quo as a reference point is in fact already negative, rather than equating to zero, and it has a tremendous effect on the outcome of a cost-benefit calculation. On the other hand, we assume that as war continues, the cost of military operations increases the risk propensity of state leaders and makes them irrational. The case analysis in this paper is based on the prospect theory, which explains the impact of the development of events on decision-makers' preferences.

To conclude, conventional IR theories find it difficult to explain why state leaders persist irrational wars when the cost exceeds its benefit and the probability of success decreases.

## CHAPTER 3. THEORETICAL FRAMEWORK

This chapter explains theoretical assumptions, which will be tested in chapter 5. Following the assumptions, explanatory variable that may affect state leaders' propensity towards risk will be presented with further explanation and measurement.

### 3.1. Prospect theory

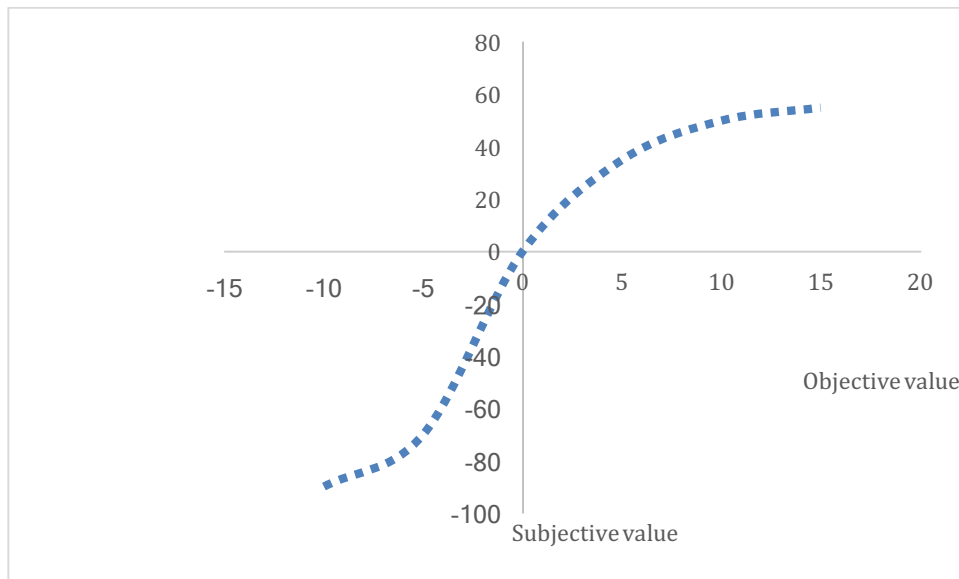
Prospect theory was developed by Kahneman and Tversky (1979) who tried to find out the impact of cost on people's behavior. According to Van der Pligt (1995), the theory attempts to fill the gap left by subjectively expected utility theories of decision making. The main aim of prospect theory is to describe the decision-making process under uncertainty, which has a huge impact on a decision-maker's choice and preferences. The main assumption of prospect theory states that the value  $V$  is derived from a combination of products with specified outcomes  $x$ . Obtaining  $x$  depends on the objective probability  $p$  and on its main components, which are the personal weight  $\pi(p)$  the decision-maker attaches subjectively to the state of the world and utility  $v(x)$ . To demonstrate the function of the value  $V$  of an option:

*Equation 3.1 1 Function of prospect theory*

$$\sum_i \pi (P_i) v(x_i)$$

It should be mentioned that the relationship between the value probability function  $v$  and the probability weighting function  $\pi$  is nonlinear, which means that the change in  $v$  is not proportional to the change in  $\pi$ . Kahneman and Tversky (1979) argue that small probabilities are overweighed as the occurrence of an event with low probability gets behind the people's expectation whereas people tend to underweight large probability since its occurrence does not surprise anyone. Van der Pligt (1995) states that extremely low probability outcome can either be exaggerated or neglected entirely due to the fact that people find it extremely difficult to follow and evaluate radical changes of probabilities. At the same time, higher probability and certainty are misperceived by people by either neglecting the differences between these two variables or accentuating them. In other words, people tend to receive the case with higher probability as a certainty and ignore the possibility of failure.

Figure 3.1- 1 Prospect theory: hypothetical value function



According to Kahneman and Tversky (1979), the reference point plays an important role in the process of defining the value  $v$ . Gains and losses have a different impact on defining  $v$ . As we can see on Figure 3.1-1, the value function  $v(x)$  is S shaped being concave in the area of gains, which is above the reference point and convex in the territory of losses, which is less than the natural reference point. Based on Figure 3.1-1, we can argue that the subjective value of gains decreases in the domain of gains as the objective value of a subject increases. If we represent the objective value in US dollars, we can say that the subjective value between 0 and \$5 is greater than the subjective value between \$5 and \$10. In other words, a person's subjective values decrease as he/she earns more money. The slope is steeper in the loss area of the Figure 3.1-1. The amount of subjective value between 0 and -5 is less than the amount of subjective value between -5 and -10. In more practical terms, if a person loses \$5 it hurts less than if he/she loses \$10.

Van der Pligt (1995) argues that the value function  $v(x)$  depends on two important elements: the certainty effect and the reflection effect. These effects change its impact as we move from the gains area to the loss area. When it comes to gains, most people would prefer a certain gain of \$300 rather than a gain of \$400 with a 90 percent probability. Due to the reflection effect, the preferences for a certainty and a high probability are reversed as we play in the loss area. People would prefer to an uncertain alternative when they face a trade-off between a sure loss of \$100 and a 50 percent chance of no loss. As we see, in the loss area a person becomes a risk seeker

and prefers to the outcome with low probability, whereas a person becomes risk averse in the territory of gains.

The assumptions of prospect theory can be summarized as following:

- People are more sensitive to the loss of assets than to the gaining of assets. They overvalue losses in comparison to gains. The effect of gaining of an asset is weaker than the effect of losing it. Keeping that in mind, it is logical to argue that state leaders are significantly affected when faced with defeat and loss, as a result of which their sense of rationality weakens and they become risk seekers.
- The effect of loss has a huge impact on people's decision by triggering them to strive to recover their losses. I assume that Germany's decision to launch the Spring Offensive on the 21<sup>st</sup> of March 1918 may be the result of consecutive defeats suffered by the German army on the Western Front.
- Since both loss and gain require moving away from the status quo, the loss aversion effect induces people to keep the status quo rather than changing it (Levi, 1997);
- People tend to accommodate gains quicker than losses and this accommodation offers a new status quo or reference point. In other words, asymmetry between losses and gains lead decision makers to frame the reference point, which has a huge effect on people's choices. After gaining new territories in Belgium and France, the reference point of Germany shifted away from the country's previous borders, since any loss of its newly gained territory might have been considered a loss by German leadership. The same assumption holds true for Iraq as Saddam Hussein found it unacceptable to seize control over Shatt al-Arab;
- A leader's preferences towards the status quo and reference point choices are determined by the effect of loss aversion and endowment, both of which stem from an overvaluation of his/her possessions (Levy, 1997). According to the theory, people overvalue their own possessions. Thus, the gaining of new territories by the leaders of warring countries increases the value that these leaders place on their possessions, and urges them to pursue a defensive policy rather than aggressive one.

Prospect theory has been applied to the realm of political science to explain the cost effect and reference point effect on policy decisions. Barbara Farnham (1992) applies prospect theory to analyze Roosevelt's reaction to the Munich crisis in 1938. Rose McDermott (1992) also applied prospect theory to explain the US president Carter's reaction to the Iranian hostage crisis of 1980. Jason Morrissette (2010), Director of International Affairs at Marshall University, employed prospect theory to investigate Russia's military attack against Chechnya in 1994 when Boris Yeltsin ordered the deployment of 40,000 Russian troops into Chechnya.

Hector Perla (2011) examined the determinants of public support for the deployment of military force. The author based his explanation on a Framing Theory of Policy Objective the main assumptions of which are borrowed from prospect theory. According to Perla, due to the fact that people are incapable of directly observing the designing process and the implementation of intervention policy, including its purposes and intention, the public perception towards military engagement is greatly affected by the competing frames offered by influential political actors. These frames are accentuated by media channels, and as a result, they can determine the outcome of the implemented policy in terms of seeking to avoid losses or achieving gains.

Somer-Topcu (2009) applied prospect theory to the explanation of policy changes by political parties in democratic countries. Based on Somer-Topcu's analysis, political parties face a trade-off between changing their political positions in pursuit of votes and adhering to their original strategy to reduce uncertainties and associated risks. She argues that due to the incurred losses, parties find it extremely difficult to deviate from their original strategy. That is why states pursue absolute gains and become risk averse in face of gains and risk seeker when they encounter losses.

Butler (2007) constructed a model to analyze the behavior of parties in a bargaining process. According to Butler, four types of reference points affect the behavior of parties during a negotiation: power-based, equity, different types of status quo, and the extreme "I want-it-all" reference point. From the author's point of view, at the individual level, each of these reference points produce different bargaining attitudes. He argues that under complete and precise information, the bargaining process may turn into a fiasco.

Niv-Solomon (2016) employed prospect theory to explain Israeli retaliation to the attack carried out by Hezbollah on 12 July 2006 as a result of which three Israeli soldiers were killed and two more were kidnapped. As a result of the investigation established by the Israeli government, Prime Minister Olmert was implicated as guilty of capricious and irresponsible decision-making. Niv-Solomon argues that the decision to attack was made during the framing stage, which is affected by the logic of loss aversion.

He and Feng (2012) tried to answer the question of why the US preferred multilateral alliances with European countries but bilateral cooperation with Asian countries using prospect theory. In their analysis, the level of threat served as a reference point for decision-makers' prospects of losses and gains. Given the fact that multilateral alliances limit the flexibility of a state, as the state takes a number of responsibilities vis-a-vis other members of that alliance, the state prefers to pursue an alliance only in the face of a higher threat. The threat places decision-makers in a domain of loss and makes them risk seekers. On the other hand, low level of threat brings leaders to the domain of gain where the policy makers become risk averse in terms of maintaining their freedom.

Boettcher (2004) investigated the applicability of prospect theory to the realm of international relations in his article "The Prospects for Prospect Theory: An Empirical Evaluation of International Relations Applications of Framing and Loss Aversion". The author conducted three experiments to explore the advantage and disadvantage of prospect theory in the explanation of political behavior. According to the author, the theory fails to explain the behavior of groups in the decision-making process whereas at the individual level, the concept of framing, under some circumstances, may bear tangible results.

### **3.2. Statement of theoretical assumption**

As it was mentioned above, Germany's Spring Offensive against Allied Forces in 1918 is an example showing how state leaders become risk seekers as the war



continues. Despite the fact that Germany was well aware of the difficulties both on the fronts and inside Germany itself, Ludendorff decided to launch a final aggressive attack against the Great Britain, which led to the complete defeat of Germany. Based on prospect theory, I assume that as a state leader's propensity towards risk increases, his/her ability to make a rational decision decreases. As a result of this, the leader avoids considering the opposing arguments and becomes an active risk seeker. Thus, the dependent variable of this thesis is the risk propensity of a state leader.

Having identified the dependent variable, the generation of theoretical assumptions becomes possible. The main assumption of this thesis can be formulated as following: in the domain of loss, state leaders' reference point changes, which leads to higher propensity towards risk. As the cost of previous decision increases, state leaders may become angry and thus, their ability to think rationally dwindles. Based on this assumption, I assume that as the cost of military activities during the First World War increased, the German leaders turned into risk seekers and thus they avoided considering crucial drawbacks of their military capacity. This could also have been the case during the first two years of the Iraq-Iran War when Saddam Hussein showed a lack of patience towards critical arguments that were brought by generals. In the domain of gain, decision-makers become risk-averse and make endeavor to preserve the status quo. The independent variable of this analysis is the reference point from which decision-makers calculate the cost and benefit of a prospective decision.

The cost is divided into two groups based on its effect on military operations: direct and indirect cost. Direct cost is considered the death of military personnel without whom it would be impossible to continue the military operations. Ancillary cost is the cost that has an indirect impact on the military operations. As a state loses more servicemen on battle fronts, it drags the decision-makers deep into the domain of loss where the propensity of state leaders towards risk increases. On the other hand, given the fact that decision-makers are located inside the country and not on the front line, they often find themselves in the domain of gain. This means that they become risk-averse and perceive the cost differently. These costs are military expenditure, economic crisis, loans that the government takes to finance the operations and also strikes organized against the central government. It is assumed that military expenditure, a deteriorating economic situation, and increasing loans and strikes

within the warring country, as controlling variables, may set different reference points for the state leader in the realm of gain and loss. These variables may increase a state leader's propensity towards risk in the area of loss, and increase his/her sensitivity to these unfavorable changes in the domain of gain.

The growth rate of GDP of both warring countries serves as a controlling variable, which may affect state leaders' propensity towards risk in different ways depending on the reference point. As the economy of a country goes into recession in the light of military activities, the decision-makers may find themselves under tremendous pressure from inside their country, and this pressure may force them to make reckless decisions on the battle fields. Inside of the country, decision-makers should be extremely cautious about making rational decisions to mitigate the negative effect of the economic crisis. Having said that, I assume that military and financial assistance to a country may change the reference point of a decision maker by taking him/her from the area of loss to the territory of gain during a war.

I assume that regime type (democracy or authoritarian) also may affect the decision-maker's propensity towards risk. In opposition to the conventional wisdom of Democratic Peace Theory, which maintains that in a democracy people are loath to shed their own blood and it limits the capacity of a state leader to act independently, I assume that the leaders of warring authoritarian regimes find themselves in the domain of gain inside of their country and in the area of loss outside of their country. That is why they tend to respond differently to the challenges depending on the reference points.

I assume that internal stability within a country may also affect the risk propensity level of decision-makers, depending on the reference point of loss and gain. As people resist and express their concern over the continuation of warfare, state leaders may act with more caution and take serious measures vis-à-vis those people inside of a country, but may become irrational on battle fields.

The question may arise about the same pattern of behavior that the OHL showed vis-à-vis its internal and external rivalries. The nature of attack realized by the OHL was the same regardless of the target: they wanted to eliminate their internal and external

enemies by different means. But the objective was different. On the battlefields, the German leadership wanted to change the situation whereas inside the country they tried to keep the status quo for as long as possible. The theoretical assumption of this paper can be challenged by its attempt to oversimplify the explanation of a state leader's resistance in a costly war. As I mentioned in the introduction, the aim of this paper is not to foment a revolution in the field of IR but to contribute to the ongoing debate among IR theorists.

Had the cost-effect proved to be correct, we can assume that the reason why Germany took risky decisions in 1918 by mounting the dangerous Spring Offensive against Allied Forces played the same role with the same effect in 1914 when Germany declared war on France, Russia and Britain. The cost associated with military preparations such as the cost of mobilization, launching the war chest, and increasing tax rates made it impossible for the central government to make a rational calculation of military actions. It is surprising to see how the Germans greeted war with joy and happiness. As is described by Rummel (1916:1): "War! The incomprehensible and yet long expected has really come. It comes over one like release and one is again able to breathe and say softly: 'At last!' No matter what grave and even graver things may come, the last weeks, and especially the last days were unbearable. The leaden nightmare grew hourly more oppressing".

The burning enthusiasm of Germans could also be explained by the increasing tax burden on the people, which was one of the main elements of the German government's military preparation policy. The 1913 act on non-recurring tax on income and property, the cost that associated with increasing the country's gold reserve and the political and social propaganda that was broadcasted by the state media channels all contributes to increasing the prewar sunk cost, which urged the central German government to declare war. The list of elements of sunk costs should not be limited to human death and war expenditures. We assume that the increasing amount of tax, territory lost and damage to political leader's reputation can also be considered as sunk costs some of which are challenging to quantify.

### 3.3. Hypothesis

**Hypothesis 1:** In the domain of loss, state leaders become risk seekers and make risky decision.

Hypothesis 1a. The risk propensity of the German decision-makers rises as the number of deaths increases during the First World War, which drags the German leadership into the area of loss.

Hypothesis 1b. The incurred financial cost boosted Saddam Hussein's risk propensity during the first two years of the Iran-Iraq War.

**Hypothesis 2.** In the domain of gain, state leaders become risk-averse by avoiding risky decisions.

Hypothesis 2a. Since the OHL (and mainly Ludendorff) enjoyed absolute authority in the decision-making process in Germany, they became very cautious and sensitive to any challenges that may have undermined their authority.

Hypothesis 2b. Military and financial assistance to Saddam Hussein changed the reference point by transforming the domain of loss into the area of gain. That is why Saddam Hussein became risk averse and tried to stop the war with Iran.

Independent variable: Sunk-cost

Dependent variable: Propensity towards risk

Controlling variables: economic growth, regime type, and internal instability

The reasons behind the selection of these variables associate with the fact that all these variables carry potential cost for decision-makers and also offer domains of both gain and loss to state leaders, depending on the costs and gains during both wars.

Chart 3.2- 1 Germany in 1918

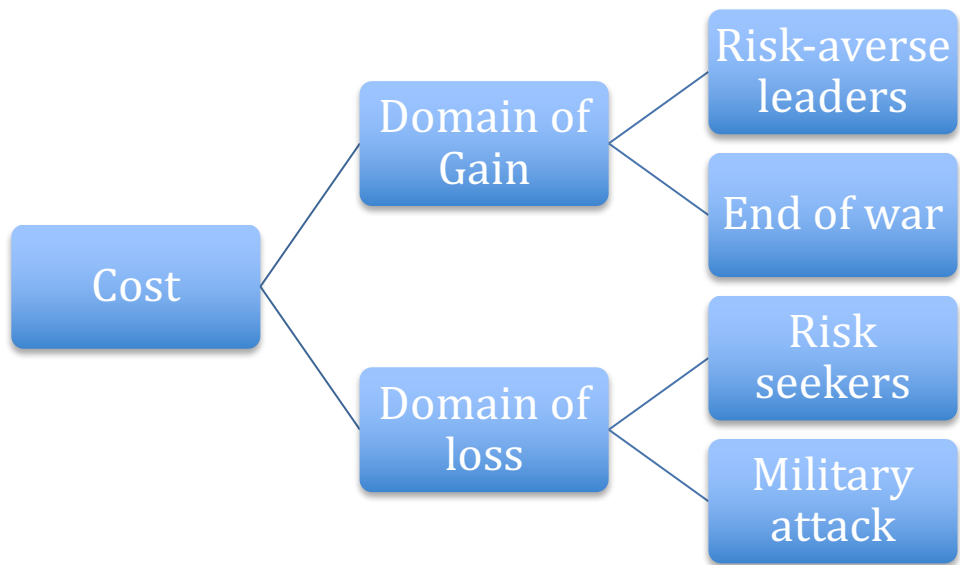
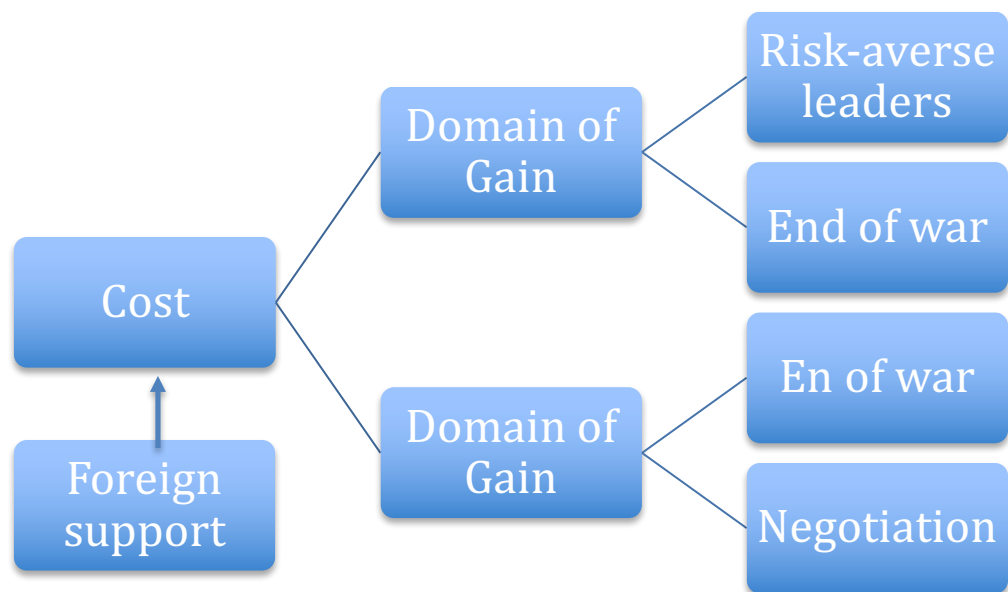


Chart 3.2- 2 Iraq in 1982



## **CHAPTER 4: CONCEPTUAL FRAMEWORK AND METHODOLOGY**

### **4.1. Research design**

This research paper is based on the most similar research design where two most similar cases – the First World War and the Iraq-Iran War are compared. At first, it may seem very strange to mention the similarities of two unrelated and completely different cases. But, as we compare the position of attacking states in both wars, many similarities come to surface.

There are a number of reasons behind the selection of the cases. First of all, in both cases peace agreements were signed after the considerable cost paid by the initiators. The financial and human cost of the First World War for Germany was 37,771 million US dollar and 2,037 thousand people (Broadberry, 2005) respectively whereas for Iraq the financial and human cost of war was 12-14 billion US dollar/year (Chubin, 1989) and 250.000 people (Harsch, 1987) respectively.

The second reason lies in the fact that in both cases the initiators of war were authoritarian regimes for which the outcome of war would determine the future of their own establishments. Even though Dan Reiter and Allan C. Stam III (1998) claim in their analysis the opposite of this argument by saying that democratic regimes are more constrained by state institutions than authoritarian regimes, I believe that the catastrophic outcome of war for authoritarian regimes would be more dangerous since the leaders of these types of regimes are forced to accept the full responsibility of atrocities and war crimes.

The third reason is that the GDP of both countries decreased when they made risky decisions on the battle fields and became risk-averse at home. The riskiest decisions in Germany were recorded in 1918, whereas in Iraq they occurred from 1980 to 1982. Moreover, in both countries internal instability challenged the central government and probably put enormous pressure on state leaders. Military expenditure in both countries increased towards the end of the war.

Last but not least, the rationale behind the case selection can be explained by the existence of a literature gap regarding both cases. The analysis of the literature review on both cases lead to the assumption that the impact of cost on German leaders has been left beneath the radar of academic inquiries. The First World War has been a central research question for many scholars who tried to explore all possibilities to present a holistic picture of events that took place in Germany during the war. It has to be mentioned that it is very challenging to cover the literature on the First World War since the topic has attracted the attention of many eminent scholars around the world.

To address this problem, I referred to John Vazquez's review on the literature of the First World War (2014) where the author analyzed essential academic works on the First World War by grouping them under different categories. The first category of literature is based on the approach of moral responsibility approach, blaming Germany as an initiator of the war (Fischer, 1967; Fay, 1928; George, 1938;). Mombauer (2002) focuses on the role of ideology in Germany and argues that the ideology was a driving force behind the reckless decision to go to war. Even though political scientist ignored the normative approach and instead focused on the exploration of empirical questions, Germany remained the key actor being responsible for bringing the war to the continent (Organski and Kugler 1980; Snyder 1984; Van Evera 1984; Modelski and Thompson 1989; Copeland 2000).

According to Vazquez (2014), further investigation of the war shifted from a state centric approach paradigm to an institutional and even to an individual level analysis. Bethmann-Hollweg, Chancellor of the German Empire, the Kaiser, the last German Emperor and the Moltke, the Chief of the German General Staff from 1906 to 1914 were the main important figures who shaped Germany's policy during the war (McMeekin, 2013). The impact of decisions taken in Russia, UK, France, Austria-Hungary and Germany produced the final outcome – the war (Christopher, 2013). As the author puts it in his book *Sleepwalkers*, the production of war was a dynamic contingency process in all major involved countries.

David T Zabecki (2006), an American military historian, dedicated his book “The German 1918 offensives: a case study at the operational level of war” to the

explanation of the historical decisions taken by German leaders towards the end of the First World War, which is known as the Spring Offensive (21 March – 18 July 1918). Two important elements of his analysis increase the value of his academic piece, and making it a reliable source for historians. First, Zabecki referred only to the primary historical records, which he retrieved by spending one year studying the German military archives. Second, based on detailed information, he, for the first time, described the war based on a tactical and strategic level by chronologically explaining the decision-making process among generals of the OHL (Supreme Army Command of Germany).

According to Zabecki (2006), the Germans did not believe that the Spring Offensive was an effective strategy in a sense that it was not rational to deploy all troops on the western fronts by increasing the vulnerability of other fronts. We can see how German leaders were concerned about the operations by reading Rupprecht's diary, the Crown Prince of Bavaria, where he mentioned (ibid: 118): "Even if the main mass of their reserves were drawn into the MICHAEL attack, the Allies could still attack other sectors with massed tanks, without an extensive artillery preparation, much as they had done at Cambrai".

The German Spring Offensive of 1918 has been of research interest to many other historians such as Peter Hart (2013), Winston Churchill (1974), and Christoph Mick (2013) who described the attack from a historical perspective by referring to the primary sources. Holger Afflerbach and Hew Strachan (2012) described in their book how German officers surrendered themselves to Allied Forces during the Spring Offensive. In April 1918, 1,000 different ranked officers surrendered themselves to the British Fourth Army, which mirrored the intensive demoralization and fatigue among the Germans. It should be mentioned that surrendering took place among Allied Forces as well but not at the officer's level.

According to Martin Kitchen (2005), even though the Germans had roughly equal numbers of men to the Allied Forces before the Offensive, a lack of mobility due to the desperate shortage of horses increased the risk of attack and vulnerability of other fronts. This risk also increased as the Germans observed how Allied Forces were strengthening their positions by deploying additional manpower. Furthermore,



Germany considered the possibility of US involvement in the war, something that would dramatically alter the balance between the warring sides in favor of the Allied Forces. If we put all points together, then the following question arises: How could Germany launch a speedy attack against the Allied Forces if they did not have enough resources?

The Iran-Iraq War was one the bloodiest wars of the twentieth century: It lasted for eight years (1980-1988), and its economic cost is estimated to have been \$500 billion (Alnasrawi, 1986). The causes of the war have been analyzed by a number of experts and scholars who have put an emphasis on different reasons such as cultural differences, border disputes, the influence in the Gulf region, and suspicion of state leaders (Sterner, 1984). Sterner listed the differences between Iran and Iraq and added that these differences were tightly controlled by the Shah regime in Iran. From the author's point of view, the collapse of the regime in Iran escalated the tensions between the two neighboring countries and triggered Saddam to launch a war against Iran. The author goes on to mention that Saddam Hussein's initial plan was to occupy the country and to get rid of the Khomeini regime, for which he counted on the support of Western and Arab countries. In contrast to Germany's leaders during the First World War, Saddam Hussein acted quite rationally by trying to stop the bloody war immediately after considering its cost.

According to Ray Takeyh (2010), even though Saddam initiated the war, Khomeini's strategy to create the image of liberator by tying the war up with the religion was a main reason behind the prolonged conflict. As is mentioned by Takeyh in his article "The Iran-Iraq War: A Reassessment" (2010, 365), "In one of the paradoxes of Iran, the war that Ayatollah Khomeini hoped would realize his ideological values ended up undermining the transnational mission of the state. After an inconclusive but costly struggle, Iran failed to defeat Iraq, transform the Middle East, or project its Islamist template beyond its boundaries".

Andrew Parasiliti (2003) offered an even broader perspective to the explanation of war by emphasizing the changing political and economic nature of the countries in the Middle East. From Parasiliti perspective, the real motivation behind Saddam's attack on Iran could be explained by the increasing power of Iraq and decreasing influence

of Iran in the Middle East. An individual level analysis of the Iran-Iraq war was proposed by Gholam Hossein Razi (1998), in his article “An Alternative Paradigm to State Rationality in Foreign Policy: The Iran-Iraq War” where the author argues that the future actions of both countries stemmed from the perceptions of elites in these countries. Elite’s perception, as argued by Razi, was heavily influenced in Iran by Shiite Islamism and in Iraq by Iraqi nationalism.

On the other hand, it is claimed that geography, natural resources, and power dynamics were among the most important issues behind Saddam’s motivation to invade Iran (Will Swearingen, 1988; Karsh, 1987). According to Karsh, the causes of war should be taken as the interaction of foreign policy goals with the military power that triggered Saddam Hussein’s decision to invade Iran.

A Literature review of both case studies has explained the causes of offensive policy from a number of perspectives each of which has quite a strong theoretical background. These two cases have been extensively researched and utilized at different levels - namely state leader, generals and troops - by military experts with the purpose of understanding the emergence and development of military strategy throughout the years in question. None of these authors explained the possible impact of cost on German leaders, who put all their eggs in one basket and destroyed them all together. In the case of Iraq, Saddam’s rational behavior was quite impressive, as he estimated the cost of further actions and changed his behavior. Despite the fact that Saddam made a rational decision after two years of battles, his first decision to attack Iran was irrational and based on a miscalculation as Iran had a stronger military capacity in terms of number of troops and military equipment (Table 4.1).

*Table 4.1. 1 Military capacity of Iraq and Iran before the war*

Types	Iraq	Iran
Men	250,000	290,000
Tanks	1,750	1,710
Armoured vehicles	2,350	1900
Artillery pieces	1,350	1,100
Fighter planes	295	421
Helicopters	300	800
Destroyers (navy)	0	3
Frigates	0	4
Converters	0	4
Old fighter planes	60	0
Auxiliary ships		10
Missile boots	14	9
Amphibious assault ships	3	5
Light patrol boats	28	26
Missile launchers	60	0
Hydroplanes		14
Helicopter (navy)		35

Source: Pierre Razoux (2015)

Finally, it is worth mentioning that these two similar and dissimilar cases have never been employed to test and refute the theoretical assumptions of prospect theory.

The abundance of historical records allows us to deeply analyze the changing situation during both wars and its impact on decision-making process.

*Table 4.1. 2 Similarities and differences between Germany and Iraq*

Similarities	Iraq (1982)	Germany (1918)
Initiator of war	Yes	Yes
Declining economy	Yes	Yes
Internal instability	Yes	Yes
Increasing military expenditure	Yes	Yes
<b>Risky decision</b>	<b>No</b>	<b>Yes</b>

## **4.2. Limitation of the project**

The analysis may suffer from two types of drawbacks: theory related and case related. The theory related weakness could be explained by the impossibility of generalization of prospect theory, as the theory cannot explain group decision-making processes. Basically, we cannot build a model based on prospect theory due to the fact that the level of analysis is limited to the individual level.

It is very challenging to quantify risky decisions. Even if I generate an index with the imbalance between the manpower of belligerents, due to the lack of systematic data, it is not always clear how incurred cost affect state leader's decision-making ability. Furthermore, it is very difficult to estimate if the state leader had updated information about the belligerents' number of troops and other military capacity before taking any taken decision. On the other hand, the limited number of cases as well as the insufficient number of variables does not enable us to create a comprehensive model of the causes of risky decisions. Having said that, it should be highlighted that the aim of this analysis is not to establish a formula for the understanding the all causes of war but instead to contribute to the ongoing debate.

## **4.3. Conceptual framework**

There are two common approaches to the definition of wars: interstate wars and intrastate wars. The scope of this analysis is limited itself to the explanation of interstate wars which is defined as a fight between political institutions of two or more different states. Having said that, I assume that the applicability of this analysis cannot be restricted only to interstate wars as the cost has the same impact on decision-makers during both types of wars. Given the fact that the analysis of interstate wars requires multidimensional analytical frameworks, this paper considers explaining only the decision-making part of this complex phenomenon. During an interstate war, state leaders take a number of crucial decisions, which we assume become irrational as the war continues, the cost increases and the reference point of the state leader changes. In this analysis, we explain what triggers state leaders to become risk-seeker taking irrational decisions, which in many cases bring about the total defeat of that state.

The primary decision maker in Germany during the First World War was not the Kaiser, who lost the control over the development of events as the war continued, but rather the Supreme Army Command (OHL), which brought not only the military related policy but also economic policy under its strict control (Adams, 1990). In Iraq, Saddam Hussein had successfully established his dictatorial way of control before the war and he had full authority over both military and nonmilitary related policy.

Risky decisions as a dependent variable is defined as the impracticability of military decisions due to the gap between the military capacities of the belligerents involved. The military capacity of a state is a very complex phenomenon to define. It includes a gamut of all military elements from manpower to different types of military equipment. Given the fact that each country has dissimilar weapons with diverse functional capacities, it could not be possible to generate a unique index based on which it would allow us to compare the military power of belligerents. That is the main reason why I identify risky decision as the imbalance between the manpower of respective belligerents before each battle. During the First World War, Germany took thirteen decisions five of which are considered risky. The level of risk varied from decision to decision. The data about the imbalance of military power of belligerent states is taken from the following academic sources, which presented the historical data by referencing primary sources:

- Churchill, W. (1968). *The World Crisis: 1911-1918* (Vol. Vol. 2),
- Edmonds, J., Sir,. (1922). *Military Operations: France and Belgium 1914-1918*,
- Foley, R. T. (2007). *German strategy and the path to Verdun: Erich von Falkenhayn and the development of attrition*,
- Tucker, S. (2005). *World War I: Encyclopedia*,
- Humphries, M. (2010). *Germany's Western Front: Translations from the German official history of the Great War (Vol. II, 1915)*,
- Grant, R. (2005). *Battle: A visual journey through 5,000 years if combat*.
- David, S. (2014). *100 Days to Victory: How the Great War was fought & won*.
- Razoux, P. (2015). *The Iran-Iraq War*. Cambridge, MA: Belknap Press of Harvard University Press.

I am aware of the fact that this is an oversimplified conceptualization of risky decision, since one military jet may destroy thousands of manpower by dropping bombs over them. At the end of the day, however, it is manpower that controls a jet and is involved in its maintenance. This is supported by the fact that Germany lost the war because of the dwindling number of its manpower. In this analysis, only those attacks that were initiated and carried out by Germany alone are analyzed.

Sunk cost is an independent variable of this study. I define sunk cost as a cost that had been incurred before state leaders made any well-investigated decisions. In business literature, sunk cost is a cost that cannot be restored. The cost spent on research and development (R&D) and marketing is a sunk cost as regardless of the result of R&D, the cost cannot be reinstated. In this analysis, sunk cost is the cost associated with military expenditure and manpower in the German army. If a decision to attack brings about more deaths, the gap of manpower between belligerents will increase for the next decision. In order to keep the analysis simple, the impact of civilian death is excluded from the analysis.

The First World War was fought between two alliances – the Allied Forces and the Central Powers. In some cases, Germany was involved in battles not alone but with its allies, namely the Austro-Hungarian Empire and the Ottoman Empire. In those battles, the calculation of casualties per country was difficult to establish and the data was not available. Thus, those battles are excluded from the analysis. Such complexity does not arise with the Iraq-Iran war, as that war was fought between just two countries. The data is taken from the academic papers that were mentioned above with reference to primary sources.

Sunk cost also refers to the military expenditure spent by Germany and Iraq during wars, which is regarded as indirect cost. We cannot ignore the impact of financial cost, the cost of destruction and the loss of territories on decision-makers. The cost related to military development is measured by the amount of military spending in 2000 US dollars. The data about this variable is collected from the Our World in Data database, as well as Stephen Broadberry's book, "The Economics of World War I" and the US Department of State database.

Regime type as a controlling variable refers to the authoritarianism. I assume that authoritarian leaders have to be more interested in victory as their defeat may bring about the death of a state leader. It was the case with Saddam Hussein after the US-Iraq war, Muammar Gaddafi after NATO intervention to Libya, and Hitler after the end of the Second World War.

Economic development as an independent variable refers to the growth rate of GDP of both countries. GDP rate for Germany is measured by 1990 International Geary Khamis dollar. The data on the GDP of Germany is obtained from the Angus Maddison database, who was a British economist specializing in quantitative macroeconomic history and Stephen Broadberry's book, "The Economics of World War I".

Internal instability is conceptualized as internal protests or movements organized against the central government during both wars. Since we know the time of risky decisions in both countries, we investigated if any movement of protest were organized against the central governments in those countries, and how it affects the decision-maker's behavior during both wars. The data about this variable is taken from:

- Broadberry, S. (2005). *The Economics of World War I*. Cambridge: Cambridge University Press
- Razoux, P. (2015). *The Iran-Iraq War*. Cambridge, MA: Belknap Press of Harvard University Press.

In the case of the Iran-Iraq War, international support is taken as an independent variable, which I assume that impacted Saddam's decision-making ability. International support for Iraq is conceptualized as the military and financial assistance provided by international suppliers. The variable is operationalized as the amount of financial and military resources. The data is taken from the U.S. Arms Control and Disarmament Agency, the *World Military Expenditures and Arms Transfers (Annual)*, the Stockholm International Peace Research Institute, the *SIPRI Yearbook 1992 (Annual)* and the book "The Iran-Iraq War" written by of Razoux Pierre (2015).

## CHAPTER 5. ANALYSIS

In this chapter, the impact of sunk cost on decision-makers in Germany and Iraq is analyzed. I assume that as the cost of battles increases, military leaders became irrational and made very risky decisions. This chapter also analyses the reason behind Saddam Hussein's rational decision. I assume that due to the growing military and financial assistance to Iraq coming from a number of states to Iraq reduced the cost effect of the previous losses and encouraged Saddam Hussein to make the rational decision to stop the war.

### 5.1. German leadership and the domain of direct military loss

The First World War started with the assassination of Austrian Archduke Franz Ferdinand in Sarajevo on 28 June 1914 by Gavrilo Princip, a member of the Young Bosnian Organization. Following this assassination, opposing parties declared war on one another in the following chronological order: the Austro-Hungarian Empire (28 July 1914), Germany (1<sup>st</sup> of August 1914), France and the UK (3<sup>rd</sup> and 4<sup>th</sup> of August 1914). Given that the Austro-Hungarian Empire was the first to declare war, it may be speculated that this Empire was responsible for the initiation of World War I. Nonetheless, historians (Clark, 2013; Schmidt-Supprian, 2008), maintain that it is Germany that should be held responsible for the planning and initiation of the war.

The war shaped the decision-making structure in Germany as the power gradually slipped into the military office – the OHL - as the war continued (Adams, 1990). That is why I consider the concept of risk and rationality from the perspective of the OHL, not from the Kaiser's standpoint. The July crisis that was prompted by the assassination of Archduke Ferdinand was highly welcomed by the OHL generals who perceived it as an opportunity to realize the ultimate goal of Germany, which was to provoke a conflict in Europe and tilt the balance of power in favor of Germany (Clark, 2013). The war strategy of Germany was based on the Schlieffen plan, which was designed by the German Chief of Staff Alfred von Schlieffen in 1903 on the request of Kaiser Wilhelm II (Holmes, 2014). According to the original version of the plan, Germany would need 48.5 corps to succeed in an attack on France through Belgium. This number only corresponded to the military strength of France and



Belgium, and so the military capacities of Russia and Great Britain were obviously left out of consideration (Table 5.1.1). When Helmuth von Moltke took to office as the Chief of the German General Staff, he deviated from the original plan by realizing the attack with only 34 corps at his disposal (ibid, 2014).

It is assumed that Germany might have been counting on the military strength of its Central Powers allies, including Austria-Hungary, Italy and the Ottoman Empire, but the total military troops of Central Powers could not tilt the balance towards Germany as well (Table 5.1.1). The comparison of resources of warring parties produces the same results with Germany lagging behind its enemies (Table 5.1.1).

*Table 5.1. 1 Table 1 Military capacity of Iraq and Iran before the war*

Forces	Population	Territory (mln sq.km.)	GDP* (\$billion)	Troops	GDP p.c.
Russian	173.2	21.7	257.7	12,000,000	1,488
France	39.8	0.5	138.7	8,410,000	3,485
UK	46	0.3	226.4	8,904,467	4,921
Germany	67	0.5	244.3	11,000,000	3,648
Austria-H	50.6	0.6	100.5	7,800,000	1,986
Ottoman	23	1.8	25.3	2,850,000	1,100

\*Currency units are international dollars at 1990 prices.

Source: Broadberry, S. (2005).

Table 5.1.1 offers a comparison between each alliance regarding different dimensions such as population, territory, number of troops, GDP and GDP per capita. In each of these dimensions, Germany was clearly creeping behind the great powers in 1913. According to the Table 5.1.1, Germany's GDP could not reach to that of the Russian Empire and its GDP per capita did not promise any hope for Germany superiority. Based on the Table 5.1.1, we can assume that the decision was irrational, indicating the possibility of risk seeking activities. However, the absence of direct military cost prevents any attempts to specify the conditions under which the decision was made. This chapter further investigates the behavior of the German leadership in the face of

direct military cost, which is defined as the number of deaths of military personnel and indirect cost, which is defined as the cost of military expenditure, economic stagnation and social unrest.

The Spring Offensive launched on 21<sup>st</sup> of March 1918 by Germany against the Allied Forces offers a unique platform to evaluate the behavior of German military decision-makers in the domain of loss. After consecutive defeats of German armies on the Western Fronts and after the signing of the Brest-Litovsk Treaty with Russia<sup>1</sup>, Germany gathered its entire military units on the Western Front and launched a decisive attack on France and Great Britain, as a result of which Germany was brought to her knees by Allied Forces (Schmidt-Supprian, 2008). The Spring Offensive consists of the following operations:

1. MICHAEL: 15 March – 5 April 1918
2. GEORGETTE: 9 April – 29 April 1918
3. BLÜCHER: 27 May – 6 June 1918
4. GNEISENAU: 9-12 June 1918
5. MARNESCHUTZ REIMS: 15 July - 6 August 1918

For Hull (2005), the OHL's decision to launch the Spring Offensive is considered as a "decision for self-destruction" as Germany miscalculated the possible outcome of this attack. As a result of the attack, Germany lost 900,000 soldiers and its armies were seriously exhausted. Germany lost most of its well-trained personnel and thus the military commanders had to rely on the next annual class of eighteen-years-old soldiers. Germany had to retreat from occupied territories. The offensive led to the collapse of the Hindenburg Line and accelerated the capitulation of the German Empire (Edmonds, 1994).

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<sup>1</sup> This treaty was signed between Russia and the Central Powers and signalled the end of Russian involvement in the war, thus ending the fighting on the Eastern Front and allowing Germany to transfer all its resources to the battle on the Western Front

Figure 5.1- 1 Number of troops of Germany and Allied Forces and number of deaths of German soldiers

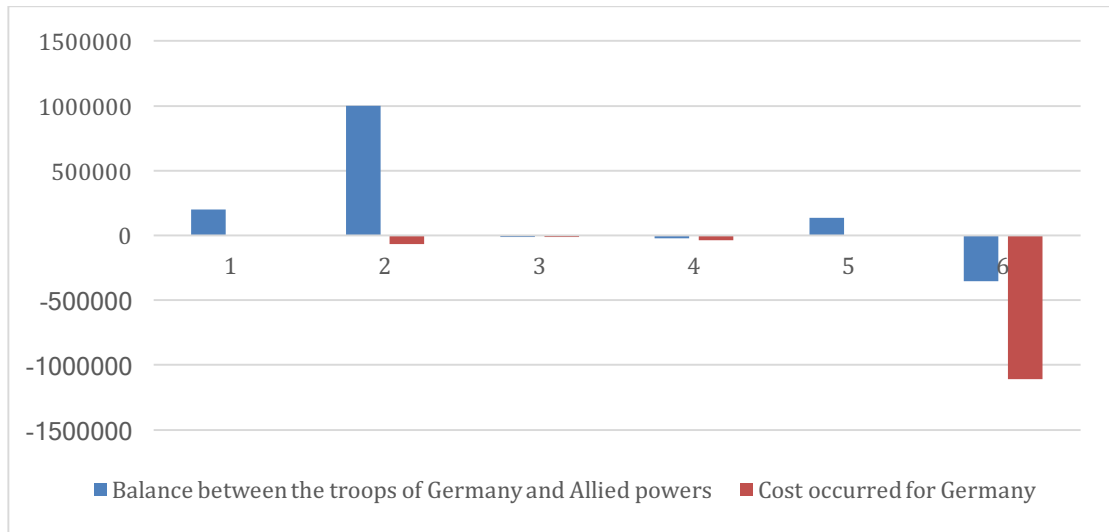


Figure 5.1-1 shows the military imbalance between Germany and the Allied Forces at the eve of the Spring Offensive. According to the Figure 5.1.1, the Allied Forces outmanned Germany by 355,000 military personnel, which demonstrates the level of risk from Germany’s perspective. The level of risk of the decision can be noticed in Ludendorff’s ultimate strategic objective, which was to secure unconditional military victory over the Great Britain and France, rather than constructing a relatively strong position from which he could negotiate for a more favorable post-war deal for Germany (Zabecki, 2006). As is noted by Zabecki (2006:28), “The shortened lines gave the Germans a very strong position from which they could have stood on the defensive while attempting to negotiate a peace in the west with the war-weary French and British. Tactically and operationally that might have made perfect sense, but Ludendorff’s strategic blindness and his belief in a military victory through a single bold stroke made it impossible for him to accept such an outcome”.

We assume that the Germans’ risk propensity increased as the cost of military activities became unbearable. Before the attack, the direct military cost of previous battles in terms of human death was translated into the panic and discouragement that widely spread among military units (Schmidt-Supprian, 2008; 52). The failures in battlefields rendered soldiers to question the overall strategy and to demonstrate disobedience to military commanders. As it was well depicted by Schmidt-Supprian et al (2008: 53), who referenced German sources: “The German soldiers’ widespread

hope that the war would soon end turned to disillusionment. Senior commanders complained that ‘the troops no longer attack[ed]. This situation developed because attacks were inadequately prepared’. The military problems that Germany was facing framed Ludendorff by setting a new reference point for him based on which Ludendorff became a risk seeker, and so his decision on the Spring Offensive failed to consider the military challenges of German Army. The main reason behind this failure was the cost effect of previous military operations. According to Zabecki (2006), Ludendorff had two options for the Spring Offensive: to launch one decisive attack or a sequence of several attacks. In the face of rapidly draining military resources, Ludendorff rejected the second option and adhered to the first one, even though the failure of the first attack led Germany to return to sequential operations by default and to keep realizing each of these operations even though the probability of success decreased and risk increased.

As it was mentioned earlier, the Spring Offensive contains a sequence of five battles. Given the fact that each of these battles failed to meet its objective, the failure in each battle dragged Ludendorff deep into the domain of loss and set a new reference point. Zabecki’s work (2006: 322) notes that the impact of failure on Ludendorff was clearly visible, making him aggressive and less rational: “GEORGETTE was a response to the failure of MICHAEL, not a well-planned and coordinated follow-up. HAGEN was a response to the combined failure of MICHAEL and GEORGETTE. BLÜCHER was designed to set the conditions for HAGEN. It not only failed to do that, it caused other major problems for the Germans. Despite what Ludendorff and others said in their post-war writings, GNEISENAU and MARNESCHUTZ–REIMS had far more to do with relieving problems with the lines of communications into the BLÜCHER salient than they had to do with setting up the conditions for HAGEN. Even after MARNESCHUTZ–REIMS had failed to take the rail center at Reims or to draw off significant Allied reserves from the north, Ludendorff still intended to go ahead with HAGEN within a few weeks’ time”.

## 5.2. Indirect cost in the domain of gain

The war shaped the political landscape in Germany as the control of state policy shifted from civilians to the war department. The transformation of the decision-making authority to military generals was not welcomed by the members of Central Powers. The first reaction came from the Austrian Chief of Staff, General Conrad von Hotzendorf who asked the following rhetorical question when he was reading the telegram sent by his Prussian Chief of Staff on 30 July 1914: “Who rules: Moltke or Bethman” (Adams, 1990). According to the German constitution at the time, the Kaiser enjoyed having exceptional control over army and military policy, bureaucracy and the realization of foreign policy (Adams, 1990). According to Röhl & Nicolaus (1982), as Wilhelm II failed to establish his own personal rule and proved to be unable to use his executive power to achieve an acceptable balance between civilian and military branches of government, he was soon under the shadow of military generals who perceived him as a weak and remote figure in the decision-making process. Thus, the OHL exploited the Kaiser’s power and authority in order to further their own military purposes Admiral Tirpitz even went further by saying that the concerns and problems of mere civilians should be disregarded and the primary focus should shift onto the military related problems in Germany (Tirpitz, 1924). The full control of the decision-making process in Germany put the OHL in a more favorable position and offered a new set of reference points. These reference points formed the domain of gain and urged the German leadership to be risk-averse in their decisions on internal matters.

The indirect cost can be conceptualized as military expenditure, a higher tax rate, and an increasing number of war subscriptions, which all led to well organized strikes. Thus, strikes can be taken as the product of the combination of the abovementioned costs. The military expenditure in Germany started to increase even before the First World War, which is presented by many historians as a proof of the fact that the war was planned and initiated by Germany (Bogart, 1920). Given the fact that the German military leadership considered a war to be in the pipeline, it is assumed that the long-term plan for war should have forced German leaders to consider the possible emergency situation and take necessary precaution both before and during the war.

*Figure 5.2- 1 German war expenditure as share of GNP, per cent*

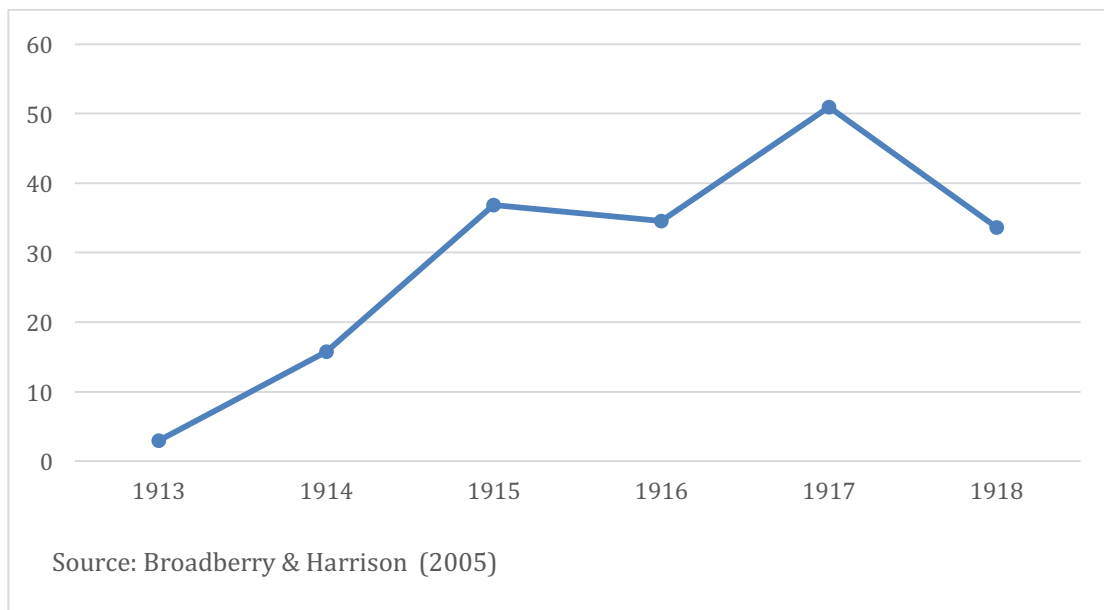


Figure 5.2-1 shows the dramatic increase of military spending in Germany from 1913 to 1918 as the percentage of GNP. It is striking to notice how the risky decisions of German leaders coincided with the period of highest military expenditure. According to Figure 5.2-1, the military expenditure slightly dropped from 1915 to 1916 and this was the period when the battles between the two warring parties halted for a while. This period is called a stalemate period during the First World War (Chickering and Forster, 2000).

The direct impact of military expenditure on German decision-makers can be understood by the well-developed German credit system. According to Bogart (1920), to meet the need of the government in financing its military campaigns, “loan bureaus” were created as temporary financial institutions. The main role of these institutions was to collect loans from German people in the form of a subscription to war bonds (Figure 5.2-2). To increase the subscription for loans, the victory in the battlefields became critically important.

Figure 5.2- 2 Amount of loan used to fund German military expenditure (in \$ mln)

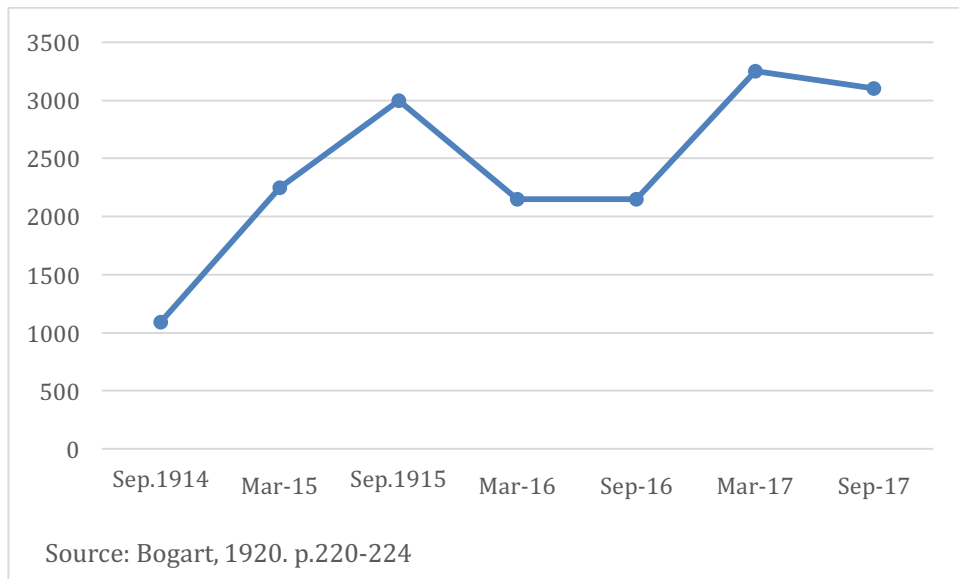


Figure 5.2-2 shows the trend in war loans in Germany between 1914 and 1917. The amount of loans decreased between 1915 and 1916 when German armies were defeated four times by Allied Forces. The fluctuation represents the Germans' changing perception of the war and belief that Germany would be victorious. The structure of the loan system proves the fact that the German military leadership was very sensitive to any possible changes inside the country that may undermine the military operations on the Western Fronts. Inside the country, the leadership was very rational and tried hard to minimize any risk. The German leaders believed that the loan would be paid back by indemnity, which was to be collected from defeated parties. As was mentioned by Karl Helfferich, the German Minister of Finance: "... at the cost of the war would ultimately (evened) out by indemnities collected from the defeated foes. We have a firm hope that after the conclusion of peace, we shall present to our opponents a bill for the expenses of the war forced upon us" (Bogart, 1920:202). Thus, to keep the loan mechanism running, victory on fronts became the only way to convince the people to invest their money in war. In other words, as the internal cost of war increased in terms of loans and military expenditures, generals found themselves under tremendous pressure and thus internally risk-averse military generals became externally risk-seeking generals.

Figure 5.2- 3 Number of subscribers to the German war loan

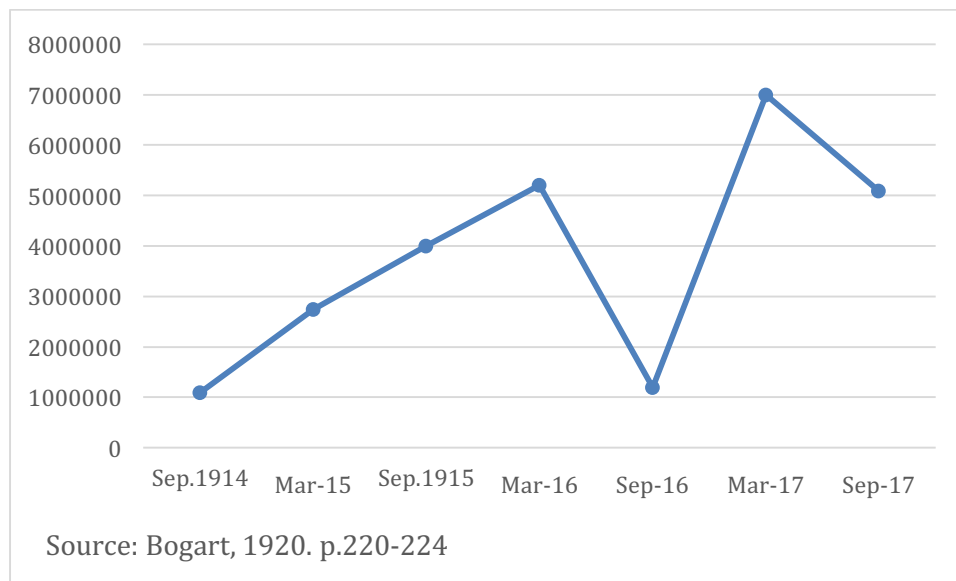


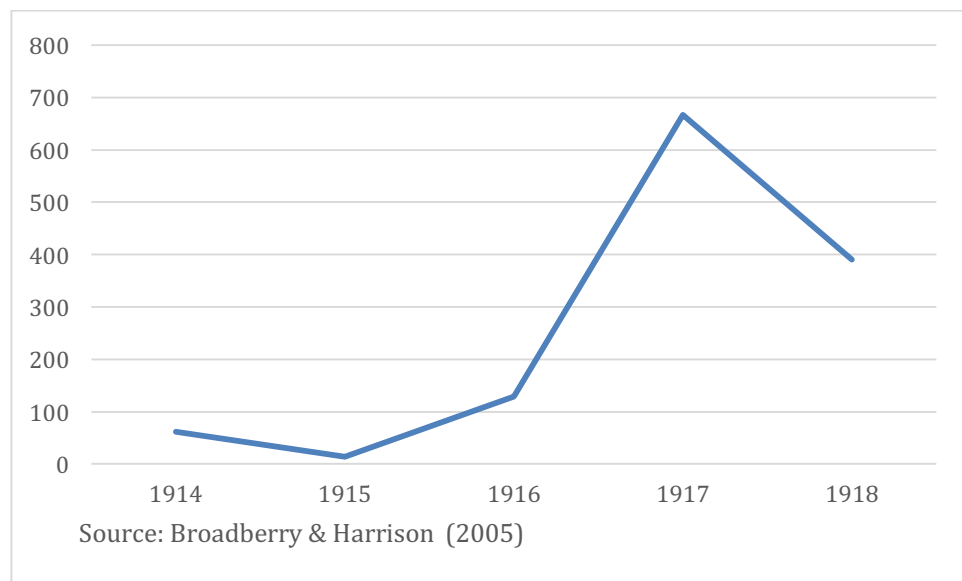
Figure 5.2-3 demonstrates the number of subscription to the war loans in Germany. The dramatic decline of subscribers reflects the lack of belief among Germans in a German victory in 1916. To restore the public confidence, the Spring Offensive became inevitable. In the domain of loss, it was very risky decisions that were taken, whereas in the area of gain, this decision aimed at preserving the status quo.

As the cost of military campaigns increased with the declining number of loan subscriptions in 1916, the OHL resorted to drastic measures against German workers. Military commanders first targeted those industries that did not produce military goods and services by ordering their closure (Kusterer, 1995). The military cabinet took the actions even further by ordering the extra exploitation of workers at any cost. All these measures were reflected in the “Hindenburg Program”, which was designed to prosecute profiteers, war critics, pessimists, and grumblers who may harm the production process (Ibid, 1995). According to the program, childless women were treated as victims who cost the state money and they were forced to work in poor working conditions (Adams, 1990: 46). All these measures taken by the OHL inside Germany proved the assumption of prospect theory according to which actors become risk-averse when they perform in the area of gain. It seems the German leadership took all necessary actions to protect its internal status while on the Western Fronts the decision-makers made huge mistakes.



Its fragile economy led to further problems in Germany and radically challenged the authority of the OHL. Given the importance of capital as an economic resource during a war period, one which allowed the German government to feed its soldiers, ensure the routine operation of economy and organize the allocation of resources to different fronts - its depletion had to have a dramatic effect on German decision-makers, making them more sensitive to any possible change in the political landscape of the country. The increasing domestic cost of the war led to well organized social resistance in Germany (Figure 5.2-4), which was perceived as a challenge to the authority of the OHL.

*Figure 5.2- 4 Strikes in Germany*



As Figure 5.2-4 demonstrates, the number of workers' strikes in Germany increases as the level of military expenditure rises. It is also possible to assume that the Spring Offensive was designed to create a "rally from the flag effect", which would unite the stratified German society. If the assumption is proved to be correct, it fits well to the pattern of behavior proposed by prospect theory in the domain of gain. In other words, because of being risk averse, German decision-makers could resort to military operations in order to secure the present status quo inside the country.

Projecting the growing dissatisfaction among workers, the OHL immediately took precautionary measures to prevent any undesired developments in society by declaring a state of siege on 31 July 1914 (Deist, 1970). The siege was the legal shift of civilian administration offices to the hands of the local army commanders. The law

provided a legal ground for the termination of a number of important constitutionally guaranteed rights such as personal freedom, freedom from unlawful search and seizure, the prohibition of summary courts, the freedoms of speech, association and assembly and restrictions on the use of armed force to put down civilian protests (Adams, 1990).

Furthermore, the OHL proposed a new law on “the patriotic auxiliary service” (Hilfsdienstgesetz), which was adapted and entered into force in December 1916. According to the new law, all men between the age of 16 and 60 had to be involved in war service in Germany and be subjected to military discipline (Hoffmann, 1918). Basically, due to the strong hands of military commanders in civil politics, Germany was dragged into the period of “war socialism” where the working class lost not only their constitutional liberties vis-à-vis the central government but also their right to protest against their industrial bosses (Adams, 1990). However, economic stagnation challenged the legitimacy of the OHL and despite the restrictions imposed by military commanders, ordinary citizens showed growing interest in strikes. To compensate for its undermined internal authority, the OHL demonstrated a voracious appetite for victory in a battlefield, which led the German military decision-makers to become risk seekers in the development of war strategy.

Mistrust spread among German people and thus German decision-makers became even more sensitive to any war critics and displayed intolerance to any politicians who questioned that war. The hostile reaction of the OHL to the controversial speech delivered by Matthias Erzberger, a rapporteur to the Reichstag's Military Affairs Committee and the "right-hand man" of the Chancellor Theobald von Bethmann-Hollweg, on 6 July 1916 in which he proposed to start peace negotiations with the Allied Forces is a classic example of the alarmed state of the OHL. According to Epstein (1959), the speech had a paralyzing effect on the attitude of people in Germany, as the Germans perceived it as an official position of the OHL. Immediately after the speech, War Minister, von Stein, urged Hindenburg and Ludendorff to come to Berlin to discuss the military repercussions of the speech with the Kaiser. Given the possible damage the speech might bring, the OHL considered eliminating the Chancellor (Adams, 1990). As a result of intensive propaganda

launched against Chancellor Bethmann-Hollweg, the Kaiser dismissed him in July 1917.

As we can see, in direct contradiction to the OHL's position in the battlefields, military generals enjoyed full control of the state apparatus of the German Empire, which took the decision-makers to the domain of gain. From a different reference point, the German leadership became more risk-averse as they did their best to preserve the status quo in Germany, which provided Ludendorff with unquestionable authority. The risk-averse effect can be detected in the relations between army generals and civilian politicians. As the decision-making process in Germany slipped over to the OHL, army generals started to neutralize those civilians and even high ranked military commanders who doubted a German victory and undermined the ongoing war strategies. In other words, the generals became very sensitive to any acts designed to undermine the authority of military generals. Even the Kaiser became a target of the Military Cabinet at one point. It should be mentioned that the Kaiser gave enough reasons to the OHL to disregard him as a head of state (Hull, 1982: 267). As is described by Golitz (1959:50), "the prestige of the monarchy declined to such an extent that by 1917 the Military Cabinet reported that they were receiving numerous requests that the Kaiser should be asked to abdicate".

From higher ranked military generals, Moltke as the Chief of General of the German Army, became a victim of risk-averse generals following his criticism on the war plan. According to Moltke, continuation of the war was an absurd decision and he ordered the retreat of Germany's 2<sup>nd</sup> and 3<sup>rd</sup> Armies after the battle of Morne on 11 September 1914 (Mombauer, 2006: 755). Moltke, for the first time, declared his aspiration for a peace and openly shared his skeptic views on the future of Germany. Moltke, according to Fischer (1971), understood well the risk that Germany was facing in the face of the lagging military personnel. As Moltke described it (Mombauer, 2006: 751): "We don't want to delude ourselves. We have had successes, but we have not yet won. Victory means the destruction of the opponent's strength to resist. Where million-strong armies confront each other, the victor has prisoners. Where are our prisoners? [. . .] Also, the relatively low number of captured guns demonstrates to me that the French are conducting a planned and orderly retreat".

As result of his criticism, Moltke was immediately replaced by the OHL with General Von Falkenhayn. It is striking to see that Falkenhayn followed the same path as Moltke when he openly voiced his doubt over the victory of Germany and suggested that Germany should file for a peace after receiving the news that Romania and Italy had declared war on the Central Powers (Adams, 1990). It seems Falkenhayn forgot the fate of his predecessor. Lyncker and Plessen, Wilhelm II's aide-de-camp rushed to headquarters at Pless to remove Falkenhayn from his post. They informed the Kaiser that Falkenhayn lost the confidence of the Military Cabinet and that he should be dismissed right away. Wilhelm II, without any sense of reality, accepted the resignation of Falkenhayn and Hindenburg became the new Chief of the German General Staff on 29 August 1916 (Ibid, 1990).

Falkenhayn's so called "betrayal" prompted the OHL to pay more attention to the outlook and perception of a new Chief of the General Staff. Being familiar with Hindenburg's positive attitude towards the military plan, a massive propaganda campaign was launched by the OHL as a result of which Hindenburg became a new shining star in the political realm of Germany. He openly vested his support in the Germany's fantastic war aims and pledged that he would restore national unity, which was weakened since 1914. He even went further by saying that military necessity should trump civilian's concerns, which made him an ideal candidate for the post of the Chief General Staff of German Army (Janssen, 1967).

Once the position of the General Chief of Staff of the German Army was secured, the OHL targeted the post of chancellor, which was held by Bethmann Hollweg. The OHL's control of the German press would make it possible to replace the chancellor with whomever Military Cabinet wanted. For that purpose, the OHL took direct control over censorship in Germany by creating a War Press office (Kriegspresseamt), which was blatantly used by Hindenburg to realize his own political aims. The OHL put Bethmann Hollweg under constant and intolerable pressure by launching a massive press campaign against him. The harmonious relations between Bethmann Hollweg and Ludendorff were damaged as a result of the former's disagreement on the unrestricted submarine warfare that the German military was pursuing in March 1917 (Adams, 1990s). All complaints from civilians about disgraceful usage of propaganda and censorship by the Military Cabinet were dismissed by the OHL on

the bases that political and civilian censorship could be imposed when the interest of military command was at stake and to be protected by all means (Ibid, 1990s).

The list of targets was not limited to civilian political figures who caused troubles for the OHL. The Prussian War Minister General Hermann Stein became a victim of the system, as he was regarded as a disfavored and dishonest military officer by the OHL. Given this fact, the Military Cabinet issued a request for his dismissal to the Kaiser (New York Times, 1923). In their request to the Kaiser, the OHL described him as an “unimaginative ultra-conservative who was temperamentally incapable of standing up to the OHL” (Adams, 1990: 47). His resignation was the result of inter-party conflicts that involved General Stein and put him against the Military Cabinet.

The analysis of cost effect on military leaders revealed two main trends in Germany. As the cost of war increased, the Military Cabinet became very irrational in a sense that they did not take into consideration the military imbalance between the armies of Allied Forces and that of Germany. The Germans went down to a number of consecutive defeats on the Western Front that cost Germany more than a million soldiers after which the military decision-makers mounted aggressive and groundless offensive attacks on Allied Forces on the Western Fronts. The Spring Offensive seems to be one of these recklessly formulated strategies designed to punch Allied Forces with surprise attacks. Inside Germany, the domain of gain changed the reference point and urged military commanders to be risk-averse. In other words, it can be estimated that once the OHL was faced with challenges imposed by politicians and other military commanders, they did not want to change the status quo in public administration and instead the OHL decided to remove those political challengers. It could be one of the reasons why the OHL targeted those individuals who either criticized the plan or challenged the status quo in Germany.

### **5.3. Why Saddam Hussein changed the course of actions?**

The situation between Iraq and Iran deteriorated as the Shah regime was overthrown and the Islamic regime took the power in 1979. Saddam Hussein perceived the new regime in Iran as a threat to its authority and because of this misperception Saddam

Hussein decided to launch a military attack (Murray, 2014). It is assumed that Iran played a crucial role in the construction of hostile attitude in Bagdad by organizing demonstrations in front of the Iraqi embassy in Tehran and by closing the Iraqi consulates in Iranian cities, which was designed to create a “rally around the flag effect” in Iran (Ibid, 2014). Despite the unfriendly rhetoric used by high-ranking Iranian politicians about Saddam’s Baath regime, Iran did not have the capacity to attack Iraq as the political structure in Iran was fractured and its military forces were in disarray (Karsh, 1989). This chaotic situation in Iran offered a window of opportunity to Saddam Hussein who wanted to realize his two aims: (i) to neutralize the perceived threat from Islamic regime, (ii) to become a regional power by weakening Iran. Saddam also had territorial claims against Iran, declaring his intention to gain control over the Shatt al Arab River (Donovan, 2010).

It should be mentioned that these were only intentions, and were formulated without any rational calculation of cost and effect. At a later stage, we can observe how Saddam Hussein tried hard to change the course of actions by offering a peace to Iran. Before that, we should go through the decision-making process in Bagdad and see how the decision to go to war was born. According to Razoux (2015:6), Saddam Hussein’s justification for war was very simple: “Invective and provocation had gone too far to be forgiven”. Given the importance of this war-related decision and its implication not only for Saddam Hussein but also for the entire Iraqi population, this irrational justification for going to war proved the fact that Saddam even did not even consider the military balance between the two states. The last-minute military decision with Iran once again illustrated how Saddam recklessly decided on war before making any risk assessment. The preparation started with a meeting in mid-June between Saddam Hussein and his generals who were responsible for military planning and operations. During the meeting, the Iraqi dictator announced his irrevocable plan and gave the meeting’s participants of the meeting only one month to prepare (Ibid, 2015). Everyone in that room was skeptical about the plan, however no one dared to confront with Saddam. After two months of assessment, Ali Hassan Al-Majid, Saddam’s cousin and the head of the Iraqi secret service, informed Saddam about the possible risks, which were dismissed by Saddam (Woods, 2011). According to Razoux (2015:10), the list of problems on the part of the Iraqi military forces of Iraq included the lack of experience of Iraqi troops on foreign soil, the lack of

coordination of resources and logistics, the inferiority of its military equipment compared to that of Iran's, and weak motivation among Iraqi soldiers. During the meeting between Saddam Hussein and his cabinet members, Ali Hassan Al-Majid's warning of possible risks was not welcomed by Saddam Hussein. Al-Majid tried to draw Saddam's attention to the gap between the military forces of Iran and Iraq and also to the weaknesses of Iraqi forces. After listening to his arguments, Saddam Hussein refuted him by saying: Ali, why do you always bring me the bad news, never the good news? (Razoux (2015).

The situation intensified as Saddam Hussein denounced the Algiers Accord on 17 September 1980. The Algiers Accord was signed between Iran and Iraq on 18-20 May 1975 and was aimed at setting a border dispute between Iran and Iraq and setting a new regime on the Shatt Al-Arab River, which would remain under the control of Iran. It seems the agreement was not welcomed by Saddam Hussein for whom the treaty produced humiliating results (Rajaei, 1993). On September 22, 1980 Iraq attacked Iran and the eight-year long, bloody and costly war started. The first two years of the war followed the pattern of the First World War as in both wars the attacking state occupied some part of the opposing belligerent's territory and was then faced with resistance and counterattack. The first two years of the war put tremendous cost on Iraq by destroying its economy and military capability (Table 5.4.1)

*Table 5.3. 1 Iraqi loss by 1982*

	Lost	% of total
Military personnel	65,000	26
Artillery	270	20
Aircraft	118	40
Tanks	1050	60
Occupied territory		90%
Source: Razoux, 2015		

Table 5.3.1 shows the extent of Iraq's loss of Iraq during the first two years of the war. Saddam lost 9/10 of the territory he had conquered in 1980. In contrast to German military leadership during World War I, Saddam Hussein decided to stop the war after the second year of battles. According to Razoux (2015), Saddam was afraid

of the fact that his Baath Party and the Iraqi people would hold him accountable for unwise decisions. Carrying the sunk cost in mind, Saddam Hussein offered peace negotiations to Iran in order to settle the problems, which did not happen in Germany.

The cost of the war spilled over to the economy as Iranian jets targeted Iraq's oil pipeline and oil production facilities, including oil terminals, pumping stations, and refineries. According to Alnasrawi (1995:80), the first casualties in Iraq had a tremendous effect on its oil production and thus its oil production declined from 3.4 mbd (million barrel/day) to 0.140 mbd. The same scale of decline was detected in its oil revenues as Iraqi oil revenues declined from \$26,6 billion in 1980 to \$10.4 billion in 1981. In light of this decline, the military expenditure of Iraq increased (Figure 5.3-1).

*Figure 5.3- 1 The military expenditure of Iraq (mln \$)*

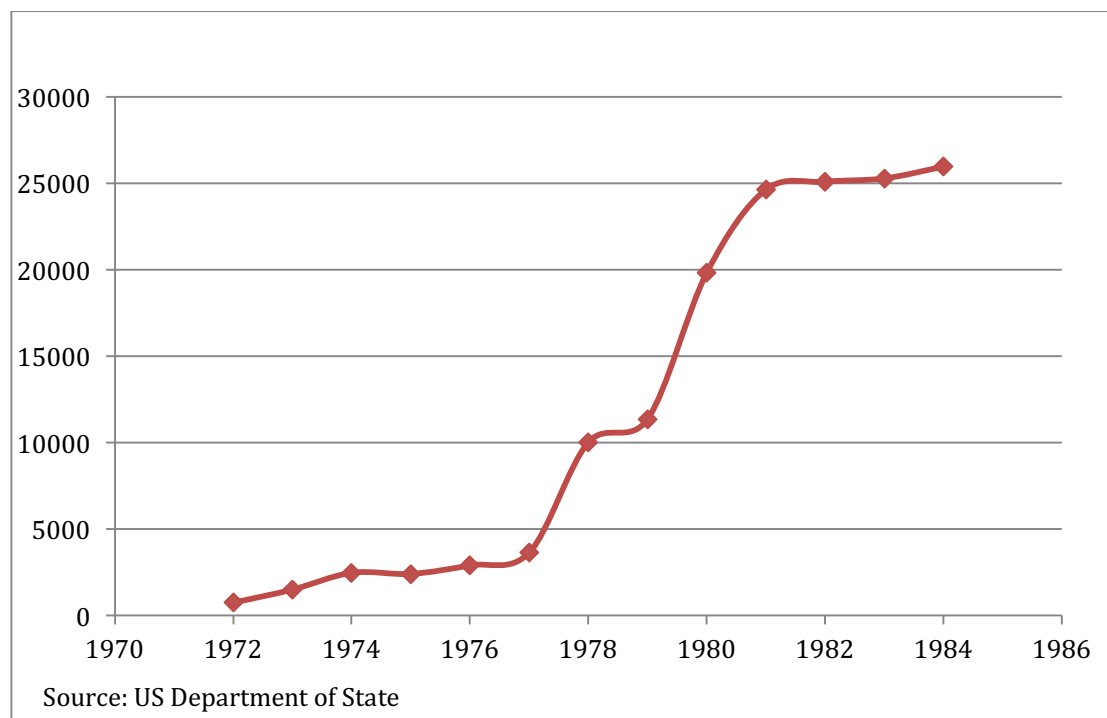


Figure 5.3-1 demonstrates the significance increase of the military spending of Iraq between 1977 and 1982, even though its oil revenues were in decline. This decline did not lead the Iraqi government to increase the tax rate to cover the growing military costs. Saddam Hussein took the decision to offer negotiation to Iran when the military expenditure reached its peak. According to prospect theory, Saddam Hussein's decision on peace negotiations is incongruent with its assumptions; as the cost of the



military activities rose, Saddam Hussein was, according to the theory, supposed to take very risky decisions and to continue the war with Iran.

Despite the fact that Iraq and Germany shared a number of commonalities such as being an authoritarian regime, being a war initiator, a rapid increase in military expenditure, and an alarming death rate of military personnel, Saddam Hussein took entirely different path and did his best to stop the war. To convince the Iranian regime of the importance of a peaceful settlement of the war by launching a set of negotiations, he mounted a series of new attack on Iran (Razoux, 2015). The main question to be answered is why Saddam Hussein's actions deviated from the assumptions of the prospect theory. Or, what was different that made Saddam not fall into the trap of sunk cost and break the pattern of behavior proposed by the domain of loss? To answer these questions, it is important to assess why the impact of sunk costs was limited to Saddam Hussein. The next chapter is dedicated to answering these questions.

#### **5.4. Different internal financial policy**

As it was mentioned in Chapter 5.2, to cover its military campaign Germany set a credit system in motion aimed at the accumulation financial resources from German citizens. In other words, the Germans became a shareholder in the most costly and risky project ever. By making the ordinary citizens part of the war strategy, German military commanders found themselves under tremendous pressure and so victories in the battlefield became the only option to secure the public's trust. In Iraq, we did not see such a mechanism. Saddam Hussein first counted on oil revenues, which had climbed before the war (Table 5.4 - 1).

*Table 5.4- 1 Military Expenditures, Oil Revenue, and GDP, 1970-1989 (\$ Billions)*

Year	Military expenditures	Oil Revenue	Ratio of Milex to Oil Revenue	GDP	Ratio of Milex to GDP
1970	0.7	0.3	87.5	3.6	19.4
1975	3.1	8.2	37.8	13.8	22.5
1980	19.8	26.4	75.0	53.6	36.9
1981	24.6	10.4	236.5	37.3	66.0
1982	25.1	10.1	248.5	43.7	57.4
1983	25.3	7.8	324.4	42.5	59.5
1984	25.9	9.4	275.5	47.6	54.4
1985	19	10.7	177.6	49.5	38.4
1986	11.6	6.9	168.1	47.9	24.2
1987	14	11.4	122.8	57.9	24.2
1988	12.9	11	117.3	55.9	23.1
1989	12.9	14.5	89.0	64.4	20.0

*Source: U.S. Arms Control and Disarmament Agency, World Military Expenditure and Arms Transfers (Annual); Stockholm International Peace Research Institute SIPRI Yearbook 1992 (Annual); United Nations, National Accounts Statistics: Analysis of Main Aggregates, 1988-1989 (New York, 19)*

According to the Table 5.4-1, the military expenditure ratio to oil revenue ratio increased from 75 in 1980 to 248.5 in 1982 whereas its GDP shrunk from 53.6 in 1980 to 43.7 in 1982. By 1982, Saddam Hussein spent 248 percent of Iraqi's oil revenues, which amounted to 25.1 billion, to cover the military losses. Moreover, as the war drained the pool of oil revenue and accumulated foreign reserves, Saddam Hussein was forced to consider domestic financial sources. He immediately knocked on the door of private banks, most of which were under state monopoly, to finance the military operations. Saddam Hussein refused to increase the tax rate and instead adhered to the plan of printing money for the military operations (Ali & Ganabi, 1992). In other words, instead of adding fuel to the fire by increasing the tax rate and creating a public loan subscription, as it was the case in Germany, Saddam took the risk of higher inflation by printing the additional amounts of money.

This was one of the main differences between policies adopted by German and Iraqi political leaders during the wars. Thus, Saddam Hussein did not find himself forced to continue the military operations to guarantee the financial support of Iraqis. Based on the assumption of prospect theory, we can argue that private banks mitigated the cost effect of irrational decisions and left some room for political maneuvering, which was professionally utilized by Saddam Hussein (Table 5.4.2).

*Table 5.4- 2 Investment programs and Annual Plans, 1976-1983 (Iraqi Dinar, millions)*

Year	Agriculture	Industry	Transport and communication	Building and services	Other
1976	296	709	243	213	61
1977	390	966	352	288	382
1978	500	800	438	381	681
1979	500	842	436	462	1043
1980	505	1173	850	1114	1598
1981	681	1246	1284	1899	1632
1982	768	1316	1387	1653	2576
1983	484	811	809	1105	2142

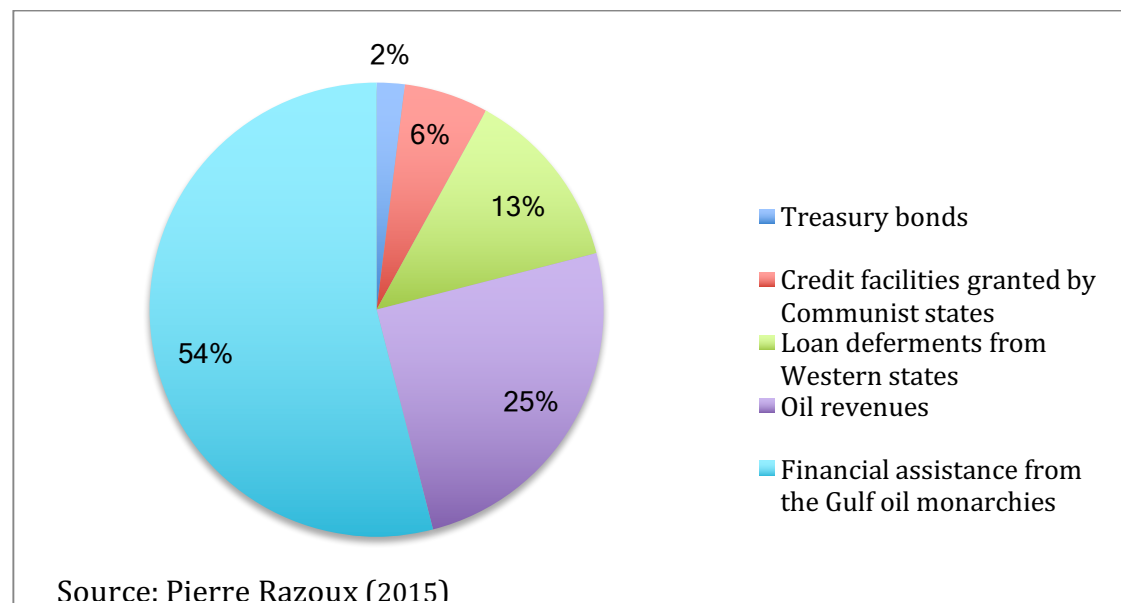
*Source: Government of Iraq, Annual Abstract of Statistics*

As the Table 5.4-2 shows, Saddam Hussein did not postpone any government programs across different industries. As Iraq was dragged on the war with Iran, the amount of government support for agriculture increased from 505 million Iraqi dinars in 1980 to 768 million Iraqi dinars in 1982. The same holds true for industry, transport and communication and construction, each of which received sufficient funding from the state budget. It seems Saddam Hussein could ease the tensions in Iraq by increasing the number of government-funded programs, as a result of which people could earn money and afford their monthly expenses. It should be noted, however, that due to a lack of financial resources, Saddam Hussein adapted austerity measures and transformed the economy of Iraq into a war economy in 1982 when the inflation progressed into the double digits (Alnasrawi, 1995).

## 5.5. External support

Before the onset of the Iran-Iraq war, Saddam Hussein counted on military and financial assistance of those countries, which did not welcome the Iranian revolution or its output. The financial and military support from Western and Arab countries prevented Saddam from becoming exposed to the negative effect of military loss and transferred the domain of loss into the domain of gain. Due to this new reference point, Saddam Hussein could make rational decisions with regard to offering a peace to Iran in order to preserve the status quo. According to Alnasrawi (1995:86), the financial assistance to Iraq was offered in several ways: (i) extension of economic assistance, (ii) agreement on production and selling some 0.3 MBD of oil from their own oilfields for Iraq, (iii) improving the creditworthiness of Iraq in the international financial market (Figure 5.5.1).

*Figure 5.5- 1 Sources of fund of Iraqi military operations*



According to Figure 5.5-1, Gulf oil monarchies were the biggest contributors to Iraqi financial assistance with 54% of the share, whereas Iraqi Treasury bonds counted only for 2% share. Oil revenues came second with 25% of the share, among other sources such as Western states and Communist countries. The total amount of loans and assistance was \$150 billion \$80 billions of which were granted by Gulf countries and \$38 billions of which came from oil revenues. Moreover, the total amount of credit received from Western states was \$20 billion. Communist countries committed \$9 billion while Treasury bonds accounted for \$3 billion. These financial sources served as a new set of reference points from which Saddam Hussein evaluated the process.

Halting the assistance to Iraq would have changed the reference point and probably would have taken Saddam Hussein to the area of loss where he would have become a risk seeker. When Saudi Arabia decided to stabilize the oil market by boosting its production, it triggered a negative reaction in Iraq as the Iraqi oil minister accused the Saudis of prolonging the war (MEES, 1981). It seems that Saddam Hussein was well aware of the impact of depleted resources on his ability to think rationally. Beside the financial assistance, the Iraqi government enjoyed immediate military assistance from a number of countries including USSR, France, China, Brazil, United Kingdom, Germany, Spain, South Africa and etc.

*Table 5.5. 1 Military imports of Iraq, 1970-1989 (\$ Billions)*

Year	Arms import	Ratio to total import
1970	0.1	20
1975	0.5	11.9
1980	2.4	17.4
1981	4.2	20.5
1982	7.1	33
1983	7	57.3
1984	9.2	82.9
1985	4.7	44.8
1986	5.7	65.5
1987	5.5	74.3
1988	4.6	45
1989	4.9	35.5

Source: U.S. Arms Control and Disarmament Agency, World Military Expenditures and Arms Transfers (Annual); Stockholm International Peace Research Institute, SIPRI Yearbook 1992 (Annual);

The data in Table 5.5.1 shows the total imports of military goods to Iraq between 1980 and 1988 that amounted to \$50.4 billion. It is worth mentioning that different sources produce different numbers on Iraq's military imports. According to the reports of the Congress of the United States on Limiting Conventional Arms Exports to the Middle East (1992), the average annual imports of military goods and services of Iraq between 1979 and 1989 reached to \$6.8 billion. According to the official statement of the Iraqi government, the total amount of military equipment that was

purchased during the war amounted to \$102 billion (MEES, 1990: p.1-9). Iraq enjoyed \$7.1 billion worth of arm imports in 1982 from a number of suppliers (Chart 5.12) when Saddam offered negotiation to Iran, which was rejected by the Iranian regime. In 1982 and 1983, the ratio of Iraq's arms imports of Iraq to its total imports reached 33% and 57.3% respectively. It has to be mentioned that Iran also received considerable support from international suppliers during the war. It is striking to see how the same countries supply almost equal quantity and type of weapons to Iran.

Figure 5.5- 2 Iraq's main suppliers (in 1982)

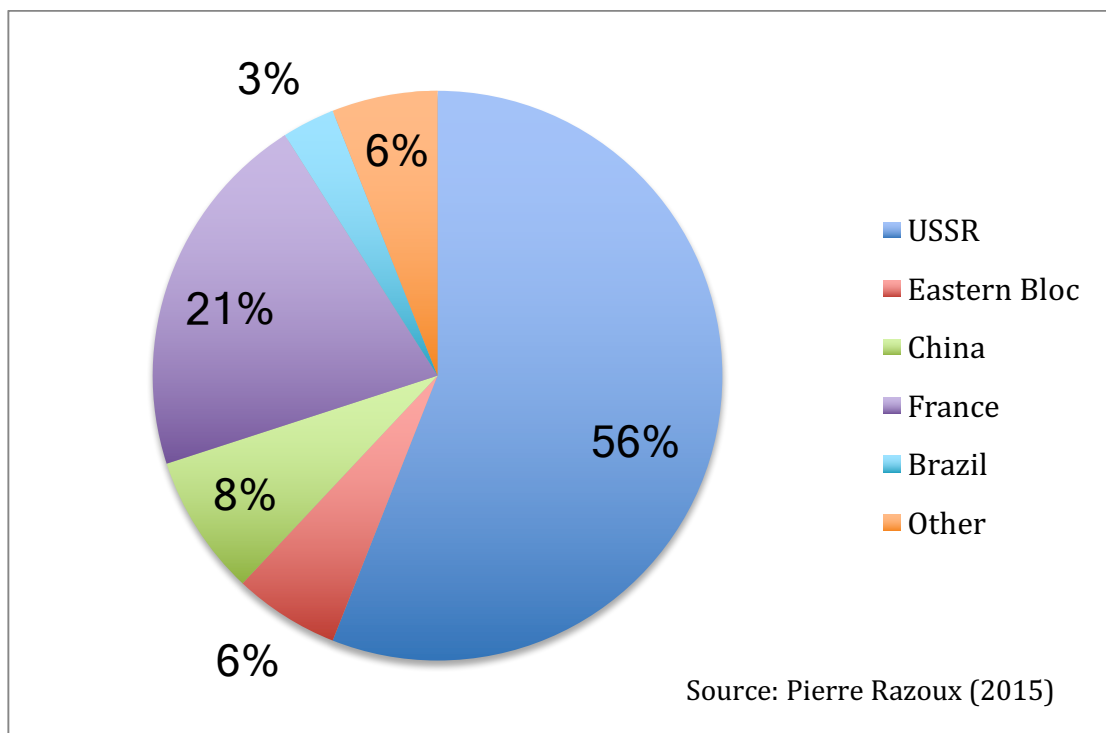


Figure 5.5-2 shows Iraq's main military suppliers of during the war. The USSR came first with 56% of the total share, whereas Brazil contributed only 3% of the total military assistance given to Iraq. To have an understanding of the main elements of military assistance, I listed the types of weapon supplied by the USSR in 1982 (Table 5.5.2). The amount of assistance provided by France was at \$17 billion, which included technical trainings for Iraqi officers, transport planes, tanks, armored vehicles, missiles, and torpedo boats.

*Table 5.5. 2 Military support of USSR to Iraq (1982)*

Training, military advisors	
Combat aircraft	280
Helicopters	58
Transport planes	12
Tanks	1000
Armored transport vehicles	500
Armored reconnaissance vehicles	100
Towed field guns	150
Self-propelled guns	100
Scud-B launchers	18
Ground to ground missiles	300
Missile boats	4
Torpedo boats	2
Amphibious assault ship	1
Shells and munitions	>1.000.000
Light weapons	>10.000
Trucks and light vehicles	>1.000
Anti-tank missiles	>1.000
Surface to air missiles	>1.000
Air to air missiles	>1.000

Source: Pierre Razoux (2015)

According to the Table 5.5.2, Iraq received a considerable amount of different types of weapons from the Soviet Union, which should have changed Saddam Hussein's strategy by making him more assertive. However, it had an adverse effect as Saddam chose to halt the war and start negotiations with Iran.

In contrast to Germany, the military command system in Iraq was under Saddam Hussein's direct control and Saddam Hussein enjoyed absolute military authority over military generals some of whom were prosecuted in 1982 (Woods, 2011). In other words, unlike in Germany, the war did not affect the power structure in Iraq and thus Saddam Hussein's full control of power was not because of war. That is why Saddam

Hussein did not have real fear of losing his status at home even if he would sign immediate peace agreement with Iran whereas in Germany the OHL was very sensitive to the development that took place inside Germany since the future of the military command and control system highly depended only on victory in battlefields. This was one of the main reasons why Saddam did not take any risky decisions when he faced with tremendous military cost of war.

On the other hand, I assume that if his foreign partners in his war with Iran left Saddam alone, the cost effect would drag Saddam into a serious political crisis in Iraq as a result of which he would never have decided on any peace agreement. Theoretically speaking, in the light of serious domestic challenges, Saddam Hussein might find himself in the domain of loss and would become a risk-seeker. According to the report of the Hungarian Embassy in Iraq (December 15, 1983) on the emergence of an internal crisis in the top Iraqi leadership, Iraqi leadership considered two options with regard to the future developments of the war. One of these options was to stop the war immediately as it would be lengthy and bloody whereas the other option was about the continuation of the conflict, which precisely fits to the cost effect approach. As it was depicted in the report (p.2): “the other position is afraid that a protracted war might result in the fall of the regime and urges further military actions in order to force the resolution of the conflict at any cost, even accepting further severe casualties”. In other words, the report reflects the fact that the reference point for Saddam was set in the domain of gain, which made him risk-averse. In order to understand the Saddam’s behavior, as it was assumed by prospect theory, the reference point should be taken into account.

The effect of reference points on decision-makers, in our case on Saddam Hussein, explains the main frustration of the Iraqi leader. Given the fact that Saddam Hussein was not a military commander for whom a loss in the battlefield would have produced sunk costs and thus would have affected his ability to think rationally, the reference point for him was the status of his Baath regime and his own survival as the head of the Iraqi government. Saddam’s reference point changed as his authority was challenged by Iranian officials with strong demands for regime change in Iraq. Had this not been the case, it is probable that Saddam would have continued to



demonstrate his stern stand on the conflict without showing any sign of readiness for a peace negotiation.”

## **5.6. Summary**

The analysis of the cost effect on the German military commands proved the validity of the main assumptions of prospect theory. We saw how the military commanders became risk seekers after failures on the fronts. As the death rate increased, the OHL generals became exposed to the information and their ability to make rational decisions dwindled. I have to mention that it is very challenging to establish a causal relationship between sunk cost and risky decisions simply by showing the chronology of events that occurred in both contexts. The analysis of the decision-making processes led us to the assumption that sunk cost makes it impossible for decision-makers to stop a bloody war and offer peace negotiations. The assumption is well supported by the fact that German military commanders did not only dismiss the critical views on military strategy but also, they tried hard to neutralize those who called for peace negotiations.

The drastic situation at home placed firm pressure on the OHL, from which it could not escape. The military expenditure in Germany was mostly covered by the loans collected from ordinary citizens, and so victory in the battlefield became a financial necessity for many Germans. As a result of this, their trust in the government and support for the war initiative became inevitable. We witnessed how losses in the battlefield impacted people's perception of war and resulted in the number of loan subscriptions promptly dropping. In light of the crisis in the battlefield, the OHL found it extremely difficult to stand against any critical views on the ongoing strategy that was strongly advocated by military generals. The hostile reaction to the simple speech that was made by Matthias Erzberger demonstrated the importance of reference points.

Germany's fragile economy of Germany rapidly laid the ground for increasing dissatisfaction among workers who started to put social pressure on the German government by organizing long-lasting strikes. As the situation got out of the control of military leaders, they became even stricter in their way of administration. The country's legal system changed in favor of military commanders who had a legal right

to crush protesters by any means. Based on prospect theory, the German military commanders' behavior could be explained by the fact that in the domain of gain, German leadership become risk-averse and tried hard to preserve the status quo.

The Iran-Iraq war of 1980-88 was the second case of this thesis. I tried to explain the reason behind Saddam Hussein's change of policy from an aggressor to a peace seeker. The main question that the second part of the thesis dealt with was why the sunk-cost effect did not force Saddam to avoid offering negotiation. The intention is to test the following assumption: due to the sunk-cost reduction, Saddam Hussein was not negatively affected by the negative impact of costs, and as a result of this, he could make rational decisions even though his attack on Iran was based on an irrational calculation.

The cost reduction occurred in two ways: internal and external. The internal way of cost reduction came with the different financial means by which Saddam Hussein decided to finance his military operations. In order to ease the tensions by lifting the economic and financial burden of the war from people, Saddam ordered not to raise the tax rate and instead, he financed the military campaign both by spending accumulated oil revenues and by printing money. It should be noted that the intolerable cost of the war in any way was imposed on Iraqi citizens nonetheless, as they had to deal with rising inflation as the money started to be printed. According to a number of sources, oil revenues covered 25 percent of the cost of war whereas Treasury bonds of the Iraqi government paid only 2 percent of this burden. The effect of a higher tax rate would not have produced the same negative effects as higher inflation, but raising the tax rate might have nonetheless added fuel to the fire.

As it was mentioned, due to the fact that Saddam was not a military commander, the reference point of his cost calculation was directly associated with the fate of Baath regime. Even though he faced escalating costs of war in terms of human death and loss of consecutive battles with Iran, he did not lose his reasoning and thus immediately changed the course of his policy by offering negotiations to Iran on a peace agreement. Based on the assumption of prospect theory, I assume that international financial and military assistance to Iraq lessened the sunk-cost effect on Saddam Hussein as he felt reasonable confidence in his ability to protect his power.

## CONCLUSION

Despite the implication of limited resources involved in this analysis, this thesis has demonstrated how incurred sunk-cost may be important to understand why state leaders persist in fighting costly war. The conventional theories of international relations urge us to focus on the reasons that may emerge in the future depending on the calculations and considerations of decision-makers. In other words, we basically consider the cause and effect of future actions and base our decisions on this consideration. This analysis attempted to explain the impact of previous actions in terms of sunk-cost on decision makers' preferences by changing the reference points.

### 6.1. Main research questions

Due to the time limit, I concentrated on two cases, the First World War and the Iran-Iraq War, both of which share a number of similarities such as regime type, the cost of war, and the imbalance between the military forces of opposing belligerents. This thesis is designed to answer the following questions:

- 1) Why do state leaders continue costly wars?
- 2) How did the German leadership modify their behavior in the domain of loss during the First World War?
- 3) How did the policy of the German decision-makers change as the reference points changed in Germany?
- 4) How did the foreign military and financial assistance impact Saddam Hussein's war strategy vis-à-vis Iran?

*Hypothesis 1a. The risk propensity of the German decision-makers rises as the number of deaths increases during the First World War, which drags the German leadership into the area of loss.*

The analysis confirmed the sunk-cost effect on the German decision-makers at the eve of the Spring Offensive. The paper analyzed the decision-making process in Germany and identified the possible cost with its internal and external causal roots. The analysis revealed the fact that Ludendorff as the main decision-maker in Germany was under the impact of failure in previous battles and that is why he took the risk of

attacking the Great Britain. Even though he received strategic advice from army generals about either offering peace negotiation to the Allied Force or launching a sequence of attacks, Ludendorff dismissed these recommendations and went for the riskiest option. As it was mentioned, the Spring Offensive was realized within five consecutive attacks, each of which was borne out of failure of the previous battle.

***Hypothesis 1b.** The incurred financial cost boosted Saddam Hussein's risk propensity during the first two years of the Iran-Iraq War.*

Due to the lack of data, I cannot prove the impact of the cost of military build-up on Saddam Hussein's war strategy in 1980. It is possible to estimate that Saddam Hussein invested enormous amount money to increase his military capacity to be able to defeat Iran and that is why the regime change in Iran offered Saddam Hussein a window of opportunity.

***Hypothesis 2.** In the domain of gain, state leaders become risk-averse by avoiding risky decisions.*

***Hypothesis 2a.** Since the OHL and mainly Ludendorff enjoyed absolute authority in the decision-making process in Germany, they became very cautious and sensitive to any challenges that may have undermined their authority.*

It was also proved that military generals in Germany became risk-averse when their status and authority was challenged. From the theoretical point of view, the military generals in Germany easily accommodated gains and worked hard to prevent any change. In light of growing social unrest in Germany associated with the deteriorating economic situation of the country, the members of the OHL, particularly Ludendorff, dealt with increasing criticism of war in an unreasonable manner by blackmailing and neutralizing those politicians. The OHL's successful propaganda campaign against Chancellor Bethmann-Hollweg, which resulted in his dismissal by the Kaiser in 1917, reflects the dominant influence of military generals on different administrative levels in Germany. In the domain of gain, we see different patterns of reactions on the part of German decision-makers.

***Hypothesis 2b.** Military and financial assistance to Saddam Hussein changed the reference point by transforming the domain of loss into the area of gain. That is why Saddam Hussein became risk averse and tried to stop the war with Iran.*

The paper further discussed the reasons behind Saddam Hussein's drift from his initial policy of aggressive. Despite the fact that Saddam enjoyed generous support from a number of countries, after 1982 he tried hard to stop the war by offering peace negotiations to Iranian side, which were constantly rejected by the Islamic state. Here we can see how the domain of gain turned Saddam Hussein from being a risk-seeker to being risk-averse. To convince the Islamic regime in Iran of the importance of peace for both countries, Saddam Hussein even imposed a blockade on the ships carrying Iranian oil with the aim of increasing the cost of the conflict for its main stakeholders.

After the academic investigation, the impact of financial and military assistance to Iraq proved to be an effective tool in minimizing the negative impact of sunk-cost effect. As we can see, the growing military and financial assistance to Iraq changed Saddam Hussein's reference point. I found out that the reasons that were mentioned by Saddam Hussein in his justification for attacking Iran, which were broadcasted by official Iranian sources and which acted as a tool of revolutionary propaganda in Iran, became irrelevant as Iran openly demanded Saddam Hussein's overthrowing as a precondition for peace negotiation and Saddam kept asking for a peace.

The impact of financial and military assistance to Iraq reduced the effect of cost on Saddam Hussein's propensity towards risk as the reference point changed from negative to positive. Saddam Hussein found himself as a leader of the Arab world who received substantial amounts of financial, economic and military assistance not only from Gulf Arab states but also from the Western and Communist world. It seems that he did not want to lose his status and thus he became risk-averse rather than a risk-seeker in his relations with Iran. Saddam was quite sure that the war might lessen the international support shown to him, as a result of which he would find himself forced into making irrational decisions. This assumption was proved in the Iraqi oil minister's statement regarding Saudi Arabia's bid to increase its oil production, which had a dramatic effect on oil prices. On the one hand, Iraq was engaged in a bloody

and costly war with Iran and was counting partly on its oil revenues. That is why decreasing oil prices raised the cost effect on Iraqi political leadership.

According to the analysis, the assumption of prospect theory proved to be valid in the explanation of Saddam Hussein's rational decision in 1982. The analysis of both cases revealed the main differences between Germany and Iraq that can explain the different political output of both countries. The first difference came with the understanding of cost for decision makers in both countries. As it was mentioned earlier, the main decision makers in Germany happened to be military commanders who developed the war strategy and controlled the administrative power inside of Germany whereas in Iraq, Saddam held his monopoly over both military and public administration. These different power structures in both countries reflected the way that main decision-makers formalized their concept of cost and gain. For Ludendorff in Germany, the concept of cost that affected his rational way of thinking incorporated, among many others, human death in the battlefield, loss of territory, financial cost, and social unrest, whereas for Saddam Hussein the cost was associated with any event with an impact on his political status such as loss on territory, weakening of military power, and depletion of financial resources. Taking into account the fact that Saddam Hussein did not have a military background, it is assumed that the loss of military personnel during the war may not be considered as having been an influencing cost for Saddam Hussein. Thus, decision-makers become risk-seekers only when the cost was clearly connected with their interpretation of the concept of cost.

## **6.2. Limitation of the research**

Despite convincing evidence that cost strongly affects a state leader's propensity towards risk, there are certain limitations to this research, which limits the generalization of results. This thesis is based on a most similar research design and therefore studies are limited to two cases. Furthermore, the similarities between two cases that happened in different times and in different parts of the world may be subject to criticism as well.

A second limitation stems from the difficulties in establishing direct causal relations between sunk cost and the propensity of state leaders towards risk. The concept of sunk cost is subject to interpretation by a state leader and for that reason the effect may vary according to the importance the leader assigns to it. Despite the fact that human death had a decisive effect on the OHL during the First World War, in Nazi Germany the loss of military personnel was perceived as normal and did not carry any significant implication for Hitler.

A third constraint of the paper is associated with the level of analysis of prospect theory as the theory focuses at individual level analysis and neglects the effect of institutions and systems. In other words, given the fact that individual level analysis concentrates only on the behavior of human beings, the adverse consequences of procedures, institutional constraints, and lack of information for the outcome of the decisions remained beyond the radar of this paper.

The last limitation of the paper is associated with the lack of primary resources in English, as all diaries in Germany and Iraq were written in German and Arabic languages respectively.

Taking into account the abovementioned constraints, more research should be done to have a fuller picture of how cost affects decision-makers propensity towards risk. As can be noticed, not all battles that involved Germany have been included in this analysis. Perhaps, it would be better to increase the number of decisions taken by political leaders during military activities that have occurred all over the world to control for a number of variables such as democracy, territory, population and etc. Finally, I assume the indicator of propensity towards risk requires a more comprehensive approach by including all elements of cost that occur during a war.

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