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# Positive Peace – A Driver of Migration?

A Quantitative Study of the Relationship between Positive Peace and Intra-European Migration



# **Abstract**

Migration studies have generally focused either on broad drivers that are difficult to operationalize, such as quality of life and standard of living, or a few specific, predominantly economic, drivers. Hence, broader explanations for migration have been understudied, especially quantitively. Similarly, peace studies have traditionally favored narrow conceptualizations of peace. This study aims to widen the scope of peace studies through exploring the explanatory value of positive peace as a driver of migration. Thus, the study tests if and how positive peace, or the absence thereof, can be seen as a pull- or push-factor of migration. This is conducted through a quantitative examination of the relationship between positive peace, operationalized as the Positive Peace Index, and intra-European migration in the period 2013-2019. The results show a statistically significant relationship between positive peace and intra-European immigration, as well as between positive peace and intra-European net migration. However, the results do not find support for a statistically significant relationship between positive peace and intra-European emigration.

Keywords: Positive peace, Positive Peace Index, migration, intra-European migration, quantitative analysis

Words: 9873

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# 1. Introduction

Migration is a well-studied phenomenon that is constantly relevant both to researchers, policymakers, and the broader public. It is well-established that migration can be driven by numerous different factors. Most often, broad, and perhaps quite vague, concepts such as quality of life and standard of living are considered to drive migration (e.g. O'Reilly 2023: 4; Urbanski 2022: 4). Hence, people that are not satisfied with the state of their current life might wish to change this through changing one's place of residence (Carling 2017: 3). This is what we know as migration. But what constitutes a better life? In the literature, there is a vast dominance of either economic or political explanations for migration. The economic factors include better chances for employment, higher wages and income (e.g. IOM(b): 1-2; Piguet 2018: 18), while the political factors include war, violent conflict and other forms or political turmoil and oppression (e.g. Castelli 2018: 4; Martin & Widgren 2002: 8).

However, it is generally established that such a complex phenomenon as migration is not monocausal (Castelli 2018: 2-3) and people migrate even if there is not war. For example, Europe, with few exceptions such as present-day Ukraine, has been in a state of peace, or at least non-war, for at least 20 years. Yet, the last decades have displayed sizeable intra-European migration which has quite drastically contributed to population changes across Europe. Eastern European countries such as Bulgaria and the Baltic states lost more than 15 per cent of their population between 1991 and 2015. And if migration trends continue, Romania risks having lost 30 per cent of their population in 2060 compared to 2015. The main drivers of this migration are, just as in the wider migration debate, considered to be disparities in economic opportunity and standard of living (Lutz et al. 2019: 9, 46). But can all intra-European migration really be ascribed these factors, or are there other ways to understand why people migrate?

In a similar way as in which migration studies have focused on a few, yet significant, explanatory drivers, a narrow scope can also be found in the study of peace. Peace research has predominantly studied the absence of war, so called negative peace (Diehl 2016: 5, 9). And although there have been multiple efforts to expand the scope of peace, especially through the concept known as positive peace (most famously introduced by Galtung: 1969), few have succeeded to frame it as a constructive force which can be observed and measured (Jarstad et al. 2019: 1, 4; Regan 2014: 348). So, peace has generally been perceived as an outcome rather

than a driver. This implies that there is great room to explore what peace can cause, not only what can cause peace (Diehl 2016: 7).

One exception to the lack of measurable operationalizations of positive peace is the Positive Peace Index (PPI) from the Institute for Economics and Peace (IEP). Not only does this index provide an annual index score of positive peace for the nations of the world, the IEP also describes a number of outcomes of strong positive peace, one of them being increased standard of living (IEP 2019: 20), thus showing that positive peace can act as a constructive force. And as been described, standard of living is also considered a driver of migration. Given that the relationship between peace, especially its positive form, and migration so far has been an understudied topic (Bank et al. 2017: 13), it is thus reasonable to explore if positive peace can be used as an explanatory variable to migration.

## 1.1 Purpose and Research Question

The purpose of this study is both to explore a new way of understanding and framing migration, as well as to widen, yet as the same concretize, the scope of peace studies. This is done though introducing the concept of positive peace as a potential explanatory variable of migration. Positive peace is thus seen as an independent variable that might be able to predict and impact migration. To explore the validity of this, a quantitative study is conducted where the relationship between positive peace, operationalized as the Positive Peace Index, and migration is examined. The study focuses on intra-European migration in the 21st century since this implies that several in the literature frequently occurring drivers of migration can be ruled out, thus enabling the findings to be more robust. The study aims to answer the following research question:

#### - How does positive peace relate to migration?

The research question is broad, and a definitive answer to this is beyond the scope of this, and perhaps any, study. However, the research question clearly relates to the purpose of this study, and it is narrowed down through a set of hypotheses (see section 3.3). The hypotheses suggest how positive peace is predicted to function as a push or pull factor of migration, thus impacting a country's levels of both immigration, emigration, and net migration. Testing the hypotheses thus explores if and how positive peace can drive migration, hence contributing to answering

the research question of how positive peace is related to migration. Additionally, another reason for keeping the research question broad is that this enables future studies to pick up where this thesis ends and explore the research question through other lenses and settings, thus contributing to a more robust understanding of the relationship between positive peace and migration.

# 2. Understanding Migration

Migration is a very broad and at times vague phenomenon, and there is no internationally recognized definition of migration. Albeit this lack of consensus around the definition of migration, the term can generally be understood as a person's act to change their place of usual residence. This includes both temporally and permanent, national and international, as well as legal and illegal changes of usual residence (IOM(a)). Such a concept is indeed broad. Thus, in order to study migration, one first needs to understand and conceptualize the term.

A starting point for understanding migration is to explore the dynamics of it. When doing so, this thesis departs from the migration model first presented by Everett S. Lee (1966). This model consists of three factors which collectively can explain the dynamics of migration. These are push factors, pull factors, and intervening obstacles. First, one can make the distinction between push and pull factors. Push factors are associated with (undesired) conditions in the place of origin, thus pushing people to migrate, and pull factors are associated with (desired) conditions in the place of destination, thus attracting, or pulling, people to move there. Hence, push and pull factors can be seen as each other's opposites (Lee 1996: 49-50; Urbanski 2022: 2-3). For example, bad living conditions in the place of origin represents a push factor (Krishnakumar & Indumathi 2014: 8) while the expectation of higher living standards in the place of destination represents a pull factor (O'Reilly 2023: 4). Important to keep in mind is that it is not the push, or pull, factors individually that drives migration, rather it is the differences they make up in relation to each other that matters (Kurekova: 2010: 3-4; Van Hear et al. 2018: 928).

Next, there are also a set of intervening obstacles that affect the decision whether or not to migrate. These are conditions that obstructs the, from push and pull factors derived, desire to migrate (Lee 1966: 51). Such intervening obstacles contribute to explain the difference between the number of people aspiring to migrate and the number of people actually migrating. Data has shown that 14 per cent of the world's population want to permanently move to another country, but only 3 per cent actually do so (Carling 2017: 5), making up a difference that thus, at least in part, exists due to intervening obstacles. Intervening obstacles include for example distance between place of origin and place of destination, border controls and visa restrictions (Lee 1966: 51), and cultural differences between place of origin and destination (Telsac & Yuksek Telsac

2022: 430-431). Thus, intervening obstacles represent the costs of the mobility (Piguet 2018: 18), both monetarily and metaphorically.

However, not everyone reacts to the same set of push and pull factors, as well as intervening obstacles, in the same way. Thus, it is impossible to fully rationalize the decision to migrate, hence averting generalizations from ever being completely accurate (Lee 1966: 51, 57). Equally important is to bear in mind that the decision to migrate is based on a combination and interaction of many drivers. Hence, there is no single driver that determines whether or not a person migrates. This is important to keep in mind when, as below, making clear distinctions between different types of drivers (Castelli 2018: 2-3). Finally, the desire to change caused by push and pull factors can be channeled in other ways than migration, ranging from violent uprising against a regime to trying to pursue one's aspirations within the context of one's origin, thus making other outcomes than migration possible as response to these factors (Carling 2017: 1, 4).

Now that we have of clearer concept of migration to relate to, we can proceed by presenting the specific drivers, or push and pull factors, that contribute to the decision to migrate. Already in the 1880's, E. G. Ravenstein stated people's desire to (in material aspects) "better themselves" as the main driver of migration (Lee 1966: 48). Still today, this desire to change one's situation for the better is repeatedly seen as a central driver of migration, weather being described as the search for better living conditions (e.g. IOM(b): 2; Triandafyllidou 2016: 4), higher living standards (e.g. O'Reilly 2023: 4; Ullah et al. 2022: 336), a better life (Castelli 2018: 3; Krishnakumar & Indumathi 2014: 9), a better quality of life (Urbanski 2022: 4), satisfaction through maximizing one's utility (Piguet 2018: 18), or a smaller difference between the desired and present state of life (Carling 2017: 3). This all seems quite obvious, but such claims remain quite abstract, thus making them difficult to operationalize when studying migration.

However, there are more specific drivers of migration than the somewhat vague drivers concerning standard of living described above. In the literature, such specific drivers have predominantly been economic ones (O'Reilly 2023: 4). Those include unemployment and employment opportunities (e.g. Piguet 2018: 18; Telsac & Yuksek Telsac 2022: 429), as well as wage and income disparities between place of origin and place of destination (e.g. Kurekova 2010: 1; Zimmermann 1996: 97). Thus, economic inequalities are often seen as a major driver

of migration, making migration from countries with low economic opportunities to countries with larger economic opportunities most common (IOM(b): 2; Van Hear et al. 2018: 931, 941).

Besides economic drivers, one of the most prominent and frequently occurring drivers found in academia and policies is war, violent conflicts and other types of direct violence or political persecution (e.g. Reade et al. 2019: 380; UN General Assembly 2016: 1). Other drivers of migration include environmental factors and climate change (e.g. IOM(b): 2; Perry 2012: 2), the access to welfare services, social security, and healthcare (e.g. Urbanski 2022: 1-4; Zimmermann 1996: 97), and family reunification and formation (IOM(b): 1; Martin & Widgren 2002: 8;). There are also less dramatic drivers such as a comfortable climate pulling people to settle down there after retirement (Krishnakumar & Indumathi 2014: 9). Further, the tradition of certain migration routes and connections with already expatriated friends and relatives can contribute to facilitate and drive the decision to migrate (Carling 2017: 4; Piguet 2018: 19-20). Finally, return migration, where a person moves back to its previous place of residence, can be driven by changed push and pull factors or new circumstances and priorities for the person in question (Triandafyllidou 2016: 16).

As shown, migration literature has favored either broad concepts that are difficult to operationalize, or some, predominantly economic, more specific drivers. This has led to economic explanations such as employment rates and wages being dominant when examining migration (Carling & Collins 2018: 913). Consequently, broader drivers of migration have been quantitively understudied. In addition, although peace and war has been considered pull and push factors of migration, this has been based on a narrow understanding of these concepts. Thus, there is great room to further explore if a wider concept of peace can be considered an explanatory factor for migration (Bank et al. 2017: 13). Hence, the next session explores how the concept of peace can be widened, while remaining measurable. After doing this, one might be able to, through using Lee's model of migration, introduce a new driver, or push and pull factor, of migration.

# 3. Theoretical Framework – Positive Peace, and its Connection to Migration

There are numerous definitions and conceptualizations and peace. Although there is far from a consensus among scholars, peace has traditionally been closely tied to, and seen as the inverse of, war (Diehl 2016: 5; Gledhill & Bright 2019: 259). Hence, the study of peace has predominantly concerned war and violent conflict. Even in present day academia, this focus remains (Diehl 2016: 5, 9; Jarstad et al. 2019: 1). Thus, conceptualizations of peace have often fallen short of defining something that goes beyond the absence of war (Jarstad et al. 2019: 1). A reason for this might be that war, and its absence, is clearly visible and obvious both for researchers, decisionmakers, and their crowds. This has in turn contributed to that data on peace generally measures concepts related to war, violent conflict, and battle deaths (Goertz et al. 2016: 3-4). Quantitative studies of peace have thus heavily favored the study of the absence of war (Kasten 2017: 29). But peace is likely to be more than just the opposite of war. Hence, it is possible to argue that peace should be studied as a concept of its own and not only through a lens of war and violent conflict (Regan 2014: 345-346).

## 3.1 Peace beyond the Absence of War

A first, pioneering, step to broaden the study of peace was taken by Johan Galtung more than 50 years ago. He stated that peace includes the absence of violence, thus making the definition of peace dependent upon the definition of violence (1969: 167, 183). Galtung defined violence as "the cause of the difference between the potential and the actual, between what could have been and what is" (ibid: 168). So far, nothing new. What was new, however, was that Galtung introduced different types of violence, thus leading to different types of peace.

Although making six different distinctions between types of violence, the most significant one, both for Galtung and for this thesis, is the one between personal and structural violence. Both these types create a difference between the potential and the actual. However, personal violence is committed by an actor whilst structural violence is not. Consequently then, given that peace includes the absence of violence, the distinction between different types of violence also gives rise to different types of peace. The absence of personal violence can thus be labeled negative peace and the absence of structural violence can be labeled positive peace. This implies that peace research can move beyond the study of war and violent conflict to include structural

factors such as unequal distribution of resources, opportunities, and life chances (Galtung 1969: 170-171, 173, 183).

However, important to remember is that even to Galtung, positive peace was primarily the absence of something, i.e. structural violence. But peace, especially its positive form, can also be constituted by constructive components, thus making peace the presence of something (Kasten 2017: 28). Instead of just being the condition that describes or prevents the absence of violence, war and other usually undesirable phenomena, peace can be seen as a condition which positively affects and shapes the characteristics of other phenomena in society. Thus, it is possible to view peace as a constructive force which affects society beyond the existence or absence of violence (Kyong et al. 2015: 10-11). This, in turn, implies that there is room to explore what peace can cause, not only what can cause peace, thus turning peace into an independent, instead of a dependent, variable (Diehl 2016: 7). This fact has great value for the methodology and topic of this thesis given that, although there has been an expansion of the field of peace, the heavy emphasis on negative peace has remained, especially within quantitative studies (ibid: 3, 9). Thus, there is large room to quantitively explore the impact of positive peace.

## 3.2 Linking Positive Peace to Migration

Although the potential connection between positive peace and migration so far has been unexplored in the literature (Bank et al. 2017: 13), there are some clear lines to draw between them. First, the Institute for Economics and Peace, being the founders of the Positive Peace Index, claims that increased positive peace creates "a more fulfilling world" and "(an) optimal environment for human potential to flourish" (IEP 2019: 12, 20-21). This should logically imply that weak positive peace includes a "less fulfilling world" and an environment where human potential does not flourish. Not only is this strikingly similar to what Galtung described as the definition of violence, namely the difference between the potential and the actual (1969: 168), such claims can also be put in relation to what in migration studies has been described as a driver of migration, namely the desire to achieve "a smaller difference between the desired and present state of life" (Carling 2017: 3). Further, it has within migration studies been stated that it is the differences between the conditions in place of origin and place of destination, i.e. the relation between push and pull factors, that constitutes the main drivers of migration (Van Hear et al. 2018: 928; Kurekova: 2010: 3-4). Taken together, those very similar claims about the

nature of positive peace and drivers of migration gives good reason to explore, and perhaps expect, that weak positive peace will incentivize people to emigrate to places with stronger positive peace.

Another line to be drawn between positive peace and migration derives from the claim that positive peace is considered to lead to increased standards of living (IEP 2019: 20). This would logically imply that weak positive peace includes low standard of living. And as has been previously described, standard of living (e.g. O'Reilly 2023: 4; Ullah et al. 2022: 336) and related concepts such as life quality (Urbanski 2022: 4) and living conditions (e.g. IOM(b): 2; Triandafyllidou 2016: 4), have repeatedly been considered drivers of migration. This gives good reason to explore whether, and perhaps expect that, weak positive peace leads to net emigration and that strong positive peace leads to net immigration. In this way, one can explore the constructive force of peace, which is something that often has been missing within peace studies (Diehl 2016: 7).

# 3.3 Hypotheses

The reasoning above about the interplay between positive peace and migration gives rise to a set of hypotheses which will guide the methodology of this thesis. The hypotheses are constituted by one main hypothesis (H1) and three sub-hypotheses (H1(a), H1(b), and H1(c)). The hypotheses are:

H1: Strong positive peace in a country attracts, or pulls, people from other counties, and weak positive peace in a country pushes people to emigrate to other countries.

- H1(a): Stronger positive peace in a country leads to higher immigration of citizens of other countries
- H1(b): Weaker positive peace in a country leads to higher emigration of citizens of that country
- H1(c): Stronger positive peace in a country leads to higher net migration, and weaker positive peace in a country leads to lower net migration

# 4. Research Design

The aim of this study is to explore the explanatory value of positive peace in a new context, i.e. the field of migration. In practice, this is conducted through four linear regression analyses, run in the data program Stata, which all explore the relationship between the Positive Peace Index (PPI) and intra-European migration. This also allows the study to explore a potential expansion, or limitation, of the scope of the theory. Such a methodology can be labeled as theory-confirming or theory-infirming (Halperin & Heath 2020: 233). This study is thus primarily driven by theory, hence making the study deductive. However, the process of forming hypotheses is not straight, and is also guided by previous migration literature and its answers to why migration occurs. Thus, it might be better to label the research process of this study as retroductive than solely deductive (ibid: 34-35).

After forming the hypotheses, a quantitative method is used to answer the research question. This allows for a rigorous testing of the hypotheses and opens the possibility of drawing robust inferences about the relationship between the variables. Further, using a larger number of cases enhances the room for making generalizations and predicting future outcomes while simultaneously ruling out other possible explanations (Halperin & Heath 2020: 251-252). But before conducting the actual study, a few methodological considerations need to be accounted for. First, one needs to establish an independent and a dependent variable, respectively. The independent variable (X), which if the hypotheses hold true explains the dependent variable, is positive peace. The dependent variable (Y), which thus potentially is explained by the independent variable, is intra-European migration. Next, one need to select cases and scope for the study. The process of this is explained in the next section. After that, the final step is to decide which operational indicators of the variables to use (ibid: 254).

## 4.1 Scope and Case Selection

Since this thesis aims to explore the relationship between positive peace and migration, the cases need to the greatest extent be separated from other drivers of migration. This enables the findings to be more robust (Halperin & Heath 2020: 426). Hence, it is desirable the rule out other potential drivers than positive peace. Through selecting Europe in the 21<sup>st</sup> century as the scope of the study, the impact of war and violent conflict can be ruled out since this is a time and place of at least negative peace. Further, this scope can also in large rule out the impact of

environmental drivers of migration since such drivers, such as climate change, so far have not been a major driver of migration within Europe.

Important to note is that it is only through limiting the study to migration *within* Europe that these drivers can be ruled out. Hence, this study only examines *intra*-European migration. This implies that only migration between two European countries is of interest for this study. However, due to data limitations, this study is limited to migration of European citizens. This implies two imperfections. First, migration of a third-country citizen within Europe is not included in the study. Secondly, migration to and from Europe of a European citizen is included in the study.

Knowing the desired scope, there also needs to be available data on both positive peace and intra-European migration for a country to be included in the study. Data on positive peace is collected from the Positive Peace Index (PPI) and migration data is collected from Eurostat (2023(a;b)). Further, to minimize the intervening obstacle of legal restrictions on movement (Lee 1966: 51), only countries with free movement of people and labor are included in the study. This limits the study to countries of the EU, EEA and Switzerland (European Commission Free Movement; Delegation of the European Union to Switzerland and Liechtenstein 2021). Taken together, this implies that to be included in the study, each country shall be present both in the Positive Peace Index, the Eurostat database on migration, and enjoy free movement of people and labor. This leaves us with 29 eligible countries for the study. These are the Member States of the EU, excluding Luxembourg and Malta, plus Switzerland, Norway, and Iceland. In addition, complete data is only available for the period of 2013-2019, thus limiting the scope to these years.

So, although it is not possible to completely isolate the impact of push and pull factors (Lee 1966: 57), several potential drivers of migration and intervening obstacles can be ruled out through the case selection. This enables the study to more in isolation examine the relationship between positive peace and migration, which is the aim of this thesis. Ruling out other explanations is an important part for being able to present robust findings when conducting quantitative research (Halperin & Heath 2020: 426). However, all other drivers than positive peace cannot be ruled out solely through the case selection. Therefore, control variables are needed to be introduced.

#### 4.1.1 Control Variables

Control variables are used to further account for, and thus rule out, the impact of other drivers of migration than positive peace. Hence, control variables allow us to explore how the relationship between positive peace and the dependent variable changes when "pretending" that the control variables are equal (Halperin & Heath 2020: 453-454). Consequently, when using control variables, the analysis becomes multivariate (Sandilands 2014: 418). In this study, three control variables are used. These are unemployment rate, GDP growth rate, and the Gini index. Below follows the reasoning for the selection process of these.

Besides the drivers of migration ruled out through the case selection, there are still some drivers that have yet not been accounted for, especially economic ones and drivers concerning quality of life. These thus represent potential control variables. But to be used as a control variable, the correlation between the control variable and the Positive Peace Index cannot be too strong. This ensures that so called multicollinearity is avoided and implies that a variable with a correlation coefficient to the Positive Peace Index greater than plus or minus 0.7 should not be a control variable (Halperin & Heath 2020: 459). This implies that some drivers which at a first glance seem suitable to control for are excluded. These include economic factors such as income level and GDP per capita, factors relating to the quality of life such as the Human Development Index and the index of the World Happiness Report, and political factors such as democracy, which all are too closely correlated with the Positive Peace Index (own calculations based on Economist Intelligence 2023; Eurostat 2023(c); Helliwell et al. 2019; The World Bank 2023(b;c); UNDP 2019).

What remains after avoiding multicollinearity are unemployment rate, GDP growth rate, and the Gini index, which measures economic inequality, thus making them control variables. Data on unemployment rate is collected from Eurostat (2023(e;f)) while data on GDP growth and Gini index is collected from the World Bank (2023(a;c)). Now, knowing the scope and data for the study, it is time to describe exactly *what* is measured, i.e. how positive peace and migration is operationalized.

# 4.2 Operationalization – Positive Peace

Although there has been an expansion of the concept of peace, operationalizations of positive peace often come short of being a measurable concept that is possible to empirically test.

Elements described as constitutive to positive peace such as *harmony, satisfaction, love*, and *a good society* are often vague and has seldom been operationalized. This can be contrasted by the absence of war, i.e. negative peace, which is much easier to operationalize (Jarstad et al. 2019: 1, 4; Regan 2014: 347-348). However, one of the few rigorous and measurable operationalizations of positive peace is provided by the Institute for Economics and Peace (IEP) through its Positive Peace Index (PPI). Hence, the PPI forms the operative base of the independent variable. The PPI includes 163 countries which all are annually provided with an index score of positive peace. The index ranges from 1.00 (strongest positive peace) to 5.00 (weakest positive peace). For a full set of scores, see Appendix. The PPI is constituted by eight pillars which collectively builds up the overall score. These pillars are:

Acceptance of the Rights of Others	High Levels of Human Capital
Equitable Distribution of Resources	Low Levels of Corruption
Free Flow of Information	Sound Business Environment
Good Relations with Neighbours	Well-functioning Government

Each pillar is in turn constituted by three indicators which are measured through datasets from international organizations such as the UNDP, the World Bank, Freedom House, Varieties of Democracy (V-Dem), the International Labour Organization, The Economist Intelligence Unit etc. Thus, there are in total 24 indicators constituting 8 pillars which together form the Positive Peace Index (IEP 2019: 24-25).

# 4.3 Operationalization – Migration

In this thesis, migration is operationalized according to the definitions provided by Eurostat (2022) to enable a concrete operationalization that ensures full compliance with the data used in the results and analysis. In this dataset, annual migration numbers are measured on a country-level. Migration is defined as the action to change one's place of usual residence for a period that is, or is expected to be, more than 12 months. Emigration is thus understood as the act by which a person ceases to have their usual residence in a country for a period that is, or is expected to be, more than 12 months. Consequently, immigration is understood as the act by which a person establishes their usual residence in a country other than the country they move from for a period that is, or is expected to be, more than 12 months. Finally, net migration is constituted by the difference between immigration and emigration (i.e. immigration minus emigration). Hence, positive net migration implies that more people are immigrating than

emigrating to a country, and negative net migration implies that more people are emigrating than immigrating to a country.

## 4.4 Method for Testing the Hypotheses

As presented above, there are three sub-hypotheses, H1(a), H1(b), and H1(c), that all, in different ways, test the validity of parts of the main hypothesis, H1. To test these, four different regressions are run. One to test H1(a), one to test H1(b), and two to test H1(c). The regressions all explore the relationship between PPI score and annual migration as permille of population. The Positive Peace Index constitutes the independent variable in all the regressions but since the sub-hypotheses all relate to different forms of migration, H1(a) to immigration, H1(b) to emigration, and H1(c) to net migration, the dependent variable differs from regression to regression. All regressions test both the bivariate relationship between PPI score and migration, and multivariate relationships where the control variables are accounted for. Below follows a description of what is measured in the respective regression.

Regression 1: Testing H1(a) – *Stronger positive peace in a country leads to higher immigration of citizens of other countries:* 

- As the hypothesis suggests, the dependent variable here represents immigration of citizens of other (European) countries than they immigrate to. Thus, the dependent variable is labeled *Immigration, Excluding Citizens of Reporting Country*. Reporting country is in this case the country that receives the immigration. This implies that so-called return migration, e.g. Swedish citizens returning back to Sweden after residing abroad, are excluded from measurement.

Regression 2: Testing H1(b) – Weaker positive peace in a country leads to higher emigration of citizens of that country:

- Here, emigration of each country's own citizens constitutes the dependent variable. Hence, the dependent variable is labeled *Emigration*, *Citizens of Reporting Country*. As an example, this implies that when measuring emigration from Sweden, only Swedish citizens are considered.

Regressions 3 and 4: Testing H1(c) – *Stronger positive peace in a country leads to higher net migration, and weaker positive peace in a country leads to lower net migration:* 

- Both these regressions concern net migration. However, there are different ways of measuring this. Thus, two regressions are run to test H1(c). The first one measures net

migration as the difference between the dependent variables of H1(a) and H1(b). Hence, the dependent variable is here labeled *Net migration: Immigration (Excluding Citizens of Reporting Country) minus Emigration (Citizens of Reporting Country)*. The second regression labels the dependent variable as *Net Migration: Immigration (All European Citizens) Minus Emigration (All European Citizens)*. Thus, this regression includes the European migrants that were excluded when testing H1(a) and H1(b).

#### 4.4.1 Regression Formula

The linear regressions used in this study are run in the data program Stata (version 17.0) through the command xtreg X Y1 Y2..., vce(cluster country). xtreg implies that a longitudinal regression is made (Stata Press 2023: 2), meaning that the regression explores changes over time within the same sets of cases (Halperin & Heath 2020: 165). X refers to the dependent variable, i.e. intra-European migration, and Y refers to the independent variable(s), implying that Y1 is positive peace and Y2, Y3 etc. represent the control variables. Lastly, vce(cluster country) is used to account for the fact that the observations are not independent within each country, or cluster to use another word (stata.com: 2). This is needed since there is no coincidence that a country displays similar PPI scores and migration numbers from year to year. To conclude, the regression formula thus allows us to test the correlation between positive peace, and the control variables, on intra-European migration while accounting for intra-country dependence. This model is thus used throughout all the four regressions.

# 5. Results

Below follows the results of each of the four regressions. Each of the tables include four models, where Model 1 tests the bivariate relation between the Positive Peace Index and the dependent variable. Models 2, 3, and 4 test this association when accounting for control variables. The first row of each model shows the value of the slope of the intended regression line. The slope coefficient can be labeled *b* and these are the values of highest relevance when interpreting the results. The values in parentheses display the standard error, i.e. the average deviation from the regression line. The constant shows the point where the regression line intercepts the y-axis, i.e. when X is zero. This is however of less relevance for this study since a value of zero on the x-axis, i.e. of PPI score of 0, is empirically impossible. N reveals the number of observations for each model. If the results are statistically significant, they are marked with one or two stars. One star implies that we can be at least 95 per cent confident that there is a statistically significant relationship between the variables and two stars implies a confidence level of above 99 per cent.

Before presenting the results, a few things can be noted. First, it is important to keep in mind that the Positive Peace Index ranges from 1.00 (strongest positive peace) to 5.00 (weakest positive peace). The means, perhaps somewhat counterintuitive, that a higher index score indicates weaker positive peace and that a lower index score indicates stronger positive peace. Further, the range of actual PPI scores in my dataset ranges from 1.17 (Sweden 2013) to 2.70 (Romania 2013). It is also worth noting once more that migration is measured per year as permille of a country's total population. Hence, the slope coefficient displays the predicted change of a country's migration, as permille of population, if there is a one unit increase of PPI score.

Finally, the regression for each of the tables can be described through an equation. For the bivariate regressions, i.e. the bivariate relationship between PPI score and migration tested in Model 1, this can be written as:

$$\hat{Y} = a + bX$$

For the multivariate regressions, i.e. when accounting for the control variables in Models 2, 3, and 4, the equation can be written as:

 $\hat{Y} = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4$  (number of b's and X's equals total number of independent variables)

 $\hat{Y}$  represents the predicted value of the dependent variable, a represents the constant, b represents the slope-coefficient, and X represents the independent variable(s). Hence, when knowing both a, b, and X, which we do when having access to the tables below and the values of the X-variables, i.e. the PPI score and the potential control variables, we can calculate a country's predicted level of migration. Similarly, and perhaps more importantly, one can predict how a country's change in PPI score is predicted to impact the level of migration.

#### **Regression Analysis** 5.1

Below follows an analysis of each of the four regressions. The results of each regression are presented in a regression table. These results are interpreted below each table. After interpreting each table individually, a summary of all the findings rounds off this section.

Table 1: Immigration (Excluding Citizens of Reporting Country)

	Model 1	Model 2	Model 3	Model 4
Positive Peace	-2.509**	-2.239*	-2.346*	-2.226*
Index	(0.888)	(0.970)	(0.916)	(1.042)
Unemployment		-0.136*	-0.116*	-0.0651
rate		(0.0566)	(0.0544)	(0.0384)
GDP growth			0.0585*	$0.0498^{*}$
C			(0.0294)	(0.0237)
Gini index				-0.162
				(0.0833)
Constant	7.876**	8.543**	8.421**	12.79**
	(1.750)	(1.780)	(1.781)	(2.509)
N	203	203	203	200

Standard errors in parentheses p < 0.05, \*\* p < 0.01

Table 1 shows the relation between positive peace and immigration of citizens of other countries than the reporting country. Thus, this table tests H1(a) which states that stronger positive peace in a country leads to higher immigration of citizens of other countries. Model 1, which displays the bivariate relationship between PPI score and immigration, shows a statistically significant negative relationship between these two variables. This is shown through the slope coefficient, which has the value -2.509 and is accompanied with two stars. The negative value tells us that there is a negative relationship. This implies that for every one unit increase of the PPI score, immigration is predicted to decrease by -2.509 permille of population. In other words, the higher PPI score, i.e. the weaker positive peace, the lower immigration is predicted. Consequently, the lower PPI score, i.e. the stronger positive peace, the higher immigration is predicted. This is in line with H1(a) which states that strong positive peace leads to high immigration. The two stars show that the relationship has a significance level of above 99 per cent, thus confirming the significance of the findings.

Models 2, 3, and 4, which account for the impact of the control variables, all show similar results as Model 1. They all demonstrate a statistically significant negative relationship between PPI score and immigration. The slope coefficient, i.e. the slope of the intended regression line, is slightly less sharp and the constant is a bit higher in Models 2, 3, and 4 compared to in Model 1. This implies that a difference in PPI score has a slightly less severe predicted impact on migration when accounting for the control variables. However, these differences are only marginal. Hence, the most important results of Models 2, 3, and 4 is that PPI score still significantly correlates with immigration even after accounting for the control variables. What shall be noted, however, is that the significance level has decreased, as displayed by the decrease from two stars to one. But even one star proves statistical significance. Thus, the results of this first regression unanimously show a statistically significant negative correlation between PPI score and immigration, hence contributing to support H1(a).

Table 2: Emigration (Citizens of Reporting Country)

	Model 1	Model 2	Model 3	Model 4
Positive Peace	1.941	1.916	1.862	1.579
Index	(1.313)	(1.331)	(1.249)	(1.191)
Unemployment		0.0281	0.0392	-0.0184
rate		(0.0693)	(0.0660)	(0.0672)
GDP growth			0.0364	0.0522
C			(0.0419)	(0.0308)
Gini index				0.242
				(0.128)
Constant	0.450	0.257	0.168	-6.410
	(2.207)	(2.109)	(1.968)	(4.056)
N	203	203	203	200

Standard errors in parentheses p < 0.05, \*\* p < 0.01

Table 2 displays the relationship between PPI scores and emigration of citizens of the reporting country. This table thus tests the validity of H1(b) which states that weaker positive peace in a country leads to higher emigration of citizens of that country. However, as the table shows, this regression does not significantly support the hypothesis. As seen, already the slope coefficient of Model 1 comes without a star which would have indicated a statistically significant bivariate association between PPI score and emigration. Further, neither of the other models in this table show any statistically significant results. So, although the slope coefficients describe a positive relationship between PPI score and emigration that goes in the same direction as the hypothesis suggest, no inferences can be made. Thus, neither of the Models in this table contributes to support H1(b).

Table 3: Net migration – Immigration (Excluding Citizens of Reporting Country) Minus Emigration (Citizens of Reporting Country)

	Model 1	Model 2	Model 3	Model 4
Positive Peace	-4.703**	-4.329**	-4.370**	-3.860*
Index	(1.567)	(1.657)	(1.594)	(1.669)
Unemployment		-0.161	-0.154	-0.0470
rate		(0.0951)	(0.0943)	(0.0845)
GDP growth			0.0194	-0.00250
C			(0.0670)	(0.0486)
Gini index				-0.401**
				(0.128)
Constant	7.882**	8.574**	8.544**	19.19**
	(2.513)	(2.345)	(2.416)	(4.151)
N	203	203	203	200

Standard errors in parentheses

p < 0.05, p < 0.01

Table 3 presents the relationship between PPI score and net migration, operationalized as *Immigration (Excluding Citizens of Reporting Country) minus Emigration (Citizens of Reporting Country)*. Hence, the dependent variable used in this regression is constituted by the difference between the dependent variables used for Tables 1 and 2. Thus, net migration is defined as the difference between emigration and immigration. Net migration above zero demonstrates immigration being larger than emigration, and net migration below zero demonstrates emigration being larger than immigration.

Model 1 shows that there is a strong and statistically significant negative relationship between PPI score and the type of net migration measured here. The results show that for each one unit

increase of PPI score, a decrease of 4.703 units of net migration is predicted. This implies that higher PPI scores, i.e. weaker positive peace, correlates with lower net migration. Consequently, this implies that a country with strong positive peace, i.e. a low PPI score, is predicted to have a higher share of immigration than a country with weak positive peace. This is in line with H1(c) which states that stronger positive peace in a country leads to higher net migration and that weaker positive peace leads to lower net migration. Additionally, these results have a significance level of above 99 per cent, as indicated by the two stars, revealing that the results are statistically significant.

Models 2 and 3 show that the results remain similar as in Model 1 when accounting for the impact of unemployment rate and GDP growth rate. The relationship between PPI score and net migration is still a negative one, and it has a significance level of above 99 per cent. This implies that even if only measuring counties with the same unemployment and GDP growth rates, there would still be a statistically significant relationship between PPI score and net migration. In Model 4, the results are still pointing in the same direction, but both the slope coefficient and the significance level are slightly lower. This implies that PPI score is predicted to have a slightly less severe impact on net migration when accounting for all the control variables than when only accounting for the bivariate relationship between PPI score and net migration. However, the results are still significant, albeit the number of stars has decreased from two to one. In total, the results presented in this table thus gives strong support to H1(c), since they show that stronger positive peace correlates with higher net migration and, consequently, that weaker positive peace correlates with lower net migration.

Table 4: Net migration – Immigration (All European Citizens) Minus Emigration (All European Citizens)

	Model 1	Model 2	Model 3	Model 4	
Positive Peace	-3.403**	-2.627*	-2.931**	-1.954	
Index	(1.064)	(1.159)	(1.045)	(1.272)	
Unemployment		-0.246**	-0.191*	-0.0927	
rate		(0.0911)	(0.0942)	(0.0874)	
GDP growth			0.183	0.152	
C			(0.171)	(0.149)	
Gini index				-0.383*	
				(0.153)	
Constant	6.284**	6.969**	6.592**	15.97**	
	(1.867)	(1.767)	(1.907)	(4.064)	
N	203	203	203	200	

Standard errors in parentheses

\* p < 0.05, \*\* p < 0.01

Table 4 displays another way of measuring the relation between PPI score and net migration. Here, net migration is operationalized as *Immigration (All European Citizens) Minus Emigration (All European Citizens)*. Thus, immigration of citizens of the reporting country as well as emigration of citizen of other European countries than the reporting country have been added to the data in Table 3. As we can see when examining Model 1, there is a strong negative bivariate relationship between PPI score and this type of net migration. This model tells us that for each one unit increase of PPI score, net migration is predicted to decrease by 3.403 permille of a country's population. The association has a significance level of above 99 per cent, as indicated by the two stars. In other words, weak positive peace, i.e. a high PPI score, correlates with lower net migration. Thus, strong positive peace, i.e. a low PPI score, correlates with high net migration. This supports H1(c) which states that stronger positive peace in a country leads to higher net migration and weaker positive peace in a country leads to lower net migration.

Model 2 shows that the relationship between PPI score and net migration remains significant when accounting for unemployment rate as a control variable. Thus, when only comparing countries with the same unemployment rate to each other, there is still a statistically significant relationship between PPI score and net migration. However, the significance level has decreased slightly, from above 99 per cent to somewhere between 95 and 99 per cent, as the one star indicates. Also in Model 3, the relationship between PPI score and net migration remains, and it has a higher significance level than Model 2. This implies that if one only examines countries with the same unemployment rate and GDP growth rate, there is still a

strong association between PPI score and net migration. Model 4, however, shows that there is no statistically significant relationship between PPI score and net migration when simultaneously ruling out the impact of unemployment rate, GDP growth rate, and Gini Index. Hence, no conclusions that could strengthen H1(c) can be drawn from the results in this model. But although the relationship between PPI score and net migration is not statistically significant when accounting for all the control variables simultaneously, this table in total strengthens H1(c) since it demonstrates a strong and statistically significant negative relationship between PPI score and net migration, both as a bivariate relationship and when controlling for both unemployment and GDP growth.

#### 5.1.1 Summary of Findings

Both Tables 1, 3, and 4 illustrate results that are in line with H1, H1(a) and H1(c). This implies that these results show a strong and statistically significant negative relationship between both PPI score and intra-European immigration, and between PPI score and net intra-European migration. Thus, the results indicate that stronger positive peace correlates with higher immigration and higher net migration. Consequently, the results indicate that weaker positive peace correlates with lower immigration and lower net migration. Hence, this supports the claims in both H1(a) and H1(c) saying that stronger positive peace in a country leads to higher immigration of citizens of other countries and to higher net migration. This also supports the part of H1 saying that strong positive peace in a country attracts, or pulls, people. These results remain statistically significant, although the significance in some cases decreases slightly, even after accounting for the control variables in all cases except for when accounting for all three control variables simultaneously in Table 4, Model 4. However, there is a large and crucial difference between correlation and causation. Thus, the results do not provide definitive evidence for the validity of the hypotheses. More on this in the discussion below. Further, Table 2 does not present any statistically significant support for H1(b). Thus, the results do not present any signs of a statistically significant relationship between positive peace and emigration. This not only shows a lack of support for H1(b) but also for the part of H1 which states that weak positive peace pushes people to emigrate.

#### Box 1 – Calculation Example

Suppose that a country increases its PPI score from 2.00 to 2.50. Given the results presented in the tables above, we can calculate the predicted level of migration. If we are interested in predicting how immigration, as operationalized in Table 1, is predicted to change along the change of PPI score, we can use the results presented in Table 1 to do so. The equation of the bivariate regression tells us that  $\hat{Y} = a + bX$ . We already know the value of the independent variable, X, i.e. the PPI scores. Thus, we want to calculate the predicted value of the dependent variable  $(\hat{Y})$ , i.e. immigration. To do this, we need to know the constant, a, and the slope coefficient, b. In table 1, Model 1, we can see that the constant is 7.876 and the b coefficient is -2.509. By inserting those values into the equation, we get  $\hat{Y} = 7.876 + -2.509X$ . Next, we can calculate the predicted Y of both a PPI score of 2.00 and a PPI score of 2.50. This gives us first 7.876 + -2.509\*2.00 =2.858, and secondly 7.876 + -2.509\*2.50 = 1.6035. We now know that the predicted value of Y, i.e. the predicted size of immigration, is 2.858 when the PPI score is 2.00, and that it is 1.6035 when the PPI score is 2.50. By subtracting these two values we can thus predict how much immigration size will differ as the PPI score changes from 2.00 to 2.50. This gives us 2.858 - 1.6035 = 1.2545. Thus, immigration is predicted to decrease by 1.2545 permille of the population, from 2.858 to 1.6035, when the PPI score increases from 2.00 to 2.50. This is in line with H1(a) which states that stronger positive peace in a country leads to higher immigration of citizens of other countries, consequently implying that weaker positive peace leads to lower immigration. Important to remember, however, is that although these results are more than 99 per cent statistically significant, each observation is not going to be exactly on the regression line. Rather, as the standard error indicates, the actual Y value is expected to differ  $\pm 0.888$  permille from the regression line on average, making some countries to be closer, and some further, from the regression line.

# 6. Concluding Discussion

The purpose of this study was to explore if it was possible to introduce a new explanatory concept, i.e. positive peace, into the field of migration. Simultaneously, this also meant exploring a potential extension of the scope of peace studies. This is what has been done through quantitively examining the relationship between positive peace and intra-European migration. The purpose and research question guided the development of the theory of this thesis which in turn was channeled into the hypotheses. Finally, the hypotheses were tested through the quantitative regressions presented in the previous chapter. This final chapter aims to take us back to explore how the results can be viewed through the lenses of the theory, purpose, and research question of this thesis.

Relating back to theory, this led to a conceptualization of peace as a state of affairs where there is no gap between the actual and the potential. This theory was merged with migration literature wherein the desire to narrow the gap between the desired and present state of life (Carling 2017: 3) was seen as a driver of migration. Inspired by Lee's model of migration (1966), the undesired conditions in the place of origin were labeled push factors, and the desired conditions in the place of destination were labeled pull factors. In turn, this terminology was placed in the context of drivers such as living standards (e.g. O'Reilly 2023: 4) and quality of life (Urbanski 2022: 4). Since such concepts are broad and difficult to operationalize, the purpose of this study was to explore if it was possible to introduce a new, measurable, concept into migration studies. This concept was positive peace, as operationalized in the Positive Peace Index, which thus was used to explore if this could represent a driver of migration. This all seemed to fit well with both theories about positive peace and previous migration studies, yet no one had so far explicitly explored this connection.

But how did the results fit the theoretical model used to motivate the study? Albeit very tempting, the results of this thesis cannot conclude that positive peace, or the absence thereof, is a pull, or push, factor of migration. Since causation is notoriously difficult, if not impossible, to prove, even after controlling for other possible explanations, and especially so when conducting quantitative research (Halperin & Heath 2020: 426, 452), this thesis cannot prove in what way the correlation goes. Thus, all this thesis can conclude is weather the results are expected or not.

The results displayed a statistically significant correlation between PPI score and intra-European immigration, as well as between PPI score and net migration, in most cases even after accounting for the control variables as shown in Tables 1, 2, and 4. This is in line with what was expected in the hypotheses and it showed that the stronger positive peace, the higher was the predicted immigration and net migration. Hence, this gives support to both H1(a) and H1(c) which stated that stronger positive peace in a country leads to higher immigration of citizens of other countries, and to higher net migration. Consequently, this supports the part of H1 stating that stronger positive peace in a country attracts, or pulls, people. But since the hypotheses specify in which direction the correlations should go, through using the words *leads to* instead of correlates with, the results come short of supporting the hypotheses in their entirety. It would of course have been possible to use the words correlates with instead of leads to in the hypotheses in the first place. This was however avoided since the theory gave reason to explore the causal effects of peace (Diehl 2016: 7). In addition, forming the hypotheses like this might inspire future research to take on where this thesis falls short, e.g. to deeper examine the potential causal dynamics in specific settings or to introduce more control variables to further strengthen the robustness of the results.

Although Tables 1, 3, and 4 showed expected results, Table 2 did not show any statistically significant correlation between positive peace and emigration. This is interesting since it contrasts the expected results presented in H1(b) and the part of H1 that states that weaker positive peace in a country pushes people to emigrate. But in the same way as a statistically significant correlation cannot prove the hypotheses, the lack of significance between positive peace and emigration does not entirely reject the hypothesis. Because, as mentioned in the migration framework of this thesis, migration is not only driven by push and pull factors, but also by intervening obstacles (Lee 1966: 51). To frame it differently, such intervening obstacles can represent the cost of the journey (Piguet 2018: 18).

Thus, if the costs of emigrating are relatively higher in countries with lower positive peace, this might constitute an alternative explanation for the lack of significant relationship between positive peace and emigration. Some indicators point in this direction, although more research need to be conducted to test this. Firstly, we know that countries with strong positive peace have higher income levels than countries with weak positive peace. Further, global migration studies have shown that the very poorest countries, due to the costs of migration, often have

low emigration numbers even though the aspiration to migrate still exists (McKenzie 2017: 16, 18-19). This strengthens the argument that people from countries with strong positive peace, due to their higher economic standards, more easily can afford to move abroad. Irrespective of whether this represents an alternative explanation of the results presented in Table 2, this shows that, even when accounting for control variables, the independent variable can never be entirely independent. This should inspire future research to conduct more studies where more control variables and alternative explanations are taken into account, thus further strengthening the independence of the independent variable, making the findings even more robust.

This further underscores the importance of remembering that although this study has provided some evidence for a correlation between positive peace and migration, albeit not in Table 2, a complex phenomenon as migration is not as monocausal as can be perceived when reviewing a study like this. Instead, there are a myriad of factors that play into the final decision to migrate, and the factors are not as easily separated as presented in the literature (Castelli 2018: 2-3). Further, the decision to migrate is not a purely individual one. The decision to migrate strongly concerns, and is often impacted by, both one's entire household and family (Triandafyllidou 2016: 13), thus further complicating the prospects of drawing clear lines between cause and outcome. In turn, there is no reason to believe that just because there seem to be a correlation between positive peace and some forms of migration, all other explanations should be rejected. This was, however, never the intension of this study. Rather, the aim was to introduce a new concept, i.e. positive peace, which could help explaining the dynamics of migration in addition to, not instead of, other commonly perceived drivers. This is also what has been done.

Thus, the findings that illustrate a statistically significant relationship between positive peace and immigration, and net migration, enable a new concept to enter the field of migratory drivers. In addition, this shows that there is reason to further explore the expansion of the scope of theories on (positive) peace. Thus, this thesis has contributed to expand both the field of migration and the study of positive peace, and, perhaps more importantly, represented a first step to merge them together. Exactly this was the purpose of this study. In this way, this study can be further used as inspiration for what has been lacking in peace research, namely to view (positive) peace as an explanatory variable, i.e. a constructive force, and not just as a consequence of something else (Diehl 2016: 7; Jarstad et al. 2019: 1, 4; Regan 2014: 348). Although more research needs to be conducted on this topic to further consolidate the findings, and although support was not found for all the hypotheses, this study has nevertheless showed

that there is value of finding new ways of explaining migration as well as of exploring the explanatory potential of positive peace, thus fulfilling the purpose of the study. This can encourage not only researchers, but also policymakers that wish to take well-informed decisions, to start considering positive peace as an explanatory driver of migration. For example, if one wish to impact the trend of East-to-West intra-European migration presented in the introduction of this thesis, there might be a value of including positive peace into one's analysis when forming policies with the purpose of affecting these trends.

To conclude, this study found statistically significant support for a correlation between positive peace and intra-European immigration, implying that stronger positive peace is predicted to lead to higher intra-European migration. The study also found a statistically significant relationship between positive peace and intra-European net migration, meaning that stronger positive peace is predicted to lead to a higher share of a country's total intra-European migration to be constituted by immigration than emigration. However, the study found no support for a statistically significant correlation between positive peace and emigration. Albeit this, the results might inspire future research which can explore the topic and research question of this study through other methods and lenses, thus contributing to more robust knowledge about the relationship between positive peace and migration.

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# Appendix: Positive Peace Index – Scores

	2013	2014	2015	2016	2017	2018	2019	Average
Austria	1.50	1.51	1.52	1.54	1.56	1.55	1.57	1.54
Belgium	1.57	1.60	1.59	1.59	1.60	1.59	1.59	1.59
Bulgaria	2.64	2.68	2.68	2.64	2.61	2.58	2.57	2.63
Croatia	2.30	2.30	2.37	2.40	2.37	2.33	2.32	2.34
Cyprus	2.31	2.30	2.36	2.35	2.35	2.32	2.27	2.32
Czechia	1.92	1.90	1.93	1.97	1.93	1.99	1.99	1.95
Denmark	1.22	1.23	1.23	1.25	1.25	1.26	1.25	1.24
Estonia	1.89	1.86	1.90	1.93	1.94	1.90	1.90	1.90
Finland	1.26	1.28	1.29	1.29	1.28	1.28	1.27	1.28
France	1.54	1.55	1.58	1.59	1.58	1.57	1.54	1.56
Germany	1.38	1.35	1.36	1.38	1.40	1.41	1.41	1.38
Greece	2.20	2.22	2.31	2.34	2.32	2.31	2.26	2.28
Hungary	2.29	2.31	2.40	2.43	2.42	2.41	2.39	2.38
Iceland	1.45	1.45	1.47	1.43	1.49	1.49	1.52	1.47
Ireland	1.47	1.43	1.48	1.48	1.45	1.43	1.45	1.46
Italy	2.02	2.03	2.07	2.05	2.03	2.01	2.01	2.03
Latvia	2.25	2.19	2.28	2.26	2.24	2.22	2.15	2.23
Lithuania	2.06	2.01	2.07	2.06	2.09	2.07	2.02	2.06
Netherlands	1.36	1.33	1.33	1.33	1.33	1.34	1.33	1.34
Norway	1.32	1.33	1.32	1.32	1.29	1.31	1.30	1.31
Poland	2.02	2.00	2.05	2.14	2.19	2.19	2.16	2.11
Portugal	1.73	1.72	1.72	1.73	1.68	1.66	1.71	1.71
Romania	2.70	2.69	2.69	2.67	2.61	2.60	2.58	2.65
Slovakia	2.13	2.12	2.19	2.22	2.25	2.24	2.22	2.20
Slovenia	1.86	1.86	1.89	1.87	1.86	1.83	1.79	1.85
Spain	1.80	1.81	1.89	1.87	1.86	1.85	1.82	1.84
Sweden	1.17	1.23	1.24	1.26	1.24	1.26	1.25	1.24
Switzerland	1.34	1.32	1.32	1.30	1.29	1.28	1.28	1.30
<b>United Kingdom</b>	1.59	1.58	1.58	1.58	1.62	1.63	1.68	1.61
<b>Total Average</b>	1.80	1.80	1.83	1.84	1.83	1.82	1.81	1.82