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THE EFFECTS OF REGIONAL INTEGRATION ON THE PREVALENCE OF CONFLICTS

Master Thesis

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Abstract

This thesis looks at the relationship between regional integration and the number of conflicts. It compares this relationship to the one between two variables that have been shown to have an effect on the number of conflicts in other studies: democratic freedom and prosperity. The study is conducted using descriptive statistics and statistical analysis with data from various publicly available datasets for each of the variables. The dataset for regional integration is compiled based on the theoretical framework proposed by Balassa (1962) and uses regional economic integration as its basis. 175 countries in five geographical regions are observed over a period of 21 years from 1991 to 2011. The study finds that each of the three variables has an effect on the number of conflicts, in most, but not all cases the variables have an inverse relationship with the number of conflicts. The two control variables have a much more significant effect on the number of conflicts than regional integration, with democratic freedom having an effect in all but one observed region. Regional integration's effect on the number of conflicts increased in significance over the observed time period.

Keywords: Regional integration, regionalism, conflict, democratic peace, neoliberalism, democracy, prosperity.

1. Introduction

This thesis looks at the effects of regional integration on the prevalence of conflicts. The purpose of this thesis is to assess the effects of a change in regional integration on the number of conflicts in the countries that make up those regions. In order to conduct a truly comprehensive study, it looks at this from a global perspective including as many countries as possible. This study also compares and contrasts possible alternative explanations for changes in the number of conflicts in a given country.

Over the course of the last few decades the world has become increasingly integrated, both regionally and globally. This integration comes in many forms: the costs of international travel have gone down, the rise of the internet has made the sharing of ideas easier than ever before, efforts by international organizations have removed barriers to international trade and regional political cooperation has given rise to regional political unions. The world around us has shrunk, figuratively speaking. While this trend is obvious, its consequences are not? Arguably, there's no better consequence than peace and stability in the form of an absence of armed conflicts. Neoliberal Institutionalism argues that states create interdependence between each other through political institutions and economic ties (Keohane & Nye, 1977). Furthermore, free trade areas, customs unions and economic unions strengthen the economic ties within a region, increasing interdependence and raising the costs of potential conflict.

In order to measure the effects of regional integration, this thesis investigates the correlation between the level of integration and the number of conflicts. Does increased integration also bring a decrease in armed conflicts or is it better explained by other factors such as increased democratization or prosperity?

Thus, the research question is: To what extent does regional integration affect the prevalence of conflicts? To answer this question, this study looks at 175 countries from 1991 to 2011 and compares their level of regional integration over time with the number of conflicts in their territory using various methods of statistical analysis in order to find out if increased regional integration has a measurable effect on the number of conflicts. It also focuses on the level of democratization and prosperity in these countries to see if those factors might help better explain the number of conflicts. The main argument of this thesis is that increased regional integration leads to a measurable decrease in the number conflicts and that decrease is more pronounced than that for either prosperity or democratic freedom.

This study contains four main chapters and a conclusion. The first chapter is the literature review where previous academic research on this and related topics is discussed and summarized. The following chapter presents the theoretical framework that outlines the theoretical basis used to explain the relationship between variables, it also presents the hypotheses to be tested. The third chapter lays out the methodology for gathering and analyzing the data, as well as the variables and their operationalization. The last chapter consists of the analysis. In this chapter the data is analyzed in two sections, in the first, descriptive statistics are used to establish general trends and correlations in the data. Following this, statistical analysis is used to verify the observations made in the previous section and the data is further analyzed on a deeper level. The thesis concludes with a summary of the main findings, possible avenues of future research and the inherit limitations of the study.

After considering all the data, a correlation is found between increased regional integration and an absence of conflict, but this correlation is much less pronounced than those between prosperity and democratic freedom and an absence of conflict. A one way correlation is established between increased levels of democratic freedom and an absence of conflict. All three hypotheses are proven true to a degree, but the data makes hypothesis 2 the strongest out of the three.

2. Literature Review

The academic literature on regional integration's effect on the prevalence of conflicts is largely focused on case studies of specific regions and regional organizations. There seems to be a distinct lack of large-scale comprehensive and quantitative studies into the relationship between the two.

The most relevant and comprehensive piece of academic literature on the topic of regional integration and conflicts is a chapter by Swanström (2005). The first thing he brings up is a distinction between conflict management, which most literature focuses on and conflict prevention which he feels has not been covered enough. He notes that while international organizations like the United Nations are well suited for conflict management, regional organizations are better suited for conflict prevention. He finds that regional organizations vary in their functioning from region to region. For example, in Western low context cultures (cultures where communication is explicit and on a single level), regional organizations tend to be more legislation based, with members giving up some sovereignty for everyone's benefit. In high context cultures (cultures where a lot is left unsaid and the choice of words is more important)

such as those in Asia, regional organizations tend to be more informal, functioning more as forums rather than strict legislative frameworks. This variety makes it difficult to find one easy-to-measure mechanism by which regional integration helps prevent conflicts. While regional economic integration helps prevent conflicts by increasing the costs of conflict through interdependence, regional security organizations like OSCE have specific structural mechanisms to prevent conflicts and regional political organizations provide mediation and help create what Swanström (2005) calls a "culture of prevention" in the region. He concludes by saying that the notion of "what works for us should work for them" has been repeatedly proven wrong and that each region is different.

In the rest of the academic literature two main sides emerge, one arguing that regional integration (through regional organizations) is beneficial to preventing and resolving conflicts; and another arguing that regional organizations are ineffective at preventing or resolving conflicts.

Adeleke's (1996) article looks at ECOWAS' (Economic Community of West African States) actions in conflict resolution in East Africa. Its actions have been billed as the first instance of a regional organization mounting a military intervention. Even though ECOWAS was little more than an economic union at the time, its swift action diffused the situation and established peace. Arthur's (2010) later article looks back at how ECOWAS' first effort in Liberia helped prepare them to deal with future crises in the region. He looks at the cases of Cote d'Ivoire and Togo, where ECOWAS was able to diffuse the rising conflicts without much bloodshed. He also makes suggestions for other regional organizations. Similarly, Amer's (2004) article outlines ASEAN's (Association of Southeast Asian Nations) acceptance of Vietnam, which lowered tensions in the region, provided it with a framework for conflict resolution and solved its border disputes, shows regional integration in an extremely positive light.

Stefanova's (2006) article looks at the evolution of what in now the European Union as the proto-regional organizations. He notes that it started as a security mechanism after the Second World War to prevent another war in Europe. The European Coal and Steel Community was to create interdependence between the larger actors in Europe in a field that was essential to waging war, fuel and raw material. Based on European Union's example, he draws up the evolution of a regional integration from economic integration to political and security integration.

Walraven (1998) doubts the effectiveness of regional organizations in conflict prevention and resolution. His article takes a detailed look at the structure and political capacity of organizations

set up to prevent conflicts (among other things) and concludes that they lack the institutional capacity and political means to fulfill their assigned tasks of conflict prevention and resolution.

Omorogbe's (2012) article looks at the failure of the African Union to act decisively during the Libyan Civil War. While another regional organization, the Arab League supported military intervention that eventually led to the resolution of the war, the African Union was insisting on a diplomatic option, even though they themselves are tasked with maintaining the security in the region. This highlights the argument that just any kind of regional integration might not be better for resolving conflicts in the region.

While there is a distinct lack of quantitative studies into regional integration's effects on conflict, there are many studies looking at other factors affecting conflict in states. From this literature two major alternatives emerge: the level of democracy in a country and the relative prosperity of the population of a country.

In their book Russett and Antholis (1993) conduct an extensive empirical study on what is colloquially known as the Democratic Peace Theory. The main tenant of the theory is that democratic states do not wage war with each other and are generally more peaceful than non-democratic states. Russett and Antholis found a correlation between democracy and an absence of conflict after testing extensively for other control variables, Dafoe et al. (2013) found similar results in their more recent study. While the theory traditionally only looks at interstate conflict, extrapolating it to include intra-state conflicts isn't too far reaching. This theory is not without its critics, from the definition of democracy used (Balci, 2011) to the actual mechanisms of military in democracies (Rosato, 2003), but it does highlight a possible alternative variable to test. Thus, the first control variable to explain the number of conflicts is the degree of democracy in a given country.

In the criticism of the Democratic Peace Theory, scholars tried to find other explanations for the presence or lack of conflict. One major alternative that emerged is based on economy. Mosseau (2005) argues that most conflicts between neighboring countries have been between relatively poor countries. Going further into this argument Azar Gat looks at possible alternative explanations for the causes of war that could contribute to an absence of conflict in a country independent of its democracy or the lack thereof. One of his findings is wealth and comfort, Gat (2006) argues that throughout history, increased prosperity has made people less willing to endure the hardships of war and military service. Oneal and Russett (2003) conducted a large scale study to test Immanuel Kant's theory of universal peace through democracy, trade and international

organizations. For their study they use pairs of states over a very long time period. They found that increased trade between states does indeed reduce the chance that a conflict will ignite between the pair of countries observed. Following from this, the second control variable to explain the number of conflicts is relative prosperity.

3. Theoretical Framework

Since this research is primarily focused on regional integration through regional intergovernmental organizations, customs unions and the like, the theoretical framework needs to acknowledge the effects of non-state actors in the international system and look at possible interactions between states that would help prevent conflicts.

Neoliberalism is a theory that does envisage regional organizations as valid actors in the international system. It was put together by Robert Keohane and Joseph Nye (1977). They argue that states create interdependence between each other through various means such as political institutions and trade. This interdependence increases the cost of war between states by means of cutting vital trade or risking sanctions from an intergovernmental body, making it a less desirable option for all involved.

Neoliberalism presents a response to Neorealism. It is characterized by a focus on absolute gains, unlike Neorealism which focused on relative gains (Waltz, 1979). Neoliberals still believe that states exist in an anarchic system and focus on states as the primary actors, but they argue that long-term co-operation is not only possible, but the best solution for everyone. They also believe that there are many different channels that connect states to each other in the international system such as economic ties and intergovernmental organizations. They assert that military might is not the only instrument to be used in international relations and states can have more motivations for acting beyond pure self-interest and survival (Keohane & Nye, 1977).

As Swanström (2005) points out in his article, the mechanism of conflict prevention is simple for regional economic integration. According to his theory, the higher the degree of regional integration, the higher the interdependence between countries in that region through economic ties. Increased interdependence then leads to higher costs of conflict, which make conflicts less likely in the region. Stefanova's (2006) article suggests that regional integration often starts out as economic integration and later develops into deeper integration through political and security cooperation.

The theory of regionalism explains why states form regional groupings and create institutional frameworks to further strengthen those groupings. Karns and Mingst (2010) categorize those reasons into two main categories: political and economic. They identify a number of political factors. The first of these is power dynamics where one powerful state drives smaller states to form a regional grouping either in its interests or against itself. The second is a common identity based on shared history, culture or religion. Another political factor is a common ideology based on a shared world view such as liberal democracy or communism. They also identify an external or internal threat like a powerful hostile state, terrorist group, economic instability, proliferation of internal conflicts or humanitarian disaster as a political factor for regional integration. Domestic politics is also found to be a factor where political pressure from local or international companies or a desire to push through controversial reforms can lead states towards closer cooperation. The last political reason identified is effective regional leadership which is necessary to start off the regional integration process. The economic factors they identify are much less diverse with the main ones are a desire to stimulate inter-regional trade and increase the size of the market in order to attract foreign direct investment in the region. They also conclude that while regional cooperation often starts with economic cooperation, its primary goals are often political and security benefits of cooperation.

There are many factors driving regionalism in the world, one of which is the desire to stabilize and maintain regional peace. As pointed out in the previous section, regional integration can bring those desires about in a variety of ways. Because this is a large scale quantitative research, it focuses on whether regional integration does indeed bring with it peace and stability in the form of fewer conflicts rather than how this is specifically achieved.

Following from the theory and previous research, the three main hypotheses to be tested are:

H1: The more regionally integrated a country is, the lower the number of conflicts in the country.
H2: The more democratic a country is, the lower the number of conflicts in that country.
H3: The more prosperous a country is, the lower the number of conflicts in that country.

4. Research Design

4.1. Methodology

This paper, using descriptive statistics and statistical analysis, compares data from various internationally recognized academic databases (details below) in one that is compiled spcifically

for the purposes of this study (due to the lack of a comprehensive database on regional integration) to find correlations between the number of conflicts and prosperity, democratic freedom and regional integration and test the hypotheses set up previously.

Using the Freedom in the World Index as the base, all countries that existed between the years 1991 and 2011 are included in a list. Then, based on the indexes, the number of conflicts, regional integration, democracy score and prosperity are added for each country. Following this, the data is graphed out using Microsoft's Excel 2010 in order to find trends and correlations between the different variables.

The data is then transferred to IBM's SPSS version 19 for further statistical analysis. The number of conflicts is recoded into a dummy variable (0 for no conflicts and 1 for at least one conflict) to allow for bivariate logistic regression, the other variables are recoded into dummy variables (when needed) based on the global average for each variable. GDP is recoded into the natural logarithm of its original value in order for it to be statistically comparable to the other values. Then bivariate logistic regression is run using the dummy variable for conflicts as the dependent variable and logged GDP, democratic freedom score and the level of regional integration as the independent variables (Field, 2009). The relevant output is transferred then transferred to a table and analyzed further.

4.2. Case Selection

In order to get consistent results, only countries that have not changed the size of the territory they govern in the observed period are used. Countries that have split or formed a new territorial unit inside a country that existed in that territory before are discarded from the data. This is done to keep the GDP figures for each country consistent with the specific territory over the whole time period.

The studied time period covers the years from 1991 to 2011. 1991 was chosen as the starting year because it gives a sufficiently long timescale to observe trends while being just at the end of the last period when a large number of countries gained independence (due to the collapse of the Soviet Union) in the third wave of democratization. This is a good balance between not discarding too many countries because of territorial changes and having enough data points on the timescale. 2011 was chosen as the end year because the latest version of the UCDP/PRIO Armed Conflict Dataset being used for the dependent variable only has data until the year 2011.

Following the parameters set before to get as consistent data as possible, the following countries have been discarded out of the 197 in Freedom House's index used as the basis for the country list: Czechoslovakia, Czech Republic, Slovakia (split in 1993); Ethiopia and Eritrea (split in 1993); Indonesia and East Timor (split in 1999); Sudan and South Sudan (split in 2011); Serbia & Montenegro, Serbia, Montenegro, Kosovo (split in 2006 and 2008). In addition to those countries Andorra, Cuba, Lichtenstein, Monaco, Narau, North Korea, Palau, San Marino and Somalia were also discarded because the GDP figures for them were not included in the International Monetary Fund's dataset. This leaves a total of 175 cases over a period of 21 years.

For more in depth analysis of the data, it has been further divided into five geopolitical regions based on the United Nations Regional Groups[1]. These groups are African Group, Asia-Pacific Group, Eastern European Group, Latin American and Caribbean Group, Western European and Others Group. The special cases of United States, Israel, Turkey, Kiribati and Taiwan have been assigned according to their voting block or failing that, their geographical location. This puts them respectively to Western European and Others group for the first three, and the Asia and Pacific group for the last two.

4.3. Data Selection

4.3.1. Conflicts

The Uppsala Conflict Data Program's UCDP/PRIO Armed Conflict Dataset[2] is utilized to measure the dependent variable (number of conflicts). The most current version of the dataset, first published in 2002, catalogs all armed conflicts from 1946 to 2011. The conflicts are coded by their start data and the dataset contains a large amount of data on each conflict.

The dataset defines armed conflict as:

> *"A contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths"* (Themnér, 2012)

Battle-related deaths are further defined as

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[1] Members of the General Assembly in current regional groups. United Nations.
http://www.un.int/wcm/webdav/site/gmun/shared/documents/GA_regionalgrps_Web.pdf
[2] Armed Conflict Dataset. Uppsala Conflict Data Program. Uppsala University.
http://www.pcr.uu.se/research/ucdp/

"Deaths caused by the warring parties that can be directly related to combat over the contested incompatibility. This includes traditional battlefield fighting, guerrilla activities (e.g. hit-and-run attacks/ambushes) and all kinds of bombardments of military bases, cities and villages etc. Urban warfare (bombs, explosions, and assassinations) does not resemble what happens on a battlefield, but such deaths are considered to be battle-related. The target for the attacks is either the military forces or representatives for the parties, though there is often substantial collateral damage in the form of civilians being killed in the crossfire, indiscriminate bombings, etc. All fatalities – military as well as civilian – incurred in such situations are counted as battle-related deaths." (Definitions, Sources… 2005)

To find this information, the program uses publicly available sources such as news agencies, journals, research reports, international organizations, non-governmental organizations and information from the warring parties. The independence and transparency of the sources is considered paramount and each source is judged according to the context in which it was published (Definitions, Sources… 2005).

In order to extract the information relevant to this paper, a new dataset was compiled a new using only relevant information from the UCDP/PRIO Armed Conflict Dataset. This includes the number of conflicts in a given country per year in the time period observed, the number of conflicts a given country was the primary combatant and supporting combatant and the type and intensity of these conflicts. The dataset identifies four types of conflicts: extrasystemic, where a state fights a non-state group outside its own territory; interstate, where two or more states fight each other; intrastate, where the state fights one or more non-state groups in its own territory and internationalized, where an intrastate conflict is joined by one or more external states. The intensity is measured with a binary system with 1 denoting 25-999 battle-related deaths per year and 2 denoting more than 1000 battle-related deaths per year (Themnér, 2012).

4.3.2. Regional Integration

Unfortunately, there is no a comprehensive dataset that catalogs regional integration. Because of this, a new dataset has been compiled to measure regional integration by country. As Swanstörm's (2005) article points out, regional organizations have large variation in their structure, aims and function. This makes it difficult to establish a single criterion for comparing

regional organizations in different parts of the world. One other problem with measuring regional integration in a variety of regional organizations is the difficulty in tracking the membership process. In some regional organizations there is certain criteria that needs to be met in order to be able to join, while others will accept any countries in the region. Some also have different levels of membership from full members to associate members to candidate members.

Focus on regional integration through economic integration was chosen as the basis in order to establish a uniform system of assessing countries' regional integration. However, this leaves out purely political regional organizations; they are too varied in their structure and functions to be adequately compared to each other. Regional economic integration also meshes well with neoliberalism, because it creates increased interdependence between its members.

In order to quantify regional economic integration, Balassa's (1962) Theory of Economic Integration is used. It outlines stages of economic integration between states. The stages are as follows (from lowest to highest): free trade area, customs union, common market and economic union. In order to reflect the current realities in economic integration, two more stages were added to this: common market with monetary union and economic union with monetary union. This leaves a seven point scale to measure regional integration (from highest to lowest): 0 – no integration, 1 – free trade area, 2 – customs union, 3 – common market, 4 – common market with monetary union, 5 – economic union, 6 – economic union with monetary union.

The primary source for collecting data for this dataset is the World Trade Organization's Regional Trade Agreements Information System[3] which catalogs all trade agreements between states since its inception in 1947 as the General Agreement on Tariffs and Trade. The RTAIS provides the type, year of signing, year of entry into force and the founding members of regional trade agreements. Where possible the websites of the regional organizations were employed for crosschecking additional details like the years non-founding members joined and possible changes in the type of agreement. Only multilateral trade agreements between neighboring countries were counted to represent the regional aspect of this paper. States are considered to be part of an agreement when it enters into force. When multiple different levels of integration overlapped, the highest one was chosen.

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[3] Regional Trade Agreements Information System. World Trade Organization.
http://rtais.wto.org/UI/PublicMaintainRTAHome.aspx

4.3.3. Democracy

To measure democratic freedom in a country, Freedom House's Freedom in the world index[4] was used. This index provides an annual assessment of freedom as experienced by individuals per country. This is done in two broad categories: political rights and civil liberties. According to Freedom House:

> *"Political rights enable people to participate freely in the political process, including the right to vote freely for distinct alternatives in legitimate elections, compete for public office, join political parties and organizations, and elect representatives who have a decisive impact on public policies and are accountable to the electorate. Civil liberties allow for the freedoms of expression and belief, associational and organizational rights, rule of law, and personal autonomy without interference from the state."* [5]

 These two categories are assessed on a 7 point scale with number 1 representing the most freedom and number 7 the least. The scores are compiled by analysts and academic advisors and based on news reports, academic analysis, nongovernmental organizations' reports, think tanks' reports, individual professional contacts and visits to the region."[6]

In order to get one easily comparable score to represent the overall level of democratic freedom in the countries, the two scores were added together to create a new combined score that goes from 2 to 14 with 2 representing the highest degree of freedom and 14 the lowest. This was done this for every country observed for the period of 1991 to 2011.

4.3.4. Prosperity

In order to measure prosperity, the International Monetary Fund's World Economic Outlook 2013's data[7] for gross domestic product is utilized. The primary source of the data is national governments with international organizations playing a role in harmonizing the methodologies and the data (World Economic… 2013).

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[4] Freedom in the World Index. Freedom House. http://www.freedomhouse.org/reports
[5] Freedom in the World Index Methodology. Freedom House.
http://www.freedomhouse.org/report/freedom-world-2012/methodology
[6] Freedom in the World Index Methodology. Freedom House.
http://www.freedomhouse.org/report/freedom-world-2012/methodology
[7] World Economic Outlook. Intenational Monetary Fund.
http://www.imf.org/external/pubs/ft/weo/2013/01/index.htm

Per capita purchasing power parity adjusted gross domestic product in Dollars was chosen for the purposes of this thesis. Per capita GDP is gross GDP divided by the total population of the country (Frank & Bernake, 2003). This allows countries to be better compared to each other, despite having vastly different sized populations. Purchasing power parity adjusts the GDP based on a weights system which reflects the purchasing power in each country despite changes in currency exchange rate and other factors.[8] This variation of GDP allows comparison of all the selected countries' prosperity on the most equal footing possible.

5. Analysis

5.1. Descriptive Statistics

5.1.1. Global Trends

This section looks at the generalized global trends in the gathered data, starting with the average number of conflicts per country per year. This is followed by average per capita purchasing power parity adjusted GDP, then the average democratic freedom and ending with the average level of regional integration over the observed time period.
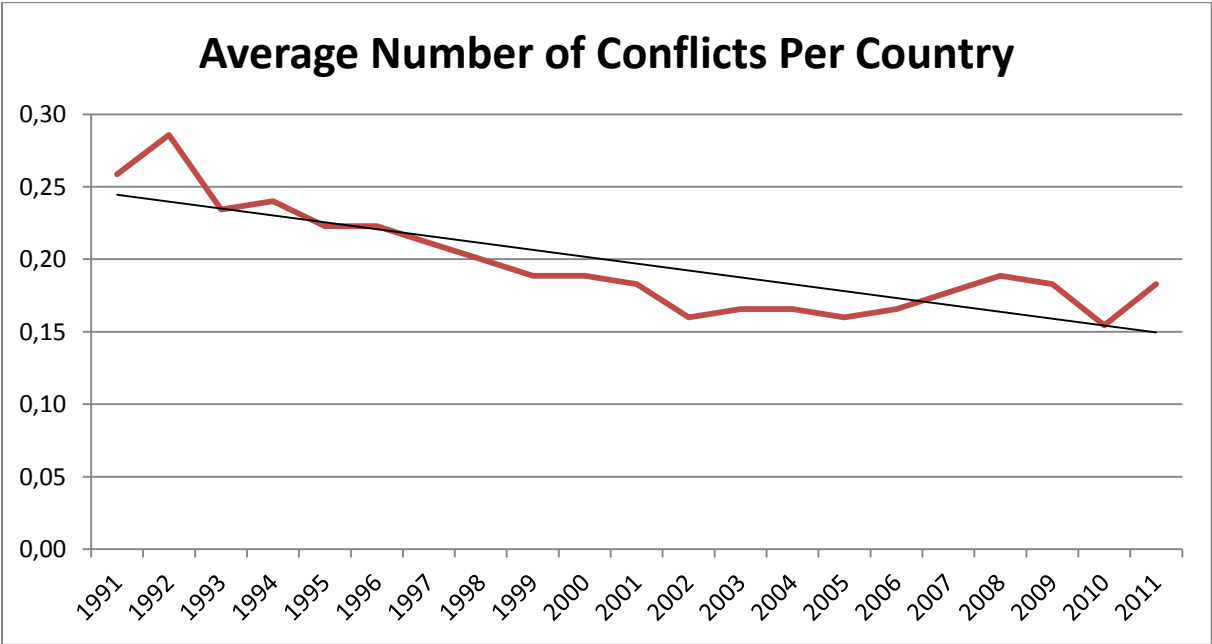

Graph 1. The average global number of conflicts per country over time.

Graph 1 shows that while fluctuating noably, the average number of conflicts per country globally is on a downward trend in the 21 years observed in this study. There is a visible increase in the amount of conflicts in the early 1990s which could be caused by the conflicts that happened

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[8] Frequently Asked Questions. International Monetary Fund.
http://www.imf.org/external/pubs/ft/weo/faq.htm

in the wake of the collapse of the Soviet Union and Yugoslavia. The bump that appears in 2011 could be attributed to the after effects of the so called Arab Spring in the Middle East and North Africa. Despite the average number of conflicts per country increasing towards the end of the observed period, the number of conflicts has generally decreased.

Average Gross Domestic Product Per Country
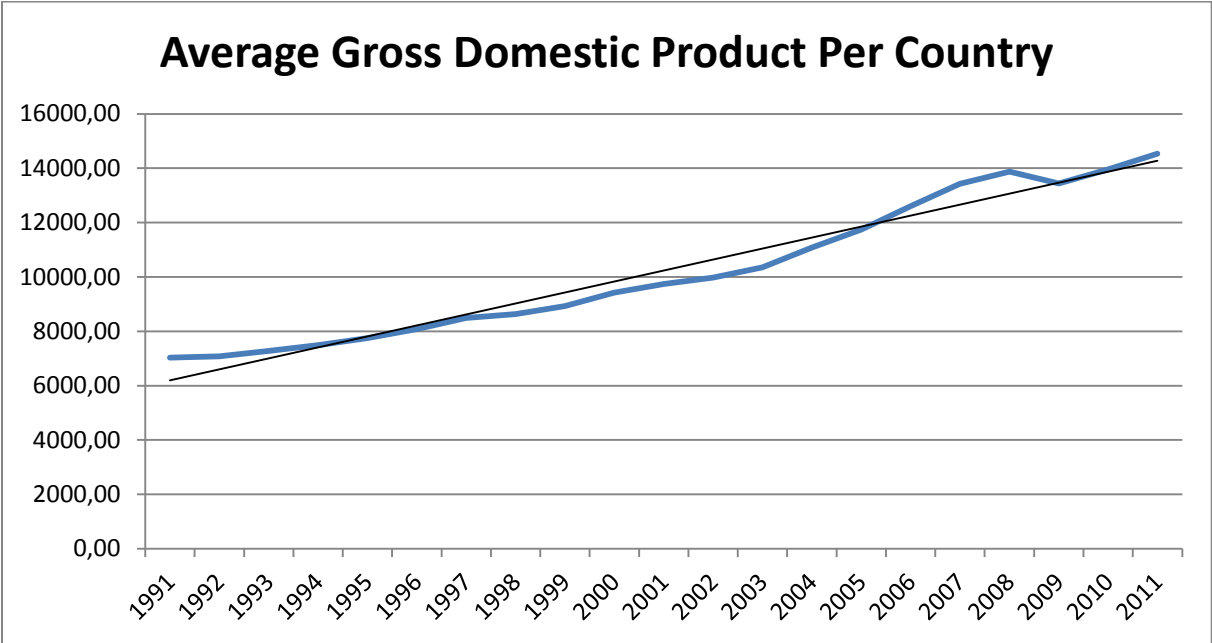
Graph 2. The average global per capita gross domestic product adjusted for purchasing power parity in dollars over time.

As graph 2 indicates, the average global per capita GDP adjusted for purchasing power parity has steadily increased to almost double the starting amount over the observed period with the trend pointing to further increase. There a noticeable decline in 2008, most likely due to the global financial crisis reaching its peak in that year. Following Gat's (2006) theory of increased prosperity leading to fewer conflicts this would mean a steady decrease in conflicts over the observed period of time.
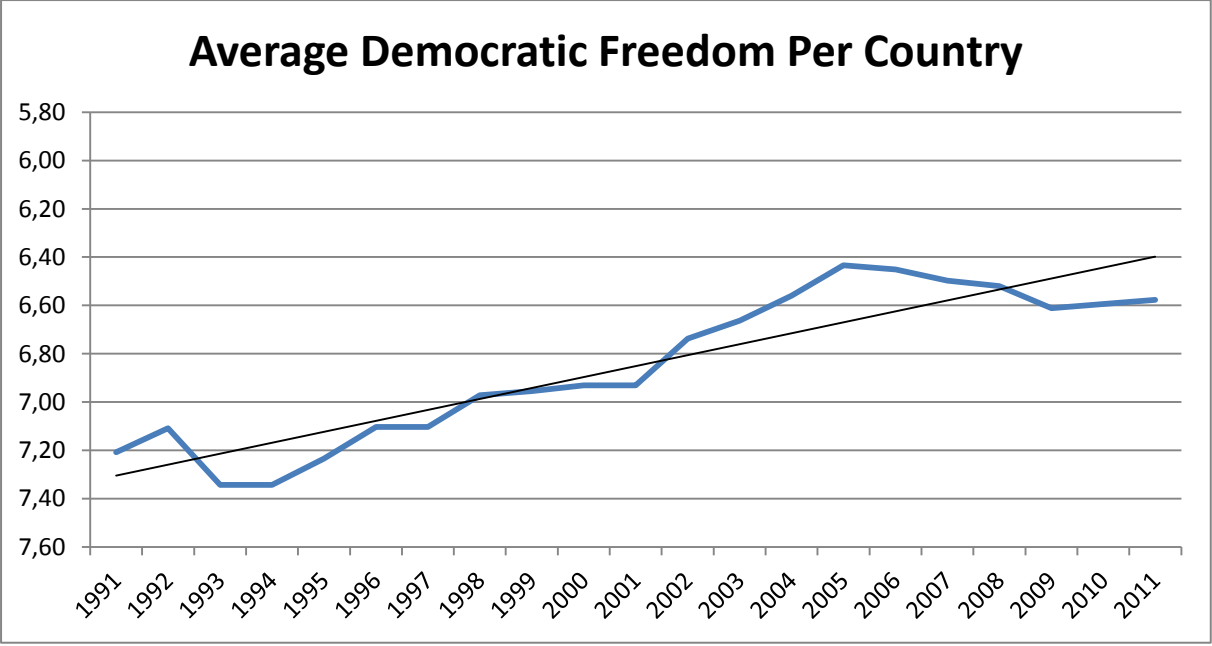
Graph 3. The average global democratic freedom. The graph has been inverted as a lower score indicates more and a high score less democratic freedom over time.

Graph 3 shows that the average democratic freedom has fluctuated over the observed time period, but the overall trend is up. The large drop off in 1992 could be attributed to the newly independent countries in Eastern Europe struggling with establishing democracy after decades of totalitarian rule. The sharp increase in the first half of the 2000s could be explained by European Union's enlargement and more freedom coming to the Middle East.
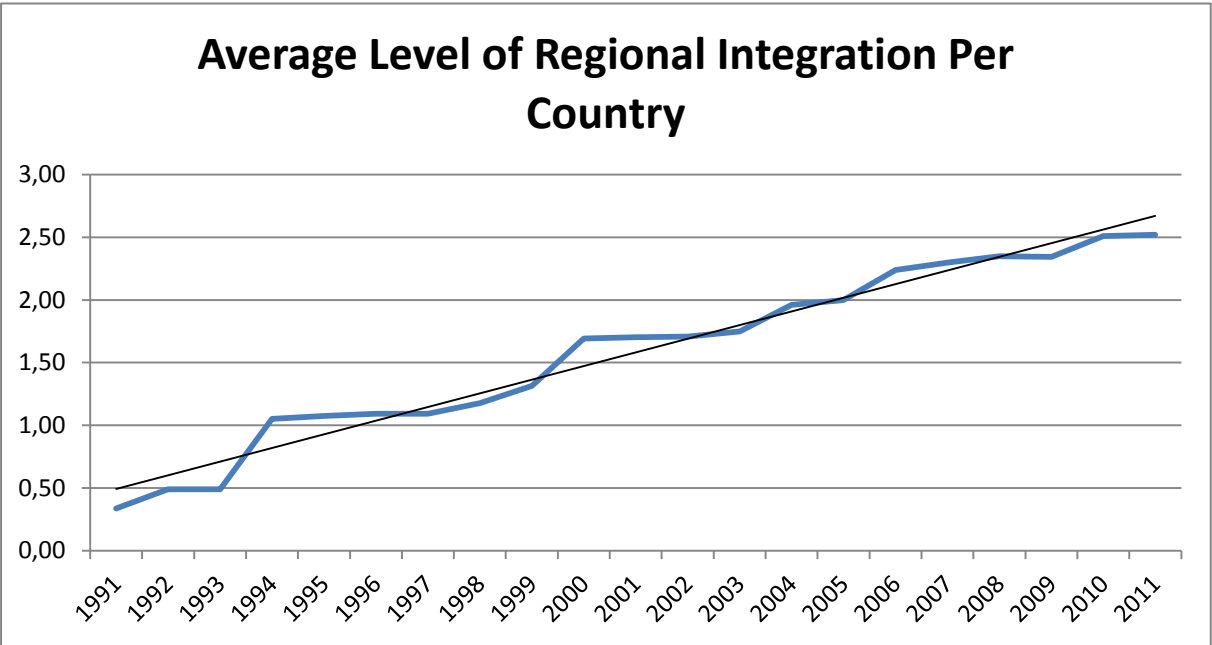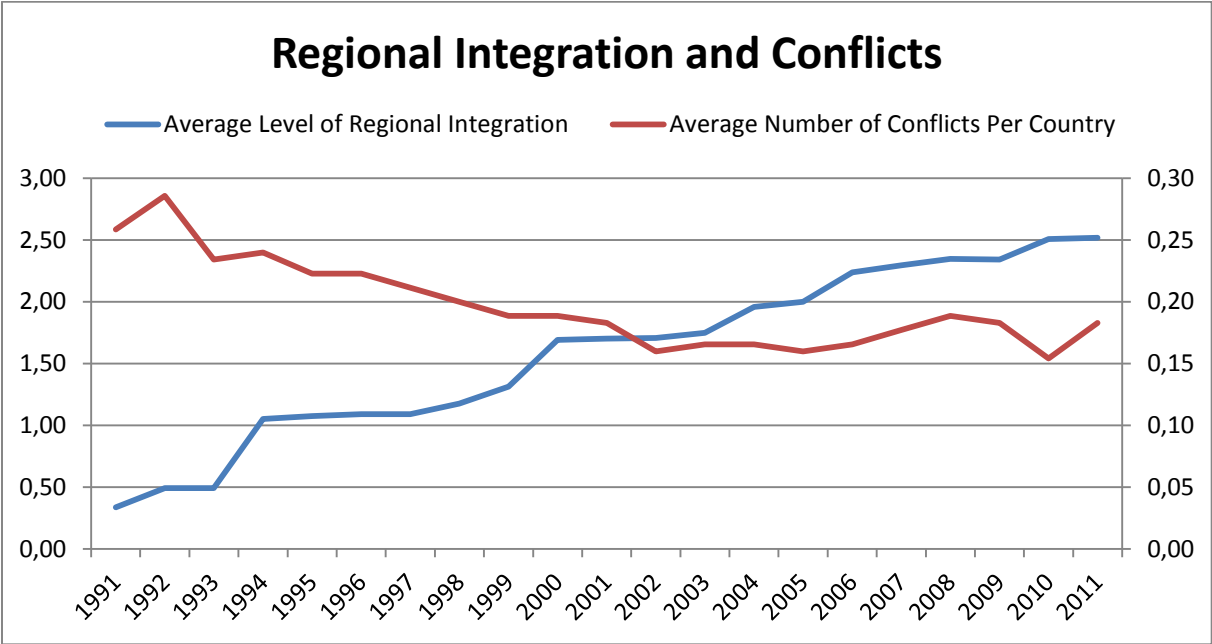

Graph 4. The average global level of regional integration over time.

As graph 4 indicates, the average level of regional integration has steadily increased in several stages and the general trend is up. The stage by stage increases can be explained by new regional organizations coming into existence and therefore increasing the level of integration in multiple countries at once or due to existing regional organizations implementing a new policy for all members states simultaneously.

An overview of the global trends shows that the overall average number of conflicts has decreased over the observed period of time, futhermore the overall average of each of the dependent variables has increased. This result fits with all the set hypothesis and calls for a more in-depth analysis of the data.

5.1.2. Global Correlation

In this section the global data for all the variables is compared using descriptive statistics in the form of graphs to find any significant correlations between them.

Graph 5. The average global level of regional integration and the average global number of conflicts per country over time. The scale for regional integration is on the left and the one for conflicts is on the right.

As graph 5 indicates, the average number of conflicts decreases as the average level of regional integration increases between the years 1991 and 2001. In the following period the number of conflicts remains relatively stable compared to the continued increase in the level of regional integration. There seems to be a correlation between the two variables. Keohane and Nye (1977)

do not predict a ceiling to the reduction of conflicts in their theory of complex interdependence. As the interdependence between states increases, the cost of war between them continues to increase making conflict less likely.

This presents a number of possibilities. The most obvious one is that the correlation in 1991-2001 due to unmeasured factors or that the effects of regional integration on conflicts is capped at a certain level above which it no longer has a noticeable effect. Another explenation may be that increased regional integration only affects interstate conflicts and that the relatively stable number of conflicts after 2001 is largely made up of intrastate conflicts. There is no obvious reason as to why further regional integration would affect the number of intrastate conflicts as the increased costs of war as described by Keohane and Nye wouldn't affect intrastate actors. This will be examined further in the thesis.
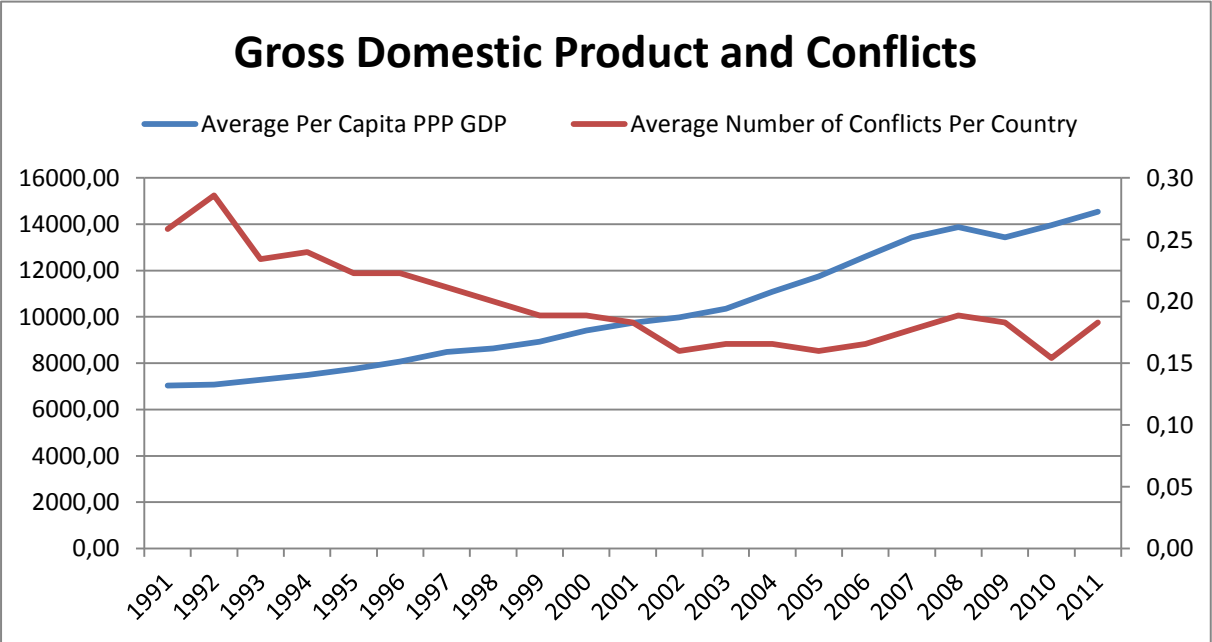
Graph 6. The average global per capita gross domestic product adjusted for purchasing power parity in dollars and the average global number of conflicts per country over time. The scale for GDP is on the left and the one for conflicts is on the right.

As indicated in graph 6, when average per capita GDP increases, the average number of conflicts per country decreases between the years 1991 and 2001. After that, the number of conflicts stays relatively stable while GDP continues to grow. It is interesting to note that the drop in GDP during the 2008-2009 financial crisis is reflected in a similar drop in the average number of conflicts over the same period. Similarly to regional integration, there is only a correlation in the

first half of the observed period. Gat's (2006) theory that increased prosperity leads to a reduction in conflicts cannot thus be conclusively proven or disproven with the data presented.

The corresponding decrease in both GDP and conflicts is an interesting finding, even though it is only present in two data points. It could indicate that there is a one-way relationship between GDP and conflicts where a decrease in GDP leads to a decrease in conflicts but not necessarily the other way round.
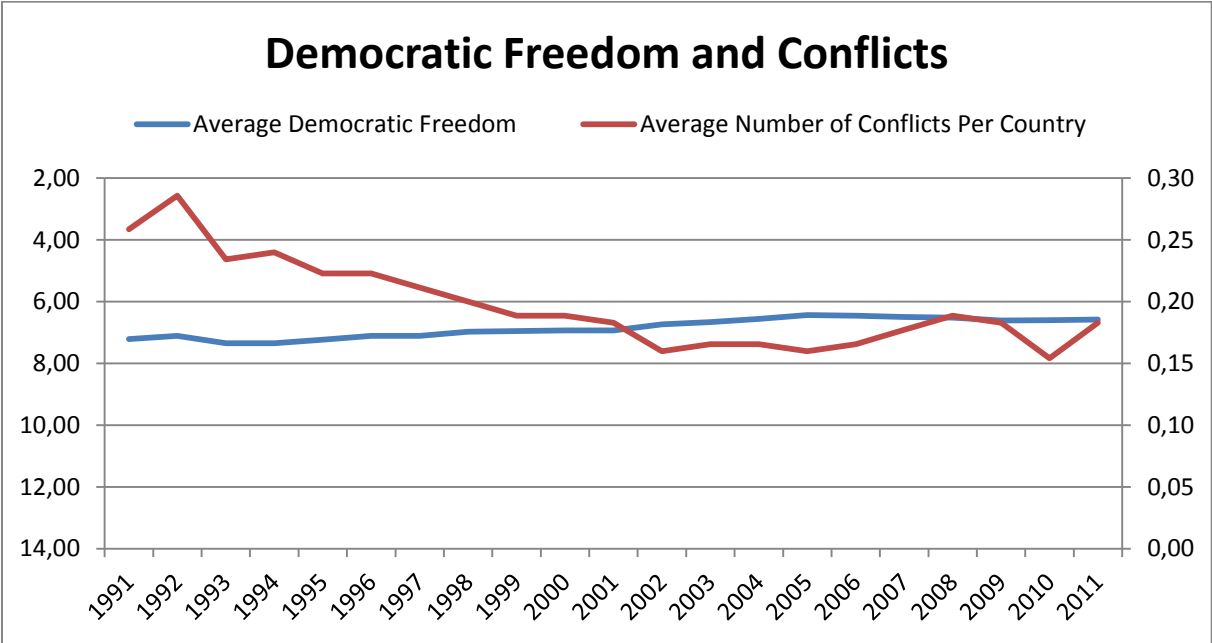
Graph 7. The average global score of democratic freedom and the average number of conflicts per country over time. (The scale for democratic freedom has been inverted as a lower score indicates more and a higher one less freedom. The scale for the democratic freedom score is on the left and the one for conflicts is on the right.)

As indicated in graph 7, the average level of democratic freedom in the world increases slightly as the average number of conflicts first decreases and then remains relatively stable. The small changes in democratic freedom over time are not readily apparent because of the nature of the 13 point scale used for measuring democratic freedom and having to balance the scale at zero. Therefore the effects of democratic freedom will be more noticeable at regional level of analysis as it differs more using smaller scale.

5.1.3 Smaller Levels of Analysis

5.1.3.1 Many Conflicts vs. No Conflicts

In this section, the data is scrutinized in more detail. The data has been divided into two separate datasets by total number of conflicts over the observed 21-year period. Countries with no conflicts have been designated as "no conflicts" and countries with 5 or more conflicts have been designated as "many conflicts". This provides a different nominal look at the variables used in this study.
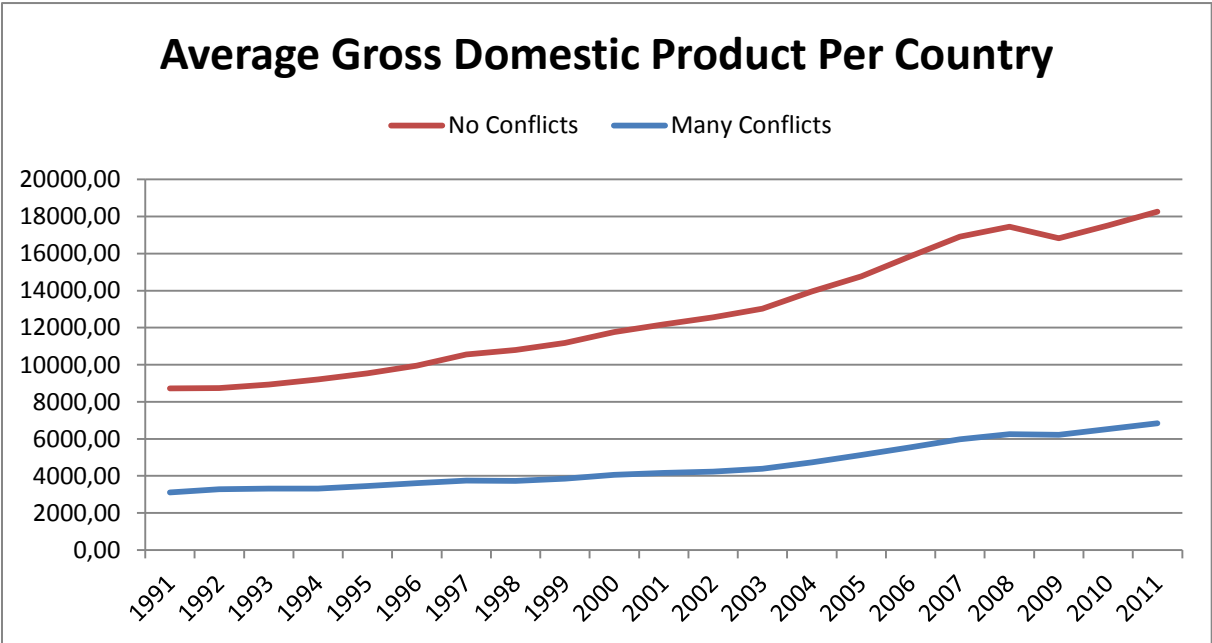
Graph 8. The average per capita purchasing power parity adjusted GDP over time in dollars for countries with no conflicts and countries with many conflicts.

Graph 8 indicates a clear difference in GDP of countries with no conflicts and those with many conflicts. The difference in the nominal value is more than double in favor of countries with no conflicts. In addition to the nominal value, the rate of increase is also noticeably faster in the no conflict countries. It is also interesting to note that the only noticeable dip in the GDP during the 2008-2009 financial crisis is much more pronounced in the no conflict countries, being almost non-existent in the countries with many conflicts. This could imply that the economies in the no conflict countries are much more closely tied to each other than those in the many conflict countries.

There are multiple ways of interpreting this data. One obvious way of looking at it is that countries with many conflicts have a much worse climate for economic growth with a significant drop in education, a rise in poverty and internal displacement during and after conflicts (Gates et

al, 2012). This would explain the lower rate of GDP growth. Another way of looking at it is that countries with lower nominal GDP are more likely to have conflicts. As lower GDP would indicate a higher prevalence of poverty and unemployment, this would in turn mean a higher proportion of young disenfranchised males, who have the highest propensity for aggression and conflicts in society (Gat, 2006). This does lead to a chicken-and-egg problem with no clear indication of whether a low GDP causes conflicts or conflicts cause a low GDP or both possibly in a vicious cycle. There does seem to be a clear correlation between the two in this graph, but the limited nature of the observed time period does not allow for clear cause and effect to be established.
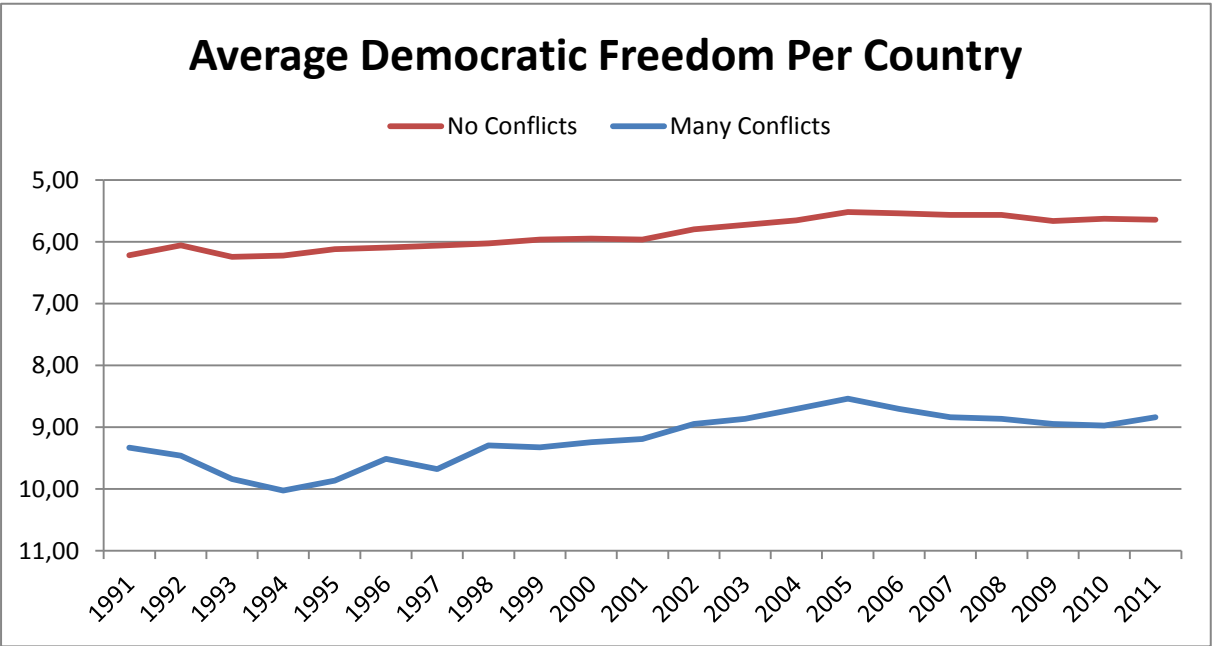
Graph 9. The average democratic freedom per country over time in countries with no conflicts and countries with many conflicts. The graph has been inverted as a low score denotes a high and high score a low level of democratic freedom.

Graph 9 indicates a noticeable difference in the democratic freedom in countries with no conflicts and in those with many conflicts. The average democratic freedom is significantly higher in countries with no conflicts compared to those with many conflicts. Interestingly, the average democratic freedom has increased slightly in countries with many conflicts while the increase in counties with no conflicts is much smaller. The average democratic freedom also fluctuates more in countries with many conflicts, this could be the result of the regime turning more authoritarian in response to internal or external threats and possible regime changes as a result of a successful overthrow of the government.

Once again, this data presents two possibilities: either less democratic freedom leads to more conflicts or more conflicts lead to less democratic freedom. Oneal and Russett (1999) find that democracy has important pacific benefits, as they put it, at least to interstate conflict looking at the 1950-1992 period just preceding the one observed in this study. This echoes back to the previous section to look at interstate and intrastate conflicts separately.

There are arguments for either possibility. Less democratic freedom would imply a more authoritarian regime, which would have more legal freedom to quell potential conflicts as well as the motivation to do so for regime survival before they turn into violent armed conflicts. At the same time a more authoritarian regime would face more dissent from a lack of equal political representation and oppression. More democratic freedom would allow people to express their grievances through elections and public criticism, which many authoritarian regimes do not allow. It is not possible to establish a direct cause and effect relationship between democratic freedom and the number of conflicts, but there is correlation between the two.
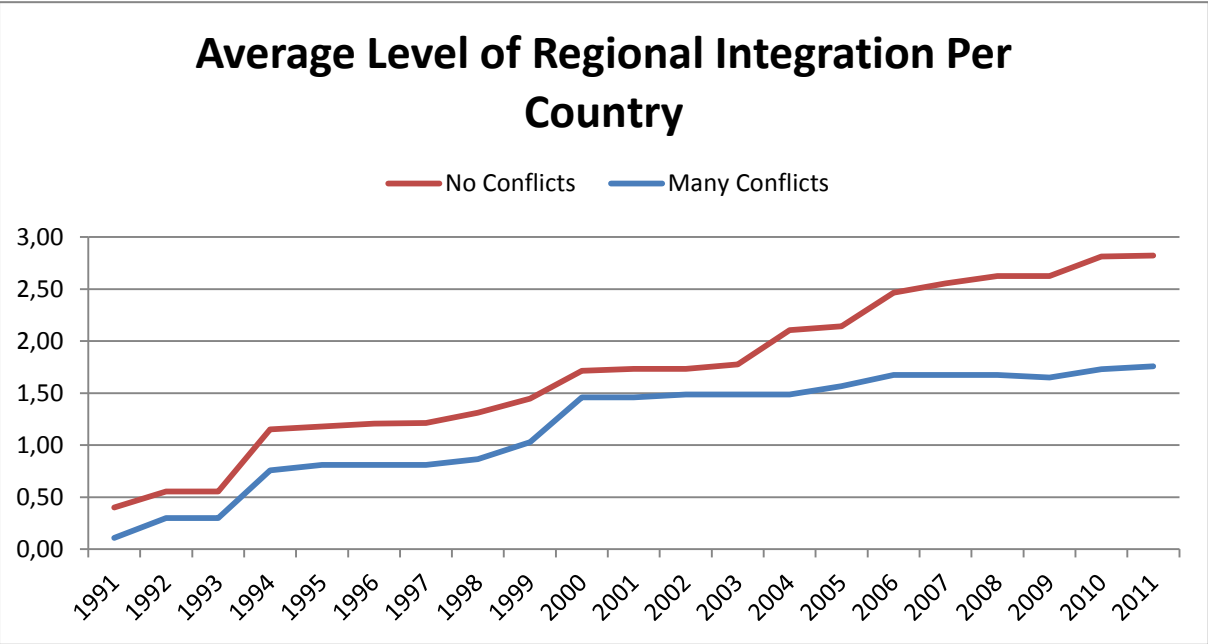
Graph 10. The average level of regional integration in countries with no conflicts and countries with many conflicts.

Graph 10 indicates a small, but noticeable difference in the average level of regional integration, the difference increases markedly after 2003. Unlike the previous two charts, however, regional integration in both countries with no conflicts and countries with many conflicts is nominally relatively close and the increases in both observed groups follow each other closely.

This would indicate that while there is some correlation between regional integration and conflicts, it is nominally smaller than that between conflicts and GDP or democratic freedom. One reason for this could be that the other variables have more noticeable and immediate effects on the number of conflicts or vica-versa. The level of regional integration goes down very rarely during the period observed. One instance of this is Georgia's withdrawal from the Commonwealth of Independent states in response to the 2008 Russia-Georgia War[9]. Another such incident happened in 2012 when the South American trade bloc Mercosur suspended Paraguay's membership in response to a coup in the country.[10] So while uncommon, the level of regional integration is subject to change with conflict and political tensions, in essence hurting the country whose level was lowered economically through the interdependence between them.

The reason why regional integration is more uniform across the two groups more is probably because of its institutional nature as opposed to GDP or democratic freedom. GDP especially actively reflects the effects of conflicts as production is turned from goods to weapons, a significant number of workers stop work to fight or critical infrastructure is damaged (Gat, 2006). Democratic freedom reacts similarly with war powers activating and postponing elections or the banning of public gatherings in intrastate conflicts. Regional integration in the form of trade blocs, however requires an active decision by either the members of the bloc, who risk losing economically because of interdependence or the country itself who stands to lose economically as well. As the data shows, many of the trade blocs in existence today have come into existence only during the observed period and are thus still getting used to the concept. As the recent cases of Georgia and Paraguay show, countries are beginning to understand and utilize the institutional power of regional organizations to punish unwanted behavior.

5.1.3.2 Interstate Conflict vs. Intrastate Conflict

In this section, the conflicts are separated into interstate conflicts, meaning a conflict between one or more state actors and intrastate conflicts where the conflict is between a state and one or more internal opposition groups (Themnér, 2012). This makes it possible to compare the effects of prosperity, democratic freedom and regional integration on these two different kinds of conflicts and see if the effects differ based on the nature of the conflict. To make the data clearer, this section only looks at countries involved in at least one conflict over the observed time period.

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[9] Information on Georgia's withdrawal from CIS. (18. August 2009). Ministry of Foreign Affairs of Georgia
http://www.mfa.gov.ge/index.php?lang_id=ENG&sec_id=95&info_id=10783
[10] Paraguay suspended from Mercosur. (30. June 2012). The Guardian
http://www.guardian.co.uk/world/2012/jun/30/paraguay-suspended-mercosur
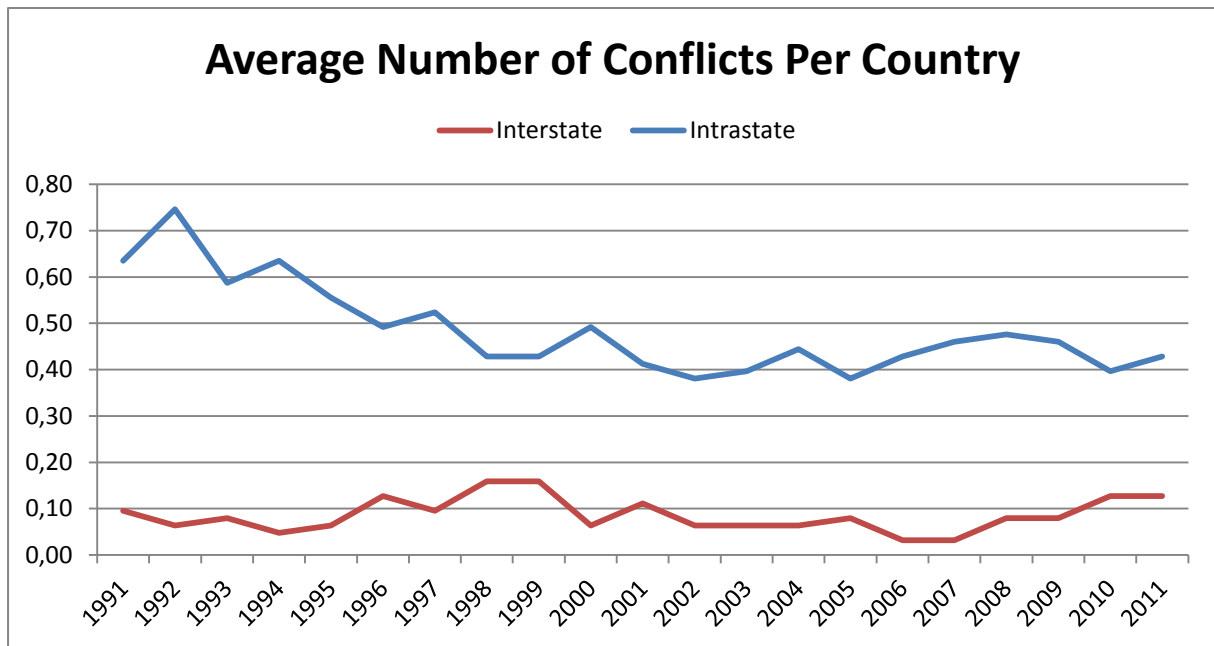
Graph 11. The average number of interstate and intrastate conflicts per country over time in countries with conflicts.

As graph 11 shows, there is a large discrepancy in the number of interstate conflicts compared to the number of intrastate conflicts. In the beginning of the observed period interstate conflicts represent about 13% of all conflicts, by the end of the observed period, they represent 22%. The number of interstate conflicts has remained relatively stable over the observed period; the increase in their proportion of all conflicts comes from the decrease in intrastate conflicts. Comparing graph 11 to graph 1 shows that the decrease in conflicts up to the early 2000s came primarily from a decrease in intrastate conflicts.

These findings are very interesting as they directly contradict Keohane and Nye's (1977) theory of interdependence between states increasing the cost of conflict between two countries to the point of making non-violent options preferable. According to their theory, there should be a noticeable decrease in the number of interstate conflicts as opposed to the number of intrastate conflicts as the average level of regional integration increases. Obviously this doesn't invalidate the theory as such, as there could be other factors affecting the variables. It is an interesting finding though.

The simplest possible explanation for this contradiction is that the observed time period is too short to notice any long term trends in the number of interstate conflicts. It is possible that interdependence through other, harder to measure means such as bilateral trade has already lowered the number of interstate conflicts to its minimum and what's left are the outliers to the

general trend. In their comprehensive study of the causes of peace between pairs of states from 1885-1992 Oneal et al. (2003) conclude that along with democracy and membership in international organizations, increased bilateral trade has an effect on the lack of conflicts between states. Because their study focuses on a much longer period of time and has very little overlap with the period used in this study, the conclusions aren't necessarily universally applicable. The number of intrastate conflicts has increased notably between 1900 and 2012 while the number of interstate conflicts has decreased slightly (Human Security Report, 2012), this does support my theory that the reduction in interstate conflicts due to interdependence has already had its main effect and that interdependence alone won't stop interstate conflicts completely.

The questions that remain are: what caused the decline in intrastate conflicts in the 1991- 2001 period and why has it remained relatively stable after that. The next chapter might be able to answer these questions.

5.2. Statistical Analysis

In this section, the data is further analyzed using statistical analysis, specifically binary logistic regression. Statistical analysis provides more concrete points of comparison of the data available, making the results easier to compare and contrast. It also allows for easier comparison of data by region. The aim of this section is to confirm the findings from the previous part of this chapter using concrete replicable scientific methods and analyze the data in ways not possible using descriptive statistics.

The data in table 1 indicates a large degree of variance in the three independent variables over the five observed geographical regions. Because of the coding of the conflict variable a negative result indicates a positive correlation between that variable and a reduction in conflicts. This is true in all cases except for the freedom variable which is inverted and thus a positive result indicates a positive correlation and a reduction in conflicts.

Table 1 shows that all three variables had a significant effect on the presence or absence of conflicts, regional integration was slightly less significant than the other two, but still significant to the second degree of significance. Each of the variables follows the hypotheses set up: as GDP and regional integration go up, the chance of conflict goes down and as the value of democratic freedom goes up the chance for conflict goes up as the variable is inverted. Out of the three variables, GDP had the largest impact on conflicts followed by democratic freedom and then regional integration. The R-squared value of 0.142 for the whole model including all cases is not

Statistical Analysis of Conflict by Region 1991-2011

	All		Africa		Asia-Pacific		Eastern Europe		Latin America		Western Europe & Other	
	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio
GDP (logged)	-0.348(0.045)***	0.706	-0.526(0.095)***	0.591	-0.690(0.087)***	0.501	0.725(0.430)	2.064	1.106(0.333)**	3.023	-2.305(1.842)	0.100
Freedom	0.139(0.015)***	1.150	0.320(0.037)***	1.378	-0.034(0.025)	0.966	0.466(0.085)***	1.593	0.819(0.109)***	2.269	1.478(0.457)**	4.386
Integration	-0.100(0.037)**	0.905	-0.022(0.058)	0.978	-0.078(0.151)	0.925	-0.046(0.151)	0.955	0.325(0.143)*	1.384	-0.452(0.242)	0.636
Constant	0.102(0.422)	1.107	-0.724(0.739)	0.485	4.620(0.780)***	101.467	-12.199(3.929)**	0.000	-17.790(3.477)***	0.000	16.422(18.798)	13551400.66
R²	0.142		0.205		0.130		0.293		0.325		0.783	
N	3654		1029		1071		378		672		504	

Sig. <0.05 = *; <0.01**; <0.001***

Table 1. Binary logistic regression of conflicts with GDP (logged), democratic freedom and regional integration as the independent variables separated by region.

very high, but considering the large number of cases and the potential for other unmeasured variables, it is not bad.

As discussed in the previous section, prosperity as measured by GDP is the variable most readily reactive to conflicts. The statistical analysis lends further credence to this assertion as do Gates et al. (2012) in their article. The fact that prosperity works as a predictor for conflicts also indicates that countries with a low prosperity are more likely to experience conflicts. This is also the view of Keen (1998), who argues that violence through armed militias becomes an important source of income in impoverished countries and Kaufmann (1999) who argues that poverty is an important part in the radicalization of youth in the Balkan conflicts of the 1990s.

Both democratic freedom and regional integration also had significant effects on predicting the presence or absence of conflict. This correlates with similar findings in the descriptive statistics, especially for democratic freedom. Regional integration having an effect helps lend some strength to the main argument that it is a factor in helping to prevent conflicts. The possible mechanisms for this have already been discussed in the previous section.

Going just by the statistical data for all countries, all the hypotheses have been proven to a degree, however prosperity in the form of GDP is a much better predictor of an absence of conflicts than either democratic freedom or regional integration, making the main argument of this thesis true, but also disproving its value as a predictor of conflict over prosperity. To get a more accurate picture of the effects of different variables, the data is further analyzed by geographical regions to account for the vast historical and cultural differences present in different regions.

5.2.1. Statistical Analysis by Region

5.2.1.1. Africa

In the first of the five observed regions, Africa, the data follows the template set by the global analysis with some noticeable differences. As table 1 shows, regional integration is not a significant predictor of an absence of conflict in Africa. As with the global data, prosperity and democratic freedom are both significant predictors of an absence of conflicts, in the same order. However, in Africa both have a bigger impact on predicting the lack of conflicts. The R-squared value for Africa is slightly higher than that for all countries, being able to correctly predict one fifth of the conflicts.

Africa is a large continent with many different cultures and a large variety in all the data observed across the region. The reason why regional integration doesn't have a significant impact on the absence of conflicts there may be because, while the average level of regional integration is quite high, at times even above the global average, the integration is very spotty, often concentrated in very well integrated blocs of countries in South-East and West Africa with many countries not integrated at all between them. The lack of political will is also cited as an issue in African regional development by an OECD report (Regional Integration in Africa, 2002).

The reason prosperity has a larger effect on conflicts than the global baseline could be because of Africa's already low average GDP (lowest of the five regions) helps highlight the African countries with higher GDP that should have fewer conflicts as discussed before. The most interesting find for Africa was that more democratic freedom is also an important predictor of a lack of conflicts, more than twice as good as it was in the global baseline. This finding helps strengthen the hypothesis for democratic freedom's effect on reducing conflicts and supports the democratic peace theory presented by Russett and Antholis (1993). In fact, it might even expand the theory and make a case for it applying to intrastate conflicts as well as interstate conflicts. This finding could be explained by a sufficient level of representation and freedom of expression having an effect in reducing armed rebel groups who might otherwise have no other way of achieving their political goals. Hegre et al. (2001) find that fully democratic states are less likely to experience civil conflicts, which coincides with my findings.

5.2.1.2. Asia-Pacific

In the Asia-Pacific region the data differs significantly from the global baseline. As indicated in table 1 the only significant variable for predicting an absence of conflict is prosperity and its chance to predict that is almost double of the global baseline. Neither regional integration nor democratic freedom had a significant effect on predicting the absence of conflicts. The R-square of the model for the Asia-Pacific is also the lowest of all six models, including the global baseline indicating that there might be other significant unmeasured variables to consider.

Interestingly enough, prosperity being the only variable with a significant effect on predicting conflicts coincides with regional power China's concept of "Asian values" and human rights as a collective right to social stability and steady economic growth.[11] Regional integration not playing an important role could be explained by Swanström's (2005) argument that high context cultures

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[11] Building harmonious society crucial for China's progress: Hu. (27. June 2005). The People's Daily. http://english.peopledaily.com.cn/200506/27/eng20050627_192495.html

such as that in Asia prefer to not have strict legislative frameworks but rather more informal forums (as indicated by a lower regional integration score) where to discuss regional issues. Going by these two concepts, the focus on economic growth and stability over human rights (including civil liberties) and giving a different priority to regional integration leave prosperity as the only viable predictor out of the three variables tested. It might also imply that there's some truth behind that model, if only in that specific region.

5.2.1.3. Eastern Europe

Like Asia-Pacific, the Eastern Europe region differs also significantly from the global baseline. As shown in table 1, the only significant variable in that region for predicting an absence of conflict is democratic freedom. Neither prosperity nor regional integration had a significant chance at predicting the absence conflicts. The R-square for the whole model is the highest out of the ones observed this far being correct at predicting the absence of conflicts nearly one time out of three.

It is interesting that the results for different regions show such variety compared to the global baseline. Democratic freedom being the only significant predictor for Eastern Europe does make a certain amount of sense. Most of Eastern European countries start as newly independent countries or as countries recovering from Soviet Union's political and economic influence in the beginning of the observation period. Their success is often measured by how well they've managed to adapt to a democratic political system. One could argue that most of Eastern Europe was in a relatively similar position in terms of economy and integration in 1991 which is the first year covered in this study. As Mishler and Rose (1996) argue, democratic freedom was the first step on the way to a stable country and further economic prosperity and enfranchisement of all societal groups. Thus it follows that democratic freedom would be an important predictor of the absence of conflicts in this region.

5.2.1.4. Latin America

As table 1 shows, Latin America presents some interesting data that differs significantly from the other regional data observed. All three variables are significant to a degree at predicting conflicts or the absence thereof, however, and increase in prosperity corresponds with an increase in the chance of conflict and so does regional integration, although to a lesser degree. Democratic freedom is the only variable that has a positive effect on predicting the absence of conflict; it is also the most significant one out of the three. The R-squared value for Latin America is the

second highest of all observed models, being only behind Western Europe & Other and correctly predicting conflict or the absence thereof one time out of three.

The results for Latin America paint a much different picture than that in any of the other regions: both prosperity and regional integration predict the presence of conflicts to a degree which democratic freedom very strongly predicts the absence of conflicts. It's hard to tell whether Latin America is an outlier in this case whether there is some fundamental difference in that region not only disproving the two hypotheses for that region, but also inverting them. The mechanisms for democracy affecting the absence of conflicts has been covered previously and the same should be appropriate here. One reason why prosperity could have a different effect in Latin America could be the very high degree of income inequality in the region, comparable only to Africa and it's much more uniform in Latin America.[12] This could indicate that while GDP is going up, the prosperity is distributed increasingly unequally in the society and create social unrest through poverty and disenfranchisement which could culminate in conflict (Kaufmann, 1999).

The reason regional integration has a positive correlation with conflicts is even harder to explain, however the correlation is of the lowest applicable degree of significance, surpassed by both prosperity and democratic freedom. One possible explanation for this is that Latin America's regional integration is comparatively stable over the course of the observed period and its integration is also very uniform when compared to Africa for example (Ruiz-Dana et al, 2007). This could mean that conflicts happened despite the presence of regional integration and the result disproves the hypothesis for regional integration reducing the number of conflicts or that regional integration fueled tensions between states and lead to more conflict. This does echo Swanström's (2005) closing remark that each region is different and what works in one might not necessarily work somewhere else.

5.2.1.5. Western Europe & Other

The Western Europe & Other region once again differs from the global baseline as shown in table 1. The only significant variable for that region is democratic freedom, interestingly enough as was the case with Eastern Europe. For Western Europe & Other the significance is smaller, but the chance to predict the absence of conflict is notably larger. Neither prosperity nor regional integration had any significant effect on predicting the presence or absence of conflicts for this

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[12] GINI Coefficient data by country or region. The World Bank.
http://data.worldbank.org/indicator/SI.POV.GINI/countries/1W?page=3&display=default

region. The R-squared value for the model is by far the highest of all observed data, being able to predict the absence of conflicts in almost four cases out of five.

Democratic freedom is the only significant variable for predicting the absence of conflict in the region. This adds further credence to the democratic peace hypothesis, especially when considering the very high accuracy of this particular model. It should be noted that the region is the most prosperous and regionally integrated out of the five observed, so it may be that differing levels of democratic freedom is the only variable that changes in the region over the observed time period. The reasons as to why democratic freedom is the only significant predictor of the absence of conflict are hard to pinpoint in this case, but the data presents a clear correlation between the two and not the others.

5.2.2. Comparison of the First and Second Decades

As the preliminary results of the previous section show, there were some noticeable differences between different variables for the first and second half of the observed period. Notably, the number of conflicts decreased steadily in the first half and remained stable in the second half of the 21 year period. A similar, but less pronounced phenomenon was also observed with the democratic freedom variable. In order to further analyze this discrepancy, the data has been split into two for the first and second half of the observed period and compared using logistic regression.

Comparison of tables 2 and 3 shows some notable differences between the two time periods. However, the most striking thing in both tables is that Western Europe & Other doesn't yield any significant predictors for conflicts in either period. One possible explanation may be that region already had a small number of conflicts for the number of cases observed and effectively reducing it by half reduced the significance of the date into obscurity. For this reason, the Western Europe & Other region is ignored for this subsection.

One difference between the two periods that is readily noticeable is that the R-squared value is higher in all but one of the models in the 1991-2001 period. This could be explained by that period having a larger amount of conflicts as observed previously in the descriptive statistics section. Another difference is that regional integration becomes a significant predictor of the absence of conflicts in the second half of the observed period while not having a significant effect in the first half. This could be explained by the fast growth of regional integration in the second half of the time period and possibly its long term effects carrying over from the first half of the observed period as Stefanova (2006) argued based on the European Community example.

The majority of the regional indicators remained relatively similar over the two observed periods, especially for Africa and Asia-Pacific. There were some changes in the Eastern European and Latin American regions, however. In Eastern Europe democratic freedom remained the most significant predictor of the absence of conflict throughout both periods, but interestingly enough in the first period prosperity also had a measurable effect on predicting conflicts. This mirrors the findings for Latin America in table 1. An explanation for this could be new states having to deal with radical restructuring of their economies which led to large-scale corruption and wealth inequality in many post-communist societies (Karklins, 2002). It could be implied that prosperity is no longer a significant predictor of conflict in the second period because the problem of corruption and inequality has been remedied, at least to a degree.

The case of Latin America remains an interesting outlier as it was also in table 1. Similarly to previous findings, prosperity predicts conflict rather than its absence in that region. However, its significance decreases over the two time periods, which coincides with wealth inequality staying at a steady level over the first period and slowly declining over the second[13] Another anomaly for Latin America was regional integration predicting conflict, this is clearly the case for the first time period, but not in the second one where regional integration is not a significant variable. A specific case study of the region would be necessary to investigate this specific anomaly in the data. Unfortunately this does not fit in the scope of this study, further study on this subject would be recommended.

Throughout the regional data, two variables remain prominent for predicting the absence of conflicts: prosperity and democratic freedom with democratic freedom being a significant predictor in a few more cases. It should also be noted that while democratic freedom predicted an absence of conflict in every case it was significant, prosperity was a significant predictor of both conflict and an absence of conflict over a number of different regions. The only noticeable change in global data was the emergence of regional integration as a significant predictor of an absence of conflict in the second period, albeit not as significant as prosperity or democratic freedom. It is hard to draw a connection between the increased significance of regional integration and the stabilization of the number of conflicts over the whole time period. Another more minor change was in the accuracy of prosperity being able to predict conflicts or their absence, which could indicate that there is a gap on the effect that prosperity has

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[13] GINI Coefficient data by country or region. The World Bank.
http://data.worldbank.org/indicator/SI.POV.GINI/countries/1W?page=3&display=default

Bivariate Logistic Regression of Conflict by Region 1991-2001

	All		Africa		Asia-Pacific		Eastern Europe		Latin America		Western Europe & Other	
	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio
GDP (logged)	-0.475(0.066)***	0.622	-0.595(0.140)***	0.552	-0.854(0.135)***	0.426	1.730(0.652)**	5.642	1.882(0.568)**	6.566	-1.714(1.992)	0.180
Freedom	0.139(0.021)***	1.150	0.349(0.050)***	1.418	-0.069(0.036)	0.933	0.686(0.159)***	1.987	1.100(0.181)***	3.003	0.956(0.523)	2.602
Integration	-0.014(0.060)	0.986	0.016(0.098)	1.017	-0.295(0.197)	0.744	-0.196(0.247)	0.822	0.987(0.283)***	2.682	-0.344(0.251)	0.709
Constant	0.983(0.600)	2.672	-0.520(1.064)	0.595	6.087(1.155)***	439.974	-21.968(6.359)**	0.000	-27.182(6.112)***	0.000	11.817(20.354)	135596.426
R²	0.170		0.241		0.173		0.321		0.479		0.655	
N	1914		539		561		198		352		264	

Sig. <0.05 = *; <0.01**; <0.001***

Table 2. Bivariate logistic regression of conflicts by region with GDP (logged), democratic freedom and regional integration as the independent variables for the period of 1991-2001.

Bivariate Logistic Regression of Conflict by Region 2002-2011

	All		Africa		Asia-Pacific		Eastern Europe		Latin America		Western Europe & Other	
	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio	B(S.E.)	Odds Ratio
GDP (logged)	-0.230(0.064)***	0.794	-0.426(0.134)**	0.653	-0.576(0.130)***	0.562	0.170(0.925)	1.185	1.093(0.493)*	2.984	-3.240(13340.960)	0.039
Freedom	0.138(0.022)***	1.148	0.271(0.055)***	1.311	0.026(0.039)	1.027	0.388(0.104)***	1.474	0.632(0.149)***	1.882	10.086(2910.684)	24.005.838
Integration	-0.169(0.050)**	0.844	0.005(0.088)	1.005	-0.249(0.217)	0.780	0.342(0.263)	1.408	-0.039(0.233)	0.962	-2.822(1209.207)	0.060
Constant	-0.699(0.620)	0.497	-1.113(1.062)	0.328	3.447(1.190)**	31.406	-8.147(8.214)	0.000	-15.217(5.083)**	0.000	-6.044(139979.015)	0.002
R²	0.116		0.133		0.117		0.381		0.197		1.000	
N	1740		490		512		180		320		240	

Sig. <0.05 = *; <0.01**; <0.001***

Table 3. Bivariate logistic regression of conflicts by region with GDP (logged), democratic freedom and regional integration as the independent variables for the period of 2002-2011.

on conflict and as prosperity increases over time, its effects on conflict diminish. Again, further study over a longer time period would be required to prove or disprove this theory.

5.2.3. Further Relationships Between the Variables

As the last object of analysis, this subsection explores any otherwise unnoticed interaction between the variables. This is accomplished through bivariate logistic analysis with each of the remaining variables as the dependent variables and the rest as independent variables. The purpose of this analysis is to find if any of the variables has a significant predicting effect for any other. Only global data is used for this subsection because regional data is not necessary for establishing these interactions.

Tables 4, 5 and 6 show that all the variables have some relationship with one another. Almost all the variables have some significant effect on predicting the others. This may be inevitable when using empirical real world data of large systemic processes like GDP or regional integration.

The most accurate model by the R-squared value is the one for predicting GDP. As table 4 shows, the results largely match observations made earlier with conflict having a very significant chance of predicting a low GDP while democratic freedom and integration predict a high GDP. The relationship between GDP and conflicts has been discussed previously (page 28). A higher level of regional integration predicting higher prosperity goes back to Keohane and Nye's (1977) theory of interdependence between states. While having the effect of increasing the costs of conflict between states, increased trade also has an effect of increasing prosperity through comparative advantage as explained by Ruiz-Dana et al. (2007) in their case study of South America. In their study dedicated to finding the effects of democracy on economic growth. Sirowy and Inkeles (1990) found a similar correlation between the two, corroborating my findings.

Moving on to the model for predicting the level of democratic freedom, an interesting observation is the number of conflicts is not a significant predictor of democratic freedom, while the opposite is true as seen in table 5. This indicates a one-way causal relationship between the two, helping confirm the second hypothesis. It should also be noted that this is the only variable not significant in tables 4, 5 and 6. High prosperity and regional integration both predict a high level of democratic freedom, but prosperity does so to a higher degree. The correlation between prosperity and democratic freedom was already established in the previous paragraph. The positive effect of regional integration is indeed interesting. Anderson (1999) explores its effects in

Bivariate Logistic Regression of GDP 1991-2011

	All	
	B(S.E.)	Odds Ratio
Conflicts	-0.465(0.084)***	0.628
Freedom	-0.252(0.011)***	0.777
Integration	0.199(0.025)***	1.220
Constant	1.576(0.096)***	4.835
R^2	0.308	
N	3654	

Sig. <0.05 = *; <0.01**; <0.001***

Table 4. Bivariate logistic regression of GDP (logged) with conflicts, democratic freedom and regional integration as the independent variables over the period of 1991 to 2011.

Bivariate Logistic Regression of Freedom 1991-2011

	All	
	B(S.E.)	Odds Ratio
GDP (logged)	-0.791(0.035)***	0.453
Conflicts	0.102(0.071)	1.108
Integration	-0.149(0.024)***	0.862
Constant	6.934(0.300)***	1026.771
R^2	0.287	
N	3654	

Sig. <0.05 = *; <0.01**; <0.001***

Table 5. Bivariate logistic regression of democratic freedom with conflicts, GDP (logged) and regional integration as the independent variables over the period of 1991 to 2011.

Bivariate Logistic Regression of Integration 1991-2011

	All	
	B(S.E.)	Odds Ratio
GDP (logged)	0.298(0.039)***	1.348
Freedom	-0.122(0.013)***	0.885
Conflicts	-0.493(0.126)***	0.611
Constant	-2.849(0.384)***	0.058
R^2	0.148	
N	3654	

Sig. <0.05 = *; <0.01**; <0.001***

Table 6. Bivariate logistic regression of regional integration with conflicts, GDP (logged) and democratic freedom as the independent variables over the period of 1991 to 2011.

depth based on the European Union and South American example. He finds that regional integration is a double edged sword as he puts it. One hand it strengthens civil liberties, but on the other hand it undermines democratic institutions by consolidating power in regional organizations. As the methodology does not yet take the latter into account, this is not reflected in the results of the analysis, but would certainly make an interesting topic for further study.

In the model for predicting regional integration, table 6 shows that all the observed variables had a significant chance at predicting the level of regional integration. High prosperity and democratic freedom predicted a high level of regional integration while a large number of conflicts predicted a low level of regional integration. The relationship between conflicts and regional integration indicates that the presence of conflicts makes regional integration less likely. This could be explained by governments involved in active conflicts having much of their focus trained on those conflicts rather than further regional integration. Another explanation may be that regional organizations refuse or are less likely to admit countries involved in active conflicts. This too would be an interesting topic for a future study, but does unfortunately not fit within the scope of this one.

6. Conclusion

After thorough analysis of the data using first descriptive statistics to observe any trends and correlations, and then statistical analysis to confirm these observations, all three hypotheses have been proven to a degree. There are however some important caveats to consider before looking at the results of this study. The first and foremost is that while there are three hypotheses, the main argument of the thesis is that regional integration has a measureable inverse relationship with the number of conflicts that is greater than those for the control variables of prosperity or democratic freedom. While regional integration had a measurable correlation with the number of conflicts globally, this correlation was not reflected in the regional data. One positive trend in regards to regional integration did emerge from comparing the first and second half of the observed time period separately. The impact of regional integration's inverse effect on the number of conflicts increased noticeably over the two periods. This could mean that regional integration is having an increased effect on the number of conflicts as the level of regional integration increases over time.

Prosperity and democratic freedom had much more significant effects on the number of conflicts; with democratic freedom having an effect in more cases while prosperity had a stronger effect both globally and regionally. However, the main difference between the two variables is that

prosperity had both positive and negative effects on the presence of conflicts that differed by region and time period. This suggests that either a different variable should be used to measure prosperity or the one used should be further augmented to take into account the effects of inequality in the distribution of wealth.

Democratic freedom had a measurable effect on the absence of conflict in all cases except for one, making it the best variable out of the three tested for predicting the absence of conflict. Furthermore, it is the only variable that has a one-way correlation with the absence of conflicts. All other variables tested positive for two-way correlation in the tests meaning that a direct cause and effect relationship could not be established.

The large number of countries used for this study makes the results very generalizable, at least in the observed time period. More than 88% of the countries currently in existence are represented in the data. The methods used are transparent and the data is publicly available and verifiable for replicating the results. Democratic freedom is the best predictor for the absence of conflict in all geographic regions observed, except for Asia-Pacific. Since the smallest level of analysis used in this study is the state level, the methodology may not be applicable for smaller levels of analysis.

Based on the results, promoting democratic values and civil liberties should be the top priority for every country or organization striving for peace and stability in the world. As prosperity is also an important predictor for democratic freedom, promoting international trade would also help achieve this goal, but shouldn't be promoted at the expense of democracy as prosperity can also increase the number of conflicts under specific circumstances. Regional integration should certainly not be ignored or left aside as it does contribute to both democratic values and peace, it should not be prioritized over democracy, but rather alongside it.

Nevertheless, there are several important limitations to take into account when considering the results of this study. Firstly, its large scope allows for generalizability but it also doesn't take into account unique localized factors like a country's ethnic makeup or geographical oddities that may affect the results. A smaller study following similar methodology should try to identify such factors to get more accurate results.

Another thing to consider is the coding of the regional integration variable. It is entirely based on regional integration through economic integration, because a theoretical framework for categorizing countries by regional economic integration already existed. A potentially important facet of regional integration that was omitted is regional political integration through purely

political organizations like the Organization for Co-operation and Security in Europe or the African Union. Establishing a framework for measuring levels of regional political integration would allow for much more comprehensive study of the effects of regional integration.

Lastly, the use of public datasets always brings concerns about the accuracy of the data therein. The datasets used in this study have transparent methodologies for collecting data, but of special concern is the Freedom in the World Index. This index uses a team of analysts to answer a set of questions about each country, making the results intrinsically subjective as the analysts have most likely changed over the 40 years that the index has been in existence. Some possible problems may affect any dataset, such as various inaccuracies resulting from changing methodology or measurement errors. The large scope of this study should help mitigate for those factors.

During the course of this study several interesting findings came up that did not fit within the scope of this one. They will be highlighted here as avenues for future research. The most perplexing findings were the results of statistical analysis of the Latin America region. It stood out by having high prosperity and regional integration predict the presence of conflicts rather than their absence. An in depth case study of the region with a control for wealth inequality would be required to explain those anomalies in the statistics.

Another finding requiring further study is the decrease in the number of conflicts over the first half of the observed 1991-2011 period and stabilization in the number of conflicts over the second half. This phenomenon could not be adequately explained with the data used in this study suggesting that there may be some other factors involved.

An increase in the significance of regional integration for predicting the absence of conflicts suggests that its effect on conflicts is increasing. A further study with a similar focus as this one conducted in the future would help prove or disprove this theory.

7. References

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