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Bachelor's Thesis

Does the Lisbon Treaty improve decision making in the Council of Ministers?

Analysis based on the Veto Player Theory and the Banzhaf Power Index

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Contents

Abstract

European Union (EU) decision making is decisively shaped by the formal voting rules in place. Especially the Qualified Majority Voting (QMV) rules in the Council of Ministers (CM) can be seen as crucial determinants for the capacity to act and the efficiency of the EU as a whole. The Lisbon Treaty, which has recently come into force, brings along renewed alterations to these voting rules. Since the Treaty of Nice, QMV rules were often criticized for causing gridlock in the EU and while the issue of inequitable voting power always accompanies the introduction of new QMV rules, this thesis intends to analyze whether the new QMV rules may bring about any improvements with regard to these two points. The analysis using the Veto Player Theory and the Voting Power Approach comes to the conclusion that improvement with regard to gridlock in the CM has been achieved under the Lisbon Treaty, while at the same time increasing inequity of a priori voting power to the advantage of large and very small Member States.

Abbreviations

Common Agricultural Policy	CAP
Council of Ministers	CM
European Union	EU
Intergovernmental Conference	IGC
Member State	MS
Qualified Majority Voting	QMV
Rational Choice Theory	RCT
Status Quo	SQ
Total Gross Value Added	GVA

1. Introduction

How does the Lisbon Treaty affect decision-making in the EU – will the alterations pose an improvement to the provisions of the Treaty of Nice? Have long recognized problems been addressed appropriately? Or have they been postponed again?

The general functioning of the EU and thus also the decision-making processes are primarily shaped by the primary law of the EU which is set out in the Treaties. The Lisbon Treaty, which is in force since 1 December 2009 (Council of the EU 2009; 1), marks the fifth big revision of the Roman Treaties of 1950.

In view of various accession rounds, reform of the decision-making in the Council has been one major aspect to be addressed in the previous revisions (Giering 2001; 54; Wessels 2002, 198; Yataganas/Tsebelis 2005, 441-443). An enlarged Council deciding primarily by unanimity would unquestionably have been gridlocked. Since the Council was and still is one major legislative organ in the EU and also the place where national interests collide, reform was both essentially necessary for the functioning of the EU but at the same time an issue of hard debate (Galloway 2001, 59; Yataganas/Tsebelis 2005, 444). Due to the accession of further EU Member States it became clear that reforms had to address the question of how to guarantee the functioning of the Council (and thereby the functioning of the EU as a whole) and avoid gridlock.

> *"To remain efficient and effective, the Union must make use of majority voting in its decision-taking."* (Barnier 2001, 118)

It was clear that an expansion of QMV and less unanimity voting would be needed. At the same time the rules for QMV had to ensure a fair distribution of power among the Member States. (EUROPA Rapid 1999)

This need for reform was for the first time especially pronounced during the negotiations of the Treaty of Amsterdam, yet it was in essence postponed to future Intergovernmental Conferences. The "Protocol on the Institutions with the prospect of enlargement of the European Union" which was attached to the Treaty of Amsterdam, summarizes this again: at least one year before the EU exceeds the number of twenty MS a conference of representatives had to review the voting scheme and the weighting of the votes, especially keeping in mind the compensation of MS which gave up the possibility of nominating a second Commissioner (European Union 1997, Articles 1&2).

With the prospect of EU membership exceeding 20 by the year 2004 it was clear that the next Treaty, which was negotiated and finally signed at the IGC in Nice, needed to address the questions of expanding QMV and refining the QMV rules in more detail. While the previous rules had relied on a system of weighted votes for QMV (Galloway 2001, 65-66), the accession of 10 new, rather small and

poor Member States revealed another problem: under the reweighting of votes that was proposed for the Treaty of Nice a qualified majority of weighted votes could in the most unfavorable case lead to a representation of only little more than 50% of the total EU population (Giering 2001, 71; Galloway 2001, 67). Therefore a third majority requirement was introduced with the Treaty of Nice – the population threshold. The proposal by the Commission, suggesting a double majority comprised of a majority threshold and a population threshold while deleting the weighting of votes, had been rejected that time. While the Treaty of Nice prepared the EU for the next huge accession round, even by expanding the QMV application (Wessels 2002, 204), it was clear that this Treaty could only be a temporary solution.

> *"When all the candidate states have joined the Union, the new system of weighted votes will make decision taking more difficult since it will be less easy to reach a qualified majority than it is today (before Nice)"* (Barnier 2001, 119)

The moment the Treaty of Nice was signed hence also marked the resolve that further reform could not be avoided and was needed for the proper functioning of the EU (Wessels 2002, 201; see also Treaty of Nice Declaration on the Future of the European Union). Therefore once again the declarations annexed to the Treaty of Nice picked up the topic of different voting rules in the CM (see declarations 20 and 21).

In the context of decision-making reform the academic and political debate on the reform proposals in the run-up of Amsterdam, Nice and Lisbon revealed various disputed issues, of which the following two were among the most frequently discussed:

- the danger for gridlock in the EU[1],
- the danger for inequality in the distribution of power. (see for example König/Bräuninger 2004, 420; Hix 2008, 31-49; Barnier 2001, 118-119; Tsebelis/Yataganas 2005, 446-447; Galloway 2001, 90; Baldwin et al 2001, 19 + 32; Wessels 2001 201; Felsenthal/Machover 2007, 8)

The final decision making rules that can be found in the Lisbon Treaty are the result of continued negotiations and reform proposals like the Convention draft[2], various Member States' proposals and the Treaty establishing a Constitution for Europe. Finally the Lisbon Treaty was signed in 2008. This treaty introduces a new decision making procedure in the CM (from a triple majority emphasizing

[1] Gridlock can also be termed high policy stability. Less policy stability means less gridlock. These terms will be used synonymous.

[2] The Convention draft was the result of the European Convention's work on a new constitution for Europe. The European Convention under its leader Valéry Giscard d'Estaing had been initiated by the Laeken Summit in 2001. Concerning the QMV rules for the Council the Convention draft proposed a double majority of: a) a simple majority of Member States and b) a 3/5 majority (60%) of the total EU population. (see Art. 24(1) of European Convention 2003)

weighted voting to a double majority without weighted votes) and at the same time significantly expands the cases to decide on by QMV. (see EUROPA 2009; 1+2; Lieb/Maurer 2009, 46; Möstl 2010, 87-91; Marchetti 2010, 191-194) Whether the dangers for gridlock and inequality in voting power have been addressed adequately can of course only be empirically assessed when these rules effectively come into force.[3] While empirical analyses of the new voting rules cannot be carried out yet, this paper intends to simulate the likely effects of the new decision making rules on the above mentioned points of criticism (gridlock danger, distribution of voting power), using two widely accepted theoretical approaches. Does the Lisbon Treaty bring about any changes or improvements?

The general research interest follows from the underlying implications this analysis can reveal: If nothing but the decision making rule changes (in the case of the Veto Player Theory other variables will be kept stable), what influence do such rules have on the total set of possible policy outcomes? How much can voting rules determine the possibilities for change? How much do voting rules shape our political landscape? The specific interest hence centers on the question of how decision rules affect policy stability and voting power.[4]

Therefore this thesis has been titled **"Has the Lisbon Treaty led to an improvement of the decision making rules in the CM of the European Union?"** Improvement will in this case be understood as: less gridlock danger and no significant advantages in voting power for certain groups of MS. The formulation hence builds on earlier research on this topic and tries to analyze the named two aspects with recent data.

The **working hypotheses** are therefore labeled:

- H01: The Lisbon Treaty has increased or maintained policy stability in the Council of Ministers.
  H1: The Lisbon Treaty has reduced policy stability in the Council of Ministers.
- H02: The Lisbon Treaty has not shifted voting power in favour of larger nations.
  H2: The Lisbon Treaty has led to a shift of voting power favouring larger nations.

These issues can be analyzed using **two approaches** earlier analyses of the EU decision making rules have frequently based on: the Veto Player Theory and the Voting Power Analysis. Since these two approaches illuminate different aspects of decision making processes a combination of both shall be

[3] Although the Lisbon Treaty has already come into force the Nice QMV will be applied until 1 Nov 2014. In the period from 1 Nov 2014 until 31 March 2017 Members of the Council can ask for decision taking as under the Treaty of Nice. From 31 March 2017 onwards the QMV rules of the Lisbon Treaty will be in force. (see Ministerrat der Europäischen Union 2007; Marchetti 2010, 193)

[4] In how far voting rules may actually influence the outcome of a voting will briefly be discussed at the end of chapter 2.

used in this thesis: the Veto Player Theory to analyze the first hypothesis, the Voting Power Analysis to analyze the second hypothesis.

In short this thesis intends to look at the decision making rules in the CM, since it still is (one of) the main decision making organ(s). I shall look at those rules that are most frequently applied, namely the QMV (Lieb/Maurer 200, 46; see also Art. 16(4) EUV-L). With the help of the two theoretical approaches I want to illuminate the likely effects of the alteration of QMV. This will be done in a comparative case study, whereby the effects of the decision making rules of the Treaty of Nice shall be compared with those of the Lisbon Treaty. The decision making rule hence will be treated as the independent variable, the while the aspect of improvement with respect to a) policy stability and b) voting power of the Member States will be regarded as the dependent variable, which can vary as the function of the dependent variable.

Note that this application will not allow a verification of the theories, since we cannot yet contrast the outcomes of this analysis with empirical data on the decision-making in the CM. This thesis only allows making assumptions on the likely effects of new voting rules, provided that the theories used prove to be valid.

In a nutshell this thesis follows the **subsequent steps** in order to answer the hypotheses and the research question: Chapter 2 will give a brief overview on the previous application of the theories and the academic foundation this thesis is going to build up to. Chapter 3 will shortly present the theories used and their theoretical embedding. The following chapter 4 discusses the methodological setup for this comparative case study in detail. Chapter 5 finally turns to the application of the two theories. With the help of the analyses of both applications I will be able to presume the likely effects of the new voting rules. These findings will most likely allow us to adopt both alternative hypotheses, yet the accompanying phenomena that these improvements bring along, can only be evaluated with the help of the detailed analyses which can be found in chapters 5.1.3, 5.2.3 and finally in chapter 6.

2. State of the Art

In the following section I intend to briefly present the two theoretical approaches and how they have been applied so far. This overview presents the foundation the thesis is going to base on.

The EU can unquestionable be labeled as a unique political system. (Yataganas/Tsebelis 2005, 430-431) It is a political administration that can hardly be captured with the concepts and theories that are usually applied to nation states in order to analyze and compare them, such as presidentialism & parliamentarism, unicameralism & multicameralism, competitive & concordant democracies and the like: We recognize that the EU is more often than not located somewhere in between. (Tsebelis 2002, 1; Tsebelis 2000, 441)

Since the Veto Player Theory developed by George Tsebelis claims to be a comprehensive approach that does not analyze political systems along these established theories, it is not a surprise that it has frequently, repeatedly and from the start been applied not only to ordinary nation states (see for example Ganghof/Bräunginger 2006) but also to the EU. Veto Player Theory wants to analyze a political system's ability to admit policy change. The innovative idea is its focus on the actual outcome of political processes: the policies, the rules that shape the process of negotiating a policy and the political institutions that produce them. Political institutions are furthermore not seen as immobile actors, but are understood as mere shells that can be refined by the respective occupants of these institutions and their policy preferences. (see Tsebelis 2000, Tsebelis 2002, Warntjen 2008) Veto Player Theory can be attached to the school of neo-institutionalism, which says that political action and its outcomes are determined by the institutional setting. Furthermore it builds on the assumptions of rational choice theory[5] (Warntjen 2008, 2-3, Tsebelis 2002, 17-18).

While some authors try to capture the EU decision making process as a whole[6] (including all decision making organs into the analysis) others have purely focused on one decision making body[7] when applying the Veto Player Theory.

George Tsebelis himself has made the first attempts to analyze the EU with the help of this elaborated theory. He has mostly concentrated upon the analysis of the entire EU decision making process[8]. With these analyses he attempts to illustrate the legislative consequences of the decision making procedure (which involves the Commission, the European Parliament and the CM) and their effects on the EU's judiciary and bureaucratic bodies. In his 2002 application for instance he compares different decision making procedures (like the co-decision procedure I and II under the Treaty of Nice) and tries to figure out which player can act as agenda setter and/or as veto player under which rules. In most of his analyses he intends to answer these questions by deriving inferences from the general models he sets up. He does however not try to model the actual policy preferences of the observed veto players. This approach also characterizes further analyses by George Tsebelis, such as his works with Xenophon Yataganas and Geoffrey Garrett. (see Tsebelis 2002, 248-282; Yataganas/Tsebelis 2002; Yataganas/Tsebelis 2005; Tsebelis Garrett 2001)

Another school of thought has tried to go even further and model the Veto Player Theory on a real case by including the actual policy positions of the observed actors. Such papers however only focus on one decision making body, either the Council or the Parliament (see König/Bräuninger 2004; König/Pöter 2001). By quantifying the preferences and positioning the veto players according to

[5] Please refer to chapter 3 in this context.

[6] See for example Tsebelis 2002, Tsebelis 2000, Yataganas/Tsebelis 2005, Yataganas/Tsebelis 2002; Tsebelis/Garrett 2001

[7] See for example König/Bräuninger 2004, König/Bräuninger 2000, König/Pöter 2001

[8] With the major exception of Tsebelis 1994

these, it is possible to simulate the likely effects of different decision making rules (e.g. unanimity or various QMV rules) or the accession of future EU Member States (e.g. the 2004 and 2007 accession waves) on the EU's policy stability. However, these analyses still pose a simplification of real world decision making (e.g. since only two or three policy dimensions are represented)[9] [10]. It is this school of thought's approach that will be used in this thesis.

A second theory that has frequently been applied to the EU is the one of Voting Power Analyses. These analyses are most often done with the intention of comparing Member States' power positions in relative terms, since power is mostly only recognized in relative terms by politicians. Voting Power Analyses are often attached to the school of cooperative game theory (see for example Wiberg 2005), yet this can be challenged in some cases (see footnote 13). In addition it also belongs to the school of rational choice theory.

Especially in the EU, where sovereign competences are transferred to another level and away from the national administration, Member States want to be sure that they are not easily overruled and that power is distributed in a just way. The most frequently applied methods of calculating the voting power of the members of a voting body date back to Lionel S. Penrose, John F. Banzhaf, Lloyed Shapley and Martin Shubik (see Taylor 1995, 63-65). Most other methods of calculating voting power (for example the Coleman-Index) base on these foundations (for instance Coleman bases on Banzhaf; see Felsenthal/Machover 2004, 9). Since I intend to use the Penrose-Index and the Banzhaf-Power-Index the difference between the existing voting power indices and my choice will be justified in chapter 3.2. Although the Voting Power Approach has been widely used for many years, it is a theory that is frequently and fiercely criticized for various reasons of which the lack of including actors' preferences is just the most frequently named, but also one of the most fundamental (see for example Garrett/Tsebelis 1999, Garrett/Tsebelis 2001, Moberg 2002; Albert 2003).

While we can admit that the voting power approach will not enable one to model the actual voting process and predict the actual movements of the involved actors it can be seen as a helpful tool to asses at least the possibilities of exercising influence by analyzing the legislative decision making rules and procedures. This aspect of power is often also called the "a priori" voting power (in contrast to the de facto voting power) of an actor (see Hosli/Machover 2004; Wiberg 2005; Felsenthal/Machover 2003). Fundamental academic debates that deal with the potential and shortcomings of voting power analyses are among others those by Moberg and Hosli/Machover, Albert and Felsenthal/Machover as well as Tsebelis/Garrett and Felsenthal/Machover. Chapter 3.2. will go into some details of the discussion (see Moberg 2002, Hosli/Machover 2002, Albert 2003, Felsenthal/Machover 2003,

[9] This simplification however allows the authors to analyze policy stability with the help of the core. It should however be noted that Tsebelis acknowledged that with the inclusion of more dimensions the core ceases to exist. (see Yataganas/Tsebelis 2002, 295, footnote 12)

[10] Such applications of the Veto Player Theory are presented in works of Bräuninger/ König 2000 and 2004

Garrett/Tsebelis 1999, Felsenthal/Machover 1999, Garrett/Tsebelis 2001).

Since voting power analyses can undoubtedly give at least some information on the a priori power of an actor in the decision making process and approximate a development that goes along with the introduction of new voting rules, I have decided to use this tool as well, since this aspect can be seen as valuable addition to the insights generated by the Veto Player Theory.

Remarkable recent literature that exemplifies the present state of research and that this thesis is going to take up is

- for the Veto Player Theory the approach König/Bräuninger chose by analyzing the effects of EU enlargement on two policy fields (König/Bräuninger 2004, 2000) and
- for the Voting Power Analysis the approach Felsenthal/Machover chose for analysing various QMV rules for the Council (see Felsenthal/Machover 2007, 2004). My working hypothesis extends this application to the Lisbon Treaty and tries to use the strengths of both approaches in order to compare the decision making in the CM, using the most recent data from 2008.

3. Theories used

As has been mentioned above both theoretical approaches that will be used in this thesis have foundations in the branch of **Rational Choice Theory** (RCT). This section briefly discusses the main assumptions, critique and alternatives to RCT and then the **relevance of formal voting rules**, before finally turning towards the theories used.

RCT is a rather new school of thought in political science[11], which has its methodological roots in economic theories. **Economic assumptions** like the model of the utility maximizing "homo oekonomicus" have been transferred to political science in order to set up simplified, but universal theories that aim at explaining and even predicting political processes. (see Risse 2000) This seems feasible since both economic and political science are occupied with questions of scarce resources. Central assumption is the idea that rationality, based on the actors' preferences, is the sole impulse for decision-taking of (political) actors. These rules are in turn derived from the behavior of individuals; RCT is hence also a deductive theory (Risse 2000, 11).

While the introduction of RCT has unquestionable led to greater focus on scientific, methodical approaches in political science, its conceptual foundations (e.g. the validity of the utility maximizing actor, the ambition to generate universal rules or the validity of deductive conclusions[12]) are often

[11] One groundbreaking publication was Kenneth Arrow's 'Social Choice and Individual Values' of 1951.

[12] One such critique is summarized in the 'problem of collective action': Individually rational decisions, taken within a group of actors, do not necessarily lead to collectively rational outcomes for this group. The prisoners' dilemma illustrates this connection.

challenged. (see Risse 2000; Schwellnus 2009) Yet it seems noteworthy that besides the conceptual **shortcomings** its greatest drawback is a lack of empirical affirmation of RCT. RCT has rarely been tested and measured up to actual decision-making in political processes, or if tested has only generated minor affirmations. While this does not imply that RCT does not hold any valid information on political processes, it should be kept in mind that the validity of results generated by RCT is not yet supported by empirical evidence. Because of its strong methodological foundation the internal validity of both RCTs used in this thesis tends to be high, which is why I have chosen this approach, despite its present lack in external validity.

In order to be able to reflect on the findings a theoretical embedding seems appropriate: RCT can be seen as one way of looking at institutionalism[13], which bases on the assumption that political processes are shaped by the rules that are set up by (international) institutions. An **alternative** way of looking at institutionalism is represented in the school of constructivism (Risse 2000, 2; Warntjen 2009, 3)[14]. With respect to these two alternative branches we can work out the following major differences: in RCT the unit of analysis is the individual, which acts guided only by its own utility calculation("logic of consequences"); constructivism on the other hand claims that individual actors do not act independently from their (social) environment and the collective rules, but try to behave 'good', according to the social norms ("logic of appropriateness"). While in RCT individual preferences are determined prior to social interaction, in constructivism preferences are shaped in the course of social interaction. Decisions in the view of constructivism are taken more on the base of idealistic than materialistic (as in RCT) considerations. (see Schwellnus 2009; Warntjen 2009)

Depending on the underlying theoretical background, the determinants for voting behavior are assessed differently. Both theoretical approaches that will be used in this thesis– the Veto Player Theory and the Voting Power Analysis – only **analyze *formal* voting rules**[15], although other factors influencing voting behavior are academically discussed. Therefore the relevance of formal voting rules for actual decision making shall shortly be touched upon.

While the outcomes of formal voting rule analyses may well show the direction of future developments, literature on different modes of decision-making in the CM can provide some insight to the issue of whether formal rules are the major determinants shaping voting behavior. Academic literature suggests the following distinction of modes, which can be displayed along a rational choice – constructivism continuum, depending on the affiliation of one mode to one of those schools; the modes are: distributive bargaining, cooperative exchange, problem-solving, norm-guided behavior or

[13] Institutionalism, as primarily shaped by Robert O. Keohane and Stephen Krasner, mainly contrasts to the alternative theory of realism, as shaped by Kenneth Waltz.

[14] A third branch that is sometimes put forward is the so called "logic of arguing" as in deliberative consensus seeking processes (Risse 2000, 2).

[15] Veto Player Theory however includes the actors' preferences in addition to the formal voting rules.

deliberation. If the outcome of a voting is only shaped by the formal rules this would best be reflected in distributive bargaining. However, decision making in the CM is often described as consensus-oriented, where 'No-Votes' are rarely recorded. (see Warntjen 2009; Hagemann/de Clerck-Sachsse 2007) This seems to contradict a purely bargaining character of decision making in the CM, which is closely attached to RCT and which is also an underlying assumption of this thesis. Consequently, other modes also seem to be used in CM decision making.

While research on the actual voting practice suggests that there exist several modes of voting (see Warntjen 2009; Hagemann/de Clerck-Sachsse 2007), which can vary over time, issues and institutional/situational settings, the actual modes that are used in a voting can hardly be measured. Reliable empirical data on the relevancy and impact of each of these modes does not yet exist (Warntjen 2009, 12).

This excurse may hence suggest that formal voting rules do not shape decision making alone, however other factors cannot yet be quantified. It can be assumed that formal voting rules could partly be bypassed by using other modes. Yet, since formal voting rules are still one integral part shaping the distribution of power in the CM, analyses focusing on formal rules can at least contribute to a comprehensive analysis of CM decision making.

Summarizing this we can assume that analyses using a constructivist approach would most likely generate other results than the RCT approach used, since constructivism views institutions and the process of decision-taking (reflected in the modes of decision making) in a different light. Using a different theoretical framework would hence also result in a different view on the process of decision making. Other factors determining voting behavior, than only formal voting rules, would have to be included. However, other such factors are still hardly measurable. Therefore this thesis will only focus on the effects of formal voting rules while acknowledging the inconclusiveness of this approach.

Note that this thesis does not claim to test the two theories used, but tries to predict the likely effects of new voting rules with the help of these RCTs. Since it is not yet possible to verify RCT in general, the outcomes of this study will also only hold true if RCT is validated empirically.

3.1. Veto Player Theory

The research question will be analyzed using two different approaches, of which one is the Veto Player Theory developed in the 1990s by George Tsebelis and eventually published in 2002.[16] It is a political science theory that allows for comparison across different political systems with regard to their policy stability (Tsebelis 2002).

[16] The date of 2002 refers to the publication of the general theory and further applications in his book "Veto Players.How political institutions work." Various other analyses by Tsebelis have been published in periodicals before 2002.

Central interest of this theory is a political system's ability to admit policy change. Policy change can be understood as legislative changes from the present status quo. The

- number veto players,
- their respective preferences and
- the voting rules can be named as the three determinants for policy stability. (see Tsebelis 2002, 19 + 30 + 40-41)

Pursuing this statement it can be said that systems with many veto players, which have very different preferences from each other and strict voting rules (like requiring unanimity or a big majority threshold) will lead to higher policy stability or in other words will face greater difficulty in changing the status quo.

1) **Veto players** are hence defined as individual or collective actors whose agreement is needed to implement a new policy. Conversely, this means that those actors also have the power to prevent the adoption of policies changing the status quo. Tsebelis distinguishes between individual and collective veto players as well as institutional and partisan veto players. While a political actor like a president can serve as an example for an individual veto player, an aggregation of individuals like in a parliament constitutes a collective veto player. At this point it should be pointed out that the following assumptions are primarily valid for individual actors, but beyond that also represent reasonable approximations for the decisions of collective veto players.[17] Furthermore Veto Player Theory distinguishes between institutional and partisan veto players: Institutional veto players are consequently all actors that are integrated into the legislative process by constitution. Partisan veto players on the other hand operate within those institutional veto players – for instance as ruling party within parliament. Finally, veto players can also appear as agenda setters, if the political circumstances allow or call for sequential order to make policy decisions. This means that the respective first mover can make take-it-or-leave-it proposals to the other veto players, which increases its influence on the outcome. (see Tsebelis 2002, 19-55)

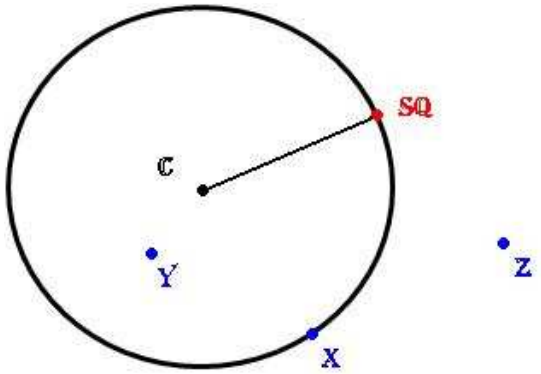
2) As for **preferences**, the second determinant for policy stability, one has to consider that these can vary across time and especially across policy fields. The Veto Player Theory represents an actor's preferences by one ideal point and a surrounding circular indifference curve, which includes all points with an equal utility as the status quo (SQ).[18] This implies that an actor is

[17] Tsebelis comes to this conclusion by calculating the so called wincircle, which centers on the so called 'yolk' – a centrally located circle within a collective veto player. Thus he is finally able to replace a collective veto player by a fictional, idealized individual veto player, whereby the wincirle includes the winset of the status quo of a collective veto player deciding under (qualified) majority rule. A detailed discussion on the concepts of the yolk and the wincircle can be found in Tsebelis 2002, 45-55; Tsebelis 2000, 443-445)

[18] The indifference curve can be described as follows: It has the center C, marked by the actor's ideal point,

indifferent between two points that have the same difference from his ideal point, no matter what is the direction from the ideal point (In the example below the actor is indifferent between SQ and X, but prefers Y to both and rejects Z). This assumption however is based on several conditions that bring notable simplifications along: It is expected that policy dimensions are equally important to the veto player, that policy dimensions are independent from each other and that actors have complete information. The assumptions show again that veto players are regarded as rational, utility maximizing actors having stable preferences, who will only agree to proposals that will not make them worse off than the status quo. Utility maximizing also implies that they will *at any rate* change the status quo if that means an improvement. Policy change is consequently only possible if a solution exists that poses an improvement for all involved actors or at least no deterioration. (see Tsebelis 2002, 19-55; Warntjen 2008, 1-2)

Figure 1- Indifference curve in two dimensions



3) The third determinant for policy stability is the **voting rule** in force at the time of voting. The effect of different voting rules will be illustrated in the examples on the winset of the status quo and the core below (figures 2 & 3).

In order to investigate the **policy stability** in political systems Tsebelis introduces and uses mainly two concepts which can be seen as indicators for policy stability, namely

- the term of the 'winset' and
- the idea of the 'core'. (see Tsebelis 2002, 21)

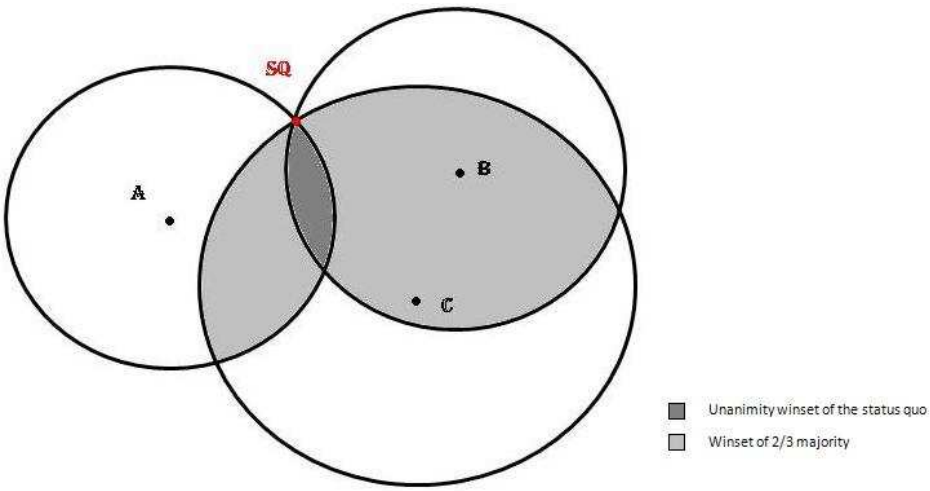
The concept of policy stability is of central interest mainly for four reasons: First, since policy outcomes are the primary goal of political systems, it seems advisable to start an analysis of political systems by investigating their ability to produce such outcomes (Tsebelis 2002, 17). Second, Tsebelis puts forward hat policy stability can have serious effects on structural settings of political systems. If a government in a parliamentary system is not capable of changing the status quo it might resign or be

radius CSQ and consequently goes through SQ.

replaced (government instability); if a presidential system is not able to resolve problems it might be overthrown (regime instability); if the legislative status quo cannot be changed by consent of the veto players this might encourage judiciaries and bureaucracies to be more active (judicial and bureaucratic independence) (Yataganas/Tsebelis 2005, 437-439). Third, it can be argued that political systems should be able to adapt to new conditions, when the general situation requires a change of policies. And finally, economists are interested in policy stability of political systems since the status of policy stability also represents a system's attitude towards interference in the activities of private actors (Tsebelis 2000; 443).

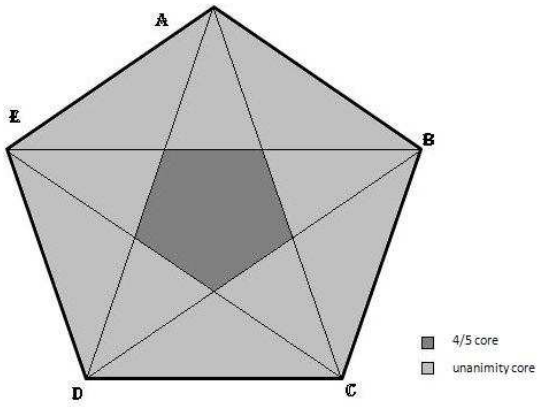
1) The **winset of the status quo** is one of two indicators for measuring policy stability. It can be defined as the set of outcomes that can defeat the status quo and replace the existing legislation. The winset hence consists of the intersection of all veto players' interests, which at the same time pose an improvement for each actor. Graphically this can be illustrated by the intersection of the indifference curves of the involved veto players. It follows that the size of the winset will most likely shrink with the increase of numbers of involved actors and the differences in preferences of those actors. In the example below (figure 2) the dark shaded area displays the unanimity winset while the lightly shaded area represents the 2/3 majority winset. Note that the unanimity winset is also part of the majority winset. Applying this to the concept of policy stability it arises that policy stability is high, when there are only few options attractive to all veto players (winset is small) or put differently that policy stability is low when there are many options attractive to all veto players (winset is big). To summarize the theory with respect to the winset's relation to policy stability we can state the following: the smaller the winset, the higher policy stability. (see Tsebelis 2002, 21-24)

Figure 2 - Winset of the status quo in two dimensions



2) The **core** on the other hand is the set of points that cannot be defeated by any other point. This means that as soon as a status quo policy is located inside the core this policy cannot be changed, since all veto players have adverse interests and choosing another policy would mean a disadvantage to the status quo for at least one actor. The veto players hence cannot agree on another policy since there is no other option that is more attractive than the status quo is to all of them. It follows that the bigger the core is, the more points cannot be defeated. It can also be assumed that policies outside the core will move into the core in the long run, since this will mean an improvement for the required majority of the involved actors. Deciding under unanimity the core can be described as the area surrounded by all veto players, which is obtained by connecting all neighboring ideal points. Deciding under qualified majority (for example a 4/5 majority) the core is obtained by considering all possible combinations of 4 out of 5 actors. The resulting intersection of those combinations represents the 4/5 majority core. This area identifies the points that cannot be changed by *any* 4/5 majority. In the example below (figure 3) the lightly shaded area represents the unanimity core while the highly shaded area displays the unanimity core. To summarize Tsebelis' theory with respect to the concept of the core and the relation to policy stability we can state that: the bigger the core, the higher policy stability. (see Tsebelis 2002, 21-23; König/Bräuninger 2004, 421 + 427-431)

Figure 3 - Unanimity core and 4/5 core in two dimensions



To come back to the **effect of voting rules** on the policy stability of political systems we can state in short that: the higher the majority requirement of a voting rule, the bigger the core, the smaller the winset, the higher policy stability.

In order to actually **calculate the policy stability** of a given political system it is advisable to follow the subsequent steps: First, the number of institutional veto players has to be defined for the policy field of interest. Second, the potential partisan veto players can be identified, taking into account the real

political circumstances. Third, each actor can be positioned according to his preferences. Fourth, one has to validate that the absorption rule is applied, in case some veto players have identical policy preferences. If this is the case one of those actors can as a result be deleted. Finally, it is possible to draw the winset of the status quo (if the status quo is known) and/or the core. Note that the subsequent addition of further veto players can lead to greater policy stability (a decrease of the winset and an increase of the core), but only if the policy preferences of the new actor are not yet represented by the other veto players. The addition of another veto player can however never lead to less policy stability, if all actors' preferences remain the same.

The **central concept that will be used to answer the research question** of my thesis will be the concept of the core, since – firstly – its size allows you to draw conclusions on the possibility for policy change. Although high policy stability cannot per se be regarded as good or bad, one has to consider the consequences of very high policy stability, which may peak in policy gridlock. In addition, the location of the core and the shift of its location mirror whose actors' preferences are better represented. Pronounced imbalance is not desirable in a political system (König/Bräuninger 2000, 47-49).

By sketching the core one is therefore able to draw inferences on both the ability of a political system to admit change of the present legislature and the balance between the Member States. In addition it is not necessary to locate the status quo in order to draw conclusions about the policy stability of a political system, when using the concept of the core.[19] Besides, locating the status quo is very rarely practicable, since all existing legislature affecting one policy field would have to be considered. This hardly seems feasible.

3.2. Voting Power Analysis

Voting Power Analyses are a highly contested but still frequently used tool to measure one actor's influence on legislative outcomes. Central interest is the ability of actors of a collective voting body to affect the outcome of a voting by yes or no votes. Several measures have been developed throughout the years, of which the Penrose-Index[20], the Banzhaf-Power-Index, the Shapley-Shubik-Index and the Coleman-Index are the most frequently used. All these measures only give insight into the *a priori* voting power of an actor, which only measures the potential power given to an actor by the legislative decision making rules. Since I will be using the Penrose-Index and the Banzhaf-Power-

[19] The core is said to be internally and externally stable. That means: If the SQ is located outside the core the outcome will most likely be inside the core since it will mean an improvement; if the SQ is located inside the core policy change is impossible, since there is no better option available for a majority of actors. (see König/Bräuninger 2004; 428)

[20] Note that the Penrose-Index is also frequently named Absolute-Banzhaf-Index. For reasons of better discernibility I have chosen the notation Penrose-Index, although the notion Absolute-Banzhaf-Index is predominantly used nowadays.

Index it seems appropriate to delimit these measures to the others in order to justify my choice. In addition the potential but also the shortcomings of the approach in general and my choice in detail shall be touched on briefly. Voting Power Analyses in general are often attached to the school of simple cooperative game theory (Widgrén 1994, 1154).[21]

Voting Indices in general are **criticized** for several reasons, of which I will only discuss the most frequently named. First, the practice of only recognizing the voting options 'yes' and 'no' is often questioned. Abstention is not recognized by any of these measures, although it is a frequently used alternative in real ballots. This approach is however due to the fact that political actors are assumed to act rationally. Following this presumption voting seems to be the most effective way for a political actor to exercise his power; abstention is therefore not considered (Felsenthal/Machover 1998, 280). Second, Voting Power Analyses assume even distribution of yes and no votes across all actors; it is assumed that it is equally probable that an actor votes yes or no. Some scholars disapprove of the fact that the existence of preferences and their impact voting power is neglected (see Garrett/Tsebelis 1999, 2001). Third, a priori voting power also assumes that all coalitions are equally possible. Opposing scholars on the other hand argue that actors in a political system presumably do not make decisions under a 'veil of ignorance' but more often form rather stable coalitions (see Moberg 2002, 261; Hosli/Machover 2002, 506). Fourth, the legitimacy and conclusiveness of cooperative-game-theory, to which voting power analyses are often attached, is sometimes questioned in general.[22] However, since the affiliation of most of the presented measures, especially those I am going to focus on, to cooperative game theory is not undisputed, this point of criticism can be neglected. Finally, Voting Power Analyses using the Banzhaf-Power-Index are sometimes not even recognized as scientific theory, but rather as branch of probability theory or political philosophy, which should both be ignored by political scientists (Albert 2003, 354, 358-360).

It seems advisable to keep this general criticism in mind in order to reevaluate the outcome of voting power analyses in the light of these points. Note again, that voting power analyses can only give evidence for *a priori* voting power instead of *de facto* (often also called a posteriori) voting power, which can be shaped by various other factors, like for instance voting order, other forms of agenda manipulation or other modes of decision making (Hosli/Machover 2002, 501-502 + 505). Yet, since a priori voting power is unquestionable one part of actual a posteriori voting power, the performing of voting power analyses seems justifiable (Felsenthal/Machover 2003, 2).

Voting Power Indices were recently **clustered into two groups** which were labelled I-Power and P-

[21] It is however argued that only the Shapley-Shubik-Index is essentially game-theoretic. One reason can be seen in the underlying office seeking motivation inherent to this concept. In addition, scholars consider it very unlikely that the Shapley-Shubik-Index would have been developed without the general theoretical and conceptual background of cooperative game theory, while this is not the case for the other indices. (see Felsenthal/Machover 1998, 205-206 + 280-281; Albert 2003, 353-355)

[22] This critique refers to the statement that true cooperation is not possible in real political processes.

Power. (Felsenthal/Machover 1998; 171). The Penrose-Index, the Banzhaf-Power-Index and the Coleman-Index form one party. These indices reflect a policy seeking motivation underlying voting behaviour. Voting behaviour in this case is determined by the attitude towards the bill: actors join and leave coalitions depending on their attitude towards the bill. Voting power in the sense of 'I-Power' can only give evidence for one actor's *probability* of controlling the decision outcome of a voting body. (Felsenthal/Machover 1998, 42 + 171) This can be seen in contrast to the second group's motivation: The Shapley-Shubik-Index assumes a purely office-seeking motivation underlying an actor's voting behaviour. In this case power is understood as a *fixed value:* actors have made a commitment to stay in the winning coalition. The question that is tried to answer is: If power is an entity, how big is each actor's share in this entity? Voting power in the sense of 'P-Power' hence measures the possible share that one member of a voting body can have in a fixed total value. (Felsenthal/Machover 1998, 200-201 + 171)

Keeping this in mind it is easier to understand my **choice of Indices**. The Penrose-Index and the Banzhaf-Power-Index are statistical models that determine the power which one actor has to make a coalition a winning coalition (Taylor 1995, 78-79). They are closely related; yet each measure reveals information on a different aspect of voting power. While the Penrose-Index is an objective measure of *absolute* a priori voting power, the Banzhaf-Power-Index allows one to draw conclusions on the *relative* position of one actor compared to the other players (Felsenthal/Machover 2004, 8-9). The Banzhaf-Power-Index is obtained by normalization of the Penrose-Index.[23] The Penrose-Index and Banzhaf-Power-Index have been chosen for mainly four reasons: First, the Banzhaf-Power-Index is because of its relative nature of high interest to politicians, since power is mostly recognized in relative terms only (Felsenthal/Machover 2007, 4). Second, the Penrose-Index allows drawing conclusions on a Member State's absolute amount of influence over a legislative outcome, since this index represents the probability of the event that if an actor reversed his vote the outcome of a division would also be reversed (Felsenthal/Machover 1998, 40-41). Third, the Banzhaf-Power-Index allows one to draw conclusions on the relative gains or losses for (certain groups of) Member States as well as the equitability of voting rules (Wiberg 2005, 5-6). Fourth, since actors of each political system claim to make decisions based on policy considerations (and not their intention to stay in office at any price), this school of thought should also be applied for its assessment.

The following section will briefly cover the **calculation of the Penrose-Index and the Banzhaf-Power-Index.** Basically, voting games distinguish between winning coalitions and losing ones. An actor whose input in votes makes a losing coalition into a winning one is an actor who swings a coalition (Wiberg 2005, 5). If a coalition would become a losing coalition when an actor withdrew or reversed

[23] Note that by normalizing I-Power it is not transformed to P-Power, since the underlying notion of Power is still a different one.

his vote, this actor would be called critical for the respective coalition.

The Penrose-Index measures an actor's ability to cast the critical vote in a winning coalition as a proportion of all coalitions in which that country takes part. Consider a voting game with actors A, B and C, where A has a voting weight of 30, B of 29 and C of 1. In order to calculate the Penrose-Index one starts by counting all possible coalitions for each actor (for Actor A in the example presented in table 1 this would mean: A, AB, AC, ABC). In a second step one counts the critical coalitions, where A's defection would mean that a winning coalition would become a losing one (for Actor A this is the case in coalitions AB, AC, ABC). Finally one divides the number of critical coalitions by the total number of coalitions in which the respective actor takes part (for Actor A this means dividing 3 by 4). The result marks the Penrose-Index (for actor A it is 0.75). (see Felsenthal/Machover 1998)

The Banzhaf-Power-Index measures the number of critical coalitions as a proportion of the total number of critical defections for *all* actors. In order to calculate the Banzhaf-Power-Index one can choose between different paths; I choose to present the one that reflects the connection of the two indices. Therefore one divides the Penrose-Index of one actor by the sum of the Penrose-Index of all actors (for Actor A this would mean dividing 0.75 by 1.25) A's Banzhaf-Index is 0.60/60% (it can swing 60% of winning coalitions), while B and C have one of 0.20/20%. (see Taylor 1995; Felsenthal/Machover 1998; Pajala/Widgrén 2004, Hosli/Machover 2004,)

Table 1 – Penrose-Index and Normalized Banzhaf-Index

Party	Seats/Weight	Penrose-Index	Normalized Banzhaf-Index
Party A	30	0.75	0.60 / 60%
Party B	29	0.25	0.20 / 20%
Party C	1	0.25	0.20 / 20%
TOTAL		1.25	1/100%

Finally, with the help of these indices it is also possible to calculate several **parameters mirroring the equitability** of a political system's voting rules. These parameters are interesting measures to assess the general equitability of two-tier voting systems, like representative democracies. Equitability can be seen as one integral and necessary condition for the implementation of new voting procedures. A selection of parameters will therefore shortly be discussed in this paper. Literature on voting power analysis recommends the following four parameters: D, ran d, max d and the Quotient (see Felsenthal/Machover 2007, 5-6). 'D' describes the so called index of distortion. 'D' gives evidence for

the following: The smaller the value of 'D', the more equitable the voting system as a whole. 'D' is obtained as half of the sum of the absolute difference between the Banzhaf-Power-Index values (in %) and the population square root (given in %)(Felsenthal/Machover 2004, 10). The 'Quotient' as a second measure indicates the amount by which each actor's voting power exceeds or falls short of the voting power under perfectly equitable distribution. The 'Quotient' can be obtained as the quotient of the two values Banzhaf-Power-Index (in %) and population square root (in %). It would hence ideally be 1 for each actor (Felsenthal/Machover 2007, 3 + 10). Theoretical background therefore lies in Penrose's claim that perfect equitability would give each member in a two tier voting system voting power proportional to the square root of its population size.[24] Since ran d and max d focus on the most extreme individual deviations from equitability, they will not be used in this paper (Felsenthal/Machover 2004, 11).

4. Methodological Approach

The **research question** ("Has the Lisbon Treaty improved decision making in the Council of Ministers?") and the consequential working hypotheses will be tested using a non-experimental research design, which is conducted as a comparative case-study.

Let me first call up the research **hypotheses** again:

- H01: The Lisbon Treaty has increased or maintained policy stability in the Council of Ministers.
  H1: The Lisbon Treaty has reduced policy stability in the Council of Ministers.
- H02: The Lisbon Treaty has not shifted power in favor of larger nations.
  H2: The Lisbon Treaty has led to a shift of power favoring larger nations.

The **cases** of the QMV in the Council under the Treaty of Nice and the Lisbon Treaty shall be compared with regard to potential improvements the latter has brought about for decision making in the Council. Improvements are understood as positive consequences in terms of less gridlock danger and less comparative advantages for certain (groups of) states under the new decision making rules. This analysis will be done using **two different theoretical approaches** – the Veto Player Theory and a Voting Power Analysis. The Veto Player Theory can generate information on the policy stability, while the Voting Power Analysis can answer the question of comparative advantages in voting power.

In order to carry out the **analysis using the Veto Player Theory** I need to set up a (in this case two-dimensional) model, where each Member State is located with respect to its preferences. I have chosen the field of agricultural policy to model the policy stability in this analysis. QMV in the CM on

[24] Also known as Penrose square root law. "The suggestion is made that the voting power of each nation in a world assembly should be proportional to the square root of the number of people on each nation's voting list." Please see (Penrose 1946, 57)

the field of agricultural policy proves an adequate field of analysis for several reasons: First, agricultural policy is still the major policy field consuming up to 43% of the EU budget 2007-2013 and hence a core policy field of the EU. (Europäische Kommission 2010) Second, provisions for policy adoptions in the field of agricultural policy are decided on by QMV in the CM, both before and after the Lisbon Treaty (Lieb/Maurer 2009, 105; see also Art 43(2) EUV-L). Although under the Lisbon Treaty most legislative acts in this field will be decided on by both the Council and the Parliament under the ordinary legislative procedure according to Art 43(2) EUV-L, I will only focus on the differences brought about by a different QMV for *Council* decision-making. Third, in the field of agricultural policy problems concerning the imbalance decision-making rules can bring about become apparent, since some member states are more likely to have rather extreme positions concerning agricultural policy. (see König/Bräuninger 2000) Fourth, it is reasonable to assume that especially agricultural policy making has experienced pronounced gridlock effects due to the Treaty of Nice QMV rules (Hageman/de Clerck-Sachsse 2007, 2 + 7).

The Member States' preferences will be defined along the lines of the respective Member State's *input and output positions* in agricultural policy. I have chosen economic indicators to derive the policy positions of the MS, although other factors influencing preferences are also acknowledged. Other such indicators could for instance be the party affiliation (see Hagemann/Hoyland 2008) or the length of EU membership. Concerning the latter it can however be questioned whether this actually results in stable positions: As the examples of Sweden and the new MS show their voting behavior developed in opposite directions with the length of their membership. (see Warntjen 2009) Since I will be looking at agricultural policy – a policy field with great differences in preferences, which consumes most of the total EU budget – using economic indicators to derive policy positions seems reasonable for this policy field. Party affiliation is rather unlikely to have dramatic effect of the EU MSs' positions in this policy field (consider for instance the case of Romania).

The underlying assumption is that Member States with high dependency on the agricultural sector will favor more budget contributions to the agricultural sector, while Member States with higher GDP per capita will not favor an increase in EU budget contributions. I will therefore use data that reflects a) the *input* each state contributes to the EU budget (measured by the GDP per capita) and b) the *output* profit each member state is likely to gain through the Common Agricultural Policy (CAP) (measured by the agricultural share of the total gross value added) in order to position each Member State according to its preferences. Due to the theoretical framework of the Veto player theory the dependent variable of improvement in terms of policy stability will be mirrored in the concept of the core. The location and size of the core in turn is determined by the independent variable, the decision-making rules at that time. The decision-making rules as described below will be used in both theoretical approaches.

For the **analysis using the Penrose-Index and the Banzhaf-Power-Index** the QMV rules under the Treaty of Nice and the Lisbon Treaty have to be sketched. In addition, the different weighted votes each member state was assigned under the Treaty of Nice have to be taken into account. Note that the QMV rules in the CM have shifted from a triple majority to a double majority, deleting the component using the weighted votes. The final values for the Indices hold information on the Member States' absolute and relative influence on decision outcomes.

The **independent and dependent variable** in the two cases that will be observed – the Treaty of Nice and the Lisbon Treaty – are the same. The respective decision-making rule will be treated as the independent variable while improvements in the aspects of a) policy stability and b) voting power can be seen as the dependent variable, which can vary as the function of the dependent variable.

The **relevant information to define the independent variable** will briefly be introduced below:

QMV under Treaty of Nice:

- The simple majority of Member States
- 255 of 345 weighted votes
- Representation of 62% of the total EU population (Europäische Union 2010)

QMV under Lisbon Treaty:

- 55% of the Member States
- Representation of 65% of the total EU population (Europäische Union 2009)

The specific provisions for the weighting factors under both treaties can be found in Table 2 of the Appendix. Table 3 of the Appendix presents the total number of the EU's population, each Member State's population as well as each Member State's share of the total population. The respective relevant data records have been taken from the same source and reveal measures for the same year.[25] A short comment on the changes of the decision making rule can be found in chapter 5.2.2.

5. Application and Analysis

5.1. Veto Player Theory

5.1.1. Data and Procedure

In this section I intend to describe the data that was used to locate the Member States according to their preferences and to calculate the core. This is needed in order to test the first hypothesis.

[25] This refers to Eurostat data on each country for the year 2008, since this is the most recent complete data

In order to be able to calculate the core, data on the decision making rules and the policy positions of the Member States were needed. To present a realistic position for each Member State, data for the input and output dimensions[26] of decision making in agricultural policy have been obtained. The input dimension is hence represented by the figures on the GDP per capita while the output dimension is represented by the Member States' agricultural share of the total gross value added. It can be assumed that the higher a Member State's GDP/capita the less a state will support an increase of the total budget[27] (of which the CAP consumes the biggest share), while the higher a Member State's dependency on the agricultural sector the more it will support further budget contributions[28]. Data has been taken from Eurostat and shows the development of nine years up to 2008, which is the most recent and complete data.

Data on the GDP per capita reveals an overall continuous growth for all Member States.[29] There are only few and minor exceptions to this tendency (for example Germany in 2002 and 2003 or Malta in 2003). The figures for 2008 show a slight irregularity to this overall positive tendency since many Member States record a decline in values compared to the respective values from 2007: 10 Member States record a decline in values, 15 countries an increase and 2 constant values[30]. The average GDP/capita for the EU of 27 Member States was 21600€ in 2008, with Luxembourg (61000€) at the head and Bulgaria (2900€) at the bottom. The figures also testify that there is still a pronounced gap between the values of the old EU Member States and the 12 rather new Member States.

Data on the agricultural share of the total gross value added (GVA) reflects a stable tendency of declining values for all Member States.[31] Comparing the values for 2008 with those for 2007 one can state that only five Member States have again recorded a slight increase: Bulgaria, Hungary, Romania, Sweden and the United Kingdom. This increase is however only marginal in the cases of Sweden and the UK and slightly more pronounced for Bulgaria, Hungary and Romania. The average agricultural share of the GVA in 2008 was 1,8% for the EU of 27. Significant deviations from this value are recorded for Luxembourg (0,4%) and Belgium (0,7%) at the bottom and Bulgaria (6,9%) and Romania (7,4%) at the head. Observing the old 15 Member States Greece (3,2%), Portugal (2,3%) and Spain (2,7%) record comparatively high values.

[26] Input = input each Member State contributes to the EU budget, output = output profit each Member State is likely to gain

[27] This assumption is derived from König/Bräuninger 2004. By regressing Member States' annual contributions to the EU budget/capita on their GDP/capita they conclude that less prosperous Member States make smaller contributions to the budget and hence will be more in favour of budget increases.

[28] This assumption is derived from König/Bräuninger 2004. By regressing average annual EU expenditure/capita on the size of the agricultural share of the GDP they conclude that countries with a big agricultural sector will favour further agricultural spending.

[29] Please refer to Table 5 of the Annex for data in detail.

[30] One potential explanation for this effect could be the global financial and economic crisis, which expanded beyond the borders of the USA between 2007 and 2008.

[31] Please refer to Table 6 of the Annex for data in detail.

In order to allow for comparability of the figures for a) each Member State and b) the two data records, both records have been standardized using the z-transformation.[32] With the help of this transformation member states are grouped around the value 1, whereby values above 1 represent that the Member State lies above the EU average, values below 1 that the Member State lies below the EU average. Please find the actual figures in Tables 7 and 8 of the Annex. With the help of the z-standardized values each MS can be positioned in a two-dimensional space according to its preferences in agricultural policy in the EU.

The core was calculated graphically as the intersection of all possible combinations the QMV rules allow. Chapter 3.1. briefly touches upon the details.

5.1.2. Analysis

In the following section I will present the QMV core for the EU of 27 Member States for both the decision rule under the Treaty of Nice and the Lisbon Treaty. By comparing these figures I am able to draw inferences on the development of gridlock danger from the Treaty of Nice to the Lisbon Treaty.

The concept of the core primarily represents information on the gridlock danger. The size of the core holds information on this, yet the change of location of the core can in addition reveal whose Member State's interests are more likely to be represented in the outcome of a voting. It can hence be assumed that Member States have high interest in being as close to the center of the core as possible since this means that any policy change will lead to outcomes that are close to their ideal point. In addition MS that are located inside the core can veto any QMV decisions that aim at changing the SQ.

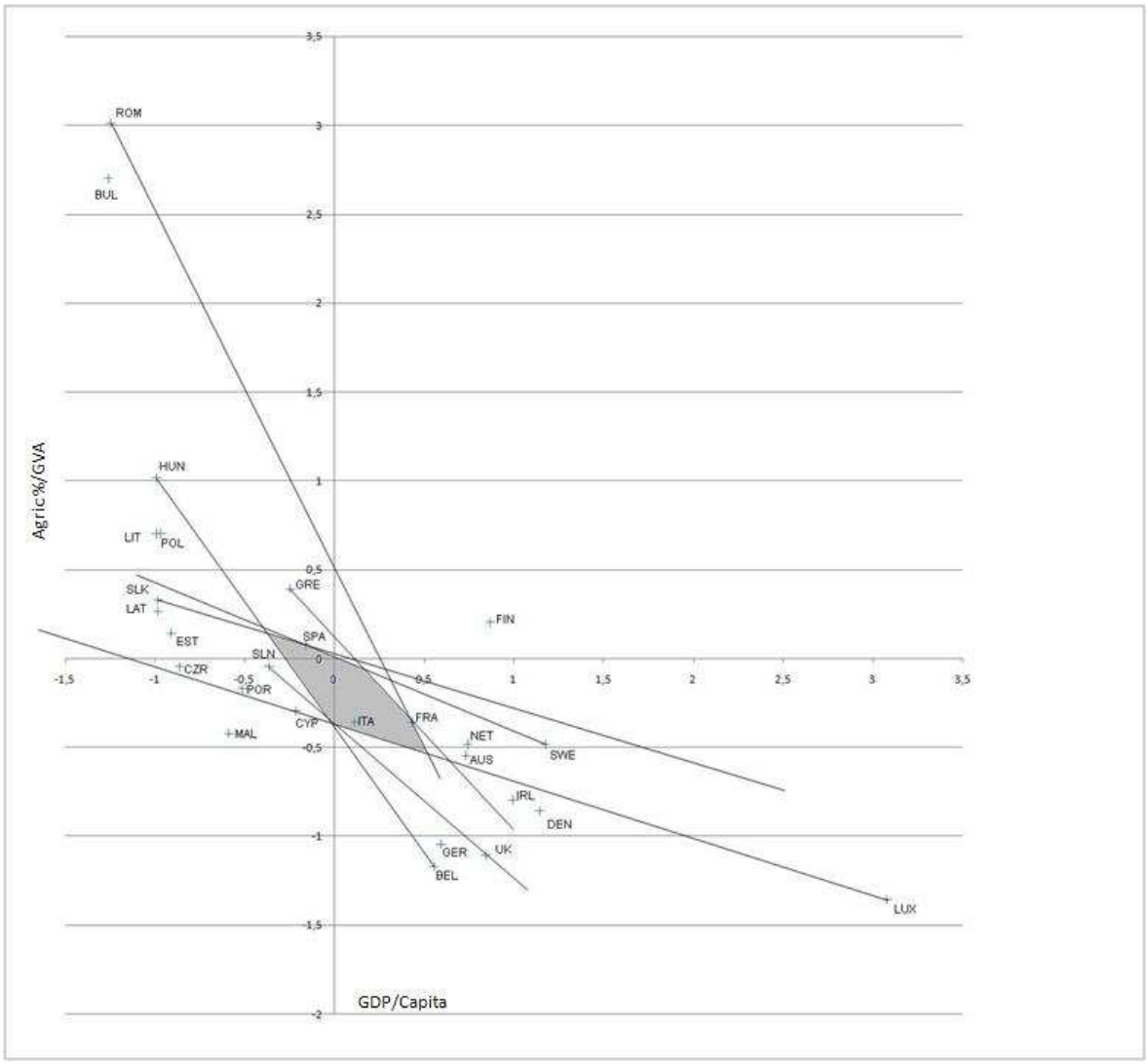
Figures 4 and 5 show that Romania, Bulgaria and Luxembourg are obvious outliers in this model. Luxembourg presumably favors a lowering of the total EU budget and a lowering of agricultural spending while Romania and Bulgaria favor an increase in agricultural spending and rise in EU budget contributions due to their high dependency on the agricultural sector and their small contribution to the total EU budget. If we look at the x-axis which represents the input dimension, we can say that the further to the right a Member State is located the more it will favor a reduction of EU budget contributions. The reverse is true the further to the left a Member State is located. The y-axis reveals information on the Member States' preferences, shaped by their agricultural dependency. The more dependent a Member State is on its agricultural sector, the more it will favor an increase in agricultural spending of the EU. This position is represented by Member States that are located at the upper end of the y-axis. The closer Member States are located at the bottom of this axis the more they favor cuts in agricultural spending.

[32] The z-Transformation can be denoted as follows: $Z(i) = x(i) - m / s$

Figure 4 below shows the findings for agricultural policy under the Treaty of Nice decision making rules with an EU of 27 MS.[33]

The core in this figure is rather big and located centrally among all Member States. Italy, Spain and France are located inside the shaded area, which means that they are able to veto any QMV decision that aims at changing the status quo. New and mostly agriculturally dependent EU Member States are not located significantly further away from the center of the core than old, agriculturally less dependent EU Member States. The distance from the ideal points to the center is evenly distributed among agricultural dependent and independent MS (Denmark and Sweden are about as far away from the core as Estonia and Slovakia; Poland and the UK have ideal points with about the same distance to the core). The comparison with figure 5 will show whether there has occurred a significant change under the Lisbon QMV rules.

Figure 4 - QMV core under Treaty of Nice, EU 27



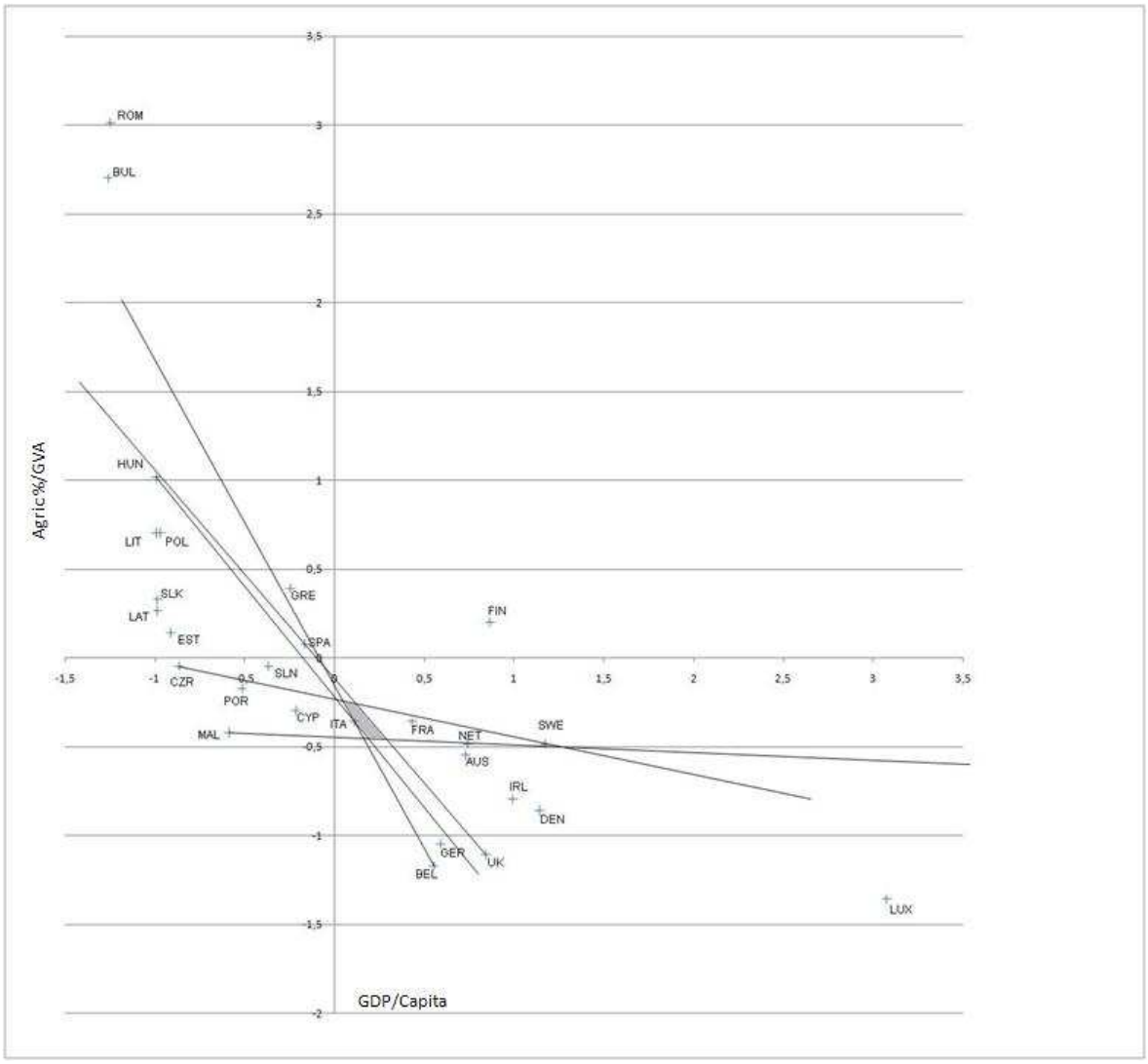
[33] Only the relevant lines limiting the core are displayed for reasons of better readability of the figure.

Figure 5 shows the QMV core under the Lisbon Treaty for an EU of 27 Member States with the same preferences as under the Treaty of Nice. Hence the location of the Member States is still the same, only the decision rule has been amended. This figure clearly displays two significant developments to the previous figure:

- first, the QMV core under the Treaty of Lisbon is significantly smaller than under the Treaty of Nice (about one tenth of the Nice core),
- second, the location of the core and its center has shifted remarkably in the direction of the old EU Member States, which are the primary net contributors to the total EU budget and which are less interested in an increase of agricultural spending than the agriculturally dependent new Member States.

In figure 5 only one Member State is still located among the core: Italy. Only Italy is able to veto changes of the SQ under the Lisbon Treaty.

Figure 5 - QMV core under Treaty of Lisbon, EU 27



5.1.3. Preliminary Conclusion

In this section I summarize the main findings of the Veto Player Analysis and conclude what kind of impact these developments can have for future decision making in the CM.

The comparison of the QMV core under the Treaty of Nice and the Lisbon Treaty has revealed the following:

- The QMV core shrinks significantly from the Treaty of Nice to the Lisbon Treaty.
- The Lisbon QMV core's location shifts towards the majority of the old EU Member States, which are more in favour of reducing agricultural spending than increasing it.
- While under the Treaty of Nice three MS were located among the core, only one is located among the core under the Lisbon Treaty.

These observations lead to the conclusion that the gridlock danger, which was often attributed to the Treaty of Nice has indeed (partly) been remedied by the Lisbon Treaty. It can be assumed that the deletion of the majority requirement of the majority of weighted votes has played a big part in this development. This is also supported by my personal observation while drawing both cores: The majority of weighted votes was remarkably harder to obtain than the other two majority requirements. As soon as the Lisbon Treaty QMV rules come into force it will be easier to find majorities for the approval of a legislative proposal. In addition there is only one Member State left that is located among the core and which has the power to veto any QMV decision that intends to change the SQ.

However, the QMV core under the Lisbon Treaty has shifted its location in favor of the big contributors to the EU budget, whose GVA shows only little dependency on the agricultural sector. It is still located within the former Nice QMV core and still close to Italy's ideal point, but has shifted towards the old EU MS. The ideal points of the new EU MS are located further away from the center of the core under the Lisbon Treaty than under Nice. The balance between the MS has been shifted towards less agriculturally dependent MS.

Some states are more likely to have greater influence on policy outcomes than before, since they are closer to the center of the core than before (for example Belgium, Germany or the UK), others are even further away from the center of the core than before, since the core shifted diametrically opposite to the positions of for instance Romania, Bulgaria and Hungary. If it holds true that policies will move to the core in the long run, the distance of the ideal point to the center of the core reflects the danger of being outvoted. Hence a Member State knows that the closer it is to the core, the more likely it is that policy change will lead to an outcome that is close to its ideal point. It follows that future policy outcomes decided upon by the Lisbon QMV will be further away from the new Member States' ideal points than before.

In the long run this may imply a general shift in agricultural policy of the EU, in favor of the fiscally prosperous countries and to the detriment of agriculturally dependent Member States. This shift may also be easier to bring about due to the reduced policy stability.

The findings of the core, produced by the Veto Player Theory, allow us to conclude the following with respect to the working hypothesis: We can reject the null hypothesis H 01 and verify the alternative hypothesis H1, suggesting that **policy stability has been reduced**. Yet, it seems noteworthy that this will most likely be accompanied by a **slight shift in balance** among the EU of 27.

5.2. Voting Power Analysis

5.2.1. Data and Procedure

In this section I intend to take a closer look at the QMV rules under the Treaty of Nice and the Lisbon Treaty and contrast them to each other.

The data used for calculating the Penrose-Index and the Banzhaf-Power-Index is determined by the QMV rules under the Treaty of Nice and the Lisbon Treaty. The Treaty of Nice uses a triple majority requirement, the Lisbon Treaty a double majority requirement. In order to make these requirements utilizable for the calculations I had to calculate each Member State's share of the total EU population and sketch the weighted votes.[34]

Majority requirement 1: The simple majority requirement that was used under the Treaty of Nice has been raised to a majority requirement of 55% out of all Member States under the Lisbon Treaty. For a EU of 27 Member States this means that 15 instead of 14 members need to approve of a voting.

Majority requirement 2: In addition the Treaty of Nice required a majority of weighted votes. Under the Treaty of Lisbon this requirement has been deleted. Concerning the weighted votes under the Treaty of Nice it can be said that the 27 Member States were grouped together in nine groups. Each group had different weighted votes, but members of one group all had the same weight. Each group embraces countries of roughly the same size of population. A summary follows: Germany, France, Italy and the United Kingdom: 29; Spain and Poland: 27 Romania: 14; The Netherlands: 13; Belgium, Czech Republic, Greece, Hungary and Portugal: 12; Austria, Bulgaria and Sweden: 10; Denmark, Ireland, Lithuania, Slovakia and Finland: 7; Cyprus, Estonia, Latvia, Luxembourg and Slovenia: 4; Malta: 3. Under the Lisbon Treaty all Member States have the same weight; for calculation purposes each Member State was given the weight 1.

Majority requirement 3: The population share required for the passage of a legislative act has also

[34] Please refer to Chapter 4 and tables 2 and 3 of the Appendix for details on the independent variable and the respective data.

been amended. While it used to ask for a representation of 62% of the total EU's population this was also raised up to 65% (323494127 people) under the Treaty of Lisbon. The present 27 Member States' shares of the total EU population range from 0,08% (Malta) to 16,5 % (Germany). As table 4 of the annex shows no winning coalition is and was possible without the approval of Germany, France or the U.K.

The calculations of the Penrose-Index and the Banzhaf-Power-Index have been done using the online accessible Java Applet 'ipnice', provided by Dennis Leech from the University of Warwick and Robert Leech from Birkbeck, University of London.

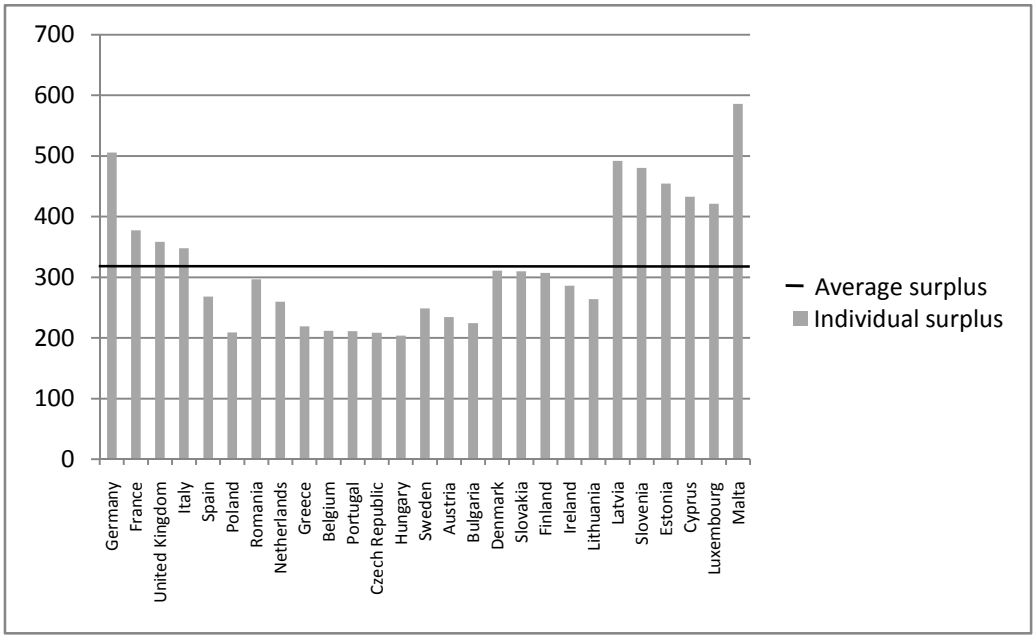
5.2.2. Analysis

This section lists the observations that can be derived from the calculated Indices. The observations deal with the Penrose-Index first, with the Banzhaf-Power-Index next, then with the Quotient and the index of distortion 'D'.

Observation 1: Comparing the Penrose-Indices displayed in Table 9 under the Treaty of Nice and under the Lisbon Treaty one can discover that with the new treaty each Member State has gained power in absolute terms. Each Member State has greater ability to influence the outcome of a voting under the Lisbon Treaty than under the Treaty of Nice.

Observation 2: The Penrose-Index has increased by an average of 323% from the Treaty of Nice to the Treaty of Lisbon. Some Member States have gained more than the average and some less than the average, yet all countries have effectively gained voting power, as can be seen in figure 6 below. Countries that record a remarkably big surplus are: Estonia (+454%), Germany (+505%), Luxembourg (+421%), Latvia (+492%), Malta (+586%), Slovenia (+480%) and Cyprus (+433%). Member States that have gained exceptionally less than the average are: Belgium (+211%), Greece (+219%), Hungary (+203%), Poland (+209%), Portugal (+211%) and Czech Republic (+208%). Please refer to Table 9 for the complete data record.

Figure 6 - Individual gains in Penrose-Index compared to Nice, in %, sorted by population size



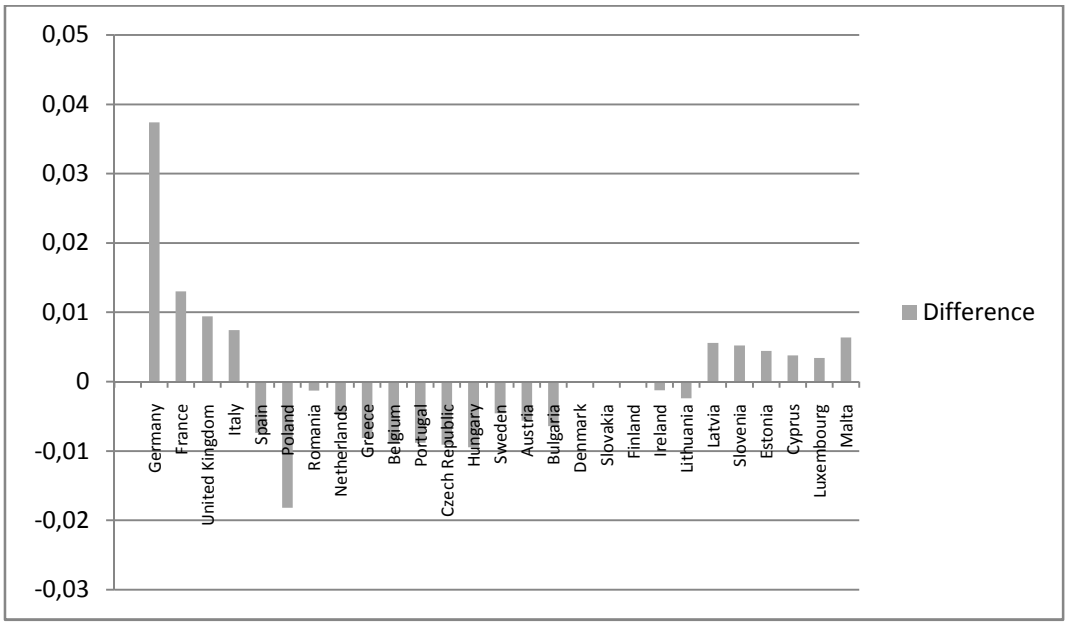
Observation 3: Reflecting upon the Penrose-Indices under the Treaty of Nice it can be stated that the Member States can be grouped together in nine groups according to their index. These are the same groups as have been generated by the weighting factors. The Penrose-Indices under the Lisbon Treaty on the other hand all differ from each other.

Observation 4: If the Member States are sorted from the highest Penrose-Index to the smallest the order under the Lisbon Treaty mirrors the order of the actual population shares. Under the Treaty of Nice countries were roughly grouped together, disregarding their actual population share. The same is true for the sorting of the Banzhaf-Power-Index. This general observation of equitability is specified under Observation 8.

Observation 5: Comparing the Banzhaf-Power-Indices under the Treaty of Nice with the respective Indices under the Lisbon Treaty we can see that 15 Member States have lost relative voting power while 12 have gained relative voting power. The winners are: Denmark, Germany, Estonia, France, Italy, Cyprus, Latvia, Luxembourg, Malta, Slovenia, Slovakia and the UK. The losers are: Belgium, Bulgaria, Tchech Republic, Ireland, Greece, Spain, Lithuania, Hungary, the Netherlands, Austria, Poland, Portugal, Romania, Finland and Sweden. Some countries have gained or lost more than others. Countries that have gained more than 0,5 percentage points are: Germany, France, Italy, Latvia, Malta, Slovenia and the UK . Countries that have lost more than 0,5 percentage points are: Portugal, Poland, Austria, Hungary, Spain, Greece, Czech Republic, Bulgaria and Belgium. Table 10 presents the gains and losses in percentage points. While Germany has gained the most points (+3,7), Poland has lost the most (-1,8). Please refer to Table 10 of the Annex.

Observation 6: As figure 5 demonstrates mostly medium-sized countries have lost relative power while the four largest and six smallest nations have gained the most. Please refer to observation 8 in this context.

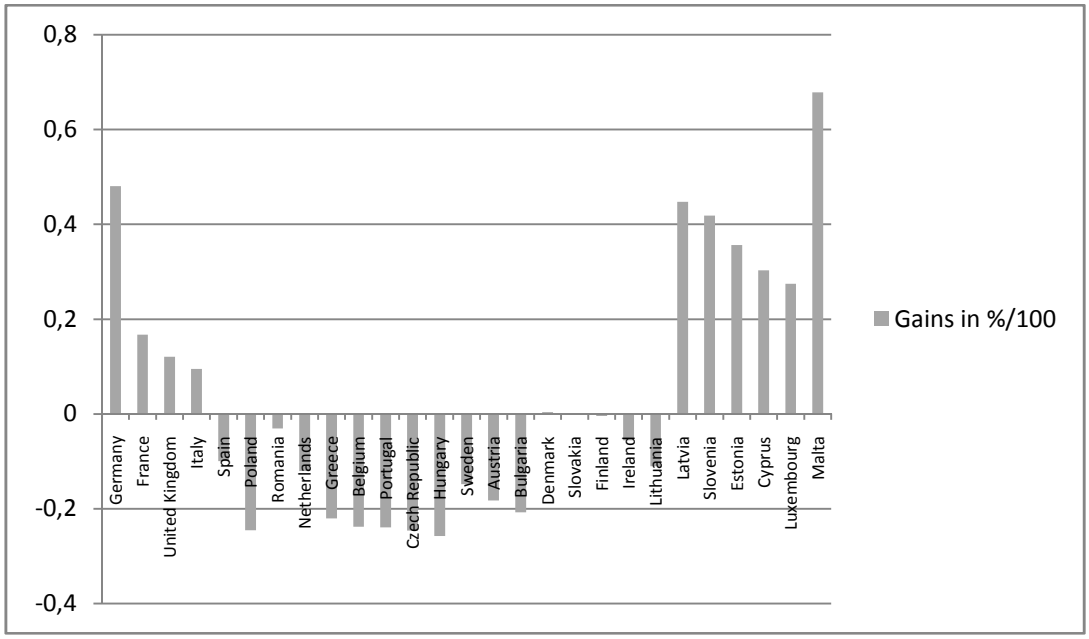
Figure 7 - Difference in Banzhaf-Power-Index from Nice to Lisbon, given in percentage points/100, sorted by size of population



Observation 7: For some countries the changes in Banzhaf-Power-Indices imply mentionable gains or losses compared to the respective figures under the Treaty of Nice. Malta's gains mean an improvement of 67% in relation to its index under the Treaty of Nice. Again the four biggest and the six smallest members have gained the most. However these values only give insight to the relative *individual* gains. Note that these gains are determined by a) the difference from Nice to Lisbon and b) the Banzhaf-Value under Nice.[35] Figure 6 shows how much each Member State has gained or lost compared to its value under the Treaty of Nice.

[35] This means: One Member State might have high personal gains, but they might occur because of its previous underrepresentation and ultimately lead to approximate perfect equitability. The example of Latvia highlights this connection. In order to asses this, the Quotient and the new Banzhaf-Power-Index can be consulted. Note that the reverse could also occur.

Figure 8 - Individual gains in %/100, compared to Nice, sorted by population size



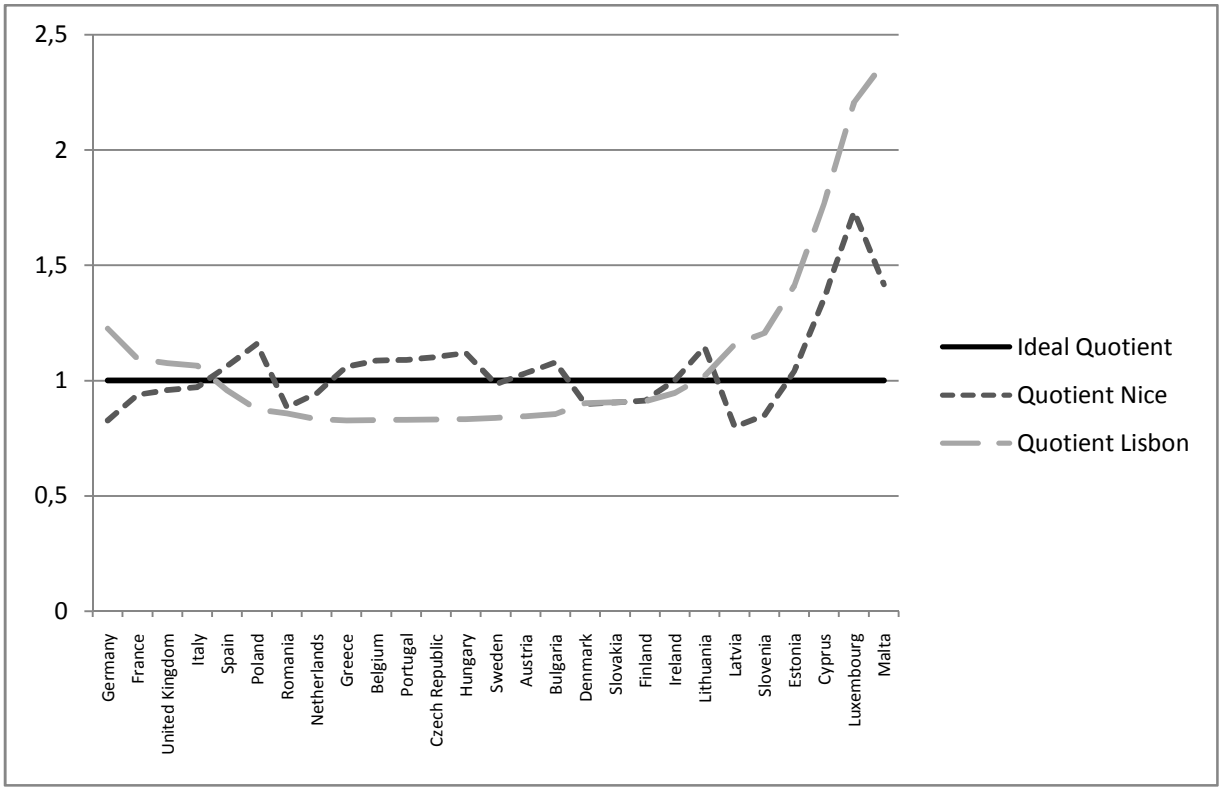
Observation 8: The Quotient (displayed in Table 11 of the Annex) shows whether the voting power exceeds or falls short from the voting power a Member State should have under perfect equitability that means: whether each person in the EU has the same weight in EU decision making. Figure 7 below represents the values for the Quotient for each Member State under both the Treaty of Nice and the Lisbon Treaty and compares it with the ideal values.[36] The Population of Member States above the blue line is overrepresented; the reverse is true for Member States' population below the blue line.

According to the Quotient some Member States have been disadvantaged remarkably under the Treaty of Nice. These are: Germany; Romania, Denmark, Slovakia, Latvia and Slovenia. Member States which were significantly overrepresented under the Treaty of Nice: Poland, Czech Republic, Hungary, Bulgaria, Lithuania, Zyprus, Luxembourg and Malta. Under the Lisbon Treaty overrepresented Member States are: Germany, Latvia, Slovenia, Estonia, Zyprus, Luxembourg and Malta. Significantly underrepresented under the Lisbon Treaty are: Romania, Netherlands, Greece, Belgium, Portugal, Czech Republik, Hungary, Sweden, Austria and Bulgaria.

Although the general sorting suggested approximate equitability (Observation 5) the individual Member States' data reveal several shortcomings for perfect equitability.

[36] Note that the Member States' Quotient values are not displayed by 27 data points for reasons of better readability of the figure.

Figure 9 - Ideal Quotient, Quotient Nice and Quotient Lisbon in comparison, sorted by population size



Observation 9: While the quotient measures the equitability for each Member State, the range of distortion 'D' measures the overall equitability of a decision making rule. With a value of 7,58 the value under the Lisbon Treaty is higher than under the Treaty of Nice. It follows that the overall equitability of the Lisbon decision making rules are generally more inequitable than before, meaning that more populations are remarkably overrepresented or underrepresented than before. Please refer to table 11 of the Annex.

5.2.3. Preliminary Conclusion

In this section I intend to shortly summarize the observations of 5.2.2. and develop the consequential conclusions for my research hypothesis.

The analysis of the Penrose-Index and the Banzhaf-Power-Index has shown the following:

- With the decision making rules of the Lisbon Treaty all EU Member States have more power to influence a policy outcome than under the Treaty of Nice, but some have gained more than others.
- Normalized Banzhaf-Power has been redistributed to the advantage of the four big and

six very small Member States and to the disadvantage of medium-sized states.[37] This is shown in figure 5 and supported by figures 4 and 6.

- Under the Lisbon Treaty the sorting of both indices matches the sorting by population. The more populous a Member State the higher its value. This roughly guarantees the equitability of the rules. Under the Treaty of Nice however several MS had the same values for the Penrose-Index and the Banzhaf-Power-Index, regardless of their population size. This seems to be less equitable.
- The index of distortion 'D' however calculates this in more detail and reveals that the general equitability of the decision making rules was considerably higher under the Treaty of Nice (D = 4,77) than under the Lisbon Treaty (D = 7,58).
- Since the grouping of Member States as it occurred under the Treaty of Nice has been deleted under the Lisbon Treaty it can be assumed that this used to be the most influential majority requirement, shaping the voting power of Member States.
- The Quotient shows which Member States have voting power that falls short from or exceeds perfectly equitable voting power. For instance, especially the very small Member States' populations are overrepresented under the Lisbon Treaty, but also the population of Germany. Some shortcomings of the Treaty of Nice were addressed by the Lisbon Treaty (e.g. Germany's remarkable underrepresentation or Lithuania's pronounced overrepresentation), but not always to the better (Germany is now overrepresented, but Lithuania has indeed moved closer to perfect equitability).

With respect to the working hypothesis we can reject the null hypothesis H02 and accept the alternative hypothesis H2 which suggested that power has been shifted to larger nations. Yet we have to admit that

a) power has at the same time also been shifted to small Member States,

b) in absolute terms all Member States have greater influence on the outcome of a voting,

c) a shift of power could be justified if it brings about more equitability.

The last aspect shall shortly be discussed in order to assess the insights we have gained so far. Have the gains or losses led to greater equitability? Let us first look at the most pronounced gains: In the case of Germany a gain in the Banzhaf-Power-Index was justified under equitability concerns, since the German population was significantly underrepresented. Yet the gains in this case were much too pronounced and led to continued and even more inequitable results, now however due to the

[37] Big, small and medium-sized is understood in terms of a Member State's population size, not the geographical size.

German population's overrepresentation. France's, the UK's and Italy's gains have led to a slight overrepresentation while they were slightly underrepresented under the Treaty of Nice decision making rules. These gains have not led to greater equitability and have only increased the voting power of the respective Member States, which suggests that these gains were not necessary. Latvia and Slovenia are now overrepresented instead of underrepresented, but their gains can be justified since such small countries can be assumed to have a difficult starting position in EU decision making and *de facto* voting power because of their size. The same counts for the gains by Estonia, Cyprus, Luxembourg and Malta. Their gains result in highly inequitable figures and cannot be justified from an equitability point of view, yet they are not likely to cause dramatic controversy among the other Member States.

Let us move to the most pronounced losses in voting power: Spain's losses have led to slightly more equitability and are hence justifiable. Poland's loss has moved it slightly closer to perfect equitability, but both voting power indices (under Nice and under Lisbon) are not satisfactory, since a huge overrepresentation was replaced by a slightly less pronounced but still huge underrepresentation of the population. Unsatisfactory are also the losses by the Netherlands, Greece, Belgium, Portugal, Czech Republic, Hungary, Sweden, Austria and Belgium, since they have all moved further away from perfect equitability under the new decision making rules. Lithuania's losses however have brought it closer to equitability.

As has been concluded before, the null hypothesis could be rejected; relative power has indeed shifted in favour of large nations under the Lisbon Treaty decision making rules. The underlying intention of these gains in voting power can partly be justified (as was briefly touched on above), but the gains have unfortunately more often than not led to more inequitable results than before. Although these calculations can only give evidence for the a priori voting power of the members of a voting body and hence do not hold necessary conclusions for the actual a posterior voting power we can observe a clear tendency: The four most populous Member States have gained an unjustified amount of a priori voting power. They are able to influence more outcomes than before, both in absolute and relative terms. The increase of the population quota can be assumed to have caused this. Very small Member States have also gained considerable a priori voting power: yet their gains are not likely to have great influence in actual voting, since their population share can only in very few cases decide a voting. While it can be assumed that an increase in majority threshold favours less populous nations in terms of gaining more voting power, their power can only be regarded as limited since they will most likely fail to contribute considerably to the population requirement, which is the greater obstacle of the two requirements. With the abolition of the weighted votes the medium-sized Member States have lost great shares of their voting power. Note that this component was considered to be the greatest obstacle for the approval of an act. Under the Lisbon Treaty the

population requirement is going to be the greatest obstacle and this will favor large Member States. Medium-sized states can hardly pose counterweight in these circumstances. Hence large Member States will have more influence to decide on the future direction of the EU if we consider the a priori voting power. It is however possible that in terms of a posteriori voting power these changes might not be so significant, since other ways of influencing a voting could already have been highly influential before. The a priori voting power under Lisbon might only reflect a tendency that has been present in a posteriori voting power all along.

Expanding this working hypothesis it is possible to say that power in relative terms has been shifted in favour of the four large **and** six small Member States, mostly to the **detriment of medium-sized** Member States, but that at the same time the **absolute capacity of each** Member State to influence a voting outcome has been increased.

6. Conclusion and Outlook

This thesis intended to compare the QMV rules in the CM under the Treaty of Nice with those under the Lisbon Treaty under the **research question** "Has the Lisbon Treaty improved decision making in the Council of Ministers?" The QMV rules have been compared by examining the likely effects of either decision making rule on the dependent variable, which has been observed with respect to the following **two characteristics**:

- danger for gridlock in the EU and
- danger for inequality in the distribution of power.

In order to answer the general research question two **working hypotheses** have been developed:

- H01: The Lisbon Treaty has increased or maintained policy stability in the Council of Ministers.
  H1: The Lisbon Treaty has reduced policy stability in the Council of Ministers.
- H02: The Lisbon Treaty has not shifted power in favor of larger nations.
  H2: The Lisbon Treaty has led to a shift of power favoring larger nations.

In order to analyze the above hypotheses **two theoretical approaches** have been identified with which answers to the above questions could be generated: The Veto Player Theory on the one hand and the Voting Power Analysis on the other hand. While the Veto Player Theory could produce results for the first hypothesis, the Voting Power Analysis could create insights to the second hypothesis. The research design was a non-experimental comparative case study, whereby the Treaty of Nice and the Lisbon Treaty QMV rules were compared and assessed with respect to the improvements they have brought about.

Chapter 3 briefly outlined the essential concepts of both theories; chapter 4 recalled the methodological approach and chapter 5 ultimately applied the theories to the cases at hand.

The analyses which were carried out in chapter 5 firstly allow me to answer the research hypotheses and secondly allow me to answer the general research question of whether the Lisbon Treaty may improve decision making in the CM.

With respect to the analysis using the **Veto Player Theory** it is possible to summarize the **following results:**

- The QMV core shrinks significantly from the Treaty of Nice to the Lisbon Treaty.
- The Lisbon QMV core's location shifts towards the majority of the old EU Member States, which are more in favor of reducing agricultural spending than increasing it.
- While under the Treaty of Nice three MS were located among the core, only one is located among the core under the Lisbon Treaty.

The analysis using the **Voting Power Approach** generated the **following results**:

- With the Lisbon Treaty all MS have gained more absolute voting power
- In relative terms however the four biggest and the six smallest MS have gained the most
- The figures for the Quotient reveal that gains and losses of relative voting power have only in very few cases led to more equitable results
- The index of distortion 'D' reveals that the voting power under the Lisbon Treaty is overall more inequitable than the Treaty of Nice was

We are hence able to verify both alternative hypotheses: The Treaty of Nice has reduced the gridlock danger and it has brought comparative advantages for large EU Member States.

What does this mean for the **research question**? Improvement has been defined as less gridlock danger and less comparative advantages for certain (groups of) MS. With regard to the first aspect it is possible to certify an improvement from the Treaty of Nice to the Lisbon Treaty. The gridlock danger has indeed been reduced (yet not abolished), as could be shown by the calculations of the core. Since the core has been reduced also policy stability has been reduced. However, it is noteworthy that this development goes along with a shift of balance between the 27 MS. Compared to the Treaty of Nice old and rather prosperous MS are likely to find themselves closer to the core. This implies that policy outcomes will be closer to their ideal points. In contrast, such policy outcomes will be further away from new MS than they were before. The reduction of gridlock danger is hence accompanied by a shift of balance to the detriment of new, rather poor and agriculturally more dependent MS. This might in the long run lead to a general shift in agricultural policy of the EU, with

might be facilitated by the reduced policy stability.

The Voting Power Analysis however reveals that, although all MS have gained power in terms of absolute voting power, the four largest and the six smallest MS have gained most voting power when compared to all EU MS. While gains in terms of relative voting power can be justified if they result in more equitability (both individually and generally), we have to admit that this is not the case with the Lisbon Treaty. It has not improved decision making in the CM, since large MS and small MS have been given comparative advantages. In addition it is reasonable to conclude that this development will favor large MS more than small MS. However, these findings should be reviewed with empirical data on de facto voting power: It is conceivable that the new a priori voting power measures only mirror a long existing reality in de facto voting power. Conversely it is however possible that these gains in relative a priori voting power indeed facilitate the exertion of influence of the largest EU MS, since neither medium-sized MS, who have lost voting power, nor small MS, which have gained voting power, can pose a decisive counterweight.

The conclusion is therefore a mixed one: The Lisbon Treaty QMV seems to be able to address and partly remedy the greatest critique of the Treaty of Nice: the gridlock danger. Yet it seems to do so by accepting less equitability among the EU of 27. Since the QMV rules of the Lisbon Treaty have not yet come into force these findings should of course be contrasted to actual empirical data in the future.

Note again that these conclusions are not founded on empirical evidence and only analyze the formal voting rules while neglecting other influencing factors for voting behavior.

Future research (besides empirically testing these conclusions) combining both theoretical approaches that I used in this thesis, could examine the effect of a weighted voting rule as proposed by Lionel S. Penrose (Penrose square root law) on the size and location of the core as it is used in the Veto Player Theory. Voting rules that in the long run satisfy both equitability concerns and concerns on the gridlock danger would be favorable to any QMV rule that only solves one of these issues.

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8. Annex

Table 2 - Weighting factors EU 27 under Nice and Lisbon

	Weighting factor Nice	Weighting factor Lisbon
Belgium	12	1
Bulgaria	10	1
Czech Republic	12	1
Denmark	7	1
Germany	29	1
Estonia	4	1
Ireland	7	1
Greece	12	1
Spain	27	1
France	29	1
Italy	29	1
Cyprus	4	1
Latvia	4	1
Lithuania	7	1
Luxembourg	4	1
Hungary	12	1
Malta	3	1
Netherlands	13	1
Austria	10	1
Poland	27	1
Portugal	12	1
Romania	14	1
Slovenia	4	1
Slovakia	7	1
Finland	7	1
Sweden	10	1
United Kingdom	29	1

Table 3 - Population share EU 27

	Total	Share (%/100)	Share subrounded (%/100)
EU 27	497683272		
Belgium	10666866	0,021433041	0,0214
Bulgaria	7640238	0,015351607	0,0154
Czech Republic	10381130	0,020858909	0,0209
Denmark	5475791	0,011002562	0,0110
Germany	82217837	0,165201126	0,1652
Estonia	1340935	0,002694354	0,0027
Ireland	4401335	0,008843647	0,0088
Greece	11213785	0,022531971	0,0225
Spain	45283259	0,090988107	0,0910
France	64004333	0,12860455	0,1286
Italy	59619290	0,119793639	0,1198
Cyprus	789269	0,001585886	0,0016
Latvia	2270894	0,00456293	0,0046
Lithuania	3366357	0,006764055	0,0068
Luxembourg	483799	0,000972102	0,0010
Hungary	10045401	0,020184325	0,0202
Malta	410290	0,0008244	0,0008
Netherlands	16405399	0,032963533	0,0330
Austria	8318592	0,016714631	0,0167
Poland	38115641	0,076586141	0,0766
Portugal	10617575	0,021334	0,0213
Romania	21528627	0,043257687	0,0433
Slovenia	2010269	0,004039254	0,0040
Slovakia	5400998	0,01085228	0,0109
Finland	5300484	0,010650316	0,0107
Sweden	9182927	0,018451348	0,0185
United Kingdom	61191951	0,122953602	0,1230

Table 4 - Population Quota, EU 27 population cumulated

Member State	Population	cumulative population, from the smallest to the largest	quota of 65%	quota of 62%
Germany	82217837	497683272	323494126,8	308563628,6
France	64004333	415465435		
United Kingdom	61191951	351461102		
Italy	59619290	290269151		
Spain	45283259	230649861		
Poland	38115641	185366602		
Romania	21528627	147250961		
Netherlands	16405399	125722334		
Greece	11213785	109316935		
Belgium	10666866	98103150		
Portugal	10617575	87436284		
Tschechische Republik	10381130	76818709		
Hungary	10045401	66437579		
Sweden	9182927	56392178		
Austria	8318592	47209251		
Bulgaria	7640238	38890659		
Denmark	5475791	31250421		
Slovakia	5400998	25774630		
Finland	5300484	20373632		
Ireland	4401335	15073148		
Lithuania	3366357	10671813		
Latvia	2270894	7305456		
Slovenia	2010269	5034562		
Estonia	1340935	3024293		
Cyprus	789269	1683358		
Luxembourg	483799	894089		
Malta	410290	410290		

Table 5 – Gross domestic product per capita EU 27 (€)

geo\time	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU (27 Länder)	19100	19400	19600	19800	20200	20500	21000	21600	**21600**
Belgium	24600	24700	24900	25000	25700	26000	26600	27100	**27200**
Bulgaria	1700	1800	1900	2100	2200	2400	2500	2700	**2900**
Czech Republic	6000	6200	6300	6500	6800	7200	7700	8100	**8200**
Denmark	32500	32600	32700	32700	33400	34100	35100	35600	**35100**
Germany	25100	25400	25300	25200	25600	25800	26700	27400	**27700**
Estonia	4500	4800	5300	5700	6100	6700	7400	7900	**7600**
Ireland	27600	28700	30100	30900	31800	32900	33800	34900	**33100**
Greece	12600	13100	13500	14300	14900	*15100*	*15800*	*16400*	***16500***
Spain	15700	16000	16200	16500	16700	17100	17500	17800	**17600**
France	23700	24000	24100	24200	24600	24900	25200	25700	**25600**
Italy	20900	21300	21300	21100	21300	21200	21500	21700	**21300**
Cyprus	14500	14900	15100	15100	15400	15600	15900	16500	**16900**
Latvia	3600	3900	4200	4500	4900	5500	6200	6800	**6600**
Lithuania	3500	3800	4100	4500	4900	5300	5700	6300	**6500**
Luxembourg	50400	51100	52600	52800	54400	56500	58300	61200	**61000**
Hungary	5000	5200	5500	5700	6000	6200	6400	6500	**6500**
Malta	10800	10600	10800	10700	10700	11100	11400	11700	**11900**
Netherlands	26300	26600	26400	26400	26900	27400	28200	29300	**29700**
Austria	25900	25900	26200	26300	26800	27300	28100	29100	**29600**
Poland	4900	4900	5000	5200	5500	5700	6000	6400	**6800**
Portugal	12400	12600	12600	12400	12500	12500	12700	12900	**12900**
Romania	1800	1900	2100	2200	2400	2500	2700	2900	**3100**
Slovenia	10800	11100	11500	11800	12300	12800	13500	14400	**14900**
Slovakia	4100	4200	4400	4600	4900	5200	5600	6200	**6600**
Finland	25500	26000	26500	26900	28000	28700	29800	31300	**31400**
Sweden	30200	30500	31200	31800	33000	33900	35200	36100	**35500**
United Kingdom	27200	27800	28300	28900	29600	30100	30800	31400	**31100**

Italics mean that this value is only a preliminary prognosis.

Table 6 - Agricultural share of total gross value added (%)

geo\time	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU (27 Länder)	2,4	2,4	2,2	2,2	2,2	1,9	1,8	1,8	**1,8**
Belgium	1,4	1,3	1,2	1,1	1,1	0,8	0,9	0,9	**0,7**
Bulgaria	13,6	13,1	11,8	11,2	10,7	9,1	7,7	6	**6,9**
Czech Republic	3,9	3,9	3,3	3,1	3,3	3	2,6	2,5	**2,5**
Denmark	2,6	2,8	2,2	2	1,9	1,4	1,3	1,2	**1,2**
Germany	1,3	1,4	1,1	1	1,1	0,9	0,8	1	**0,9**
Estonia	4,8	4,7	4,2	4	3,9	3,5	3,2	3,2	**2,8**
Ireland	3,2	2,8	2,4	2,2	2,2	1,6	1,3	1,4	**1,3**
Greece	6,6	6,4	5,9	5,5	*4,9*	*4,8*	*3,8*	*3,5*	***3,2***
Spain	4,4	4,3	4	4	3,6	3,2	2,8	2,9	**2,7**
France	2,8	2,9	2,7	2,5	2,5	2,3	2,1	2,2	**2**
Italy	2,8	2,7	2,6	2,5	2,5	2,2	2,1	2,1	**2**
Cyprus	3,6	3,8	3,7	3,4	3	2,8	2,4	2,2	**2,1**
Latvia	4,6	4,5	4,6	4,1	4,4	4	3,5	3,6	**3**
Lithuania	6,3	5,5	5,4	5	4,7	4,8	4,3	3,9	**3,7**
Luxembourg	0,7	0,7	0,7	0,6	0,6	0,4	0,4	0,4	**0,4**
Hungary	5,4	5,2	4,6	4,3	4,8	4,2	4	4	**4,2**
Malta	2,3	2,8	2,8	2,9	2,7	2,7	2,7	2,5	**1,9**
Netherlands	2,6	2,6	2,3	2,3	2,2	2,1	2,2	2,1	**1,8**
Austria	2	2,1	2	1,9	1,9	1,6	1,7	1,8	**1,7**
Poland	5	5,1	4,5	4,4	5,1	4,5	4,3	4,3	**3,7**
Portugal	3,7	3,5	3,2	3,2	3,1	2,8	2,8	2,5	**2,3**
Romania	12,1	14,7	12,6	13	14,1	9,5	8,8	6,5	**7,4**
Slovenia	3,3	3	3,3	2,5	2,7	2,7	2,4	2,5	**2,5**
Slovakia	4,5	4,7	5,1	4,5	4,1	3,7	3,6	3,5	**3,1**
Finland	3,5	3,3	3,2	3,1	2,9	2,8	2,4	3	**2,9**
Sweden	2,1	2,1	2	2	1,9	1,2	1,5	1,7	**1,8**
United Kingdom	1	0,9	0,9	1	1	0,7	0,7	0,7	**0,8**

Italics mean that this value is only a preliminary prognosis.

Table 7 - z-Values for GDP/capita 2008

Member State	Value	z - Value
Belgium	27200	0,554824533
Bulgaria	2900	-1,259833375
Czech Republic	8200	-0,86404379
Denmark	35100	1,144775047
Germany	27700	0,592163173
Estonia	7600	-0,908850158
Ireland	33100	0,995420486
Greece	16500	-0,244222364
Spain	17600	-0,162077356
France	25600	0,435340885
Italy	21300	0,11422858
Cyprus	16900	-0,214351452
Latvia	6600	-0,983527438
Lithuania	6500	-0,990995166
Luxembourg	61000	3,078916603
Hungary	6500	-0,990995166
Malta	11900	-0,587737853
Netherlands	29700	0,741517734
Austria	29600	0,734050006
Poland	6800	-0,968591982
Portugal	12900	-0,513060573
Romania	3100	-1,244897919
Slovenia	14900	-0,363706013
Slovakia	6600	-0,983527438
Finland	31400	0,86846911
Sweden	35500	1,174645959
United Kingdom	31100	0,846065926

Table 8 - z-Values for agricultural share of GVA 2008

Member State	Value	z - Value
Belgium	0,7	-1,16984292
Bulgaria	6,9	2,70034887
Czech Republic	2,5	-0,04623885
Denmark	1,2	-0,85773068
Germany	0,9	-1,04499802
Estonia	2,8	0,14102849
Ireland	1,3	-0,79530823
Greece	3,2	0,39071829
Spain	2,7	0,07860605
France	2,0	-0,35835109
Italy	2,0	-0,35835109
Cyprus	2,1	-0,29592864
Latvia	3,0	0,26587339
Lithuania	3,7	0,70283053
Luxembourg	0,4	-1,35711026
Hungary	4,2	1,01494277
Malta	1,9	-0,42077354
Netherlands	1,8	-0,48319599
Austria	1,7	-0,54561844
Poland	3,7	0,70283053
Portugal	2,3	-0,17108375
Romania	7,4	3,01246111
Slovenia	2,5	-0,04623885
Slovakia	3,1	0,32829584
Finland	2,9	0,20345094
Sweden	1,8	-0,48319599
United Kingdom	0,8	-1,10742047

Table 9 - Penrose-Index EU 27

Member State	Nice	Lisbon	Difference	Gains in %
Belgium	0,01547	0,04822	0,03275	211,70
Bulgaria	0,01299	0,04211	0,02912	224,17
Czech Republic	0,01547	0,04771	0,03224	208,40
Denmark	0,00916	0,03763	0,02847	310,81
Germany	0,03269	0,19795	0,16526	505,54
Estonia	0,00525	0,02911	0,02386	454,48
Ireland	0,00916	0,03537	0,02621	286,14
Greece	0,01547	0,04935	0,03388	219,00
Spain	0,03116	0,11479	0,08363	268,39
France	0,03269	0,15610	0,12341	377,52
Italy	0,03269	0,14646	0,11377	348,03
Cyprus	0,00525	0,02799	0,02274	433,14
Latvia	0,00525	0,03107	0,02582	491,81
Lithuania	0,00916	0,03334	0,02418	263,97
Luxembourg	0,00525	0,02737	0,02212	421,33
Hungary	0,01547	0,04700	0,03153	203,81
Malta	0,00396	0,02716	0,02320	585,86
Netherlands	0,01669	0,06005	0,04336	259,80
Austria	0,01299	0,04343	0,03044	234,33
Poland	0,03116	0,09623	0,06507	208,83
Portugal	0,01547	0,04814	0,03267	211,18
Romania	0,01789	0,07093	0,05304	296,48
Slovenia	0,00525	0,03046	0,02521	480,19
Slovakia	0,00916	0,03753	0,02837	309,72
Finland	0,00916	0,03732	0,02816	307,42
Sweden	0,01299	0,04527	0,03228	248,50
United Kingdom	0,03269	0,14988	0,11719	358,49
EU 27 average				**323,30**

Table 10 - Banzhaf-Power-Index EU 27

Member State	Nice	Lisbon	Difference	Gains/Losses in %/100
Belgium	0,03684	0,02807	-0,008770	-0,2381
Bulgaria	0,03092	0,02451	-0,006410	-0,2073
Czech Republic	0,03684	0,02777	-0,009070	-0,2462
Denmark	0,02181	0,0219	0,000090	0,0041
Germany	0,07783	0,11522	0,037390	0,4804
Estonia	0,0125	0,01695	0,004450	0,3560
Ireland	0,02181	0,02059	-0,001220	-0,0559
Greece	0,03684	0,02872	-0,008120	-0,2204
Spain	0,0742	0,06682	-0,007380	-0,0995
France	0,07783	0,09086	0,013030	0,1674
Italy	0,07783	0,08525	0,007420	0,0953
Cyprus	0,0125	0,01629	0,003790	0,3032
Latvia	0,0125	0,01809	0,005590	0,4472
Lithuania	0,02181	0,01941	-0,002400	-0,1100
Luxembourg	0,0125	0,01593	0,003430	0,2744
Hungary	0,03684	0,02736	-0,009480	-0,2573
Malta	0,00942	0,01581	0,006390	0,6783
Netherlands	0,03974	0,03495	-0,004790	-0,1205
Austria	0,03092	0,02528	-0,005640	-0,1824
Poland	0,0742	0,05601	-0,018190	-0,2451
Portugal	0,03684	0,02802	-0,008820	-0,2394
Romania	0,04259	0,04129	-0,001300	-0,0305
Slovenia	0,0125	0,01773	0,005230	0,4184
Slovakia	0,02181	0,02184	0,000030	0,0014
Finland	0,02181	0,02172	-0,000090	-0,0041
Sweden	0,03092	0,02635	-0,004570	-0,1478
United Kingdom	0,07783	0,08724	0,009410	0,1209

Table 11 – Population Square root in %, Quotient and index of distortion

Staat	pop sqrt in %	Bz Nice in %	Bz Lisbon in %	Quotient Nice	Quotient Lisbon	Difference Quotient and Bz in absolute values	
						Nice	Lisbon
Germany	9,41047	7,78300	11,52200	0,82706	1,22438	1,62747	2,11153
France	8,30296	7,78300	9,08600	0,93738	1,09431	0,51996	0,78304
United Kingdom	8,11850	7,78300	8,72400	0,95868	1,07458	0,33550	0,60550
Italy	8,01349	7,78300	8,52500	0,97124	1,06383	0,23049	0,51151
Spain	6,98389	7,42000	6,68200	1,06245	0,95677	0,43611	0,30189
Poland	6,40737	7,42000	5,60100	1,15804	0,87415	1,01263	0,80637
Romania	4,81545	4,25900	4,12900	0,88445	0,85745	0,55645	0,68645
Netherlands	4,20360	3,97400	3,49500	0,94538	0,83143	0,22960	0,70860
Greece	3,47540	3,68400	2,87200	1,06002	0,82638	0,20860	0,60340
Belgium	3,38959	3,68400	2,80700	1,08686	0,82812	0,29441	0,58259
Portugal	3,38175	3,68400	2,80200	1,08938	0,82857	0,30225	0,57975
Czech Republic	3,34388	3,68400	2,77700	1,10171	0,83047	0,34012	0,56688
Hungary	3,28936	3,68400	2,73600	1,11997	0,83177	0,39464	0,55336
Sweden	3,14499	3,09200	2,63500	0,98315	0,83784	0,05299	0,50999
Austria	2,99332	3,09200	2,52800	1,03297	0,84455	0,09868	0,46532
Bulgaria	2,86868	3,09200	2,45100	1,07785	0,85440	0,22332	0,41768
Denmark	2,42858	2,18100	2,19000	0,89806	0,90176	0,24758	0,23858
Slovakia	2,41193	2,18100	2,18400	0,90425	0,90550	0,23093	0,22793
Finland	2,38939	2,18100	2,17200	0,91279	0,90902	0,20839	0,21739
Ireland	2,17731	2,18100	2,05900	1,00169	0,94566	0,00369	0,11831
Lithuania	1,90418	2,18100	1,94100	1,14537	1,01934	0,27682	0,03682
Latvia	1,56396	1,25000	1,80900	0,79925	1,15668	0,31396	0,24504
Slovenia	1,47148	1,25000	1,77300	0,84948	1,20491	0,22148	0,30152
Estonia	1,20180	1,25000	1,69500	1,04011	1,41038	0,04820	0,49320
Cyprus	0,92202	1,25000	1,62900	1,35572	1,76677	0,32798	0,70698
Luxembourg	0,72187	1,25000	1,59300	1,73161	2,20676	0,52813	0,87113
Malta	0,66477	0,94200	1,58100	1,41702	2,37825	0,27723	0,91623
Index of distortion						**4,77380**	**7,58348**

Declaration

I declare on oath that I authored the following paper independently and without assistance and that I only used the resources indicated in the paper.
All extracts that have been copied from publications analogously or literally
are marked as such.

Elisabeth Schneider
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Münster, 05.12.2010 _____