

The Quality of Government Peace

How Good Governance Reduces the Risk of Interstate
Conflict

Abstract

In this thesis the impact of quality of government on the risk of interstate conflict is analyzed. Data on Militarised Interstate Disputes (MIDs) from the Correlates of War is used as an indicator of conflict and scores from the International Country Risk Guide (ICRG) is applied as a measure of quality of government. The unit of analysis is pairs of states, dyads. By employing logistic regression analysis and covering the time period of 1985-2000, I find that as the weaker state in a dyad gets stronger, the probability of conflict declines. Improved quality of government thus reduces the risk of interstate conflict.

The result is based on a model which includes variables for democracy and incomplete democratization, as well as controls for realist claims and geographic constraints. Although these findings do not rule out the pacifying benefits of democracy, they do add to the argument that, initially, government improvement might be more important than democratization for developing countries.

Key words: quality of government, interstate conflict, logistic regression, democratic peace theory

Words: 7575

Table of contents

1	Introduction.....	1
1.1	Purpose and problem.....	1
1.2	Disposition	2
2	Theory.....	3
2.1	The Democratic Peace.....	3
2.1.1	Why Do Democracies Not Fight Each Other?.....	3
2.1.2	Critique and Alternative Explanations	4
2.1.3	The Questioned Peacefulness of Democracy.....	5
2.2	Quality of Government.....	6
2.2.1	What Is Quality of Government?.....	6
2.2.2	The Relationship between QoG and Democracy	7
2.2.3	How does QoG Reduce the Risk of Conflict?.....	7
3	Method.....	9
3.1	Logistic Regression.....	9
3.2	Dependent Variable: Interstate Conflict.....	11
3.3	Independent Variables.....	12
3.3.1	Quality of Government.....	12
3.3.2	Democracy and Democratization	13
3.3.3	Power, Preference and Opportunity	13
4	Results.....	15
4.1	The Basic Model	15
4.2	Robustness.....	16
5	Conclusion	20
6	References.....	21
7	Appendix: Variables.....	24

1 Introduction

Much of the assumed positive effects of democracy on human development have been questioned in recent research (Rothstein & Teorell 2008). Instead, it seems that what matters most for the promotion of valued social outcomes, such as growth, is the quality of government (Holmberg et al. 2008). The belief in democracy as the ultimate cure for poverty and other human afflictions has thus declined and attention has been shifted towards “good governance” reforms (Fukuyama 2004). Democracy-advocates do however hold a trump card in the “democratic peace” theory, according to which democracies do not wage war against each other (Oneal & Russett 1999). But even the peacefulness of democracies has been questioned lately, as some scholars argue that recently transformed democracies are even more war prone than autocracies (Mansfield & Snyder 2005). The curvilinear relationship between democracy and the probability of civil war further questions the pacifying impact of democracy (Herge et al. 2001). At the same time the risk of civil war linearly decreases as the quality of government improves (Öberg & Melander 2005).

It seems as if good governance, or quality of government as I refer to it, may have beneficial effects also on the risk of conflict at the international level. In this thesis I attempt to verify whether this is actually the case, by analyzing the impact of quality of government on the risk of interstate conflict statistically.

1.1 Purpose and problem

The purpose of this thesis is to examine how quality of government affects the risk of interstate conflict. The guiding question is whether relations between qualitatively governed states tend to be peaceful and thus if there exists a “quality of government peace”.

The formulation intentionally draws on the democratic peace proposition and should be interpreted as an attempt to disentangle the pacifying impact of *joint* quality of government; that is when two states in a pair, a *dyad*, are governed qualitatively. As is developed at length further on in the thesis, there is reason to believe that the pacifying effect of qualitative government is strongest in this setting. This allows for a more specific question to be formulated: Do higher levels of joint quality of government reduce the risk of interstate conflict?

1.2 Disposition

The disposition aims at presenting the content of the thesis as clearly as possible. It therefore follows the standard scientific formula, including a theory, method, and results section.

The theory chapter outlines the foundations of the democratic peace theory and criticism directed against it. Quality of government is introduced as a concept and its pacifying impact explained. The chapter ends with a hypothesis based on the presented arguments. The method chapter contains information on the statistical method applied, the framework of the analysis, and the variables included. In the results chapter the results of the analysis are reported and the hypothesis is evaluated. Finally, I summarize my findings and comment briefly on their implications in the concluding chapter.

2 Theory

2.1 The Democratic Peace

The philosophical roots of the democratic peace theory can be traced back to the essay “Perpetual peace”, written by Emanuel Kant in the late 18th century. Kant’s basic argument is that the public in democracies are pacifistic, while leaders in autocracies are warlike. Since citizens are the ones doing the fighting, they are likely to be opposed to decisions for war. Democratic leaders who want to remain in power must thus obey the will of the people and stay out of war engagement. Although many of the assumptions made by Kant have been criticized, the “Perpetual peace” remains an important source of inspiration for contemporary advocates of the democratic peace proposition (Ray 1995: 1-3).

The modern versions of the democratic peace theory focus on the relations *between* democracies (*Ibid.*: 21-30). By conducting large-N regression analysis of data regarding pairs of states (dyads), researchers have been able to show that there is a correlation between the probability of interstate war and the regime type of the dyads. The more democratic the states in a dyad are, the greater is the likelihood of peace (Maoz & Abdolali 1989, Bremer 1992, Oneal & Russett 1999).

Although these statistical findings to some extent depend on the methodological position of the researcher, such as definitions of war and democracy and interpretation of statistical significance (Elman 1997a: 20-24), the generalization that democracies do not wage war against each other is quite uncontested in the research community (Bueno de Mesquita et al. 1999: 791, Kinsella 2005, Paris 2004:42) and it has even been proposed as an empirical law (Levy 1988).

2.1.1 Why Do Democracies Not Fight Each Other?

How then, is the democratic peace theoretically composed? There are two major traits within the literature: the structural, or institutional, and the cultural, or normative, explanation. According to the latter, democracies are like-minded and have a shared view on economic and political policies and a common political culture. Disputes between democracies do not escalate to war because leaders expect that their shared political ideology will lead them to find a mutual and peaceful resolution of the conflict (Elman 1997a: 10-11). The structural

explanation draws on the ideas introduced by Kant, emphasizing the political constraints on democratic leaders which make it more difficult for them to engage in war (Ray 1995: 30). Since democratic leaders need the support of the voting public before they go to war, they will be reluctant and slow to fight. They will count on that other democracies function in the same way and thereby expect an opportunity to reach a negotiated settlement before the conflict escalates to war (Elman 1997a: 13).

In their game theory-inspired model, Bueno de Mesquita and his colleagues (1999) offer an ambitious institutional explanation of the democratic peace. They argue that since democratic leaders can not afford any policy failures, they make a greater effort to succeed in disputes, spending more resources on wars they are certain to win and avoiding those they risk to lose. This implies that two democracies in a conflict will try to avoid war, both of them knowing that such a development would be very costly.

2.1.2 Critique and Alternative Explanations

Both the cultural and the structural explanation of the democratic peace can be, and have been, criticized. The normative argument that liberal states only fight wars for liberal purposes faces difficulties in explaining the historical record of democracies engaged in war for other than humanitarian or self-defense purposes, as “liberal states have consistently violated liberal norms when deciding to go to war” (Rosato 2003: 588-590). It is also possible that a state, itself claiming to be a democracy, will not be perceived as a democracy by other states. This is particularly relevant in the case of recently transformed democracies (*Ibid.*: 586).

Critics of the structural explanation claim that the assumption of a pacifying public is inaccurate since there are many examples where pressure from the public promoted, rather than constrained, leaders to go to war (Elman 1997a: 27). Additionally, Rosato (2003: 593-594) has questioned the assumption that democratic leaders are more accountable than leaders in autocracies. He claims that the cost from fighting losing or costly wars is just as large for autocratic leaders as it is for their democratic counterparts. Although the significance of Rosato’s findings have been questioned (Kinsella 2005), they deserve consideration as autocratic leaders might face far worse treatment than their democratic counterparts—should their policies fail—and thus have even larger incentives to succeed in disputes.

There is also the general neorealist critic that democratic norms or institutions matter little when national interests are at stake. According to this view, adverse distribution of military power and common security interests often account for why democracies have avoided war in the past (Elman 1997a: 25). Arguing along these lines, a number of alternative interpretations of the democratic peace have been put forward. Rosato (2003) introduces the “imperial peace” and claims that the democratic peace is “a post-World war II phenomenon restricted to the Americas and Western Europe” and should be ascribed to the US commitment to

ensure peace in these regions. Faber & Gowa (1997) argue that violent disputes between democracies are only rare events during the Cold War and that the dispute patterns are explained by common interests rather than common polities. Gartzke (1998, 2000) offers yet another solution and claims that the democratic peace is really not caused by the constraining power of democratic political institutions or culture, but rather by the lack of conflict between democracies due to affinity.

While these, somewhat similar, explanations rightfully question the universality of the democratic peace theory, it is possible to argue that they do not really contradict its foundations. The “lack of conflict” and “common interests” between democracies might very well be a result of their common polities. Additionally, the growing number of democratic states in the world further questions the assumption that national interests solely account for the peacefulness of democracies.

Finally, there is a geographical constraint to the likelihood of conflict. To run the risk of developing a conflict, regardless of regime type, states need to have the *opportunity* to interact with each other. Unsurprisingly, it is easier for states that share borders to interact with each other and consequently these states run a higher risk of getting into conflict (Starr & Thomas 2005). This rather logical limitation is not intended as a critic of the democratic peace, but it needs to be considered whenever the probability of conflict is to be estimated.

2.1.3 The Questioned Peacefulness of Democracy

While most scholars probably would acknowledge that the dyadic version of the democratic peace is a rather robust empirical finding, there is far less consensus on the general relationship between democracy and conflict. Some scholars support the monadic version and argue that democracies are generally less war prone than autocracies, while others claim that the democratic peace only applies to the dyadic relationship and that democracies are almost, or even just as belligerent as autocracies (Elman 1997a: 14-18). Oneal and Russett (1997) find that democracies do not fight each other but that they do fight autocracies. However, since autocracies fight each other, they conclude that democracies are somewhat less war prone in general. Although the monadic relationship remains contested, it seems quite uncontroversial to assert that democracies at least battle autocracies to a greater extent than they battle each other.

In addition to the contested general relationship between democracy and conflict, another concern about the peacefulness of democracies has been raised. Mansfield & Snyder (2005) agree that the democratic peace holds strong for consolidated democracies but argue that fledgling democracies, undergoing the process of democratization, are highly belligerent and even more war prone than autocracies. They have analyzed the relationship between democratization and conflict also in a dyadic setting and found that incomplete democratization, where the democracy has not been consolidated, increases the risk of conflict (Mansfield & Snyder (2002). This implies that joint democracy might not always be a

sufficient condition for peace, as some democracies obviously are more war prone than others (Elman 1997b: 488). The transition problem is also illustrated in the curvilinear relationship between democracy and the probability of civil war (Herge et al. 2001).

2.2 Quality of Government

2.2.1 What Is Quality of Government?

In order to properly introduce quality of government, henceforth QoG, as a potential key to the democratic peace, a review of the concept is necessary. To begin with, QoG is a normative concept since any definition is based on an assumption of what is desirable. Frequently included elements in the definitions are citizen participation, accountability, transparency, rule of law, and stability (Resnick & Birner 2006). However, the rapidly growing literature on QoG often employs different definitions of the concept, generating the risk of arbitrary results dependent on the interpretation of the individual researcher (Holmberg et al. 2008: 4).

Perhaps most commonly cited is the World Bank definition, developed by Kaufmann and associates, according to which governance is “the traditions and institutions by which authority in a country is exercised” (Kaufmann et al. 2007). The bank’s empirical indicators (the World Development Indicators) are however largely based on perceptions, which have led some scholars to argue that an outcome-based definition would be more accurate in order to increase the objectivity. Literacy levels, school persistence rates, medical services, civil society empowerment, state of law and order, and crime rates are examples of such outcomes (Holmberg et al. 2008: 3-4).

Although there are a vast number of definitions of QoG available, Teorell and Rothstein (2008) recently argued that existing definitions are inadequate. They claim that the World Bank definition is too broad, for instance it does not distinguish between the *access to* power and the *exercise of* power. They also criticize outcome-based definitions as those tend to clump cause and effect and border on tautologies. Their own contribution, “impartiality“, implies that government officials should act in accordance with the beforehand stipulated law or policy and take no other considerations into account.

It seems clear that the debate on the conceptual definition of QoG is far from settled. While the diverging views of scholars calls for attention when evaluating research on the effects of QoG, the risk of reaching contradicting conclusions might not be overwhelming, as there appears to be a strong correlation between some of the most common measurements of QoG (Holmberg et al. 2008: 5).

2.2.2 The Relationship between QoG and Democracy

Democracy and QoG are partially overlapping. Democracy guarantees equality in the access to power, but does not influence the exercise of that power. This is why democracy is not a sufficient condition for QoG. Democracy is at the same time necessary to prevent that laws, albeit being implemented impartially, discriminate a certain group in society (e.g. apartheid laws) (Rothstein & Teorell 2008). However, Bäck and Hadenius (2008) have tried to sort out the democratic elements of QoG and found a J-shaped relationship between democracy and QoG, or state capacity as the authors label the concept. That is, democratization will initially have a negative impact on QoG! For higher levels of democracy the curve turns upwards and there is a strong correlation between consolidated democracies and high QoG. Findings similar to those made by Bäck and Hadenius have also been made by other researchers (Rothstein & Teorell 2008: 179).

As the curvilinear relationship between QoG and democracy implies, there are several examples of “off-diagonal” cases; that is democratic states with poor QoG and authoritarian states with high QoG. Singapore and Hong-Kong is perhaps the most obvious examples of the latter, while numerous democracies struggle to establish impartial institutions.

2.2.3 How does QoG Reduce the Risk of Conflict?

It is widely recognized that weak or failing states cause many of the most difficult problems facing the world today. Fukuyama (2004: 92-93) claims that these states “commit human rights abuses, provoke humanitarian disasters, drive massive waves of immigration, and attack their neighbors”. Tilly (2007: 176) adds that “weak states have a destructive propensity to civil war”, which is also confirmed statistically, as the probability of civil war increases as a state gets weaker (Öberg & Melander 2005). While this knowledge strengthens the notion that QoG might reduce the risk of interstate disputes, it does not address the causal mechanism between QoG and peace. How then, does QoG affect the risk of interstate conflict?

In order to answer this, it is first necessary to examine the foundations of conflict resolution. Fearon (1995) has, in a seminal work on this matter, argued that all wars are ineffective *ex post* and thus that there always is a negotiated solution available *ex ante* which is preferable to both parties. The reason why this solution is not always reached is that the parties have asymmetric information about their relative military capability and their opponent’s willingness to fight, combined with incentives for leaders to misinterpret this information. As Öberg and Melander (2005) notes, this implies that “whatever reduces the information asymmetry between the parties and/or enables them to communicate resolve credibly, will reduce the risk that a conflict escalates to war”.

So, in what ways does QoG reduce the information asymmetry between states and improves their ability to communicate resolve? Most importantly, QoG increases predictability in government behavior. It ensures that rule of law will

prevail and that individuals will be treated equally. A strong state hinders civil conflict and reduces the risk that civil unrest will incite international disputes. This means that citizens as well as the international community better can anticipate the actions of the state. An illustrative example of how failed domestic policies can create international crises is the mistrust directed towards weak states failing to curb terrorism (Fukuyama 2004: 93). QoG also increases the credibility of the state as an actor in the international community. A strong state with solid and impartial institutions is more trustworthy and less likely as an adversary. If other states can rely on that their negotiating partner will remain stable and not fall apart any time soon, relations between the countries will be strengthened. On the other hand, in corrupt and malfunctioning states, where oligarchs and clans battle for power, it might be hard to know who really governs (Johnston 2005: 152-153). This would make it difficult to anticipate the actions of the state, which in turn could make other states suspicious or even contentious.

The essence of this reasoning is that QoG reduces uncertainty and increases trust among states, which equals reduced information asymmetry and improved communication channels. This reduces the risk of conflict as peaceful international relations are easier to achieve with a stable, predictable, and credible state that other nations can rely on.

The argumentation aims at the dyadic relationship. Since a conflict can result from the actions of a single state, it is likely that the beneficial effects of QoG are strongest when both states in a dyad are governed qualitatively. Thus, while the general relationship between QoG and probability of conflict certainly would be interesting to further scrutinize, in this thesis I concentrate on the dyadic relationship.

The abovementioned threats posed by weak states and the fact that conflict can be the responsibility of a single state implies that it is the weaker state in a dyad which is most likely to break the peace. This argument is known as the weakest-link assumption and is commonly applied in the democratic peace literature (Oneal & Russett 1999). Based on this argument, along with the general motivation on the pacific benefits of QoG, I end this chapter with a hypothesis on how QoG affects the probability of conflict:

Hypothesis: The higher the QoG of the weaker state in a dyad, the lower the risk of interstate conflict.

3 Method

To try the hypothesis developed in the previous chapter, I statistically analyze the impact of QoG on the probability of conflict. The analysis contains data on dyads observed annually between 1984 and 2000. The limited time period is naturally not optimal, but since the analysis still contains a considerable amount of cases (roughly 100,000), this problem should not be considered insurmountable.

The core of the data set has been obtained from Sobek and colleagues (2006).¹ Unless otherwise noted, this is the source of the data used in the analysis. The dependent variable is conflict and the independent variables QoG and a range of control variables. All of the variables are presented more thoroughly later on in this chapter. Before that, however, the statistical tool which is used to perform the analysis shall be introduced.

3.1 Logistic Regression

Logistic regression is a form of regression analysis which is useful when the dependent variable is discrete, that is it can only take on a limited number of values. The event I am trying to explain—conflict—can only assume two different values (it is dichotomous), as there either exists a conflict or it does not. When the dependent variable is dichotomous, the method applied is called binary logistic regression.

There are a number of reasons why logistic regression is more suitable than ordinary regression when the dependent variable is dichotomous. First, the model produced by logistic regression is nonlinear, which fits the S-shaped relationship between the dependent and independent variable better than the linear estimate of the ordinary regression. Second, the ordinary regression model violates the laws of probability as it can produce negative predicted probabilities. This is avoided in the logistic regression. Third, logistic regression lacks the distributional requirements of the ordinary regression (homoskedasticity and normal distribution of residuals) which keeps the estimates of the standard errors more accurate. Thanks to these benefits, logistic regression is the standard method for multivariate analysis when the dependent variable is dichotomous (Aldrich & Nelson 1984: 12-30).

¹ Their data can be found here: <http://www.davidsobek.com/services.html>. The original data set contained 317 duplicates which have been removed in my analysis.

The downside of logistic regression is that the equation which describes the outcome is slightly more complex than the one for ordinary regression. The outcome variable, \hat{Y}_i , is the probability of having the targeted outcome (in this case conflict) based on a nonlinear function of the best linear combination of the independent variables:

$$\hat{Y}_i = \frac{e^u}{1 + e^u}$$

where \hat{Y}_i is the estimated probability of a conflict in case i ($i = 1, \dots, n$) and u is the ordinary regression equation:

$$u = A + B_1X_1 + B_2X_2 + \dots + B_kX_k$$

with A being a constant, B_j coefficients, and X_j independent variables for k variables ($j = 1, 2, \dots, k$).

The linear regression equation creates the log odds of the outcome variable. This can be understood as the natural log of the probability of a conflict to occur divided by the probability of a non-conflict. The coefficients are estimated by maximum likelihood, which uses the observed outcome frequencies to find the best-fitting linear combination of the independent variables. This is an iterative procedure that starts with arbitrary values for the coefficients and then, by repeated testing, determines the direction (positive or negative) and size of the coefficients (Tabachnick & Fidell 2007: 438-439).

The nonlinear outcome-function implies that the coefficients can not be interpreted the same way as in the ordinary regression model. The coefficients, B , are the natural logs of the odds ratio. Negative coefficients reduce the probability of conflict and positive coefficients increase it. To make it easier for the reader to interpret the effects of the independent variables, the odds ratio, denoted $\text{Exp}(B)$, is also included in all models. This value should be interpreted as the multiplicative factor by which a one unit increase in the independent variable affects the odds of a conflict. For instance, a value of 2.95 means that the odds are increased 2.95 times when the value of the independent variable moves from 0 to 1. If the odds ratio on the other hand is below 1, this means that as the independent variable increases one unit, the probability of conflict is getting smaller. An odds ratio of 0.8, say, means that the odds decrease 20% when the independent variable moves from 0 to 1 (*Ibid.*: 461-462).

The odds is defined as the probability of conflict divided by the probability of non-conflict (i.e. $p/(1-p)$). At lower probabilities (up to ~ 0.1), however, the odds and probabilities are almost identical. Since interstate conflicts fortunately are relatively rare events, the probability of conflict is on average rather small. Consequently, it is possible, although not entirely accurate, to interpret the odds ratio as an indicator of how the probability of conflict is affected by a one unit increase in the independent variable.

The low average risk of conflict also implies that the *absolute* effects of the independent variables are low in general. However, it is important to note that what is of most interest in my analysis is the *relative* effect of the independent variables, that is how much each variable affect the probability of conflict in comparison with the other variables. In order to illustrate this as clearly as possible, I calculate the average relative marginal effect of a one unit increase in democracy and QoG respectively (since I consider these to be the most important independent variables in my study). The marginal effect is the impact on the probability of conflict when the values of the variables move from 0 to 1 and thus indicates how much lower, or higher, the risk of conflict becomes. The average is calculated by adding the individual marginal effects of all observations in the sample (Green 1997: 876).

Finally, it needs to be said that although it is possible to establish that certain factors have statistically significant impacts on the risk of conflict; this does not imply that these factors alone can explain the occurrence of conflicts. As a matter of fact, the explanatory power of a model is often weak when complex matters, such as conflicts, are analyzed. In order to measure how much of a relationship a model fails to account for, several measures, so called goodness-of-fit statistics, have been developed. In this thesis I am, as I have mentioned, mainly interested in the relative effects of the individual variables, so the aggregated explanatory power of the models is not paid much attention. However, for the sake of scientific coherence, I include in each model the -2 log likelihood value, which is a common goodness-of-fit indicator.

3.2 Dependent Variable: Interstate Conflict

I have so far only mentioned that the dependent variable is conflict. To settle whether there exists a conflict between the states in each dyad, I use the Correlates of War MID3 data set data on militarized interstate disputes (MIDs) (Ghosn et al. 2004). This data records all instances of when one state threatened to use force, made a demonstration of force, or actually used force against another state. Each year that the two states in a dyad were involved in a dispute with each other will be coded as a conflict year. There are roughly 450 conflict years recorded during the time period of the study.

The variable CONFLICT equals 1 if there was an ongoing conflict and 0 if there was not. Like Oneal and Russett (1999) I include not only the initial year of conflict but also the following, agreeing in their argument that leaders are rational and thus constantly reevaluate the present strategy; which implies that a conflict one year is not dependent on a conflict the preceding year.

3.3 Independent Variables

The independent variables reflect the theoretical arguments made in the previous chapter. Apart from the variables listed below, all models include a measure of peace years (the number of years since the latest conflict between the states in a dyad) and three cubic splines.² These measures are used to correct for autocorrelation (influence of past results on the current outcome). However, their function is merely technical and the estimates of their coefficients are excluded from the tables in the results chapter.

3.3.1 Quality of Government

To measure the level of QoG in the dyad, I use the International Country Risk Guide (ICRG), which is a product of the Political Risk Services (PRS) Group. The data, obtained from the Quality of Government Institute data set (Teorell et al. 2008), has been collected annually since 1984 and includes roughly 140 countries. The main reason why I choose to use the ICRG data, rather than the World Bank's development indicators, is that the former spans over a slightly longer time period, which is preferable in the pursuit of statistically significant results. Although the ICRG data suffers from some of the flaws mentioned in the theory chapter (for instance it is mainly based on perceptions), it is recognized as a trustworthy indicator of governmental quality and should fulfill the requirements of this thesis quite sufficiently.

The ICRG indicator of Quality of Government is the mean value of the ICRG variables "Corruption", "Law and Order", and "Bureaucracy Quality". It is scaled from 0 to 1, where 0 is worst and 1 best. The corruption variable is an assessment of the corruption within the political system. It includes financial corruption, patronage, nepotism, job reservations, 'favors-for-favors', secret party funding, and suspicious connections between politicians and businessmen. Law and order refers to the impartiality of the legal system and popular observance of the law (i.e. crime rates). The bureaucracy quality estimates institutional strength and autonomy of the bureaucracy.³

Since each case in my analysis contains two states, I need to create a measurement of the joint QoG of the dyad. Theoretically, I have established that the weaker state in a dyad is more likely to break the peace. Therefore, drawing on the weakest-link methodology applied in the democratic peace literature (Oneal & Russett 1999), I let the state with the lowest ICRG score in the dyad represent the joint governmental quality of the dyad. This value is coded as the

² For a technical explanation of cubic splines, see Beck et al. 1998.

³ The methodology of the ICRG is available at: http://www.prsgroup.com/ICRG_Methodology.aspx

variable QOG_L in the analysis. Thus, if one state in a dyad has an ICRG score of 0.5 and the other has 0.8, the value of the QOG_L variable for the dyad will be 0.5.

In order to avoid the risk of reverse causality, that is the possibility that conflict is actually affecting QoG, I lag the QOG_L variable one year. This ensures that the results will not be biased, as a conflict occurring in one year hardly can affect the level of QoG in the preceding year.

3.3.2 Democracy and Democratization

To establish the political character of regimes in the dyads, the Polity IV data is used. The scale, which ordinarily runs from -10 (most autocratic) to 10 (most democratic), is recomputed to the scale 0 to 1 (0 lowest, 1 highest). This is to make comparisons with the effects of the other independent variables easier. As with QoG, the weakest-link methodology is applied and the variable DEM_L thus equals the lower of the two democracy-scores in each dyad.

As mentioned in the theory chapter, Mansfield and Snyder (2002) argue that incomplete democratization spurs the risk of conflict between states. To control for this, I replicate their measure of incomplete democratization and add it to the analysis. However, while they used the Polity III data, I use the Polity IV version. Since this data was not included in the data set of Sobek and colleagues (it only includes the lower democracy-score for each dyad), I add the Polity IV scores from the Quality of Government Institute data set (Teorell et al. 2008). I then recode the polity-score into regime type, where scores from -10 to -7 becomes autocracies, scores from -6 to 6 anocracies⁴, and scores from 7 to 10 democracies. The regime type for each state in the sample is coded in year $t - 1$ and again in year $t - 6$. A state is considered to be experiencing an incomplete democratization if it has moved from autocracy to anocracy during this five-year interval. If an incomplete democratization is taking place in any of the states in a dyad, the variable $DEMCRATZ$ equals 1, otherwise 0. The reason for lagging the democratization variable is the same as for lagging the QoG variable—to reduce the risk of reverse causality. The five year time period is of course arbitrary but in accordance with previous research.⁵

3.3.3 Power, Preference and Opportunity

As a response to realist challenges and to account for the geographical limitations of international relations, I add a set of commonly applied control variables to the analysis. These include an indicator of the relative military strength between the

⁴ “Anocracy” is the label Mansfield and Snyder use to indicate that a regime is somewhere in between a democracy and an autocracy.

⁵ Consult Mansfield and Snyder (2002) for a longer motivation of the proper length of the time period.

states in a dyad, which is a measure based on the Correlates of War Composite Index of National Capabilities (CINC). The variable CAPRATIO runs from 0 to 1, and indicates the capability ratio between the states. A high value means that there is a large discrepancy in the distribution of power within a dyad.

To ensure that political or military alliances do not account for the lack of conflict between states, the dichotomous variable ALLY is also included. It equals 1 if the states in the dyad have one of the three formal alliances identified by the Correlates of War: entente, nonaggression, or mutual defense (Gibler & Sarkees 2004), and 0 otherwise. Furthermore, similar foreign policies preferences are controlled for by the s-scores derived from the alliances portfolios of the states in the dyad (Signorino & Ritter 1999). The variable SIMPREF has been recomputed to run from 0 to 1 (originally the scale is -1 to 1), where 0 indicates complete dissimilarity and 1 complete similarity.

Since conflict tend to be more common between contiguous states, it is necessary to distinguish these dyads from the rest. The variable CONTIG equals 1 if the states in a dyad share a land border and 0 if they do not. Geographical constraints do however not affect major military powers to the same extent, as they have sufficient resources to deploy military power anywhere in the world. Therefore, the analysis also include the variable POLREL, which equals 1 when the states in the dyad are contiguous or if at least one of the states is a major military power (i.e. China, France, the Soviet Union/Russia, the United Kingdom, or the United States) and 0 otherwise. The name of the variable illustrates that these dyads are considered politically relevant.

4 Results

4.1 The Basic Model

The results from the logistic regressions are presented in the following. The equation which the basic model is based on looks like this:⁶

$$\text{CONFLICT} = \text{QOG}_L + \text{DEM}_L + \text{DEMCRATZ} + \text{CAPRATIO} + \text{ALLY} + \text{SIMPREF} + \text{CONTIG} + \text{POLREL}$$

To illustrate the individual effects of democracy and QoG on the risk of conflict, I start off by running the model twice, including one of the variables at a time. I first exclude the QOG_L variable to study the individual effect of DEM_L . Democracy has the expected effect and the risk of conflict falls as DEM_L increases. However, when DEM_L is exchanged for QOG_L and the model is run again, QoG clearly outperforms democracy, as the effect of QOG_L is almost three times as strong. These results are illustrated in table 1 (which only includes the coefficients of QOG_L and DEM_L). The table also shows the standard errors and the statistical significance (the p-value) of the results. These measures are used to estimate with what certainty the coefficients are separated from 0, and thus indicate how reliable the results are. A lower p-value indicate a more significant finding and values below 0.05, which means that the coefficient with 95% certainty is separated from 0, are generally considered statistically significant.

TABLE 1. The individual effects of democracy and quality of government on the risk of interstate conflict, evaluated separately, 1985-2000.

Variable	B	S.E.	Sig.	Exp(B)
DEM_L	-.594	.155	.00	.552
QOG_L	-1.951	.331	.00	.142

Number of observations: 155,959 (DEM_L) and 97,407 (QOG_L).
-2 Log likelihood: 4,551.44 (DEM_L) and 3,092.81 (QOG_L).

⁶ As mentioned earlier, all models also include a measure of peace years and three cubic splines.

Next, I run the complete model and include both QoG and democracy, along with the rest of the independent variables. The results are presented in table 2, which includes coefficients for all variables in the model.

TABLE 2. The effect of quality of government on the risk of interstate conflict, 1985-2000.

Variable	B	S.E.	Sig.	Exp(B)
QOGL	-1.572	.358	.00	.208
DEML	-.578	.193	.00	.561
DEMCRATZ	.323	.163	.05	1.381
CAPRAT	-.316	.207	.13	.451
ALLY	.187	.165	.26	1.205
SIMPREF	.394	.391	.31	1.042
CONTIG	0.870	.193	.00	2.386
POLREL	1.857	.172	.00	6.407
Constant	-3.248	.369	.00	.039

Number of observations: 97,407

-2 Log likelihood: 3,083.67

The effects of QoG and democracy remain statistically significant and almost as strong as when evaluated separately. Incomplete democratization does, as suggested by Mansfield and Snyder (2002), increase the risk of conflict. The realist variables—relative military capacity, alliances, and similar preferences—are all insignificant. The geographical constraint has the expected impact, as contiguous and politically relevant states are more conflict prone.

The Exp(B) value indicate that the odds of a conflict in a dyad with a QOGL value of 1 is 80% lower than the odds of conflict in a dyad with a QOGL value of 0. The average marginal effect on the probability of a conflict when QOGL moves from 0 to 1 is 0.0037. While this is low (because of the generally low risk), it is three times larger than the average marginal effect of a similar increase in the DEM_L variable. The average ratio between the risk of conflict when QOGL is 0 and when it is 1, is almost five. A conflict is thus on average five times more likely in a dyad where the weaker state has a bottom low QoG value, compared to a dyad where both states perform at the top. The same ratio for DEM_L is less than two. Quality of government is thus a far more efficient tool than democracy in the struggle for peaceful international relations. This becomes even more obvious when the negative impact of incomplete democratization is considered.

4.2 Robustness

To make sure that the results are not dependent on certain interpretations of the variables, I include a range of robustness tests where alternative measures are used. First, I change the dependent variable from CONFLICT to OUTBREAK,

the latter including only the first year of interstate dispute in a dyad and discarding the following. Since different views have been put forward on whether to include only the initial year or all of the years when a conflict was ongoing, this control is highly motivated (for instance, Mansfield and Snyder (2002) use outbreak as dependent variable). The results are presented in table 3 below.

TABLE 3. The effect of quality of government on the risk of outbreak, 1985-2000.

Variable	B	S.E.	Sig.	Exp(B)
QOGL	-1,994	,396	,00	,136
DEM _L	-,071	,217	,74	,931
DEMCRATZ	,073	,189	,70	1,076
CAPRAT	-,400	,234	,09	,671
ALLY	-,069	,187	,71	,934
SIMPREF	1,187	,465	,01	3,276
CONTIG	,764	,223	,00	2,147
POLREL	1,727	,194	,00	5,626
Constant	-4,425	,440	,00	,012

Number of observations: 93,057

-2 Log likelihood: 2,614.13

It seems safe to say that the effect of QoG holds strong also when the dependent variable is changed. In fact, while the impact of QoG remains significant and substantial, the effects of democracy and democratization are weak and insignificant. Among the realist variables, only similar preferences is significant and it has a contradictory effect, as more similar preferences increase, not reduce, the risk of an outbreak. While not the focal point of the analysis, this intriguing finding certainly questions the validity of the claim that similar foreign preferences reduce the risk of conflict. Contiguity and political relevance, on the other hand, continue to increase the likelihood of conflict, as expected. It should be noted that in this test, only 255 conflicts were recorded—which calls for some caution when interpreting the results.

In the theory chapter I argue that the lower QoG value in each dyad is the most suitable measure of joint QoG. It is however possible to apply other types of measures. To further explore the relationship between conflict and QoG, I evaluate how QOG_{AVG} and QOG_H affect the risk of conflict. QOG_{AVG} is the average of the two QoG values in each dyad and QOG_H is equal to the higher QoG value in a dyad. While the theoretical motivation for the average value is pretty straight forward, the high QoG value builds on the argument that as the state in the dyad with the higher level of QoG improves, the QoG of the dyad as a whole also improves. The argument thus follows the same logic as the $QOGL$ variable, only the relationship is reversed (cf. Sobek et al. 2006: 523). To make the comparison with democracy fair, I include DEM_H in the test with QOG_H , DEM_H naturally being equal to the higher democracy value in each dyad.

As illustrated in table 4, QOG_{AVG} has a somewhat weaker effect than $QOGL$, although it is still significant and stronger than the effect of DEM_L . When run separately, QOG_H has no significant impact. When run together with $QOGL$,

however, QOG_H has a statistically significant negative effect, and thus increase the probability of conflict. This is illustrated in table 5. The technical reason why QOG_H has no effect at first is because QOG_H and QOG_L are positively correlated ($r=0.49$), which means that QOG_L limits the impact of QOG_H (and vice versa). Since the two variables affect the risk of conflict in opposite directions, QOG_L reduces it and QOG_H increases it, a “suppression” effect is created when they are run at the same time.

TABLE 4. The effect of quality of government, measured as the dyad average, on the probability of interstate conflict, 1985-2000.

Variable	B	S.E.	Sig.	Exp(B)
QOG_{AVG}	-,906	,428	,03	,404
DEM_L	-,719	,197	,00	,487
DEMCRATZ	,348	,164	,03	1,416
CAPRAT	-,312	,206	,13	,732
ALLY	,247	,164	,13	1,281
SIMPREF	,202	,384	,60	1,224
CONTIG	,859	,202	,00	2,360
POLREL	1,862	,178	,00	6,434
Constant	-3,205	,405	,00	,041

Number of observations: 97,407
-2 Log likelihood: 3,098.67

TABLE 5. The effect of quality of government, measured as the higher and lower value of each dyad respectively, on the probability of interstate conflict, 1985-2000.

Variable	B	S.E.	Sig.	Exp(B)
QOG_L	-2,038	,382	,00	,130
QOG_H	1,232	,429	,00	3,427
DEM_L	-,696	,217	,00	,498
DEM_H	,024	,255	,93	1,024
DEMCRATZ	,356	,164	,03	1,428
CAPRAT	-,343	,207	,10	,709
ALLY	,226	,167	,18	1,253
SIMPREF	,555	,400	,17	1,742
CONTIG	1,133	,211	,00	3,106
POLREL	1,675	,182	,00	5,338
Constant	-3,996	,465	,00	,018

Number of observations: 97,407
-2 Log likelihood: 3,074.15

The results presented in table 5 contradict the intuitive notion that all improvements of QoG reduce the risk of conflict. From the theory chapter it is possible to deduce that the information asymmetry between the states in a dyad might not decrease just because the QoG improves for one of them. This would explain why the impact of QOG_H is not positive, but not why it is negative. The results could possibly indicate that large discrepancies in the QoG of the states in a dyad increases the information asymmetry between them, and thus induces

conflict. Another possible explanation is that states with high QoG have a greater tendency to intervene into the policies of weaker states (for instance because of humanitarian or security reasons). However, the negative impact of QOG_H is weaker than the positive impact of QOG_L and the effect of QOG_{AVG} is also beneficial. Since the hypothesis of the thesis, for reasons developed in the theory chapter, is directed at the relationship between QOG_L and conflict—which becomes even stronger when QOG_H is taken into account—it is still possible to confirm that QoG has a pacifying impact on international relations.

Finally, I want to ensure that the results are not affected by a slight discrepancy between the Polity IV values added from the data set of the Quality of Government Institute and the values in the original data set. When a new DEM_L variable based on the data from the QoG institute is created, this variable does not perfectly correlate with the old DEM_L variable. As a precautionary measure then, I run all models with the new DEM_L variable instead of the old. However, all results remains unaffected, and the tables from these tests are not included.

5 Conclusion

In this thesis I analyze the relationship between interstate conflict and QoG in a dyadic setting. I pose the question if higher levels of joint QoG reduce the risk of conflict and formulate a hypothesis based on the theoretical argument that the weaker state in each dyad is more likely to precipitate a break in the peace. By running the variable QOG_L , together with a number of control variables in a logistic regression analysis, I find that improved QoG reduces the risk of conflict. The hypothesis is thus confirmed. But what are the implications of this result?

Since the covered time period is fairly limited, one should generally be cautious of drawing to far-reaching conclusions. That being said, the results of the analysis clearly illustrate an interesting difference in the pacifying effects of democracy and QoG. Although the well-established pacifying benefits of joint democracy still applies for consolidated democracies (as increased DEM_L reduces the risk of conflict), the belligerence of recently transformed democracies questions the universality of the democratic peace. At the same time, improved QoG appears to reduce the risk of conflict substantially, supporting the notion of a “QoG peace”. The negative effect of the QOG_H variable, which might very well be a result of stronger states’ effort to solve problems caused by weaker states, does not detract the benefits of governmental improvement, and should not be seen as a reason to discourage reform.

These observations relate to the general debate mentioned in the introductory chapter on what policies developing countries should adhere to. It seems as if the broad recommendation that governmental reform should be prioritized applies also with respect to the international security dimension.

I end this thesis on a somewhat discouraging note. Although we might know that improved governance theoretically have beneficial effects, we still know little of how this is supposed to happen. And even if we do have the knowledge, it is far from certain it is transferable to the recipient state (Fukuyama 2004). It is an understatement to say that these problems need to receive a lot of attention in the years to come.

6 References

- Aldrich, John H. and Nelson, Forrest D. (1984) *Linear probability, Logit, and Probit Models*. Newbury Park, CA: Sage Publications.
- Beck, Nathaniel, Katz, Jonathan N. and Tucker, Richard (1998) "Taking Time Seriously: Time-Series-Cross-Section Analysis with a Binary Dependent Variable". *American Journal of Political Science*, Vol. 42, No. 4 (Oct.), pp. 1260-1288.
- Bueno de Mesquita, Bruce; Morrow, James D.; Siverson, Randolph M.; and Smith, Alastair (1999) "An institutional Explanation of the Democratic Peace". *American Political Science Review*, Vol. 93, No. 4 (Dec.), pp. 791-807.
- Bremer, Stuart (1992) "Dangerous Dyads: Conditions Affecting the Likelihood of Interstate War, 1816-1965", *Journal of Conflict Resolution*, Vol. 26, No. 2 (Jun., 1999), pp. 309-341.
- Bäck, Hanna and Hadenius, Axel (2008) "Democracy and State Capacity: Exploring a J-shaped Relationship". *Governance: An International Journal of Policy, Administration, and Institutions*, Vol. 21, No. 1, (Jan.), pp. 1-24.
- Elman, Miriam Fendius (1997a) "The Need for a Qualitative Test of the Democratic Peace Theory" in *Paths to Peace: Is Democracy the answer?* ed. by Elman, Miriam Fendius. Cambridge, MA: The MIT Press.
- Elman, Miriam Fendius (1997b) "Testing the Democratic Peace Theory" in *Paths to Peace: Is Democracy the answer?* ed. by Elman, Miriam Fendius. Cambridge, MA: The MIT Press.
- Faber, Henry S. and Gowa, Joanne (1997) "Common Interests or common Politics? Reinterpreting the Democratic Peace". *Journal of Politics*, Vol. 59, No. 2 (May), pp. 393-417.
- Fearon, James D. (1995) "Rationalist Explanations for War". *International Organization*, Vol. 49, No. 3 (Jun.), pp. 379-414.
- Fidell, Linda S. and Tabachnick, Barbara G. (2007) *Using Multivariate Statistics*. 5th edition. New York, NY: Pearson Education, Inc.
- Fukuyama, Francis (2004) *State-building: Governance and World Order in the 21st Century*. Ithaca, NY: Cornell University Press.
- Gartzke, Erik (1998) "Kant we all just get along? Opportunity, Willingness, and the Origins of the Democratic Peace". *American Journal of Political Science*, Vol. 42, No. 1 (Jan.), pp. 1-27.
- Gartzke, Erik (2000) "Preferences and the Democratic Peace". *International Studies Quarterly*, Vol. 44, No. 2 (Mar.), pp. 191-212.

- Ghosn, Faten, Palmer, Glenn, and Bremer, Stuart (2004). "The MID3 Data Set, 1993–2001: Procedures, Coding Rules, and Description." *Conflict Management and Peace Science*, Vol. 21, pp.133-154.
- Gibler, Douglas M. and Sarkees, Meredith (2004) "Measuring Alliances: The Correlates of War Formal Interstate Alliance Dataset, 1816-2000". *Journal of Peace Research*, Vol. 41, No. 2 (Mar.), pp. 211-222.
- Greene, William H. (1997) *Econometric Analysis*. 3rd edition. Upper Saddle River, NJ: Prentice-Hall.
- Herge, Håvard, Ellingsen, Tanja, Gates, Scott and Gleditsch, Petter (2001) "Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816-1992". *American Political Science Review*, Vol. 95, No. 1 (Mar.), pp. 33-48.
- Holmberg, Sören, Rothstein, Bo and Nasiritousi, Naghmeh (2008) "Quality of Government: What You Get". *QoG Working Paper Series 2008:21*.
- Johnston, Michael (2005) *Syndroms of Corruption: Wealth, Power, and Democracy*. New York, NY: Cambridge University Press.
- Kaufmann, Daniel, Kraay, Aart and Mastuzzi, Massimo (2007) "Governance Matters VI: Governance Indicators for 1996-2006". *World Bank Policy Research Working Paper*, No. 4280 (July).
- Kinsella, David (2005) "No Rest for the Democratic Peace". *American Political Science Review*, Vol. 99, No. 3, (Aug.), pp. 453-457.
- Levy, Jack S. (1988) "Domestic Politics and War". *Journal of Interdisciplinary History*, Vol. 18, pp. 653-673.
- Mansfield, Edvard D. and Snyder, Jack (2002) "Incomplete Democratization and the Outbreak of Military Disputes". *International Studies Quarterly*, Vol. 46, No. 4 (Dec.), pp. 529-549.
- Mansfield, Edvard D. and Snyder, Jack (2005) *Electing to Fight: Why Emerging Democracies Go to War*. Cambridge, MA: MIT Press.
- Maoz, Zeev and Abdolali, Nasrin (1989) "Regime Types and International Conflict, 1816-1976". *Journal of Conflict Resolution*, Vol. 33, No. 1 (Mar.), pp. 3-35.
- Oneal, John R. and Russett, Bruce (1997) "The Classical Liberals Were Right: Democracy, Interdependence, and Conflict, 1950-1985". *International Studies Quarterly*, Vol. 41, No. 2 (Jun.), pp. 267-293.
- Oneal, John R. and Russett, Bruce (1999) "The Kantian Peace: The Pacific Benefits of Democracy, Interdependence, and International Organizations, 1885-1992". *World Politics*, Vol. 52, No. 1 (Jan.), pp. 1-37.
- Paris, Roland (2004) *At war's end: Building Peace after Civil Conflict*. New York, NY: Cambridge University Press.
- Ray, James Lee (1995) *Democracy and International Conflict: An evaluation of the Democratic Peace Proposition*. Columbia, SC: University of South Carolina Press.
- Resnick, Danielle and Birner, Regina (2006) "Does Good Governance Contribute to Pro-poor Growth? A Review of the Evidence from Cross-country Studies" DSGD Discussion Papers 30, International Food Policy Research Institute (IFPRI).

- Rosato, Sebastian (2003) "The Flawed Logic of Democratic Peace Theory".
American Political Science Review, Vol. 97, No. 4 (Nov., 2003), pp. 585-602.
- Rothstein, Bo and Teorell, Jan (2008) "What is Quality of Government?"
Governance: An International Journal of Policy, Administration, and Institutions, Vol. 21, No. 2 (Apr.), pp. 165-190.
- Signorino, Curtis S. and Ritter, Jeffrey M. (1999) "Tau-b or Not Tau-b: Measuring the Similarity of Foreign Policy Positions". *International Studies Quarterly*, Vol. 43, No. 1 (Mar.), pp. 115-144.
- Sobek, David, Abouharb, M. Rodwan and Ingram, Christofer (2006) "The Human Rights Peace: How the Respect for Human Rights at Home Leads to Peace Abroad". *Journal of Politics*, Vol. 68, No. 3 (Aug.), pp. 519–529.
- Starr, Harvey and Thomas, Dale G. (2005) "The Nature of Borders and International Conflict: Revisiting Hypotheses on territory". *International Studies Quarterly*, Vol. 49, No. 1 (Jan.), pp. 123-139.
- Teorell, Jan, Holmberg, Sören and Rothstein, Bo (2008). The Quality of Government Dataset, version 15May08. University of Gothenburg: The Quality of Government Institute, <http://www.qog.pol.gu.se>.
- Tilly, Charles (2007) *Democracy*. New York: Cambridge University Press.
- Öberg, Magnus and Erik Melander (2005) "The Quality of Government and Civil War", Paper prepared for presentation at the conference "The Quality of Government: What It Is, How to Get It, Why It Matters", The Quality of Government Institute, Göteborg University, November 17–19, 2005.

7 Appendix: Variables

ALLY: 1 if dyad members are linked by entente, nonaggression, or mutual defense

CAPRATIO: ratio of higher to lower power capability in a dyad, scale 0 to 1

CONFLICT: 1 if the states in a dyad are involved in a conflict with each other

CONTIG: 1 if the states in a dyad share a land border

DEM_H: higher democracy score in a dyad, scale 0 to 1

DEM_L: lower democracy score in a dyad, scale 0 to 1

DEMCRATZ: 1 if one or both of the states in a dyad are experiencing an incomplete democratization

OUTBREAK: 1 if the states in a dyad are involved in a conflict with each other and no conflict between them was ongoing the preceding year

POLREL: 1 if the states in a dyad share a land border or if one of the states is a major military power

QOG_{AVG}: average of the QoG scores in a dyad, scale 0 to 1

QOG_H: higher QoG score in a dyad, scale 0 to 1

QOG_L: lower QoG score in a dyad, scale 0 to 1

SIMPREF: s-scores derived from the alliances portfolios of the states in the dyad, scale 0 to 1