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Economic Conditions and Transnational Trust

Does Money Matter?

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Contents

Acknowledgements 2

Abstract 3

1. Introduction..... 4

 1.1. Research Questions 5

2. Theory and Hypotheses..... 6

 2.1. European Social Integration 6

 2.2. Trust..... 6

 Trust as an indicator of cohesion 6

 Economic conditions and trust..... 7

 Transnational trust- trust between neighbours 8

 2.3. Hypotheses 9

3. Methods 10

 3.1. Design 10

 3.2. Data collection..... 11

 3.3. Case selection 11

 3.4. Data analysis..... 14

 3.5. Threats to validity..... 14

4. Results 16

 4.1. Trust and the contact hypothesis..... 16

 4.2. Trust and the competition hypothesis 20

 4.3. Analysis of national trust rates..... 23

5. Conclusion 26

 5.1. Conclusions..... 26

 5.2. Discussion 27

 5.3. Limitations and Recommendations..... 28

Literature 30

Annex..... 34

 List of countries and regions 34

 Economic data 43

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Abstract

In the context of European social integration, border regions play a crucial role. Being the place where neighbouring populations meet, they are often seen as catalysts of trust, enabling contact and cross-border exchange. At the same time, border residents are the bearers of possible negative consequences of open borders. As the enlarged European Union is characterised by marked standards of living, this study analyses trust between neighbours in European border regions. The aims of the study are twofold: firstly, analyse the relationship between economic indicators on national level with trust in the neighbour country, and secondly, taking into account the special nature of border regions, whether border residents' trust in the neighbour country is rather driven by economic considerations or cross-border contacts. The central research question is formulated as follows:

'Under which economic circumstances does contact lead to trust in the neighbour country?'

Two competing hypotheses are formulated based on the literature:

H1: *The level of transnational trust in the neighbouring country is on average higher in border regions than in the rest of the country.*

H2 (When there are marked differences in the standards of living between two countries): *The level of transnational trust in the neighbouring country is on average lower in border regions than in the rest of the country.*

Four economic indicators are used to compare neighbour countries with different standards of living: the Gross Domestic Product per capita in purchasing power parities (where EU average=100), the national unemployment rate, hourly labour costs and the GINI score of each country. The dependent variable, trust, is measured by a survey question asking for trust in different populations, taken from the European Election Study of 2004. Variables are created to distinguish between border regions and rest of a country. The mean trust differences between them are compared and statistically analysed using one-way ANOVA tests.

The results show that contact does not automatically result in higher trust. The results of the analysis are inconclusive and do not produce enough evidence to confirm the contact hypothesis. Regarding the competition hypothesis, we find that economic differences do not lower trust in border regions, at the opposite, trust differences between border regions and the rest of a country increase with economic differences. However, marked differences in labour costs and income inequality are significantly related to lower national trust rates.

1. Introduction

While the classical literature on European integration focuses on political and economic integration, the question of the extent of social integration has been rather neglected. European social integration refers to the existence (or absence of) a European society.

The question of European social integration is increasingly relevant. Politically, the formation of a European society has always been one of the goals of European integration. As Jean Monnet stated: “we are uniting people, not forming coalitions of states” (cited in Delhey, 2004b). With the formation of the European Union in the Maastricht Treaty, the concept of a European citizenship was introduced, together with the objective to create an “ever closer union among people”.

Political scientists point to the importance of a European public that is able to monitor and to discuss European political processes and policies (Eder 2000, Roose 2008). According to Rippl et al. (2010: 5-6) “only the parallel completion of system and social integration will ensure a successful European unification in the long run”.

But while the political and economic integration of Europe has been analysed intensively, much less is known about the integration that is going on between the *people* of Europe. Focusing on border regions, this study aims at filling this gap by studying trust between neighbour populations.

According to Delhey’s theory of European social integration (Delhey, 2004b), social integration has a quantitative and a qualitative dimension. Trust in other nationalities is a central indicator of the qualitative dimension, because it implies familiarity as well as a sense of commitment for the other. Indeed, the objective of “uniting people” and political cooperation seems hardly possible without trust. For Simmel (1950: 326), “trust is one of the most important synthetic forces within society.”

In game theory and social capital theory, trust is often described as the result of economic self-interest (Axelrod, 1981, Brehm and Rahn, 1997). Accordingly, several scholars have found that interpersonal trust is influenced by economic conditions, i.e. income inequality, wealth and unemployment (Bjornskov, 2006; Brehm and Rahn 1997; Delhey 2004a, 2005, 2007; Delhey and Newton, 2005; Gerritsen and Lubbers 2010; Putnam 2007; Rothstein and Uslaner, 2005; Steijn and Lancee, 2011). Moreover, research on prejudice and ethnic competition has shown that other ethnic groups are likely to be seen as an economic and especially labour market competition, and that this effect is influenced by the general economic situation (Burns and Gimpel, 2000; Gerritsen and Lubbers, 2010)¹. The latter finding is relevant in transnational trust research, especially if the target group is geographically close. It can thus be expected that economic uncertainty plays a special role in border regions, since they are the bearers of possible negative consequences of a “Europe without frontiers”. This effect has often been described for the border between “old” and new member states, where the big economic differences lead to fears of social dumping in the wealthier countries and to fears of rising prices in the new member states (Rippl et al, 2010).²

¹ Ethnic is not meant as “racial” in this regard, ethnic groups distinguish themselves by culture, language etc.

² The term “Lohndumping” (wage dumping) was created in Germany and is often used in the media related to actual or felt labour market competition related to the Eastern enlargement (see Die Welt, 2011; Hamburger Abendblatt, 2011; Stern, 2007)

The recently reported “wave of separatism in the European Union”, which involves a number of rich regions seeking independence seems to add to the argument of the importance of economic conditions. “[The] crisis has accelerated calls for independence from member countries’ richer regions, angry at having to finance poorer neighbors” (Erlanger, October 2012, see also Ditchav, December 2012).

On the other hand, the geographical proximity to the neighbour country also offers unique possibilities for cross-border exchange and cooperation, which is assumed to be positively related to trust. Several scholars have found evidence for the influence of cross-border activities on transnational trust (Delhey, 2004a, 2005, 2007; Gerritsen and Lubbers, 2010; Rippl et al., 2010), transnational identity (Roose, 2010) and euroscepticism (Kuhn, 2011, 2012). According to contact theory (see Allport, 1954; Pettigrew and Tropp, 2006), contact increases knowledge and familiarity with the other population, and thereby reduces stereotypes and increases trust and identification with them.

Thus, in order to enhance our understanding about how economic self-interest influences on trust between European neighbours (and eventually on European social integration), this paper analyses the relationship between economic circumstances and transnational trust with a focus on border regions.

1.1. Research Questions

The general research question is:

Under which economic circumstances does contact lead to trust in the neighbour country?

Since the study focuses on EU border regions, transnational trust is defined as trust in the neighbour country.

The aims of the study are twofold: firstly, analyze the relationship between economic indicators on national level with trust in the neighbour country, and secondly, taking into account the special nature of border regions, whether border residents’ trust in the neighbour country is rather driven by economic considerations or cross-border contacts.

In order to answer this question, economic indicators that define the economic situation have to be used. In this study we will use **wealth** (measured by GDP per capita), **unemployment** (measured by the national unemployment rate), **income inequality** (measured by the national GINI index) and **labour costs** (measured by hourly labour costs) to compare the economic performance of (neighbour) countries.

2. Theory and Hypotheses

2.1. European Social Integration

While the economic and political aspects of European integration have been analysed intensively, the social dimension of European integration has been neglected for many years.

Social integration manifests itself at the micro-level, representing Europeanisation or integration “from below” (Roose, 2010). Lockwood (1964) differentiates between social integration and system integration and defines social integration as the interactions and relationships between individuals in a society.³

Delhey (2004b) has developed a concept of European social integration based on Deutsch’s transactionalist theory (Deutsch, 1966, 1972). He defines the European Union as a social space in which the most important parameter is nationality. It is thus comprised of national collectivities, whose intergroup relations define the extent of social integration in the European social space (Delhey 2004b: 14). Delhey distinguishes between two dimensions of social integration, a quantitative one and a qualitative one. The quantitative dimension relates to the *mutual relevance* between the actors, including observable transactions as well as mutual attention, comparison, orientation (Delhey 2004b: 15). The qualitative dimension (*cohesion*) refers to the solidarity or sense of attachment between the social actors. He mentions trust and positive attitudes towards other EU nationalities as well as a European identity as strong indicators of this dimension (Delhey 2004b: 18).

This paper focuses on the qualitative dimension of European social integration and more precisely on trust.

2.2. Trust

Trust as an indicator of cohesion

Before turning to the state of research on trust, this section explains the relevance of trust as an indicator for social integration. Delhey (2004a: 19) points out that trust contains two aspects, familiarity with and felt responsibility or commitment towards the other. Thus, to trust someone implies certain knowledge of the other, but also a sense of solidarity and commitment. Trust is crucial for cooperation and solidarity across national borders (Delhey, 2004a; Gerritsen and Lubbers, 2010). Although trust is not a sufficient condition for cooperation or a desire of political unification, political integration without trust can hardly be successful. Genna (2003) shows that citizen’s support for European integration is related to, among other things, the trust they have in other EU-nationalities. Several scholars have therefore argued that it is “essential for a stable European institution” (Gerritsen and Lubbers, 2010: 268).

In social capital theory, trust also plays a central role. Putnam (1993) assumes that participation in voluntary associations and clubs generates trust and solidarity between citizens. Trust is thus defined as a part of social capital, which is closely related to social integration and democratic stability (Newton, 2001; Putnam, 1993; Rippl et al., 2010).

³ System integration on the other hand refers to the relationships between parts (i.e. institutions) of the society.

Many studies analyze “generalised trust”, where the addressee of trust is not clearly defined, whereas inter-population trust has barely been touched. Delhey (2004a, 2005, 2007) and Gerritsen and Lubbers (2010) are notable exceptions.

Economic conditions and trust

Trust is often described as the result of economic self-interest. The connection between economic self-interest, trust and cooperation has been analyzed in research on the prisoner’s dilemma (see Axelrod, 1984, Orbell and Daves, 1991). In iterated PD games, cooperation is the more successful strategy. People cooperate when they expect others to cooperate, so trust is essential for cooperation. However, since the ultimate goal for each player is profit maximization, trust and cooperation are driven by economic self-interest.

Consequentially, many scholars have argued and found evidence that economic factors influence the level of trust, both in one’s own population as well as between populations. Many studies show the negative effect of income inequality on generalized inter-personal trust (Brehm and Rahn, 1997; Delhey and Newton, 2005; Rothstein and Uslaner, 2005; Bjornskov, 2006; Putnam 2007), while Gerritsen and Lubbers (2010) find a significant effect on inter-population trust. Greater income inequality thus seems to reduce trust in everyone.

Next to income inequality, research has shown that wealth is influential for trust. Ross et al. (2001, as cited by Steijn and Lancee, 2011: 11) find that mistrust develops in poor neighbourhoods. Knack and Keefer (1997), Zak and Knack (2001) and Delhey and Newton (2005) find a positive relationship between wealth (as measured by GDP per capita) and generalized trust. Delhey and Newton (2005: 315) explain this by referring to Simmel’s modernization theory, stating that “[r]isk and trust are closely associated, and it has also been argued that the wealthier the society, and the more it meets basic material needs, the more its members are able to take risks by virtue of their trusting attitudes, while, at the same time, making it both less necessary and less rewarding to act in an untrustworthy manner”. Steijn and Lancee (2011) argue and find evidence that wealth rather than inequality influences trust. Delhey (2004a, 2005, 2007) concludes that populations of wealthier nations are both more trusted than populations of less wealthier nations and also more likely to trust other nationalities.

Brehm and Rahn (1997) include unemployment in their analysis, arguing that it increases economic uncertainty, which in turn diminishes trust. Their argumentation is similar to that of Delhey and Newton (2005). “Scarcity increases the risks of misplaced trust, so hard economic times may lead people to be less generous in their views of others, who may instead be viewed as competitors.” (Brehm and Rahn, 1997: 1009). The negative effect of unemployment on generalised trust is also described by Freitag and Traunmüller (2009), Putnam (2000) and Uslaner (2002). Unemployment as a structural factor has, however, so far not been included in studies on inter-population trust.

Finally it has to be noted that the literature on transnational trust and social integration identifies several variables that, next to the economic situation, have an influence on trust. The most important predictors of trust include common history (Delhey, 2004a, 2005, 2007; Rippl et al., 2010), culture (cf. Delhey, 2005, 2007; Delhey and Newton, 2005; Gerritsen and Lubbers, 2010), the quality or prestige of the national political system (and the level of corruption) (Delhey, 2004a, 2005, 2007), ethnic diversity (Gerritsen and Lubbers, 2010; Gesthuizen et al., 2009; Putnam, 2007). The scope of

this paper does not allow for the inclusion of these dimensions in the analysis; however they will be considered in the case selection process in order to obtain an unbiased sample of border regions.

Transnational trust- trust between neighbours

As pointed out above, the relationship between economic circumstances and general-level trust has been analysed by many scholars, while studies focusing on transnational, inter-population trust are rare (but see Delhey, 2004a, 2005, 2007; Gerritsen and Lubbers, 2010).

The analysis of inter-population trust differs from the analysis of generalised trust, because the “addressee” of trust is not some loosely defined group such as “most people”, but exactly known. This allows for analyzing relationships between populations as givers and addressees of trust and increases the comparability (Delhey 2004a). This study uses neighbours as the frame of reference for transnational trust and gives special attention to border regions.

Border regions play a central role in European integration. To a great extent, they are the place where European integration takes place, where its consequences can be felt the most. Border regions can be described as “laboratories of social integration” in the European Union (Rippl et al, 2009: 79; see also Delhey, 2004a). They offer their residents unique possibilities of interaction and cooperation with the neighbouring population, economically and socially. Transnational activities and personal contacts are seen as crucial for the social integration. In Delhey’s definition (2004b), they form the core of the mutual relevance dimension. Several scholars have found evidence for the influence of cross-border activities on transnational trust (Delhey, 2004a, 2005, 2007; Gerritsen and Lubbers, 2010; Rippl et al., 2010), identity (Roose, 2010) and euroscepticism (Kuhn, 2011, 2012). Transnational contacts increase knowledge and familiarity with the other, and thereby reduce stereotypes and increase trust and identification. This relationship is also described in contact theory (Allport, 1954; Pettigrew and Tropp, 2006).

However, being “laboratories” of integration, border regions are also the bearers of possible negative consequences of a “Europe without frontiers”. Several studies show that diversity within a given social collective has negative consequences for trust (e.g. Alesina and La Ferrara 1999; 2000; 2002; Delhey and Newton, 2005; Hero, 2003; Putnam, 2007; Uslaner, 2002). Ethnic competition theory states that a large group of immigrants is perceived as a cultural or *economic* threat by the rest of the population, causing low levels of trust in the immigrant population (Gesthuizen et al, 2009; Gerritsen and Lubbers, 2010). Burns and Gimpel (2000: 223) analyse the relationship between economic self-interest and prejudice and find evidence for their assumption that restrictionist preferences on immigration policy and prejudices are, among other things, also driven by economic insecurity, “especially during times of hardship”. Labor competition is often at the root of economic fears and ethnic competition: “The fear of labor competition could easily bring about demands for protection even in the absence of racist beliefs” (Burns and Gimpel, 2000: 204). Rippl et al (2009) point out that the combination of open borders and differences in economic performance, labour costs and prices (especially between the CEECs and the “old” member states) leads to fears of social dumping on the wealthier side of the border and to fears of rising prices on the other side.

To sum up, there are two hypotheses in the literature that predict oppositional outcomes: Contact theory predicts that closeness and contact leads to more trust, while ethnic competition theory states that the presence of other groups may be seen as a cultural or economic threat and leads to negative outcomes including lower trust. The contact hypothesis is rather independent from

economic circumstances, while the ethnic competition hypothesis is inherently related to economic anxieties.

2.3. Hypotheses

Based on the conclusion above, we can derive two competing hypotheses:

Firstly, derived from the contact hypothesis it can be expected that (irrespective of the standards of living in two countries):

H1: *The level of transnational trust in the neighbouring country is on average higher in border regions than in the country as a whole.*

Secondly, based on the ethnic competition hypothesis, economic differences between two countries are expected to lower trust:

H2 (When there are marked differences in the standards of living between two countries): *The level of transnational trust in the neighbouring country is on average lower in border regions than in the country as a whole.*

These two hypotheses directly relate to the competing theories and H2 offers the strongest test for investigating to what extent transnational trust is determined by economic circumstances.

3. Methods

The following part familiarizes the reader with the research design, data collection, methods and models that are used in the study. Moreover, the measures and statistical tools are explained. Finally, possible threats to the validity of the study are explained and assessed.

3.1. Design

In order to test the competing hypotheses and to ensure that differences are caused by the economic situation and not another factor, it is necessary to compare two groups of countries and border regions: firstly, country cases with marked differences in standards of living and country cases with no marked differences in standards of living (comparing the trust scores for the country as a whole with the border region). Since the only transnational trust covered in this study is trust between neighbour countries, they will be analysed as country-pairs.

The study uses a quantitative cross-sectional design to measure the expected relationship between the economic situation and trust in the neighbour country. A sample of countries (and border regions) is selected based on a most-different case design. The border regions will be compared with the country as a whole, to see whether contact results in different levels of trust.

The independent variables

The independent variables consist of national economic indicators which are obtained from the European Commission's statistical service Eurostat and the national statistical institutions. Based on the literature, the national GDP per capita, national unemployment rate, national GINI coefficient and the national hourly labour costs will serve as the independent variables (data for 2004). These variables are standard economic indicators, regularly published by official institutions. The data obtained are thus highly reliable. Furthermore, they are suited for the analysis of a diverse sample of countries because they are relatively independent of the geographical or population size of a country. Based on these four independent variables, the country-pairs will be assigned to two groups named "economically similar" and "economically distant" (a list of scores and groupings for each economic variable is presented in the annex).

The study is based on general economic conditions rather than the personal economic situation, because the focus lies on social collectives and their characteristics. Furthermore, there is evidence that group interest is more important than narrow self-interest. Analyzing prejudice and economic insecurity, Burns and Gimpel (2000) assumed that the personal economic situation would be more influential than the general economic situation, but found evidence for the contrary. Voting and opinion studies also find evidence for the assumption that sociotropic economic fears exceed the importance of the own economic situation (cf. Feldman, 1982; Sears and Funk, 1990).

Moreover, it has to be noted that the study relies on the assumption that cross-border interaction is more intensive in border regions than in the national states. This assumption is based on the literature and not further researched in the study.

For all countries the difference in trust scores between border regions and the rest of the country are reported. This is done by creating a variable that classifies each region either as a border region to a specific country or a part of the "rest of the country".

The dependent variable

The dependent variable will be assessed using existing survey data from the European Election Study of 2004, which contains a question about trust in different European nationalities.

The central indicator for the dependent variable is a question which directly asks about trust in different nationalities. The question from the EES reads as follows:

“Now I would like to ask you a question about how much trust you have in people from various countries. Can you please tell me for each, whether you have a lot of trust of them or not very much trust.”

The use of a single measure for trust in cross-country research is criticised by some scholars (Rost, 2005; Torpe and Lolle, 2011). However, multiple indicator approaches of trust also have their shortcomings (Delhey, 2007; Jagodzinski and Manabe, 2005). Moreover, the ambiguity of the survey question used in research on generalised trust which refers to “most people” or simply “people” is eliminated by the fact that the target group is clearly stated in the EES question.

3.2. Data collection

To test the hypotheses, the study uses data from the European Election Study of 2004 (EES 2004). The EES 2004 contains questions about the interest and preferences regarding the elections of the European Parliament in 2004. Furthermore, the study addresses the issue of democratic legitimacy. Three dimensions of democratic legitimacy are included: performance, representation and identity (Gerritsen and Lubbers, 2010). For this paper, the identity section is used; more concretely the question about trust in other European populations. Until 1997, a trust question had been included in the Eurobarometer, but since it is no longer included, the EES 2004 is the most recent study that contains an inter-population trust item. The surveys were conducted in 24 countries, including the new member states that joined the EU in 2004; however Romania and Bulgaria were not yet included⁴. The EES is a sample of voters eligible for the European elections. Therefore, only European citizens have been interviewed. In total, the number of participants in the EES was 28,861.

3.3. Case selection

Based on the European Election study 2004, a sample of 21 countries with a total of 40 trust-relationships is selected.

The regions are specified according to the administrative units rather than the NUTS-classification. Consequently, the size of these regional units differs between the countries. In the Eastern European countries (except Hungary) the regions are defined at NUTS 3 level, in the other countries at NUTS 2 level, except Germany, which is separated into its Länder (NUTS 1-level). The regional differentiation of Luxembourg does not correspond with the NUTS-classification, because due to its small size, the country as a whole is classified as a NUTS 3 region. In the EES, Luxembourg has been separated into 5 sub regions, of which three can be classified as border regions (EES, 2004).

⁴ The only EU country missing is Malta. Malta was originally included, but according to the EES (2004) it “was not found possible to conduct a survey in Malta”.

The question on transnational trust was asked in 20 countries. The question was not asked in Belgium, Great Britain, Lithuania and Sweden. The region of the interview was not documented in Austria, Cyprus, Denmark, Ireland, Italy, Lithuania, Poland and Sweden. The case selection is designed to include as many countries as possible; however, the availability of data restricts the analysis in the sense that it is not possible to show the bivariate relationship between each country-pair. Thus while Austria, Belgium, Denmark, Great Britain, Italy, Lithuania, Poland and Sweden have been included in the study, due to the lack of data they can only be analysed as the receivers of trust, not as the originators of trust. However, since the hypotheses ask for the difference in trust levels between border regions and the rest of a country, it is not necessary to report bivariate scores for each pair.

The case selection is thus partly determined by the data collection, i.e. the availability of data in the EES. However, the case selection is especially driven by the theory on transnational social integration and inter-population trust. More concretely, based on the fact that inter-population trust is influenced by many factors such as political prestige, historical background and culture, a most-different case selection approach is used in order to get a sample of cases that is as diverse as possible with regard to those characteristics. The study includes 21 countries from all parts of Europe (North, South, East, West), which belong to different linguistic and religious groups, have different historical and political backgrounds.⁵

Also with regard to the economic indicators a sufficiently diverse sample is necessary to infer significant evidence. The research design needs to include countries with marked differences as well as economically similar countries in order to test the hypotheses. To differentiate the countries economically, 4 economic indicators are used, as explained in *the independent variables* section. The country-pairs are separated into two groups called “economically similar” and “economically distant” based on their scores on the four economic indicators. For each indicator, the difference in scores between two neighbours will be reported. Based on a certain difference threshold for each indicator⁶, each country-pair will be identified as similar or distant with regard to this variable (see annex). To create the final groups, two countries will be identified as economically distant if they differ significantly in at least two out of the four indicators. Graph 1 shows the neighbour-pairs, ordered by their number of economic differences. As it illustrates, many country-pairs differ in at least one economic variable, but only Germany and Poland differ in all four. Moreover, the only economically similar countries are France, Germany and Belgium, as well as the Baltic countries.

⁵ More Details: The study contains countries from four language families (Germanic, Latin, Baltic, Slavic), Catholic, Protestant and Mixed countries, large and small countries, border regions with a common war history and border regions without conflictive history, different political systems and corruption rates (see Transparency International, 2004)

⁶ GDP per capita in PPS: >20

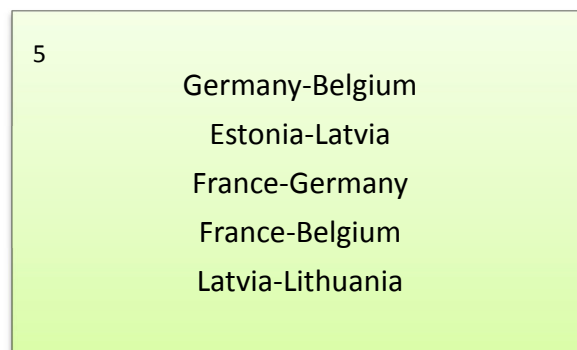
GINI Index: >4

Unemployment rate: >5 percentage points

Hourly labour costs: > 4.50 €

Graph 1: Country-groups

1. Red: differ in all four indicators
2. Light red: differ in three
3. Light pink: differ in two
4. Light orange: differ in one
5. Green: no differences



In order to answer the research question, it is necessary to compare trust rates in border regions to the trust rate in the rest of the country. However, this approach also involves problems, which are mainly related to the availability of data for the regions. First of all, as explained above, the classification of regions differs in every country and leads to different sizes both in terms of population and geography. The number of respondents per region also differs markedly, from 38 respondents in the French Alsace region to 376 participants in South-Finland. However, the differences in the number of respondents per region are not related to the different sizes of the regions, but rather to the fact that the number of respondents per country differs between the member states.⁷ For example, in the case of Alsace and South Finland, both are NUTS 2 regions, and thus of a comparable size (in terms of inhabitants).

Since we are only interested in border vs. no border residence, we will sum up all regions that border a specific neighbour country into one single “border region”. Thus, it has to be kept in mind that what is denoted “a border region” in this study is in many cases a combination of several regions bordering a neighbour country. The summing up of regions reduces the problem of small Ns in terms of respondents per region. A complete list of all countries, regions and their border status is provided in the annex.

3.4. Data analysis

The data will be analysed using parametric statistical tools, even though the independent variables are ordinal. The interval character of the trust variable as well as the greater accuracy and powerfulness of parametric tests justify this. The main statistical tool used is one-way ANOVA to test the significance between groups. It is used to test the significance of trust differences between border regions and the rest of a country and also between the economy- country groups explained above. The hypotheses are tested one-sided using ANOVA, thus the significance level is $\alpha=0.10$.

For descriptive purposes nonsignificant results will also be reported, moreover the results will be presented in tables indicating the regional trust levels, differences and significance.

3.5. Threats to validity

Statistical conclusion validity is rather low because of the small sample sizes and the nonparametric distribution. First of all, the number of respondents differs in each country and region. In some regions, samples sizes are small, but this problem is improved by the recoding of regions into two groups (border region or rest of country) for each country. Moreover, since the EES consists of national surveys, the conceptualization of region size is different in each country, as explained in the case selection section. The economic indicators used in this study are independent of variations in geographical and/or population size, but this is not the case for the dependent variable trust.

When comparing country groups, the number of trust relationships is an issue. Sample sizes are always problematic in country research, since the number of countries worldwide is limited and even more so in the European Union. Even though the number of cases is higher due to the reciprocal analysis of trust relationships (N=40), the consequence is lacking statistical significance in many cases.

⁷ The surveys have been conducted independently on the national level and the sample sizes per country vary independently from country size. For example, Germany counts a sample of 596, while Estonia, which is a rather small country, counts 1606 participants (EES, 2004).

Nevertheless, the study produces some significant outcomes and primarily many insights and recommendations for further research.

The internal validity is possibly flawed by two major concerns. Firstly, the cross-sectional design of the study means that its basis for establishing causality is rather weak. The snapshot nature of cross-sectional studies allows to state that two variables are related at one point in time, but it cannot ultimately explain which precedes the other. A longitudinal study about the relationships studied here would be desirable, however longitudinal studies about inter-population trust are difficult to conduct and also have their problems. Since those studies require a big, transnational sample, researchers are generally forced to rely on existing datasets from European wide surveys such as the Eurobarometer, European Election Study, European Value Survey etc. However, the trust item often changes over time (cf. Delhey 2004a) and since 1997 it has not been asked in the Eurobarometer, so that the EES of 2004 is the only and most up-to-date survey including this question. Moreover, the goal of the study is to gain a general overview about the relationships assumed in the hypotheses.

Secondly, other factors influencing trust cannot be tested and might have an influence on the relationship. Even though the variables discussed in the literature have been taken into account as intensely as possible, the scope of the paper does not allow for their inclusion in the analysis.

4. Results

This chapter presents the results of the empirical analysis of trust between neighbour countries. It is a statistical analysis of the national economic data and survey data from the European Elections Study 2004. The aim is to answer the research question “Under which economic circumstances does contact lead to trust in the neighbour country?”. The first part of this chapter is concerned with the contact theory and the first hypothesis. The second part analyses the neighbour country-cases with marked differences in the standards of living and tests the second hypothesis, which states that “the level of transnational trust in the neighbouring country is on average lower in border regions than in the rest of the country”. Additionally, the relationship between economic circumstances and national trust rates is assessed.

4.1. Trust and the contact hypothesis

In this part we will describe the results of the analysis of the first hypothesis, which was tested in both country groups. Derived from the contact hypothesis, H1 expresses our expectation that *the level of transnational trust in the neighbouring country is on average higher in border regions than in the rest of the country*. Table 1 summarises the results of the analysis.

Table 1

Trust in border regions, rest of country and trust difference between them. Ranked by country groups (economically different or similar).

Trusting population	Trusted population	Economically different	Trust in border region	Trust in rest of country	Difference	Contact Hypothesis
Estonians	Latvians	N	77.1	77.7	0.6*	reject
Finns	Swedes	N	83.3	91.5	-8.2	reject
French	Belgians	N	90.4	90.8	-0.4*	reject
French	Germans	N	82.7	83.9	-1.2*	reject
French	Luxembourgers	N	88.3	85.7	2.6*	reject
French	Spaniards	N	90.3	83.6	6.7	confirm
French	British	N	42.7	37.7	5.0*	reject
Germans	Austrians	N	85.7	84.8	0.9*	reject
Germans	Belgians	N	76.9	81.2	-4.3*	reject
Germans	Danes	N	100	90.6	9.4*	reject
Germans	French	N	87.0	85.8	1.2*	reject
Germans	Dutch	N	87.8	86.7	1.1*	reject
Hungarians	Slovaks	N	39.5	43.3	-3.8*	reject
Latvians	Estonians	N	76.9	70.5	6.4	confirm
Latvians	Lithuanians	N	74.7	69.0	5.7	confirm
Luxembourgers	Belgians	N	82.7	82.6	0.1*	reject
Luxembourgers	French	N	89.3	86.2	3.1	confirm
Dutch	Germans	N	72.9	74.7	-1.8*	reject
Slovaks	Hungarians	N	64.0	49.4	14.6	confirm
Slovaks	Polish	N	88.6	85.9	2.7*	reject
Slovenians	Italians	N	26.0	33.3	-7.3*	reject

Spaniards	French	N	71.7	64.7	7.0	confirm
Czechs	Germans	Y	42.0	40.3	1.7*	reject
Czechs	Polish	Y	77.9	77.8	0.1*	reject
Czechs	Slovaks	Y	91.1	83.5	7.6	confirm
Estonians	Finns	Y	74.2	74.5	-0.3*	reject
Finns	Estonians	Y	60.7	57.4	3.3*	reject
French	Italians	Y	81.1	74.5	6.6	confirm
Germans	Czechs	Y	55.4	62.5	-7.1*	reject
Germans	Luxembourgers	Y	100	88.2	11.8	confirm
Germans	Polish	Y	42.9	39.5	3.4*	reject
Hungarians	Austrians	Y	84.1	77.3	6.8*	reject
Hungarians	Slovenians	Y	55.8	52.0	3.8*	reject
Luxembourgers	Germans	Y	80.3	83.7	-3.4*	reject
Portuguese	Spaniards	Y	61.7	56.3	5.4*	reject
Slovaks	Austrians	Y	80.5	79.9	0.6*	reject
Slovaks	Czechs	Y	94.8	94.1	0.7*	reject
Slovenians	Austrians	Y	46.8	39.9	6.9*	reject
Slovenians	Hungarians	Y	48.7	47.0	1.7*	reject
Spaniards	Portuguese	Y	86.5	77.9	8.6	confirm

Notes: * – statistically not significant, ANOVA sig. > .10⁸

As we can see, only ten of the 40 cases confirm the hypothesis. However, this is to a great extent related to statistical significance. The role of statistical significance is discussed below, after a general presentation of the results.

In eight cases (20%) trust levels between border region and country as a whole are almost equal, with a difference of less than one per cent (positive or negative), and in another eight cases trust is lower in the border region than in the rest of the country. In 24 cases trust in the border region is higher, and interestingly this number splits evenly (12, 12) over economic similar and different neighbour countries. Comparing Western European neighbour countries with CEECs (Central and Eastern European Countries) indicates that neighbouring populations in Eastern Europe tend to trust each other more than those in the old member states. When taking into account only statistically significant results, the percentage of cases where trust in the neighbour country is higher in the border region is 36.4 per cent in the Eastern European countries and 30% in the Western European countries.⁹ The same holds for the percentage of cases where trust at the border is equal or lower than in the country as a whole. With 36.4% of cases in Eastern Europe and 40% in Western Europe, trust seems to be slightly higher between Eastern Europeans than it is between Western European neighbours. When differentiating between “equal” and “lower” trust rates, this tendency becomes even clearer. In Western Europe, 25% of cases show less trust in border regions than in the rest of the country, compared to 9% in Eastern Europe.

⁸ One tailed ANOVA

⁹ When including nonsignificant results the values are 63,4% in the Eastern European countries and 60% in Western European countries.

Table 2

Difference in trust between border region and rest of country

Country_location Location of the country in the EU	Mean	N	Std. Deviation
1 Both Western Europe	2,5100	20	5,07386
2 Both Eastern Europe	3,6455	11	4,87962
3 West/East	-,1333	3	6,03352
4 East/West	1,4000	6	5,26726
Total	2,4575	40	5,01587

Notes: The differences between the groups are not significant (ANOVA sig. ,574).

Table 2 shows the mean differences in trust between border region and rest of the country for the different geographical combinations of neighbour countries. It confirms the results mentioned above, showing that, on average, the positive border effect is the highest when both countries are CEECs. This is remarkable, given that the countries that joined the European Union in 2004 are often described as low trust countries. Delhey (2007: 263) states that “Western Europe is largely a region of mutual trust and security, Eastern Europe is not – or at least was not in the 1990s”. The numbers indicate that this has changed. Tables 3 and 4 show neighbour country-trust in border regions and respectively in the rest of the country for the different locations. Indeed, trust rates are higher between Western European countries, both in border regions (difference of 10.3%) and the rest of the country (11.3%). However, the differences are not large enough to maintain that the relations between the Eastern European countries are “moulded by non-trust rather than trust” (Delhey 2007: 263), especially given the positive outcome in the border regions.

Table 3

Trust in border region Trust in border region

Country_location Location of the country in the EU	Mean	N	Std. Deviation
1 Both Western Europe	82,0650	20	12,87753
2 Both Eastern Europe	71,7364	11	17,82455
3 West/East	53,0000	3	9,13947
4 East/West	58,9333	6	23,87515
Total	73,5750	40	18,52244

Table 4

Trust in rest of country Trust in rest of country

Country_location Location of the country in the EU	Mean	N	Std. Deviation
1 Both Western Europe	79,5400	20	13,17475
2 Both Eastern Europe	68,2000	11	17,58369
3 West/East	53,1333	3	12,07905
4 East/West	57,5333	6	21,79006
Total	71,1400	40	18,00673

The results presented in tables 2-4 also reveal the effect of the “border” between old and new EU members in 2004. Specifically, they show that people in the border regions of the “old Europe” rather distrust their neighbours in the new member states. Moreover, there are no significant cases showing more trust in the border region in this group, however in 5 of the 9 cases (55.6%) trust in the neighbour country is higher without reaching statistical significance. The highest trust difference in this group can be found in Slovenia and Hungary, where the percentage of respondents claiming to have a lot of trust in Austrians is almost 7% higher in border regions.¹⁰

Analysing each country separately as a giver and receiver of trust shows interesting patterns and combinations. In Western Europe, contact at the border does result in higher trust in most cases, but interestingly, the exceptions concentrate on two countries: Belgium and Germany. In France, for example, trust in Italians (+6.5%), Spaniards (+7%), British (5%) and Luxembourgers (3%) is higher in the border regions with these countries. But at the Franco-German border, the percentage of people who trust Germans is lower than in the rest of the country (-1%), while at the border to Belgium, the trust levels are equal. The same holds for Luxembourgers in their trust relationship with their neighbours. Despite its small size, differences exist between border residents and the rest of the country. Luxembourgers living in the Western part of the country, bordering Germany, have less trust in Germans (-3.4%), while the residents of the South, close to France have more trust in their French neighbours (+3.2%) than the rest of Luxembourgers.

All of Germany’s neighbours have less trust in Germans when they live close to the border (Luxembourgers, Dutch, French) except in the Czech Republic, where border residents have more trust in Germans (+1.6%). As far as Belgium is concerned, French and Luxembourgers show no regional differences in trust levels, while the percentage of respondents who trust Belgians is significantly lower in German border regions (4.2%) than in the rest of Germany. This is rather surprising, since German border residents generally have more trust in their neighbours than the rest of the population, Belgium and the Czech Republic being the only exceptions. But while the distrust in Czechs at the border might be explained by the competition theory or problems of accession such as trafficking etc., the distrust in Belgians at the border cannot be explained by either one of the theories.¹¹ Peculiar is also the case of Finland and Sweden. Although 91% of Finns claim to have a lot of trust in their Swedish neighbours, only 83% do so in the border region. The Finland-Sweden case shows the biggest negative trust difference between border regions and rest of country and is also the only case where this difference is significant.

In Eastern Europe, the cases where border trust is equal or lower are not concentrated in or around a specific country. In Slovakia, the trust that border and national populations have in Czechs and Austrians do not differ. Interestingly, 64% of Slovaks at the Bulgarian border have a “lot of trust” in Bulgarians, compared to only 49.4% of respondents in the rest of Slovakia, a difference of almost 15% and the biggest one found in the study. However, this is not a reciprocal trust, as Hungarians at the border have less trust in Slovaks than Hungarians in the rest of the country (-3.8%). A lower trust rate can also be located at the Slovenian-Italian border, where the trust difference is -7.3% compared to the rest of Slovenia. Moreover, also the national trust rate is low; only 32% of Slovenians claim to trust their Italian neighbours, the lowest percentage in the data.

¹⁰ 6.9% in Slovenia and 6.8% in Hungaria.

¹¹ Germany and Belgium differ in none of the four economic indicators, and culturally and historically it can be assumed that the relations do not deviate seriously from the other Benelux states and France.

All in all, in the majority of cases, neighbour-population trust in the border regions is either lower than in the rest of the country, equal, or the difference is not significant. It is worth mentioning that in 14 out of 40 cases (35%) transnational trust in the border region is higher but the difference is not statistically significant. This is mostly due to small samples and the fact that trust differences are often small. In many cases, trust differences are below 6%, and only in two cases they are higher than 10%. The definition of regions in the EES is also a factor, as the example of Germany shows. 4 of the insignificant cases occur in Germany, where regions are defined at NUTS 1 level (the Bundesländer). For the German-Dutch border region, for example, this means that Niedersachsen and Nordrhein-Westfalen have to be defined as the “border region”, but a third of all German respondents reside in these *Länder*, which explains that the difference between the border residents and the national population is only 1% regarding trust in the Dutch. Not surprisingly, this influences the results significantly. In the analysis, they have been counted as cases where trust equals the rest of the country, and thus rejecting the contact hypothesis. This leads to a score of 30 cases, with 10 confirming the hypothesis. However, if statistical significance is ignored, the result would be noticeably different, with 24 cases supporting the hypothesis and only 16 rejecting it. This is important to keep in mind when interpreting the results and shows the influence of the choice of methods on the outcome. Moreover, the means show that on average trust in border regions is higher, except for the West/East border group. This difference is significant.¹²

To sum up, the results of the analysis are inconclusive with regard to the relationship between contact and trust. The statistical significance is low and the research does not produce enough evidence to confirm the first hypothesis.

4.2. Trust and the competition hypothesis

In the following section, the results of the analysis on the second hypothesis, i.e. the competition hypothesis are presented. Table 5 summarises the results of the analysis.

Table 5

Trust differences between border region and rest of country for trust in the neighbour country.
Economically different country-pairs.

Trusting population	Trusted population	Trust in border region	Trust in rest of country	Difference	Competition Hypothesis
Czechs	Germans	42.0	40.3	1.7*	Reject
Czechs	Polish	77.9	77.8	0.1*	Reject
Czechs	Slovaks	91.1	83.5	7.6	Reject
Estonians	Finns	74.2	74.5	-0.3*	Reject
Finns	Estonians	60.7	57.4	3.3*	Reject
French	Italians	81.1	74.5	6.6	Reject
Germans	Czechs	55.4	62.5	-7.1*	Reject
Germans	Luxembourgers	100	88.2	11.8	Reject
Germans	Polish	42.9	39.5	3.4*	Reject
Hungarians	Austrians	84.1	77.3	6.8*	Reject
Hungarians	Slovenians	55.8	52.0	3.8*	Reject

¹² One sample T-test, Significance .004.

Luxembourgers	Germans	80.3	83.7	-3.4*	Reject
Portuguese	Spaniards	61.7	56.3	5.4*	Reject
Slovaks	Austrians	80.5	79.9	0.6*	Reject
Slovaks	Czechs	94.8	94.1	0.7*	Reject
Slovenians	Austrians	46.8	39.9	6.9*	Reject
Slovenians	Hungarians	48.7	4.0	1.7*	Reject
Spaniards	Portuguese	86.5	77.9	8.6	Reject

Notes: * – statistically not significant, ANOVA sig. > .05

While the findings regarding the contact hypothesis are mixed, the results are clear when analysing the competition hypothesis. As Table 5 demonstrates, only two (or 11.1%) out of 18 cases show the expected outcome of less trust at the border when neighbour countries are economically distant, and the differences are not significant. In the majority (66.7%) of cases trust in the neighbouring country is higher in border regions than in the rest of the country, and in four cases (22.2%), the regional and national trust rates are almost equal. Moreover, the trust difference between border region and the rest of the country is even higher in this group compared to economically similar neighbour countries (see table 6). There is, however a notable difference between wealthier and less affluent neighbours, as table 8 shows. Even though border residents in richer countries do not trust less, they are closer to the national mean than the people on the “poorer” side of the border.¹³ Even though not significant (ANOVA Sig. .55), this difference shows that border residents recognize the economic differences and that economic self-interest does seem to influence their trust, but much less than expected. At the same time, absolute trust levels between neighbouring populations are higher when both are economically similar (6%, cf. table 7). This indicates a possible relationship between economic differences and trust levels on the national level.

Table 6

Difference in trust between border region and rest of country

Economically_different differ in at least 2 indicators	Mean	N	Std. Deviation
N	1,8227	22	5,37436
Y	3,2333	18	4,56934
Total	2,4575	40	5,01587

Table 7

Trust in border region Trust in border region

Economically_different in at least 2 indicators	Mean	N	Std. Deviation
N	76,2955	22	18,37186
Y	70,2500	18	18,67730
Total	73,5750	40	18,52244

¹³ For the sake of simplicity, “poorer” and “richer” have been chosen to denote economic status differences between countries. Since the status difference is not exclusively based on GDP, a country is not necessarily “poorer” than its neighbour, but may have a more unequal distribution of income or higher unemployment. The distinction here is meant to indicate which country of each neighbour-pair performs better than the other when they differ in at least two indicators.

Table 8

Difference in trust between border region and rest of country

status_difference poorer or richer country when different	Mean	N	Std. Deviation
0 not different	1,1429	7	3,79028
1 poorer	3,3833	18	5,76942
2 richer	1,9600	15	4,61284
Total	2,4575	40	5,01587

Table 9 shows the differences in transnational trust between border region and rest of country and how they relate to the number of economic differences between neighbour countries. The mean trust difference is notably lower in the country group that shows a similar standard of living (and thus no big differences in either economic variable), whereas it is highest in the most different group. However, the latter consists only of one case (trust of Germans in their Polish neighbours) and can thus be neglected. But even without Germany-Poland the mean trust differences are highest in the groups that differ in two and three economic dimensions. However, when comparing the differences to the actual trust rates in the border regions, we can see that the opposite results: the trust rates decline as the number of economic differences increases. What is more, the outcomes indicate that low national trust rates might be related to comparatively higher trust in border regions. Table 10 shows that the mean trust is lower when the neighbour-pairs differ in two economic indicators, while it is higher in those cases that differ in one or three. At the same time, the trust difference between border region and the rest of a country is higher when neighbours differ in two indicators and lower when they differ in one or three. However, due to lacking significance, we cannot ultimately confirm a causal relationship.

Table 9

Difference in trust between border region and rest of country

number_diff number of economic differences	Mean	N	Std. Deviation
0 none	1,1429	7	3,79028
1 differ in one dimension	2,1400	15	6,06875
2 differ in two dimensions	3,3727	11	5,40335
3 differ in three dimensions	2,9500	6	3,52860
4 differ in all dimensions	3,4000	1	.
Total	2,4575	40	5,01587

Table 10

number_diff economic differences	number of	Mean	N	Std. Deviation
0 none		79,8429	7	7,99268
1 differ in one dimension		72,0267	15	20,70761
2 differ in two dimensions		67,5455	11	19,96649
3 differ in three dimensions		70,6333	6	10,82177
4 differ in all dimensions		39,5000	1	.
Total		71,1400	40	18,00673

In addition to the quantity of economic differences it is also important to analyse the relation between trust differences and each economic indicator separately. For all indicators except labour costs, the difference in neighbour-country trust between a border region and the rest of a country is higher when the neighbours are economically distant. However, for unemployment rates (0.275), labour costs (0.2228) and Gross Domestic Product (0.825), the differences are small and not significant. A different score on the GINI Index, however, leads to on average 3.02% more trust in border regions compared to the rest of the country, which is also statistically significant ($p=0.089$). To sum up, differing labour costs is the only factor that negatively influences regional trust differences, while differences in the remaining economic indicators positively influence trust in the border regions, with the GINI Index having the greatest influence.

A consolidated view of the findings indicates that trust in the neighbour country in border regions does not decrease when there is a prosperity gap between the two countries. At the contrary, whereas the general trust level decreases, the trust in border regions in comparison to the rest of the country (measured as the mean trust difference) increases with economic differences. Of the four economic indicators, all except labour costs have a positive influence on the trust difference between border regions and rest of a country. Therefore we have to reject the second hypothesis.

4.3. Analysis of national trust rates

The findings of the analysis of regional trust rates indicate a possible relationship between economic differences and trust, albeit not as expected by the theory. Whereas economic differences have no direct influence on the regional level, the national trust rate may to be related to them. To find out whether such a relationship exists on the national level, national trust rates have been analysed. The results are presented in the following. The sample includes more cases, since the availability of regional data is not necessary for the analysis of national trust rates.¹⁴

Table 11 and Graph 2 show how trust rates decline as economic differences between neighbour countries increase. Although there is a slight increase from the group that differs in one dimension to

¹⁴ The sample includes the same countries, however, whereas in the first analysis some trust relationships could only be reported unilateral, the national analysis contains all bivariate trust relationships between neighbour countries.

the countries that differ in two economic dimensions, the general trend is clearly downwards as the number of differences increases. The greatest drop in trust rates can be observed from three to four differences, however it has to be noted that the last group is only composed of Germany and Poland, which is the only pair that differed in all economic indicators. Due to the small sample and the different group sizes, the differences between groups are not significant (Sig. ,42), but nevertheless indicate that a relationship between transnational trust and economic differences seems to exist at the national level.

Graph 2

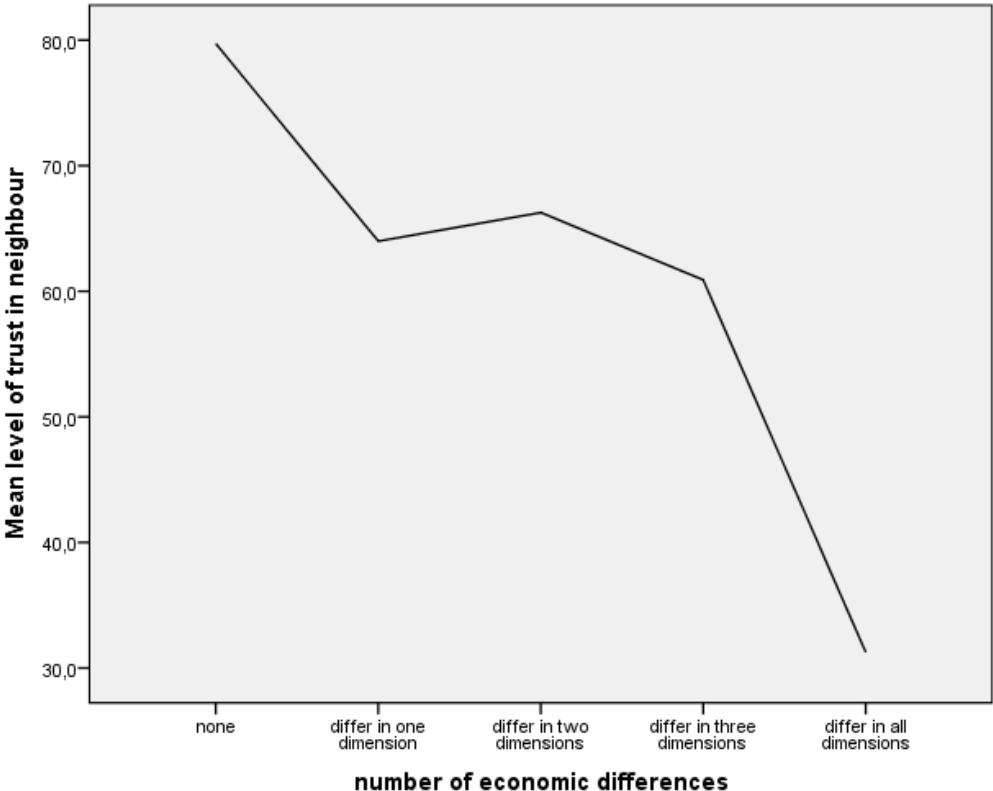


Table 11

Level of trust in neighbour

number_diff number of economic differences	Mean	N	Std. Deviation
0 none	79,714	7	7,2736
1 differ in one dimension	64,329	21	22,8491
2 differ in two dimensions	66,267	12	19,5949
3 differ in three dimensions	60,900	10	15,8039
4 differ in all dimensions	31,250	2	10,9602
Total	64,915	52	20,4560

Whereas graph 2 indicates a relationship between economic differences and trust in the neighbour country, it does not contain any information about the single economic indicators. However, it is important to know which economic variables cause the trust differences. Table 10 shows the trust differences and significance for each of the four economic indicators. Labour cost shows a high significance, and indeed the difference of 16 percentage points between the groups is remarkable. The GINI Index causes a difference of 11.4 percentage points in trust between similar and different neighbours, and is significant at $p = 0.10$.

Table 10

Trust means, differences and statistical significance for economic similar and different neighbour country-pairs for GDP, GINI Index, unemployment rate and hourly labour costs

Indicator	Mean trust rate when similar	Mean trust rate when different	Difference	ANOVA Significance
GDP	66.531	63.300	-3.231	.574
GINI Index	68.871	57.444	-11.427	.054
Unemployment rates	64.583	65.663	1.08	.863
Labour costs	71.990	55.996	-15.994	.004

As in the analysis of trust differences between border regions and rest of country, labour costs and GINI Index are the only relevant variables; however labour costs are the most influential variable on the national level.

To conclude, marked differences in the equality of the income distribution and especially in labour costs between two neighbouring countries significantly decrease trust rates between the populations of those countries.

5. Conclusion

This last chapter presents the answer to the research question and the conclusions of our analysis of economic circumstances and trust between neighbour populations. The results are discussed and interpreted. Finally, the limitations of our study are explained and recommendations for further research are elaborated.

5.1. Conclusions

The purpose of this study was to find out how contact and economic competition influence trust in border regions. The central research question is formulated as follows: ‘Under which economic circumstances does contact lead to trust in the neighbour country?’

The literature identified two competing theories predicting opposite outcomes of trust in border regions: The contact theory, stating that border residency increases transnational contacts which in turn increases knowledge and familiarity, resulting in higher trust; and the ethnic competition theory, claiming that the presence of other groups might be seen as an economic threat leading to lower trust levels. Based on these theories, two competing hypotheses have been formulated:

H1: The level of transnational trust in the neighbouring country is on average higher in border regions than in the rest of the country.

H2 (When there are marked differences in the standards of living between two countries): The level of transnational trust in the neighbouring country is on average lower in border regions than in the rest of the country.

To test these hypotheses, we used four economic indicators to compare neighbour countries with different standards of living: the Gross Domestic Product per capita in purchasing power parities (where EU average=100), the national unemployment rate, hourly labour costs and the GINI score of each country. The dependent variable, trust, was measured by a survey question asking for trust in different populations, taken from the European Election Study of 2004. Variables were created to distinguish between border regions and rest of a country. The mean trust differences between them were compared and statistically analysed using one-way ANOVA tests.

The study found that, on average, trust in border regions is 2.45 per cent higher than in the other parts of a country. On the other hand, it is questionable whether a difference of around 2.5 per cent in trust is likely to make any difference in terms of European social integration. In many cases, border regions do not have a great impact at all. However, we can also observe cases where trust is up to 15% higher in border regions. All in all, the results of the analysis are inconclusive and do not produce enough evidence to confirm the contact hypothesis.

Regarding the ethnic competition hypothesis and the influence of economic differences, the results show that, contrary to what we expected, trust in border regions is comparatively higher in border regions when two neighbour countries show different economic levels. However, the differences are not statistically significant. At the same time, higher border-trust rates are related to lower national trust rates caused by economic differences. Two of the four economic indicators, namely GINI Index scores and labour costs proved significant on the national level. We can draw two conclusions from these results: Firstly, we have to reject the hypothesis that economic differences between neighbour countries lead to lower transnational trust levels in border regions compared to the rest of the

country (H2). Secondly, based on the outcomes of our empirical research we can tentatively state the hypothesis that:

Marked differences in labour costs and the income distribution between two neighbour countries are related to lower trust rates between the populations of those countries.

Coming to the answer of our central research question, it seems that cross-border contact leads to trust when two neighbour countries show marked economic differences. At the same time though, economic differences lower national trust rates significantly. Since the trust differences in the border regions are not statistically different, further research would be necessary in order to assess whether economic differences and/or low national trust rates positively influences trust rates in border regions.

5.2. Discussion

The data used in this study are from the year 2004, which is an important year in the history of European integration. 10 new member states joined the European Union, 8 of them CEECs. We therefore expected a “border effect” between old and new EU members, and especially in the border regions at the former EU-border. The results indicate that indeed there is such an effect, expressed in lower trust rates in the border regions of the “old” Europe. The fears of social dumping mentioned by Rippl et al. (2009) thus seem to exist. On the Eastern side of the old EU border, neighbour-country trust in border regions is higher, but lower compared to the trust that border residents have if their neighbour is another CEEC. However, there are exceptions, most notably Eastern Germans who have more trust in their Polish neighbours than people in other parts of Germany, although Germany and Poland are by far the most distant neighbour countries in terms of standards of living. On the other hand, the different economic status of the neighbours expresses itself in the national trust rates which are very low between Germans and Polish.

Comparing Western Europe and Eastern Europe as two separated “trust zones” shows that it is not legitimate anymore to denote Western Europe as a community of mutual trust and Eastern Europe as an area of distrust. While national trust rates continue to be on average 11% higher among Western European neighbours, the difference does not support such a contrasting terminology, especially in the context of higher trust rates in Eastern European border regions.

What is striking in Western Europe is the distrust in Dutch, French and Luxembourgish border regions to Germany. It could be due to a persistent legacy of the Second World War, but then the question is why this is not the case in the Czech Republic. This country-pair does not seem to fit into the “pattern”. There are more cases which cannot be easily explained at first sight, such as the exceptionally low trust rates between Slovenia and Italy, in border regions as well as nationally, or the distrust of Germans in Belgians at the German-Belgian border. Interesting are also the cases where trust on one side of the border meets distrust on the other, as in the case of Slovakia and Hungary. Those cases would form an excellent basis for future research, especially case studies aiming at disclosing the special characteristics of these border regions.

In general, the results underline how difficult it is to explain a complex social construct such as trust. While theories are helpful in understanding the development of trust and European social integration, every border remains its own unique characteristics and no general theory can explain every existing border- and neighbour-relationship between populations. Therefore, the combination

of quantitative and qualitative research will be important in this still barely researched area of European integration.

Regarding the analysis of economic influences on trust, we can state that economic differences in terms of labour costs and income equality do influence trust, but only on the national level. Hence, we can assume that the nation, i.e. the national economy is more important as a point of reference for the citizens than the regional economy. In the *Design* section of the *Methodology* chapter, we pointed out that various studies show evidence for the higher importance of sociotropic economic fears over the personal economic situation (Burns and Gimpel, 2000; Feldman, 1982; Sears and Funk, 1990). The results of this study add further evidence to this hypothesis and also show that the national level is the prime economical reference unit for people. This also fits with Delhey's theory of European social integration, defining the European Union as a social space in which the most important parameter is nationality.

Moreover, the fact that especially labour costs influence trust levels shows that the competition theory has predictive power, since of all economic indicators, labour costs are primarily related to ethnic competition. As pointed out in the introduction, labour competition is often at the root of economic fears and ethnic competition. This study thus adds to our understanding about the relationship between competition and trust and on which levels it materializes.

In the theoretical part of the study, trust was presented as an indicator of European social integration. Trust implies familiarity and a sense of commitment for the other and is therefore crucial to foster cooperation and solidarity. For Simmel (1950: 326), "trust is one of the most important synthetic forces within society." Ultimately, the success of the European project depends on the level of trust and social integration between European citizens. It is thus important to ask the question: What do our results imply for European social integration?

Firstly, as pointed out earlier, transnational trust relationships are highly individual which makes the application of general theories and ultimately policies difficult. Nevertheless, the found relationship between ethnic competition and trust on the national level means that ultimately, strong economic differences in the European Union lower trust, which is a strong argument to further invest in cohesion and economic convergence.

On the other hand, the higher trust rates in border regions of economically distant neighbour indicate, that the border rather functions as a giver of opportunities in these cases rather than turning the border inhabitants into the bearers of the negative consequences of open borders. This phenomenon requires more attention in future research, to assess why it exists and how regional and national trust rates are related. If border regions work as catalysts of trust, as it is assumed, then they indeed fulfil a crucial role in the process of European social integration.

5.3. Limitations and Recommendations

As discussed in the *Methodology* section, the research design of the study involves some validity issues. The central threats to validity stem from the cross-sectional nature of the study and the low statistical conclusion validity due to the small N.

The goal of this study is to shed light on the question whether trust in border regions is related to economic circumstances. As mentioned in the introduction, this relationship has been neglected in the literature so far, which is surprising given the importance of the economy in politics as well as in

people's everyday life. A broad, quantitative approach has been chosen deliberately to gain a general overview into this new line of research. The results show that economic circumstances do effect trust, but not as expected in the hypothesis. It also produced findings about which economic indicators influence trust and which do not. For further research, it might be valuable to take a more specific approach, focusing on special cases or regions only, using regional economic data and compare different border regions in the same country, as in this study all regions bordering a country have been summed up. The unit of analysis could be even smaller by investigating individuals and their perception of the economic situation rather than national and/or regional economic indicators.

Furthermore, the statistical conclusion validity of the study is low, lacking statistical significance in many cases. The reasons are explained in the methodology section. The small N and the weak significance mean that the generalizability of the results is very limited. However, external validity is not of great concern in this research, since the topic is trust between European neighbour countries as a dimension of European social integration. Given the unique extent of cooperation and integration in Europe, it is neither easily possible nor recommendable to generalize findings from European border- and interpopulation trust research to third countries. However, the sample includes 21 of the 27 member states, which means that it represents the EU countries more than sufficiently.

The cross-sectional design makes it hard to determine which variable precedes the other, it can only state that they are related at a single moment in time. This is especially relevant for the study, since the year 2004 is a landmark in the history of European integration. In this year, the European Union witnessed the biggest accession since its foundation. Ten new members joined the Union, most of which were post-communist CEECs. It can be assumed that EU membership and the opening of border have increased the familiarity between Western and Eastern neighbours. Delhey (2007) has shown that EU membership over time indeed increases trust. Economically, although the prosperity gap between Western and Eastern Europe still persists, many regions in Eastern Europe have developed considerably. Furthermore, due to the euro-crisis, the north-south gap in the EU has increased. In the south of Europe, the economic situation has clearly worsened since 2004. It can thus be expected that a repetition of the study with up-to-date data would generate notably different results. Delhey (2005, 2007) claims that national images and trustworthiness are stable constructs, but the economy, on the other hand, fluctuates. The analysis has shown that trust is related especially to labour costs and income inequality, which do not fluctuate as much over time as other economic indicators such as GDP. Nevertheless, a longitudinal study analysing the development of economies, economic crises and inter-population trust over time could enhance our understanding about the functioning of the relationship between economic circumstances, anxiety, ethnic competition and trust. Moreover, economic disequilibria between countries also have political consequences, as the current economic crisis in the Eurozone shows. It can be expected that this has tremendously negative consequences for trust and ultimately for European integration.

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Annex

List of countries and regions

NB= No Border

5 Czech Republic:

(0 =No answer)

1 Hl. město Praha (NB)

2 Středočeský (NB)

3 Jihočeský (Germany)

4 Plzeňský (Germany)

5 Karlovarský (Germany)

6 Ústecký (Germany)

7 Liberecký (Poland)

8 Královéhradecký (Poland)

9 Pardubický (Poland)

10 Vysočina (NB)

11 Jihomoravský (Slovakia)

12 Olomoucký (Poland)

13 Zlínský (Slovakia)

14 Moravskoslezský (Slovakia)

7 Estonia:

1 Harjumaa (Finland)

2 Ida-Virumaa (Finland)

3 Jõgevamaa (NB)

4 Järvamaa (NB)

5 Läänemaa (Finland)

6 Lääne-Virumaa (Finland)

7 Põlvamaa (NB)

8 Pärnumaa (Latvia)

9 Raplammaa (NB)

10 Saaremaa (NB)

11 Tartumaa (NB)

12 Valgamaa (Latvia)

13 Viljandimaa (Latvia)

14 Võrumaa (Latvia)

15 Hiiumaa (NB)

16 Tallinn (NB)

8 Finland:

- 1 Uusimaa (Estonia)
- 2 Varsinais-Suomi (Estonia)
- 3 Satakunta (NB)
- 4 Kanta-Häme (NB)
- 5 Pirkanmaa (NB)
- 6 Päijät-Häme (NB)
- 7 Kymenlaakso (Estonia)
- 8 Etelä-Karjala (NB)
- 9 Etelä-Savo (NB)
- 10 Pohjois-Savo (NB)
- 11 Pohjois-Karjala (NB)
- 12 Keski-Suomi (NB)
- 13 Etelä-Pohjanmaa (NB)
- 14 Pohjanmaa (NB)
- 15 Keski-Pohjanmaa (NB)
- 16 Pohjois-Pohjan (NB)
- 17 Kainuu (NB)
- 18 Lappi (Sweden)
- 19 Ahvenanmaa (Sweden)

9 France:

- 1 Basse-Normandie (UK)
- 2 Haute-Normandie (UK)
- 3 Nord-Pas-de-Calais (UK, Belgium)
- 4 Picardie (UK)
- 5 Bretagne (UK)
- 6 Pays-De-La-Loire (NB)
- 7 Poitou-Charentes (NB)
- 8 Aquitaine (Spain)
- 9 Langedouc-Rousillon (Spain)
- 10 Midi-Pyrenees (Spain)
- 11 Auvergne (NB)
- 12 Limousin (NB)
- 13 Centre (NB)
- 14 Corse (NB)
- 15 Provence-Alpes Cote d'azur PACA (Italy)
- 16 Rhone-Alpes (Italy, Switzerland)
- 17 Alsace (Germany)
- 18 Bourgogne (NB)
- 19 Champagne-Ardennes (Belgium)
- 20 Franche-Comte (Switzerland)
- 21 Lorraine (Germany, Luxembourg, Belgium)
- 22 Ile de France (NB)

10 Germany:

- 1 Baden-Württemberg (Switzerland, France)
- 2 Bayern (Austria, Czech Republic)
- 3 Berlin (NB)
- 4 Brandenburg (Poland)
- 5 Bremen (NB)
- 6 Hamburg (NB)
- 7 Hessen (NB)
- 8 Mecklenburg-Vorpommern (Poland)
- 9 Niedersachsen (Netherlands)
- 10 Nordrhein-Westfalen (Netherlands, Belgium)
- 11 Rheinland-Pfalz (Luxembourg, France)
- 12 Saarland (France)
- 13 Sachsen (Poland, Czech Republic)
- 14 Sachsen-Anhalt (NB)
- 15 Schleswig-Holstein (Denmark)
- 16 Thüringen (NB)

12 Hungary:

- 1 Central Hungary (Budapest, Pest) (NB)
- 2 Central Transdanubia (Fejer, Komarom) (Slovakia)
- 3 Western Transdanubia (Gyor, Vas) (Austria, Slovenia, Slovakia)
- 4 Southern Transdanubia (Baranya, Somogy) (NB)
- 5 North Hungary (Borsod, Heves, Nograd) (Slovakia)
- 6 North of the Plain (Hajdu, Szabolcs, Szolnok) (NB)
- 7 South of the Plain (Bacs, Bekes, Csongrad) (NB)

15 Latvia:

- 1 Riga (NB)
- 2 Vidzeme (Estonia)
- 3 Kurzeme (Lithuania)
- 4 Zemgale Lithuania)
- 5 Latgale (NB)

17 Luxembourg:

- 1 Luxembourg-Ville (NB)
- 2 Center (NB)
- 3 South (France)
- 4 North (Belgium, Germany)
- 5 East (Germany)

19 Netherlands:

- 1 Groningen (Germany)
- 2 Friesland (NB)
- 3 Drenthe (Germany)
- 4 Overijssel (Germany)
- 5 Flevoland (NB)
- 6 Gelderland (Germany)
- 7 Utrecht (NB)
- 8 Noord Holland (including Amsterdam) (NB)
- 9 Zuid Holland (including Rotterdam and the Hague) (NB)
- 10 Zeeland (Belgium)
- 11 Noord Brabant (Belgium)
- 12 Limburg(Germany, Belgium)

22 Portugal:

1 Aveiro (NB)

2 Beja (Spain)

3 Braga (Spain)

4 Bragança (Spain)

5 Castelo Branco (Spain)

6 Coimbra (NB)

7 Évora (Spain)

8 Faro (Spain)

9 Guarda (Spain)

10 Leiria (NB)

11 Lisboa (NB)

12 Portalegre (Spain)

13 Porto (NB)

14 Santarém (NB)

15 Setubal (NB)

16 Viana do Castelo (Spain)

17 Vila Real Spain)

18 Viseu (NB)

23 Slovakia:

- 1 Bratislavský (Austria)
- 2 Trnavský (Czech Republic, Hungary)
- 3 Trenčiansky (Czech Republic)
- 4 Nitriansky (Hungary)
- 5 Žilinský (Czech Republic, Poland)
- 6 Banskobystrický (Hungary)
- 7 Prešovský (Poland)
- 8 Košický (Hungary)

24 Slovenia:

- 1 Pomurska (Austria, Hungary)
- 2 PODRAVSKA (Austria)
- 3 KOROSKA (Austria)
- 4 SAVINJSKA (NB)
- 5 GORENJSKA (Austria)
- 6 ZASAVSKA (NB)
- 7 OSREDNJA (NB)
- 8 SPOD. POSAVSKA (NB)
- 9 DOLENJSKA (NB)
- 10 GORISKA (Italy)
- 11 OBALNO-KRASKA (Italy)
- 12 KRA[KA (NB)

25 Spain:

- 1 Andalucia (Portugal)
- 2 Aragon (France)
- 3 Asturias (NB)
- 4 Baleares (NB)
- 5 Cataluna (France)
- 6 Canarias (NB)
- 7 Cantabria (NB)
- 8 Castilla-Leon (Portugal)
- 9 Castilla-LaMancha (NB)
- 10 Extremadura (Portugal)
- 11 Galicia (Portugal)
- 12 La Rioja (NB)
- 13 Madrid (NB)
- 14 Murcia (NB)
- 15 Navarra (France)
- 16 Pais Vacso (France)
- 17 Comunidad Valenciana (NB)

Economic data

1. Gross Domestic Product, per capita, Purchasing Power Parities (EU 27 average=100), 2004

Group 1: similar, 20 or less

Group 2: distant (difference > 20)

Estonia-Latvia 57-47= 10	Czech Republic-Germany 78-115 = 37
Finland-Sweden 116-126 =10	Estonia-Finland 57-116= 59
France-UK 110-123= 13	Germany-Luxembourg 115-252= 137
France-Germany 110-115 = 5	Germany-Poland 115-51= 64
France-Spain 110-101= 9	Hungary-Slovenia 63-87=24
France-Belgium 110-121= 11	Hungary-Austria 63-128=65
France-Italy 110-107= 3	Luxembourg-Belgium 252-121= 131
Germany-Austria 115-128= 13	France-Luxembourg 252-110 = 142
Germany-Netherlands 115-129 = 14	Portugal-Spain 77-101=24
Germany-Belgium 115-121= 6	Slovakia-Austria 57-128=71
Germany-Denmark 115-126 = 11	Slovenia-Austria 87-128 = 41
Hungary-Slovakia 63-57 = 6	Czech Republic-Poland 78-51 = 27
Latvia-Lithuania 47-51 = 4	Czech Republic-Slovakia 78-57 = 21
Netherlands-Belgium 129-121 = 8	
Slovakia-Poland 57-51= 6	
Slovenia-Italy 87-107= 20	

Source: Eurostat (2013a)

2. Gini Coefficient, 2004

Group 1: similar

Group 2: distant (difference >4)

Estonia-Latvia 37.4-36.1= 1.3	France-UK 28.2-34= 6.2
Finland-Sweden 25.5-23= 2.5	France-Italy 28.2-33.2= 5
France-Germany 28.2-30= 1.8	Germany-Denmark 30-23= 7
France-Spain 28.2-30.7= 2.5	Slovakia-Poland 29.1- 35.9= 6.8
France-Belgium 28.2-26.1= 2.1	Estonia-Finland 37.4-25.5= 11.9
Germany-Austria 30-27= 3	Germany-Poland 30-35.9= 5.9
Germany-Netherlands 30-27= 3	Portugal-Spain 37.8-30.7= 7.1
Germany-Belgium 30-27= 3	Czech republic-Poland 27-35.9=8.9
Hungary-Slovakia 29-27=2	Slovenia-Austria 31.2-27= 4.2
Latvia-Lithuania 36.1-35.8= 0.3	
Netherlands-Belgium 27-26.1= 0.9	
Slovenia-Italy 31.2-33.2= 2	
Czech Republic-Slovakia 27-29.1= 2.1	
Slovakia-Austria 29.1-27= 2.1	
Hungary-Slovenia 29-31.2= 2.2	
Hungary-Austria 29-27= 2	
Luxembourg-Belgium 26.5-26.1= 0.4	
France-Luxembourg 28.2-26.5= 1.7	
Germany-Luxembourg 30- 26.5= 3.5	
Czech Republic-Germany 27-30= 3	

Sources: Central Statistical Bureau of Latvia (2013) (Latvia), Eurostat (2013b) (France, Finland, Sweden, Spain, Italy, Portugal, Estonia, Austria, Belgium, Luxembourg), The World Bank (2013) (Lithuania, Slovakia, Poland, Slovenia) and OECD (2013) (UK, Germany, Netherlands, Czech Republic)

3. Unemployment rate in per cent, 2004

Group 1: similar

Group 2: distant (difference >5%)

Estonia-Latvia 9.7-11.2 = 1.5	Germany-Luxembourg 10.5-5.0 = 5.5
Finland-Sweden 8.8-7.4 = 1.4	Germany-Poland 10.5-19.1 = 8.6
France-Germany = 9.3-10.5 = 1.2	Slovakia-Austria 18.4-4.9 = 13.5
France-Spain 9.3-10.9 = 1.6	Czech Republic-Poland 8.3-19.1 = 10.8
France-Belgium 9.3-8.4 = 0.9	Czech Republic-Slovakia 8.3-18.4 = 10.1
France-Italy 9.3-8.0 = 1.3	Germany-Austria 10.5-4.9 = 5.6
Germany-Belgium 10.5-8.4 = 2.1	Germany-Netherlands 10.5-5.1 = 5.4
Latvia-Lithuania = 11.2-11.3 = 0.1	Hungary-Slovakia = 6.1-18.4 = 12.3
Netherlands-Belgium 5.1-8.4 = 3.3	
Slovakia-Poland 18.4-19.1 = 0.7	
Slovenia-Italy 6.3-8.0 = 1.7	
Czech Republic-Germany 8.3-10.5 = 2.2	
Estonia-Finland 9.7-8.8 = 0.9	
Hungary-Slovenia 6.1-6.3 = 0.2	
Hungary-Austria 6.1-4.9 = 1.2	
Slovenia-Austria 6.3-4.9 = 1.4	
Portugal-Spain 7.5-10.9 = 3.4	
Luxembourg-Belgium 5.0-8.4 = 3.4	
France-Luxembourg 9.3-5.0 = 4.3	
France-UK 9.3-4.7 = 4.6	
Germany-Denmark 10.5-5.5 = 5	

Source: Eurostat (2013c)

4. Hourly labour costs in euro, 2004

Group 1: similar

Group 2: distant (difference ≥ 4.50 €)

Estonia-Latvia 4.24-2.52 = 1.72	Czech Republic-Germany 5.85-26.9 = 21.05
France-UK 28.46- 24.71 = 3.75	Estonia-Finland 4.24-25.34 = 21.1
France-Germany 28.46-26.9 = 1.56	Germany-Poland 26.9-4.74 = 22.16
France-Belgium 28.46-30.3 = 1.84	Hungary-Austria 5.49-25.32 = 19.83
Germany-Austria 26.9- 25.32 = 1.58	Portugal-Spain 10.2-14.76 = 4.56
Germany-Netherlands 26.9-27.23 = 0.33	Slovakia-Austria = 4.41-25.32 = 20.91
Germany-Belgium 26.9-30.3 = 3.4	Slovenia-Austria 10.41-25.32 = 14.91
Germany-Denmark 26.9-30.7 = 3.8	France-Italy 28.46- 21.39 = 7.07
Hungary-Slovakia 5.49- 4.41 = 1.08	France-Spain 28.46-14.76 = 13.7
Latvia-Lithuania 2.52-3.16 = 0.64	Finland-Sweden 25.34-31.08 = 5.74
Netherlands-Belgium 27.23-30.3 = 3.07	Slovenia-Italy 10.41- 21.39 = 10.98
Slovakia-Poland 4.41-4.47 = 0.06	Hungary-Slovenia 5.49-10.41 = 4.92
Germany-Luxembourg 26.9-29.97 = 3.07	
Luxembourg-Belgium 29.97-30.3 = 0.33	
France-Luxembourg 28.46-29.97 = 1.51	
Czech Republic-Slovakia 5.85-4.41 = 1.44	
Czech Republic-Poland 5.85-4.74 = 1.11	

Source: Eurostat (2013d)