

# A cross country analysis of the relationship between racial and ethnic tolerance, and economic freedom

MMM Groenewald  
22186700

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Supervisor: Dr C. Claassen

Co-supervisor: Prof D. Blaauw

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# Abstract

Globally, race and ethnicity remain sensitive and important issues. Over the past few years, an upsurge has been witnessed in racial and ethnic tensions. While ethnic diversity has been identified as being related to negative economic outcomes, research in tolerance and trust has shown the potential to ameliorate these negative effects. Preliminary research has shown that economic freedom has a positive relationship associated with tolerance and trust. This work investigates the relationship between specifically *ethnic* tolerance and *ethnic* trust, and economic freedom. This is measured by the Economic Freedom Index (EFI). The results indicate that economic freedom is associated with fostering ethnic tolerance or ethnic trust. Economic freedom is in essence a measure of institutional capacity. In order to examine whether specific institutions have a relationship with ethnic tolerance and ethnic trust, the disaggregated EFI was also analysed. The results indicate that the institutions that allow for Free Trade is in certain instances positively related to ethnic trust, while in other instances negatively related to ethnic trust. Fiscal Freedom is negatively related to ethnic tolerance. Upholding Property Rights, particularly the existence of independent judiciaries and impartial courts, is positively related to ethnic trust.

**Keywords:** ethnicity, race, economic freedom, EFI, institutions, tolerance, trust.

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## **List of Abbreviations**

EFI – Economic Freedom Index

ELF – Ethno-Linguistic Fractionalisation

GDP – Gross Domestic Product

OECD – Organisation for Economic Co-operation and Development

OLS – Ordinary Least Squares

SWIID – Standardised World Income Inequality Database

UNESCO - United Nations Education, Scientific and Cultural Organisation

VIF – Variance Inflation Factor

WDI – World Development Indicators

WVF – World Values Survey

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# 1. Introduction

The 21<sup>st</sup> of March in each year is set aside by the United Nations Education, Scientific and Cultural Organisation (UNESCO) as the International Day for the Elimination of Racial Discrimination. In her 2014 address Irina Bokova, the Director-General of UNESCO, emphasised that “respect and tolerance are liberating acts, whereby the differences of others are recognized as the same as our own and whereby the riches of another culture are taken as the wealth of all” (UNESCO, 2014). The reality of a Brexit vote (Versi, 2016), a Trump presidency (Kristof, 2016) abroad and the furore over the Shelly Garland article (Selk, 2017) calling for white men in South Africa to be banned from voting – are indicative that racial and ethnic tensions have been gaining prominence both locally and globally. With such problems internationally, it bears investigating whether the potentially liberating act of championing the racial tolerance that Irina Bokova speaks of, is justifiable within the economic environments the world faces.

How ethnicity relates to economic growth was first brought to the fore by the work of Easterly and Levine (1997). Their research indicated that high levels of ethnic fractionalisation were related to low levels of economic growth. Since this seminal piece of research, there has been growing investigation into the intersections between economic outcomes and ethnicity. Running roughly parallel to this research has been the advocacy for individuals to be allowed to make economic choices free from the interference of government. This has been coupled with research into the concept of Economic Freedom (Hall and Lawson, 2014). The consideration of how Economic Freedom intersects with ethnicity is still in the foundational stages, but the work of Berggren and Nilsson (2013) as well as that of Saravia (2016) pose pertinent questions that deserve further examination. If Easterly and Levine set the foundation for ethnic fractionalisation to be related to negative economic outcomes, then it is possible that this fractionalisation can be overcome by fostering ethnic tolerance.

## 1.1. Problem Statement

Though studies such as those mentioned above have focused on issues regarding racial tolerance, there is a lack of such studies at a cross-country level. Ethnic fractionalisation has been considered in some studies and tolerance or trust as a broad concept has been

investigated in other studies. However, very little has been analysed specifically on ethnic tolerance or ethnic trust in relation to economic freedom, rather than the more conventional measures of economic performance. Given the complex intersectionalities between race, ethnicity, tolerance and the economy, and in a globalising world where people from different groupings are more and more exposed to one another, it is important to understand how these issues influence economies. With this understanding, the research question can be formally defined.

## **1.2. Research question**

The overarching research question of this dissertation is:

*What is the relationship between ethnic tolerance and economic freedom?*

Within this overarching research question, each article will focus on its own, more nuanced question: Article one will take into account that, while preliminary research would offer that there is a positive relationship between Economic Freedom and tolerance broadly according to Berggren and Nilsson (2013), the consideration of ethnic tolerance specifically, is still uncertain. Therefore, the research question of article one is:

*Does economic freedom foster ethnic tolerance and ethnic trust in different ways?*

Article two recognises that economic freedom is in essence, a measurement of the capacity of institutions to ensure that aspects such as private property rights are respected and that free trade is facilitated. It is possible that there is a different relationship between specific institutions that foster economic freedom and ethnic tolerance. It is for that reason that article two will seek to investigate the research question:

*Which specific economic institutions matter for fostering ethnic tolerance and ethnic trust?*

Finally, research into the positive relationship between tolerance and economic outcomes is fairly preliminary (Corneo and Jeanne, 2009). More established research, such as that of Kenneth Arrow (1972) has shown that increased trust can lower transaction costs between different economic actors. There does not seem to be sufficient distinction made between analysing ethnic tolerance and ethnic trust. Therefore, both articles will examine these concepts in greater detail.

### **1.3. Research objectives**

This study will take the form of two interrelated articles. The overarching research objective is to ascertain the relationship between racial and ethnic tolerance and economic freedom.

The more specific objectives for each article are listed below:

Article 1:

- To assess what the relationship is between people's willingness to have neighbours of another race, and economic freedom
- To assess the relationship between the occurrence of racist behaviour in a neighbourhood and economic freedom.
- To assess what the relationship is between the trust people have for another nationality and economic freedom.

Article 2:

- To assess what the relationship is between people's willingness to have neighbours of another race, and the specific institutions that make up the economic freedom index.
- To assess the relationship between the occurrence of racist behaviour in a neighbourhood, and the specific institutions that make up the economic freedom index.
- To assess what the relationship is between the trust people have for another nationality, and the specific institutions that make up the economic freedom index.

### **1.4. Research method**

In order to achieve the abovementioned research objectives, cross sectional OLS will be used. The data needed for gauging tolerance across countries is drawn from the World Values Survey (WVS).

In 1981 the WVS (2016) commenced and has up to 2017 captured 6 waves of data, using personal interviews with a standardised questionnaire conducted in almost 100 countries. This time series investigation records people's beliefs and values on a wide range of categories, from economic to political to religious. With almost 400 000, respondents the

WVS is the only academic study covering the full range of global variations, from very poor to very rich countries, in all of the world's major cultural zones.

For Article 1, the three WVS questions will be used to gauge ethnic tolerance as well as ethnic trust. The aggregated Economic Freedom Index (EFI) will be the independent variable with a vector of control variables. Both the Fraser Institute's EFI and the Heritage Foundation's EFI will be used to test for robustness.

For Article 2, the three WVS questions will once more be used to gauge ethnic tolerance as well as ethnic trust. The disaggregated Economic Freedom Index will be the independent variable with a vector of control variables. Both the Fraser Institute's EFI made up of 5 areas and the Heritage Foundation's EFI made up of 10 areas will be used to test for robustness.

## **2. A cross-country analysis of the relationship between economic freedom, and ethnic tolerance and ethnic trust.**

### **2.1. Context and Background**

Globally, race and ethnicity remain sensitive and important issues. Over the past few years, an upsurge has been witnessed in racial tensions with the Ferguson riots occurring in the United States (Malone, 2015), and Donald Trump being elected as president of the United States despite fuelling racial and ethnic intolerance (Kristof, 2016). Similarly, fear mongering about the "threats" that immigrants pose became a major concern in the UK's Brexit vote (Versi, 2016). In South Africa the "Fees Must Fall" protests have emphasised the racial inequality that is still roiling beneath the rainbow veneer (Chetty and Knaus, 2016).

With increasing concerns the world over regarding race and ethnicity, it would do well to consider how this relates to the field of economics. While this article will drill down more specifically into the relationship between economic freedom, and ethnic tolerance and trust - it is important to understand the foundations upon which this type of work is built. The most seminal work relating to growth and ethnicity is that of William Easterly and Ross Levine in their 1997 paper titled "Africa's Growth Tragedy: Policies and Ethnic Divisions". While it was Mauro (1995) who had first used the ethno-linguistic fractionalization index

(ELF) as a way to tackle the endogeneity between government institutions and economic growth, it was Easterly and Levine who piqued the curiosity of researchers by arguing that the ELF index was an essential determinant in explaining the lack of African economic growth (Easterly and Levine, 1997). The main thrust of their argument is that ethnic fractionalisation<sup>1</sup> is a key determinant of *economic policies*. This fractionalisation is the reason that poor economic policies are enacted due to a lack of consensus and illegal rent-seeking. When countries make choices that result in bad economic policy, there will then be low economic growth. While they make this case for all countries, they note that with such high levels of ethnic fractionalisation in Africa specifically, it is this fragmentation that is fundamentally associated with the lack of economic growth on the continent between 1960 and 1989.

While there has been critique levelled against Easterly and Levine (which will be discussed below), it is important to note that their work was so influential because it was the first empirical attempt at considering more than just the orthodox determinants of growth. This work prompted Sachs and Warner (1997) to examine beyond the more established variables relating to growth in Africa, such as average annual inflation, and whether or not a country is landlocked or dependent on natural resources. They also contemplated the correlations between ethnic fractionalisation and governments' openness to trade internationally, as well as the quality of institutions. They too found that countries with higher ethnic fractionalisation were less likely to have free trade and more likely to have institutions of lower quality which in turn would mean lower economic growth. One then sees the more nuanced work of Temple (1998) extending this research trend to analyse the macroeconomic ramifications of social capital,<sup>2</sup> finding that African societies that are highly ethnically fractionalised are more likely to exhibit low social capital, which in turn has damaging growth effects.

Although it is encouraging that research into ethnicity and its links to economic growth had started to gain impetus with the work of Easterly and Levine, it is essential to consider the

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<sup>1</sup> Ethnic *fractionalisation* measures the probability that two people who are randomly selected from a specific country will not belong to the same ethno-linguistic group (Arcand, Guillaumont, and Jeanneney, 2000). This is a measure from 0 to 1, with 0 indicating that there is only one ethnic group and 1 indicating that there are infinitely many ethnic groups.

<sup>2</sup> Temple (1998) defines social capital within economic literature to be the "quality of civil society: the associated memberships, the extent of trust and general social and political participation."

critiques levelled at their work. Arcand, Guillaumont and Jeanneney (1999) state that there is an inherently fatalistic assumption underpinning their work if one is to assume that at the very core of the “growth-tragedy” is the abundance of ethnic diversity. An alternative theory is that advanced by Temple (1998) and further analysed by Arcand, Guillaumont and Jeanneney (2000). This analysis posits that it is ethnic *polarisation*<sup>3</sup> rather than ethnic fractionalisation that may hinder growth which means that this polarisation can be mediated with appropriate mechanisms. These mechanisms can take the form of institutions in economically free countries, in order to alleviate the problems associated with bad growth policies.

Temple (1998:338) goes to great lengths to show that the relationship between ethnic fractionalisation and economic growth is not actually a linear one, but is rather U-shaped. He shows that it is only for an intermediate range (0.4-0.5) of ethnic fractionalisation that there are damaging growth effects. Horowitz (1985) explains that within a certain range of ethnic fractionalisation, powerful groups could feel that their legitimate claims are opposed and when this diversity exists, they are then influential enough to be able to counter these actions, which results in instability.

Concerns surrounding the underlying assumption of ethnic fractionalisation, meaning that poor growth is inherent within a predetermined population, also extend to the data used in order to make these claims. A closer look at Easterly and Levine’s data set will reveal that there are but 27 observations for African countries in 3 decades of data (Arcand, Jeanneney, and Guillaumont, 1999). It would do well to interpret results that come from such a limited data set with much caution and hence the claims made by such research needs to be carefully scrutinised. As Jerven (2015) argues, the “chronic growth tragedy” of Africa is considered (usually due to problems with data availability) for the period from 1960 until the early 1990s, which ignores the growth period that happened from the 1950s and indeed, for some African countries, even up until the early 1970s. Many African countries have experienced growth from the 1990s until most recently (Jerven, 2015). For Easterly

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<sup>3</sup> Ethnic polarisation would constitute a measure of 0.5, which reveals two groups of exactly the same size which would indicate ethnic polarisation which is expressed as such: a case where the probability of confrontation between ethnic groups is high. This is potentially the case when there are two groups equal in size. It can also occur when there is one dominant group and numerous other smaller groups that might create a coalition which would oppose the dominant group (Arcand et al., 2000).

and Levine, it is true that this latest growth occurred after their work was published, but their use of data is still problematic. While it is more difficult to come by the data that displayed this first growth period, it would have been prudent to do a more thorough investigation, especially if Africa was to be branded as a growth failure. More pertinently, the current economic growth of Africa<sup>4</sup> has shown that it does have the capacity to grow with its ethnic fractionalisation. This gives more credence to the argument that it is ethnic polarisation rather than fractionalisation playing a role in the African growth narrative, which with appropriate mechanisms can be corrected. This is a different and important angle to consider and is at the heart of the growth story relating to ethnicity. There is a key importance in understanding the difference between the questions we ask. *Why* there has not been growth in Africa does not tell the complete story. Rather we need to interrogate why there have been periods of growth and also why there have been stretches of decline (Jerven, 2010). Ethnicity alone will not be the only aspect to consider in this narrative of growth, although there is certainly established economic literature that calls for this as a concept that needs to be engaged with (Easterly and Levine, 1997). This article endeavours to adhere to this call.

In order to draw conclusions from this body of literature, it is important to delve into the holistic concept of ethnicity and how it is measured, or else run the risk of making overly simplistic claims about this economic analysis.

## **2.2. What is meant by the term ethnicity?**

It is pertinent at this point to provide greater clarity on ethnicity as both a concept and how it can be measured. There is no definition for ethnicity that is universally accepted (Brown and Langer, 2010). The most prominent work on attempting to provide a definition from a conglomeration of academic work would be: “involving a sense of group belonging based on ideas of common origins, history, culture, language, experience and values” (Brown and Langer, 2010:1). Initially, it was specifically the primordialist thinking, such as that of Van den Berghe (1978) which explained ethnicity as a natural result of biological differences that

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<sup>4</sup> While data on Africa must be interpreted with caution due to lack of reliability and incomplete records Jerven (2010:144) shows that from 1998, at least a quarter of all African countries have experienced sustained growth. GDP data on Africa when thoroughly investigated do not enable researchers to make bold conclusions, but at the very least, the latest available data tells us that there has been expansion in formal, modern and external sectors which means that there is opportunity for further change that could be taken advantage of (Jerven, 2015:120).

cannot be altered and is exclusive or particular to that group. Today, there is almost complete consensus amongst academics that ethnicity, as a biological entity, has been scientifically rubbished (Vawda, 2013). The more authoritative view is rather that ethnicity has emerged through processes that groups have experienced and through this have now become socially significant and importantly, that this identity can be changed over time, even if it is at a considerable cost (Ukiwo, 2005; Bates, 2004). Race, then, is seen as falling into this broader category of ethnicity, where there is a consideration given to physical characteristics such as hair or skin tone, but which do not give ethnicity its social significance (Bobo and Fox, 2003). It must be clearly stated that the perception does exist among some within society that these physical characteristics of race constitute a fundamental difference between people. This article is mainly focused on the field of economics and delving into the depths of intricate sociological concepts is beyond its scope. However, as explained by Vawda (2013), race may exist as a societal concept for some, which means that intolerance or mistrust is experienced by certain people because of this societal pressure. That does not, however, mean that there is any biological superiority or inferiority of different races. Henceforth, the term 'ethnicity' will be used in this article as the broad term that encompasses both the shared experiences of a group, based on the idea of common origin, history, culture, language and values - as well as the societal construct of race.

Even when the rigors of academic contestation have been applied to arrive at the most widely accepted definition of this concept, we enter into a whole new arena when quantitative analysis comes to the fore. The difficulty with the "concept-measurement divide" (Brown and Langer, 2010) arises to a large extent because the fluidity of ethnic identities is often not grappled with when employing quantitative measures. Many people do not necessarily subscribe to only one identity; their identification comes in varying degrees and neatly, demarcated lines of ethnicity are not consistent for all people at all times (Chandra, 2006; Posner, 2004). It is through the work of Fearon (2003) that one is better able to understand that classifying ethnic groups "correctly" involves making a host of relatively ambiguous and sometimes even arbitrary decisions based on the perspective of the specific researcher. He urges us to comprehend that there is no one correct answer when asking what the ethnic groups in a country are.



Academic endeavours to analyse which aspects of ethnicity to consider salient have been vast indeed. ANM (derived from the Atlas Narodov Mira) was the foundational measure for ethnicity which considered language to be what a “developed” ethnic group is comprised of (Marquardt and Herrera, 2015). The work of Alesina, Devleeschauwer, Easterly, Kurlat and Wacziarg (2003) on the other hand, emphasises rather the element of race as an additionally important concept to be added to a fractionalisation index. Measures that are more expansive have also been investigated, as is illustrated by the work of Baldwin and Huber (2010:645) where they measure the “expected differences in the mean income of the ethnic groups of any two randomly selected individuals”. Interestingly, Ostby (2008) even creates a measure of horizontal inequality and polarisation by considering the differences in the opportunities available to the each of the two biggest ethnic groups in a specific area.

With such openness about the concept of ethnicity as a whole, there are claims that measuring ethnicity quantitatively falls back into the erroneous, primordialist view of ethnicity being inherent and unchanging (Brown and Langer, 2010). However, as is convincingly argued by Brown and Langer (2010), there is much value in being able to provide quantitative analysis of ethnicity. What is integral to such an analysis is that the researcher embarking upon such enquiry, actively questions the underlying assumptions of the measure being used and then interprets the results in light of the theoretical underpinnings that the measurement encompasses.

Therefore, when considering the paradigm in which this article should be viewed, it is important to note that while investigating ethnic tolerance and ethnic trust specifically – they are but one aspect of a broader, overarching idea that seeks to better understand social distance between people. Hence, in the same vein as that proposed by Brown and Langer (2010), when discussing the elements of ethnic tolerance and ethnic trust – the broader concept of *social distance*<sup>5</sup> is being operationalised. Each of these elements are then indicators (just as religion or gender could be an indicator) of social distance. The concept-measurement divide of ethnicity, trust and tolerance and the attempt to more decisively quantify these indicators is ultimately bridged by this concept of social distance.

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<sup>5</sup> Social distance broadly involves how ‘close’ a member of a majority (or the in-group) is comfortable in letting a minority (or out-group) get (Reese and Zalewski, 2015:784).

### **2.3. How does Economic Freedom relate to Economic Growth?**

Having compared ethnic fractionalisation with polarisation, and considering the difficulties with obtaining reliable and sufficient data to draw accurate conclusions and the often amorphous nature of ethnicity – are we to conclude then that ethnicity is irrelevant in our analysis of how the economy functions? The answer to this question is a most definitive ‘no’. What must be recognised is the myriad of complexities that ethnicity takes on and the respect that must be given to the concepts of tolerance and trust when they come face to face with economic bastions.

Much of the work (Easterly and Levine, 1997; Sachs and Warner, 1997; Temple, 1998) on ethnicity has looked at whether there is an association between ethnicity and economic growth. While this is certainly an important body of work, the rise of economic freedom as the mechanism by which that growth is achieved has gained much prevalence in recent times. In a recent meta-study Hall and Lawson (2014) reviewed 198 studies and report that 134 of them found that economic freedom corresponds to the favourable outcome of higher growth. The other 56 results were either inconclusive or provided mixed results, while there were only 8 studies that report mostly unfavourable outcomes. Although this is not a complete consensus, there is a well-established link within the literature between economic growth and economic freedom.

The concept of economic freedom is generally considered to be a condition in which each person can pursue his or her economic livelihood and strive for increased prosperity by autonomy maximisation, with the least possible obstruction of their own free choice (Elkhoully and Amer, 2015). What is intrinsic to this idea is the interaction between the state and individuals and where the boundary lines of interference should be drawn in order to keep this interference to a minimum. Hayek did note that if we are to be controlled in our economic pursuits, than we are controlled in everything (Elkhoully and Amer, 2015). With that in mind, a more thorough investigation of the tolerance and trust that different ethnicities experience in economically free countries is in order.

Economic Freedom has been quantified through the Economic Freedom Index (EFI) developed by Gwartney, Lawson and Hall (2015). There are five major areas that make up the Economic Freedom Index (EFI) which encapsulate what is deemed to be policies that a

country upholds in order to ensure Economic Freedom. The five areas of the EFI are the *Size of Government*, *Legal Systems and Property Rights*, *Sound Money*, *the Freedom to trade internationally* and lastly *Regulation* (Gwartney et al., 2015). This first area - *Size of Government* - is made up of four components, but generally a country will score lower (be less economically free) whenever an individual has less freedom over what they can spend their money on, and government instead spends on their behalf. This might include higher tax rates or what is the percentage of government consumption relative to consumption as a whole. The second area - *Legal Systems and Property Rights* - will allocate a lower score if countries are unable to protect the rights of people to own and secure their property as well as the ability to have a rule of law strong enough to uphold legal contracts. *Sound Money*, as the third area will be given a lower scoring if inflation rates are high and if there are limitations on being able to access alternative currencies. *The Freedom to Trade Internationally*, will be scored badly if there are high tariffs, inefficient administration at customs, and strict quotas or restrictions on the convertibility of currencies. Lastly, the area of *Regulation* will assign a lower score depending on how little of the banking sector is privately owned, and whether labour law restrictions dictate minimum wages and strong unionisation, as well as on limitations on competition amongst businesses (Gwartney et al., 2015).

In order to facilitate and ensure economic freedom, there is a strong influence of institutional economics linked to this body of work. Institutional economics was a movement which came to fruition through the work of Thorstein Veblen (1898) whose enduring contribution was that individual preferences will be shaped, at least in part, by circumstances (Hodgson, 1988). At the heart of this school of thought is the understanding that institutions influence the way of life for individuals and that how institutions change and evolve will affect people (Hodgson, 1988). Indeed, if one is to consider the five areas upon which economic freedom is constructed, then upholding property rights cannot exist without functioning, legal institutions to enforce this principle. So too, the ability to trade freely can only succeed if there are established institutions which ensure that mechanisms are in place to permit the necessary transactions that constitute a trade.

It has been Douglass North's definition of 'institutions' that has guided economists in embarking on a host of studies that question what impacts institutions have had on the

development of different nations. He defines them as the “humanly devised constraints that shape human interaction” (North, 1990). If institutions have the potential to shape human interactions, then using institutions as a mechanism to garner greater tolerance, and indeed even trust, could be advantageous to countries that have the economically free environment to mould their institutions. With economic research indicating that trust could lower transaction costs (Arrow, 1972), and with tolerance being important for maximising utility in the work place (Corneo and Jeanne, 2009), there is value in attempting to understand whether institutions that uphold economic freedom could be associated with ethnic trust and ethnic tolerance.

North (1981) also made compelling arguments that it is the incentives that institutions create that will profoundly affect economic outcomes - including that of growth, development, inequality and poverty (North, 1981). After a deeper investigation in this article, tolerance and trust could potentially be added to that list.

The more recent study conducted by Acemoglu, Johnson and Robinson (2001) has been instrumental in providing renewed vigour in the field of institutional economics. This study found that in numerous countries, previous colonisers had established “extractive states” in which they did not settle in the specified country and therefore did not establish strong institutions (Acemoglu et al., 2001). In comparison with other countries where strong institutions were established, the per capita income was lower in these “extractive states”.

The more recent work of Acemoglu, Johnson and Robinson highlight the importance of democracy for economic growth (insert source that I still need to find). While this work is not strictly related to the topic being investigated in this article, it highlights the importance of institutions in the economic environment of countries. Such evidence has spurred on studies to consider how institutional reform might facilitate improved economic performance (Djankov et al., 2002). In the case of this article, which seeks to investigate whether institutional quality, in the form of economic freedom, could encourage ethnic tolerance and ethnic trust, aims to add commentary to institutional economics as a field of study.

## 2.4. Trust and Tolerance Concepts

It was the work of Kenneth Arrow in 1972 that most notably brought the concept of trust to the forefront of the field of economics. He argued that trust was beneficial economically because it lowers transaction costs, namely what it costs for an economic agent to enter into an exchange in the market is lessened when there is trust between two parties (Arrow, 1972). An example of this is when there is to be an exchange between a buyer and a seller (Bergh and Bjørnskov, 2014). The element of trust would mean that neither party feels the need to engage in legal advice before going through with the transaction. As such the costs incurred in this exchange are lower than if, one or both of the parties had mistrusted the other. The pioneers of illustrating that trust is positively associated with economic growth were Knack and Keefer (1997), using the World Values Survey (WVS) database. Since then, a host of literature has shown the positive relationship between trust and macroeconomic indicators such as greater levels of trust being associated with higher capital accumulation (Dearmon and Grier, 2011). The work of Horvath (2013) has recently shown trust to be a vital determinant of growth in the long run, and that countries which exhibit a higher level of generalised trust showed increased growth rates.

With trust established as having a positive association with economic indicators, the question must be asked: what exactly do we mean by trust? There is much debate surrounding what would be an acceptable definition, but despite the different conceptions of this word there is enough consensus, regardless of the underlying discipline, that trust is the “confident expectations and a willingness to be vulnerable” with others (Rosseau et al., 1998:394). Buzasi (2015:142) further seeks to explain that there are two fundamental types of trust: personalised trust which is shown towards acquaintances and friends, and secondly, generalised trust which is exhibited towards unknown people. How then does trust relate to ethnic diversity? As shown previously, ethnic diversity has been associated with lower economic growth (Easterly and Levine, 1997) and even the insufficient provision of public goods (Alesina, Baqir, and Easterly, 1999; Baldwin and Huber, 2010). Much of this research is premised on the challenges that ethnic cleavages pose in a society. Therefore it is reasonable to consider whether fostering tolerance and trust between different ethnicities, through institutions, may provide a way to overcome some of the difficulties experienced in countries with high ethnic diversity.

It must once more be emphasised that is primordialist to intimate that it is the very existence of ethnic diversity which links to such negative outcomes. Rather, it could well be that the lack of trust amongst people with high levels of ethnic diversity could mean a reduction in social cohesion. As Freitag and Buhmann (2009) expound, trust is a reliable indicator of social cohesion and so it might be prudent to consider the relationship between the trust that people of different ethnicities do or do not have for one another, within an economically free environment.

As there has been an identification within the literature of the positive associations between trust and economic interactions, a consideration of the concept of tolerance is also in order. Tolerance has only quite recently come under scrutiny from economists who are conceivably the only social scientists who have been relatively silent on the nature and consequences of tolerance (Corneo and Jeanne, 2009). The investigation of Corneo and Jeanne (2009) has created a framework where tolerance is valued by utility-maximising agents. This is specifically the case where parents choose to instil tolerance in their children in order for a younger generation to be able to maximise their utility in a market-orientated society where tolerance has become important. It is Friedman (2006) who argues that when the United States of America was experiencing economic expansion, many citizens either experienced or observed more openness generally, and greater tolerance more specifically. As with trust, the direction of the relationship between economic prosperity and tolerance is still in need of much investigation. What is important to observe is that economics, as a discipline, is becoming cognizant of the fact that trust and tolerance can be associated with economic variables.

Naturally, there is much debate surrounding what exactly is meant by tolerance. Tolerance “tends to emphasize an attitude of inclusiveness regarding diversity especially the extent to which minority populations otherwise susceptible to discrimination are accepted in society” (Huggins and Debies-Carl, 2014:4). Tolerance can be either substantive or procedural. Substantively, it can represent the different types of diversity that are tolerated in a community and within resident relationships, whereas procedurally, it is how tolerance is operationalised by researchers (Reese and Zalewski, 2015:782). Reese and Zalewski (2015) point out that some of the work analysing tolerance does not take account of the complex

concept of tolerance, and hence caution that results should be interpreted based on the specific choices regarding how researchers decided to measure tolerance.

A comparison of trust versus tolerance is now in order. As defined above, tolerance relates to inclusiveness rather than being discriminated against (Huggins and Debies-Carl, 2014). Trust on the other hand, relates to confident expectations and importantly, a willingness to be *vulnerable* (Rosseau et al., 1998). When reading those definitions side by side it is evident that trust requires a deeper relationship than that which tolerance requires of one. Much of the literature either completely ignores the concept of tolerance first having to exist before trust can occur or uses trust and tolerance interchangeably. When results are interpreted as higher diversity being associated with less trust, it is possible that implicitly it seems as if diversity is problematic in ensuring that the economic benefits that are available when trust exists, are unlikely to occur when diversity exists. If economists can value tolerance and trust because they are linked to beneficial economic outcomes (maximising utility and lowering transaction costs), then it is important when interpreting results to not paint a disingenuous picture. It could well be that some people are only at the level where they tolerate those they see as different to them, but do not yet trust them. However, because most measures are based on asking questions specifically relating to only trust or only tolerance, a nuanced analysis is not considered. To not take into account the process whereby economic actors move from intolerance, to tolerance, to trust – muddies the waters. To adequately assess what institutions in economically free societies could do to encourage greater cohesion, a careful analysis of where society is in the process of moving from intolerance to trust is needed. That is what this article seeks to contribute towards.

This is what is so crucial; if the investigation of trust and tolerance is gaining impetus, then there must be a deeper understanding that these concepts are not interchangeable in an economic sense. Tolerance of ethnic diversity is essential as a first step in reaping potential economic benefits. However, the second step is when that tolerance becomes trust and it is this trust that holds the greater potential for economic prosperity. There is a possibility that initiating tolerance, or to progressing from tolerance into trust, or strengthening already existing trust in certain countries – could happen in an economically free environment where flexible institutions abound that are then used as a mechanism for achieving greater tolerance and trust.

## 2.5. Literature review

Looking broadly at the work of Florida (2002) and Ottaviano and Peri (2006) there is empirical confirmation that there is a relationship between economic growth and tolerance. Florida (2002) finds that cities that have a greater openness to diversity of certain people attract workers of a higher human capital who increase the productivity of firms. Where there were greater levels of tolerance, Ottaviano and Peri (2006) found that a more multicultural urban environment increased the productivity of US-born citizens.

Economic tolerance literature, as documented by Florida (2002), has been thorough in two areas. The first is in considering whether tolerance is related to economic growth. The second is that the most empirical evidence on this topic has been performed on American cities, but there is a lack of analysis done at cross country level. While economic tolerance literature has considered the benefits of tolerance towards diversity, the concept of tolerance towards those of different ethnicities, especially in light of increased migration across borders (Gerritsen and Lubbers, 2010) needs to be investigated as a more specific concept. While there has been much consideration of the relationship between tolerance and economic growth, it is economic freedom with its ties to institutions specifically that holds much potential for further examination. With consideration of the above sections the ideas surrounding tolerance, trust and indeed ethnicity are complex and nuanced. Again, research has shown the benefits that can be elicited from the interaction between these ideas. The more malleable nature of institutions suitable for garnering these benefits, is what justifies an exploration into economic freedom instead of economic growth.

On an empirical level, the seminal study by Berggren and Nilsson (2013) finds that economic freedom across 56 countries is positively related and statistically significant to more specific tolerance when controlling for other potential determinants of tolerance. Tolerance is considered in light of acceptance of homosexual neighbours, neighbours of a different race and the importance that parents link to teaching their children tolerance. They considered this cross-sectionally and with a first-differences regression.

Exploring the concept of trust, Saravia (2016) makes a theoretical contribution as well as an empirical one. Theoretically, institutions that encourage economic freedom (personal choice, the ability to compete, and the securing of privately owned property) will create an



environment that encourages trust. The process by which this trust will be cultivated is in part due to a government that does not get actively involved in numerous areas of the economy (Saravia, 2016). This tends to reduce the red tape and potential elements of corruption that are sometimes associated with government, which means that citizens (regardless of different ethnicities) develop a reference that abides by certainty, a predictability of the rules of the game, and expect that others will act in the same way. It is argued that over time, this behaviour will result in trust being developed. Empirically, Saravia (2016) uses the Eurobarometer surveys, asking:

*How much trust do you have in people from various countries? For each, please tell me whether you have a lot of trust, fair amount of trust, not very much trust or not trust at all* (Saravia, 2016:10).

The argument for using this type of question is that one is able to avoid the issue of double causality because while it might be likely that people of country X feel that people of country Y can be trusted because of the institutions that have created the environment for this trust, it is unlikely that people from another nation would feel that people in country Y's institutions can be trusted because their people are trustworthy. Based on this, Saravia (2016) finds that a 10 % increase in the Economic Freedom Index during the period 1980 – 1995 is associated with a 2.5% increase in trust.

While Berggren and Nilsson (2013) and Saravia (2016) have laid the groundwork for understanding the relationship between economic freedom and tolerance, as well as economic freedom and trust – there has been little investigation specifically on ethnic tolerance and ethnic trust. While it may be possible that tolerance and trust could be broadly associated with economic freedom, it is important to examine whether this holds true for tolerance and trust between ethnicities.

There are two other questions in the WVS relating firstly, to whether people of a different race can be trusted and secondly, how often racist behaviour is experienced in a neighbourhood. By investigating the broader elements of ethnicity, as well as trust and tolerance – this study contributes to the existing literature by considering the nuances and interactions that take place between these rich and varied concepts. Whereas most other work including Berggren and Nilsson (2013), analyses wither the trust or the tolerance that

individuals exhibit and their influence on economic concepts, this study will consider both these concepts. Tolerance is a starting point for reaping the benefits that arise when it exists in a society. It is, however, the evolution from the lower threshold of tolerating other ethnicities, to trusting them that might allow for the greatest economic benefits. This study will also provide a cross-country analysis in order to do comparative work on various countries, seeing as much of the literature focuses on the US specifically.

## 2.6. Data and method

### 2.6.1. Methodology

Cross-sectional, pooled OLS were used for all three models. Three dependent variables were used in this empirical analysis: two consider the aspect of ethnic tolerance, and the third variable considers ethnic trust. These variables are taken from the WVS in the latest available wave which spans the year 2010 to 2014. These surveys are conducted as face-to-face interviews and, in order to ensure a nationally representative sample, stratified multi-stage random probability sampling is used (World Values Survey, 2016). Surveys are conducted in nearly 100 countries, examining a wide range of human beliefs, consisting of interviews with almost 400 000 respondents from major cultural regions all across the globe (World Values Survey, 2016). While much of the literature surrounding ethnicity has focused on Africa, this article has taken a decidedly global perspective. The rise of far right political parties in Europe (Chakelian, 2017), and the polarisation of American politics along ethnic lines (Tyson and Maniam, 2016) has highlighted the point that ethnic intolerance and mistrust, being problematic in Africa specifically, needs to be dispelled.

Linear regressions will be used for the models which follow. The first model is of the form:

$$\text{Ethnic tolerance}_{ni} = \alpha + \beta \text{EFI}_i + \gamma X_i + \varepsilon_i$$

Ethnic tolerance<sub>ni</sub> denotes the percentage of people in each country *i*, that did *not* answer “people of a different race”, when asked the question: “Could you please mention any that you would not like to have as neighbors.” EFI<sub>i</sub> denotes the Economic Freedom Index (either the Fraser or the Heritage index), and X<sub>i</sub> is then a vector of control variables for country *i*.

The second model is of the form:

$$\text{Ethnic tolerance}_{ri} = \alpha + \beta \text{EFI}_i + \gamma X_i + \varepsilon_i$$

Ethnic tolerance<sub>ri</sub> denotes the response for each country i, to the question: “How frequently does racist behavior occur in your neighborhood?”, represented by a scale of -1 to 1.

The third model is of the form:

$$\text{Ethnic trust}_i = \alpha + \beta \text{EFI}_i + \gamma X_i + \varepsilon_i$$

Ethnic trust<sub>i</sub> denotes the response for each country i, to the question: “Could you tell me whether you trust people of another nationality completely, somewhat, not very much, or not at all?” represented by a scale of -1 to 1.

In order to determine which final control variables should be used for the models, each of the dependent variables was used, with initially all of the time varying independent variables i.e. Economic Freedom Index, Education, Gini-coefficient, Urban, Youth, Political Rights and GDP. In taking into account the issue of multicollinearity some independent variables were dropped. GDP had very high correlation with every other variable. GDP also exhibited a very high VIF (Variance Inflation Factor)<sup>6</sup> and therefore was dropped. Political rights also had high correlations with the EFI and with Education, and had the second highest VIF after GDP. Finally, the youth variables also correlated highly with EFI, Education and the Gini coefficient, while also having a high VIF<sup>7</sup> (See Table 3.4 in Appendix).

### 2.6.2. Dependent variables

Two questions are taken from the WVS to gauge **Ethnic Tolerance** in a country. The first dependent variable is the percentage of respondents that did *not* answer: “people of a different race”, when asked the question:

- “Could you please mention any that you would not like to have as neighbors.”

This variable will be referred to as the **Neighbor** variable in the reporting of the empirical results. The second dependent variable used to gauge **Ethnic Tolerance** is the response to the question:

<sup>6</sup> According to O’Brien (2007) the VIF “indicates how much the estimated variance of the regression coefficient is increased above what it would be if R<sup>2</sup> equalled zero...VIF provides a reasonable and intuitive indication of the effects of multi-collinearity on the variance of the regression coefficient.”

<sup>7</sup> Education did exhibit a high VIF, but was not dropped due to being statistically significant throughout the majority of the models.

- “How frequently does racist behavior occur in your neighborhood?”

Respondents are asked to answer this on a scale from 1 to 4, with 1 indicating: “Very frequently” and 4 indicating “Not at all frequently”. A percentage for each of these categories was then calculated as a fraction of the sample. In line with the work of Saravia (2016), the percentage of respondents that answered “Very frequently” was assigned a weight of -2 and those that answered “Not at all frequently” were assigned a weight of 2. The milder answers of “Quite frequently” and “Not that frequently” were assigned a weight of -1 and 1, respectively. The average weighted values then comprise an index for each country on a scale from 1 to -1, where 1 represents the highest level of ethnic tolerance by having very infrequent occurrences of racist behavior and -1 represents the lowest levels of ethnic tolerance by having very frequent occurrences of racist behavior in a neighborhood. This variable will be referred to as the **Racism Index** in the empirical results.

The third dependent variable to gauge **Ethnic Trust** is the response to the question:

- “Could you tell me whether you trust people of another nationality<sup>8</sup> completely, somewhat, not very much or not at all?”

Seeing as this question also employs a 1 to 4 scale, the same methodology as was used for the question relating to racist behavior in a neighborhood, was also used for this trust question. Hence, 1 would represent the maximum level of ethnic trust, and -1 the lowest level of ethnic trust. This variable will be referred to as the Trust Index in the empirical results.

### 2.6.3. Independent variables

The main independent variable is the **Economic Freedom Index (EFI)** created by the Fraser Institute. This index measures on a scale from 0 to 10 where countries fall within the spectrum of economic freedom, with 10 being the most economically free. As previously stated, the index is comprised of 5 major areas: Size of government, Legal system and security of property rights, Sound money, Freedom to trade internationally, and Regulation.

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<sup>8</sup> It is possible to argue that these questions use the words race and nationality, which are not specifically ‘ethnicity’. However, considering the paradigm of attempting to bridge the concept-measurement divide by considering social distance that is broadly being considered – this article would argue that when respondents answer such questions, they would understand these words to suggest an out-group, different from their in-group.

In this article, a summary index that aggregates the 5 areas is used. As de Haan, Lundstrom and Sturm (2006) point out, it is the most widely used economic freedom indicator, with the variables making up this indicator coming from third party sources such as the International Country Risk Guide and the Global Competitiveness Report. This is to emphasise the point that the index is not influenced by the Fraser Institute's subjective opinions, which may not be inferred into the index. This also makes its construction transparent, meaning that researchers are able to construct the index themselves to verify the results<sup>9</sup>. To analyse the robustness of these results, the Heritage Foundation's Economic Freedom Index has also been used. This index has only been constructed since 1995, whereas the Fraser Institute's index has been available from 1970 - which may be a reason for the higher usage of the Fraser index. The Heritage Index does also use third party sources, and rates countries on a scale from 0 to 100, with 100 being completely economically free. Once more, the aggregated summary index of the Heritage Foundation was used. This index has 10 areas, rather than 5, so there is more disaggregation of the areas that make up economic freedom. These areas include: Property rights, Governmental integrity, Fiscal freedom, Government spending, Business freedom, Labour freedom, Monetary freedom, Trade freedom, Investment freedom, and Financial freedom.

The remaining independent variables are used as control variables. Following the work of Berggren and Nilsson (2013), as well as that of Saravia (2016), the following control variables were used:

- Real GDP per capita,
- the percentage of a country that lives in **urbanized** areas,
- the **Gini coefficient** indicated by post tax and post transfers
- average years of **educational attainment** of each country,
- the ratio of the population **younger** than 15 years old, to the working age population that is between 15 and 64 years of age.

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<sup>9</sup> Such an index does have a subjective element to it. Some of these areas will be based on perceptions, attitudes or the evaluations of experts. The weighting of such an index is also to some extent arbitrary. That being said, there is still certainly value in considering the institutional capacity of a country. Additionally, in order to minimise this potential subjectivity, the Heritage Foundation's index was also used as a robustness check.

- the index established by Freedom House which measures how much **political freedom** a country experiences on a scale from 1 to 7, was also used. In this case 1 indicates the highest level of political freedom.

Data on all of the above-mentioned variables are available on an annual basis, except for educational attainment which is available for every 5 years. Other control variables that do not vary over time, namely time-invariant variables, are also used in the work of Berggren and Nilsson (2013) and Saravia (2016). These include

- religious fractionalisation index,
- the percentage of **Christians** in each country,
- the percentage of **Muslims** in each country.
- index of **family value** which is a survey-based measure of how close family ties are in each country, on average. Alesina and Giuliano (2010) average three variables from the WVS: parents' duties and responsibilities, how much children should respect the elderly and how important family is in one's life. This index is on a scale from 1 to -1, with -1 indicating the strongest family ties.
- Ethnic fractionalisation
- ethnic polarisation.

Both ethnic fractionalisation and polarisation range from 0 to 1, with 1 being the highest level of either fractionalisation or polarisation. Over a long time period, there would be a change in these types of variables. However, as is justified by Alesina et al. (2003), it is a reasonable assumption to make, that over a 30-year time period when group shares are sufficiently stable, and the changes in these groups would have only a minor impact on the indices of religion and ethnicity. Descriptive statistics and the sources of the variables are given in Table 3.1, a list of countries is given in Table 3.2 and Table 3.3 gives the correlation matrix (see the Appendix).

A brief justification for using each of the variables is in order.

- **Real GDP per capita:** Where people in a country are more generally better off materially, it is likely that there will be less competition for resources. As such, it is possible that there will be more tolerance for different people because they are not

seen as a threat to the limited resources available (Persell, Green, and Gurevich, 2001; Andersen and Fetner, 2005). The relationship of GDP per capita and generalised trust has had mixed results. Knack and Keefer (1997) have found a positive relationship between GDP per capita and generalised trust, whereas Bjørnskov (2007) has failed to find such a result.

- The **youth** variable is used as a control variable because it is reasonable that a younger generation, having grown up in a more globalised world, would be more tolerant and trusting. Without having deeply ingrained perceptions, it is likely that the youth are more open to people that happen to be different to who they are (Saravia, 2016).
- **Educational attainment** (measured as the average years of education) is considered because it is possible that while being educated, people will have been exposed to people of many different backgrounds. Moreover, the nature of education is such that gaining new knowledge encourages one to critically analyse and engage with different opinions and ways of life (Berggren and Nilsson, 2013).
- When populations live in **urbanised** areas, it is likely that a diversity of people will congregate together in places that provide different forms employment, access to goods and services, and that they would want to reside in places where creativity is encouraged through a range of different lifestyles. Being surrounded by such diversity could encourage tolerance and trust (Florida, 2003).
- The **Gini coefficient** is a control variable because societies that suffer from high inequalities are likely to build resentment and unhappiness. The existence of such realities is likely to render people that are in an “out-group” less respectful or trusting towards those that are in the “in-group” (Saravia, 2016).
- **Political freedom** is also used as a control variable to factor in a broader sense of freedom beyond an economic one. The ability to partake in open discourse could instil tolerance in citizens. Having faith in the political system which might well be governed by a diverse group of individuals, could encourage trust between different ethnicities (Berggren and Nilsson, 2013).
- Based on the work of Alesina and La Ferrara (2002), and Uslaner (2002) there are arguments that social cohesiveness can be derived from lower levels of **religious**

**fractionalisation**. It is conceivable that if there was to be less fractionalisation of religions, there would be acceptance of differences, generally. This acceptance might mean more tolerance and trust, if social cohesiveness is prioritised.

- The percentage of Christians and Muslims in a country could indicate which the dominant religion in a country is. It might be that people who identify with their religion would view others in opposition to it negatively and so would actually have a lower level of tolerance and thus be very unlikely to trust someone who does subscribe to their beliefs (Saravia, 2016).
- While some people may feel strongly about their religious affiliation it is possible that people will feel intolerant towards people of different ethnicities. Identity being a complex concept, it could be that people of a certain ethnicity feel hostile towards another ethnicity either by their very existence or because their cultures or values may differ from what is considered acceptable. Hence the decision here to include an **ethnic fractionalisation index**, where this resistance comes about because of the presence of different ethnicities or an **ethnic polarisation index** because there is an innate power struggle between the more and less dominant ethnic groups (Horowitz, 1985).
- The rationale of Berggren and Nilsson (2013) is that countries which value **family** to some extent are likely to be more insular and value those that are more like them. This has the potential to render these people less likely to be tolerant of groups that fall outside of their inner circle. Being so closely knit would also mean that the likelihood of trusting those who do not prioritise Family values, would be quite low.
- Finally, to control for effects that may be specific to certain regions of the world, **geographical dummies** were also created, in line with Berggren and Nilsson's (2013) work.

#### 2.6.4. Time Periods

It is important to note in this article that the latest available wave (6<sup>th</sup> wave) from the WVS was used. Wave 6 ran from 2010 to 2014, which means that during this time period of 5 years, each of the countries' respondents will have been interviewed once during this time period i.e. South African respondents would have been interviewed in 2011 and Mexican respondents in 2013. To allow for comparability in this time period between different



countries, the majority of the independent variables' averages were calculated and those values were used in each of the regressions<sup>10</sup>. This is in line with Seguino (2007) who also uses the WVS and employs averaging independent variables in order to correspond with the dependent variables' 5-year time period. A lagged approach for the independent variables was employed because, as Seguino (2007) and Saravia (2016) argue, independent variables are likely to affect attitudes with some delay. For that reason the dependent tolerance and trust variables from the WVS were used for the years 2010 to 2014, while the average of the independent variables were used for the time period of 2005 to 2009. Then, all 3 models were once more run with the independent variables for the time period 1995<sup>11</sup> to 1999 in order to assess the effect over a longer time period. Because the WVS asked both the trust and tolerance questions in only the 2010 to 2014 wave, panel data was not viable.

### **2.6.5. Data overview**

To garner an overview of the 3 separate independent variables, Figure 1.1 (on the next page) illustrates the percentage of people tolerant of having someone of another race as a neighbour. Azerbaijan has the least tolerance (of the countries surveyed) for having a neighbour of another race, while Argentina has the most tolerance. Figure 1.2 (page 35) shows that India, Bahrain, Lebanon and South Africa experience racist behaviour in their neighbourhoods far more often than the other countries in this sample do.<sup>12</sup> Interesting to note is how Azerbaijan, which was least tolerant of having neighbours of a different race, has the least occurrences of reported racist behaviour in its neighbourhoods. The phrasing of these two tolerance questions bears some commentary. The question as to who people would not want as a neighbour asks respondents to analyse how they would react to and tolerate other ethnicities. On the other hand, the questions as to how often racist behaviour occurs in one's neighbourhood, asks respondents to reflect on how they themselves are treated and indeed tolerated based on their ethnicity. Figure 1.3 (page 36) shows that Peru has the least ethnic trust of those countries surveyed, whilst Sweden has the most trust for other ethnicities.

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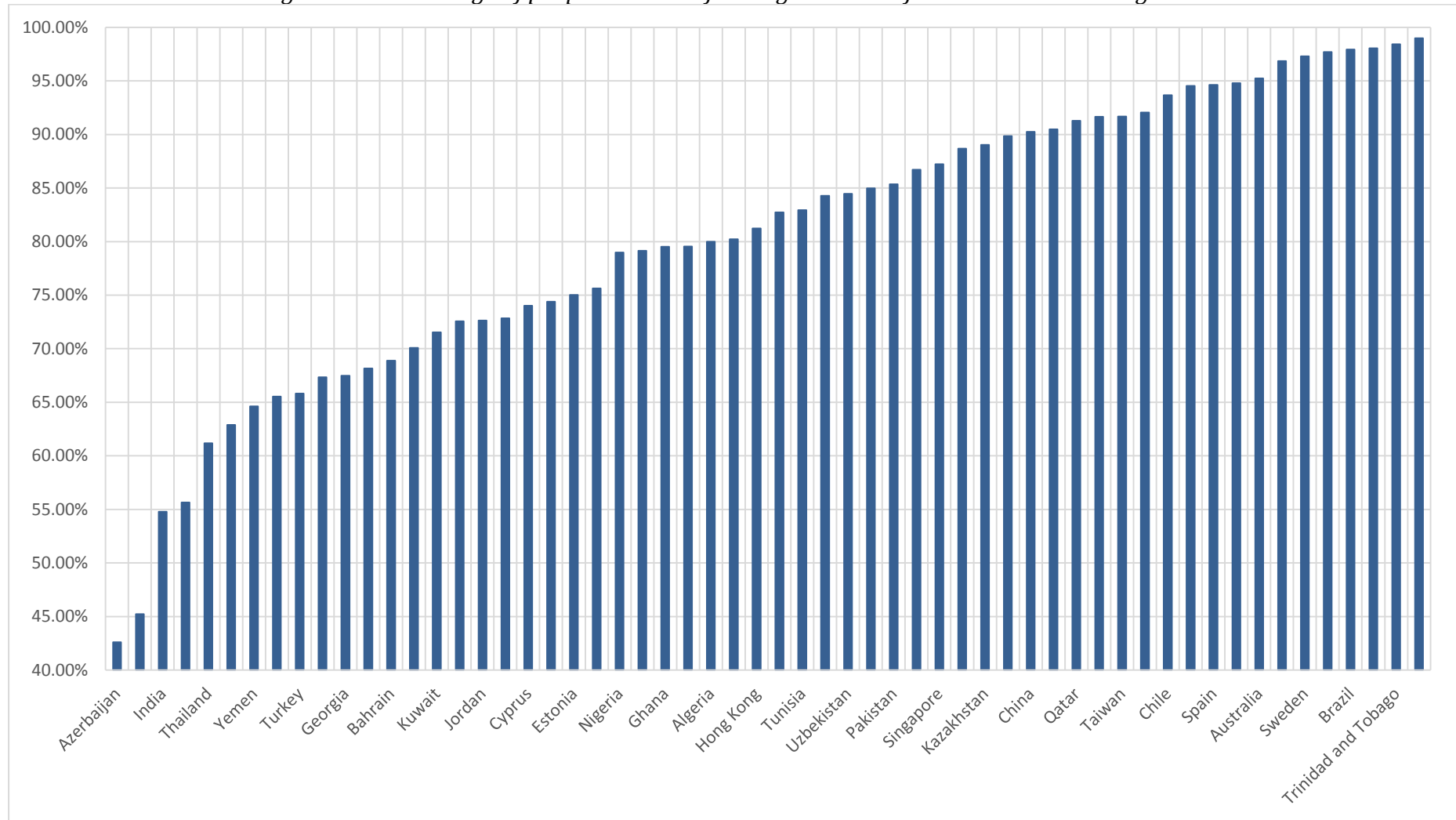
<sup>10</sup> Educational attainment is only available every 5 years, so for the 2005 to 2009 time period, the average years of Educational attainment for 2005 was used. For the time period 1995 to 1999, the average years of Educational attainment for 1995 was used.

<sup>11</sup> The Heritage Foundation's EPI is only available from the year 1995. Hence, to use it for a robustness check, this is the latest available period that can be analysed.

<sup>12</sup> Remember that this scale is from -1 to 1, with 1 indicating reported racist occurrences happening not at all frequently.

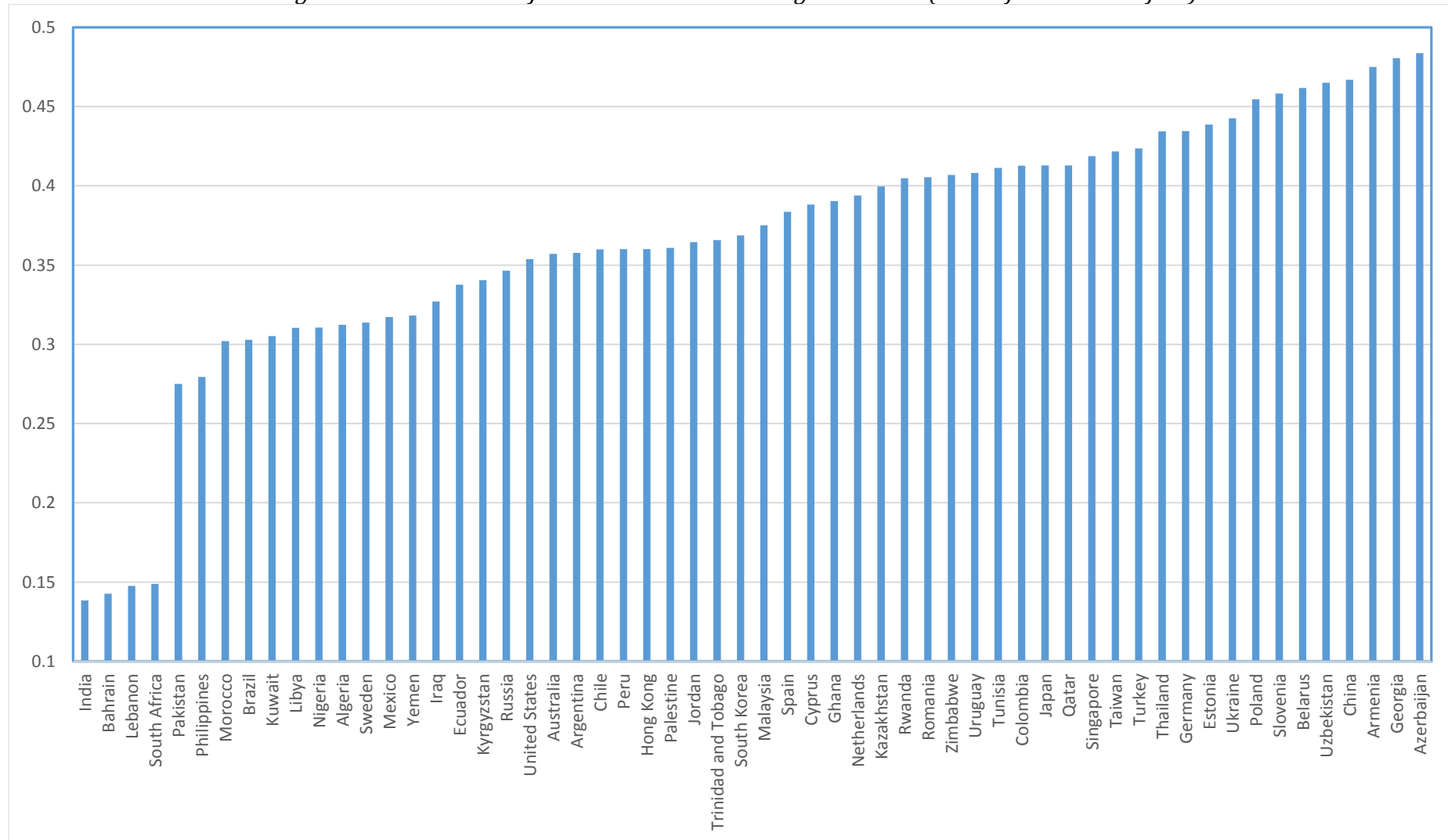
Draft, do not quote

*Figure 1.1: Percentage of people tolerant of having someone of another race as a neighbour*



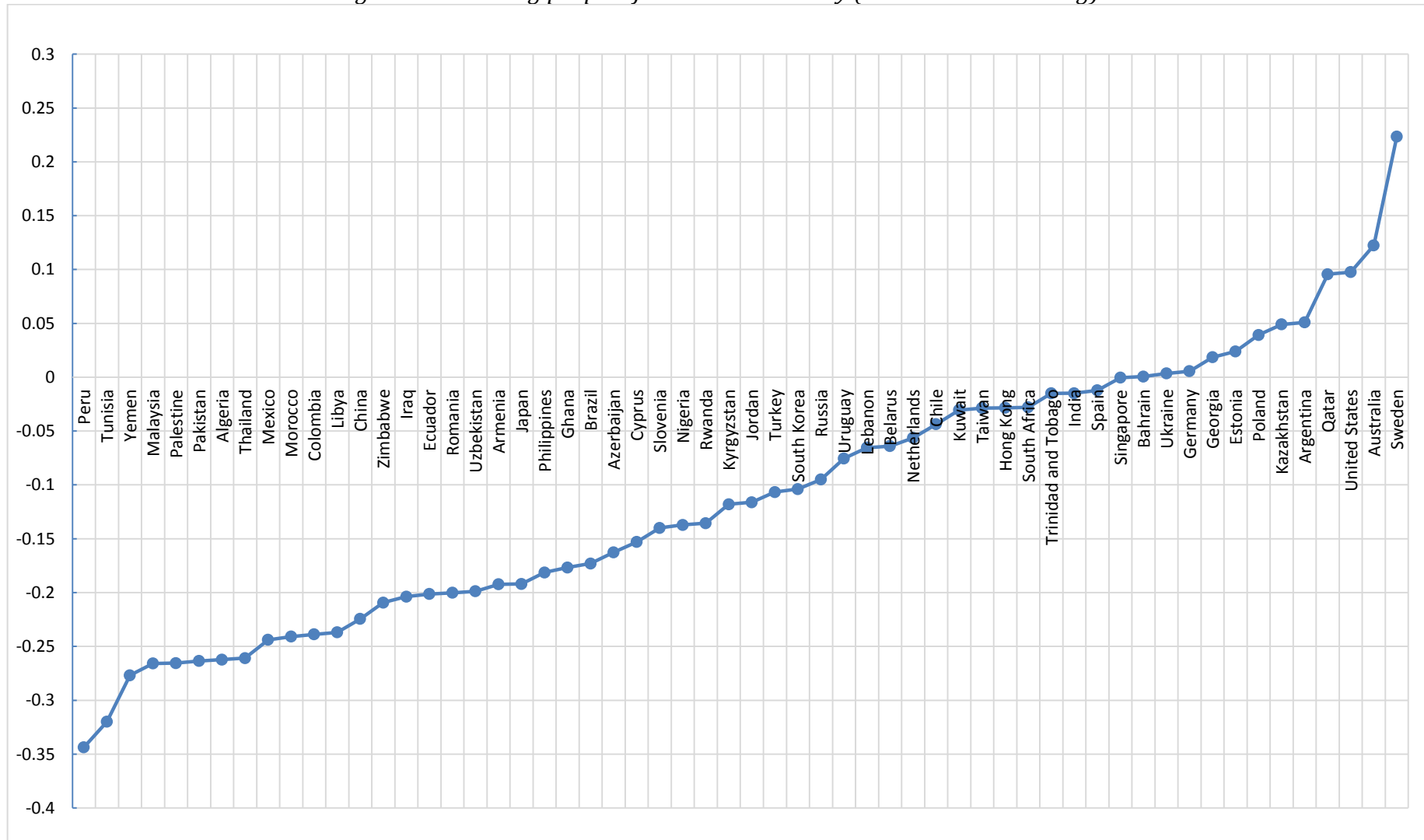
Source: own calculations from (World Values Survey, 2014)

Figure 1.2: Occurrence of racist behaviour in a neighbourhood (Most often to least often)



Source: own calculations from (World Values Survey, 2014)

Figure 1.3: Trusting people of another nationality (Least to most trusting)



Source: own calculations from (World Values Survey, 2014)

## 2.7. Empirical Results

### 2.7.1. Model 1 - Tolerance of a neighbour of another race

Table 1.1 below shows the results with the Neighbour dependent variable (in the 2010 to 2014 time period) together with the lagged independent variables for 2005 to 2009. Recall that this is the percentage of people who did not respond “someone from a different race” when asked who they would not want as a neighbour. GDP was dropped first, then the Political variable and finally the Youth variable. This leaves the baseline variables as education, Gini-coefficient and urbanisation. As a robustness check, regressions were run with the Heritage EFI for the 2005 to 2009 and the 1995 to 1999 time period, as well as the Fraser EFI for the 1995 to 1999 time period (see Table 3.5, Table 3.6 and Table 3.7 in the Appendix). The Education variable remains positive and statistically significant with both the Fraser EFI and the Heritage EFI in the 2005 to 2009 time period. In the 1995 to 1999 period, Education is still positive and statistically significant with the Fraser EFI. This would mean that an increase in the average years of Education of the countries sampled, would be associated with an increase in ethnic tolerance. Important to note is that Economic Freedom is not statistically significant in any of these regressions.

*Table 1.1: Regression results - Dependent variable: Neighbor 2005 to 2009*

VARIABLES	(1)	(2)	(3)	(4)
EFI Fraser	-0.0204 (0.028)	-0.0142 (0.025)	-0.0205 (0.0219)	-0.0232 (0.021)
Education	0.0190** (0.008)	0.0205** (0.007)	0.0189** (0.006)	0.0178** (0.006)
Gini	0.00289 (0.002)	0.00285 (0.002)	0.00276 (0.002)	0.00322 (0.002)
Urban	0.0007 (0.001)	0.001 (0.001)	0.0009 (0.0009)	0.0008 (0.001)
Youth	0.00145 (0.001)	0.000803 (0.001)	0.000790 (0.001)	
Political	0.00741 (0.012)	0.00640 (0.0124)		
GDP per capita	0.0199 (0.036)			
Constant	0.464 (0.353)	0.600** (0.246)	0.678*** (0.190)	0.723*** (0.169)
Observations	40	40	41	41
R-squared	0.218	0.211	0.206	0.199

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Seeing as the remainder of the control variables are time-invariant, each of them was added to the baseline regression one at a time.<sup>13</sup> The results of this are shown in Table 1.2 (next page). When adding the time-invariant controls to the baseline model, the Education variable remains positive and statistically significant for the majority of the regressions run. So, an increase in the average years of Education would be associated with an increase in ethnic tolerance. While only the results using the Fraser Institute's EFI between 2005 and 2009 are shown here, these results hold true for the Heritage EFI in the 2005 to 2009 period (see Table 3.8 in the Appendix). There are also positive coefficients and some statistical significance for the urbanisation variable with both EFIs. What is interesting to note is that the 1995 to 1999 regressions show that while the Education variable is still statistically significant, it is less so over this longer time period (see Table 3.9 and Table 3.10 in the Appendix). The urbanisation variable shows more regressions with statistical significance in the 1995 to 1999 time period. This suggests that Education is associated with ethnic tolerance in the short term, whereas urbanisation is related to ethnic tolerance in the long term. Once more, EFI is not statistically significant in 38 of the 40 regressions that were run with the baseline variables and the time invariant variables in both time periods with both the Heritage EFI and the Fraser EFI. In the two regressions where economic freedom is statistically significant, the coefficient is negative meaning an increase in economic freedom is associated with a decrease in ethnic tolerance in the countries surveyed.

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<sup>13</sup> The GDP, Political and Youth variable were also added one at a time to the baseline control variables to emphasise the robustness of Education's statistical significance.

Table 1.2: Regression results - Dependent variable Neighbour; 2005 to 2009

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Fraser	-0.0232 (0.021)	-0.0164 (0.025)	-0.0205 (0.021)	-0.0242 (0.024)	-0.0323 (0.022)	-0.0438 (0.030)	-0.0261 (0.021)	-0.0505 (0.031)	-0.0224 (0.024)	-0.0518 (0.033)
Education	0.0178** (0.006)	0.0192** (0.007)	0.0189** (0.006)	0.0175** (0.007)	0.00150 (0.007)	0.00714 (0.011)	0.0131 (0.007)	0.0179* (0.008)	0.0189** (0.007)	0.0213** (0.009)
Gini	0.00322 (0.002)	0.00336 (0.002)	0.00276 (0.002)	0.00327 (0.002)	-0.000796 (0.002)	0.00126 (0.003)	0.00204 (0.002)	0.00476 (0.002)	0.00178 (0.002)	0.00269 (0.002)
Urban	0.000805 (0.0009)	0.000879 (0.0009)	0.000934 (0.0009)	0.000752 (0.001)	0.00148 (0.0009)	0.00250* (0.001)	0.00114 (0.0009)	0.00173 (0.001)	0.000762 (0.001)	0.00334** (0.001)
Political		0.00601 (0.012)								
Youth			0.000790 (0.001)							
log GDP/ capita				0.00244 (0.028)						
Christian					0.00211*** (0.0004)					
Muslim						-0.00133 (0.0008)				
Religion Frac							0.0721 (0.079)			
Ethnic Frac								-0.129 (0.110)		
Ethnic Pol									0.0419 (0.087)	
Family										-0.0267 (0.063)
Constant	0.723*** (0.169)	0.642*** (0.230)	0.678*** (0.190)	0.711*** (0.218)	0.899*** (0.173)	0.913*** (0.245)	0.766*** (0.175)	0.840*** (0.240)	0.759*** (0.201)	0.752*** (0.244)
Observations	41	40	41	41	31	31	40	31	35	24
R-squared	0.199	0.205	0.206	0.199	0.630	0.351	0.199	0.324	0.220	0.454



Finally, to take into account region specific characteristics, this model was also run with the Economic Freedom and the control variables of education and urbanisation, as they were statistically significant in many of the regressions. Finally, the regions Sub-Saharan Africa, North Africa and the Middle East, Latin America, Europe, East Asia, South Asia and North America were used as additional control variables. Once more, in neither the 2005 to 2009 regressions nor the 1995 to 1999 regressions was Economic Freedom statistically significant (see Table 3.11 and Table 3.12 in the Appendix).

Berggren and Nilsson (2013) do find economic freedom to be positively related and statistically significant to tolerance as a broad concept, including tolerance towards homosexuals, different ethnicities and the importance of teaching children tolerance. It is relevant to note that when considering ethnic tolerance with a lagged effect, the results show that economic freedom is also not statistically significant. The results showing a strong association between ethnic tolerance and Education have strong theoretical and empirical foundations. Borgonovi (2012) has investigated the association between Education and tolerance towards migrants in 21 European countries. The results suggest that people who are better educated are more likely to be more tolerant of migrants in comparison with those with lower levels of Education. Seeing as migrants in other countries are often ethnically diverse, it would be possible that Education and ethnic tolerance are related. The work of Kunovich (2004) also finds that for 39 countries ranging from those in Europe, North America, Oceania and South-east Asia – those that have higher years of Educational attainment have decreased prejudice towards immigrants. So too, the results of Urbanity and ethnic tolerance have a theoretical foundation that is grounded in the work of Bannister and Kearns (2013). Individuals that reside in urbanised areas are prone to experiences that involve interaction with difference in a myriad of forms and so this repeated interaction is likely to encourage a greater sense of tolerance for what is different (Bannister and Kearns, 2013). In light of this context, it is probable that urbanity is related to ethnic tolerance.

### **2.7.2. Model 2 - Tolerance indicated by less frequent racist behaviour in neighbourhoods**

Table 1.3 (page 42) shows the results of Model 2 with the dependent variable (in the 2010 to 2014 time period) as the frequency of the occurrence of racist behaviour in neighbourhoods, with Fraser EFI in the 1995 to 1999 time period. To account for the lag in the time it may take for the independent variables to have some association with increased or decreased tolerance, a shorter time period of 2005 to 2009 was considered, as well as a longer time period from 1995 to 1999. All the time varying control variables are present in the first regression, and then those with the highest correlations and VIF are once more dropped one at a time in the same way as in Model 1. In these regressions, Education is not statistically significant, whereas the youth variable has a negative coefficient and is statistically significant. So too, the Political variable has a positive coefficient and is statistically significant. The same results are present for the Heritage EFI in 1995 to 1999 (see Table 3.13 in the Appendix). That being said, with the Youth variable and the Political variable having relatively high VIFs as well as high correlations with the EFI and the Education variable, were dropped along with GDP in the regressions that incorporate the time-invariant variables. In the Fraser EFI and the Heritage EFI in the 2005 to 2009 time period, the Youth and the Political variable are not as consistently statistically significant as in the 1995 to 1999 period (see Table 3.14 and Table 3.15 in the Appendix). Once more, the dependent variable of the WVS is for the 2010 to 2014 time period. To account for the lag in time it may take for the independent variables to have some association with increased or decreased tolerance, a shorter time period of 2005 to 2009 was considered, as well as a longer time period from 1995 to 1999. This would indicate that inequality is more strongly associated with ethnic tolerance in the longer term. Again, throughout all the preliminary regressions, EFI is not statistically significant.

Table 1.4 (page 43) shows the regressions results with the same baseline time-varying control variables as was used in Model 1, with each of the time-invariant controls added one at a time. In the 2005 to 2009 regressions with Fraser EFI, the Gini variable has a negative coefficient and is statistically significant for the majority of the regressions. The same holds for the Heritage EFI in the 2005 to 2009 time period, and both the EFIs in the 1995 to 1999 period (see Table 3.16, Table 3.17 and Table 3.18 in the Appendix). Therefore, as the Gini

increases (as inequality increases), there is a decrease in self-reported ethnic tolerance. One possible reason that the Gini, as a measure of inequality, is statistically significant in Model 2 is because this question asks the respondents to look inward at how they perceive themselves to be treated by others. The perception of being treated unequally could have a strong association with a measure of actual inequality in the form of the Gini coefficient. In Model 1 Education was statistically significant and the question here asks the respondents to analyse their own tolerance towards other ethnicities. As Berggren and Nilsson (2013) explain, Education could well foster tolerance as people of different backgrounds are often in contact with one another while working towards educational attainment.

*Table 1.3: Regression results - Dependent variable: Racism Index; 1995 to 1999*

VARIABLES	(1)	(2)	(3)	(4)
EFI Fraser	-0.00236 (0.011)	-0.00152 (0.008)	-0.00786 (0.008)	-0.00814 (0.008)
Education	0.00473 (0.005)	0.00484 (0.004)	-0.00242 (0.004)	-0.00240 (0.004)
Gini	-0.00147 (0.001)	-0.00152 (0.001)	-0.00151 (0.001)	-0.00154 (0.001)
Young	-0.00223** (0.001)	-0.00230** (0.0008)	-0.00163* (0.0008)	-0.00159** (0.0007)
Urban	-0.000189 (0.0007)	-0.000138 (0.0005)	-6.22e-05 (0.0006)	
Political	0.0241*** (0.008)	0.0239*** (0.008)		
Log GDP/capita	0.00274 (0.021)			
Constant	0.440** (0.181)	0.460*** (0.085)	0.566*** (0.082)	0.563*** (0.076)
Observations	40	40	41	41
R-squared	0.380	0.380	0.227	0.226

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.

Table 1.4: Regression results – Dependent variable: Racism index; 2005 to 2009

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Fraser	-0.00760 (0.013)	-2.22e-05 (0.015)	-0.0126 (0.013)	-0.0108 (0.015)	-0.0156 (0.020)	-0.0173 (0.020)	-0.00769 (0.014)	-0.0218 (0.020)	-0.00835 (0.015)	-0.0366 (0.027)
Education	0.00165 (0.004)	0.00469 (0.004)	-0.000303 (0.004)	0.000652 (0.004)	-0.00319 (0.006)	-0.00551 (0.007)	0.00102 (0.0051)	-0.00171 (0.005)	-0.000164 (0.004)	0.00148 (0.007)
Gini	-0.00287* (0.001)	-0.00289* (0.001)	-0.00200 (0.001)	-0.00269* (0.0015)	-0.00477** (0.002)	-0.00515** (0.002)	-0.00304* (0.001)	-0.00360* (0.0019)	-0.00211 (0.001)	-0.00421* (0.002)
Urban	0.000307 (0.0005)	0.000362 (0.0005)	6.56e-05 (0.0005)	0.000143 (0.0007)	0.000266 (0.0008)	0.000516 (0.0008)	0.000351 (0.0006)	0.000204 (0.0008)	0.000506 (0.0006)	0.00134 (0.0011)
Political		0.0110 (0.007)								
Youth			-0.00149 (0.0009)							
log GDP/capita				0.00751 (0.017)						
Christian					0.000201 (0.0003)					
Muslim						-0.000475 (0.0005)				
Religion Frac							0.00600 (0.051)			
Ethnic Frac								-0.0767 (0.072)		
Ethnic Pol									-0.0307 (0.056)	
Family										0.00798 (0.052)
Constant	0.502***	0.398***	0.586***	0.466***	0.656***	0.695***	0.508***	0.686***	0.488***	0.674***
Observations	41	40	41	41	31	31	40	31	35	24
R-squared	0.147	0.200	0.208	0.152	0.239	0.251	0.150	0.264	0.106	0.332

Once again, Model 2 is also run with the Gini variable and the various regions to account for what might be typical of certain regions, but are not controlled for by the other variables used in the previous regressions. Once again, in neither of the time periods, with either of the EFIs is Economic Freedom statistically significant<sup>14</sup> (see Table 3.19 and Table 3.20 in the Appendix).

All the results of Model 2 show the Gini-coefficient to be negatively related and statistically significant, which is consistent with research done by Andersen and Curtis (2012) who found that being in countries with high levels of income inequality has a larger effect on people focusing their identity on the class that they come from. While this is not specifically focused on ethnic tolerance, whether it be ethnicity or class, at the broader level both are a measure of social distance (Brown and Langer, 2010). Therefore, it is conceivable that an increase in the Gini coefficient is related to a decrease in ethnic tolerance.

### **2.7.3. Model 3 – Ethnic trust**

Table 1.5 (next page) shows the results of Model 3 with the dependent variable (in the 2010 to 2014 time period) as the intensity with which people trust others of a different nationality. These regressions use the Fraser EFI, in the lagged 2005 to 2009 time period with all the time varying controls variables in the first regression. In each of the following regressions, just as in Model 1 and Model 2 - GDP, Youth and the Political variable are dropped one at a time. There is a final baseline of time-varying control variables of Education, Gini-coefficient and Urbanisation. In the regressions in Table 1.5 (next page), Education has a positive coefficient and is consistently statistically significant. The same results are present in the Heritage EFI in 2005 to 2009 and with both EFIs in the 1995 to 1999 time period (see Table 3.21, Table 3.22 and Table 3.23 in the Appendix). EFI is not statistically significant in any of these regressions.

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<sup>14</sup> As the Youth variable and the Political variable were statistically significant in the regressions without the time-invariant controls, the model was also analysed with the Youth variable, and the Political variable instead of the Gini coefficient. In almost all of the regressions across the various time periods, neither the Youth variable nor the political variable was consistently statistically significant.

*Table1.5: Regression results - Dependent variable: Trust Index; 2005 to 2009*

VARIABLES	(1) Fraser	(2) Fraser	(3) Fraser	(4) Fraser
EFI Fraser	0.0220 (0.026)	0.0240 (0.023)	0.0319 (0.020)	0.0312 (0.019)
Education	0.0211** (0.007)	0.0216*** (0.007)	0.0232*** (0.006)	0.0229*** (0.006)
Gini	0.000262 (0.002)	0.000250 (0.002)	0.000442 (0.002)	0.000550 (0.0021)
Urban	-3.76e-05 (0.001)	7.08e-05 (0.0009)	0.000154 (0.0008)	0.000124 (0.0008)
Youth	0.000422 (0.001)	0.000214 (0.001)	0.000186 (0.001)	
Political	-0.00678 (0.011)	-0.00711 (0.011)		
log GDP/capita	0.00642 (0.033)			
Constant	-0.445 (0.326)	-0.402* (0.226)	-0.496*** (0.175)	-0.486*** (0.156)
Observations	40	40	41	41
R-squared	0.473	0.472	0.470	0.470

Table1.6 (page 46) shows the regression results with the same baseline time-varying control variables as was used in Model 1 and Model 2, with each of the time invariant controls added one at a time. In the 2005 to 2009 regressions with the Fraser EFI, the Education variable has a positive coefficient and is statistically significant for all the regressions. The same is true for the Heritage EFI in the 2005 to 2009 time period, while for the majority of the regressions of both EFIs in the 1995 to 1999 time period Education is consistently positive and statistically significant (see Table 3.25, Table 3.26 and Table 3.27 in the Appendix). Therefore, as Education increases, there is an increase in ethnic trust. It is also interesting to note that this relationship between Education and trust is evident in both the medium and long term. There is still no statistical significance of EFI in any of these regressions. Though not reported here, various iterations of model 3 were run for robustness. When Model 3 is run with both the Education variable and the Political variable, Education remains statistically significant, whereas the Political variable is not. The Educational variable and the Political variable are highly correlated. However, to exhaust all considerations of what might influence ethnic trust, when Model 3 was run with the same baseline time-varying controls, but with Education omitted and the Political variable included (as well as the time-invariant controls) then the Political variable gains statistical significance in quite a few of the 2005 to 2009 regressions (see Table 3.28 and Table 3.29 in the Appendix).

Table1.6: Regression results - Dependent variables: Trust Index - 2005 to 2009

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Fraser	0.0312 (0.019)	0.0234 (0.023)	0.0319 (0.020)	0.0301 (0.022)	0.0158 (0.032)	0.0165 (0.032)	0.0275 (0.020)	0.00521 (0.031)	0.0360* (0.021)	0.00562 (0.041)
Education	0.0229*** (0.006)	0.0213*** (0.006)	0.0232*** (0.006)	0.0225*** (0.007)	0.0234** (0.010)	0.0261** (0.011)	0.0208*** (0.007)	0.0229** (0.009)	0.0259*** (0.006)	0.0248** (0.011)
Gini	0.000550 (0.002)	0.000386 (0.002)	0.000442 (0.002)	0.000615 (0.002)	9.79e-05 (0.003)	0.000634 (0.003)	0.000148 (0.002)	0.00155 (0.003)	0.00123 (0.002)	-0.00151 (0.003)
Urban	0.000124 (0.0008)	3.90e-05 (0.0008)	0.000154 (0.0008)	6.25e-05 (0.001)	3.76e-05 (0.001)	-0.000131 (0.001)	0.000282 (0.0009)	-0.000175 (0.001)	-0.000519 (0.0009)	-0.000546 (0.001)
Political		-0.00721 (0.011)								
Youth			0.000186 (0.001)							
log GDP/capita				0.00283 (0.025)						
Christian					-3.57e-05 (0.0006)					
Muslim						0.000364 (0.0009)				
Religion Frac							0.0619 (0.073)			
Ethnic Frac								-0.155 (0.111)		
Ethnic Pol									-0.0729 (0.076)	
Family										-0.0216 (0.079)
Constant	-0.486*** (0.156)	-0.390* (0.210)	-0.496*** (0.175)	-0.499** (0.201)	-0.352 (0.246)	-0.390 (0.261)	-0.469*** (0.162)	-0.264 (0.242)	-0.476** (0.176)	-0.176 (0.305)
Observations	41	40	41	41	31	31	40	31	35	24
R-squared	0.470	0.472	0.470	0.470	0.381	0.384	0.485	0.425	0.537	0.413

Table 1.7 (next page) shows the 1995 to 1999 regressions with the Fraser EFI and here the Political variable has a negative coefficient and statistical significance for almost every single regression. The same results occur for the Heritage EFI (see Table 3.30 in the Appendix). Therefore, when there is an increase in the Political variable, there is a decrease in ethnic trust. This Political variable has a scale of one to seven, with seven indicating the least political freedom. Hence, when there is less Political Freedom, there is a decrease in ethnic trust. The robustness of the model with the Political variable in the 1995 to 1999 regressions, reveals that ethnic trust and political freedom have a strong relationship in the long term.

Model 3 is also run with the Education variable and the Political Freedom variable as well as the various regions to. Once again, in neither of the time periods, with either of the EFIs is Economic Freedom statistically significant (see Table 3.31 and Table 3.32 in the Appendix).

The theoretical and empirical foundations for Education generating social trust can perhaps be best summarised in the words of Uslaner (1999:34), stating that “the single best predictor of social trust and virtually every type of participation is Education.” Based on the results of Model 3, it would seem that this claim extends not only to social trust broadly, but also to ethnic trust specifically. Huang, van den Brink and Groot (2011:306) also find that a higher level of Education increases people’s ability to become “open-minded to accept otherness from heterogeneous groups, and inspires consensus on normative values”. Keeping this in mind, it is tenable that the difficulties of “otherness” in trusting different ethnicities could be ameliorated with higher levels of Education. Considering the results regarding Political Freedom - the work of Charron and Rothstein (2016) is insightful in finding that a causal mechanism, through which education affects social trust, is the absence of corruption as a measure of institutional political quality. This would reinforce the results in Model 3 that when there is less political freedom, related with higher levels of perceived corruption, there would be a decrease in ethnic trust.



Table 1.7: Regression results - Dependent variable: Trust Index; 1995 to 1999 with Political variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Fraser	0.00452 (0.014)	0.00601 (0.014)	0.00473 (0.015)	0.00435 (0.017)	-0.000507 (0.018)	0.000941 (0.019)	-0.00184 (0.014)	0.000420 (0.018)	0.00847 (0.02)	0.00476 (0.021)
Political	-0.0321*** (0.011)	-0.0207 (0.013)	-0.0302** (0.012)	-0.0320** (0.012)	-0.0301* (0.017)	-0.0302 (0.019)	-0.0281** (0.010)	-0.0341** (0.016)	-0.0322** (0.012)	-0.0429** (0.017)
Gini	-0.00186 (0.002)	-0.00160 (0.002)	-0.00146 (0.002)	-0.00184 (0.002)	-0.00292 (0.002)	-0.00252 (0.002)	-0.00216 (0.001)	0.000249 (0.003)	-0.00201 (0.002)	-0.00319 (0.003)
Urban	0.000834 (0.0008)	0.000742 (0.0008)	0.000679 (0.001)	0.000819 (0.001)	0.000667 (0.001)	0.000924 (0.001)	0.00135 (0.0008)	0.000407 (0.001)	0.000528 (0.0009)	0.000269 (0.001)
Education		0.0126 (0.008)								
Youth			-0.000511 (0.001)							
log GDP/capita				0.000588 (0.029)						
Christian					0.000413 (0.0006)					
Muslim						-0.000204 (0.0008)				
Religion Frac							0.147** (0.064)			
Ethnic Frac								-0.174 (0.133)		
Ethnic Pol									-0.0604 (0.096)	
Family										-0.0110 (0.081)
Constant	-0.0266	-0.135	-0.0154	-0.0308	0.0325	0.0141	-0.0793	0.0150	0.00865	0.106
Observations	41	40	41	41	30	30	40	30	35	24
R-squared	0.384	0.453	0.386	0.384	0.375	0.365	0.470	0.406	0.428	0.476

## **2.8. Concluding remarks, policy implications and future research**

This article positions itself in light of a relatively unexpected Trump presidency in the US, a Brexit vote in the UK, the increase in popularity of far right political parties in Europe, and an upsurge in ethnic intolerance epitomised by ever more radical protests right here at home in South Africa. The escalation of globalisation, which espouses the benefits of economic freedom, with calls for less government intervention and the expansion of free trade – justifies the examination of what the relationship is between this so-called economic freedom and ethnic tolerance, and ethnic trust.

While previous research has appeared to indicate that there is a negative relationship between ethnic diversity and economic growth (Alesina and La Ferrara, 2005), it seems to be intuitive that if there is tolerance of this self-same diversity, there would be economic benefits. What is key to note in these findings is that this relationship holds true when there is a vested interest for different ethnicities to work together rather than to be in conflict with one another. This vested interest manifests itself in the form of tolerating (showing respect) towards other ethnicities. So too, Kenneth Arrow (1972) points out that trust will lower transaction costs, elucidating that ethnic trust is a desirable economic outcome. It would be pertinent then to explore whether the drive towards economic freedom, could create an environment for improved ethnic tolerance and ethnic trust.

While previous literature has shown a positive relationship between generalised tolerance and generalised trust, the empirical results of this article find that economic freedom does not have statistical significance in relation to ethnic tolerance or ethnic trust specifically. Rather, it would seem that education is a vital consideration for fostering an increase in both ethnic tolerance and ethnic trust. It is integral to this argument to note that the measurement of education in this case is not simply enrolment in educational institutions, but rather educational attainment. The policy implications for this extend to an increased emphasis on the prioritising by governments of fiscal resources to ensuring the completion of citizens' educational endeavours. While there are numerous positive externalities relating to education, this research aims to highlight the point that beyond social capital as an overarching benefit of education, the difficulties that can arise from ethnic diversity, can be ameliorated by educational attainment.

When considering the finer nuances between the interplay of ethnic tolerance and ethnic trust, this article shows through empirical analysis, the importance of reducing inequality in order to facilitate ethnic tolerance. While policy implications for reducing inequality are complex, it is important to note that establishing ethnic tolerance is unlikely to occur when there is widening inequality. Therefore, it would bode well for governments to approach inequality reduction through the provision of employment opportunities and public services, with renewed vigour. To foster ethnic trust, it would seem that based on the empirical results of this research, political freedoms need to be upheld. The freedom for citizens to be allowed to vote in free and fair elections, to demonstrate against political ineptitudes and to perceive corruption to be on the decline, are potential avenues to encourage ethnic trust.

While it would seem that economic freedom, as a broad overarching concept may not be facilitating ethnic tolerance or trust, there is value in further investigating whether specific areas that make up the economic freedom index could have a positive association. Thus, while education as measured by the average years of educational attainment for the population of each country was used in this article, interesting insights could also be gleaned from disaggregating education into primary, secondary and tertiary schooling. While there are data limitations, it would be advantageous to be able to track this relationship over time using panel data. Finally, it must be emphasised that ethnic trust and ethnic tolerance are complicated and nuanced concepts that cannot be fully represented by the rather simplistic questions used in the WVS. While results should be interpreted in light of the specific phrasing of the questions, taking cognisance of the countries included in the sample and the time period examined – this article seeks to take a first step towards understanding the mechanisms and economic environments that would be best placed to reap the benefits of ethnic diversity.

Draft, do not quote

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# Appendix

*Table 3.1: Descriptive Statistics*

Variable	Source	Mean	Std.dev
Neighbour	World Values Survey	0.80	0.13
Racism Index	World Values Survey	0.36	0.08
Trust Index	World Values Survey	(0.10)	0.12
EFI Fraser	Gwartney et al.	6.93	.96
EFI Heritage	Heritage Foundation	62.26	11.07
log GDP per capita	WDI (World Bank)	8.89	1.27
Education	Barro and Lee	5.18	3.21
Gini	SWIID, Solt	37.91	8.30
Youth	WDI (World Bank)	40.14	18.43
Urban	WDI (World Bank)	65.84	21.42
Political	Freedom House	3.55	2.16
Christian	La Porta et al. (1999)	42.46	39.88
Muslim	La Porta et al. (1999)	15.51	31.56
Religious Frac	Alesina et al (2003)	0.42	0.25
Ethnic Frac	Alesina et al (2003)	0.35	0.20
Ethnic Pol	Montalvo and Reynal-Querol (2005)	0.56	0.25
Family	World Values Survey	0.06	0.38

*Table 3.2: List of Countries*

Algeria	Japan	Russia
Argentina	Jordan	Rwanda
Armenia	Kazakhstan	Singapore
Australia	Kuwait	Slovenia
Azerbaijan	Kyrgyzstan	South Africa
Bahrain	Lebanon	South Korea
Belarus	Libya	Spain
Brazil	Malaysia	Sweden
Chile	Mexico	Taiwan
China	Morocco	Thailand
Colombia	Netherlands	Trinidad and Tobago
Cyprus	Nigeria	Tunisia
Ecuador	Pakistan	Turkey
Estonia	Palestine	Ukraine
Georgia	Peru	United States
Germany	Philippines	Uruguay
Ghana	Poland	Uzbekistan
Hong Kong	Qatar	Yemen
India	Romania	Zimbabwe
Iraq		

Table 3.3: Correlation Matrix

Variables	Neighbour	Racism Index	Trust Index	EFI Fraser	EFI Heritage	Education	Gini	Youth	Urban	Political	log GDP per capita	Christian	Muslim	Religion Frac	Ethnic Frac	Ethnic Pol	Family
Neighbour	1.0000																
Racism Index	0.3820	1.0000															
Trust Index	0.1450	-0.1265	1.0000														
EFI Fraser	0.0710	0.0662	0.4489	1.0000													
EFI Heritage	0.2833	0.1493	0.4194	0.9082	1.0000												
Education	0.4491	0.2561	0.6907	0.6815	0.7126	1.0000											
Gini	-0.1044	-0.4141	-0.5195	-0.5474	-0.4554	-0.6110	1.0000										
Youth	-0.3988	-0.5435	-0.3930	-0.3560	-0.4177	-0.6864	0.6085	1.0000									
Urban	0.5583	0.3657	0.1917	0.4521	0.6028	0.5401	-0.3545	-0.2013	1.0000								
Political	-0.2312	0.0972	-0.5116	-0.5653	-0.5941	-0.7070	0.3678	0.4009	-0.4782	1.0000							
log GDP/capita	0.4180	0.3623	0.5431	0.6609	0.7818	0.8648	-0.7072	-0.7200	0.6602	-0.6435	1.0000						
Christian	0.7291	0.1215	0.1466	0.1550	0.3002	0.4724	-0.0167	-0.2145	0.4872	-0.5830	0.3819	1.0000					
Muslim	-0.4930	-0.0038	-0.2318	-0.2315	-0.3297	-0.5421	-0.0497	0.4843	-0.2043	0.5712	-0.3844	-0.6403	1.0000				
Religion Frac	0.1759	-0.1107	0.3172	0.4265	0.5148	0.5163	-0.0411	-0.4469	0.0906	-0.3036	0.4977	0.1317	-0.5634	1.0000			
Ethnic Frac	-0.1421	-0.4963	-0.4491	-0.3229	-0.3064	-0.4626	0.6572	0.7564	-0.2210	0.2630	-0.5333	0.1017	0.2307	-0.1729	1.0000		
Ethnic Pol	0.1771	-0.2494	-0.3955	-0.2343	-0.1722	-0.4194	0.5827	0.6135	-0.0124	0.5082	-0.4605	0.0651	0.2846	-0.1677	0.7521	1.0000	
Family	0.1114	0.3416	0.3141	0.3923	0.3933	0.5208	-0.6376	-0.6503	0.2206	-0.2806	0.6385	0.0574	-0.3251	0.3927	-0.6873	-0.6559	1.00

Table 3.4: VIF for dropped variables for Article 1

Variable	VIF	VIF	VIF
logGDP	5.51		
Youth	3.06	1.91	
Education	2.21	2.02	1.83
Urban	1.88	1.30	1.20
Political	1.82	1.64	1.64
Gini	1.54	1.54	1.29
Mean VIF	2.67	2.67	1.49

Table 3.5: Regression results – Dependent variable: Neighbour, 2005 to 2009

VARIABLES	(1)	(2)	(3)	(4)
EFI Heritage	-0.00254 (0.002)	-0.00120 (0.002)	-0.00153 (0.002)	-0.00170 (0.002)
Education	0.0168** (0.008)	0.0183** (0.007)	0.0179** (0.007)	0.0172** (0.006)
Gini	0.00359 (0.002)	0.00319 (0.002)	0.00306 (0.002)	0.00328 (0.002)
Urban	0.000602 (0.001)	0.00107 (0.001)	0.00103 (0.001)	0.000956 (0.0009)
Youth	0.00133 (0.001)	0.000405 (0.001)	0.000436 (0.001)	
Political	0.00595 (0.011)	0.00285 (0.010)		
log GDP per capita	0.0358 (0.036)			
Constant	0.334 (0.335)	0.591*** (0.210)	0.629*** (0.173)	0.657*** (0.145)
Observations	43	43	44	44
R-squared	0.220	0.198	0.196	0.194

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



*Table 3.6: Regression results - Dependent variable: Neighbour, 1995 to 1999*

VARIABLES	(1)	(2)	(3)	(4)
EFI Fraser	-0.0181 (0.020)	-0.00537 (0.016)	-0.0110 (0.015)	-0.0114 (0.015)
Education	0.0192** (0.009)	0.0209** (0.009)	0.0141* (0.007)	0.0121* (0.006)
Gini	0.00133 (0.002)	0.000665 (0.002)	0.000689 (0.002)	0.00153 (0.002)
Urban	0.000350 (0.001)	0.00113 (0.001)	0.00120 (0.001)	0.000846 (0.0009)
Youth	0.00154 (0.001)	0.000500 (0.001)	0.00110 (0.001)	
Political	0.0248 (0.015)	0.0220 (0.0157)		
log GDP/capita	0.0413 (0.039)			
Constant	0.291 (0.331)	0.597*** (0.158)	0.693*** (0.142)	0.746*** (0.120)
Observations	40	40	41	41
R-squared	0.203	0.176	0.128	0.115

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 3.7: Regression results - Dependent variable: Neighbour, 1995 to 1999*

VARIABLES	(1)	(2)	(3)	(4)
EFI Heritage	-0.00202 (0.002)	0.000234 (0.002)	-0.000785 (0.002)	-0.000782 (0.002)
Education	0.0124 (0.008)	0.0146 (0.008)	0.0101 (0.007)	0.0101 (0.006)
Gini	0.00262 (0.002)	0.00139 (0.002)	0.00142 (0.002)	0.00141 (0.002)
Urban	9.58e-05 (0.001)	0.000880 (0.001)	0.000993 (0.001)	0.000996 (0.001)
Youth	0.000414 (0.001)	-0.000340 (0.001)	-9.18e-06 (0.001)	
Political	0.0213 (0.015)	0.0158 (0.014)		
log GDP/capita	0.0500 (0.035)			
Constant	0.279 (0.303)	0.615*** (0.191)	0.721*** (0.164)	0.721*** (0.131)
Observations	43	43	44	44
R-squared	0.186	0.139	0.110	0.110

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.8: Regression results - Dependent variable: Neighbour; 2005 to 2009

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Heritage	-0.00170 (0.002)	-0.00133 (0.002)	-0.00153 (0.002)	-0.00262 (0.002)	-0.00227 (0.002)	-0.00347 (0.002)	-0.00215 (0.002)	-0.00378 (0.002)	-0.00129 (0.002)	-0.00259 (0.003)
Education	0.0172** (0.006)	0.0176** (0.007)	0.0179** (0.007)	0.0150** (0.007)	0.00152 (0.007)	0.00726 (0.011)	0.0115 (0.007)	0.0183* (0.009)	0.0191** (0.007)	0.0193* (0.009)
Gini	0.00328 (0.002)	0.00341 (0.002)	0.00306 (0.002)	0.00377 (0.002)	-0.000491 (0.002)	0.00166 (0.003)	0.00194 (0.002)	0.00519 (0.003)	0.00193 (0.002)	0.00311 (0.003)
Urban	0.000956 (0.0009)	0.00101 (0.001)	0.00103 (0.001)	0.000607 (0.001)	0.00162 (0.001)	0.00279* (0.001)	0.00140 (0.001)	0.00202 (0.001)	0.000781 (0.001)	0.00337** (0.001)
Political		0.00270 (0.010)								
Youth			0.000436 (0.001)							
log GDP/capita				0.0193 (0.029)						
Christian					0.00212*** (0.0004)					
Muslim						-0.00137 (0.0008)				
Religion Frac							0.0906 (0.079)			
Ethnic Frac								-0.121 (0.112)		
Ethnic Pol									0.0628 (0.081)	
Family										-0.0223 (0.066)
Constant	0.657*** (0.145)	0.616*** (0.188)	0.629*** (0.173)	0.558** (0.208)	0.796*** (0.136)	0.790*** (0.197)	0.706*** (0.150)	0.684*** (0.183)	0.665*** (0.175)	0.549** (0.195)
Observations	44	43	44	44	31	31	43	31	36	24
R-squared	0.194	0.196	0.196	0.203	0.620	0.341	0.208	0.306	0.259	0.404

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.9: Regression Results - Dependent variable: Neighbour; 1995 to 1999

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Fraser	-0.0114 (0.015)	-0.00496 (0.016)	-0.0110 (0.015)	-0.0144 (0.018)	-0.0238** (0.011)	-0.0230 (0.016)	-0.0155 (0.015)	-0.0274 (0.016)	-0.0424* (0.021)	-0.0133 (0.019)
Education	0.0121* (0.006)	0.0203** (0.008)	0.0141* (0.007)	0.0109 (0.008)	-0.00112 (0.006)	0.00309 (0.009)	0.00522 (0.008)	0.0119 (0.008)	0.0197** (0.008)	0.0106 (0.009)
Gini	0.00153 (0.002)	0.00103 (0.002)	0.000689 (0.002)	0.00188 (0.002)	-0.00161 (0.001)	0.000691 (0.002)	0.000592 (0.002)	0.00344 (0.003)	-0.000764 (0.002)	0.000308 (0.003)
Urban	0.000846 (0.0009)	0.000985 (0.0009)	0.00120 (0.001)	0.000597 (0.001)	0.00185** (0.0008)	0.00271** (0.001)	0.00142 (0.0009)	0.00216 (0.001)	0.00159 (0.0001)	0.00354** (0.002)
Political		0.0232 (0.014)								
Youth			0.00110 (0.001)							
log GDP/capita				0.00946 (0.032)						
Christian					0.00220*** (0.0003)					
Muslim						-0.00135* (0.0007)				
Religion Frac							0.114 (0.081)			
Ethnic Frac								-0.116 (0.123)		
Ethnic Pol									0.0881 (0.087)	
Family										-0.0268 (0.075)
Constant	0.746*** (0.120)	0.612*** (0.149)	0.693*** (0.142)	0.690*** (0.229)	0.845*** (0.0951)	0.794*** (0.136)	0.761*** (0.119)	0.731*** (0.136)	0.926*** (0.149)	0.644*** (0.173)
Observations	41	40	41	41	31	31	40	31	35	24
R-squared	0.115	0.173	0.128	0.117	0.669	0.345	0.156	0.286	0.244	0.352

Standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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Table 3.10: Regression results - Dependent variable: Neighbour; 1995 to 1999

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Heritage	-0.000782 (0.002)	0.000276 (0.002)	-0.000785 (0.002)	-0.00252 (0.002)	-0.00261 (0.001)	-0.00347 (0.002)	-0.000963 (0.002)	-0.00428 (0.002)	-0.00346 (0.002)	-0.000623 (0.003)
Education	0.0101 (0.006)	0.0151* (0.008)	0.0101 (0.007)	0.00609 (0.007)	-0.00164 (0.006)	0.00263 (0.009)	0.00228 (0.007)	0.0114 (0.008)	0.0149* (0.007)	0.00964 (0.009)
Gini	0.00141 (0.002)	0.00117 (0.002)	0.00142 (0.00240)	0.00266 (0.002)	-0.00145 (0.001)	0.000847 (0.002)	0.000373 (0.002)	0.00376 (0.003)	-0.000711 (0.002)	0.000388 (0.003)
Urban	0.000996 (0.001)	0.000983 (0.001)	0.000993 (0.001)	0.000352 (0.001)	0.00191* (0.0009)	0.00304** (0.001)	0.00152 (0.001)	0.00257* (0.001)	0.00178 (0.001)	0.00337* (0.001)
Political		0.0152 (0.014)								
Youth			-9.18e-06 (0.001)							
log GDP/capita				0.0332 (0.031)						
Christian					0.00214*** (0.0004)					
Muslim						-0.00134* (0.0007)				
Religion Frac							0.124 (0.079)			
Ethnic Frac								-0.126 (0.123)		
Ethnic Pol									0.110 (0.085)	
Family										-0.0275 (0.077)
Constant	0.721*** (0.131)	0.598*** (0.173)	0.721*** (0.164)	0.551** (0.205)	0.852*** (0.109)	0.839*** (0.150)	0.728*** (0.128)	0.791*** (0.153)	0.859*** (0.163)	0.613*** (0.198)
Observations	44	43	44	44	31	31	43	31	36	24
R-squared	0.110	0.138	0.110	0.136	0.642	0.346	0.161	0.293	0.235	0.337

Standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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Table 3.11: Regression results - Dependent variable: Neighbour, Regions as control variables

VARIABLES	(1) 2005-2009	(2) 2005-2009	(3) 2005-2009	(4) 1995-1999	(5) 1995-1999	(6) 1995-1999
EFI Fraser	-0.0248 (0.020)	-0.0186 (0.0176)	-0.0201 (0.020)	-0.000690 (0.015)	0.00182 (0.013)	0.00103 (0.013)
Education	0.0116 (0.007)	0.0129* (0.00723)		0.00100 (0.008)	0.00204 (0.008)	
Urban	0.000607 (0.0009)		0.000973 (0.0009)	0.000490 (0.0009)		0.000485 (0.0008)
SSAfrica	-0.158* (0.093)	-0.139 (0.082)	-0.162* (0.088)	-0.124 (0.092)	-0.111 (0.080)	-0.135 (0.085)
NAfrica_MidEast	-0.202** (0.086)	-0.169** (0.068)	-0.244*** (0.082)	-0.217** (0.090)	-0.186** (0.073)	-0.221*** (0.080)
Latin America	-0.0729 (0.080)	-0.0463 (0.065)	-0.0703 (0.080)	-0.0492 (0.081)	-0.0245 (0.066)	-0.0503 (0.079)
Europe	-0.159* (0.080)	-0.142** (0.069)	-0.120 (0.076)	-0.115 (0.081)	-0.0931 (0.069)	-0.113 (0.077)
East Asia	-0.216*** (0.078)	-0.195*** (0.065)	-0.215** (0.079)	-0.202** (0.082)	-0.182** (0.068)	-0.204** (0.079)
South Asia	-0.220** (0.084)	-0.200*** (0.072)	-0.233*** (0.084)	-0.222** (0.093)	-0.200** (0.079)	-0.227** (0.085)
North America	-0.0859 (0.099)	-0.0625 (0.088)	-0.0645 (0.099)	-0.0558 (0.104)	-0.0331 (0.092)	-0.0562 (0.101)
Constant	1.057*** (0.146)	1.025*** (0.135)	1.060*** (0.147)	0.940*** (0.101)	0.928*** (0.093)	0.935*** (0.096)
Observations	43	44	44	43	44	44
R-squared	0.471	0.468	0.434	0.419	0.417	0.418

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.12: Regression results - Dependent variable: Neighbour. Regions as control variables

VARIABLES	(1) 2005-2009	(2) 2005-2009	(3) 2005-2009	(4) 1995-1999	(5) 1995-1999	(6) 1995-1999
EFI Heritage	0.00117 (0.002)	0.00117 (0.001)	0.00193 (0.002)	0.00232 (0.001)	0.00242 (0.001)	0.00222 (0.001)
Education	0.0122 (0.008)	0.0118 (0.008)		0.00370 (0.008)	0.00311 (0.008)	
Urban	-0.000247 (0.0009)		-8.73e-05 (0.0009)	-0.000274 (0.0009)		-0.000262 (0.0009)
SSAfrica	0.0507 (0.083)	0.0406 (0.081)	0.0970 (0.074)	0.0246 (0.085)	0.0213 (0.078)	0.0597 (0.077)
NAfrica_MidEast	-0.00401 (0.067)	-0.0218 (0.062)	0.00929 (0.061)	-0.0566 (0.074)	-0.0705 (0.068)	-0.0237 (0.065)
Latin America	0.117* (0.062)	0.102* (0.059)	0.175*** (0.058)	0.0953 (0.067)	0.0840 (0.061)	0.142** (0.065)
Europe	0.00897 (0.068)	-0.00478 (0.065)	0.104* (0.055)	0.0337 (0.066)	0.0248 (0.062)	0.0892 (0.057)
East Asia	-0.0400 (0.063)	-0.0542 (0.060)	0.0155 (0.060)	-0.0645 (0.071)	-0.0735 (0.063)	-0.0190 (0.069)
South Asia	-0.0514 (0.075)	-0.0651 (0.071)	-0.0130 (0.074)	-0.0778 (0.084)	-0.0881 (0.077)	-0.0417 (0.079)
North America	0.0800 (0.099)	0.0635 (0.095)	0.155 (0.099)	0.0814 (0.102)	0.0695 (0.097)	0.137 (0.101)
Constant	0.684*** (0.11)	0.684*** (0.108)	0.634*** (0.106)	0.679*** (0.086)	0.667*** (0.081)	0.655*** (0.080)
Observations	48	49	54	49	50	55
R-squared	0.336	0.328	0.292	0.318	0.318	0.304

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



*Table 3.13: Regressions results - Dependent variable: Racism Index; 1995 to 1999*

VARIABLES	(1)	(2)	(3)	(4)
EFI Heritage	0.00110 (0.001)	0.000574 (0.001)	-0.000774 (0.001)	-0.000810 (0.001)
Education	0.00609 (0.004)	0.00559 (0.004)	-0.00197 (0.004)	-0.00198 (0.004)
Gini	-0.00207 (0.001)	-0.00178 (0.001)	-0.00162 (0.001)	-0.00164 (0.001)
Youth	-0.00215** (0.0008)	-0.00197** (0.0007)	-0.00153* (0.0008)	-0.00151** (0.0007)
Urban	-6.03e-05 (0.0006)	-0.000244 (0.0005)	-4.68e-05 (0.0006)	
Political	0.0232*** (0.007)	0.0245*** (0.007)		
log GDP/capita	-0.0117 (0.018)			
Constant	0.491*** (0.157)	0.412*** (0.096)	0.564*** (0.093)	0.563*** (0.091)
Observations	43	43	44	44
R-squared	0.401	0.394	0.213	0.213

*Table 3.14: Regression results - Dependent Variable: Racism Index; 2005 to 2009*

VARIABLES	(1)	(2)	(3)	(4)
EFI Fraser	-0.000896 (0.017)	-0.00390 (0.015)	-0.0126 (0.013)	-0.0121 (0.012)
Education	0.00320 (0.005)	0.00250 (0.004)	-0.000303 (0.004)	-0.000275 (0.004)
Gini	-0.00201 (0.001)	-0.00199 (0.001)	-0.00200 (0.001)	-0.00199 (0.001)
Youth	-0.00172 (0.001)	-0.00140 (0.0009)	-0.00149 (0.0009)	-0.00151* (0.0008)
Urban	0.000316 (0.0007)	0.000153 (0.0006)	6.56e-05 (0.0005)	
Political	0.00984 (0.007)	0.0103 (0.007)		
log GDP/capita	-0.00966 (0.022)			
Constant	0.538** (0.213)	0.472*** (0.148)	0.586*** (0.117)	0.587*** (0.115)
Observations	40	40	41	41
R-squared	0.256	0.251	0.208	0.208

*Table 3.15: Regressions results: Dependent variable - Racism Index; 2005 to 2009*

VARIABLES	(1)	(2)	(3)	(4)
EFI Heritage	0.000474 (0.001)	-0.000149 (0.001)	-0.000863 (0.001)	-0.000861 (0.001)
Education	0.00385 (0.004)	0.00311 (0.004)	0.000164 (0.004)	0.000164 (0.004)
Gini	-0.00202 (0.001)	-0.00183 (0.001)	-0.00191 (0.001)	-0.00191 (0.001)
Youth	-0.00182* (0.001)	-0.00140 (0.0008)	-0.00147* (0.0008)	-0.00147* (0.0008)
Urban	0.000373 (0.0006)	0.000153 (0.0006)	1.88e-06 (0.000612)	
Political	0.0103 (0.006)	0.0117* (0.006)		
log GDP/capita	-0.0167 (0.020)			
Constant	0.561*** (0.192)	0.441*** (0.120)	0.554*** (0.103)	0.554*** (0.102)
Observations	43	43	44	44
R-squared	0.294	0.281	0.211	0.211

Standard errors in parentheses;\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.16: Regression results - Dependent variable: Racism Index; 2005 to 2009

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Heritage	-0.000313 (0.001)	0.000290 (0.001)	-0.000863 (0.001)	-0.000113 (0.001)	-0.000445 (0.001)	-0.000658 (0.001)	-0.000321 (0.0013)	-0.000904 (0.001)	-0.000488 (0.001)	-0.00207 (0.002)
Education	0.00260 (0.004)	0.00570 (0.004)	0.000164 (0.004)	0.00307 (0.004)	-0.00382 (0.006)	-0.00589 (0.007)	0.00211 (0.004)	-0.00212 (0.006)	0.000219 (0.004)	0.000434 (0.007)
Gini	-0.00264* (0.001)	-0.00259* (0.001)	-0.00191 (0.001)	-0.00275* (0.001)	-0.00469** (0.002)	-0.00501** (0.002)	-0.00278* (0.001)	-0.00353* (0.002)	-0.00204 (0.001)	-0.00388 (0.002)
Urban	0.000250 (0.0006)	0.000384 (0.0006)	1.88e-06 (0.0006)	0.000325 (0.0006)	0.000164 (0.0009)	0.000446 (0.0009)	0.000288 (0.0006)	0.000160 (0.0009)	0.000549 (0.0006)	0.00142 (0.001)
Political		0.0122* (0.006)								
Youth			-0.00147* (0.0008)							
log GDP/capita				-0.00418 (0.018)						
Christian					0.000218 (0.0003)					
Muslim						-0.000470 (0.0005)				
Religion Frac							0.00376 (0.050)			
Ethnic Frac								-0.0664 (0.073)		
Ethnic Pol									-0.0174 (0.052)	
Family										0.0111 (0.053)
Constant	0.461*** (0.0900)	0.357*** (0.111)	0.554*** (0.103)	0.482*** (0.130)	0.582*** (0.122)	0.617*** (0.134)	0.466*** (0.0951)	0.590*** (0.120)	0.445*** (0.113)	0.539*** (0.159)
Observations	44	43	44	44	31	31	43	31	36	24
R-squared	0.150	0.228	0.211	0.151	0.223	0.234	0.152	0.239	0.098	0.293

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.17: Regression results - Dependent variable: Racism Index; 1995 to 1999

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Fraser	-0.00719 (0.009)	-0.00342 (0.009)	-0.00786 (0.008)	-0.0114 (0.011)	-0.0104 (0.010)	-0.00998 (0.011)	-0.00726 (0.009)	-0.0110 (0.011)	0.000217 (0.014)	-0.0234 (0.014)
Education	0.000614 (0.004)	0.00753 (0.005)	-0.00242 (0.004)	-0.00102 (0.004)	-0.00532 (0.005)	-0.00542 (0.006)	-8.24e-05 (0.004)	-0.00360 (0.005)	-0.00315 (0.005)	-0.00171 (0.006)
Gini	-0.00275** (0.001)	-0.00318** (0.001)	-0.00151 (0.001)	-0.00225 (0.001)	-0.00462** (0.001)	-0.00442** (0.001)	-0.00290** (0.001)	-0.00364* (0.001)	-0.00232 (0.001)	-0.00457* (0.002)
Urban	0.000461 (0.0005)	0.000516 (0.0005)	-6.22e-05 (0.0006)	0.000106 (0.0007)	0.000573 (0.0008)	0.000691 (0.0008)	0.000518 (0.0006)	0.000531 (0.0008)	0.000438 (0.0006)	0.00186 (0.001)
Political		0.0183** (0.008)								
Youth			-0.00163* (0.0008)							
log GDP/capita				0.0135 (0.019)						
Christian					0.000269 (0.0003)					
Muslim						-0.000266 (0.0005)				
Religion Frac							0.00628 (0.051)			
Ethnic Frac								-0.0396 (0.079)		
Ethnic Pol									-0.0234 (0.057)	
Family										-0.000633 (0.055)
Constant	0.488*** (0.0726)	0.392*** (0.0877)	0.566*** (0.0825)	0.407*** (0.138)	0.590*** (0.0890)	0.588*** (0.0907)	0.492*** (0.0753)	0.576*** (0.0873)	0.451*** (0.0981)	0.569*** (0.128)
Observations	41	40	41	41	31	31	40	31	35	24
R-squared	0.153	0.249	0.227	0.165	0.267	0.260	0.158	0.259	0.115	0.366

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.18: Regressions results - Dependent variable: Racism Index; 1995 to 1999

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Heritage	-0.000344 (0.001)	0.000820 (0.001)	-0.000774 (0.001)	0.000144 (0.001)	0.000322 (0.001)	0.000266 (0.001)	-0.000299 (0.001)	5.60e-05 (0.001)	0.00139 (0.001)	-0.000904 (0.002)
Education	0.00145 (0.003)	0.00901* (0.004)	-0.00197 (0.004)	0.00258 (0.004)	-0.00630 (0.006)	-0.00661 (0.006)	0.00100 (0.004)	-0.00441 (0.005)	-0.00340 (0.004)	-0.00366 (0.007)
Gini	-0.00265** (0.001)	-0.00305** (0.001)	-0.00162 (0.001)	-0.00300* (0.001)	-0.00477** (0.001)	-0.00457** (0.001)	-0.00276* (0.0013)	-0.00380* (0.002)	-0.00223 (0.001)	-0.00444* (0.002)
Urban	0.000426 (0.0006)	0.000354 (0.0005)	-4.68e-05 (0.0006)	0.000607 (0.0007)	0.000136 (0.0009)	0.000305 (0.0008)	0.000455 (0.0006)	0.000178 (0.0009)	0.000177 (0.0007)	0.00150 (0.001)
Political		0.0211** (0.007)								
Youth			-0.00153* (0.0008)							
log GDP/capita				-0.00933 (0.018)						
Christian					0.000296 (0.0003)					
Muslim						-0.000335 (0.0005)				
Religion Frac							0.00198 (0.049)			
Ethnic Frac								-0.0350 (0.081)		
Ethnic Pol									-0.0137 (0.053)	
Family										-0.00125 (0.060)
Constant	0.459*** (0.0776)	0.309*** (0.0956)	0.564*** (0.0932)	0.507*** (0.123)	0.542*** (0.100)	0.547*** (0.102)	0.461*** (0.0797)	0.535*** (0.100)	0.370*** (0.102)	0.507*** (0.154)
Observations	44	43	44	44	31	31	43	31	36	24
R-squared	0.138	0.276	0.213	0.144	0.241	0.236	0.141	0.229	0.125	0.280

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.19: Regression results - Dependent variable: Racism Index; Regions as control variables

VARIABLES	(1) 2005-2009	(2) 2005-2009	(3) 2005-2009	(4) 1995-1999	(5) 1995-1999	(6) 1995-1999
EFI Fraser	-0.0110 (0.011)	-0.00535 (0.012)	-0.0167 (0.014)	-0.00620 (0.008)	-0.00226 (0.007)	-0.00882 (0.009)
Gini	-0.00232 (0.002)	-0.00274 (0.001)		-0.00263 (0.002)	-0.00318 (0.001)	
Youth	-0.00116 (0.0009)		-0.000997 (0.001)	-0.00103 (0.0009)		-0.000908 (0.001)
SSAfrica	-0.0444 (0.062)	-0.0577 (0.057)	-0.0757 (0.067)	-0.0235 (0.061)	-0.0408 (0.055)	-0.0540 (0.066)
NAfrica_MidEast	-0.0436 (0.058)	-0.0365 (0.050)	-0.0804 (0.061)	-0.0130 (0.055)	-0.0206 (0.048)	-0.0574 (0.059)
Latin America	-0.0230 (0.057)	-0.00824 (0.049)	-0.0412 (0.061)	0.00690 (0.057)	0.0126 (0.051)	-0.0197 (0.058)
Europe	-0.0303 (0.062)	-0.00549 (0.046)	-0.00126 (0.065)	-0.0195 (0.058)	-0.00114 (0.044)	0.00593 (0.063)
East Asia	-0.0245 (0.058)	-0.00318 (0.046)	-0.0258 (0.064)	-0.00132 (0.055)	0.00757 (0.046)	-0.00478 (0.061)
South Asia	-0.0995 (0.059)	-0.0913* (0.050)	-0.0963 (0.065)	-0.0831 (0.057)	-0.0859* (0.050)	-0.0788 (0.064)
North America	-0.0549 (0.068)	-0.0455 (0.061)	-0.0580 (0.074)	-0.0330 (0.068)	-0.0312 (0.062)	-0.0412 (0.075)
Constant	0.615*** (0.156)	0.535*** (0.128)	0.557*** (0.148)	0.572*** (0.117)	0.517*** (0.094)	0.484*** (0.110)
Observations	42	43	44	42	43	44
R-squared	0.327	0.306	0.285	0.339	0.322	0.275

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.20: Regression results - Dependent variable: Racism Index; Regions as control variables

VARIABLES	(1) 2005-2009	(2) 2005-2009	(3) 2005-2009	(4) 1995-1999	(5) 1995-1999	(6) 1995-1999
EFI Heritage	-0.000622 (0.001)	0.000117 (0.001)	-0.000775 (0.001)	-0.00159 (0.001)	-0.000688 (0.001)	-0.00134 (0.001)
Gini	-0.00288 (0.002)	-0.00370* (0.001)		-0.00289 (0.002)	-0.00358* (0.002)	
Youth	-0.00138 (0.0009)		-0.00137 (0.0009)	-0.00142* (0.0008)		-0.00146* (0.0008)
SSAfrica	-0.0157 (0.053)	-0.0362 (0.052)	-0.0454 (0.052)	-0.0112 (0.053)	-0.0401 (0.050)	-0.0326 (0.051)
NAfrica_MidEast	-0.0265 (0.041)	-0.0287 (0.040)	-0.0657* (0.038)	-0.000136 (0.044)	-0.0196 (0.042)	-0.0401 (0.043)
Latin America	-0.00328 (0.042)	0.00577 (0.042)	-0.0265 (0.037)	0.0209 (0.048)	0.0190 (0.047)	-0.00634 (0.041)
Europe	-0.0281 (0.038)	-0.0118 (0.035)	0.000314 (0.037)	-0.0250 (0.040)	-0.00516 (0.036)	0.00387 (0.039)
East Asia	-0.0132 (0.040)	0.00338 (0.038)	-0.0195 (0.039)	0.00466 (0.043)	0.0101 (0.041)	-0.000119 (0.042)
South Asia	-0.0868* (0.045)	-0.0878* (0.04)	-0.0860* (0.047)	-0.0740 (0.048)	-0.0849* (0.047)	-0.0681 (0.050)
North America	-0.0393 (0.061)	-0.0409 (0.060)	-0.0471 (0.064)	-0.0250 (0.063)	-0.0280 (0.062)	-0.0361 (0.064)
Constant	0.595*** (0.110)	0.522*** (0.097)	0.494*** (0.0953)	0.655*** (0.109)	0.560*** (0.095)	0.529*** (0.088)
Observations	50	51	54	50	51	55
R-squared	0.300	0.266	0.236	0.310	0.263	0.244

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.

*Table 3.21: Regression results - Dependent variable: Trust Index; 2005 to 2009*

VARIABLES	(1)	(2)	(3)	(4)
EFI Heritage	0.000647 (0.002)	0.00150 (0.002)	0.00226 (0.002)	0.00218 (0.002)
Education	0.0205*** (0.007)	0.0215*** (0.007)	0.0229*** (0.007)	0.0226*** (0.006)
Gini	-0.000321 (0.002)	-0.000570 (0.002)	-0.000308 (0.002)	-0.000199 (0.002)
Urban	-0.000289 (0.001)	9.36e-06 (0.001)	0.000128 (0.0009)	9.17e-05 (0.0009)
Youth	0.000837 (0.002)	0.000254 (0.001)	0.000216 (0.001)	
Political	-0.00609 (0.010)	-0.00805 (0.010)		
log GDP/capita	0.0227 (0.033)			
Constant	-0.456 (0.308)	-0.294 (0.192)	-0.390** (0.159)	-0.376*** (0.134)
Observations	43	43	44	44
R-squared	0.461	0.454	0.447	0.446

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 3.22: Regression results - Dependent variable: Trust Index; 1995 to 1999*

VARIABLES	(1)	(2)	(3)	(4)
EFI Fraser	0.0173 (0.018)	0.00628 (0.014)	0.0130 (0.014)	0.0134 (0.013)
Education	0.0137 (0.009)	0.0122 (0.008)	0.0176** (0.007)	0.0194*** (0.006)
Gini	-0.00194 (0.002)	-0.00137 (0.002)	-0.00125 (0.002)	-0.00200 (0.002)
Urban	0.00132 (0.001)	0.000651 (0.0009)	0.000613 (0.0009)	0.000932 (0.0008)
Youth	-0.00123 (0.001)	-0.000321 (0.001)	-0.000993 (0.001)	
Political	-0.0223 (0.014)	-0.0199 (0.014)		
log GDP/capita	-0.0358 (0.036)			
Constant	0.140 (0.303)	-0.126 (0.145)	-0.220 (0.130)	-0.267** (0.110)
Observations	40	40	41	41
R-squared	0.470	0.453	0.425	0.416

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



*Table 3.23: Regression results - Dependent variable: Trust Index; 1995 to 1999*

VARIABLES	(1)	(2)	(3)	(4)
EFI Heritage	-0.00132 (0.002)	-0.000970 (0.002)	0.000258 (0.001)	0.000573 (0.001)
Education	0.0121 (0.008)	0.0125 (0.008)	0.0169** (0.006)	0.0194*** (0.006)
Gini	-0.00125 (0.002)	-0.00144 (0.002)	-0.00141 (0.002)	-0.00216 (0.002)
Urban	0.000772 (0.001)	0.000892 (0.001)	0.000784 (0.001)	0.00113 (0.0009)
Youth	-0.000610 (0.001)	-0.000726 (0.001)	-0.00112 (0.001)	
Political	-0.0161 (0.014)	-0.0169 (0.013)		
log GDP/capita	0.00771 (0.032)			
Constant	-0.0789 (0.282)	-0.0272 (0.174)	-0.148 (0.151)	-0.225* (0.121)
Observations	43	43	44	44
R-squared	0.420	0.419	0.394	0.382

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 3.24: VIF for variables that were dropped in Article 2*

Variable	VIF	VIF	VIF
GDP/capita	4.86		
Youth	2.84	2.01	
Education	2.07	2.00	1.72
Urban	1.97	1.42	
Political	1.81	1.53	1.53
Gini	1.43	1.42	1.26
Mean VIF	2.50	1.68	1.45

Table 3.25: Regression results - Dependent variable: Trust Index; 2005 to 2009

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Heritage	0.00218 (0.001)	0.00142 (0.002)	0.00226 (0.001)	0.00139 (0.002)	0.00104 (0.002)	0.00116 (0.002)	0.00170 (0.002)	0.000167 (0.002)	0.00277 (0.002)	0.000689 (0.003)
Education	0.0226*** (0.006)	0.0210*** (0.007)	0.0229*** (0.006)	0.0207*** (0.006)	0.0234** (0.011)	0.0261** (0.012)	0.0193** (0.007)	0.0230** (0.009)	0.0269*** (0.006)	0.0244* (0.011)
Gini	-0.000199 (0.002)	-0.000432 (0.002)	-0.000308 (0.002)	0.000221 (0.002)	-4.34e-05 (0.003)	0.000486 (0.003)	-0.000797 (0.002)	0.00154 (0.003)	0.00117 (0.002)	-0.00162 (0.003)
Urban	9.17e-05 (0.001)	-3.26e-05 (0.001)	0.000128 (0.0009)	-0.000209 (0.001)	-1.01e-05 (0.001)	-0.000203 (0.001)	0.000336 (0.0009)	-0.000153 (0.001)	-0.000495 (0.0009)	-0.000641 (0.001)
Political		-0.00814 (0.010)								
Youth			0.000216 (0.001)							
log GDP/capita				0.0166 (0.026)						
Christian					-4.16e-05 (0.0006)					
Muslim						0.000375 (0.001)				
Religion Frac							0.0804 (0.073)			
Ethnic Frac								-0.158 (0.111)		
Ethnic Pol									-0.0693 (0.072)	
Family										-0.0222 (0.079)
Constant	-0.376*** (0.134)	-0.278 (0.171)	-0.390** (0.159)	-0.461** (0.192)	-0.299 (0.190)	-0.337 (0.209)	-0.354** (0.139)	-0.239 (0.182)	-0.412** (0.154)	-0.167 (0.233)
Observations	44	43	44	44	31	31	43	31	36	24
R-squared	0.446	0.454	0.447	0.452	0.378	0.382	0.467	0.424	0.537	0.414

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.26: Regression results - Dependent variable: Trust Index; 1995 to 1999

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Fraser	0.0134 (0.013)	0.00601 (0.014)	0.0130 (0.013)	0.0164 (0.016)	0.00635 (0.017)	0.00675 (0.017)	0.00923 (0.014)	0.00494 (0.017)	0.0103 (0.020)	0.00906 (0.022)
Education	0.0194*** (0.006)	0.0126 (0.008)	0.0176** (0.006)	0.0206*** (0.007)	0.0151 (0.009)	0.0148 (0.010)	0.0154** (0.007)	0.0172* (0.008)	0.0219** (0.008)	0.0198* (0.010)
Gini	-0.00200 (0.002)	-0.00160 (0.002)	-0.00125 (0.002)	-0.00236 (0.002)	-0.00254 (0.002)	-0.00239 (0.002)	-0.00227 (0.002)	1.43e-05 (0.003)	-0.00236 (0.002)	-0.00400 (0.003)
Urban	0.000932 (0.0008)	0.000742 (0.0008)	0.000613 (0.0009)	0.00118 (0.001)	0.00103 (0.001)	0.00114 (0.001)	0.00127 (0.0009)	0.000619 (0.001)	0.000594 (0.0009)	0.000695 (0.0017)
Political		-0.0207 (0.013)								
Youth			-0.000993 (0.001)							
log GDP/capita				-0.00957 (0.029)						
Christian					0.000230 (0.0006)					
Muslim						-0.000260 (0.0008)				
Religion Frac							0.0940 (0.076)			
Ethnic Frac								-0.154 (0.124)		
Ethnic Pol									-0.0449 (0.084)	
Family										-0.0526 (0.086)
Constant	-0.267** (0.110)	-0.135 (0.136)	-0.220 (0.130)	-0.210 (0.210)	-0.194 (0.145)	-0.193 (0.147)	-0.272** (0.112)	-0.202 (0.137)	-0.196 (0.144)	-0.131 (0.198)
Observations	41	40	41	41	31	31	40	31	35	24
R-squared	0.416	0.453	0.425	0.418	0.361	0.360	0.442	0.394	0.459	0.419

Standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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Table 3.27: Regressions results - Dependent variable: Trust Index; 1995 to 1999

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Heritage	0.000573 (0.001)	-0.000879 (0.002)	0.000258 (0.002)	-0.000512 (0.002)	-0.00143 (0.002)	-0.00148 (0.002)	0.000135 (0.001)	-0.00187 (0.002)	0.000295 (0.002)	-0.00228 (0.003)
Education	0.0194*** (0.006)	0.0137* (0.007)	0.0169** (0.006)	0.0168** (0.007)	0.0164* (0.009)	0.0164 (0.010)	0.0131* (0.007)	0.0182** (0.008)	0.0244*** (0.007)	0.0231** (0.01)
Gini	-0.00216 (0.002)	-0.00191 (0.002)	-0.00141 (0.002)	-0.00138 (0.002)	-0.00227 (0.002)	-0.00213 (0.002)	-0.00267 (0.002)	0.000378 (0.003)	-0.00237 (0.002)	-0.00399 (0.003)
Urban	0.00113 (0.001)	0.00111 (0.001)	0.000784 (0.001)	0.000728 (0.001)	0.00169 (0.001)	0.00179 (0.001)	0.00155 (0.0009)	0.00132 (0.001)	0.000813 (0.001)	0.00153 (0.001)
Political		-0.0182 (0.013)								
Youth			-0.00112 (0.001)							
log GDP/capita				0.0207 (0.029)						
Christian					0.000170 (0.0006)					
Muslim						-0.000160 (0.0008)				
Religion Frac							0.126* (0.073)			
Ethnic Frac								-0.165 (0.124)		
Ethnic Pol									-0.0288 (0.079)	
Family										-0.0617 (0.086)
Constant	-0.225* (0.121)	-0.0650 (0.157)	-0.148 (0.151)	-0.330* (0.191)	-0.121 (0.160)	-0.120 (0.162)	-0.227* (0.120)	-0.114 (0.153)	-0.181 (0.151)	-0.00672 (0.222)
Observations	44	43	44	44	31	31	43	31	36	24
R-squared	0.382	0.415	0.394	0.390	0.365	0.364	0.427	0.405	0.471	0.427

Standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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Table 3.28: Regressions results - Dependent variable: Trust index; 2005 to 2009 with Political variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Fraser	0.0277 (0.025)	0.0234 (0.023)	0.0255 (0.026)	0.0141 (0.027)	0.0105 (0.043)	0.0109 (0.04)	0.0166 (0.024)	0.00202 (0.042)	0.0359 (0.027)	0.0139 (0.047)
Political	-0.0215* (0.011)	-0.00721 (0.011)	-0.0211* (0.011)	-0.0177 (0.011)	-0.0139 (0.018)	-0.0136 (0.017)	-0.0187* (0.010)	-0.0198 (0.015)	-0.0256** (0.012)	-0.0223 (0.018)
Gini	-0.00195 (0.002)	0.000386 (0.002)	-0.00138 (0.002)	-0.000784 (0.002)	-0.00426 (0.002)	-0.00392 (0.002)	-0.00282 (0.002)	-0.00157 (0.003)	-0.00102 (0.003)	-0.00437 (0.003)
Urban	0.000253 (0.0009)	3.90e-05 (0.0008)	0.000112 (0.001)	-0.000495 (0.001)	0.000689 (0.001)	0.000979 (0.001)	0.000719 (0.0009)	0.000633 (0.001)	-0.000237 (0.001)	-2.22e-05 (0.001)
Education		0.0213*** (0.007)								
Youth			-0.000688 (0.001)							
log GDP/capita				0.0320 (0.025)						
Christian					0.000413 (0.0007)					
Muslim						-0.000589 (0.0009)				
Religion Frac							0.144** (0.068)			
Ethnic Frac								-0.176 (0.127)		
Ethnic Pol									-0.0672 (0.096)	
Family										0.0187 (0.085)
Constant	-0.181 (0.220)	-0.390* (0.210)	-0.154 (0.229)	-0.383 (0.272)	-0.0419 (0.365)	-0.0502 (0.365)	-0.169 (0.212)	0.0155 (0.356)	-0.193 (0.257)	0.0485 (0.388)
Observations	41	40	41	41	30	30	40	30	35	24
R-squared	0.322	0.472	0.327	0.350	0.272	0.277	0.406	0.318	0.387	0.314

Standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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Table 3.29: Regression results - Dependent variable: Trust Index; 2005 to 2009 with Political variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Heritage	0.00224 (0.002)	0.00142 (0.002)	0.00170 (0.002)	0.000670 (0.002)	0.00196 (0.003)	0.00175 (0.003)	0.00104 (0.001)	0.00148 (0.003)	0.00334 (0.002)	0.00280 (0.003)
Political	-0.0158* (0.009)	-0.00814 (0.009)	-0.0154* (0.009)	-0.0115 (0.009)	-0.0131 (0.018)	-0.0113 (0.017)	-0.0159* (0.008)	-0.0166 (0.015)	-0.0286** (0.011)	-0.0171 (0.018)
Gini	-0.00324 (0.001)	-0.000432 (0.00215)	-0.00216 (0.002)	-0.00202 (0.002)	-0.00404 (0.003)	-0.00397 (0.002)	-0.00366* (0.001)	-0.00174 (0.003)	-0.00101 (0.003)	-0.00479 (0.003)
Urban	0.000440 (0.0009)	-3.26e-05 (0.0009)	0.000162 (0.0009)	-0.000226 (0.001)	0.000261 (0.001)	0.000546 (0.001)	0.000726 (0.0008)	0.000201 (0.001)	-0.000325 (0.001)	-0.000808 (0.001)
Education		0.0210*** (0.001)								
Youth			-0.00127 (0.001)							
log GDP/capita				0.0331 (0.026)						
Christian					0.000256 (0.0007)					
Muslim						-0.000612 (0.0008)				
Religion Frac							0.173*** (0.058)			
Ethnic Frac								-0.157 (0.128)		
Ethnic Pol									-0.0446 (0.091)	
Family										0.00614 (0.084)
Constant	-0.104 (0.169)	-0.278 (0.171)	-0.0449 (0.178)	-0.317 (0.241)	-0.0609 (0.265)	-0.0539 (0.263)	-0.104 (0.157)	-0.0374 (0.259)	-0.158 (0.221)	0.0334 (0.293)
Observations	49	43	49	49	31	31	48	31	36	25
R-squared	0.279	0.454	0.297	0.304	0.244	0.256	0.410	0.283	0.395	0.302

Standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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Table 3.30: Regression results - Dependent variable: Trust Index; 1995 to 1999 with Political variable

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
EFI Heritage	-0.00200 (0.001)	-0.000879 (0.002)	-0.00188 (0.001)	-0.00308 (0.002)	-0.00377 (0.002)	-0.00380 (0.002)	-0.00197 (0.001)	-0.00383 (0.002)	-0.000231 (0.002)	-0.00218 (0.003)
Political	-0.0281*** (0.009)	-0.0182 (0.013)	-0.0229** (0.010)	-0.0237** (0.010)	-0.0361** (0.016)	-0.0379* (0.018)	-0.0251*** (0.008)	-0.0392** (0.015)	-0.0360*** (0.011)	-0.0453** (0.017)
Gini	-0.00237 (0.001)	-0.00191 (0.002)	-0.00120 (0.002)	-0.00146 (0.002)	-0.00231 (0.002)	-0.00198 (0.002)	-0.00255 (0.001)	0.000377 (0.003)	-0.00227 (0.002)	-0.00351 (0.003)
Urban	0.00174* (0.0008)	0.00111 (0.0009)	0.00113 (0.0009)	0.00119 (0.0010)	0.00147 (0.001)	0.00160 (0.001)	0.00183** (0.0007)	0.00119 (0.001)	0.000874 (0.001)	0.000754 (0.001)
Education		0.0137* (0.007)								
Youth			-0.00151 (0.001)							
log GDP/capita				0.0245 (0.028)						
Christian					0.000239 (0.0005)					
Muslim						2.73e-05 (0.0008)				
Religion Frac							0.177*** (0.054)			
Ethnic Frac								-0.156 (0.130)		
Ethnic Pol									-0.0227 (0.092)	
Family										-0.0233 (0.080)
Constant	0.0836 (0.126)	-0.0650 (0.157)	0.125 (0.130)	-0.0760 (0.223)	0.214 (0.178)	0.210 (0.182)	-0.00124 (0.118)	0.209 (0.173)	0.0546 (0.194)	0.262 (0.212)
Observations	49	43	49	49	31	31	48	31	36	25
R-squared	0.333	0.415	0.356	0.345	0.386	0.382	0.472	0.416	0.432	0.456

Standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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Table 3.31: Regressions results - Dependent variable with regions using Fraser EFI

VARIABLES	(1) 2005-2009	(2) 2005-2009	(3) 2005-2009	(4) 1995-1999	(5) 1995-1999	(6) 1995-1999
EFI Fraser	0.0289 (0.024)	0.0394** (0.017)	0.0473* (0.026)	0.0197 (0.015)	0.0302** (0.01)	0.0264* (0.015)
Education	0.0265*** (0.007)	0.0255*** (0.007)		0.0187* (0.009)	0.0195** (0.008)	
Political	-0.00268 (0.013)		-0.00921 (0.015)	-0.0124 (0.014)		-0.0215 (0.013)
SSAfrica	-0.0645 (0.088)	-0.0478 (0.083)	-0.0415 (0.092)	-0.119 (0.083)	-0.112 (0.083)	-0.0886 (0.081)
NAfrica_MidEast	-0.0289 (0.072)	-0.0295 (0.069)	-0.0824 (0.080)	-0.0470 (0.076)	-0.0645 (0.075)	-0.0931 (0.076)
Latin America	-0.114 (0.071)	-0.103 (0.066)	-0.0883 (0.080)	-0.133* (0.069)	-0.122* (0.068)	-0.137* (0.072)
Europe	-0.115 (0.074)	-0.105 (0.070)	-0.0177 (0.077)	-0.0833 (0.073)	-0.0570 (0.071)	-0.0485 (0.075)
East Asia	-0.176** (0.071)	-0.159** (0.066)	-0.140* (0.080)	-0.194** (0.071)	-0.178** (0.070)	-0.194** (0.074)
South Asia	-0.0476 (0.074)	-0.0462 (0.073)	-0.0622 (0.085)	-0.0397 (0.082)	-0.0418 (0.081)	-0.0928 (0.081)
North America	-0.134 (0.093)	-0.127 (0.090)	-0.0686 (0.104)	-0.146 (0.094)	-0.145 (0.095)	-0.115 (0.097)
Constant	-0.352 (0.211)	-0.433*** (0.138)	-0.342 (0.236)	-0.180 (0.137)	-0.293*** (0.0965)	-0.109 (0.138)
Observations	43	44	44	43	44	44
R-squared	0.558	0.548	0.392	0.524	0.494	0.447

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3.32: Regression results with regions using Heritage EFI

VARIABLES	(1) 2005-2009	(2) 2005-2009	(3) 2005-2009	(4) 1995-1999	(5) 1995-1999	(6) 1995-1999
EFI Heritage	0.00228 (0.002)	0.00349** (0.002)	0.00443** (0.002)	0.00309* (0.002)	0.00390** (0.002)	0.00373** (0.001)
Education	0.0213*** (0.007)	0.0203*** (0.007)		0.0166* (0.009)	0.0165** (0.007)	
Political	-0.00721 (0.012)		-0.0106 (0.012)	-0.00595 (0.014)		-0.0181 (0.011)
SSAfrica	-0.0609 (0.082)	-0.0362 (0.074)	-0.0377 (0.071)	-0.105 (0.076)	-0.0985 (0.072)	-0.101 (0.062)
NAfrica_MidEast	-0.0300 (0.058)	-0.0342 (0.057)	-0.0838 (0.052)	-0.0777 (0.065)	-0.0909 (0.063)	-0.128** (0.056)
Latin America	-0.112* (0.063)	-0.0930* (0.054)	-0.0995 (0.061)	-0.136** (0.062)	-0.134** (0.057)	-0.160*** (0.056)
Europe	-0.0907 (0.070)	-0.0677 (0.060)	-0.0189 (0.061)	-0.0652 (0.065)	-0.0518 (0.057)	-0.0576 (0.059)
East Asia	-0.156** (0.059)	-0.140* (0.0558)	-0.132** (0.055)	-0.191*** (0.061)	-0.178*** (0.059)	-0.204*** (0.056)
South Asia	-0.0428 (0.068)	-0.0387 (0.065)	-0.0661 (0.065)	-0.0484 (0.076)	-0.0518 (0.071)	-0.109 (0.065)
North America	-0.126 (0.093)	-0.114 (0.088)	-0.0931 (0.091)	-0.129 (0.092)	-0.126 (0.090)	-0.117 (0.087)
Constant	-0.265 (0.168)	-0.369*** (0.0995)	-0.289* (0.167)	-0.260* (0.140)	-0.329*** (0.0756)	-0.170 (0.120)
Observations	48	49	54	49	50	55
R-squared	0.465	0.456	0.358	0.442	0.432	0.396

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

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