UNIVERSIDADE CATÓLICA PORTUGUESA

Causes of Gender Pay Gap in Europe

A Panel Analysis

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Causes of Gender Pay Gap in Europe

A Panel Analysis

Final Dissertation presented to Universidade Católica Portuguesa to obtain the master's degree in Management, with specialization in Business Analytics

by

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“Gender parity is not just good for women – it’s good for societies.”
Angelica Fuentes

“We cannot change what we are not aware of, and once we are aware, we cannot help but change.”
Sheryl Sandberg

“To those accustomed to privilege, equality feels like oppression.”
Anonymous

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Resumo

A presente dissertação pretende perceber como é que o índice de disparidade de ganhos entre géneros (IDGG) não ajustado evoluiu nos estados-membros da União Europeia (UE), de 2008 a 2018, e o que melhor pode explicar essa evolução.

Inicialmente, os dados recolhidos a partir de várias fontes de acesso livre, sobre família, cultura e mercado de trabalho, foram apresentados numa *dashboard*. Constatou-se a partir da mesma a existência de uma possível discriminação devido à presença de efeitos de "tetos de vidro", em termos agregados da UE. Apesar de haver uma tendência positiva na participação no mercado de trabalho e de, em média, as mulheres investirem mais na sua educação, a ocupação de altos cargos hierárquicos de gestão não regista tal evolução.

Dada a natureza não ajustada da variável explicada, foi estimada uma regressão linear e exponencial com uma amostra em painel, na tentativa de explicar tais disparidades. Denote-se que a falta de informação nas bases de dados acedidas limitou a inclusão das variáveis explicativas na regressão. Porém, neste caso, o resultado mais importante é que as variáveis culturais são essenciais na explicação do IDGG, nomeadamente a religião predominante e a origem legal de um país, assim como a sua caracterização segundo algumas das dimensões de Hofstede.

Quanto à originalidade, a análise em painel não é muito comum no estudo da disparidade de ganhos entre géneros, nomeadamente sobre a UE, tal como a elaboração de uma *dashboard* para apresentar os dados recolhidos. Ademais, quase todas as variáveis culturais consideradas ainda não foram integradas no estudo do IDGG e as restantes ainda não tinham sido incluídas de forma conjunta.

Palavras-chave: índice de disparidade de ganhos entre géneros; regressão em painel; cultura; União Europeia.

Abstract

The main goal of this dissertation is to understand how the unadjusted gender pay gap index (UGPGI) evolved in the member states of the European Union (EU), from 2008 until 2018, and what factors can explain in the most part that evolution.

Firstly, it was presented in a dashboard all the relevant information concerning the data collected – which includes family, cultural and labour market related information – from multiple open access sources. One of the most relevant conclusions retrieved was the possible existence of discrimination due to the presence of glass-ceiling effects, in aggregational terms of the EU. Despite the positive trend registered in the labour market participation and the greater investment of women in their education, the occupation of managerial positions does not present such evolution.

Given the unadjusted nature of the explained variable, a panel analysis was performed through the implementation of a linear and an exponential regression, in order to try to explain such disparities. Note that the lack of information in the accessed databases limited the explanatory variables included in the regression. However, in this case, the most important finding was that cultural variables are relevant in the explanation of the UGPGI, specifically the main religion and legal origin of a country, as well as its characterization through some of Hofstede's cultural dimensions.

Regarding originality, a panel analysis is not very common in the research of the gender pay gap, mainly concerning the European Union, nor is the development of a dashboard to present all the data. Also, almost every cultural variable considered has not yet been included in the study of the UGPGI. The remaining attributes have been considered in other studies of this kind but had not been comprised together in one.

Keywords: gender pay gap index; panel regression; culture; European Union.

List of Abbreviations

C.I. – Confidence's Interval

DF – Degrees of Freedom

ESS – Explained Sum of Squares

EU – European Union

FE – Fixed Effects

F-test – Fischer's Test

GPG – Gender Pay Gap

UGPG – Unadjusted Gender Pay Gap

UGPGI – Unadjusted Gender Pay Gap Index

GPG(I) – Gender Pay Gap (Index)

ILO – International Labour Organization

IQR – Interquartile Range

LM-test – Lagrange's Multiplier Test

OECD – Organisation for Economic Cooperation and Development

OLS – Ordinary Least Squares

RE – Random Effects

RSS – Residual Sum of Squares

TSS – Total Sum of Squares

UK – United Kingdom

n – Number of Groups/Countries

T – Number of Years Observed

N – Number of Total Observations

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1. Introduction

The current dissertation has the purpose of exploring what is on the basis of the disparities registered by the Gender Pay Gap (GPG) in the European Union (EU). In other words, the research question can be translated into "What are the causes that best explain or that influence the most the GPG in the EU?".

To answer this, an econometric analysis was taken as the main approach. More specifically, it was estimated a linear and an exponential panel regression, considering its three typical methodologies – pooled Ordinary Least Squares (OLS), fixed effects (FE) and random effects (RE) –, in which the explained variable will be an index of the unadjusted GPG, i.e., UGPGI. In addition, a dashboard with the visualization of the variables was also developed, allowing to retrieve early conclusions about possible relations between them.

Considering the great amount of research and literature available on this subject, why is its study still relevant? For starters, it could be expected that in the 21st century the GPG would no longer be a problem, maybe except in its beginning (Stanley & Jarrell, 1998). Although that is not the case, there is, indeed, a growing awareness of this issue, not only at an individual level, but also at a governmental or societal one (Rubery & Koukiadaki, 2016), which reflects the overall tendency of diminishment of the GPG in developed countries (Pereira, 2020). Nevertheless, a lot of work is still required to increase even more that consciousness, as many still fail to recognise the existence of such problem, and others do not understand what could explain its sojourn besides pure and simple discrimination. It is because of this lack of awareness that the existence and celebration of some symbolic days are so relevant, such as the International Women's Day and the European Equal Pay Day, given they allow a revival of the discussion on topics of the same scope as the one considered in this dissertation.

In fact, as many researchers have claimed (Leythienne & Ronkowski, 2018; Hirsch et al., 2013), the gap is not only due to discrimination, mainly towards women. On the one hand, some of the most common factors that can explain it are the presence of women in the labour market compared to men, their experience, skills, and industry of employment. On the other, there are further aspects that only more recently have been considered, like the social norms (Blau & Kahn, 2017). As this last approach is relatively new, there is still a lack of literature, mainly in the consideration that the gap can be conditioned by a nation's culture. For instance, to what extent may the predominant religion of a country or its level of religiosity impact the gap of that country? And is its influence positive or negative? The same goes for other factors that can characterise the culture of a give nation but are not as commonly considered, like its legal origin or level of individualism.

Thus, the present dissertation aims as well to answer these questions by assessing whether cultural aspects like the ones mentioned above need to be included in the discussion of the GPG. Moreover, most studies tend to focus only in one or in a rather small group of countries. There are not many studies, especially in the most recent ones, that consider a broader research at the EU level, being this another lacuna we try to tackle.

This report is structured in three main sections. After this introduction, chapter 1 comprises a literature review about the GPG, mainly concerning its evolution, explanations and potential causes, and methodological approaches. Chapter 2 describes the models, variables (not only a definition of them, but also a statistical analysis), methodology, and the analysis of the dashboard. The discussion of the model estimation's results is presented in chapter 3, followed by a section for the main conclusions of this dissertation.

2. Literature Review

2.1. Theoretic Importance of studying the GPG

There are many studies tracing back the evolution of women's participation in the labour market (see Abbott, 1906) and of the GPG since the beginning of the last century. According to Stanley and Jarrell (1998), it would be expected that this gap would be basically null by 2001, or, at most, by 2007, given the great reduction registered in the last decade of the 20th century. Despite its existence, or acknowledgment, not being at all recent, the GPG seems, indeed, to persist as a present-day problem. One of the main contributing factors is the lack of awareness that still exists on this problem (Tharenou, 2012; Lips, 2012a; Beyer, 2018). Some people believe it is not such an important topic nowadays and that it is practically non-existent, or even a myth. But the truth is that it is still a prominent matter. Its relevance is recognized by the EU by making it part of the European Pillar of Social Rights, created in 2017, and there is a date dedicated to the consciousness of this issue – the European Equal Pay Day, celebrated in November (Leythienne & Ronkowski, 2018).

The report on the global gender gap at a worldwide level for 2020, developed by Crotti et al. (2019), for the World Economic Forum, analyses the global gender gap in one hundred and fifty-three countries in terms of four sub-indexes – "Economic Participation and Opportunity", "Educational Attainment", "Health and Survival", and "Political Empowerment". Although these four indicators might all (direct or indirectly) contribute in some way to the gender pay gap, the focus will be placed in the first one. Globally, it is estimated that this dimension is the second out of the four that presents the worst gap in terms of size – 42.20% remains unclosed, having widened when compared to the previous year. Actually, given the slow evolution registered, it is argued that this economic gap will only be closed by 2277, that is, in 257 years, which seems to be a little extreme when one considers what Stanley and Jarrell (1998) claimed.

Considering the systemic literature review of Pereira (2020) it is stated that most developed countries reported a positive change in the GPG, in the last decades. When narrowing down the one hundred and fifty-three countries analysed by Crotti et al. (2019) to European countries, it is clear that only nine are included in the top-twenty with the lowest global gender gap in the "Economic Participation and Opportunity" dimension – Iceland (2nd), Belarus (5th), Latvia (8th), Norway (11th), Slovenia (12th), Lithuania (13th), Sweden (16th), Finland (18th) and Moldova (19th). In fact, by looking at the evolution of the EU's unadjusted GPG from 2010 to 2018, a decrease was registered – 15.8% in 2010 vs. 14.8% in 2018, meaning that, in the latter year, gross hourly earnings of women were on average 14.8% below those of men (Eurostat, 2020f). It should be emphasised that the unadjusted GPG is only based on the earnings of men and women, contrary to the adjusted one, which takes into consideration additional factors to explain the gap, such as the hours worked and experience of men and women.

Another important aspect to consider is that the GPG can range widely between countries – it can go from 5% in Romania, to 25% in Estonia (Landmesser, 2019). It was also mentioned on Landmesser's research (2016) that most EU's member states have a bigger wage gap at the top of the income distribution, highlighting the existence of glass ceiling effect. Nonetheless, there are some countries that also exhibit that problem at the bottom of the income distribution, meaning the sticky floor effect is present as well. Thus, the glass ceiling and sticky floor effects can be characterised as representing the existence of wider gaps at the top and at the bottom of the income distribution, respectively. More precisely, the former effect is connected to the presence of access barriers for women to higher ranked positions in the hierarchy of an organization (Landmesser, 2019; Leythienne & Ronkowski, 2018) and is persistently more difficult to suffer a reduction than the latter effect (Fitzenberger & Wunderlich, 2001), which in turn is linked to the presence of "(…) discriminatory employment pattern that keeps workers in the lower ranks of the job scale" (Landmesser, 2019, p. 83). These conclusions are in line with the results of Arulampalam et al. (2007) and indicate that the gender wage gap can have different shapes and sizes across countries.

When everything mentioned above is looked upon, one can easily recognise that the problem of GPG persists. But what could still be causing this? Even though Blau and Kahn (2017) present some reasons for the case of the USA, they believe their findings can also be applied to developed countries, such as those in the EU. The most common aspects regard job experience, education, age, family characteristics, discrimination, the industry in which are employed, and even the female participation in the labour market. Stanley and Jarrell (1998) discovered, with their meta-regression analysis of several literature, that some of the characteristics mentioned previously cannot be disregarded from any model that tries to explain the gap, otherwise the results may be very biased due to the absence of such variables (age, experience, industry and, also, the government status – that is, if the organization is controlled by a public or private entity).

Note that the combination of age with experience seems to lead to a better monetary reward for man rather than for women (Bertrand et al., 2010; Manning & Swaffield, 2008) – both cited by Fuchs et al. (2019). Regarding the participation of women in the labour market, its presence began to be more intensified right after the end of the World War II (Olivetti & Petrongolo, 2016) and although it has been increasing globally, only 55% of adult women are part of it, meaning they are still less participative than adult men (Crotti et al., 2019). Nonetheless, it should be emphasized that countries with higher gaps in terms of employment register lower levels of earnings disparity between genders (Olivetti & Petrongolo, 2016).

Even with inclusion of the four attributes advised by Stanley and Jarrell (1998), a part of the gap will still remain unexplained and it is here that many authors believe that a new area of study can be included (Blau & Kahn, 2017; Olivetti & Petrongolo, 2016; Fuchs et al., 2019; Lips, 2012b, 2012a; Davis & Williamson, 2019; Judge & Livingston, 2008; Kleven & Landais, 2017).This new field of research considers some additional and sophisticated aspects: "the norms, psychological attributes, and noncognitive skills" (Blau & Kahn, 2017, p. 791).

Something with a strict connection to (social) norms is the culture observed in a country. It has been detected that a country's culture is connected to gender role orientation and stereotypes (Sidani, 2013). Nevertheless, there is not enough literature relating this factor to the participation and earnings of women in the labour market. Sidani (2013) indeed tried to assess the impact of cultural dimensions and education in female labour indicators, considering some aspects present in the GLOBE study (Lackey et al., 2004), which in turn is based on Hofstede (2001) and Hofstede et al. (2010)'s cultural dimensions. Thereby, a potential way of evaluating a country's culture, that has not been thoroughly considered in the study of the GPG, is considering the following aspects: individualism vs. collectivism, power distance, uncertainty avoidance, masculinity vs. femininity, long-term vs. short-term (Hofstede, 2001) and indulgence (Hofstede et al., 2010).

While *individualist cultures* are characterised by individuals taking care of themselves and the ones closest to them, in *collectivist cultures* people are part of close-knitter groups, making them prioritise the group interests over of their own, in turn of absolute loyalty (Hofstede, 2011; Hofstede Insights, n.d.-b). It is noteworthy that communities with individualism in its basis do not possess many attachments to social obligations and to what is often alleged as traditional gender roles. In this sense, these are less acceptant of gender inequality and the gap in terms of earnings between men and women tends to be smaller (Davis & Williamson, 2019).

Power distance relates to the "extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally" (Hofstede, 2011, p. 9). *Uncertainty avoidance* has to do with the ability of a society to abide ambiguity, meaning that cultures with a higher score in this index present distress to cope with new situations and with the unknown future, which leads to the establishment of stricter rules and social norms (Hofstede, 2011; Hofstede, 2001; Hofstede Insights, n.d.-b). *Masculine* societies can be described as more assertive, competitive, and presenting a divergence between men's and women's values, whilst *feminine* cultures are more oriented to cooperation, modesty and caring (Hofstede, 2011; Hofstede Insights, n.d.-b). In *long-term oriented* communities, pragmatism, perseverance, adaptation, and thrifts are essential, contrary to those *oriented for the short-term*, in which steadiness is sought and a great relevance is given to traditions and social norms/obligations. Opposed to *indulgent* societies, which are portrayed as giving relevance to leisure, control over personal life and happiness with "relatively free gratification" (Hofstede, 2011, p. 15), *restraint* cultures have more stringent social norms in order to control that satisfaction.

Clearly religion, being a fundamental (and influential) part of a nation's culture, is included in the recent approach mentioned above, with respect to the norms. One of the ways to assess the impact religion and culture have on a nation and on its government quality is through the consideration of the legal origin of the country as a proxy of culture. La Porta et al. (1999), whose research stands on understanding what makes a good and bad government, indeed observed that culture can be based on politics and that religion and legal origin are related. They considered five possible legal origins: *socialist law*, which is connected to keeping the power in the State, with no main interest in protecting property or freedom; civil law, which includes *French civil law*, *German civil law*, and *Scandinavian law*, being characterised as enlarging the State's power, but not as much as in the socialist law; and, *common law*, which is viewed as constraining the power of the State and giving more importance to people's private and property rights.

By considering these legal origins, the authors were able to establish connections between a country's predominant religion – Catholic, Muslim, Protestant or Orthodox – with the designated legal origin and the performance of the government. Mainly, they realised that countries that are predominantly Catholic were linked to a French legal origin and to a worse performing government, while predominantly Protestant countries typically have a Scandinavian (or an English) legal origin and better governments. In addition, La Porta et al. (1999) acknowledged three more points: socialist law is essentially present in countries that are more Orthodox or that do not have a predominant religion; richer countries have better governments; and mainly Protestant countries also have better governments than Catholic or Muslim countries.

Raday (2003) claimed that religion holds a central role in the culture's resistance to reach equality between men and women, given that "(…) cultural defence or claims of religious freedoms are used to oppose women's demands for gender equality" (Raday, 2003, pp. 709-710). Bearing that in mind, religion can play a very important role in the GPG, being expected a much larger gap in areas that are more religious, mainly when the religion in question is Catholicism or Muslimism. This is due to being attributed to women a role of primary caregiver, meaning they should prioritise the family's well-being and not worry so much about their professional lives – Judge & Livingston (2008) state there is evidence linking the attendance of religious service with the expectation of women acting in a traditional way. Although there is an evident impact of religion in gender (in)equality, including in terms of paying, and that there is some research considering it as an important variable in the study of female participation in the labour market (H'madoun, 2010; Knudsen & Wærness, 2001; Pastore & Tenaglia, 2013), the same does not seem to be true in the study of the GPG, despite both studies are related. For this purpose, the estimation of the gap should take religion into consideration as a viable explanation.

One of the consequences of the perpetuation of the traditional gender roles is that people of the female sex will inherently have a tendency to 'opt' more for occupations that do not consume much time, like part-times (Olivetti & Petrongolo, 2016), which allow them to be more easily available for the family and which are associated with low paying hourly wages. Ashiagbor (2006), cited by Rubery and Koukiadaki (2016), states that other negative impacts of this type of work are related to the development of women's career, chances of promotions and to the benefits paid after retirement, i.e., pensions.

In this line of thinking, it is also evident that the unadjusted GPG can vary substantially between countries when it is considered the type of work in terms of hours. In some cases, part-time workers suffer from a greater salary's disparity between genders than full-time workers. An interesting fact is that, in Germany, in 2018, women working in part-time earned more by hour than men part-timers (Eurostat, 2020i). Therefore, when assessing the level of GPG, this aspect should also be considered in a model's development.

It has been observed as well that women have an inclination for working more in the service industry, as it may be better suited for women's preferences and does not require such a physical effort like the manufacturing industry does, which in turn is more dominated by men (Olivetti & Petrongolo, 2016). Such situation is associated with sex segregation at the sectoral/industry level, especially given that men are more proponent to be working in activities with greater payments (Leythienne & Ronkowski, 2018). It exists, too, sex segregation at the occupational level, possibly due to discrimination, which can be reflected by the tendency of men being promoted more often to positions placed higher in the hierarchy (and, consequently, better paid), when compared to women (Leythienne & Ronkowski, 2018; Judge & Livingston, 2008). Nevertheless, women have been able to occupy more leadership roles (Olivetti & Petrongolo, 2016), despite its slow evolution. In 2019, at the EU's level, the share of women as board members and senior executives was 27% and 17%, respectively. Comparing these values with the ones of 2013, it is possible to verify a growth of 9 and 5 percentage points, in respect to the previous positions. Meanwhile, the share of women as managers did not suffer a change from 2012 to 2019, having stagnated at

36% (PETROVOVA, 2019).

Furthermore, it is well established that having a child can and most likely will interfere with a woman's career much more than with a man's (Olivetti & Petrongolo, 2016; Lips, 2012b, 2012a). More precisely, there will be a smaller participation in the labour market (whether it is during the pregnancy or after childbirth) and a perceived lower investment in human capital. Consequently, the productivity will be more reduced, leading to less earnings and, therefore, to a bigger incidence of the GPG, mainly among those that present higher education (Olivetti & Petrongolo, 2016; Kleven & Landais, 2017). This is nothing more but the human capital theory being applied (Mincer & Polachek, 1974). As a matter of fact, the disparity is higher for women with children than for those without them (Kleven & Landais, 2017). It is worth mentioning, however, that this effect is more notorious in younger women, having a tendency to be mitigated as the age gets higher, mainly after the 50's (Kahn et al., 2014).

Some attention has been called out to a few limitations of the human capital model when its contemplated variables are considered as an explanation of the gap (e.g., education, experience). A common positive side pointed out about this economic theory, along with many others, is its "gender-neutral" analysis characteristic (Lips, 2012b, 2012a), meaning there is no differentiation between men and women when assessing what can explain the earnings disparity among genders. However, Lips (2012a, 2012b) has criticized this point of view, clamming this so called "bias-free" approach not only ends up being deceiving, but also a bit discriminatory. Although this theory provides an unarguable important source of explanation of the gap, Lips (2012a) states that "a narrow focus on such an approach aids in the rationalization of discrimination against women by positing numerous logical 'reasons' for their differential treatment and making people comfortable with the gap." (p. 225).

As it has been established, the existence of social constructs influences the choices and behaviours of both genders in different ways and, therefore, it will influence differently their labour market activity, as well. Hence, it is alleged that this type of economic framework calls for an inclusion of other explanatory attributes that consider the disparate social impact in both genders, even if they are not so easily measured due to its more subjective nature.

It is true that there are multiple studies that try to estimate when the gap will close (e.g., Crotti et al., 2019) and that this estimation cannot be done without taking into consideration the human capital theory. It seems to be not possible to close the gap when the theory under discussion is only considered with the rational, objective and "gender-neutral" reasons. And why is that? Let us consider, again, the reasoning of mothers and pregnant women's reduced participation in the labour market and how it leads to less earnings for them. While women keep on having children, or even only the possibility of having them, and the previous rationale is used, the gap will remain open. For this matter, there are only two possible outcomes or solutions that, to my knowledge, have not yet been addressed. On the one hand, all women around the whole world could decide to not have kids ever, placing them at the same level of men in this matter. This would lead them to gain the same as their male counterparts – *ceteris paribus* – and to the closure of the gap, colliding in the extinction of the entire humane race. On the other, some adjustments could be made in the economic theory of the human capital as already suggested, even if this means considering more subjective variables of explanation. For obvious reasons, the first option is very extreme and not at all viable, leaving us with the second one.

Tharenou (2012), who reviewed Lips (2012b) paper, agrees there is a cumulative effect of social and human capital circumstances with a negative impact towards women, making the sojourn of the GPG. For instance, when a woman enters the labour market and has a rather smaller payment compared to the one she deserves, this is enough to define her life earnings, even if she changes companies – the new employer has the excuse to pay her poorly, because the previous one did not pay her much either. This is, once again, the human capital theory being applied.

Although the motherhood wage penalty is very often acknowledged by the existing studies on the issue at hand, it seems there is a variable that, normally, is putted aside – the reproductive autonomy of women. In other words, the (il)legality or easiness of access to abortion can have a potential impact in the gap, as it is another variable representative of a nation's conservativism. There are still many countries who do not allow it, such as Malta, or make its access not completely free, like Poland and Finland. Some of the European countries that have more recently allowed women to abort on request (varying only the limits of gestation between the countries) are very religious, being predominantly Catholic – Spain, Luxembourg, and Ireland, which authorized it in the years of 2010, 2012, and 2019, respectively – and Orthodox in the case of Cyprus, having approved it in 2018 (Center of Reproductive Rights, 2019; Association of Religion Data Archives, n.d.).

A further aspect that is, typically, overlooked, but not any less relevant, relates to the regions of the countries under study. It is true that the wage differential registered among genders in a given country will not be exactly the same across regions, as these do not present the same level of resources and characteristics. For example, in East Germany, the GPG is much lower, and sometimes even negative – meaning that women earn more than men in certain areas –, than in West Germany (Fuchs et al., 2019). In addition, Hirsch et al. (2013) confirmed a significant difference of the gap between the western Germany rural and urban areas, being rather smaller in the latter, which is characterized as having more competitive markets. Taking this into consideration, it is important to tackle this lack of research, in order to understand if there are certain patterns in other countries similar to those registered in Germany.

Once the causes of the GPG are fully addressed and understood, one question remains. What actions are being undertaken to overcome this issue? According to an International Labour Office report developed by Rubery and Koukiadaki (2016), most of these actions have a political, or legal basis, but there is also room for voluntary actions, such as campaigns to raise awareness about several working issues (including gender inequalities in the labour market), for better and more liveable (minimum) wages, and development of voluntary codes of conduct for and/or by the companies. The main goal of these mechanisms, especially the ones that are voluntary, is to pressure organizations to accomplish acceptable labour standards (Rubery and Koukiadaki, 2016).

Family friendly policies are, perhaps, the most important ones to ensure women's, and men's, rights regarding the providence of support to the family, above all for new-born and young children, and still maintain their professional lives. These policies have contributed to the entry of women in the labour market in some countries (Olivetti and Petrongolo, 2016) and include, essentially, procedures about maternity, paternity, parental, and carer's leaves, and the possibility of having a flexible working time schedule. The European Commission included in its Pillar of Social Rights a principle defending a work-life balance (European Commission, n.d.) and presented, as well, a new Directive aiming high to improve these conditions (European Commission, 2019).

Notwithstanding, many of the actions taken to overcome this social problem have a narrow scope of action and even some of them do not have the intended effect on closing the GPG or raising female participation (Rubery and Koukiadaki, 2016; Blau & Kahn, 2013). Arulampalam et al. (2007) and Broecke et al. (2017) mention as well that different policies and institutions across countries can explain the variations registered among them. Olivetti and Petrongolo (2016), with their sample of eleven countries, discovered that in those in which the work-family policies are higher, not only there is a contribution to the existence of glass ceiling effects and to the diminishment of the sticky floor effect, but also an increase of women's hiring cost. So, given the existence of certain mechanisms not playing the necessary role to deal with the issue at hand, the gap can remain open and unreduced.

As Rubery and Koukiadaki (2016) quoted, an additional concern has to do with the fact that “empirical evidence has highlighted the limits of a conventional approach to gender equality that is centred on a negative prohibition on discrimination rather than a positive duty to promote equality (Hepple et al., 2000)” (p. 35). Likewise, Tharenou (2012) stated that the legislation that has been implemented in various nations to overcome effects of indirect discrimination is not enough, being prominently required a social transformation.

2.2. Methodologic Approach

Despite the existence of various methods available and applied to the study of the GPG, most of them are regressions that allow the decomposition of this gap. It is this decomposition that allows us to understand which factors are contributing to the persistence of different earnings among men and women and what are the effects of discrimination (Stanley & Jarrell, 1998). Perhaps, the most popular approach is referred to as the Oaxaca-Blinder Decomposition (Oaxaca, 1973; Blinder, 1973), which presents two different equations – one for each gender group. Later on, Neumark (1988) and Cotton (1988) based their work on this procedure and led to the emergence of other methods.

The problem with regression models is that there is a tendency to disregard some important aspects that can affect earnings. Stanley and Jarrell (1998) concluded in their research that the omission of certain variables from a model of decomposition of the GPG may lead to a bias in the results obtained, as it has already been referred. In fact, they claimed that most of the times, this omission overestimates the gap, more specifically, overestimates the part attributed to discrimination, i.e. the unexplained portion (Hirsch et al., 2013). This means that the real gender wage discrimination may be much smaller than what seems to be reported by other authors’ research. Such finding is line with the work of Leythienne and Ronkowski (2018), in which they reiterate that one should not consider the whole unexplained element as merely due to discrimination. This makes sense after one acknowledges the existence of more subjective aspects that contribute to it and that have not yet been included in the study of the gap in an exhaustive way.

It should be stressed that the results amongst research papers vary because they are extremely sensitive to the method used. Even so, and given the limitations of regression methods, I believe this approach remains an option to evaluate the GPG, as long as one tries to mitigate the biases presented. It can be a valid alternative especially when it is considered attributes (e.g., religion, cultural dimensions and legal system of a country) that have not been included before in this type of econometric model to examine the gap.

Although there are many studies involving a single country (e.g., Fuchs et al., 2019; Hirsch et al., 2013; Fitzenberger & Wunderlich, 2001; Cardoso et al., 2016) and a cross-country (e.g., Crotti et al., 2019; Arulampalam et al., 2007; Landmesser, 2019; Leythienne & Ronkowski, 2018; Olivetti & Petrongolo, 2016) analysis on the GPG, there still seems to exist a lack of relevant literature on the subject, more specifically, on what has been contributing more to this problem in each country, throughout the years. Implementing this type of analysis – i.e., panel analysis – is crucial, since not only does it show if a given country has been moving forward in terms of closing the gap, but also demonstrates what are the main aspects that still contribute to the existence of this issue across countries. Although there has been some panel analysis to study the matter at hand (e.g., Blau & Kahn, 2017; Kleven & Landais, 2017), there is still space in the literature for new studies regarding EU, in more recent years and considering new possible determinants.

3. Method and Data

3.1. Model Description

The primary focus of the present dissertation is to explore the evolution and main causes of the unadjusted GPG (UGPG) across time in certain European countries. Bearing that in mind, it will be applied a quantitative method, more specifically, a regression model, having on its basis a panel analysis – i.e., it will be used panel data as it allows the study of time-series and cross-sectional data. Provided that, it can be claimed that a panel dataset has two "axes": one for the time-series and another for the cross-section, which in this case will comprise, respectively, information from 2008 until 2019 and for the twenty-eight countries that were part of the EU until the end of 2019[1].

It is important to point out that this model will estimate what contributes the most to the UGPG, measured by an index, (this index will be explained in more detailed in the variables' description – see section 3.2.1). Furthermore, it will be performed two distinct models, a multiple linear regression model and an exponential model. The latter is included, not only because we do not know beforehand whether linearity is confirmed or not, but also because it has a more interesting interpretation compared to the former. On that premises, both models can be defined by equations (1) and (2), respectively, being possible to translate the latter into equation (3).

[1] The United Kingdom (UK) is still included in the present analysis since the Brexit only occurred in 2020 and the data was retrieved for the period of 2008 to 2019. Therefore, the total number of countries taken into account is twenty-eight and not twenty-seven.

$$UGPGI_{it} = \beta_0 + \sum_{k=1}^{K} \beta_k X_{kit} + \varepsilon_{it} \tag{1}$$

$$UGPGI_{it} = \beta_0 \times \exp\left(\sum_{k=1}^{K} \beta_k X_{kit} + \varepsilon_{it}\right) \tag{2}$$

$$\ln UGPGI_{it} = \ln \beta_0 + \sum_{k=1}^{K} \beta_k X_{kit} + \varepsilon_{it} \tag{3}$$

Where,

- $UGPGI_{it}$: *Unadjusted Gender Pay Gap Index* of country i, in year t;
- $\ln GPGI_{it}$: *natural log of the Gender Pay Gap Index* of country i, in year t;
- X_{kit}: set of explanatory variables, that may impact the UGPGI of country i, in year t, and in which $k = 1, \dots, K$;
- β_0 (in equation (1)) and $\ln \beta_0$: constant or intercept;
- β_k: parameters of the corresponding variables, in which $k = 1, \dots, K$;
- ε_{it}: error term for country i and year t;
- i: refers to the EU's countries, in which $i = Austria, Belgium, \dots, United\ Kingdom$ (by alphabetic order);
- t = 2008, 2009, …, 2018.

3.2. Variables

3.2.1. Description and Source

Before proceeding to the development of a certain method, it is essential to have proper data, which will be collected and retained together in a single database. The explanatory variables considered for the present study can be divided in three main groups. Firstly, we have the labour market's variables group, including the experience, tenure, proportion of women and men in the labour market and in higher ranking positions, hourly earnings, and the employment level by immigrants, educational attainment level, occupation, sector, contract's length (temporary versus permanent), and working time regime (part-time versus full-time). Secondly, there is the group of cultural variables, comprising each country's predominant religion, level of religiosity, legal origin and access to abortion, as well as the following cultural dimensions: power distance, individualism versus collectivism, masculinity, long-term versus short-term orientation, uncertainty avoidance, and indulgence. Finally, the third group regards the family variables, which comprehends the marital status, the fertility rate, and the household composition.

By considering this aggregation in three groups, the X component in equations (1) and (3) can be decomposed in three separate sets of variables, each corresponding to a different group of attributes – see equation (4).

$$\sum_{k=1}^{K} \beta_k X_{kit} = \sum_{v=1}^{V} \beta_v L_{vit} + \sum_{w=V+1}^{W} \beta_w C_{wit} + \sum_{u=W+1}^{U} \beta_u F_{uit} \tag{4}$$

Given this equalization, then, equations (1) and (3) can be translated to equations (5) and (6), respectively.

$$UGPGI_{it} = \beta_0 + \sum_{v=1}^{V} \beta_v L_{vit} + \sum_{w=V+1}^{W} \beta_w C_{wit} + \sum_{u=W+1}^{U} \beta_u F_{uit} + \varepsilon_{it} \tag{5}$$

$$\ln UGPGI_{it} = \ln \beta_0 + \sum_{v=1}^{V} \beta_v L_{vit} + \sum_{w=V+1}^{W} \beta_w C_{wit} + \sum_{u=W+1}^{U} \beta_u F_{uit} + \varepsilon_{it} \tag{6}$$

Where,

- L_{vit}: set of explanatory variables related to labour market characteristics, that may impact the UGPGI of country i, in year t, and in which $v = 1, \dots, V$;
- C_{wit}: set of explanatory variables related to cultural characteristics, that may impact the UGPGI of country i, in year t, and in which $w = V + 1, \dots, W$;

- F_{uit}: set of explanatory variables related to family characteristics, that may impact the UGPGI of country i, in year t, and in which $u = W + 1, \dots, U$;
- β_v: parameters of the corresponding variables, in which $v = 1, \dots, V$;
- β_w: parameters of the corresponding variables, in which $w = V + 1, \dots, W$;
- β_u: parameters of the corresponding variables, in which $u = W + 1, \dots, U$.

One of the difficulties of the present study was to collect all the required data from a single database. For that reason, the information collected for the previous attributes was retrieved from multiple datasets, mainly from Eurostat, Organisation for Economic Cooperation and Development (OECD), and International Labour Organization (ILO). Table 1 presents the description and the source of each variable, as well as the reference of some studies in which these variables have been considered. The addition of such references can justify for itself the choice of inclusion of most variables, given those studies are related to the matter at hand in some way. Nevertheless, it has already been explained at a fuller extent the reasons behind the integration of some of the attributes in this analysis. A further aspect that needs to be emphasised is that all numeric variables, except for the UGPGI, fertility rate and household composition, will be transformed in a female-to-male ratio, so what will be captured is the existing gap between men and women. This decision of conversion was based on the report developed by Crotti et al. (2019), which in turn uses the methodoly initially applied by Hausmann et al. (2006) .

A distinction between indicator and variable must be made in the "Indicator/Variable" column. We are in the presence of an indicator when a number is presented in brackets after a given designation. Note that, such number refers to the quantity of variables related to that indicator and that are included in the model and in the database. For example, the "(4)" after the "Educational Attainment Level" indicator means there is a total of four different variables included in this indicator, which regard four distinct levels of education – less than basic, basic, intermediate, and advanced. Contrarily, when no number is indicated, then what we have is one, and only one variable. In view of this, there are forty-six attributes in total, out of which, forty-five are explanatory and one is explained (the "UGPGI").

Two aspects regarding the six attributes of the cultural framework of Hofstede are in need of explanation. Primarily, the meaning of these variables has already been described in the literature review, which is why we only present in this section the levels considered for each dummy variable. It is worth mentioning, however, that the data collected was based on scores that would range from 0 to 100. In order to transform it into a dummy variable, it was defined three major classes. Class 0 refers to a score inferior to 45, class 1 refers to a score superior to 55, and class 2 refers to a score that is comprehended between 45 and 55 (both scores included). Lastly, Cyprus was the only country for which no results of the Hofstede's cultural dimensions were made available. For that reason and going in line with what other researchers have done to overcome this issue, the results of Greece were replicated for Cyprus (Christiansen & Chandan, 2017; Stylianou et al., 2012; Loureiro & Kaufmann, 2014). These authors have applied such reasoning as it is alleged that there is a common history and cultural characteristics between Greek Cypriots and Greeks, meaning the scores of these two populations may not differ that much from one another.

	Indicator/Variable	Variable Description	Source	Presence in research
Dependent Variable:				
	Unadjusted Gender Pay Gap Index	This index (%) is based on the difference between the 100% base and the UGPG, in order for us to be able to analyse it in terms of closeness to parity, which is reached at 100% (or 1). Note that the UGPG is defined as "the difference between average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees" (Eurostat, 2020f). Type of variable: numeric.	Gender pay gap in unadjusted form by NACE Rev. 1.1 and Rev. 2 activities: structure of earnings survey methodology (EARN_GR_GPG and EARN_GR_GPGR2, respectively) retrieved from Eurostat (2020f) – online data code: SDG_05_20.	-

Table 1 – Variable's description, source, and references.

	Indicator/Variable	Variable Description	Source	Presence in research
Independent Variables:				
Group of Labour Market Variables	Educational Attainment Level (4)	It is considered four variables, each corresponding to a different level of education. In this case, we have the female-to-male ratio (%) of the labour force with an education level that is (1) *less than basic*, (2) *basic*, (3) *intermediate*, and (4) *advanced*. The presence of these variables in the database and in the model is designated, respectively, as "Ed1", "Ed2", "Ed3", and "Ed4". Type of variables: numeric.	Education and skills mismatch indicators (SKILLS) retrieved from International Labour Organization (2020) – file's code: EAP_TEAP_SEX_AGE_EDU_NB_A.	Landmesser (2019); Fitzenberger and Wunderlich (2001); Fuchs et al. (2019); Leythienne and Ronkowski (2018); Depalo et al. (2015); Cardoso et al. (2016); González et al. (2005); Cotton (1988); Neumark (1988); Brown et al. (1980); Card et al. (2015); Crotti et al.

				(2019).
	Immigrants	Considers the female-to-male ratio (%) of people that are employed in each country and are non-citizens of that country. The presence of this variable in the database and in the model is designated as "Img". Type of variables: numeric.	International Labour Migration Statistics (ILMS) retrieved from International Labour Organization (2020) – file's code: MST_TEMP_SEX_STE_CCT_NB_A.	Fuchs et al. (2019).
	Labour Market Participation by Gender	Contemplates the female-to-male ratio (%) of people that are part of the labour force. The presence of this variable in the database and in the model is designated as "LMPart".	Labour Force Statistics (LFS) retrieved from OECD (n.d.-f).	Stanley and Jarrell (1998); Cardoso et al. (2016); Weichselbaumer and Winter-Ebmer (2005); Crotti et al. (2019).

		Type of variables: numeric.		
	Experience	It can be defined as the female-to-male ratio (%) of people's duration of working life. The presence of this variable in the database and in the model is designated as "Exp". Type of variable: numeric.	Labour Force Survey main Indicators (LFSI) retrieved from Eurostat (2020b) – online data code: LFSI_DWL_A.	Landmesser (2019); Stanley and Jarrell (1998); Depalo et al. (2015); Weichselbaumer and Winter-Ebmer (2005); González et al. (2005); Cotton (1988); Neumark (1988); Brown et al. (1980).
	Hourly Earnings	This variable regards the female-to-male ratio (%) of people's mean nominal hourly earnings (based on the USD currency). The presence of	Retrieved from International Labour Organization (2020) – file's code: EAR_4HRL_SEX_OC	Fitzenberger and Wunderlich (2001); Stanley and Jarrell (1998); Depalo et al. (2015); Card et al.

		this variable in the database and in the model is designated as "EarnH". Type of variable: numeric.	U_CUR_NB_A.	(2015); Crotti et al. (2019).
	Tenure (5)	It is considered five variables, each corresponding to a different tenure. It refers to the female-to-male ratio (%) of people that have been working with their current employers for (1) *less than one year*, (2) *over one year (included) and less than three years*, (3) *over three years (included) and less than five years*, (4) *over five years (included) and less than ten years*, and (5) *over than ten years (included)*. The presence of these variables in the database and in the	Labour Force Statistics (LFS) retrieved from OECD (n.d.-a).	Fuchs et al. (2019); Leythienne and Ronkowski (2018); Cardoso et al. (2016); Weichselbaumer and Winter-Ebmer (2005); González et al. (2005); Crotti et al. (2019).

		model is designated, respectively, as "Tnr1", "Tnr2", "Tnr3", Tnr4", and "Tnr5". Note that it was considered total employment, rather than dependent. Type of variables: numeric.		
	Type of Contract's Length (2)	It is considered two variables, each corresponding to a different length of employment contract. More precisely, it refers to the female-to-male ratio (%) of employed people with (1) *permanent* and (2) *temporary* working contracts. The presence of these variables in the database and in the model is designated,	Labour Force Statistics (LFS) retrieved from OECD (n.d.-e) – file's code: TEMP_I.	Landmesser (2019); Fuchs et al. (2019); Leythienne and Ronkowski (2018).

		respectively, as "Perm" and "Temp". Note that it was considered total employment, rather than dependent. Type of variables: numeric.		
	Type of Working Time Regime (2)	It is considered two variables, each corresponding to a different type of working time regime. It regards to the female-to-male ratio (%) of employed people working in (1) *part-time* and (2) *full-time*. The presence of these variables in the database and in the model is designated, respectively, as "PartT" and "FulT". Note that it was considered total	Labour Force Statistics (LFS) retrieved from OECD (n.d.-d) – file's code: FTPTC_I.	Landmesser (2019); Leythienne and Ronkowski (2018); Weichselbaumer and Winter-Ebmer (2005); González et al. (2005).

		employment, rather than dependent. Type of variables: numeric.		
	Managerial Position	This variable takes into consideration the female-to-male ratio (%) of employed people who are managers. The presence of this variable in the database and in the model is designated as "MngP". Type of variable: numeric.	Social Protection and Well-being retrieved from OECD (n.d.-g) – indicator's code: EMP10NEW.	Landmesser (2019); Fuchs et al. (2019).
	Employment by Occupation (10)	It is considered eight variables, each corresponding to a different occupation. In particular, we have the female-to-male ratio (%) of people employed as (1) *managers*, (2) *professionals*, (3) *technicians and*	Labour Force Statistics (LFS) retrieved from Eurostat (2020e) – online data code: LFSQ_EEGAIS.	Stanley and Jarrell (1998); Fuchs et al. (2019); Leythienne and Ronkowski (2018); Weichselbaumer and Winter-Ebmer

		associate professionals, (4) *clerical support workers*, (5) *service and sales workers*, (6) *skilled agricultural forestry and fishery workers,* (7) *craft and related trades workers*, (8) *Plant and machine operators and assemblers*; and in (9) *elementary occupations*, and (10) *armed forces occupations*. The presence of these variables in the database and in the model is designated, respectively, as "Occ1", "Occ2", "Occ3", "Occ4", "Occ5", "Occ6", "Occ7", "Occ8", "Occ9", and "Occ10". Type of variables: numeric.		(2005); González et al. (2005).
	Employment by Sector (3)	It is considered three variables, each corresponding to a different	Annual Labour Force Statistics (ALFS) retrieved from	Stanley and Jarrell (1998); Weichselbaumer

		occupation. We have the female-to-male ratio (%) of people employed in the sector of (1) a*griculture, hunting and forestry (ISIC rev4, A)*, (2) *industry (ISIC rev4, B-F)*, and (3) *Services (ISIC rev.4, G-U)*. The presence of these variables in the database and in the model is designated, respectively, as "Sec1", "Sec2", and "Sec3". Type of variables: numeric.	OECD (2020).	and Winter-Ebmer (2005); González et al. (2005); Cotton (1988).
Group of Family Variables	Fertility Rate	This variable can be defined as the average number of births per woman. The presence of this variable in the database and in the model is designated as "FertR".	World development indicators retrieved from The World Bank (2020).	Stanley and Jarrell (1998); Weichselbaumer and Winter-Ebmer (2005); Brown et al. (1980).

		Type of variables: numeric.		
	Household Composition	It can be specified as average number of people per household. The presence of this variable in the database and in the model is designated as "HsH". Type of variables: numeric.	Labour Force Survey (LFS) retrieved from Eurostat (2020a) – online data code: LFST_HHANTYCH.	-
	Marital Status (2)	It is considered two variables, each corresponding to a different (global) marital status. We have the female-to-male ratio (%) of people who are (1) *married* and (2) *unmarried*. The presence of these variables in the database and in the model is designated, respectively, as "Marrd" and "UMarrd".	Demographic Statistics Database retrieved from UN Data (2020).	Landmesser (2019); Stanley and Jarrell (1998); Depalo et al. (2015); Weichselbaumer and Winter-Ebmer (2005); Cotton (1988); Neumark (1988).

		It should be stressed that it was considered as *married people* those who are married but separated, married, in consensual union, and other married; and as *unmarried* those who are single (never married), divorced and not remarried, and widowed and not remarried. Type of variables: numeric.		
Group of Cultural Variables	Legal Origin	This variable regards the legal origin of a given country. For that matter, the different levels considered were the following: 0 – Civil Law, 1 – French Civil Law, 2 – German Civil Law, 3 – Scandinavian Law, 4 – Common	The World Factbook Archive retrieved from Central Intelligence Agency (n.d.); and University of Ottawa (n.d.).	-

		Law, 5 – Mix of Common Law and Civil Law. The presence of this variable in the database and in the model is designated as "LgO". Type of variable: dummy.		
	Religion	In this case, the variable is related to how the population of a given country sees itself in terms of predominant religion. Given that, the different levels considered were the following: 0 – Mainly Catholic, 1 – Mainly Orthodox, 2 – Mainly Protestant, 3 – Multireligious (no main religion), 4 – Others, 5 – Unknown, and 6 – Not religious. With the exception of the "multireligious" class, each of these	Religious Characteristics of States Dataset retrieved from Association of Religion Data Archives (n.d.).	Fuchs et al. (2019).

		levels are chosen when its representation in terms of population is significantly different from the others, i.e., when such representation is higher than 50%. The presence of this variable in the database and in the model is designated as "Rlgn". Type of variable: dummy.		
	Religiosity	This variable refers to the level of religiosity of a given country, i.e., the extent to which that country is very religious or not. Such classification is based on a survey and reflects the share of people that consider religion a very important part of their daily life. For this	Retrieved from Joshanloo and Gebauer (2020, p.6)	-

		purpose, the different levels considered were the following: 0– between 10% (included) and 20%, 1 – between 20% (included) and 30%, 2 – between 30% (included) and 40%, 3 – between 40% (included) and 50%, 4 – between 50% (included) and 60%, 5 – between 60% (included) and 70%, 6 – between 70% (included) and 80%, and 7 – between 80% (included) and 90%. The presence of this variable in the database and in the model is designated as "Rlgst". Type of variable: dummy.		
	Access to Abortion	It concerns the (il)legality and easiness of access to abortion. The different levels considered were the	Gender, Institutions and Development Database (GID-DB)	Crotti et al. (2019).

		same as the ones incorporated in the OCDE's databases: 0 - "The legal framework protects women's reproductive health and rights in case of unwanted pregnancy, without any justifications.", 1 – "The legal framework protects women's reproductive health and rights in case of unwanted pregnancy, but requires justifications.", 2 – "The legal framework only protects women's reproductive health and rights in case of unwanted pregnancy with some justifications.", 3 – "The legal framework only protects women's reproductive health and rights in case of unwanted pregnancy with	retrieved from – for 2019: OECD (n.d.-b); for 2014: OECD (n.d.-c).	

		strict justifications.", and 4 – "The legal framework does not protect women's reproductive health and rights in case of unwanted pregnancy." (OECD, n.d.-b). It should be emphasized that the levels 0 and 4 mean that abortion is completely legal and illegal, respectively. Moreover, while the levels 1 and 3 only refer to the year of 2019, the other levels (0, 2 and 4) include information of both years (2014 and 2019). The presence of this variable in the database and in the model is designated as "Abrt". Type of variable: dummy.		

	Cultural Dimensions of Hofstede	Power Distance	The different levels considered for this variable were the following: 0 – Decentralized power and inequalities are not accepted or expected, 1 – Centralized power and inequalities are accepted or expected, and 2 – Indifferent. The presence of this variable in the database and in the model is designated as "PwD". Type of variable: dummy.	Retrieved from countries' comparison of Hofstede Insights (n.d.-a).	-
		Individualism	The different levels considered for this variable were the following: 0 – Mainly collectivist society, 1 – Mainly individualist society, and 2 – Indifferent. The presence of this	Retrieved from countries' comparison of Hofstede Insights (n.d.-a).	-

			variable in the database and in the model is designated as "Indv". Type of variable: dummy.		
		Masculine	The different levels considered for this variable were the following: 0 – Mainly feminine society, 1 – Mainly masculine society, and 2 – Indifferent. The presence of this variable in the database and in the model is designated as "Masc". Type of variable: dummy.	Retrieved from countries' comparison of Hofstede Insights (n.d.-a).	-
		Uncertainty Avoidance	The different levels considered for this variable were the following: 0 – Society mainly comfortable with uncertainty, 1 – Society's preference	Retrieved from countries' comparison of Hofstede Insights	-

			for avoiding uncertainty (i.e., the society is mainly uncomfortable with uncertainty), and 2 – Indifferent. The presence of this variable in the database and in the model is designated as "UAv". Type of variable: dummy.	(n.d.-a).	
		Time Orientation	The different levels considered for this variable were the following: 0 – Mainly normative culture and oriented to the short-term, 1 – Mainly pragmatic culture and oriented to the long-term, and 2 – Indifferent. The presence of this variable in the database and in the model is designated as "LngT".	Retrieved from countries' comparison of Hofstede Insights (n.d.-a).	-

			Type of variable: dummy.		
		Indulgence	The different levels considered for this variable were the following: 0 – Mainly restraint culture, 1 – Mainly indulgent culture, and 2 – Indifferent. The presence of this variable in the database and in the model is designated as "Indg". Type of variable: dummy.	Retrieved from countries' comparison of Hofstede Insights (n.d.-a).	-

Table 1 (Cont.) – Variable's description, source, and references.

3.2.2. Descriptive and Statistical Analysis

Before all else, Illustration 1 presents a summary of the database structure, being substantially composed by continuous information and suffering from a big lack of data, meaning it is due some sort of treatment and cleansing.

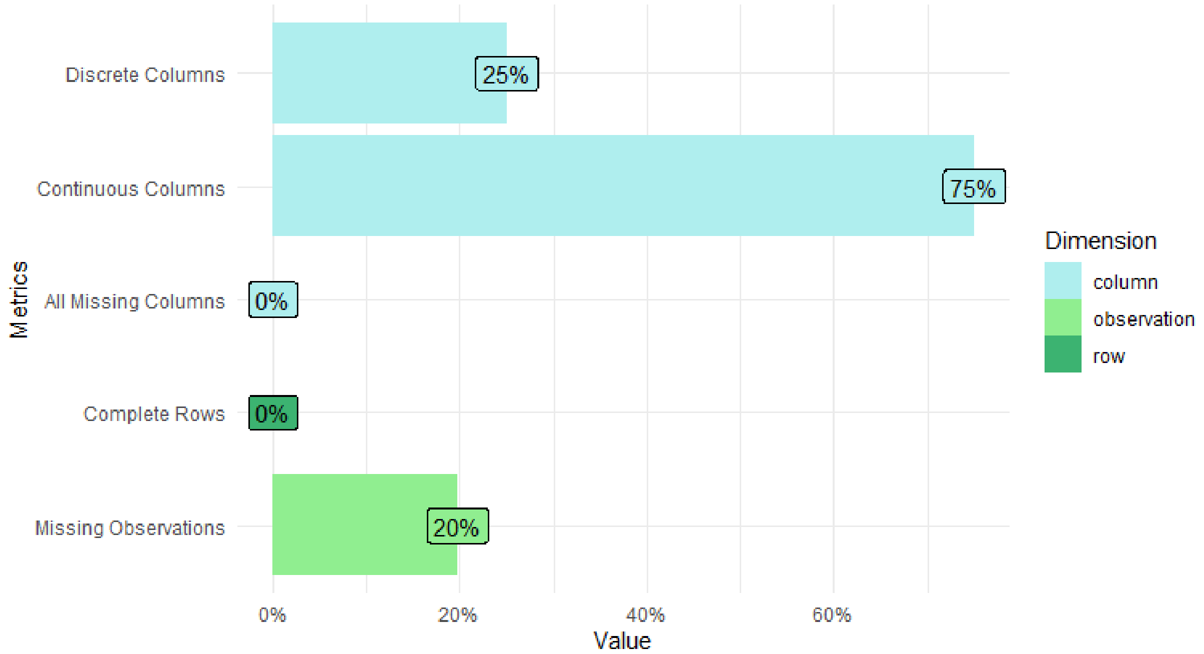


Illustration 1 – Structure of the database.

There is a total of 3 186 missing data points, which results in 0 complete observations and 26 incomplete attributes[2], meaning that about 20% of the data is missing. In Illustration 2, it is possible to observe the share of missing cases per variable, and for those with a share above 40%, it was decided it would be better to completely disregard and, therefore, remove such variables[3], which lead to having about 27.10% of the rows completed. The same rule was applied to the years and countries considered, converging in the elimination of the year of 2019, given it had

[2] "Ed1", "Ed2", "Ed3", "Ed4", "Img", "EarnH", "Tnr2", "Tnr3", "Tnr4", "Temp", "Perm", "MngP", "Occ1", "Occ6", "Occ7", "Occ8", "Occ10", "Sec1", "Sec2", "Sec3", "FertR", "HsH", "Marrd", "UMarrd", "Abrt", and "UGPGI".

[3] "Ed1", "EarnH", "Temp", "Perm", "MngP", "Occ10", "Marrd", "UMarrd" and "Abrt".

more than 41.89% data missing. A further procedure was still required to treat the remaining 904 missing cases, which consisted of imputing a hot deck technique, more precisely, the k-NN (k-Nearest Neighbour) method considering the median, rather than the mean.

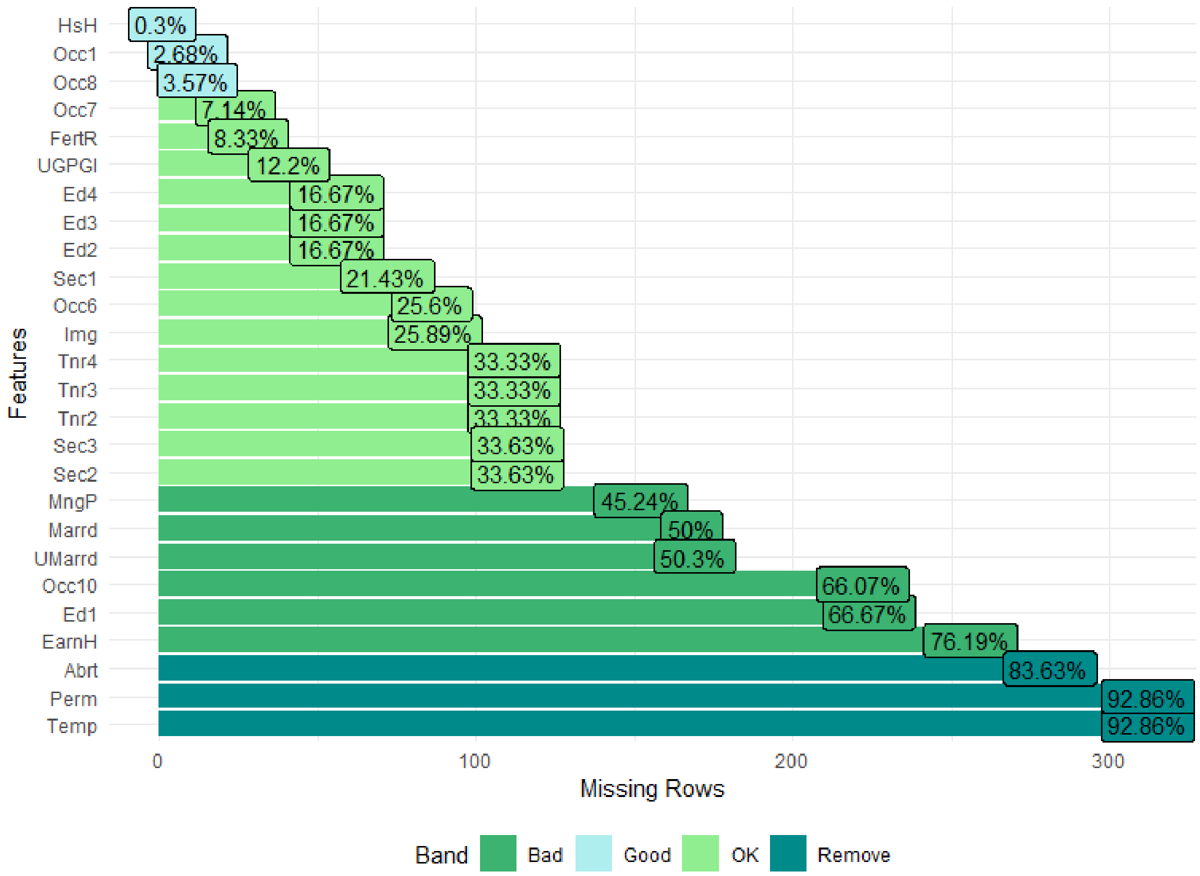


Illustration 2 – Proportion of missing data by variable and observation.

An additional issue that needs to be covered is whether there are outliers present and, if so, what is going to be the approach used to treat them. In order to figure out if such problem can be found in the data, it was developed a boxplot for each variable, having on its basis the "1.5·IQR" rule. This means that a data point is considered to be an outlier when its value is smaller than the lower bound or greater than the higher bound, respectively, being these bounds defined by Q1 $\pm$ 1.5 $\times$ IQR – where Q1 refers to the first quartile and IQR to the interquartile range determined by the width between the first and the third quartiles.

As a matter of fact, there is a total of 233 outliers comprised in 22 attributes. In Illustration 3, it can be observed the distribution of the data with the boxplots of each variable, being visible, as well, the corresponding outliers, in case of their existence. On the one hand, a possible way of dealing with this situation would be to remove the data points that are flagged as outliers. On the other, those values could be replaced by the extremes of the boxplots that correspond to each variable, i.e., the minimum or the maximum value (the one that is closest). Given there is no concrete method that can be designated as the best one to deal with problems such as these, it was given preference to the latter.

After implementing every change mentioned previously to the initial dataset, the final database (Tables 11–23 in Annex I) can be characterised as being balanced, with 308 observations and 37 attributes, including the dependent variable "UGPGI".

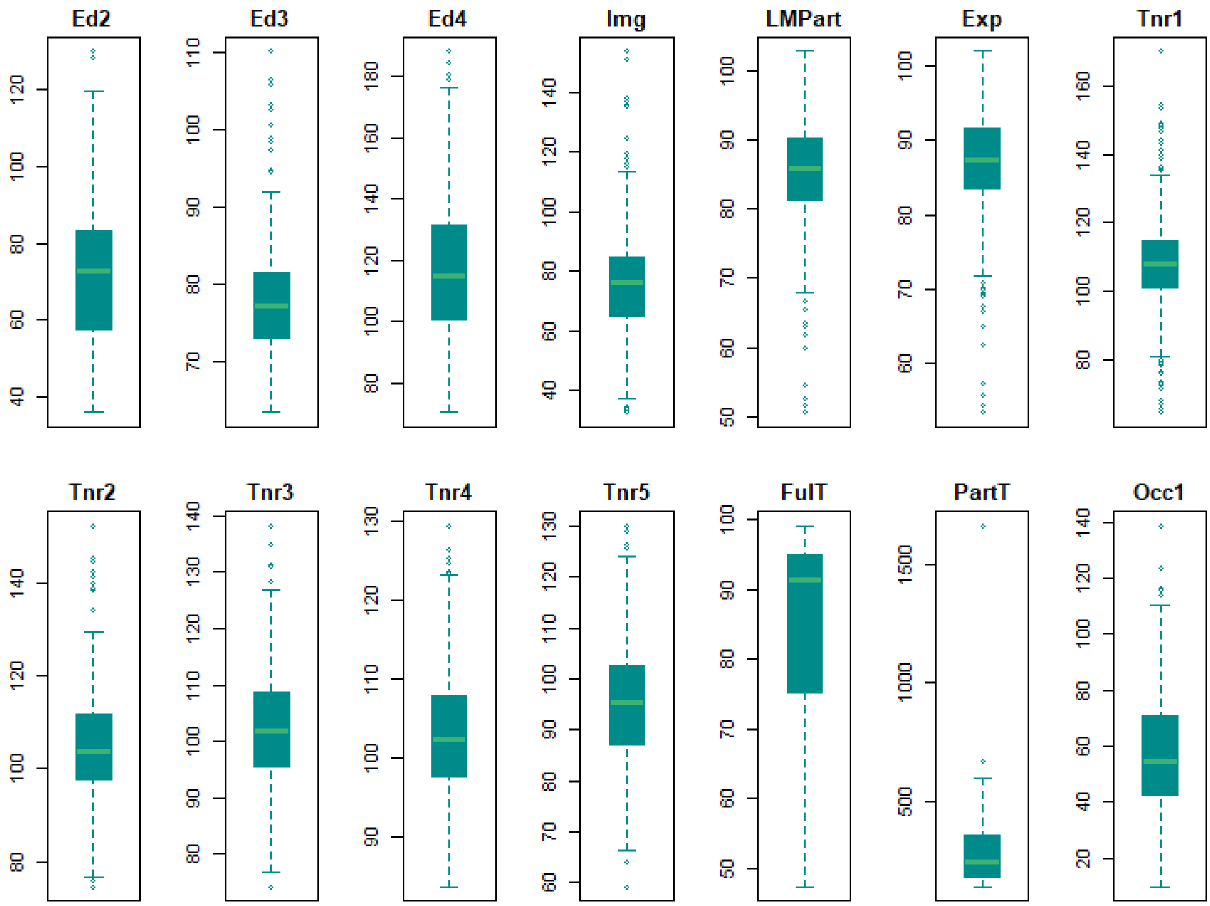


Illustration 3 – Boxplots and outliers of the numerical variables.

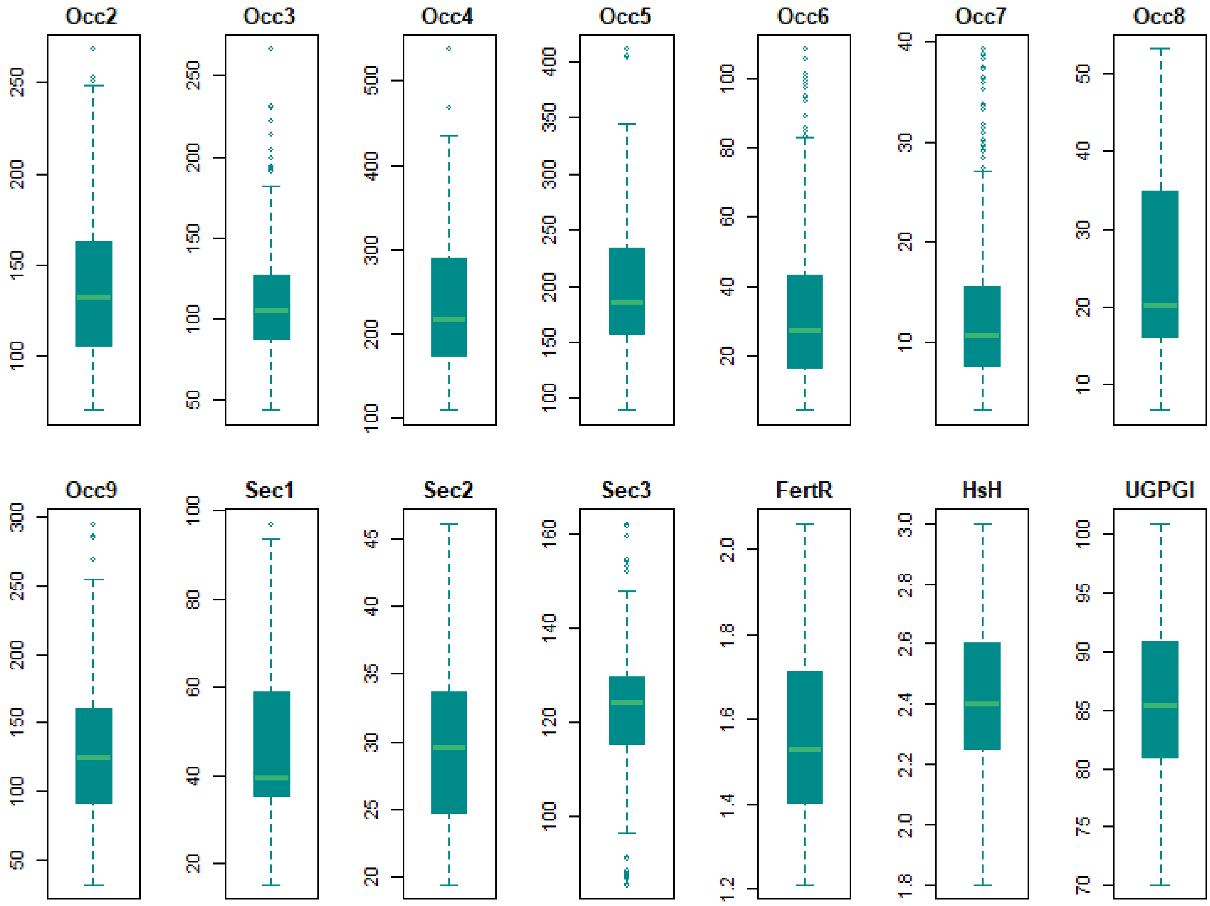


Illustration 3 (Cont.) – Boxplots and outliers of the numerical variables.

Proceeding now to a more statistical analysis, Illustration 4 presents not only the histograms and the real densities of all numerical variables (represented by the red line), but also what would the normal density of those variables be (represented by the blue dotted line). By comparing the two density lines, it is clear that not a single attribute follows a normal distribution.

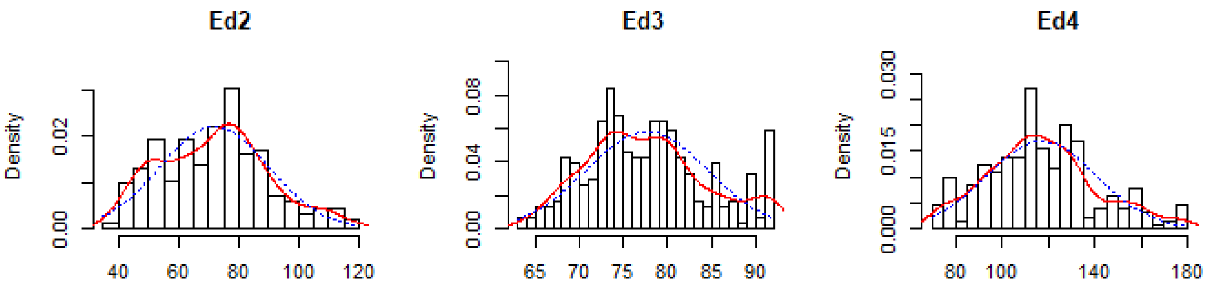


Illustration 4 – Distributions of the numerical variables.

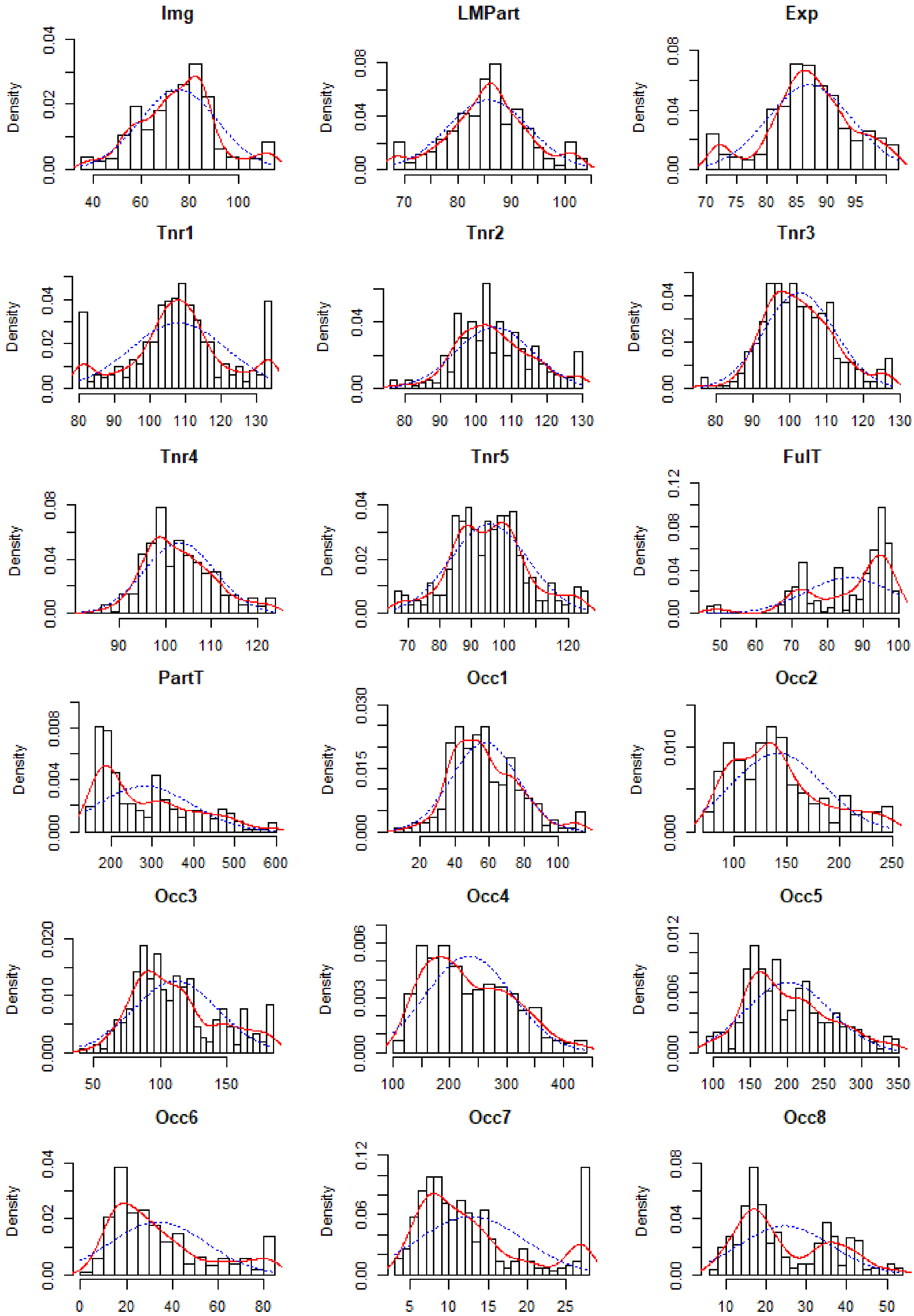


Illustration 4 (Cont.) – Distributions of the numerical variables.

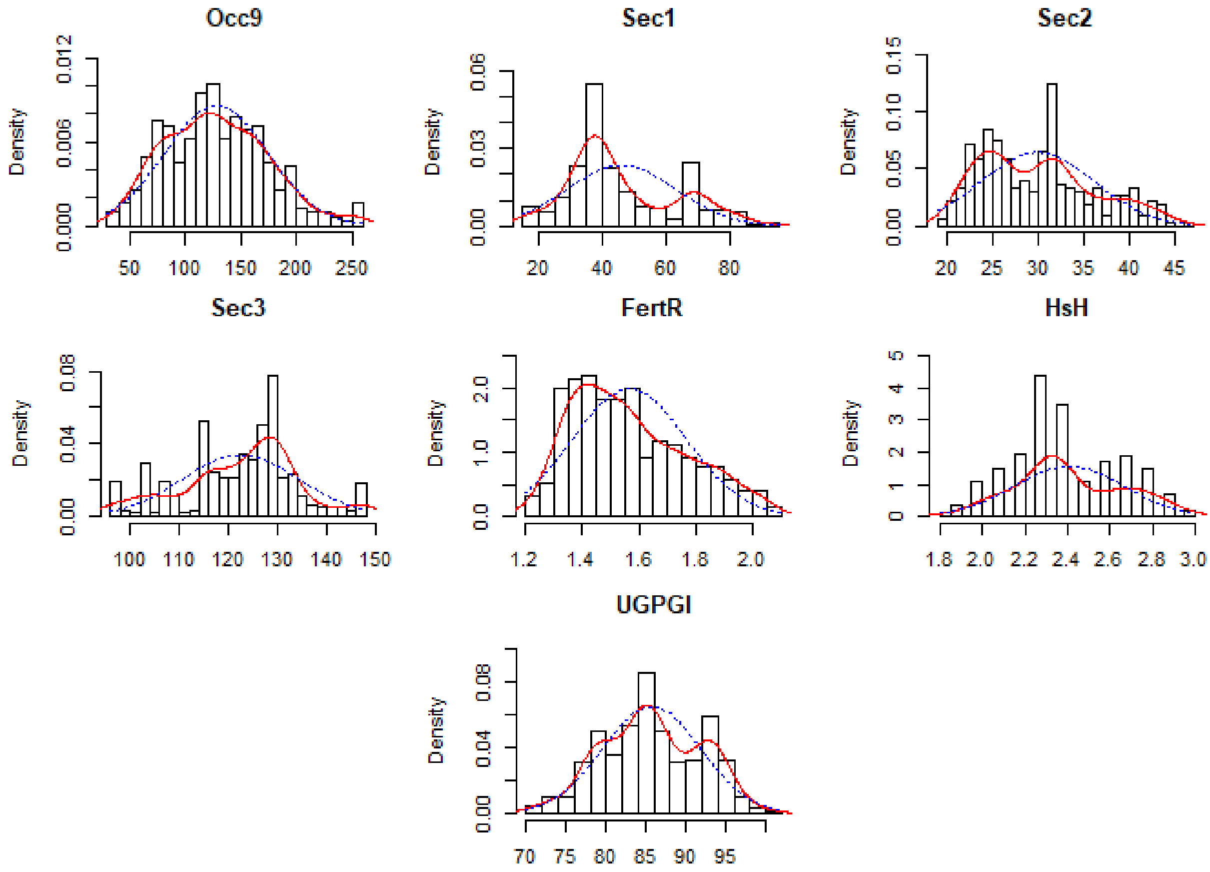


Illustration 4 (Cont.) – Distributions of the numerical variables.

A preliminary way of evaluating what may be the association between the multiple numerical variables passes through the analysation of their scatter plots, as exhibited in Illustrations 29–56 (Annex II). It is easily observed that most of the variables do not appear to have a linear relation, at least not a very strong one, maybe apart from the variables "Exp" and "LMPart", as well as "Tnr2" and "Tnr5". In other cases, there either seems to exist a relation that is nonlinear (e.g., "Occ6" seems to have a relation with "PartT" and "FulT" that is closer to monotonicity than to linearity), or no relation at all (e.g., "Occ9" and "Img", as well as "Tnr1" and "UGPGI" appear to present no linearity, nor monotonicity).

A more practical and thorough way of determining how strongly associated the variables are, is by looking at their correlation coefficients. This is a relevant matter to avoid a potential problem of multicollinearity. Two of the most commonly used methods for computing such coefficients are the Pearson's and Spearman's methods, which measure, respectively, the linear and the monotonic association among variables (Hauke & Kossowski, 2011). Whilst Pearson's correlation coefficient underlies in the assumption that the association between the variables must be linear, such aspect does not impair Spearman's correlation coefficient. Given these factors, and although the Spearman's method may be the preferred technique in this case, both methods shall be applied in order to compare results – see Illustrations 5 and 6 for the Pearson's and Spearman's methods.

By comparing both illustrations, it is observable that there are some differences, but only in terms of the magnitude of the coefficients in some variables. For example, the pairs composed by "LMPart" and "Tnr5", "Sec2" and "FulT" register, respectively, a difference of 0.19 and of -0.11 between the Pearson's and the Spearman's coefficients. Nevertheless, such differences will not influence the considerations made next.

Let us consider that some action must be undertaken when two variables have a correlation coefficient that is higher than 0.80, in absolute terms and considering the Spearman's measure. Taking into account the information present in Illustration 6 for numerical variables, it is noticeable that only 4 of them present a correlation that is so strong that it can be problematic afterwards, in the modelling phase. In more detail, while experience ("Exp") is positively correlated with labour market participation ("LMPart"), with an absolute coefficient of 0.89, the variables regarding tenure between 1 and 3 years ("Tnr2") and over 10 years ("Tnr5") are negatively correlated, presenting an absolute coefficient of 0.83. Note that these findings are also present in Illustration 5 with the Pearson's measure, though with slightly distinct coefficients' values of 0.92 and -0.81. These values translate that the variables of each "combination" are substitutes of one another, meaning that it is not necessary to keep both variables. Thus, "Exp" and "Tnr5" can be disregarded from the model estimation.

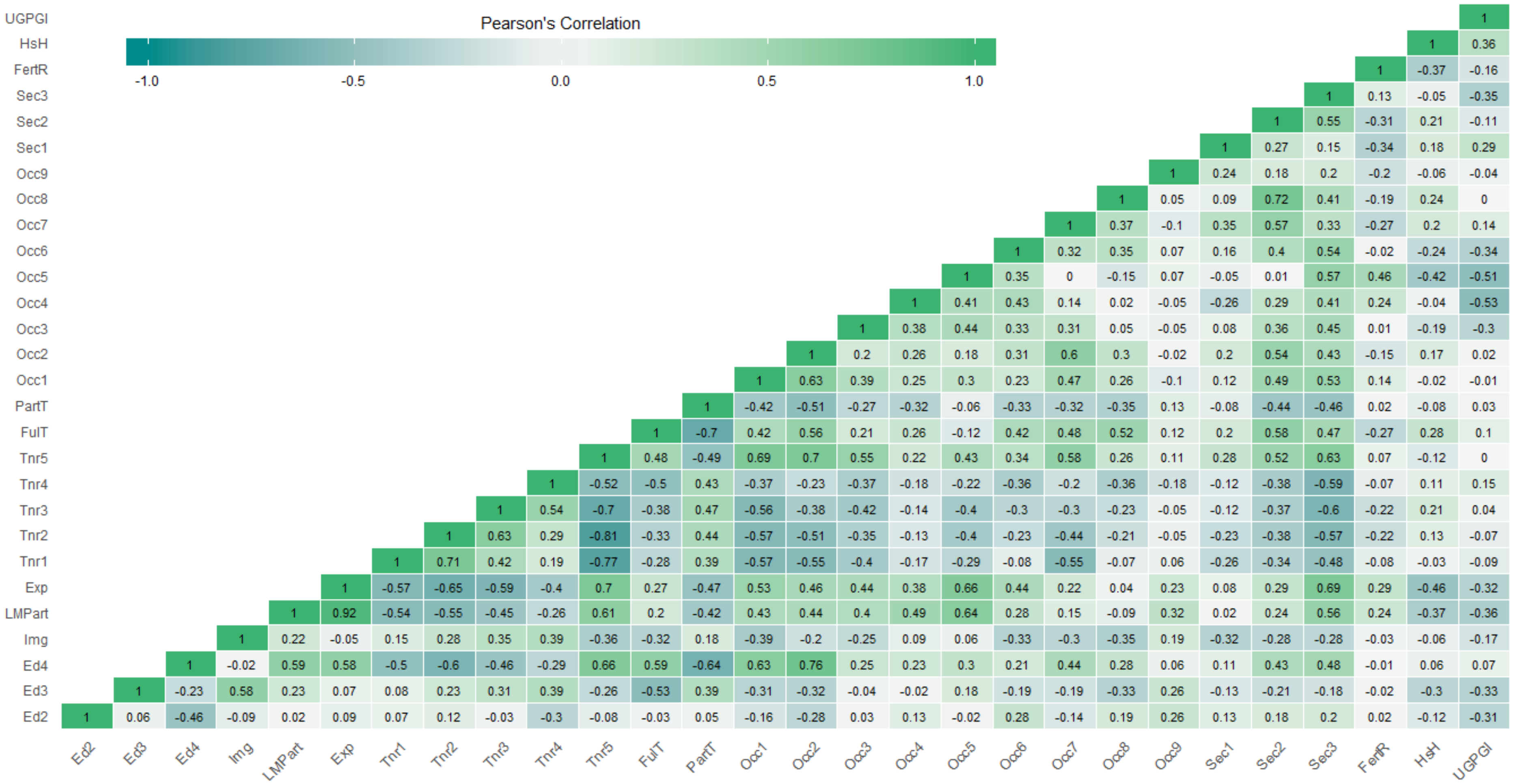


Illustration 5 – Pearson's correlation coefficient of numerical variables.

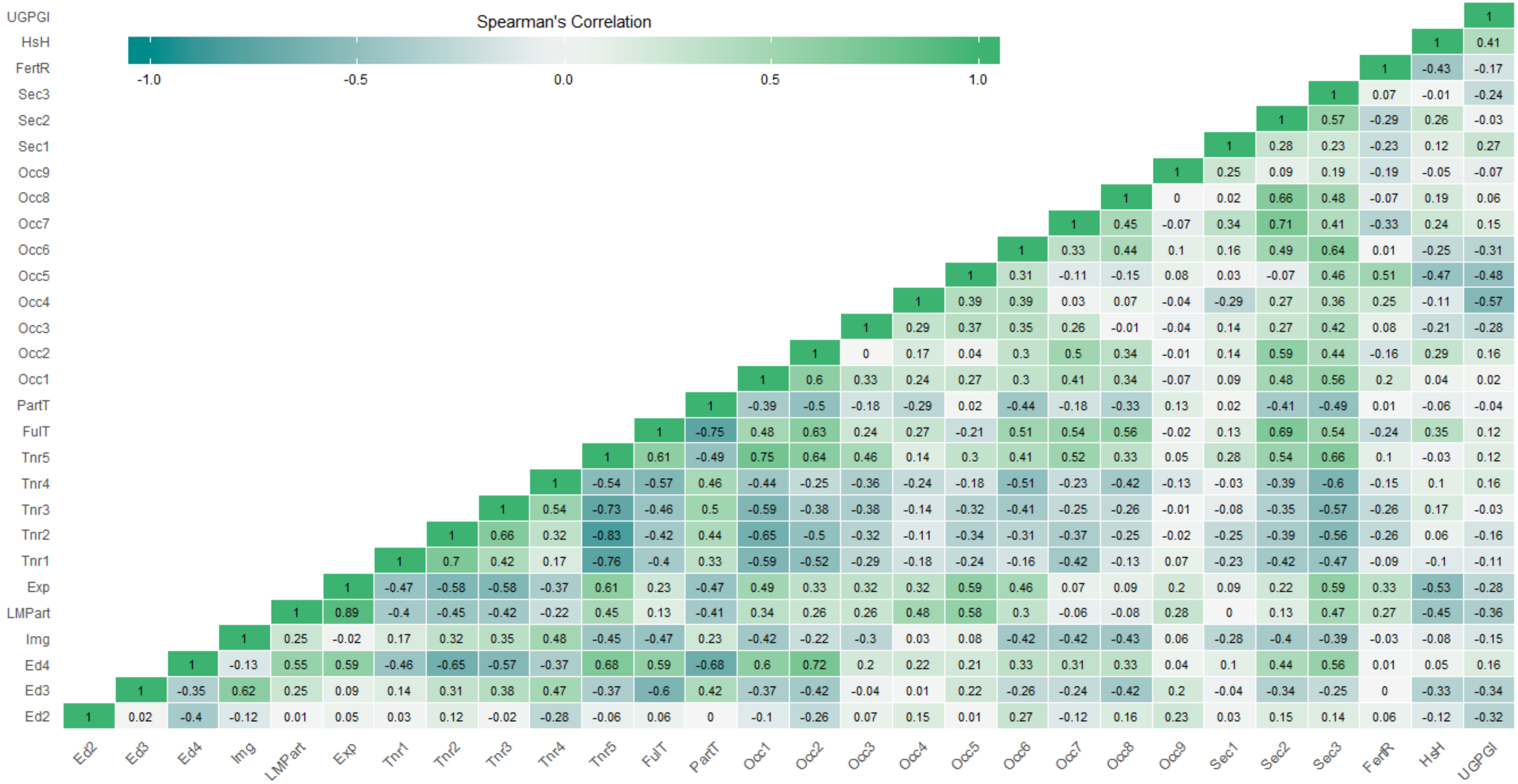


Illustration 6 – Spearman's correlation coefficient of numerical variables.

In Table 2 we can find the mean, standard deviation, and variance of the data – note that these statistics were only computed after the data was treated for missing values and outliers. Considering only the attributes with female-to-male ratios, there seems to be evidence that, on average, women tend to have a higher presence in certain aspects comparatively to men, such as in the labour force with advanced education ("Ed4"), in occupations 2, 3, 4, 5 and 9, in almost all types of tenure (from "Tnr1" to "Tnr4"), in part-time employment ("PartT"), and in the services sector ("Sec3"). The last two facts go in line with what has been recognized in the literature (Olivetti & Petrongolo, 2016).

In addition, it is possible to observe in Table 2 that the top-three variables with the highest mean values are also the ones with the greatest standard deviations, and, thus, the greatest variances. This finding indicates that those variables have a dispersion of its data in a broader spectrum. Keep in mind that such variability or dispersion can be expected in most variables, since the data of the multiple countries and years is being aggregated and, so, not only can there be countries in which some variables have a steadier variation through time and others in which the opposite is observed, but also it can exist rather disparate values between countries.

For instance, let us consider the mean values for the female-to-male ratio in part-time employment ("PartT"). On the one hand, the countries with the lowest and highest mean value of "PartT" are Finland (169.77%) and Luxembourg (538.35%), respectively. On the other, the highest and lowest values record of this variable are of 141.00% for Portugal and 598.23% for Luxembourg. While in the first comparison the greatest value is 3.17 times higher than the lowest, in the second comparison we have a high value that is more than 4.24 times above the lowest value. Such disparities clearly end up being demonstrated in the standard deviation of 113.16% for "PartT".

There are two other factors that should be mentioned. The only two variables whose standard deviations are considerably small and very close to 0 are the household composition ("HsH") and the fertility rate ("FertR"), demonstrating there might be some stagnation in the evolution of these two elements across time and across countries. Moreover, it is interesting to acknowledge that, on average, the "UGPGI" is not very close to parity and this appears to happen globally, given the small value of its standard deviation, although it is not as small as the standard deviations of "HsH" and "FertR".

	Mean	Standard Deviation	Variance
PartT	281.17	113.16	1 2804.56
Occ4	233.60	75.50	5 699.61
Occ5	200.42	56.46	3 187.72
Occ2	140.67	43.21	1 867.30
Occ9	128.07	46.57	2 169.07
Sec3	122.38	11.81	139.58
Ed4	117.07	23.54	554.02
Occ3	111.48	31.74	1 007.22
Tnr1	107.80	13.58	184.45
Tnr2	105.24	10.78	116.22
Tnr4	103.08	7.67	58.77
Tnr3	102.72	9.65	93.18
Tnr5	95.46	12.17	148.01
Exp	87.18	7.00	48.94
FulT	86.01	12.09	146.10
UGPGI	85.68	6.13	37.61
LMPart	85.61	7.63	58.19
Ed3	77.68	6.84	46.77
Img	75.32	16.29	265.27
Ed2	71.92	18.03	325.11
Occ1	57.16	18.98	360.13
Sec1	45.90	17.03	290.06
Occ6	33.86	21.10	445.33
Sec2	29.93	6.19	38.36
Occ8	24.70	11.45	131.03
Occ7	12.79	6.84	46.79
HsH	2.41	0.25	0.07
FertR	1.57	0.20	0.04

Table 2 – Basic statistics of the variables.

3.2.3. Dashboard

A simple and appealing way of presenting data is through a dashboard. The dashboard developed for the current study includes all the data we have available, that is, all the variables' information that are part of the initial database. It was included not only the data before any treatment or cleansing, but also the variables that end up being disregarded due to the lack of data. Such decision was made on the basis that the original dataset provides interesting and insightful information that sadly cannot all be taken into account in the model estimation process.

Given the division of the attributes in three groups, the dashboard presents a similar partition of pages – one for a summary of the UGPGI and its evolution, two regarding the labour market, another for the "current" family context and a final one for the cultural sphere of each country. Such partition can be seen in Illustrations 57–61 of Annex III, which has pictures of the dashboard's pages and visualizations, though very generic ones, as it is not possible to show the real interaction between the segmentation slicers and the various visualizations.

In the *first page of the dashboard* ("Summary of UGPGI", Illustration 57 in Annex III), it is possible to understand what the overall evolution of the UGPGI has been from 2008 until 2018, and how the EU's member states compare to each other on this topic. Note that the values presented are averages when all or more than one country and/or year is selected. It is possible to check that, on average, this index has been having a positive evolution ("Evolution of UGPGI (%)" – see Illustration 7), meaning it has been increasing and, consequently, is becoming closer to parity – which is line with what the literature exposes.

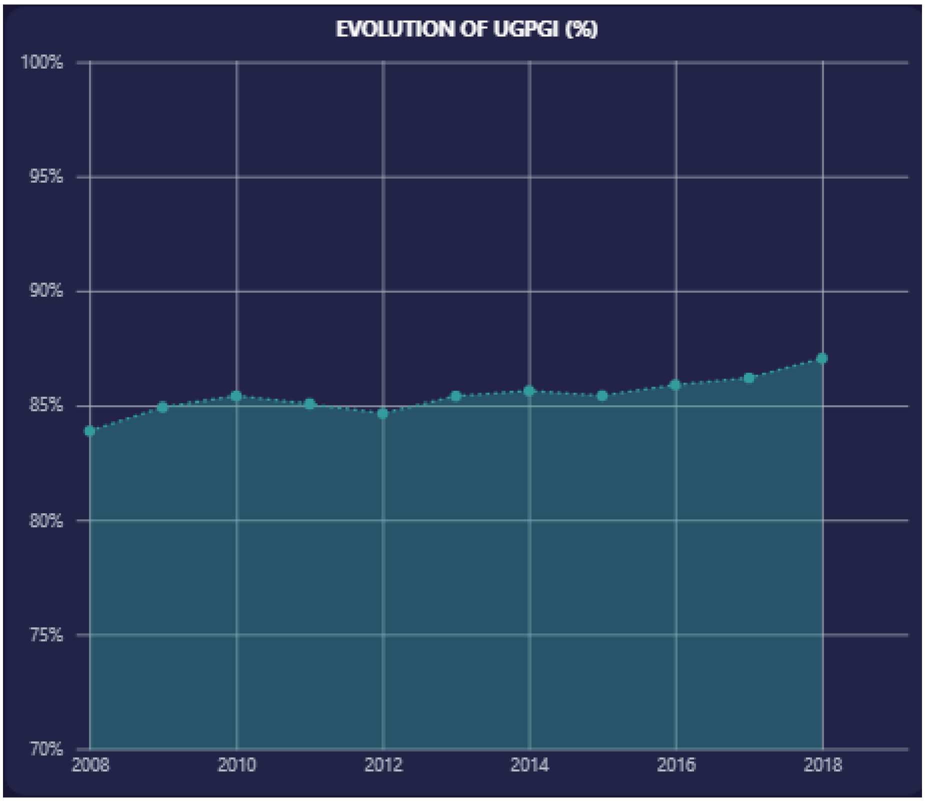


Illustration 7 – Evolution of the average UGPGI.
Note: retrieved from the dashboard.

Of course, such trend may not be the same for every country, but it tends to be a positive one, though at different levels of the index. It is possible to understand more easily the evolution of the "UGPGI" in Illustration 8[4] – the information included in this illustration is not present in the dashboard in the format of a matrix of plots, but it can be accessed through the observation of the line chart and by the individual selection of each country. On the one hand, the majority of the EU has recorded a positive trend, though some of those countries have not registered a very striking positive evolution in the 11 years observed, like Slovakia and Italy. On the other hand, seven countries have continually registered an opposite development: Bulgaria, Croatia, Ireland, Latvia, Malta, Portugal, and Slovenia.

[4] The dotted line included in the plots refer to the mean of "UGPGI" (in EU).

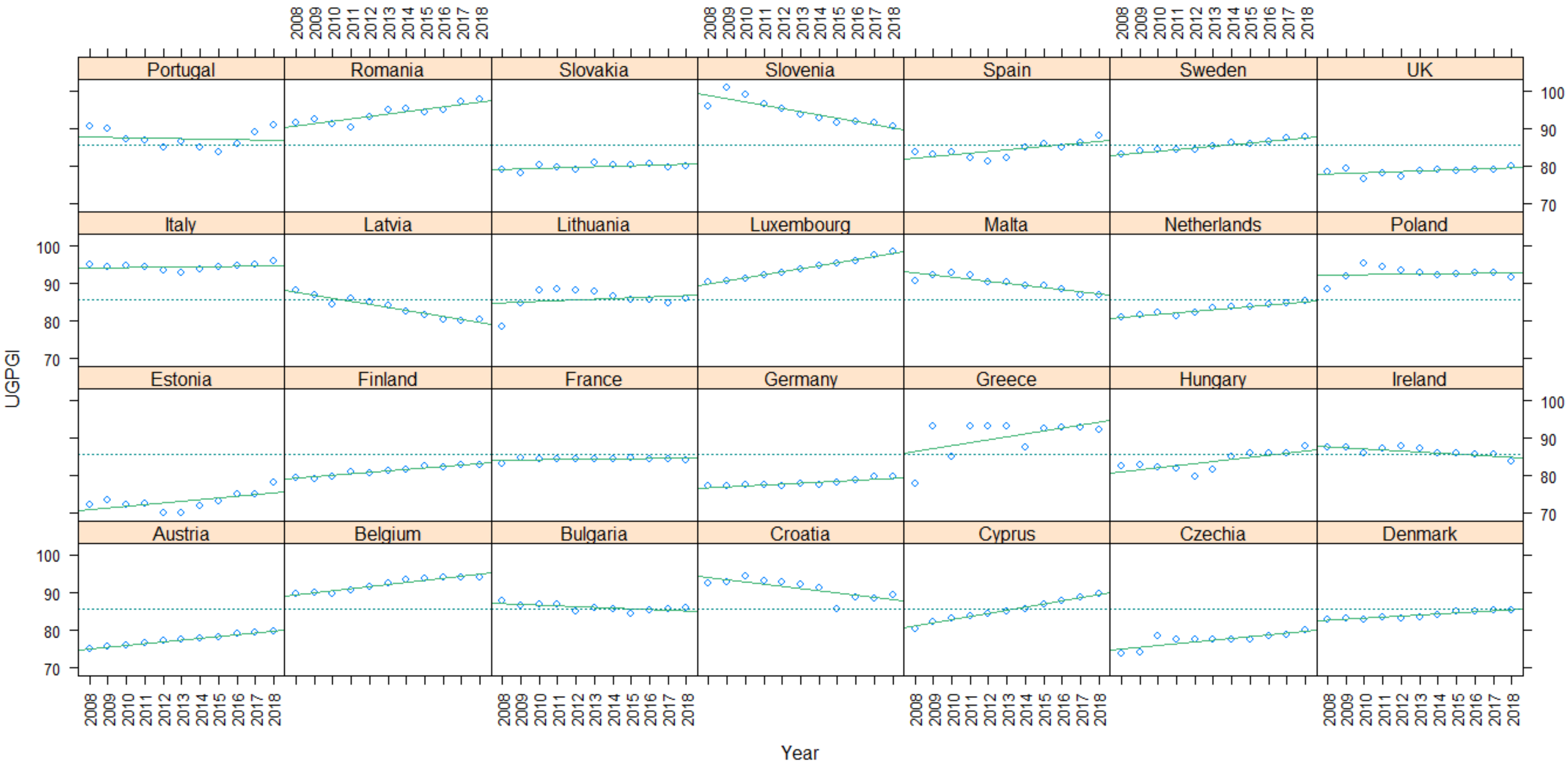
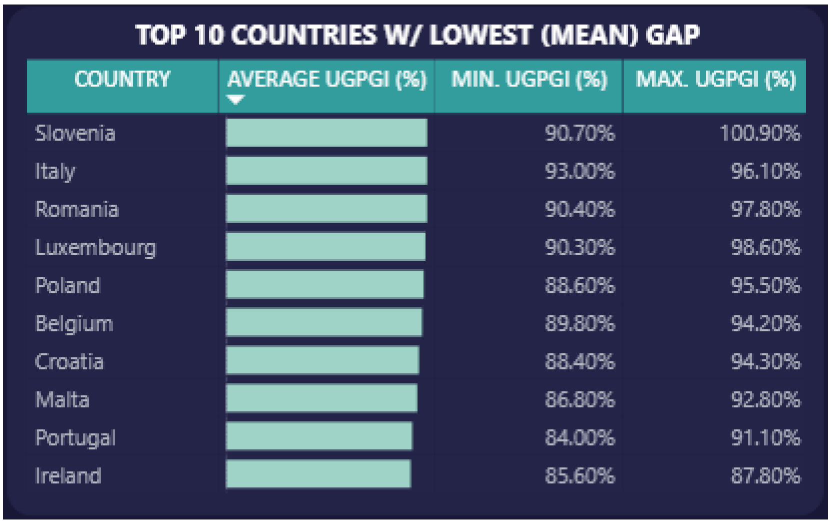


Illustration 8 – Evolution of the "UGPGI" by country.

Moreover, the overall top-ten countries that have scored better on average terms for those 11 years (2008-2018), i.e., those with the highest average index value and, therefore, with the lowest disparity or gap, are the ones presented on the table "Top 10 Countries w/ the Lowest (Mean) Gap" – Slovenia, Italy, Romania, Luxembourg, Poland, Belgium, Croatia, Malta, Portugal, and Ireland (see Illustration 9). A further way of comparing the countries is through the map (see "Average of UGPGI by Country (%)"), in which the colours range from red (when the "UGPGI" is smaller) to green (when the "UGPGI" is closer to parity, i.e., 100%), with yellow representing the middle – see Illustration 10.


TOP 10 COUNTRIES W/ LOWEST (MEAN) GAP

COUNTRY	AVERAGE UGPGI (%)	MIN. UGPGI (%)	MAX. UGPGI (%)
Slovenia		90.70%	100.90%
Italy		93.00%	96.10%
Romania		90.40%	97.80%
Luxembourg		90.30%	98.60%
Poland		88.60%	95.50%
Belgium		89.80%	94.20%
Croatia		88.40%	94.30%
Malta		86.80%	92.80%
Portugal		84.00%	91.10%
Ireland		85.60%	87.80%

Illustration 9 – Top-ten countries with the lowest gap (and greatest UGPGI), in the average of the 11 years.

Note: retrieved from the dashboard.

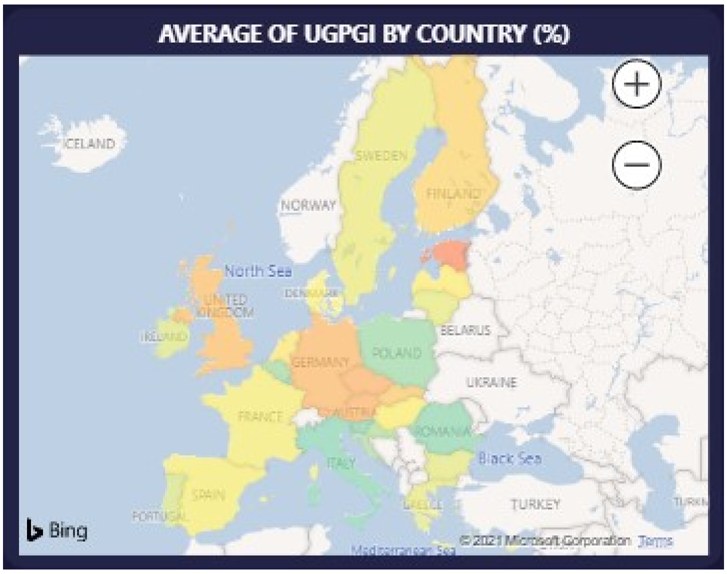


Illustration 10 – Coloured map with the average UGPGI by country.

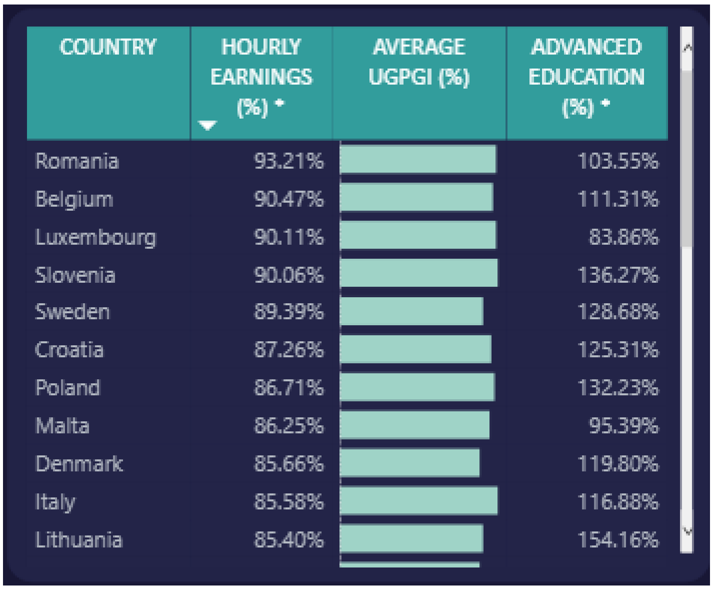
Note: retrieved from the dashboard.

Before moving on with the analysis of the dashboard, it needs to be taken into consideration that the average UGPGI is included in every sheet in some way, though in normal conditions, it would be enough to present only a single visualization of this variable, as long as the pages, slicers and remaining visualizations are synchronized. This synchronization is important to check possible changes in the index (or in other attributes) when some kind of selection of countries and/or years considered is done. However, in this case, it was thought to be relevant to incorporate that index in every sheet, since the current study is entirely focused on it. The intention is to make it easier for the person analysing the dashboard to perform certain comparisons and possibly reach some conclusions, mainly for those variables that will not be included in the model estimation.

It also needs to be pointed out that, from now on, most information that will be presented are average values of the female-to-male ratio, except for the last sheet ("Culture"). When that happens, each visualization is properly indicated by an asterisk. Moreover, in the case of the "Culture" sheet, three important aspects should be taken into account. Firstly, when analysing the data on abortion's access, only 2014 and/or 2019 should be selected, given the absence of information for the remaining years – such note is indicated on the dashboard by two asterisks. Secondly, the majority of the variables comprised in this sheet are considered to be time invariant, meaning the levels registered for each country on those variables are the same throughout the time period considered (from 2008 until 2019) – this information is specified by three asterisks. Thirdly, while analysing the two donut charts, and when more than one or all countries are selected, it is better to consider the percentage values, rather than the absolute number of countries, as each country appears 12 times in the database due to the timeline.

Immediately after the summary of the UGPGI, comes the visualization of the labour market variables. Given this group comprises more attributes than any other else, it was thought it would be less appealing to the eye and harder for the person analysing the dashboard to remain focus on the data that is being presented. In other words, it could be said that gathering so many details in a single sheet would be too "heavy", making the dashboard's analysis very dense in terms of the information presented per page. For that reason, the presentation of this group of variables was divided in two different sheets, but not in a random way. The criterion that such division was based on consisted of identifying and keeping together those attributes that are more related to the type of job or employment. Thus, while in the second page reserved for the labour market ("Labour Market II") was included all the variables that are more focused on the type or area of employment, in the first page ("Labour Market I") was presented the remaining ones. The latter covers the data relative to the hourly earnings, labour force by educational attainment level, participation in the labour market, experience, tenure, employed immigrants and managerial position, and the former covers the employment by type of working time regime, type of contract's length, occupations, and sectors.

The *first sheet on the context of the labour market* ("Labour Market I", Illustration 58 in Annex III) starts by comparing the average hourly earnings ratio with the average UGPGI to assess how does the evolution of both factors differ. In fact, it is possible to observe that, for the average of 11 years, as well as for 2018 alone, the countries with the average hourly earnings between men and women closer to parity are not necessarily the same countries that register a higher "UGPGI". Considering only the ten nations with the highest ratio of mean hourly earnings and comparing these with the top-ten previously made in the sheet of "Summary of UGPGI", only Portugal and Ireland are not present in both rankings – note these conclusions are retrieved when we consider the 11 years horizon (see Illustration 11). This turns out to be unexpected, given the computation of the UGPGI is based on average hourly earnings, meaning both rankings should be composed by the same countries.



COUNTRY	HOURLY EARNINGS (%) *	AVERAGE UGPGI (%)	ADVANCED EDUCATION (%) *
Romania	93.21%		103.55%
Belgium	90.47%		111.31%
Luxembourg	90.11%		83.86%
Slovenia	90.06%		136.27%
Sweden	89.39%		128.68%
Croatia	87.26%		125.31%
Poland	86.71%		132.23%
Malta	86.25%		95.39%
Denmark	85.66%		119.80%
Italy	85.58%		116.88%
Lithuania	85.40%		154.16%

Illustration 11 – Average values of the UGPGI and "Ed4" of the countries with the highest "EarnH".

Note: retrieved from the dashboard.

Globally, there is a higher number of women in the labour force with an advanced education than men (see "Labour Force by Educational Attainment Level", Illustration 12). Such observation may be due to the rising number of women who have indeed a higher education, comparatively to men, even surpassing them – 57.70% of EU's population that graduated in 2018 were women (Eurostat, 2020j).

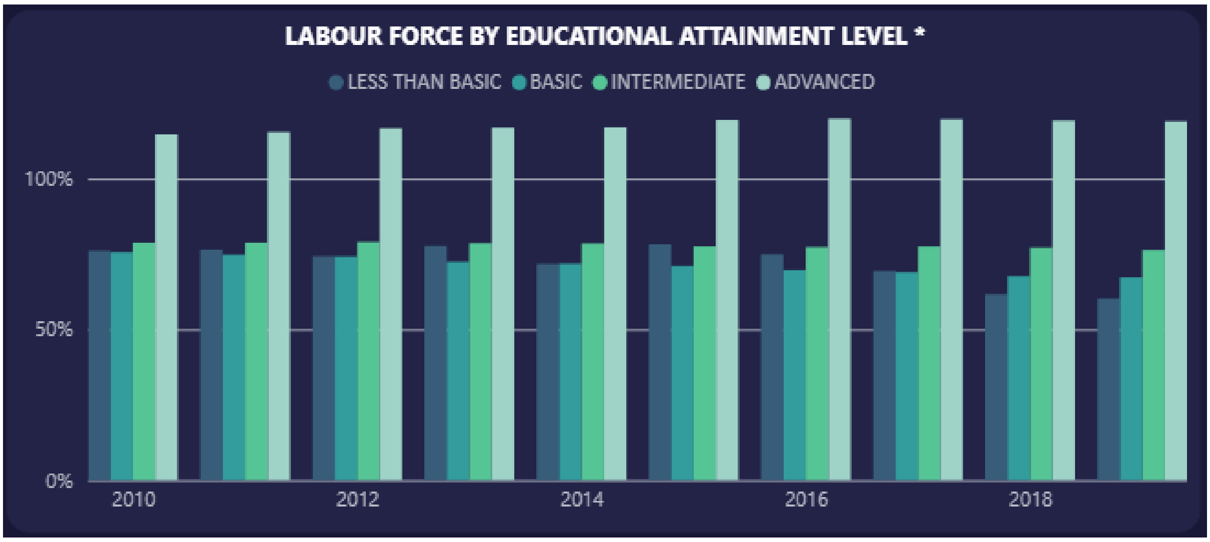
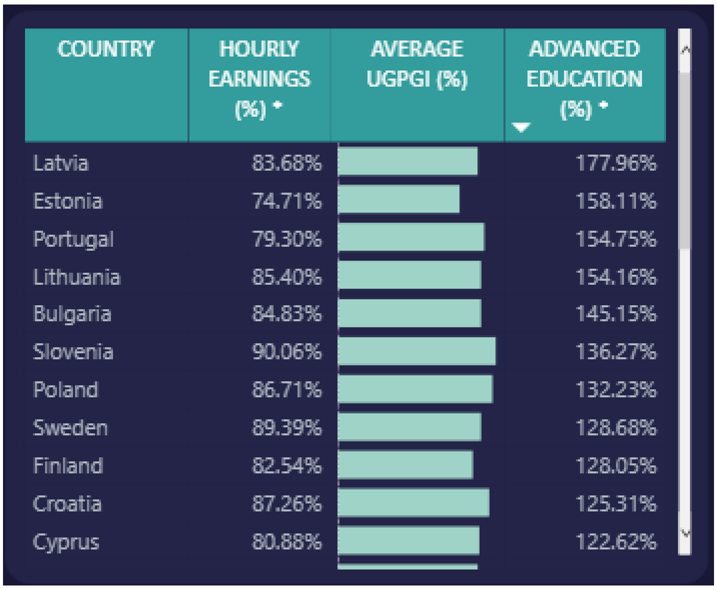


Illustration 12 – Average labour force by educational attainment level.

Note: retrieved from the dashboard.

Despite this fact, even in the countries with a greater presence of more educated women in the labour force (considering the first ten: Latvia, Estonia, Portugal, Lithuania, Bulgaria, Slovenia, Poland, Sweden, Finland, and Croatia), the index does not seem to be accompanied by this trend – see Illustration 13.

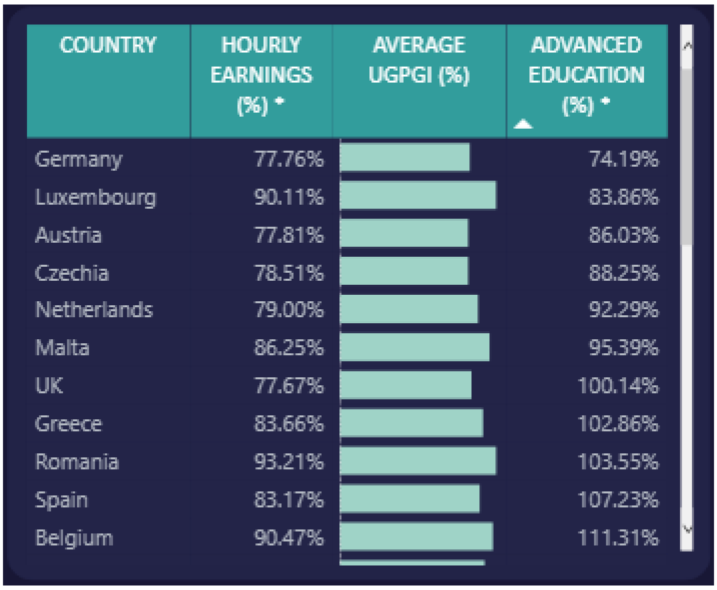


COUNTRY	HOURLY EARNINGS (%) *	AVERAGE UGPGI (%)	ADVANCED EDUCATION (%) *
Latvia	83.68%		177.96%
Estonia	74.71%		158.11%
Portugal	79.30%		154.75%
Lithuania	85.40%		154.16%
Bulgaria	84.83%		145.15%
Slovenia	90.06%		136.27%
Poland	86.71%		132.23%
Sweden	89.39%		128.68%
Finland	82.54%		128.05%
Croatia	87.26%		125.31%
Cyprus	80.88%		122.62%

Illustration 13 – Countries with the highest presence of women in the labour force with advanced education ("Ed4"), and corresponding "EarnH" and UGPGI.

Note: retrieved from the dashboard.

Individually, only 7 out of the 28 countries do not register the trend of having in the labour force more highly educated women than men: Austria, Czechia, Germany, Luxembourg, Malta (except for the year of 2015), Netherlands and UK – see Illustration 14. Also, the latter was the member state closest to parity during more consecutive years (see Illustration 15) – from 2013 until 2016, it was observed a ratio of highly educated labour force ranging between 99.92% and 101.03%. Let us emphasise that this analysis was performed for the highest level of education, i.e., the advanced one. The additional levels were not given so much focus since there are more people, especially young people, with advanced studies (Eurostat, 2020c, 2020d).



COUNTRY	HOURLY EARNINGS (%) *	AVERAGE UGPGI (%)	ADVANCED EDUCATION (%) *
Germany	77.76%		74.19%
Luxembourg	90.11%		83.86%
Austria	77.81%		86.03%
Czechia	78.51%		88.25%
Netherlands	79.00%		92.29%
Malta	86.25%		95.39%
UK	77.67%		100.14%
Greece	83.66%		102.86%
Romania	93.21%		103.55%
Spain	83.17%		107.23%
Belgium	90.47%		111.31%

Illustration 14 – Countries with the lowest presence of women in the labour force with advanced education ("Ed4"), and corresponding "EarnH" and UGPGI.

Note: retrieved from the dashboard.

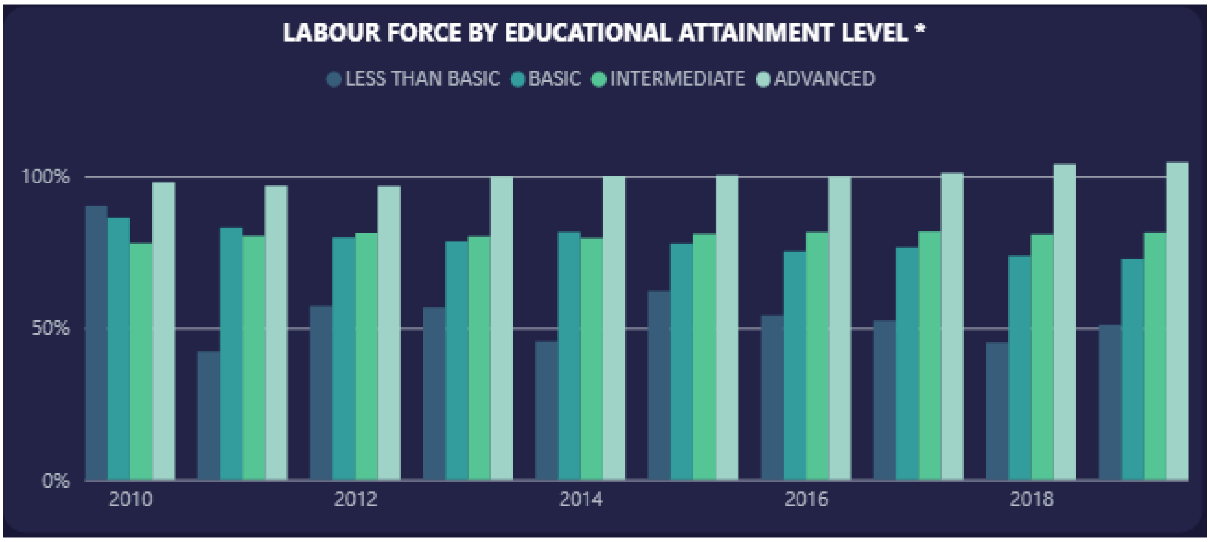


Illustration 15 – Labour force by educational attainment level in the UK.
Note: retrieved from the dashboard.

In the area chart ("Participation, Managerial Position and Experience", Illustration 16), it is possible to compare three different variables. It is visible that men and women have seen their levels of experience and labour market participation increase towards equalization, though the experience registers a lower disparity between both sexes. While the evolution of these two factors is very similar to one another, the same it is not true for the variable of managerial position[5]. It is clear that, in global terms, higher hierarchical positions are still dominated by men, which leads us to acknowledge the existence of the glass ceiling effect, just like it is argued in the literature (Landmesser, 2019; Leythienne & Ronkowski, 2018). In the year of 2018, globally, the EU was, on average basically at the same level of 2011, meaning not much positive change occurred. At the individual level, the lowest disparity on this matter was witnessed in Poland for the year of 2018. It is worth mentioning that France is the only country in which women have surpassed men on managerial positions, having been registered

[5] Given the criterion used to divide the labour market variables in two separate sheets, it would be expected to include the data on managerial position in the second sheet. However, that was not the case, since it was wanted to perform a comparison between two other variables that are in the first page (experience and participation in the labour market). Thus, this would be an easier way to observe such interaction.

2.08 and 1.80 times more women than men in such roles in 2015 and 2018, respectively.

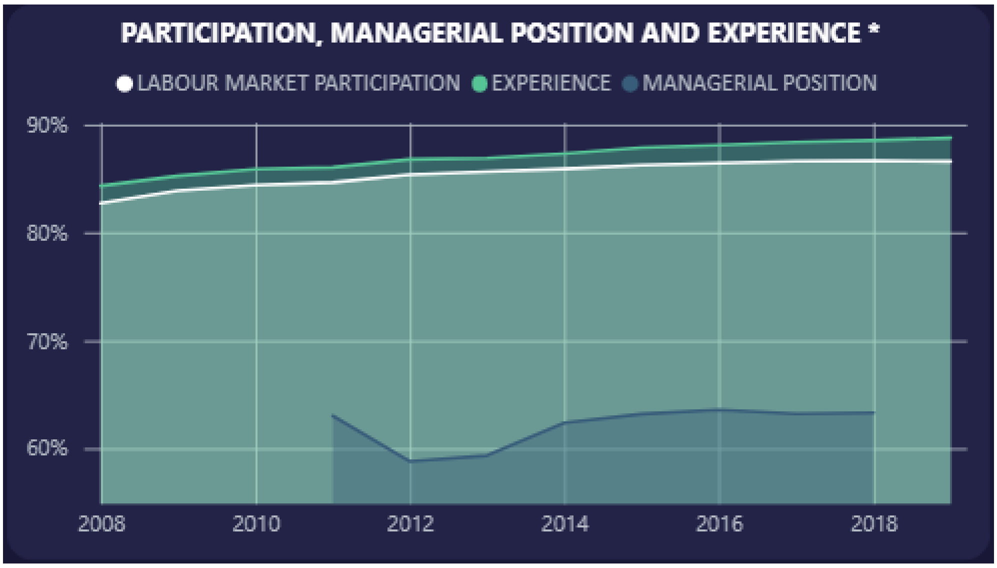


Illustration 16 – Average evolution of "LMPart", "Exp" and "MngP".

Note: retrieved from the dashboard.

There are only two data visualizations left in this page. Until 2015, on average, the five levels of tenures in the EU suffered a similar evolution (see "Tenure", Illustration 17), registering average ratios close but above parity, except for the case in which tenures range between 3 and 5 years (for 2014), and are above 10 years (for all period). Additionally, from 2016 until 2019, men still tended to remain in the same employers for longer than women (tenure over 10 years), being true the opposite when the tenure is inferior to 1 year. Regarding the level of immigrants employed, on average, there are still more men than women working in European countries in which they are non-citizens, being Denmark the closest to parity.

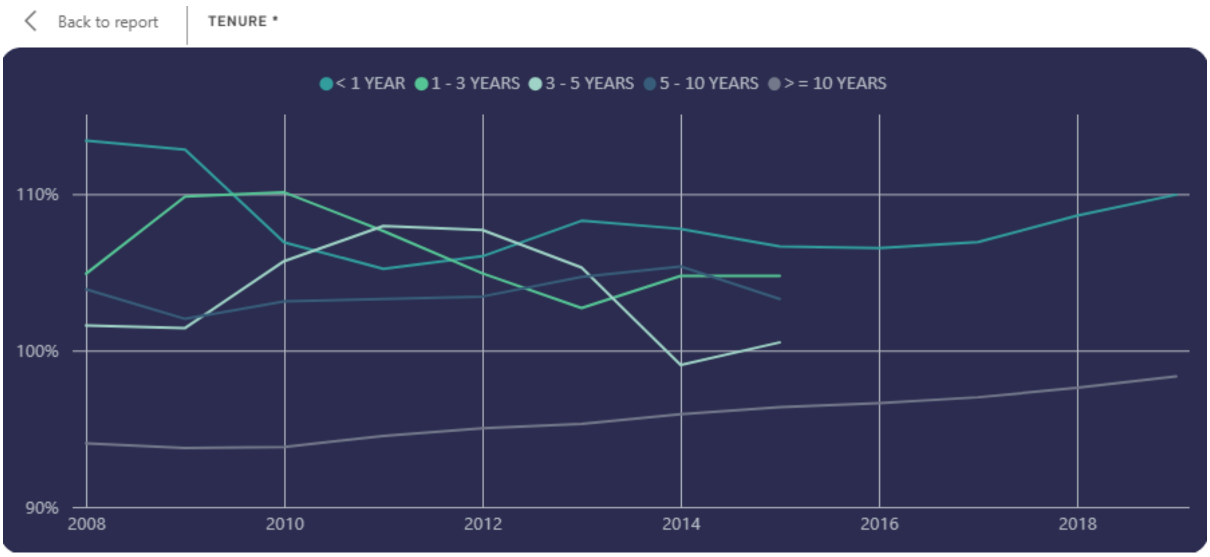


Illustration 17 – Average evolution of "Tnr1", "Tnr2", "Tnr3", "Tnr4" and "Tnr5".

Note: retrieved from the dashboard.

The *second sheet about the context of the labour market* ("Labour Market II", Illustration 59 in Annex III) is, then, focused on the type or area of employment, as it has already been mentioned. When looking at the line and column clustered chart ("Employment by Type of Working Time and Contract Length (%)", Illustration 18) – note that the second Y axis (on the right of the graph) is relative to the employment by type of contract's length (temporary and permanent) –, it is clear that, on average and considering the aggregated data for Czechia and Slovakia[6], there are a lot more women in part-time jobs than men in these countries. Moreover, for the globality of the EU, the full-time employment is much closer to parity.

[6] Regarding the temporary and permanent employment there is only data available for Czechia and Slovakia, when we are considering the total employment.

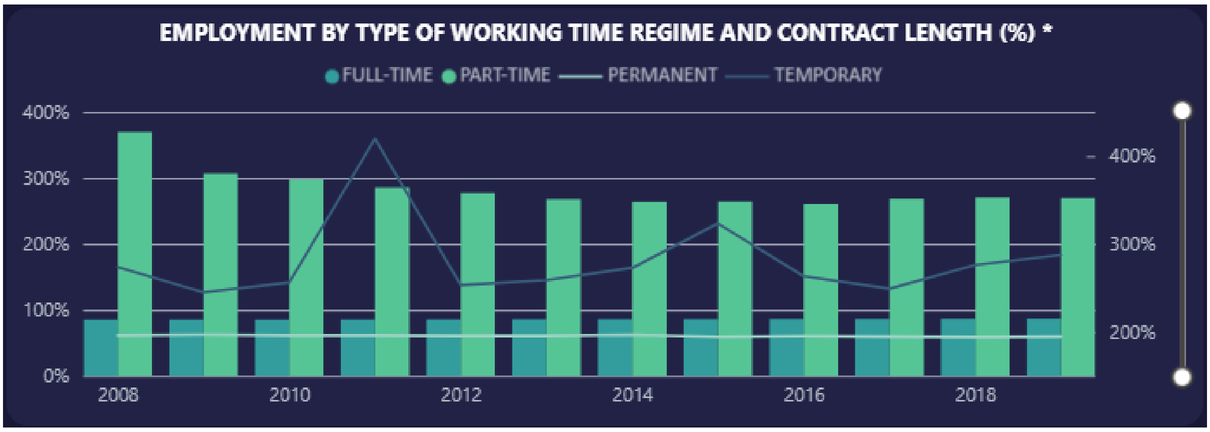


Illustration 18 – Average evolution of "FulT", "PartT", "Perm" and "Temp.

Note: retrieved from the dashboard.

A further aspect that confirms what has been claimed in the literature is that, in fact, women are predominant on the services sector of economic activity (see "Employment by Sector of Economic Activity (%)", Illustration 19). This is true not only at a global level (for those that do have data available), but also at the country level, except for Greece. Nonetheless, in this country, the services sector is, indeed, the one with the lowest disparity of employment between men and women – see Illustration 20.

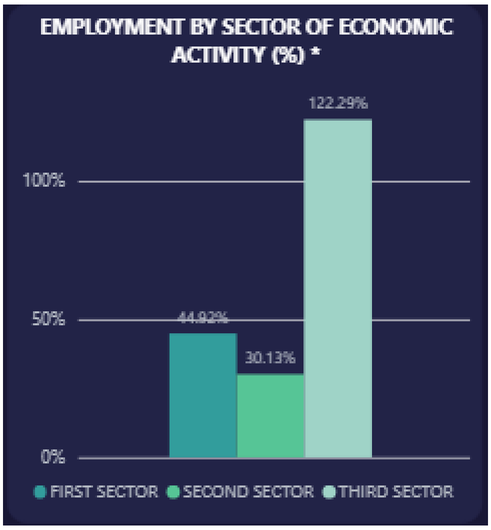


Illustration 19 – Average employment by sector of economic activity.

Note: retrieved from the dashboard.

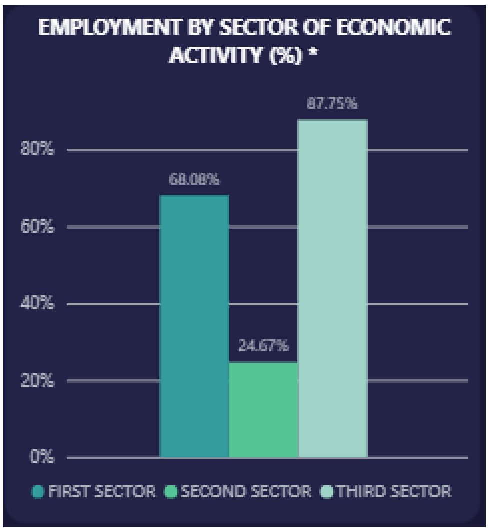


Illustration 20 – Average employment by sector of economic activity in Greece.

Note: retrieved from the dashboard.

When looking at the employment by occupations in the EU (see "Employment by Occupation (%)", Illustration 21), it is noticeable that five types of occupations are still dominated by men – managers, skilled agricultural forestry and fishery workers, craft and related trades workers, plant and machine operators and assemblers, and armed forces occupations –, whilst the other five are dominated by women. Additionally, technicians and associate professionals is the occupation that has been approaching parity more closely.

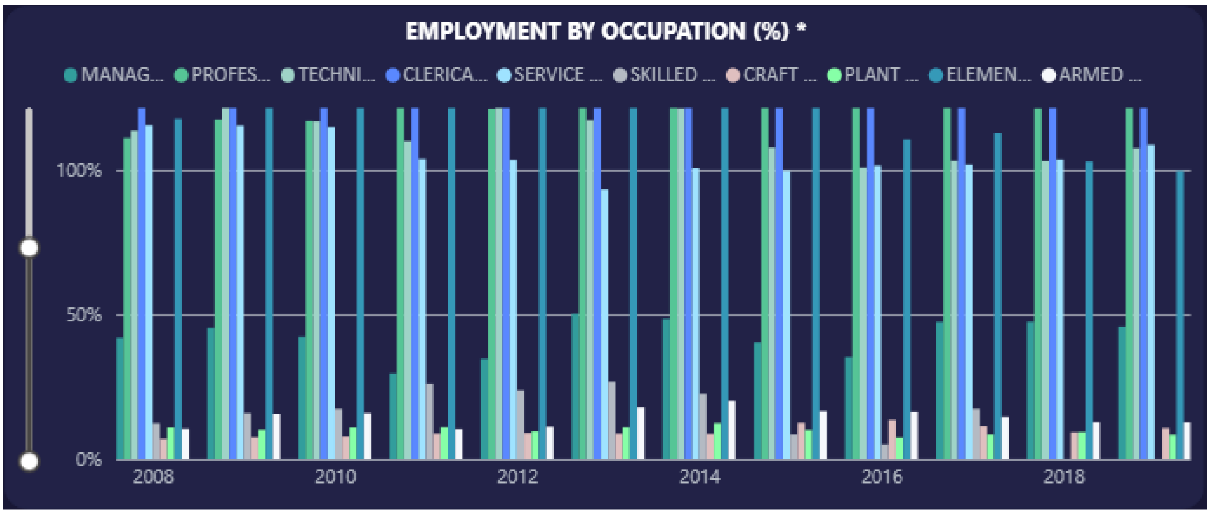


Illustration 21 – Average evolution of "Occ1", "Occ2", "Occ3", "Occ4", "Occ5", "Occ6", "Occ7", "Occ8", "Occ9" and "Occ10".

Note: retrieved from the dashboard.

Moving forward to the *"current" family structure* ("Family" sheet, Illustration 60 in Annex III), the EU has verified, on average terms, a reduction of the household composition, and a rather stable fertility rate (see "Evolution of Household Composition and Fertility Rate", Illustration 22).

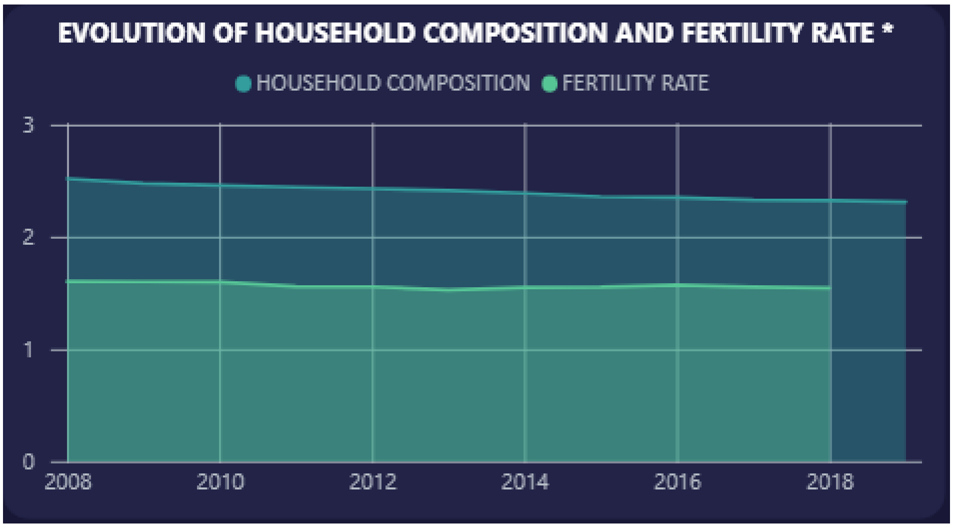


Illustration 22 – Average evolution of "HsH" and "FertR".

Note: retrieved from the dashboard.

Considering that, on average, a family is not even composed by 3 people and the births per woman is below 2 children (see "Average Household Composition" and "Average Fertility Rate", respectively), it can be stated that one or two events is occurring: there can be more couples who do not have children, and/or there are more single parents. One of the reasons that might explain such a low fertility rate is that there are more women/couples who do not want or cannot have children of their own. It is worth mentioning that this aspect can be applied to both heterosexual and homosexual people/couples. Furthermore, not only women have been participating more in the labour market, which may delay pregnancies, but also, financial stability can play a major role in such a decision.

By comparing the general ratios of married and unmarried people, it is observable that the former does not record a great disparity between both sexes, though there are more women who are married than men throughout the whole timeline, except in 2012 (see “Marital Status (%)”, Illustration 23). Curiously, there is also substantially more women who are unmarried than men in all 12 years analysed. It should be kept in mind that this attribute includes not only people who have never been married, but also divorced, widowed people, as well as people who are married but separated. Given that, a significant factor that could be contributing to this large disparity amongst unmarried people is that women, compared to men, have a greater life expectancy at birth both at the EU level – on average, it was of 83.70 years and 78.20 years for women and men, respectively, in 2018 (Eurostat, 2020h) – and at each member state level (Eurostat, 2020g), leading to a possible higher number of widowed women than widowed men and, thus, to a female-to-male ratio of unmarried people higher than 100%.

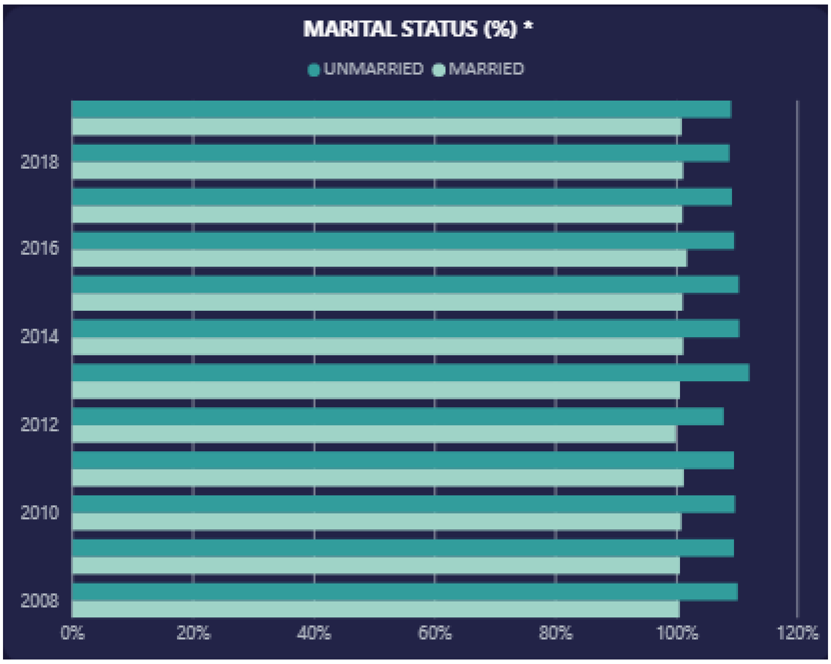


Illustration 23 – Average evolution of “Marrd” and “UMarrd”.

Note: retrieved from the dashboard.

Finally, on the *last page of the dashboard* (“Culture”, Illustration 61 in Annex III), it is possible to understand what the cultural background of the various EU countries is. Beginning with the analysis of access to abortion (see “Overall Level of Access to Abortion”, Illustration 24), in 2014, there were twenty-two countries in which abortion was completely legal without being necessary any sort of justification and five in which it can only occur under certain situations. On the other hand, in 2019, only twenty-one countries allowed the complete access to abortion (United Kingdom imposed some restrictions), being illegal in one country (Malta) and being necessary justifications, at different levels, in six countries. It is interesting to check that, in both years, and in the countries with total access to abortion, there are more countries that are mainly catholic (eleven countries: Austria, Belgium, Croatia, France, Italy, Lithuania, Luxembourg, Portugal, Slovakia, Slovenia, and Spain – see "Predominant Religion and Level of Religiosity (%)", Illustration 25) – with Croatia, Italy and Portugal being the most religious ones, with a level of religiosity that is comprehended between 60% and 70% – and with civil law as the legal origin (nine countries) – see "Countries' Legal Origin".

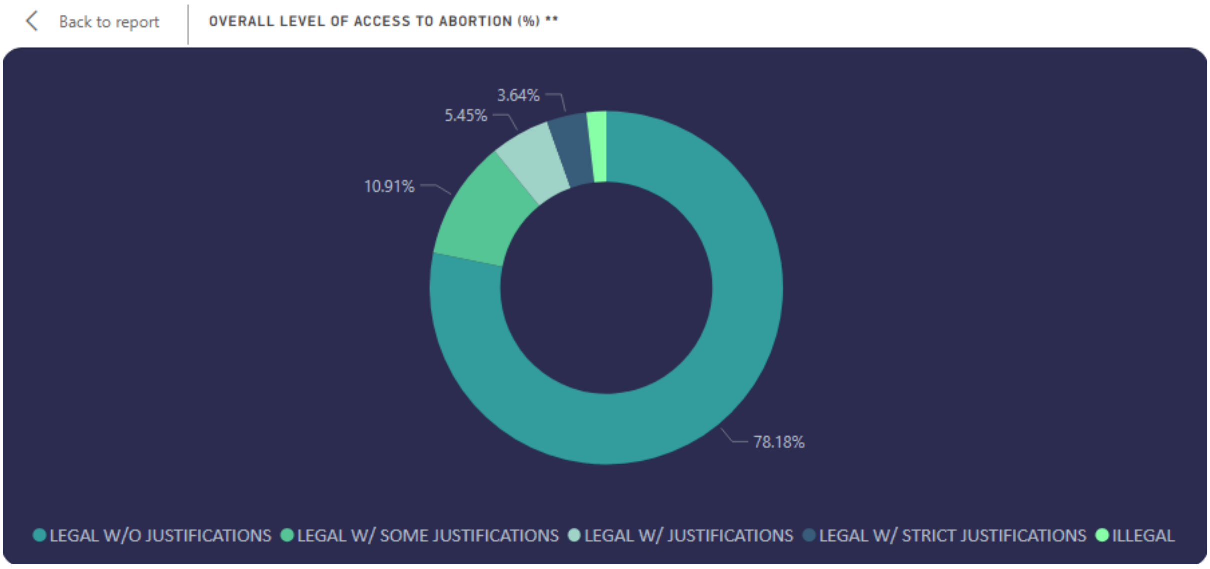


Illustration 24 – Overall access to abortion.

Note: retrieved from the dashboard.

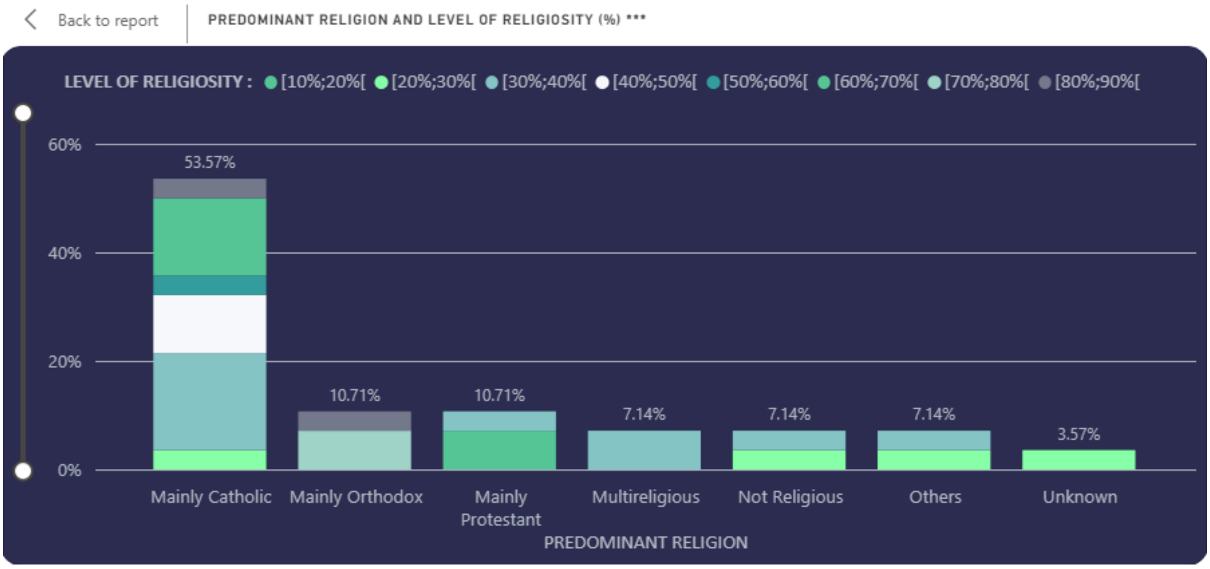


Illustration 25 – Main religion and religiosity levels.

Note: retrieved from the dashboard.

Although these are curious facts, they can still be thought as expected, given that the EU is composed by mainly catholic member states (approximately 53.57%, corresponding to 15 countries), with different levels of religiosity, and whose legal origin is mainly civil law (approximately 71.43% of the EU – see Illustration 26). It is worth mentioning, too, that besides Romania and Malta being equally religious and at the greatest level registered – between 80 % and 90 % –, they have different policies regarding abortion. While the former allows the complete access to it, the latter considers any kind of abortion to be illegal. This could be due to the fact that they possess different predominant religions – Romania's and Malta's population is considered to be mainly Orthodox and Catholic, respectively –, which highlights the conservatism that is typically associated to Catholicism in matters such as these.

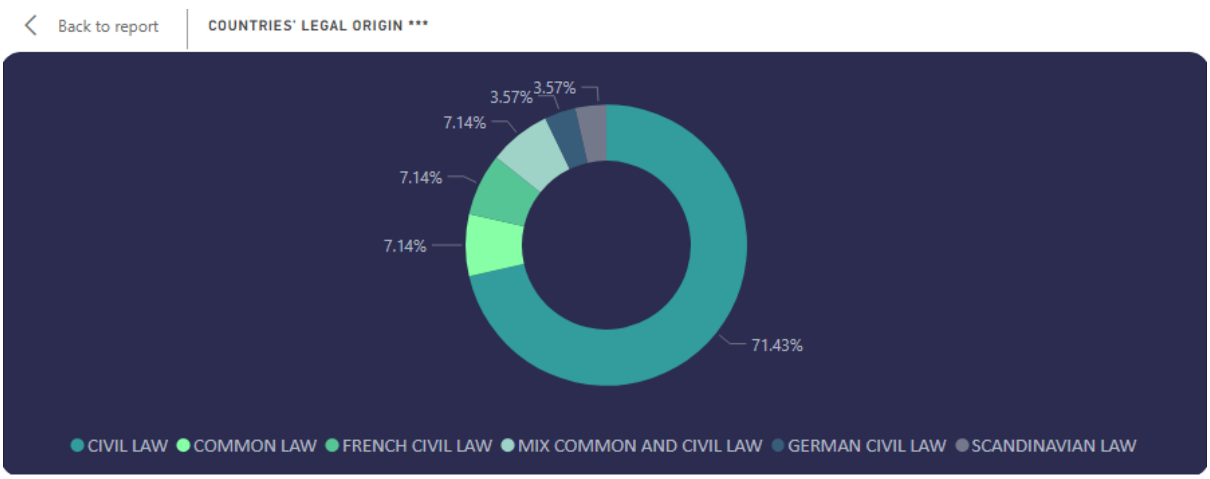


Illustration 26 – Presence of each legal origin in EU.

Note: retrieved from the dashboard.

At the end of this page, one can analyse how each country is characterized in terms of the six cultural dimensions of Hofstede. For example, when we take into account the top-ten countries that are closer to reach parity in terms of the "UGPGI" (average values of 11 years), it is visible that they are mainly characterised by having a centralized power, by being mainly individualist and uncomfortable about uncertainty. Table 3 summarises the characterization of these ten countries in terms of the Hofstede's cultural dimensions. It is interesting to state that part of the characterization made previously does not go in line with the work of Cabeza-García et al. (2018) about the legal mechanisms that promote women as board members. They found that gender diversity is more typically encouraged in societies in which its institutions, including the government, are less masculine and have a more decentralized power.

Slovenia	Centralized power; mainly feminine; mainly collectivist; uncomfortable with uncertainty; indifferent time orientation; indifferent about indulgence.

Table 3 – Characterization of the top-ten countries, with the highest "UGPGI", according to Hofstede's cultural dimensions.

Italy	Indifferent about power decentralization; mainly masculine; mainly individualist; uncomfortable with uncertainty; short-term orientation; mainly restraint.
Romania	Centralized power; mainly feminine; mainly collectivist; uncomfortable with uncertainty; indifferent time orientation; mainly restraint.
Luxembourg	Decentralized power; indifferent about masculine; mainly individualist; uncomfortable with uncertainty; short-term orientation; mainly indulgent.
Poland	Centralized power; mainly masculine, mainly individualist; uncomfortable with uncertainty; long-term orientation; mainly restraint.
Belgium	Centralized power; indifferent about masculine; mainly individualist; uncomfortable with uncertainty; short-term orientation; mainly indulgent.
Croatia	Centralized power; mainly feminine; mainly collectivist; uncomfortable with uncertainty; short-term orientation; mainly restraint.
Malta	Centralized power; indifferent about masculine; mainly individualist; uncomfortable with uncertainty; indifferent time orientation; mainly indulgent.
Portugal	Centralized power; mainly feminine; mainly collectivist; uncomfortable with uncertainty; long-term orientation; mainly restraint.
Ireland	Decentralized power; mainly masculine, mainly individualist; comfortable with uncertainty; long-term orientation; mainly indulgent.

Table 3 (Cont.) – Characterization of the top-ten countries, with the highest "UGPGI", according to Hofstede's cultural dimensions.

3.3. Description of the Estimation Method and Test Statistics

The three methods associated with panel regression were estimated: pooled OLS, fixed effects and random effects. While in the first two the definition of the final model was done through an initial consideration of all explanatory variables followed by the elimination of variables that were not statistically significant in the first model, just like in a stepwise backward regression, in the third method the procedure used was the stepwise forward regression, as it was not possible to perform a regression model with all the variables in this method. It is worth mentioning that the fixed effects method does not include in its estimation any variable that is time invariant, which is why none of the cultural attributes present in the final dataset were included in that estimation.

Provided that the linear regression is being used, it is required to understand what its classic assumptions (i.e., of the OLS method) are – see Annex IV. The assessment of no violation of some of these assumptions will be based on the implementation of test statistics, whose description is present in Annex V. The linearity, the disturbance's normality and the multicollinearity will not be assessed by such tests. For instance, the first two will be analysed through graphs of the type "Residuals vs Fitted Plot" and "Normal QQ-Plot". Given the impossibility of assessing the Cook's distance and the high leverages in order to indicate which values are abnormal and influential, the residuals that appeared to be more extreme in the "Normal QQ-Plot" were not removed, but rather looked at in a more thorough way to discover what could be causing such distinctiveness of these points relatively to the remaining ones.

It should be emphasised that, unfortunately, the assumptions of exogeneity and of the regressors being fixed in repeated samples were not possible to confirm in the models implemented. Also, in some cases, it was also not possible to check the full rank assumption.

Still regarding the process of choosing the best model for each method, such procedure was done always accounting for the presence of heteroscedasticity, serial correlation, and multicollinearity. Thus, this entire process was accompanied by the results given by an inference of the estimated coefficients with the method of Newey-West, so that a robust covariance matrix of parameters was estimated (Croissant, 2021; Zeileis, 2020b) accounting for heteroscedasticity and autocorrelation (Newey & West, 1987).

The assessment of the potential presence of multicollinearity was performed through the analysis of the variance-inflation factor (VIF), or in the case of the categorical variables, the generalised VIF (GVIF) was considered. According to a rule of thumb, a value of the VIF or of the square root of the GVIF – which is an approximation of the GVIF to the VIF – higher than 10 is an indicator of strong multicollinearity (Greene, 2002).

In order to choose the best linear and exponential models, three different formal tests were applied: a F-test (i.e., Fischer's Test) to choose between pooled OLS and fixed effects, a LM-test (i.e., Lagrange's Multiplier Test) to choose between pooled OLS and random effects, and the Hausman test to choose between fixed effects and random effects in case the null hypothesis of the two previous tests is rejected, meaning pooled OLS is ruled out. The explanation of these tests is also present in Annex V.

Note that the exact same reasoning applied above was also put into practice in the definition of the final exponential models for the three methods implemented in panel linear regression.

4. Results and Discussion

4.1. Presentation of Regression's Results

The composition of the final linear models of pooled OLS and fixed effects is very similar to the corresponding exponential models, having the random effects' models the exact same composition of variables. Tables 4 and 5 comprise the estimated coefficients, as well as the corresponding Newey-West standard errors in parenthesis, and the goodness of fit measures of each model. Note that the asterisks correspond to different significant levels (α): there are three, two and one asterisks when the α is, respectively, lower than the 0.1%, 1%, and 5% levels.

Interestingly, among the three methods applied to the linear and exponential models, almost every common continuous or categorical variable – more specifically the categories of the latter – present the same direction of explanation/influence of the UGPGI – but not in terms of magnitude. For instance, "LMPart" appears to have a positive impact in every method and model, meaning it contributes to parity, while "Occ5" has the opposite effect.

The only exceptions of this commonality regard the "PwD"'s and "Indg"'s categories of decentralized power and of a mainly restraint culture. Furthermore, comparing between models, the categories of French civil law and Scandinavian law of the "LgO" have opposite ways of influencing the "UGPGI". In the linear and exponential models in which are included, both levels have, respectively, a positive and negative impact in the explained attribute. Considering the difference between the coefficients of these levels and of the reference level of the given variables (i.e., the centralized power level for "PwD", the indifference level for the "Indg", the civil law level for "LgO") is not statistically different from zero, apart from the mainly restraint culture and Scandinavian Law categories of "Indg" and "LgO", such contrasting impacts are somewhat odd.

	Pooled OLS	**Fixed Effects**	**Random Effects**
(Intercept)	54.00484 *** (7.98654)		49.5122 *** (9.27291)
Ed3	-0.29799 *** (0.04335)	-0.08922 * (0.04044)	
LMPart	0.36400 *** (0.07848)	0.47584 *** (0.09116)	0.33870 *** (0.08145)
PartT	0.02307 *** (0.00357)		
Occ5	-0.06496 *** (0.00844)	-0.02832 *** (0.00442)	-0.02351 *** (0.00415)
HsH	11.44050 *** (1.46838)		4.06342 * (1.84978)
LgO: Common Law	-8.88982 *** (1.01606)		
LgO: French Civil Law	5.30018 *** (0.91019)		
LgO: German Civil Law	-12.28320 *** (1.46583)		
LgO: Mix Common and Civil Law	-8.72723 *** (1.61646)		
LgO: Scandinavian Law	0.57266 (0.91533)		
PwD: Decentralized Power	1.99719 * (0.88055)		-3.63578 * (1.61939)
PwD: Indifferent	10.61908 *** (1.37450)		9.32553 *** (2.46854)
Indv: Mainly Collectivist	6.83926 *** (0.76671)		10.07413 *** (1.97342)
Indv: Mainly Individualist	6.96067 *** (0.80142)		10.56484 *** (1.52387)

Table 4 – Final linear models' results, by method.

LngT: Long-Term Orientation	-1.51590 (0.77269)		
LngT: Short-Term Orientation	-6.65124 *** (0.68647)		
Ed2		0.03560 * (0.01442)	
Img		-0.06238 *** (0.01534)	-0.07242 *** (0.01624)
Tnr3		0.03367 (0.01723)	
Occ2		-0.03194 ** (0.01032)	
Occ4		-0.00825 (0.00430)	-0.01648 *** (0.00460)
Occ6		0.05734 *** (0.01688)	0.04402 * (0.01894)
Occ9		-0.01756 * (0.00788)	
Rlgn:Mainly Orthodox			3.51079 (2.45427)
Rlgn: Mainly Protestant			-6.51151 *** (1.65260)
Rlgn: Multireligious			-2.46815 (2.55513)
Rlgn: Not Religious			-8.24203 *** (2.0572)
Rlgn: Others			-11.4815 *** (1.86797)
Rlgn: Unknown			-8.64087 * (3.40047)
Indg: Mainly Indulgent			8.39270 *** (2.42207)
Indg: Mainly Restraint			0.90948 (2.20177)

Table 4 (Cont.) – Final linear models' results, by method.

F-test (model)	46.67	12.31	
χ^2 (model)			261.787
DF	16 and 291	10 and 270	18
p-value	< 2.2.e-16	< 2.2.e-16	< 2.2.e-16
R^2	71.96%	31.32%	47.53%
Adjusted R^2	70.42%	21.91%	44.26%
TSS	11 545	1 304.30	2 109.20
RSS	3 237.60	895.80	1 106.70
n	28	28	28
T	11	11	11
$N = n \times T$	308	308	308

Table 4 (Cont.) – Final linear models' results, by method.

Note: DF – degrees of freedom; TSS – total sum of squares; RSS – residual sum of squares; n – number of groups (i.e., countries); T – number of years observed; N – number of total observations.

	Pooled OLS	**Fixed Effects**	**Random Effects**
(Intercept)	3.76478 *** (0.06912)		4.02815 *** (0.10930)
Img	-0.00129 *** (0.00018)	-0.00073 *** (0.00018)	-0.00083 *** (0.00019)
LMPart	0.00485 *** (0.00073)	0.00545 *** (0.00110)	0.00401 *** (0.00096)
Occ4	-0.00026 *** (0.00005)		-0.00018 ** (0.00006)
Occ5	-0.00048 *** (0.00009)	-0.00034 *** (0.00005)	-0.00028 *** (0.00005)
HsH	0.17457 *** (0.01481)		0.04315 * (0.02117)
LgO: Common Law	-0.08441 *** (0.01294)		
LgO: French Civil Law	-0.02749 *** (0.00797)		
LgO: German Civil Law	-0.17673 *** (0.01717)		

Table 5 – Final exponential models' results, by method.

LgO: Mix Common and Civil Law	-0.06412 *** (0.01270)		
LgO: Scandinavian Law	-0.03468 *** (0.00966)		
PwD: Decentralized Power	-0.02194 ** (0.00819)		-0.04576 * (0.01963)
PwD: Indifferent	0.16456 *** (0.01394)		0.10723 *** (0.02934)
Indv: Mainly Collectivist	0.12471 *** (0.00925)		0.11867 *** (0.02382)
Indv: Mainly Individualist	0.11961 *** (0.00698)		0.12404 *** (0.01892)
Indg: Mainly Indulgent	0.07314 *** (0.00992)		0.10087 *** (0.02858)
Indg: Mainly Restraint	-0.03610 *** (0.00745)		0.01211 (0.02514)
Ed2		0.00035 * (0.00017)	
Ed3		-0.00105 * (0.00049)	
Tnr3		0.00039 (0.00020)	
Occ2		-0.00037 ** (0.00012)	
Occ6		0.00057 ** (0.00020)	
Occ9		-0.00021 * (0.00009)	
Rlgn: Mainly Orthodox			0.04054 (0.02829)
Rlgn: Mainly Protestant			-0.07533 *** (0.01946)
Rlgn: Multireligious			-0.02866 (0.03221)
Rlgn: Not Religious			-0.09993 *** (0.02745)

Table 5 (Cont.) – Final exponential models' results, by method.

Rlgn: Others			-0.13443 *** (0.02264)
Rlgn: Unknown			-0.10414 * (0.04378)
F-test (model)	62.86	12.60	
χ^2 (model)			247.126
DF	16 and 291	9 and 271	18
p-value	< 2.2.e-16	< 2.2.e-16	< 2.2.e-16
R^2	77.56%	29.50%	46.10%
Adjusted R^2	76.33%	20.13%	42.74%
TSS	1.59	0.18	0.27
RSS	0.36	0.12	0.15
n	28	28	28
T	11	11	11
$N = n \times T$	308	308	308

Table 5 (Cont.) – Final exponential models' results, by method.

4.2. Assumptions Checking

A pertinent aspect to account for is the potential violation of the classic regression assumptions. Illustration 27 allows the acknowledgement of two things. Firstly, once more, for all final models/methods, the disturbances seem to bounce randomly across the value of 0, and, so, it seems to be reasonable to allege that the linearity assumption is confirmed. Secondly, the residuals are more dispersed in the highest and lowest fitted values, being more concentrated in the mid ones, suggesting heteroscedasticity is present, i.e., the variance of the disturbances is not constant. Nevertheless, this second aspect can be checked with the formal hypothesis test of Breusch-Pagan, which in this case presents the rejection of the null hypothesis of homoscedasticity for all models/methods (see Table 6), confirming what the "Residuals vs Predicted Plot" demonstrates.

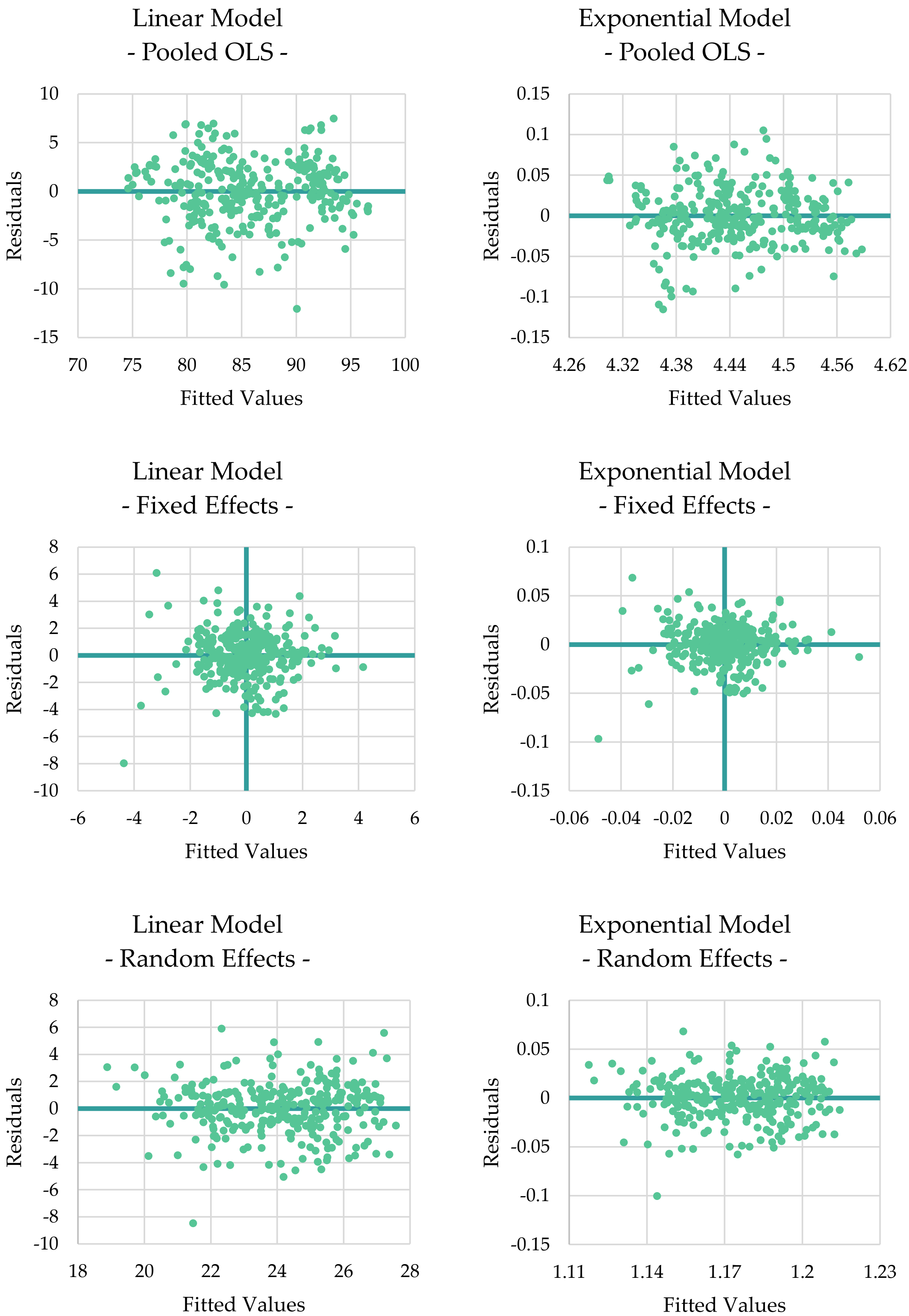


Illustration 27 – Plots of residuals versus fitted values of every model.

According to Table 6, which presents the results of the formal tests, besides heteroscedasticity, serial correlation is also present in each of the final linear and exponential models, leading to the confirmation of the necessity of applying the Newey-West estimator.

			Linear Models		
			OLS	**FE**	**RE**
Homoscedasticity (Breusch-Pagan)		BP	60.40	53.79	57.80
		DF	16	10	18
		p-value	4.50e-07	5.32e-08	4.61e-06
Serial Correlation	**Durbin-Watson**	DW	0.71	1.45	1.21
		p-value	< 2.20e-16	2.41e-07	2.79e-15
	Breusch-Godfrey	χ^2	144.32	42.61	62.30
		DF	11	11	11
		p-value	< 2.20e-16	1.27e-05	3.46e-09
			Exponential Models		
			OLS	**FE**	**RE**
Homoscedasticity (Breusch-Pagan)		BP	65.30	45.22	61.62
		DF	16	9	18
		p-value	6.54e-08	8.39e-07	1.12e-06
Serial Correlation	**Durbin-Watson**	DW	0.75	1.45	1.22
		p-value	< 2.20e-16	2.45e-07	3.90e-15
	Breusch-Godfrey	χ^2	136.15	43.44	61.06
		DF	11	11	11
		p-value	< 2.20e-16	9.12e-06	5.90e-09

Table 6 – Results of formal tests regarding assumptions.

In turn, Illustration 28 presents the "Normal Q-Q" type of plot for every model, allowing to check whether the residuals are normally distributed. This assumption is met when the residuals are positioned on the straight line, which does not seem to be the case for any of the models. Although the violation of this assumption is not very striking, it is required to pay attention to possible extreme values. It is observable in the referred illustration that some points stand out from the majority, meaning they should be assessed for influence – as being an abnormal value does not necessarily mean it has an influential effect in the regression's results.

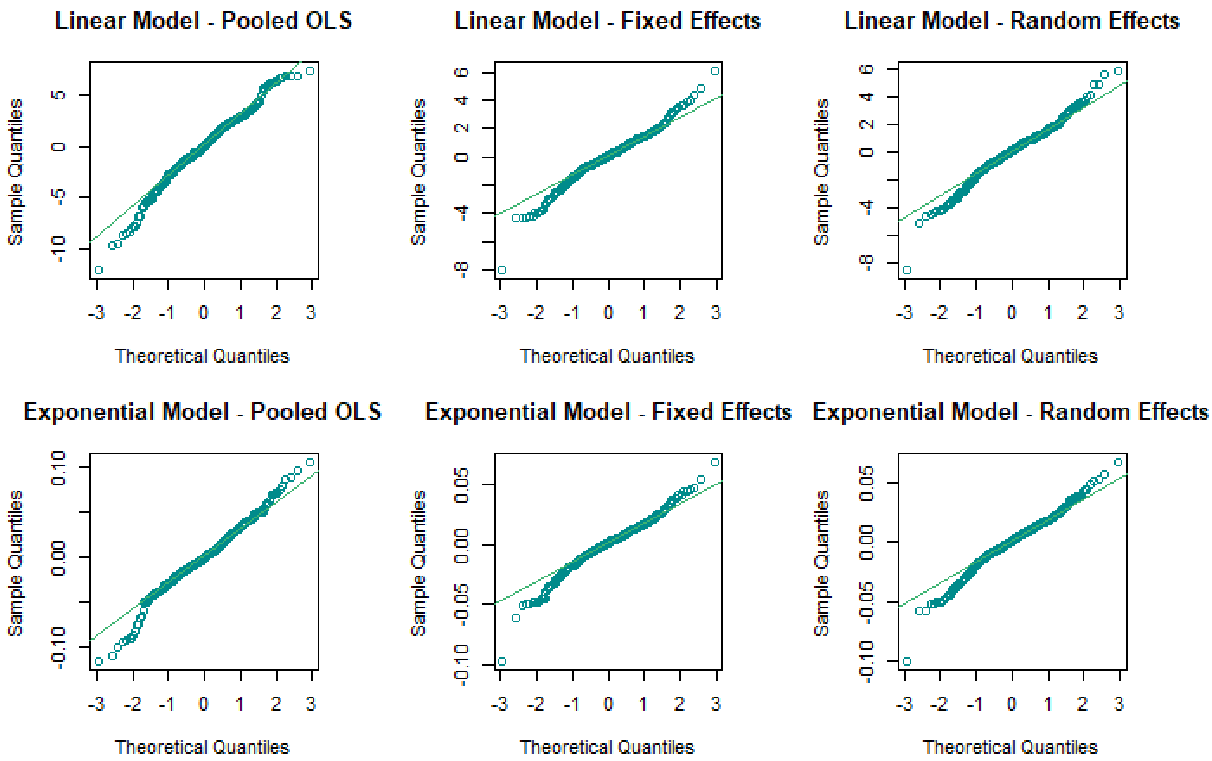


Illustration 28 – Normal Q-Q Plots of every model to check residuals' normality.

Typically, this is performed through the computation of Cook's distance or of the high leverages, leading to the elimination of those observations that are confirmed to be influential. Both procedures are not possible for panel regression in the software used (RStudio). Notwithstanding, the residuals' values were observed, more precisely, the four highest values (in absolute terms) registered for every model. It was possible to verify that the most common residuals referred to the observations of Greece 2008/2009, proceeded by Romania 2018 and, more residually, by Estonia 2012/2013/2014, Cyprus 2008, Slovenia 2009, Czechia 2008/2009, Lithuania 2008, and Poland 2010. Clearly, there seems to exist some sort of pattern, suggesting that

Romania, but more particularly, Greece should be investigated more carefully. In this case, and in accordance with Draper and Smith (1998), cited by Gujarati and Porter (2009), it is not believed that removing these observations is the best approach, as such situation may suggest that some events are occurring in these countries, mainly in Slovenia, which differ from what is happening in the remaining EU's member states.

So, the next step consisted of looking more thoroughly to the data we have about Greece (and Romania), more specifically to the variables that are common in the six models ("LMPart" and "Occ5"). The first procedure was to verify if the data transformations, applied to treat the presence of outliers and missing values, affected Greece's and Romania's data. By comparing the initial and final databases, it is evident that both countries did not suffer any change, meaning there were no missing cases nor outliers for the two variables considered in these member states. Thus, these transformations do not seem to be responsible for the extreme residuals generated.

Looking at how the remaining member states of the EU score in these variables in each point of time (Illustrations 63–64 and 65–66 from Annexes VI and VII, respectively), Greece and Romania do not present in the considering years any distinctiveness, that is, they do not seem to have any data points with disparate values regarding the other data points of the corresponding year. Nevertheless, it is notable the expressive evolution of "LMPart" through the 11 years in both countries, though in opposite directions and still registering values below of the EU's average. Also, Greece is the member state that is the furthest away from the EU's average in terms of "Occ5", continuously registering relatively low values.

It is observable, too, that these two countries do not distinct themselves in terms of predominant religion, religiosity level and legal origin, though they are two of the most religious countries in the EU (Illustrations 67–69, Annex VIII). So, what this may suggest is that, perhaps, the changes suffered in Greece and Romania in that specific years are not sufficient to make them differ a lot from the remaining member states in those years.

Despite that, these variations can differ substantially from what has been recorded in past periods within the country itself (Illustrations 70-73 from Annexes IX), which could lead to the generation of higher residuals' values. For example, when the evolution of the four mentioned variables is analysed in each of these countries, some considerably high variations can be spotted from one year to the other. The variations of "LMPart" from 2008 to 2009 in Greece and 2017 to 2018 in Romania might explain the existence of such great residuals. Contrarily, "Occ5" does not seem to register any expressive evolution in those years for the considered countries.

These alterations can be due to some possible economic context change, like the one produced by the Subprime Crisis from 2008 onwards, until 2014. It could also be because of some policies or societal changes that boosted such intensive alteration in the records. The bottom line is that we do not know exactly what is causing this but given the previous possibilities and that we do not have any reason to believe these data points are bad – in the sense they are not incorrect –, it was believed to be better to keep such observations incorporated in the regression analysis performed, as by omitting them, we could be leaving out important aspects provided by those observations.

4.3. Choice of the Panel Regression Method

Both F-test and LM-test rejected the null hypothesis not only in the linear models, but also in the exponential models – see Table 7. This means the pooled OLS method has to be disregarded, as there are significant effects that are not captured by it. According to the Hausman test, the best model to use is the fixed effects and not the random effects. This result holds for the linear and exponential models, once again.

		Linear Models		
		OLS vs FE	**OLS vs RE**	**FE vs RE**
F-test	F	33.61		
	DF	21 and 270		
	p-value	< 2.20e-16		
LM-test (Breusch-Pagan)	χ^2		255.54	
	DF		1	
	p-value		< 2.20e-16	
Hausman test	χ^2			136.80
	DF			5
	p-value			< 2.20e-16
		Exponential Models		
		OLS vs FE	**OLS vs RE**	**FE vs RE**
F-test	F	25.56		
	DF	20 and 271		
	p-value	< 2.20e-16		
LM-test (Breusch-Pagan)	χ^2		299.59	
	DF		1	
	p-value		< 2.20e-16	
Hausman test	χ^2			30.20
	DF			4
	p-value			4.46e-06

Table 7 – Formal tests' results to choose which method to consider in the linear and exponential models.

Given the elected method is the fixed effects, its final linear and exponential models do not have only one single intercept. In fact, it settles different intercepts for each country, which can be found in Table 8 for both models.

	Intercepts	
Countries (*i*)	**Linear Model**	**Exponential Model**
Austria	53.20225	4.06748
Belgium	71.76724	4.28819
Bulgaria	60.24047	4.14762
Croatia	66.66903	4.22659
Cyprus	62.58257	4.16699
Czechia	53.65985	4.06608
Denmark	59.56583	4.14224
Estonia	52.05273	4.04214
Finland	55.71457	4.09411
France	60.78001	4.15340
Germany	54.34420	4.08348
Greece	68.76600	4.25241
Hungary	58.46716	4.12453
Ireland	67.19401	4.21940
Italy	77.67003	4.35141
Latvia	60.85799	4.14709
Lithuania	60.34960	4.14846
Luxembourg	72.00828	4.29309
Malta	71.38914	4.28182
Netherlands	60.71771	4.16139
Poland	72.26327	4.29213
Portugal	65.94761	4.22438
Romania	71.01064	4.27452
Slovakia	56.44654	4.10612
Slovenia	68.32332	4.24964
Spain	64.44811	4.20127
Sweden	60.46996	4.15941
UK	55.96203	4.09515

Table 8 – Linear and exponential model's intercepts by country.

Tables 9 and 10 give a more thorough insight of certain aspects of the coefficients of the linear and exponential chosen models, like the corresponding intervals of confidence (C.I.), for a 95% confidence level. Furthermore, when comparing estimates of these two models, it is clear that "Occ4" is not included in the linear model, given it was not statistically significant but has become in the exponential model.

	Coefficients (Stand. Error)	t-value	P >|t|	C.I. (95%)	
				Lower Bound	Upper Bound
Ed2	0.00035 * (0.00017)	2.10857	0.03590	2.31e-05	0.00067
Ed3	-0.00105 * (0.00049)	-2.11582	0.03527	-0.00202	-7.26e-05
Img	-0.00073 *** (0.00018)	-4.08695	5.76e-05	-0.00108	-0.00038
LMPart	0.00545 *** (0.00110)	4.95646	1.27e-06	0.00329	0.00762
Tnr3	0.00039 (0.00020)	1.95066	0.05213	-3.61e-06	0.0007824
Occ2	-0.00037 ** (0.00012)	-3.01668	0.00280	-0.00061	-0.00013
Occ5	-0.00034 *** (0.00005)	-6.47673	4.39e-10	-0.00045	-0.00024
Occ6	0.00057 ** (0.00020)	2.89022	0.00416	0.00018	0.00096
Occ9	-0.00021 * (0.00009)	-2.26135	0.02453	-0.00040	-2.77e-05

Table 9 – Further results of the linear model.

	Coefficients (Stand. Error)	t-value	P >|t|	C.I. (95%)	
				Lower Bound	Upper Bound
Ed2	0.03560 * (0.01442)	2.46900	0.01417	0.00721	0.06399
Ed3	-0.08922 * (0.04044)	-2.20651	0.02819	-0.16883	-0.00961
Img	-0.06238 *** (0.01534)	-4.06554	6.29E-05	-0.09258	-0.03217
LMPart	0.47584 *** (0.09116)	5.21964	3.58E-07	0.29636	0.65532

Table 10 – Further results of the exponential model.

Tnr3	0.03367 (0.01723)	1.95462	0.05166	-0.00024	0.06759
Occ2	-0.03194 ** (0.01032)	-3.09469	0.00218	-0.05225	-0.01162
Occ4	-0.00825 (0.00430)	-1.92165	0.05570	-0.01671	0.00020
Occ5	-0.02832 *** (0.00442)	-6.40451	6.67E-10	-0.03702	-0.01961
Occ6	0.05734 *** (0.01688)	3.39651	0.00079	0.02410	0.09057
Occ9	-0.01756 * (0.00788)	-2.22785	0.02671	-0.03309	-0.00204

Table 10 (Cont.) – Further results of the exponential model.

4.4. Final Discussion of the Results

Despite the methods chosen by the Hausman test are the fixed effects, and even though the corresponding models are globally significant, one should keep in mind that their coefficients of determination (i.e., R^2) are considerably low, as about only 30% of the total variation of UGPGI is explained by such models.

A reason for that is related with the exclusion of cultural variables, more specifically some regarding the Hofstede's dimensions of a nation's culture – like the "PwD" (i.e., power distance), the "Indv" (i.e., individualism), or the "Indg" (i.e, indulgence) – as well as of the "LgO" (i.e., legal origin) or the "Rlgn" (i.e., predominant religion), due to its time-invariant characteristics. Through the process of selecting the most important variables to define the final models of the other panel methods, it was clear that these attributes played an important part in elevating the adjusted R^2 of every single one of those models, even in the situations that value is rather low.

For instance, if the "LgO" were to be withdrawn from the estimation of the final model for pooled OLS and "Rlgn" from the final random effects model, the adjusted R^2 would drop significantly, from 70.42% and 44.26% to 49.26% and 25.29%, respectively, for the linear model, occurring a similar impact in the exponential model. Clearly, this demonstrates how relevant such variables are to ensure a better fitness of the model and, thus, it comes as no surprise that the adjusted R^2 of the fixed effects' method is so low. Though, it needs to be emphasized that it was not possible to deduce which of cultural attributes included in the models can be more significant relatively to the others. In addition, the importance of including "PwD" and "Indv" is not at all unanticipated considering the analysis performed about the cultural dimensions of Hofstede in the dashboard.

Despite making the explanation of our dependent variable less reliable, one important conclusion can yet be retrieved from this problem. Indeed, cultural variables seem to play a relevant role in explaining labour income disparities between men and women. For that reason, research on this topic should take into consideration such parameters, which reinforces what the recent literature has claimed. It is worthwhile to acknowledge that cultural variables, besides the most obvious or common ones – like the predominant religion –, need to be addressed. By way of example, this dissertation enabled the avowal not only of a country's legal origin as crucial, but also of its characterization by some of the cultural dimensions of Hofstede.

5. Conclusion

In this dissertation, an analysis was made about the evolution and the main explanations of the UGPGI across the European Union. Before proceeding to the conclusions retrieved from the final estimation model, some other and rather early conclusions could be drawn regarding the dashboard analysis.

Perhaps, the most interesting fact observed is that the countries that register a greater ratio of average hourly earnings and are closer to parity are not necessarily the ones with an average UGPGI near parity. As explained, this is quite surprising when one considers the base of development and computation of both variables, which is the same – the average hourly earnings. Another obvious aspect is the presence of a glass ceiling effect – which reflects a discriminatory situation –, as the female-to-male ratio in managerial positions is rather low, despite of a lot more women having graduated in advanced studies (Eurostat, 2020j) and despite the positive trend of experience and labour market participation's ratios towards parity. Finally, the member states with a registered UGPGI closer to parity are mainly power distant (i.e., power is centralized), individualist, and uncomfortable with uncertainty.

With the chosen estimated method being the fixed effects, which presented a low level of fitness in both linear and exponential models, not much could be argued about what may positively or negatively influence the payment gap between the two genders, nor to what extent. Notwithstanding, it was clear the relevance of including, or in this case, excluding cultural variables. Although it is not possible to estimate how much the following aspects/variables could impact the UGPGI, it seems to be unarguable that the legal origin of a country, its predominant religion and its characterization according to Hofstede's cultural dimensions are crucial to ensure best model fitness as possible. In other words, this essentialness can be translated into the importance of these cultural or societal factors in partly explaining the gap, whether it is in a positive or negative way. A highlight should be made to the fact that the analysis of the dashboard enabled the early deduction of relevancy of Hofstede's characterization of a nation's culture, which reveals that a thorough analysis of the data can be critical.

It is worth mentioning the major difficulty of this study was, indeed, the collection of complete data for all the initial forty-six variables that constituted the developed database. This was a huge limitation as it stopped us from fully understanding if the variables that had to be disregarded from our final analysis could play an important role in the understanding of what contributes the most to the UGPGI. For this reason, one of the suggestions/recommendations for future research could be to find a consistent way to include at least some of those variables.

Another limitation encountered was the impossibility of assessing certain aspects of the panel regression in the software used (RStudio), such as the plotting of diagnostic graphs (like the "Residuals vs Leverage" plot) and the computation of the Cook's distance.

It would be also interesting to broad the study of the GPG(I) to other types of gender, besides the commonly two that are assigned at birth. There has been a growing number of people that do not identify themselves with the gender they are born with (Bandeira, 2019; OECD, 2019). This is a very relevant aspect in the study of the GPG(I), as there can be a bias in the data that is normally collected only considering the two genders (in the sense of the sex one is born with), male and female. Furthermore, such study could reveal if there are other difficulties encountered by these people in the labour market that could affect their opportunities and, thus, their earnings.

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Annexes

Annex I – Final database.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Austria	2018	102.98	82.95	89.86	84.76	87.81	88.41	109.75	110.57	111.79	104.26	86.05	71.41	…
Austria	2017	101.80	81.59	93.57	83.37	88.17	89.06	104.37	110.57	111.79	104.26	86.29	71.46	…
Austria	2016	104.77	81.48	92.36	87.65	88.05	89.03	111.11	111.39	110.20	104.26	84.52	71.45	…
Austria	2015	111.21	82.19	89.98	84.61	88.33	89.18	107.27	112.85	114.95	108.05	85.85	71.12	…
Austria	2014	111.63	82.49	89.90	89.87	88.65	88.66	108.52	112.04	112.63	107.38	86.63	71.10	…
Austria	2013	110.84	85.36	81.90	86.08	88.20	87.95	108.15	116.86	115.84	101.98	86.72	72.30	…
Austria	2012	112.08	85.47	79.10	84.33	87.97	87.89	111.97	115.68	119.49	103.92	84.12	71.62	…
Austria	2011	109.53	85.85	76.07	82.74	87.44	87.31	110.83	118.80	108.67	111.52	84.22	72.21	…
Austria	2010	111.41	84.59	75.18	83.60	86.67	86.75	104.90	122.17	109.53	112.02	84.82	72.17	…
Austria	2009	110.19	85.66	76.74	83.17	86.29	86.72	114.36	117.42	109.06	114.24	81.94	72.55	…
Austria	2008	110.19	85.66	78.06	83.17	85.07	85.42	111.45	107.53	114.73	117.40	82.41	73.39	…
Belgium	2018	63.59	72.16	114.49	76.51	87.19	88.64	101.13	103.18	98.78	101.17	100.27	77.11	…
Belgium	2017	60.84	71.93	112.21	75.42	85.78	87.71	98.52	103.63	102.02	104.35	99.34	77.34	…
Belgium	2016	64.37	71.60	113.83	75.54	85.56	87.61	100.62	103.63	102.02	104.35	97.93	75.23	…
Belgium	2015	60.34	74.91	112.68	77.77	85.79	87.61	98.59	98.88	99.93	105.36	98.34	75.24	…
Belgium	2014	61.46	75.74	111.83	75.15	85.55	87.61	104.05	98.94	101.65	106.16	96.27	74.88	…
Belgium	2013	61.22	76.78	109.30	72.03	84.44	86.21	105.88	98.16	100.79	102.25	97.95	73.41	…
Belgium	2012	59.38	75.52	109.02	76.37	83.23	85.30	109.44	92.09	106.80	103.42	96.90	73.08	…
Belgium	2011	60.37	76.66	107.52	72.01	83.23	85.51	104.01	105.25	108.74	101.20	94.78	72.70	…
Belgium	2010	62.35	75.73	106.84	71.22	83.00	85.43	109.88	104.77	101.83	104.91	94.18	73.17	…
Belgium	2009	78.34	84.01	96.63	86.43	82.29	84.44	115.45	98.83	102.21	103.12	94.98	73.01	…
Belgium	2008	77.66	85.94	92.64	85.75	81.66	83.91	104.48	102.21	103.55	110.90	92.98	72.08	…

Table 11 – Final database of Austria and Belgium.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Austria	2018	427.53	46.79	131.67	77.04	260.04	225.30	37.87	9.30	16.92	155.36	71.47	28.11	…
Austria	2017	401.55	46.90	116.00	93.06	263.28	230.47	50.60	8.79	16.58	149.43	78.97	27.57	…
Austria	2016	403.61	47.48	112.04	93.83	261.54	231.49	42.09	9.27	15.31	166.30	74.02	28.36	…
Austria	2015	407.63	42.73	113.87	92.66	271.16	237.02	36.73	10.02	16.88	177.81	77.96	28.64	…
Austria	2014	412.14	45.11	119.01	94.17	248.13	236.79	43.58	9.09	16.98	169.01	80.23	30.40	…
Austria	2013	422.99	42.64	106.85	98.65	267.76	218.92	42.25	9.23	16.93	174.32	75.16	30.93	…
Austria	2012	471.98	44.83	107.79	90.11	270.64	231.57	53.39	8.93	17.50	173.29	74.04	29.57	…
Austria	2011	471.74	39.73	119.52	83.88	276.32	236.12	38.02	10.41	15.46	164.47	78.66	28.88	…
Austria	2010	461.29	38.14	101.72	97.32	236.43	277.31	82.91	7.50	14.98	127.77	80.52	27.39	…
Austria	2009	475.05	35.50	99.55	97.37	250.25	268.99	82.91	7.61	14.68	130.64	83.15	27.06	…
Austria	2008	487.60	37.58	96.72	96.45	243.38	273.06	70.12	7.59	13.33	126.98	84.13	27.37	…
Belgium	2018	423.46	59.21	127.63	93.38	157.27	225.54	18.60	6.12	16.83	167.93	42.97	25.53	…
Belgium	2017	419.48	56.41	125.18	91.75	158.86	212.39	16.92	6.74	16.71	165.55	39.05	25.52	…
Belgium	2016	429.04	57.71	137.76	87.80	159.50	232.96	16.92	6.08	16.54	164.50	38.75	21.73	…
Belgium	2015	415.97	53.50	134.90	96.20	171.16	234.93	16.78	5.80	17.37	173.64	40.55	22.23	…
Belgium	2014	426.08	52.14	132.63	88.92	156.72	248.54	15.96	6.19	16.14	190.97	46.95	22.06	…
Belgium	2013	477.10	52.95	134.29	86.72	156.48	240.56	16.78	6.21	16.11	182.51	39.68	22.20	…
Belgium	2012	454.91	53.72	130.94	82.83	152.15	211.67	18.60	6.06	14.34	189.72	37.02	22.08	…
Belgium	2011	460.64	50.51	130.04	75.61	165.40	209.95	18.60	5.69	14.95	187.50	44.90	23.38	…
Belgium	2010	472.78	63.46	145.41	60.14	182.17	199.89	11.84	6.18	19.63	122.80	42.66	24.31	…
Belgium	2009	483.26	60.99	142.10	58.27	174.62	211.16	11.19	7.00	18.45	125.26	42.70	23.00	…
Belgium	2008	513.88	55.08	147.10	54.43	171.00	210.47	16.78	7.09	19.89	126.34	42.25	22.95	…

Table 11 (Cont.) – Final database of Austria and Belgium.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Austria	2018	127.58	1.47	2.20	0	0	3	0	2	0	1	0	1	79.60
Austria	2017	128.17	1.52	2.20	0	0	3	0	2	0	1	0	1	79.30
Austria	2016	129.57	1.53	2.20	0	0	3	0	2	0	1	0	1	79.20
Austria	2015	129.92	1.49	2.20	0	0	3	0	2	0	1	0	1	78.20
Austria	2014	127.90	1.46	2.20	0	0	3	0	2	0	1	0	1	77.80
Austria	2013	126.33	1.44	2.20	0	0	3	0	2	0	1	0	1	77.70
Austria	2012	128.19	1.44	2.30	0	0	3	0	2	0	1	0	1	77.10
Austria	2011	127.09	1.43	2.30	0	0	3	0	2	0	1	0	1	76.50
Austria	2010	125.15	1.44	2.30	0	0	3	0	2	0	1	0	1	76.00
Austria	2009	124.74	1.39	2.30	0	0	3	0	2	0	1	0	1	75.70
Austria	2008	123.04	1.42	2.30	0	0	3	0	2	0	1	0	1	74.90
Belgium	2018	120.01	1.62	2.30	1	0	2	1	1	2	1	0	1	94.20
Belgium	2017	114.21	1.65	2.30	1	0	2	1	1	2	1	0	1	94.20
Belgium	2016	118.98	1.68	2.40	1	0	2	1	1	2	1	0	1	94.00
Belgium	2015	120.54	1.70	2.40	1	0	2	1	1	2	1	0	1	93.60
Belgium	2014	119.58	1.74	2.40	1	0	2	1	1	2	1	0	1	93.40
Belgium	2013	117.60	1.76	2.40	1	0	2	1	1	2	1	0	1	92.50
Belgium	2012	115.06	1.80	2.40	1	0	2	1	1	2	1	0	1	91.70
Belgium	2011	116.43	1.81	2.40	1	0	2	1	1	2	1	0	1	90.60
Belgium	2010	115.05	1.86	2.40	1	0	2	1	1	2	1	0	1	89.80
Belgium	2009	115.47	1.84	2.40	1	0	2	1	1	2	1	0	1	89.90
Belgium	2008	115.79	1.85	2.40	1	0	2	1	1	2	1	0	1	89.80

Table 11 (Cont.) – Final database of Austria and Belgium.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Bulgaria	2018	60.97	70.44	142.52	59.72	86.12	90.75	93.95	95.68	92.04	97.68	102.93	99.13	…
Bulgaria	2017	63.53	70.19	145.70	84.54	86.85	91.59	98.23	98.94	95.73	96.66	102.95	99.11	…
Bulgaria	2016	60.98	69.85	145.26	57.58	86.59	91.24	97.43	95.68	94.06	97.68	105.17	99.12	…
Bulgaria	2015	64.87	70.57	145.45	55.23	87.29	92.22	90.65	99.14	101.30	99.49	102.93	98.90	…
Bulgaria	2014	65.46	71.53	143.54	51.55	87.14	92.19	93.32	99.51	97.19	100.00	103.73	98.95	…
Bulgaria	2013	68.67	72.33	144.29	51.55	87.64	92.47	94.36	94.33	98.31	101.40	103.70	98.75	…
Bulgaria	2012	71.80	72.68	146.26	57.20	87.59	92.66	87.90	106.48	97.52	100.68	102.97	99.08	…
Bulgaria	2011	72.25	72.26	147.60	51.55	87.08	91.98	91.56	98.95	101.20	95.06	107.00	99.10	…
Bulgaria	2010	70.80	71.42	149.98	62.02	86.32	90.91	96.78	91.95	97.89	98.48	106.81	99.08	…
Bulgaria	2009	88.19	73.66	119.26	70.71	87.48	89.35	94.53	96.90	95.54	97.03	109.70	98.94	…
Bulgaria	2008	88.19	73.66	119.26	70.71	87.70	89.47	93.04	96.68	93.48	99.51	109.97	98.99	…
Croatia	2018	84.69	72.15	129.29	97.20	86.69	89.47	101.74	107.04	101.01	100.24	101.18	97.11	…
Croatia	2017	82.84	72.76	126.16	56.20	85.67	87.83	102.45	101.36	96.51	99.36	98.44	98.00	…
Croatia	2016	87.35	72.98	126.73	76.86	86.11	88.82	94.14	101.36	99.02	99.45	97.65	97.58	…
Croatia	2015	101.71	72.10	127.37	113.43	86.85	88.99	89.51	108.19	89.62	108.43	99.69	97.34	…
Croatia	2014	99.93	72.85	125.08	76.25	86.38	88.34	106.75	101.78	88.33	102.77	99.52	97.08	…
Croatia	2013	88.99	73.25	122.14	55.96	84.71	87.05	95.92	93.39	109.93	98.90	100.85	98.25	…
Croatia	2012	97.55	70.63	119.53	55.96	82.97	85.12	105.61	107.53	117.48	87.87	99.14	97.17	…
Croatia	2011	98.64	68.62	119.63	52.29	81.90	84.41	110.00	119.74	98.08	86.78	100.60	95.74	…
Croatia	2010	98.53	71.89	121.74	52.29	84.90	87.54	116.70	107.42	108.14	91.07	97.26	95.05	…
Croatia	2009	62.05	68.62	131.55	55.96	85.29	88.17	106.42	107.31	91.99	90.71	103.23	96.03	…
Croatia	2008	62.05	69.11	131.55	59.88	82.13	85.09	101.10	102.37	97.82	83.73	107.33	96.19	…

Table 12 – Final database of Bulgaria and Croatia.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Bulgaria	2018	175.43	95.60	201.53	88.27	270.95	160.03	63.90	27.08	32.93	61.55	45.30	35.33	…
Bulgaria	2017	162.84	96.00	210.86	85.24	277.18	157.99	58.52	27.08	34.43	61.93	39.06	34.53	…
Bulgaria	2016	163.48	89.65	209.68	95.66	260.71	150.27	60.65	27.08	34.90	64.10	56.88	34.53	…
Bulgaria	2015	180.94	90.50	218.86	96.41	255.41	149.40	61.46	27.08	34.46	66.96	50.64	34.53	…
Bulgaria	2014	165.86	85.11	223.07	87.03	256.03	151.15	64.26	27.08	35.06	70.07	67.00	33.62	…
Bulgaria	2013	180.49	84.20	227.76	89.02	273.72	148.74	82.91	27.08	36.67	74.32	67.00	33.62	…
Bulgaria	2012	161.64	79.66	229.64	92.63	280.38	147.29	60.32	27.08	37.27	80.19	34.75	35.61	…
Bulgaria	2011	163.62	84.71	243.66	86.68	279.50	148.09	53.99	27.08	36.20	72.07	69.52	32.45	…
Bulgaria	2010	167.32	67.06	216.21	126.65	305.26	149.14	62.18	27.08	35.94	77.48	34.75	33.62	…
Bulgaria	2009	198.20	61.54	200.78	126.63	358.66	157.60	67.74	27.08	40.32	78.09	33.47	40.25	…
Bulgaria	2008	198.87	62.86	208.22	121.05	348.32	156.37	72.94	27.08	45.16	77.13	33.47	40.25	…
Croatia	2018	182.99	49.36	169.15	76.80	192.86	160.70	29.43	7.07	36.62	104.79	37.84	32.53	…
Croatia	2017	155.56	56.03	179.76	75.20	198.05	160.43	29.43	7.15	33.58	109.30	51.85	32.53	…
Croatia	2016	156.94	61.95	179.33	88.07	196.18	183.24	29.43	8.40	31.85	102.00	51.85	31.85	…
Croatia	2015	156.99	40.39	187.52	83.70	196.32	180.48	29.95	7.60	34.09	110.32	37.84	31.85	…
Croatia	2014	180.99	46.50	161.20	89.04	214.89	153.27	31.07	8.58	37.23	141.75	67.92	32.53	…
Croatia	2013	141.57	32.30	179.56	75.90	213.46	153.85	30.74	8.17	37.78	120.81	67.92	31.85	…
Croatia	2012	167.50	40.04	149.98	69.90	199.95	155.64	20.85	10.19	34.09	127.66	67.92	31.57	…
Croatia	2011	184.18	53.48	157.27	67.71	204.50	149.25	31.50	9.05	34.16	123.55	69.52	31.85	…
Croatia	2010	212.01	57.31	131.54	95.68	217.58	159.82	31.50	4.55	37.46	117.47	69.52	31.85	…
Croatia	2009	189.93	81.68	142.45	99.53	213.65	160.80	12.36	6.72	34.29	113.62	69.52	31.85	…
Croatia	2008	188.19	67.14	130.42	96.13	214.64	151.18	30.74	9.06	34.73	116.56	67.92	31.85	…

Table 12 (Cont.) – Final database of Bulgaria and Croatia.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Bulgaria	2018	129.89	1.56	2.30	0	0	2	1	0	1	1	0	0	86.10
Bulgaria	2017	131.15	1.56	2.20	0	0	2	1	0	1	1	0	0	85.70
Bulgaria	2016	129.59	1.54	2.40	0	0	2	1	0	1	1	0	0	85.40
Bulgaria	2015	126.89	1.53	2.20	0	0	2	1	0	1	1	0	0	84.50
Bulgaria	2014	129.28	1.53	2.40	0	0	2	1	0	1	1	0	0	85.80
Bulgaria	2013	129.28	1.48	2.40	0	0	2	1	0	1	1	0	0	85.90
Bulgaria	2012	127.19	1.50	2.30	0	0	2	1	0	1	1	0	0	84.90
Bulgaria	2011	128.59	1.51	2.30	0	0	2	1	0	1	1	0	0	86.80
Bulgaria	2010	127.95	1.57	2.40	0	0	2	1	0	1	1	0	0	87.00
Bulgaria	2009	126.79	1.66	2.40	0	0	2	1	0	1	1	0	0	86.70
Bulgaria	2008	126.79	1.56	2.40	0	0	2	1	0	1	1	0	0	87.70
Croatia	2018	126.89	1.47	2.80	0	0	5	1	0	1	1	0	0	89.50
Croatia	2017	126.93	1.42	2.80	0	0	5	1	0	1	1	0	0	88.40
Croatia	2016	129.28	1.42	2.80	0	0	5	1	0	1	1	0	0	88.90
Croatia	2015	129.62	1.40	2.80	0	0	5	1	0	1	1	0	0	85.50
Croatia	2014	129.28	1.46	2.80	0	0	5	1	0	1	1	0	0	91.30
Croatia	2013	129.59	1.46	2.90	0	0	5	1	0	1	1	0	0	92.30
Croatia	2012	129.59	1.51	2.90	0	0	5	1	0	1	1	0	0	92.95
Croatia	2011	129.59	1.48	3.00	0	0	5	1	0	1	1	0	0	93.25
Croatia	2010	129.59	1.55	3.00	0	0	5	1	0	1	1	0	0	94.30
Croatia	2009	129.88	1.58	2.80	0	0	5	1	0	1	1	0	0	92.80
Croatia	2008	129.88	1.55	2.80	0	0	5	1	0	1	1	0	0	92.50

Table 12 (Cont.) – Final database of Bulgaria and Croatia.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Cyprus	2018	65.51	74.17	122.26	110.00	91.46	85.25	121.77	107.28	101.01	105.83	88.82	93.73	…
Cyprus	2017	72.21	72.14	125.52	107.51	92.44	85.68	113.72	107.28	101.01	105.83	85.15	93.87	…
Cyprus	2016	69.82	72.23	129.66	113.43	93.44	85.31	113.56	107.28	98.56	105.83	84.51	94.25	…
Cyprus	2015	74.08	76.53	125.89	113.43	94.75	86.60	111.84	106.43	124.39	107.35	83.25	94.21	…
Cyprus	2014	70.64	76.44	126.06	113.43	93.71	83.71	114.60	126.43	125.41	109.60	77.36	93.87	…
Cyprus	2013	73.27	74.46	118.40	113.43	90.49	81.25	124.65	118.18	124.12	109.64	75.81	93.35	…
Cyprus	2012	75.47	74.98	114.77	113.43	89.72	81.20	114.75	119.71	118.29	108.63	78.63	94.17	…
Cyprus	2011	71.93	74.08	122.74	113.43	90.26	81.34	117.49	120.73	124.42	101.62	78.18	94.84	…
Cyprus	2010	78.17	75.80	115.53	113.43	89.60	81.33	133.90	128.99	111.92	105.64	73.97	94.74	…
Cyprus	2009	53.88	81.01	104.95	85.22	87.35	79.66	132.78	129.32	111.49	110.98	68.83	93.15	…
Cyprus	2008	51.20	80.22	107.66	84.67	81.30	77.56	133.90	129.32	117.40	102.40	68.68	93.48	…
Czechia	2018	98.11	74.84	95.24	64.66	80.50	84.69	133.90	113.76	106.12	97.31	83.74	94.11	…
Czechia	2017	104.64	74.61	93.32	69.49	80.10	84.32	133.90	117.32	106.52	97.36	83.93	93.90	…
Czechia	2016	105.31	75.14	89.75	63.92	79.70	83.72	133.90	117.32	106.52	97.36	84.78	94.46	…
Czechia	2015	106.15	73.97	92.22	66.45	79.23	83.77	133.90	120.78	111.07	98.36	85.96	94.97	…
Czechia	2014	106.65	73.72	89.72	65.72	78.48	82.94	133.90	117.51	108.74	97.56	87.42	94.61	…
Czechia	2013	109.32	74.56	87.16	62.20	78.69	83.33	133.90	122.91	107.45	96.27	86.16	94.31	…
Czechia	2012	119.83	73.40	85.41	59.13	77.80	82.40	133.90	120.79	106.93	100.71	85.71	95.20	…
Czechia	2011	119.83	73.83	78.98	61.24	77.21	81.99	133.90	117.12	110.38	96.55	86.99	95.16	…
Czechia	2010	119.83	72.90	76.97	62.94	76.28	81.50	131.94	127.78	106.10	97.15	85.81	95.21	…
Czechia	2009	106.40	73.66	90.97	61.72	76.27	81.50	133.90	115.18	107.67	94.93	88.06	95.79	…
Czechia	2008	106.40	73.66	90.97	61.72	76.43	81.13	133.90	114.08	106.17	97.64	86.17	95.78	…

Table 13 – Final database of Cyprus and Czechia.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Cyprus	2018	187.92	22.96	127.35	99.25	316.00	154.04	25.90	4.43	16.14	156.09	35.69	26.50	…
Cyprus	2017	174.49	28.33	127.92	96.80	326.81	148.06	25.90	6.26	17.33	145.04	35.69	26.50	…
Cyprus	2016	159.75	35.86	141.58	88.55	311.08	144.14	26.09	5.99	16.57	162.70	36.80	26.35	…
Cyprus	2015	166.99	34.88	138.99	83.28	326.42	149.02	15.37	5.96	9.76	191.87	36.28	25.65	…
Cyprus	2014	168.89	26.83	134.03	110.89	296.31	152.73	15.19	7.33	10.91	188.59	36.39	25.65	…
Cyprus	2013	188.66	27.63	128.94	92.50	326.11	134.98	15.19	7.24	8.61	208.79	36.93	24.83	…
Cyprus	2012	186.21	23.56	124.63	87.04	372.00	140.82	13.40	3.98	6.75	212.34	35.37	24.70	…
Cyprus	2011	175.98	20.00	144.36	99.01	319.86	148.80	15.19	3.19	8.12	191.59	36.93	24.83	…
Cyprus	2010	189.14	19.33	127.64	95.57	382.16	151.43	16.67	4.42	8.11	162.58	36.93	25.65	…
Cyprus	2009	249.38	17.26	131.27	96.72	375.69	149.72	16.38	4.86	12.32	165.58	37.84	25.65	…
Cyprus	2008	255.89	25.89	119.47	86.18	349.88	131.65	16.86	5.01	13.67	171.70	40.19	25.62	…
Czechia	2018	303.57	45.92	132.78	82.57	339.94	193.42	82.91	14.23	42.55	166.87	38.74	39.42	…
Czechia	2017	316.62	41.85	122.81	88.21	355.49	189.23	82.91	14.78	40.15	171.37	39.24	39.06	…
Czechia	2016	309.70	39.81	127.20	85.39	370.10	186.59	80.15	14.90	37.27	192.18	35.30	38.73	…
Czechia	2015	292.62	53.35	139.29	82.20	358.48	186.07	63.49	15.42	36.62	166.21	32.38	37.56	…
Czechia	2014	311.93	50.24	135.14	83.27	347.19	185.44	74.68	15.55	36.35	167.66	34.81	36.81	…
Czechia	2013	322.56	43.33	137.12	79.89	358.86	195.33	82.91	14.28	33.62	163.13	42.10	36.08	…
Czechia	2012	302.69	42.16	142.00	86.69	351.64	184.82	82.91	14.31	34.36	176.86	37.51	35.93	…
Czechia	2011	356.08	43.61	129.50	87.64	339.29	183.42	82.91	14.17	35.67	200.12	36.95	36.47	…
Czechia	2010	301.33	49.99	99.84	123.83	315.96	185.68	82.91	12.48	39.80	154.83	35.96	35.30	…
Czechia	2009	293.83	51.28	108.21	125.73	282.37	177.77	82.91	13.76	40.90	138.85	43.77	36.35	…
Czechia	2008	344.98	49.57	120.32	126.53	294.42	187.88	82.91	15.72	44.56	132.93	44.97	39.27	…

Table 13 (Cont.) – Final database of Cyprus and Czechia.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Cyprus	2018	119.15	1.33	2.60	5	1	6	1	0	0	1	2	2	89.60
Cyprus	2017	119.15	1.34	2.60	5	1	6	1	0	0	1	2	2	88.80
Cyprus	2016	121.77	1.35	2.60	5	1	6	1	0	0	1	2	2	87.70
Cyprus	2015	114.10	1.35	2.70	5	1	6	1	0	0	1	2	2	86.80
Cyprus	2014	108.60	1.36	2.70	5	1	6	1	0	0	1	2	2	85.80
Cyprus	2013	108.60	1.38	2.80	5	1	6	1	0	0	1	2	2	85.10
Cyprus	2012	114.10	1.39	2.80	5	1	6	1	0	0	1	2	2	84.40
Cyprus	2011	108.70	1.41	2.70	5	1	6	1	0	0	1	2	2	83.90
Cyprus	2010	109.26	1.42	2.80	5	1	6	1	0	0	1	2	2	83.20
Cyprus	2009	102.66	1.44	2.90	5	1	6	1	0	0	1	2	2	82.20
Cyprus	2008	102.06	1.46	2.90	5	1	6	1	0	0	1	2	2	80.50
Czechia	2018	123.23	1.71	2.30	0	5	1	1	1	0	1	0	0	79.90
Czechia	2017	123.50	1.69	2.30	0	5	1	1	1	0	1	0	0	78.90
Czechia	2016	123.63	1.63	2.30	0	5	1	1	1	0	1	0	0	78.50
Czechia	2015	123.47	1.57	2.30	0	5	1	1	1	0	1	0	0	77.50
Czechia	2014	121.04	1.53	2.30	0	5	1	1	1	0	1	0	0	77.50
Czechia	2013	121.07	1.46	2.40	0	5	1	1	1	0	1	0	0	77.70
Czechia	2012	121.51	1.45	2.40	0	5	1	1	1	0	1	0	0	77.50
Czechia	2011	119.79	1.43	2.40	0	5	1	1	1	0	1	0	0	77.40
Czechia	2010	118.80	1.51	2.40	0	5	1	1	1	0	1	0	0	78.40
Czechia	2009	117.82	1.51	2.40	0	5	1	1	1	0	1	0	0	74.10
Czechia	2008	116.99	1.51	2.40	0	5	1	1	1	0	1	0	0	73.80

Table 13 (Cont.) – Final database of Cyprus and Czechia.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Denmark	2018	65.23	79.45	120.44	80.68	88.98	91.75	110.57	102.41	94.37	100.00	94.85	87.91	…
Denmark	2017	66.44	81.02	119.76	84.34	89.46	92.18	103.72	102.41	95.32	103.17	95.12	88.59	…
Denmark	2016	70.64	80.89	117.16	92.08	89.51	92.12	111.61	102.41	95.32	103.17	88.70	88.10	…
Denmark	2015	68.48	77.12	120.97	86.15	88.10	90.86	107.50	106.72	94.36	111.50	85.99	87.29	…
Denmark	2014	71.03	79.51	119.98	89.52	89.20	91.77	109.32	102.05	93.95	113.50	86.80	87.26	…
Denmark	2013	76.71	77.43	124.12	107.07	90.70	92.96	107.51	98.11	107.25	109.45	87.52	87.80	…
Denmark	2012	77.81	75.77	124.63	99.32	89.99	92.54	103.18	98.28	119.21	104.75	88.55	87.83	…
Denmark	2011	78.80	78.06	118.38	103.58	89.36	91.87	98.62	106.31	123.42	96.23	89.11	86.85	…
Denmark	2010	80.36	79.23	113.46	108.30	89.10	91.63	111.84	113.64	110.46	93.38	83.69	86.30	…
Denmark	2009	69.89	78.69	126.80	76.29	88.96	91.93	125.97	113.50	91.31	92.63	83.00	87.34	…
Denmark	2008	69.89	78.77	125.36	76.45	87.70	90.80	120.75	110.32	92.46	93.86	83.52	88.08	…
Estonia	2018	50.85	71.47	153.40	57.90	93.60	96.48	115.38	102.34	95.73	94.76	114.52	92.52	…
Estonia	2017	46.48	73.92	153.73	58.42	93.43	95.21	109.19	101.88	96.36	94.76	113.69	93.28	…
Estonia	2016	47.28	74.25	154.45	67.51	93.63	95.09	105.87	101.88	96.36	94.76	117.39	93.28	…
Estonia	2015	50.46	72.15	161.46	64.76	94.67	96.31	115.62	96.73	76.87	90.00	115.35	92.45	…
Estonia	2014	40.27	76.11	157.36	66.23	93.43	94.64	107.33	91.23	76.87	107.07	110.81	94.43	…
Estonia	2013	47.27	75.89	160.04	74.44	95.66	96.24	103.76	80.10	88.24	98.88	118.08	93.26	…
Estonia	2012	48.87	76.53	159.21	66.40	95.75	97.81	99.91	85.05	100.49	98.87	109.82	92.40	…
Estonia	2011	50.54	78.70	160.83	70.73	96.96	98.07	90.78	76.73	106.77	106.87	110.42	91.74	…
Estonia	2010	50.16	78.99	166.39	83.59	97.70	98.34	80.51	98.97	104.06	91.27	120.19	93.71	…
Estonia	2009	85.34	74.92	120.76	75.68	95.91	96.43	100.10	94.59	91.10	86.62	122.36	94.02	…
Estonia	2008	85.34	74.92	120.76	76.22	95.09	95.10	102.85	103.23	77.00	87.15	124.16	94.44	…

Table 14 – Final database of Denmark and Estonia.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Denmark	2018	172.66	36.82	132.12	81.92	241.07	174.73	40.70	7.40	16.73	83.19	25.74	27.39	…
Denmark	2017	165.14	39.41	131.83	86.38	248.10	173.20	35.85	7.11	15.77	76.24	26.33	28.97	…
Denmark	2016	158.91	42.42	128.91	89.37	242.18	171.18	25.74	6.48	15.14	77.82	22.55	30.71	…
Denmark	2015	172.21	41.80	132.74	78.87	261.79	167.42	23.08	6.32	19.31	82.38	23.10	30.70	…
Denmark	2014	174.81	40.94	127.91	82.90	252.49	181.62	22.70	6.46	19.07	86.04	19.81	29.19	…
Denmark	2013	173.56	41.61	129.82	91.09	244.42	184.04	33.07	5.06	20.04	89.28	22.59	29.10	…
Denmark	2012	172.12	46.55	133.01	90.44	228.00	184.47	31.15	5.93	18.81	83.87	23.87	29.58	…
Denmark	2011	181.91	43.61	128.63	91.54	212.82	194.74	20.64	5.65	17.54	86.92	20.49	23.77	…
Denmark	2010	187.81	30.29	83.66	134.30	253.70	264.63	27.22	4.74	20.00	69.65	21.01	23.93	…
Denmark	2009	180.58	35.27	85.61	144.04	226.81	280.04	30.78	5.50	23.25	74.98	26.59	24.15	…
Denmark	2008	180.08	32.62	79.73	138.91	254.33	281.25	28.32	5.77	27.10	70.49	26.82	24.15	…
Estonia	2018	222.17	86.08	188.79	122.53	211.79	284.93	40.69	11.68	37.91	154.81	32.13	27.58	…
Estonia	2017	227.27	96.42	187.61	124.34	200.81	337.83	40.69	12.17	40.38	137.87	36.28	31.69	…
Estonia	2016	214.30	76.49	191.27	126.68	222.50	312.21	40.69	12.79	37.51	153.83	33.47	31.69	…
Estonia	2015	241.91	59.18	201.01	128.99	250.57	333.06	47.19	13.47	35.85	160.00	45.91	38.66	…
Estonia	2014	204.94	67.73	215.74	133.70	274.01	274.65	44.86	14.69	35.49	149.32	39.71	39.64	…
Estonia	2013	231.80	69.72	208.97	124.49	321.19	315.50	59.17	13.14	38.33	183.13	35.77	38.88	…
Estonia	2012	256.15	63.17	221.51	135.74	299.72	339.85	67.82	12.18	41.92	179.72	38.69	39.46	…
Estonia	2011	255.74	72.55	219.84	142.70	279.28	345.08	67.82	13.09	47.48	144.75	38.54	41.43	…
Estonia	2010	202.33	71.26	245.48	181.87	330.94	292.81	44.86	5.60	42.46	162.14	51.90	43.66	…
Estonia	2009	200.42	68.45	235.06	181.87	377.82	332.15	38.05	9.40	41.77	169.27	49.30	46.08	…
Estonia	2008	246.99	69.08	224.74	181.87	280.93	335.76	38.05	9.63	53.15	156.74	43.88	44.67	…

Table 14 (Cont.) – Final database of Denmark and Estonia.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Denmark	2018	116.35	1.73	2.00	0	2	0	0	1	1	0	1	1	85.40
Denmark	2017	115.84	1.75	2.00	0	2	0	0	1	1	0	1	1	85.20
Denmark	2016	115.30	1.79	2.00	0	2	0	0	1	1	0	1	1	84.90
Denmark	2015	114.74	1.71	2.00	0	2	0	0	1	1	0	1	1	84.90
Denmark	2014	118.27	1.69	2.10	0	2	0	0	1	1	0	1	1	84.00
Denmark	2013	121.08	1.67	2.10	0	2	0	0	1	1	0	1	1	83.50
Denmark	2012	120.67	1.73	2.10	0	2	0	0	1	1	0	1	1	83.20
Denmark	2011	117.26	1.75	2.10	0	2	0	0	1	1	0	1	1	83.60
Denmark	2010	117.26	1.87	2.00	0	2	0	0	1	1	0	1	1	82.90
Denmark	2009	132.20	1.84	2.10	0	2	0	0	1	1	0	1	1	83.20
Denmark	2008	132.20	1.89	2.20	0	2	0	0	1	1	0	1	1	82.90
Estonia	2018	132.72	1.67	2.10	0	6	1	0	1	1	1	0	0	78.20
Estonia	2017	132.72	1.59	2.10	0	6	1	0	1	1	1	0	0	75.10
Estonia	2016	132.72	1.60	2.20	0	6	1	0	1	1	1	0	0	75.20
Estonia	2015	147.84	1.58	2.20	0	6	1	0	1	1	1	0	0	73.30
Estonia	2014	145.46	1.54	2.20	0	6	1	0	1	1	1	0	0	71.90
Estonia	2013	147.87	1.52	2.30	0	6	1	0	1	1	1	0	0	70.20
Estonia	2012	147.87	1.56	2.30	0	6	1	0	1	1	1	0	0	70.10
Estonia	2011	147.87	1.61	2.30	0	6	1	0	1	1	1	0	0	72.70
Estonia	2010	147.87	1.72	2.30	0	6	1	0	1	1	1	0	0	72.30
Estonia	2009	147.87	1.70	2.40	0	6	1	0	1	1	1	0	0	73.40
Estonia	2008	147.87	1.72	2.40	0	6	1	0	1	1	1	0	0	72.40

Table 14 (Cont.) – Final database of Denmark and Estonia.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Finland	2018	56.57	75.35	131.12	69.59	91.69	96.69	114.86	103.58	97.58	94.94	95.86	91.97	…
Finland	2017	58.83	75.53	129.94	64.94	91.35	96.38	111.82	103.58	97.58	94.94	95.48	92.67	…
Finland	2016	62.96	76.52	128.22	70.74	91.69	96.61	112.15	103.35	96.36	94.88	96.82	92.13	…
Finland	2015	62.77	79.09	128.61	73.14	92.75	97.38	117.72	102.77	96.27	97.05	94.65	93.54	…
Finland	2014	63.79	80.32	126.47	63.60	92.65	97.36	116.78	103.57	97.03	94.35	95.48	92.53	…
Finland	2013	69.08	78.69	127.37	74.79	92.23	96.83	118.53	101.90	98.12	92.57	95.72	92.19	…
Finland	2012	70.69	78.68	127.45	72.07	91.86	96.58	114.23	103.13	104.80	90.66	95.92	92.46	…
Finland	2011	66.77	78.84	127.12	73.15	90.89	95.79	112.35	113.36	93.37	96.13	94.72	92.87	…
Finland	2010	70.19	80.02	126.15	79.80	91.74	96.53	115.89	112.72	94.59	95.41	93.73	92.51	…
Finland	2009	70.44	78.69	126.80	73.15	93.13	98.12	132.40	105.17	87.51	95.61	92.02	92.12	…
Finland	2008	70.44	78.77	126.31	72.61	91.70	96.05	122.06	98.77	89.55	98.80	93.84	92.47	…
France	2018	78.37	83.88	113.33	75.41	93.38	90.84	99.84	103.58	98.20	101.12	100.95	84.60	…
France	2017	80.31	83.16	112.93	79.94	92.60	90.27	103.52	103.17	97.25	99.58	100.28	83.78	…
France	2016	80.48	83.77	112.71	77.55	92.78	90.74	99.45	102.34	97.25	97.73	100.38	83.81	…
France	2015	82.92	82.26	112.96	80.24	92.53	90.44	102.76	96.73	94.38	98.41	102.10	83.40	…
France	2014	84.93	81.65	113.07	82.99	92.55	90.14	105.06	96.86	97.47	100.75	99.72	83.11	…
France	2013	83.57	82.77	110.11	71.49	91.81	89.86	106.62	98.81	98.92	101.48	98.23	82.58	…
France	2012	82.59	83.26	108.91	68.88	91.06	89.01	102.52	97.76	105.11	103.42	97.23	82.33	…
France	2011	85.20	82.61	108.69	71.58	90.92	88.92	100.36	101.06	103.13	103.26	97.48	82.54	…
France	2010	84.77	82.04	109.54	69.52	90.64	88.89	102.77	107.07	97.79	104.51	95.96	82.13	…
France	2009	76.81	80.99	119.77	72.61	90.55	89.11	111.55	96.14	104.28	101.85	95.81	81.47	…
France	2008	75.30	80.79	119.77	73.15	90.09	88.20	102.39	97.36	108.38	103.37	96.43	81.96	…

Table 15 – Final database of Finland and France.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Finland	2018	167.39	58.42	96.96	141.23	288.83	257.44	80.55	7.88	18.28	132.83	36.91	23.85	…
Finland	2017	160.05	56.89	95.63	143.99	308.87	260.44	80.20	5.96	17.47	140.72	38.05	22.88	…
Finland	2016	166.27	62.99	96.88	142.30	308.13	261.53	63.70	7.15	19.31	155.34	35.33	23.77	…
Finland	2015	154.52	58.57	98.18	150.31	291.82	254.98	72.91	8.43	22.78	156.46	34.08	24.46	…
Finland	2014	166.88	59.62	94.26	146.57	312.53	270.90	75.46	7.10	21.22	151.12	36.29	23.81	…
Finland	2013	173.59	48.96	94.80	144.00	346.47	289.70	68.98	7.68	19.17	155.60	36.35	23.98	…
Finland	2012	170.47	47.84	95.92	146.83	344.55	292.29	66.67	8.11	19.94	153.10	37.18	23.97	…
Finland	2011	167.22	50.02	95.79	150.14	333.07	295.61	70.27	8.30	21.61	158.66	37.97	24.31	…
Finland	2010	174.09	53.67	99.65	165.56	320.89	345.08	82.91	9.26	20.39	120.35	43.58	26.04	…
Finland	2009	182.56	53.50	106.38	167.01	357.56	345.08	82.91	8.93	21.48	126.92	43.17	25.62	…
Finland	2008	184.48	50.62	104.69	163.68	388.77	345.08	76.56	6.96	20.87	130.78	40.23	24.91	…
France	2018	301.56	59.21	110.19	103.10	302.23	229.58	22.65	9.65	24.30	176.03	36.78	24.58	…
France	2017	314.73	55.73	109.34	99.50	299.02	216.93	23.91	10.56	26.12	183.23	41.44	30.82	…
France	2016	316.22	53.38	110.01	103.14	317.18	213.97	23.64	10.21	24.56	202.12	38.18	28.63	…
France	2015	324.10	50.47	110.40	102.36	313.58	220.31	23.75	9.53	25.11	194.22	40.69	28.98	…
France	2014	333.74	53.64	108.65	96.10	324.94	224.32	19.93	9.80	24.36	197.00	39.51	29.57	…
France	2013	363.70	61.68	102.72	90.22	285.42	243.51	24.80	9.83	22.90	165.63	40.84	29.67	…
France	2012	378.79	72.75	102.84	85.14	257.46	258.20	19.34	9.63	20.31	138.25	43.45	23.77	…
France	2011	380.01	71.86	99.95	84.98	260.03	254.52	18.42	9.38	20.31	145.94	44.70	23.77	…
France	2010	396.32	74.58	84.15	109.42	283.02	263.25	25.13	8.46	22.54	196.57	41.07	24.15	…
France	2009	442.70	71.72	88.63	107.65	287.68	268.03	26.18	8.18	22.96	187.30	44.40	26.72	…
France	2008	446.96	68.40	86.71	104.64	308.42	272.21	28.70	7.81	24.98	177.10	46.90	24.39	…

Table 15 (Cont.) – Final database of Finland and France.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Finland	2018	137.60	1.41	2.10	3	2	2	0	1	1	1	1	1	82.90
Finland	2017	138.16	1.49	2.10	3	2	2	0	1	1	1	1	1	82.80
Finland	2016	138.57	1.57	2.10	3	2	2	0	1	1	1	1	1	82.40
Finland	2015	141.35	1.65	2.10	3	2	2	0	1	1	1	1	1	82.50
Finland	2014	142.28	1.71	2.10	3	2	2	0	1	1	1	1	1	81.60
Finland	2013	144.00	1.75	2.10	3	2	2	0	1	1	1	1	1	81.20
Finland	2012	143.01	1.80	2.10	3	2	2	0	1	1	1	1	1	80.80
Finland	2011	141.48	1.83	2.10	3	2	2	0	1	1	1	1	1	80.90
Finland	2010	141.58	1.87	2.10	3	2	2	0	1	1	1	1	1	79.70
Finland	2009	147.87	1.86	2.10	3	2	2	0	1	1	1	1	1	79.20
Finland	2008	145.55	1.85	2.20	3	2	2	0	1	1	1	1	1	79.50
France	2018	125.49	1.88	2.20	0	0	1	1	1	1	1	0	2	84.20
France	2017	123.60	1.90	2.20	0	0	1	1	1	1	1	0	2	84.40
France	2016	126.65	1.92	2.20	0	0	1	1	1	1	1	0	2	84.50
France	2015	126.14	1.96	2.30	0	0	1	1	1	1	1	0	2	84.70
France	2014	125.58	2.00	2.30	0	0	1	1	1	1	1	0	2	84.50
France	2013	125.40	1.99	2.30	0	0	1	1	1	1	1	0	2	84.50
France	2012	120.18	2.01	2.30	0	0	1	1	1	1	1	0	2	84.40
France	2011	119.65	2.01	2.30	0	0	1	1	1	1	1	0	2	84.30
France	2010	133.75	2.03	2.30	0	0	1	1	1	1	1	0	2	84.40
France	2009	134.34	2.00	2.30	0	0	1	1	1	1	1	0	2	84.80
France	2008	134.34	2.01	2.30	0	0	1	1	1	1	1	0	2	83.10

Table 15 (Cont.) – Final database of Finland and France.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Germany	2018	79.59	91.92	74.71	66.16	86.37	89.68	104.66	107.63	104.98	104.00	92.14	69.98	…
Germany	2017	81.76	91.92	73.03	66.84	86.20	89.85	108.10	108.51	105.22	104.00	91.20	69.68	…
Germany	2016	83.77	91.92	72.45	67.32	86.39	89.55	106.91	108.51	105.22	104.00	91.94	69.36	…
Germany	2015	86.62	91.92	71.84	69.32	86.74	89.25	110.98	110.39	105.31	103.40	91.14	68.98	…
Germany	2014	87.69	91.92	70.64	71.01	86.59	88.56	111.33	110.74	104.84	104.60	90.78	68.84	…
Germany	2013	89.59	89.75	78.71	71.60	86.46	88.06	113.27	107.33	111.72	102.37	90.47	68.01	…
Germany	2012	91.31	88.92	77.41	73.07	85.83	87.25	109.87	109.09	111.43	102.18	90.93	67.80	…
Germany	2011	91.82	89.86	75.94	73.63	85.88	87.44	108.31	117.26	107.53	103.29	89.80	67.42	…
Germany	2010	90.64	90.74	71.60	73.54	84.18	86.55	112.55	117.72	103.49	106.05	88.38	67.04	…
Germany	2009	87.16	89.83	78.06	73.59	83.70	86.01	116.21	108.91	103.22	108.33	88.51	67.05	…
Germany	2008	87.16	89.83	78.06	73.59	83.09	85.50	108.31	106.21	108.47	109.70	89.27	66.74	…
Greece	2018	58.45	74.52	103.64	67.63	79.34	80.22	124.41	109.52	111.58	109.40	91.67	90.68	…
Greece	2017	57.85	75.32	107.22	68.48	80.13	81.11	125.55	109.52	111.58	109.40	90.34	90.08	…
Greece	2016	57.62	77.32	109.02	64.81	80.84	81.51	112.02	111.69	111.58	108.71	94.02	90.42	…
Greece	2015	57.07	79.98	105.46	76.39	80.39	81.18	117.07	111.76	104.03	114.04	90.07	90.35	…
Greece	2014	56.55	80.91	100.93	71.83	78.77	79.27	120.41	107.18	96.91	115.92	90.88	90.66	…
Greece	2013	55.18	80.99	97.70	69.17	77.12	77.29	110.82	111.65	109.30	119.26	89.14	90.39	…
Greece	2012	53.30	81.67	100.87	70.50	76.95	77.22	117.22	126.39	113.01	112.60	87.71	90.41	…
Greece	2011	51.87	81.15	99.51	66.12	75.29	75.27	110.02	116.96	115.77	113.85	87.96	91.12	…
Greece	2010	51.20	81.11	99.08	63.04	73.98	74.25	114.67	116.00	120.37	110.83	87.31	90.08	…
Greece	2009	51.02	79.34	110.84	83.57	72.26	72.97	117.39	126.21	118.56	101.94	87.19	89.71	…
Greece	2008	51.02	79.34	110.84	83.57	70.17	71.71	130.02	122.63	110.60	107.04	85.90	90.27	…

Table 16 – Final database of Germany and Greece.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Germany	2018	391.34	43.64	85.02	148.78	186.16	173.36	21.05	12.40	16.65	145.93	46.15	31.17	…
Germany	2017	393.44	42.41	84.33	146.28	189.88	177.96	22.34	12.33	16.41	144.55	47.28	30.68	…
Germany	2016	406.20	42.15	83.26	147.31	189.93	180.14	23.97	12.27	16.54	147.86	46.48	30.62	…
Germany	2015	403.34	42.09	84.88	145.22	202.14	185.18	23.57	12.25	16.30	155.49	47.09	30.55	…
Germany	2014	409.58	40.87	83.18	146.63	198.90	185.19	23.03	12.17	16.70	158.54	49.13	30.86	…
Germany	2013	422.23	40.77	82.18	146.78	198.05	188.92	24.02	11.79	16.99	158.51	48.14	30.78	…
Germany	2012	441.36	39.24	82.16	146.61	198.87	186.14	23.94	11.89	17.40	164.94	48.44	30.43	…
Germany	2011	453.91	45.09	82.32	141.93	215.57	213.96	29.03	9.84	18.29	142.02	49.94	30.58	…
Germany	2010	490.85	43.56	73.48	161.98	206.67	308.52	49.41	10.52	16.77	114.49	50.87	30.60	…
Germany	2009	482.21	42.16	71.62	160.30	203.05	303.73	52.43	10.39	17.17	115.02	51.58	30.33	…
Germany	2008	489.62	40.09	70.82	154.55	200.42	304.37	50.46	10.61	18.02	111.11	50.77	30.38	…
Greece	2018	226.85	47.42	121.39	103.10	144.57	103.68	17.35	9.24	9.32	102.92	65.95	26.80	…
Greece	2017	228.52	47.37	125.89	103.18	134.60	101.87	17.34	11.40	8.42	112.65	66.23	28.70	…
Greece	2016	222.56	35.27	125.52	100.78	133.75	101.58	5.01	13.60	7.42	110.50	66.57	29.09	…
Greece	2015	221.82	40.31	124.59	107.69	139.59	99.75	8.44	12.53	10.01	121.84	68.05	29.21	…
Greece	2014	214.68	48.53	124.29	121.40	141.45	100.59	22.55	8.64	12.40	129.46	66.97	26.63	…
Greece	2013	235.58	50.25	122.77	117.24	131.08	93.27	26.79	8.73	10.92	133.16	68.13	24.89	…
Greece	2012	248.71	34.70	121.14	122.00	132.90	103.55	23.73	8.93	9.59	134.45	70.00	22.83	…
Greece	2011	248.37	29.68	125.59	109.90	131.39	103.87	25.98	8.74	10.95	135.36	72.53	21.15	…
Greece	2010	285.84	42.29	116.95	116.83	145.19	114.89	17.33	7.81	10.85	125.20	70.69	19.47	…
Greece	2009	315.81	45.34	117.50	122.22	149.98	115.43	15.93	7.52	10.08	123.06	69.01	19.73	…
Greece	2008	319.64	41.97	111.08	113.63	149.71	115.54	12.37	6.98	10.85	117.73	70.19	20.09	…

Table 16 (Cont.) – Final database of Germany and Greece.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Germany	2018	125.04	1.57	2.00	0	3	2	0	1	0	1	0	0	79.90
Germany	2017	125.26	1.57	2.00	0	3	2	0	1	0	1	0	0	79.60
Germany	2016	125.58	1.60	2.00	0	3	2	0	1	0	1	0	0	78.90
Germany	2015	127.32	1.50	2.00	0	3	2	0	1	0	1	0	0	78.20
Germany	2014	127.25	1.47	2.00	0	3	2	0	1	0	1	0	0	77.70
Germany	2013	126.36	1.42	2.00	0	3	2	0	1	0	1	0	0	77.90
Germany	2012	126.21	1.41	2.00	0	3	2	0	1	0	1	0	0	77.30
Germany	2011	126.85	1.39	2.00	0	3	2	0	1	0	1	0	0	77.60
Germany	2010	126.05	1.39	2.10	0	3	2	0	1	0	1	0	0	77.70
Germany	2009	124.97	1.36	2.10	0	3	2	0	1	0	1	0	0	77.40
Germany	2008	123.02	1.38	2.10	0	3	2	0	1	0	1	0	0	77.20
Greece	2018	96.32	1.35	2.30	0	1	6	1	0	0	1	2	2	92.10
Greece	2017	96.32	1.35	2.30	0	1	6	1	0	0	1	2	2	92.80
Greece	2016	96.32	1.38	2.30	0	1	6	1	0	0	1	2	2	92.80
Greece	2015	96.32	1.33	2.30	0	1	6	1	0	0	1	2	2	92.65
Greece	2014	96.32	1.30	2.40	0	1	6	1	0	0	1	2	2	87.50
Greece	2013	96.32	1.29	2.40	0	1	6	1	0	0	1	2	2	93.25
Greece	2012	96.32	1.34	2.40	0	1	6	1	0	0	1	2	2	93.25
Greece	2011	96.32	1.40	2.40	0	1	6	1	0	0	1	2	2	93.25
Greece	2010	96.32	1.48	2.40	0	1	6	1	0	0	1	2	2	85.00
Greece	2009	96.32	1.50	2.40	0	1	6	1	0	0	1	2	2	93.25
Greece	2008	96.32	1.50	2.40	0	1	6	1	0	0	1	2	2	78.00

Table 16 (Cont.) – Final database of Germany and Greece.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Hungary	2018	83.19	71.50	117.51	55.95	83.15	84.28	111.21	103.18	99.23	98.34	96.02	96.90	…
Hungary	2017	88.83	72.14	115.00	60.58	83.57	84.89	108.80	103.22	99.20	97.34	95.23	97.15	…
Hungary	2016	83.82	72.51	120.43	55.14	84.19	85.24	114.46	103.22	99.20	97.34	97.21	97.11	…
Hungary	2015	83.95	73.60	118.83	58.81	84.77	85.71	107.75	106.70	101.93	90.91	99.73	96.95	…
Hungary	2014	86.72	73.56	119.29	60.63	85.01	85.96	103.82	101.85	95.18	95.52	102.65	97.03	…
Hungary	2013	88.81	73.49	119.23	54.11	84.97	85.80	97.66	96.71	96.45	97.63	105.11	96.83	…
Hungary	2012	88.43	74.84	120.69	69.16	86.09	87.04	91.46	100.88	93.86	99.04	106.02	96.31	…
Hungary	2011	92.98	74.61	118.68	79.29	85.92	86.44	97.11	102.27	98.37	94.75	104.04	97.08	…
Hungary	2010	95.53	75.00	120.82	96.41	86.38	87.18	96.22	106.98	100.02	96.25	101.16	97.13	…
Hungary	2009	88.62	74.92	118.76	70.17	84.57	84.89	100.48	106.17	96.41	90.88	105.75	97.32	…
Hungary	2008	88.06	74.92	119.03	70.17	84.13	84.57	101.08	98.74	92.20	93.23	108.55	97.58	…
Ireland	2018	42.05	77.03	110.77	79.01	84.37	83.17	108.24	105.57	103.76	107.88	95.06	75.03	…
Ireland	2017	41.44	77.66	110.14	79.50	84.04	82.54	105.32	105.57	103.76	107.88	93.97	75.02	…
Ireland	2016	41.41	75.89	113.97	78.14	83.35	82.00	102.81	110.41	104.54	107.88	94.29	74.92	…
Ireland	2015	42.70	72.91	113.46	78.51	82.43	80.90	103.49	102.80	101.63	115.44	90.99	73.62	…
Ireland	2014	42.18	76.24	112.73	79.34	82.69	81.17	105.26	98.28	104.15	117.41	89.37	73.83	…
Ireland	2013	46.44	76.79	111.70	80.42	83.16	81.84	100.95	103.18	110.71	119.95	85.96	73.47	…
Ireland	2012	47.03	77.14	111.63	84.00	82.53	81.35	103.95	103.62	116.10	121.48	82.25	71.92	…
Ireland	2011	47.63	77.89	111.71	82.49	81.96	81.09	102.29	104.64	120.35	120.36	80.93	69.81	…
Ireland	2010	46.68	78.30	111.78	83.19	80.82	80.26	106.84	117.50	117.03	123.17	75.11	70.34	…
Ireland	2009	78.14	80.30	100.00	84.67	79.42	79.35	118.74	129.18	111.86	116.03	70.61	70.30	…
Ireland	2008	77.51	79.96	100.17	84.04	76.71	76.39	131.45	115.34	106.34	114.86	70.25	70.28	…

Table 17 – Final database of Hungary and Ireland.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Hungary	2018	228.33	71.50	121.43	162.96	304.25	150.69	38.21	11.43	43.87	102.43	34.00	38.69	…
Hungary	2017	218.84	74.62	115.25	172.33	274.54	137.72	34.00	12.64	42.78	114.08	34.34	40.04	…
Hungary	2016	208.16	76.93	128.48	180.89	246.15	133.52	28.78	14.02	41.46	115.39	34.72	40.39	…
Hungary	2015	198.61	84.25	123.97	176.14	256.59	154.69	29.24	13.16	42.19	104.04	32.82	40.05	…
Hungary	2014	191.13	82.48	131.16	181.87	288.47	147.04	33.02	12.72	43.79	101.14	34.88	40.45	…
Hungary	2013	188.34	84.32	134.81	171.27	294.83	145.08	38.04	11.66	46.06	104.55	33.51	41.45	…
Hungary	2012	203.07	81.38	132.81	177.95	330.46	152.43	38.06	10.92	46.57	108.47	34.61	42.34	…
Hungary	2011	172.55	87.33	129.51	173.63	387.64	142.01	39.02	11.70	50.67	112.78	33.42	42.40	…
Hungary	2010	205.55	72.07	138.09	181.87	301.01	152.62	33.19	16.05	43.33	122.46	31.14	42.98	…
Hungary	2009	200.46	71.51	140.33	181.87	298.33	146.57	42.38	15.11	37.44	128.25	34.88	40.06	…
Hungary	2008	205.13	75.56	140.45	181.87	280.28	150.84	40.85	15.34	41.43	127.24	32.48	42.13	…
Ireland	2018	319.17	69.50	129.20	86.09	313.55	202.65	14.13	10.53	15.79	64.72	16.40	26.18	…
Ireland	2017	300.17	68.70	133.11	85.27	299.20	208.40	14.13	10.66	16.40	61.86	16.52	27.11	…
Ireland	2016	281.43	70.85	134.78	87.16	330.48	214.55	14.13	10.10	16.69	51.20	15.41	28.53	…
Ireland	2015	287.67	65.25	137.69	87.64	344.20	203.96	12.06	9.57	15.61	57.68	15.97	27.44	…
Ireland	2014	283.68	61.34	142.31	83.90	351.73	198.27	12.06	11.51	18.22	58.29	17.19	28.80	…
Ireland	2013	275.61	58.38	140.55	81.10	376.37	203.96	10.29	11.29	22.81	57.91	15.66	30.63	…
Ireland	2012	286.53	59.02	140.16	93.32	354.29	215.26	10.85	11.90	22.89	60.59	15.28	31.72	…
Ireland	2011	305.43	57.67	143.91	92.35	381.77	206.28	10.85	11.98	21.26	64.47	15.56	30.08	…
Ireland	2010	315.02	76.39	144.77	97.10	259.63	196.21	10.85	7.33	21.85	67.35	18.16	28.58	…
Ireland	2009	340.57	78.49	143.83	96.05	272.76	201.45	10.85	6.14	20.95	67.88	16.50	27.19	…
Ireland	2008	428.66	80.35	141.51	98.47	275.80	191.40	10.85	5.42	18.60	59.51	16.08	22.63	…

Table 17 (Cont.) – Final database of Hungary and Ireland.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Hungary	2018	126.17	1.55	2.30	2	4	2	2	1	0	1	0	0	87.80
Hungary	2017	123.27	1.54	2.30	2	4	2	2	1	0	1	0	0	86.00
Hungary	2016	123.44	1.53	2.30	2	4	2	2	1	0	1	0	0	86.00
Hungary	2015	124.09	1.45	2.30	2	4	2	2	1	0	1	0	0	86.00
Hungary	2014	123.53	1.44	2.30	2	4	2	2	1	0	1	0	0	84.90
Hungary	2013	122.74	1.35	2.40	2	4	2	2	1	0	1	0	0	81.60
Hungary	2012	125.87	1.34	2.40	2	4	2	2	1	0	1	0	0	79.90
Hungary	2011	125.96	1.23	2.40	2	4	2	2	1	0	1	0	0	82.00
Hungary	2010	127.62	1.25	2.40	2	4	2	2	1	0	1	0	0	82.40
Hungary	2009	126.41	1.32	2.50	2	4	2	2	1	0	1	0	0	82.90
Hungary	2008	122.87	1.35	2.50	2	4	2	2	1	0	1	0	0	82.50
Ireland	2018	117.60	1.75	2.60	4	0	4	0	1	0	0	1	1	83.85
Ireland	2017	117.78	1.77	2.70	4	0	4	0	1	0	0	1	1	85.60
Ireland	2016	117.02	1.81	2.70	4	0	4	0	1	0	0	1	1	85.80
Ireland	2015	115.81	1.85	2.70	4	0	4	0	1	0	0	1	1	86.10
Ireland	2014	113.96	1.89	2.70	4	0	4	0	1	0	0	1	1	86.10
Ireland	2013	115.50	1.93	2.70	4	0	4	0	1	0	0	1	1	87.10
Ireland	2012	118.01	1.98	2.80	4	0	4	0	1	0	0	1	1	87.80
Ireland	2011	119.12	2.03	2.80	4	0	4	0	1	0	0	1	1	87.30
Ireland	2010	119.65	2.05	2.70	4	0	4	0	1	0	0	1	1	86.10
Ireland	2009	120.95	2.06	2.70	4	0	4	0	1	0	0	1	1	87.40
Ireland	2008	119.68	2.06	2.80	4	0	4	0	1	0	0	1	1	87.40

Table 17 (Cont.) – Final database of Hungary and Ireland.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Italy	2018	50.79	75.30	122.20	79.35	74.32	74.18	115.57	112.25	111.58	110.07	91.44	73.92	…
Italy	2017	50.32	75.88	123.74	80.28	74.16	74.03	114.13	112.25	111.58	110.07	89.60	73.67	…
Italy	2016	50.39	77.11	118.36	81.27	73.53	73.26	123.56	117.18	112.44	108.87	88.35	73.63	…
Italy	2015	50.03	76.80	115.91	82.98	72.82	72.60	116.35	117.13	111.31	113.43	88.19	73.47	…
Italy	2014	51.20	78.64	115.09	85.25	73.72	73.58	122.63	117.23	113.79	112.21	87.38	73.42	…
Italy	2013	50.84	78.78	114.97	85.18	73.14	72.57	128.83	121.26	117.74	106.58	86.89	73.28	…
Italy	2012	50.23	79.53	114.27	84.15	72.67	72.16	129.32	118.24	115.91	106.52	86.68	73.31	…
Italy	2011	48.29	79.15	111.07	78.60	70.95	71.71	125.43	119.77	117.24	111.47	84.90	73.57	…
Italy	2010	48.29	77.88	110.61	75.87	70.02	71.71	131.60	119.31	113.03	109.08	85.06	73.65	…
Italy	2009	51.02	79.34	110.84	84.67	69.49	71.71	133.57	120.21	112.36	105.83	84.77	73.89	…
Italy	2008	51.02	79.34	110.84	83.57	69.27	71.71	129.13	115.88	109.24	108.05	84.80	74.00	…
Latvia	2018	48.45	78.47	175.97	84.23	100.53	99.73	84.41	98.16	91.71	95.34	114.52	95.21	…
Latvia	2017	48.03	79.22	176.37	82.51	100.61	100.00	90.99	98.16	91.71	95.34	115.92	94.90	…
Latvia	2016	49.55	77.99	176.37	87.76	101.02	100.28	82.58	96.02	91.71	95.34	114.43	95.06	…
Latvia	2015	41.71	78.44	176.37	86.03	99.11	98.32	84.92	90.73	101.82	91.92	117.51	94.54	…
Latvia	2014	41.42	82.97	176.37	87.31	99.49	97.71	89.35	95.18	81.59	105.45	114.51	94.89	…
Latvia	2013	46.32	85.28	171.38	81.08	101.19	98.29	89.17	87.65	89.11	111.86	109.56	95.26	…
Latvia	2012	47.46	85.91	176.37	76.90	101.79	99.15	80.51	94.74	94.35	112.70	113.07	94.89	…
Latvia	2011	46.30	87.07	176.37	78.39	101.02	98.27	80.51	86.56	106.07	104.21	116.54	95.99	…
Latvia	2010	49.97	91.92	175.00	92.32	102.73	100.00	80.51	90.70	104.20	110.79	115.19	95.78	…
Latvia	2009	85.34	74.11	120.76	70.71	100.28	98.02	80.51	105.18	93.23	92.77	120.78	96.30	…
Latvia	2008	85.34	74.11	120.76	70.71	97.15	96.42	85.77	97.05	83.99	97.09	124.16	95.46	…

Table 18 – Final database of Italy and Latvia.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Italy	2018	407.26	38.70	149.74	74.37	175.37	166.48	17.89	12.40	21.06	89.04	36.76	26.79	…
Italy	2017	391.05	41.32	150.72	74.58	172.11	167.63	16.35	12.17	22.99	86.66	35.43	26.12	…
Italy	2016	383.71	37.89	145.18	72.31	173.71	170.29	16.51	11.44	22.51	88.49	37.29	26.21	…
Italy	2015	385.74	33.87	145.81	73.31	177.21	167.08	16.56	12.01	22.66	94.17	37.30	26.36	…
Italy	2014	381.36	34.93	143.77	76.27	175.52	173.63	12.62	11.91	22.35	98.04	38.37	26.34	…
Italy	2013	397.11	36.35	146.58	74.54	175.67	171.21	17.13	12.45	23.86	102.68	39.43	26.99	…
Italy	2012	427.88	36.19	155.93	77.61	165.61	164.84	17.57	13.37	23.42	106.06	40.94	26.37	…
Italy	2011	478.34	32.73	162.81	80.76	160.40	155.46	16.59	14.60	23.17	106.59	41.65	26.09	…
Italy	2010	490.16	36.12	105.21	119.37	147.92	145.22	20.34	15.94	22.21	120.68	41.51	25.14	…
Italy	2009	511.97	36.95	107.04	115.93	145.89	142.77	20.03	17.45	23.01	112.63	41.16	25.82	…
Italy	2008	498.47	35.13	104.34	115.36	148.39	136.14	18.69	19.29	24.20	100.10	44.44	27.25	…
Latvia	2018	210.19	110.58	225.42	147.32	254.42	288.73	12.36	22.11	8.86	113.21	41.22	31.85	…
Latvia	2017	212.00	110.58	230.07	150.56	290.17	244.81	27.27	24.71	8.20	103.39	45.24	31.85	…
Latvia	2016	189.59	110.58	232.27	155.47	293.59	291.95	14.56	25.64	8.02	99.02	50.49	31.85	…
Latvia	2015	224.79	110.58	243.41	162.81	289.86	299.19	37.82	19.99	8.61	102.77	47.36	40.08	…
Latvia	2014	219.88	104.19	206.29	164.37	311.80	318.09	51.67	20.39	9.23	115.07	43.23	38.92	…
Latvia	2013	183.73	97.95	194.64	164.42	309.30	301.24	19.09	23.11	12.11	116.42	44.91	31.27	…
Latvia	2012	181.90	110.58	206.57	147.40	414.60	265.92	32.86	27.08	10.89	100.47	42.40	35.43	…
Latvia	2011	162.20	110.03	208.67	174.86	435.98	278.99	35.50	27.08	10.24	103.66	45.47	39.50	…
Latvia	2010	165.21	85.92	214.62	177.30	418.18	325.20	21.46	24.65	15.23	110.78	54.24	38.73	…
Latvia	2009	163.27	110.58	200.70	181.87	435.98	256.27	60.15	26.23	13.82	121.40	58.42	40.27	…
Latvia	2008	213.55	106.47	198.44	181.87	435.98	240.79	57.43	22.39	15.46	96.30	56.12	42.55	…

Table 18 (Cont.) – Final database of Italy and Latvia.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Italy	2018	102.79	1.29	2.30	0	0	5	2	1	0	1	0	0	96.10
Italy	2017	103.10	1.32	2.30	0	0	5	2	1	0	1	0	0	95.00
Italy	2016	102.17	1.34	2.30	0	0	5	2	1	0	1	0	0	94.70
Italy	2015	102.11	1.35	2.30	0	0	5	2	1	0	1	0	0	94.50
Italy	2014	103.20	1.37	2.30	0	0	5	2	1	0	1	0	0	93.90
Italy	2013	102.10	1.39	2.40	0	0	5	2	1	0	1	0	0	93.00
Italy	2012	102.01	1.43	2.40	0	0	5	2	1	0	1	0	0	93.50
Italy	2011	100.10	1.44	2.40	0	0	5	2	1	0	1	0	0	94.30
Italy	2010	99.78	1.46	2.40	0	0	5	2	1	0	1	0	0	94.70
Italy	2009	98.41	1.45	2.40	0	0	5	2	1	0	1	0	0	94.50
Italy	2008	96.32	1.45	2.40	0	0	5	2	1	0	1	0	0	95.10
Latvia	2018	123.81	1.60	2.20	0	3	2	0	1	1	1	0	0	80.40
Latvia	2017	123.81	1.69	2.30	0	3	2	0	1	1	1	0	0	80.20
Latvia	2016	124.10	1.74	2.30	0	3	2	0	1	1	1	0	0	80.30
Latvia	2015	147.87	1.70	2.30	0	3	2	0	1	1	1	0	0	81.60
Latvia	2014	147.87	1.65	2.40	0	3	2	0	1	1	1	0	0	82.70
Latvia	2013	129.28	1.52	2.40	0	3	2	0	1	1	1	0	0	84.00
Latvia	2012	128.59	1.44	2.40	0	3	2	0	1	1	1	0	0	85.10
Latvia	2011	127.95	1.33	2.50	0	3	2	0	1	1	1	0	0	85.90
Latvia	2010	129.28	1.36	2.60	0	3	2	0	1	1	1	0	0	84.50
Latvia	2009	126.79	1.46	2.60	0	3	2	0	1	1	1	0	0	86.90
Latvia	2008	147.87	1.58	2.60	0	3	2	0	1	1	1	0	0	88.20

Table 18 (Cont.)– Final database of Italy and Latvia.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Lithuania	2018	49.19	76.94	150.03	67.33	100.84	100.55	84.43	95.26	90.61	99.27	124.16	95.46	…
Lithuania	2017	44.32	78.39	155.09	62.53	102.13	101.11	81.54	95.26	92.62	99.27	122.39	95.08	…
Lithuania	2016	47.61	78.38	157.08	69.70	102.57	101.69	86.91	95.68	91.71	97.68	120.75	94.78	…
Lithuania	2015	50.96	80.39	151.42	84.74	101.90	101.15	80.51	81.49	96.17	110.20	120.31	94.66	…
Lithuania	2014	56.96	80.92	147.30	85.68	100.44	100.29	80.51	76.73	89.97	118.16	124.16	94.97	…
Lithuania	2013	53.68	78.97	156.38	82.49	100.25	100.00	80.51	76.73	102.92	123.17	122.22	94.81	…
Lithuania	2012	59.11	80.41	162.19	59.88	102.20	101.48	80.51	80.73	108.09	111.69	122.69	94.84	…
Lithuania	2011	60.35	81.45	156.47	59.50	101.44	100.59	80.51	83.46	112.80	105.61	124.16	95.55	…
Lithuania	2010	62.49	82.88	159.11	67.83	102.51	101.83	80.51	100.87	100.67	101.29	119.21	95.61	…
Lithuania	2009	57.13	69.11	131.73	67.83	101.06	100.61	94.61	94.86	87.99	91.19	122.30	95.48	…
Lithuania	2008	57.13	69.11	131.73	67.83	97.75	98.76	89.32	91.70	88.54	92.55	123.17	95.55	…
Luxembourg	2018	77.74	83.81	92.84	83.53	86.62	89.52	109.29	105.48	102.02	104.74	91.77	81.26	…
Luxembourg	2017	76.17	81.73	94.96	82.31	85.96	89.43	95.42	105.52	104.54	107.88	95.05	77.54	…
Luxembourg	2016	72.95	79.90	86.08	78.93	82.91	86.40	106.84	109.52	108.22	110.44	91.08	79.78	…
Luxembourg	2015	76.94	80.47	88.22	77.77	83.45	86.63	101.48	100.09	94.03	107.03	97.77	77.35	…
Luxembourg	2014	85.12	78.67	79.96	78.72	80.48	83.15	121.91	129.32	92.52	98.48	89.09	76.54	…
Luxembourg	2013	78.54	78.01	81.64	76.10	79.57	81.11	124.41	109.10	103.40	98.52	90.74	76.42	…
Luxembourg	2012	83.02	84.55	75.15	77.43	79.99	82.82	117.70	109.20	98.67	100.85	92.38	76.03	…
Luxembourg	2011	81.71	79.40	77.24	74.39	78.53	80.97	117.37	120.49	105.83	105.20	86.13	73.52	…
Luxembourg	2010	89.41	79.89	71.57	78.07	77.65	79.83	128.76	105.53	105.12	107.10	87.33	72.89	…
Luxembourg	2009	57.40	82.10	110.20	85.75	76.40	78.77	109.85	111.54	111.76	110.98	85.40	72.83	…
Luxembourg	2008	51.02	79.34	110.84	85.22	76.58	80.06	126.51	91.46	126.01	116.99	84.09	72.32	…

Table 19 – Final database of Lithuania and Luxembourg.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Lithuania	2018	196.91	71.14	233.64	141.63	230.74	271.71	24.90	27.08	24.64	130.37	49.41	33.02	…
Lithuania	2017	199.22	71.91	241.30	154.43	277.97	265.58	59.23	27.08	24.63	139.05	55.30	33.62	…
Lithuania	2016	209.68	71.23	248.73	153.57	313.79	266.53	66.15	27.08	23.07	128.05	55.44	31.85	…
Lithuania	2015	223.74	71.31	234.32	163.03	314.50	269.19	72.93	27.08	23.96	118.72	59.43	31.85	…
Lithuania	2014	199.57	67.70	236.53	156.14	274.55	287.64	72.26	26.10	28.72	117.08	59.90	31.85	…
Lithuania	2013	204.38	72.78	248.73	142.93	284.03	276.04	82.91	26.74	28.84	100.41	58.10	31.85	…
Lithuania	2012	191.10	69.02	248.73	160.93	278.53	252.93	82.91	25.59	29.55	119.60	59.18	31.85	…
Lithuania	2011	178.34	71.39	248.73	151.69	293.48	258.94	82.91	26.72	31.78	119.86	65.09	34.45	…
Lithuania	2010	197.12	80.12	248.73	181.87	328.44	284.58	71.16	27.08	21.00	121.00	63.10	31.85	…
Lithuania	2009	232.29	74.61	239.58	181.87	420.09	292.41	72.32	27.08	15.52	139.98	62.93	31.85	…
Lithuania	2008	279.27	79.85	224.88	181.87	417.43	267.73	21.05	27.08	15.11	134.42	56.81	31.85	…
Luxembourg	2018	490.34	53.06	93.56	111.14	141.50	143.36	17.59	12.83	17.33	229.89	40.66	29.07	…
Luxembourg	2017	555.16	48.92	89.62	120.95	125.00	172.30	16.10	10.66	16.08	199.68	38.54	25.52	…
Luxembourg	2016	464.67	47.09	87.74	106.76	138.01	118.10	16.10	10.66	16.57	186.62	38.54	25.52	…
Luxembourg	2015	511.01	48.92	92.87	105.29	109.28	137.15	16.42	9.28	15.62	171.52	38.09	24.70	…
Luxembourg	2014	497.39	39.92	82.63	115.08	123.62	157.69	16.85	10.66	16.05	195.22	38.54	25.52	…
Luxembourg	2013	513.67	38.35	87.63	99.43	112.32	158.95	16.42	8.74	14.81	176.67	38.54	24.18	…
Luxembourg	2012	518.99	41.73	80.66	102.47	116.53	138.46	16.78	8.41	13.53	227.50	38.83	23.33	…
Luxembourg	2011	598.23	44.16	83.73	102.98	109.52	158.04	14.91	8.74	15.82	255.30	35.37	24.57	…
Luxembourg	2010	598.23	13.74	77.66	98.59	121.25	171.70	17.42	7.72	12.27	207.95	39.26	21.87	…
Luxembourg	2009	575.94	37.92	79.44	99.15	121.63	139.56	16.10	10.66	19.11	198.21	38.54	24.92	…
Luxembourg	2008	598.23	9.81	78.02	91.32	146.41	145.04	16.57	11.96	22.28	149.58	38.66	25.62	…

Table 19 (Cont.) – Final database of Lithuania and Luxembourg.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Lithuania	2018	130.15	1.63	2.10	0	0	3	0	1	1	1	0	0	86.00
Lithuania	2017	130.75	1.63	2.10	0	0	3	0	1	1	1	0	0	84.80
Lithuania	2016	130.15	1.69	2.10	0	0	3	0	1	1	1	0	0	85.60
Lithuania	2015	129.88	1.70	2.20	0	0	3	0	1	1	1	0	0	85.80
Lithuania	2014	129.88	1.63	2.20	0	0	3	0	1	1	1	0	0	86.70
Lithuania	2013	129.88	1.59	2.30	0	0	3	0	1	1	1	0	0	87.80
Lithuania	2012	129.59	1.60	2.30	0	0	3	0	1	1	1	0	0	88.10
Lithuania	2011	129.28	1.55	2.30	0	0	3	0	1	1	1	0	0	88.50
Lithuania	2010	129.88	1.50	2.30	0	0	3	0	1	1	1	0	0	88.10
Lithuania	2009	129.59	1.50	2.30	0	0	3	0	1	1	1	0	0	84.70
Lithuania	2008	129.59	1.45	2.30	0	0	3	0	1	1	1	0	0	78.40
Luxembourg	2018	119.33	1.38	2.40	0	0	2	0	1	2	1	0	1	98.60
Luxembourg	2017	114.10	1.39	2.30	0	0	2	0	1	2	1	0	1	97.40
Luxembourg	2016	114.10	1.41	2.30	0	0	2	0	1	2	1	0	1	96.10
Luxembourg	2015	114.10	1.47	2.30	0	0	2	0	1	2	1	0	1	95.30
Luxembourg	2014	107.93	1.50	2.40	0	0	2	0	1	2	1	0	1	94.60
Luxembourg	2013	107.06	1.55	2.40	0	0	2	0	1	2	1	0	1	93.80
Luxembourg	2012	107.93	1.57	2.40	0	0	2	0	1	2	1	0	1	93.00
Luxembourg	2011	114.10	1.52	2.40	0	0	2	0	1	2	1	0	1	92.10
Luxembourg	2010	107.43	1.63	2.40	0	0	2	0	1	2	1	0	1	91.30
Luxembourg	2009	104.74	1.59	2.40	0	0	2	0	1	2	1	0	1	90.80
Luxembourg	2008	102.66	1.61	2.40	0	0	2	0	1	2	1	0	1	90.30

Table 19 (Cont.) – Final database of Lithuania and Luxembourg.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Malta	2018	46.84	73.59	95.23	90.06	68.01	74.39	133.90	113.68	108.22	106.55	72.24	88.71	…
Malta	2017	43.12	80.15	93.19	66.80	68.01	71.71	126.92	113.68	107.92	102.99	76.46	87.26	…
Malta	2016	42.57	77.33	99.47	58.52	68.01	71.71	129.55	113.68	102.31	99.64	77.08	86.75	…
Malta	2015	40.12	75.67	103.01	68.72	68.01	71.71	133.90	129.32	107.48	102.36	73.06	83.34	…
Malta	2014	42.16	77.59	93.65	84.30	68.01	71.71	133.90	129.32	115.45	114.56	67.79	82.19	…
Malta	2013	41.88	73.48	97.47	83.26	68.01	71.71	133.90	117.25	126.87	118.48	69.60	84.79	…
Malta	2012	41.52	73.06	93.88	61.83	68.01	71.71	133.90	129.32	123.13	118.35	68.66	83.68	…
Malta	2011	36.04	72.69	89.34	79.59	68.01	71.71	133.90	129.32	125.26	123.17	66.48	83.72	…
Malta	2010	36.58	64.68	91.61	87.12	68.01	71.71	133.01	129.32	126.87	123.17	66.48	82.56	…
Malta	2009	51.02	79.34	110.84	85.22	68.01	71.71	133.90	129.32	126.87	115.54	66.48	83.62	…
Malta	2008	51.02	79.34	110.84	85.22	68.01	71.71	133.90	129.32	126.87	123.17	66.48	82.16	…
Netherlands	2018	75.78	85.63	97.23	86.65	87.22	88.58	113.69	104.12	104.54	106.24	89.35	51.94	…
Netherlands	2017	74.84	87.12	96.13	92.68	87.07	88.26	112.15	106.13	106.11	106.92	90.54	51.00	…
Netherlands	2016	76.59	86.51	94.50	90.24	86.62	87.76	113.15	106.13	106.11	106.92	88.91	49.54	…
Netherlands	2015	77.04	86.63	92.99	86.24	86.27	87.53	110.94	103.59	105.12	108.66	89.45	48.78	…
Netherlands	2014	76.69	85.25	92.28	86.87	85.24	86.56	104.02	113.45	103.95	107.10	90.09	48.83	…
Netherlands	2013	78.66	87.26	90.51	87.24	85.92	87.47	107.83	107.92	111.49	106.74	88.52	48.07	…
Netherlands	2012	78.02	89.79	89.19	86.91	86.11	87.62	111.32	109.76	114.23	103.73	86.93	47.60	…
Netherlands	2011	79.18	89.90	87.78	86.61	86.12	87.47	109.35	116.00	109.19	108.44	84.88	47.34	…
Netherlands	2010	77.30	90.62	85.47	83.45	85.20	86.54	120.00	119.02	107.09	111.51	82.33	47.55	…
Netherlands	2009	78.62	85.94	92.64	85.81	83.90	85.24	120.86	113.02	98.05	123.17	80.63	48.35	…
Netherlands	2008	78.62	85.94	92.64	85.81	83.03	84.65	117.22	102.60	103.39	123.17	79.83	47.97	…

Table 20 – Final database of Malta and Netherlands.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Malta	2018	302.13	46.53	103.41	61.10	145.95	146.53	17.35	12.91	43.45	56.03	38.90	26.68	…
Malta	2017	339.09	49.38	100.15	62.02	163.05	148.34	23.60	14.11	40.00	53.21	38.90	28.81	…
Malta	2016	325.47	46.89	119.13	67.17	135.01	142.48	28.69	14.82	34.44	47.36	40.19	30.70	…
Malta	2015	367.43	41.33	114.55	73.25	120.51	139.17	18.96	14.72	33.33	47.59	40.19	26.68	…
Malta	2014	353.16	43.36	102.56	64.68	147.90	143.45	16.38	11.96	35.96	50.56	37.84	25.62	…
Malta	2013	318.93	48.84	105.46	60.91	176.45	120.45	16.38	11.96	33.23	44.93	37.84	25.62	…
Malta	2012	365.27	45.81	110.16	50.08	147.77	114.23	16.38	11.96	32.48	44.19	37.84	25.62	…
Malta	2011	352.19	36.50	105.66	43.91	149.16	112.38	16.38	11.96	36.48	34.89	37.84	25.62	…
Malta	2010	445.28	37.87	105.78	79.37	141.85	91.08	16.57	11.96	36.76	31.83	38.90	25.62	…
Malta	2009	471.17	36.01	97.67	76.57	126.52	90.00	16.38	11.96	33.73	33.63	37.84	25.62	…
Malta	2008	594.95	24.31	89.38	64.57	155.05	94.19	16.38	11.96	37.90	42.99	37.84	25.62	…
Netherlands	2018	301.88	40.99	99.85	115.70	150.89	224.22	19.37	9.05	11.54	86.80	39.88	22.05	…
Netherlands	2017	310.33	40.86	98.87	117.09	153.07	227.71	20.46	8.23	11.99	91.14	42.16	20.78	…
Netherlands	2016	319.50	39.01	97.68	114.43	153.16	230.94	21.80	8.19	12.49	90.85	39.03	20.78	…
Netherlands	2015	311.45	40.20	96.12	114.88	152.23	223.39	15.65	7.98	12.25	93.43	42.61	20.37	…
Netherlands	2014	312.63	39.65	96.53	111.82	157.86	230.27	17.27	8.07	11.84	91.34	38.71	20.41	…
Netherlands	2013	319.22	37.05	96.25	111.90	158.74	249.41	16.28	7.46	10.17	89.28	37.47	20.63	…
Netherlands	2012	342.46	43.25	92.09	101.81	192.02	247.51	23.13	6.16	11.43	93.26	38.94	21.77	…
Netherlands	2011	359.30	43.79	90.03	104.11	190.55	251.20	23.13	5.76	12.29	93.68	39.06	21.96	…
Netherlands	2010	352.46	40.21	96.24	122.66	224.68	229.01	24.24	4.57	11.61	85.74	39.46	21.65	…
Netherlands	2009	352.55	38.40	97.24	117.04	220.94	226.59	27.33	4.26	10.61	84.71	39.56	22.02	…
Netherlands	2008	369.50	37.39	95.31	117.68	215.00	226.60	28.89	4.48	11.73	84.79	37.80	22.17	…

Table 20 (Cont.) – Final database of Malta and Netherlands.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Malta	2018	110.92	1.23	2.50	5	0	7	1	1	2	1	2	1	87.00
Malta	2017	121.66	1.26	2.50	5	0	7	1	1	2	1	2	1	86.80
Malta	2016	129.28	1.37	2.60	5	0	7	1	1	2	1	2	1	88.40
Malta	2015	102.66	1.37	2.60	5	0	7	1	1	2	1	2	1	89.30
Malta	2014	102.66	1.38	2.60	5	0	7	1	1	2	1	2	1	89.40
Malta	2013	102.66	1.36	2.60	5	0	7	1	1	2	1	2	1	90.30
Malta	2012	102.66	1.42	2.70	5	0	7	1	1	2	1	2	1	90.50
Malta	2011	102.66	1.45	2.90	5	0	7	1	1	2	1	2	1	92.30
Malta	2010	102.11	1.36	2.90	5	0	7	1	1	2	1	2	1	92.80
Malta	2009	102.66	1.42	2.90	5	0	7	1	1	2	1	2	1	92.30
Malta	2008	102.66	1.43	3.00	5	0	7	1	1	2	1	2	1	90.80
Netherlands	2018	107.97	1.59	2.20	1	6	2	0	1	1	2	0	1	85.30
Netherlands	2017	108.24	1.62	2.20	1	6	2	0	1	1	2	0	1	84.90
Netherlands	2016	107.99	1.66	2.20	1	6	2	0	1	1	2	0	1	84.40
Netherlands	2015	107.84	1.66	2.20	1	6	2	0	1	1	2	0	1	83.90
Netherlands	2014	106.28	1.71	2.20	1	6	2	0	1	1	2	0	1	83.80
Netherlands	2013	108.04	1.68	2.20	1	6	2	0	1	1	2	0	1	83.40
Netherlands	2012	108.02	1.72	2.20	1	6	2	0	1	1	2	0	1	82.40
Netherlands	2011	107.41	1.76	2.20	1	6	2	0	1	1	2	0	1	81.40
Netherlands	2010	107.44	1.79	2.20	1	6	2	0	1	1	2	0	1	82.20
Netherlands	2009	107.19	1.79	2.20	1	6	2	0	1	1	2	0	1	81.50
Netherlands	2008	107.14	1.77	2.20	1	6	2	0	1	1	2	0	1	81.10

Table 20 (Cont.) – Final database of Malta and Netherlands.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Poland	2018	52.21	63.36	133.21	63.83	81.60	85.28	105.85	94.97	95.44	99.19	101.35	94.04	…
Poland	2017	53.20	63.89	132.32	79.50	81.18	84.44	104.51	94.97	95.44	99.19	102.30	93.71	…
Poland	2016	51.96	64.71	134.33	68.58	81.42	84.83	104.40	95.38	95.44	99.19	102.97	94.19	…
Poland	2015	53.14	65.82	133.91	56.34	81.72	84.94	106.68	95.34	88.90	99.10	103.58	94.04	…
Poland	2014	54.92	66.90	131.37	63.41	81.68	85.19	102.26	96.02	88.57	99.45	104.49	93.27	…
Poland	2013	55.63	67.68	131.33	37.39	81.45	85.06	100.84	92.58	92.93	99.44	104.87	92.34	…
Poland	2012	58.63	68.45	131.74	46.14	81.56	85.51	99.19	88.18	97.95	99.83	105.30	92.09	…
Poland	2011	61.93	68.55	131.72	55.58	81.19	84.84	90.23	95.42	100.91	98.47	105.08	92.03	…
Poland	2010	62.16	69.67	129.87	72.25	81.27	85.04	94.58	96.97	99.03	97.60	104.34	91.70	…
Poland	2009	62.05	69.11	131.73	59.88	82.75	83.98	97.21	96.58	94.27	103.56	102.85	91.41	…
Poland	2008	62.05	69.11	131.73	59.88	82.58	83.73	99.61	94.58	98.42	103.79	101.27	90.80	…
Portugal	2018	71.13	91.92	160.51	104.80	96.68	92.64	97.95	100.40	100.43	102.77	102.79	94.66	…
Portugal	2017	71.60	91.92	157.81	113.43	95.74	91.84	102.89	100.40	100.43	102.77	101.56	94.36	…
Portugal	2016	73.56	91.92	151.93	113.43	95.23	91.47	98.62	100.40	100.43	102.77	101.58	94.92	…
Portugal	2015	73.96	91.92	155.26	113.43	95.50	91.93	99.99	95.06	99.66	102.37	100.26	95.48	…
Portugal	2014	72.37	91.92	158.66	113.43	94.92	91.38	103.98	90.76	102.95	103.17	99.16	95.88	…
Portugal	2013	72.59	91.92	159.08	104.94	93.96	90.89	103.27	102.41	100.76	105.46	96.96	95.33	…
Portugal	2012	73.09	91.92	148.10	113.43	92.82	90.21	99.21	103.99	104.14	100.37	98.44	94.65	…
Portugal	2011	74.64	91.92	145.59	108.08	91.30	89.20	104.73	98.38	96.81	104.82	98.36	93.97	…
Portugal	2010	77.40	91.92	159.16	103.99	92.81	90.93	103.89	98.00	91.72	95.16	103.24	92.61	…
Portugal	2009	72.48	91.92	146.85	104.47	91.51	89.69	107.04	98.32	97.77	94.77	101.46	91.49	…
Portugal	2008	62.05	69.11	132.83	67.83	89.94	88.55	106.40	98.22	90.27	101.36	100.48	90.88	…

Table 21 – Final database of Poland and Portugal.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Poland	2018	265.72	90.05	185.24	112.78	163.72	217.02	34.89	13.85	19.63	169.47	65.02	32.69	…
Poland	2017	279.33	86.46	181.61	115.62	159.84	222.27	33.56	14.20	20.10	159.93	63.69	32.23	…
Poland	2016	261.46	87.28	187.34	114.53	151.84	218.92	24.07	14.86	19.09	154.24	66.21	31.66	…
Poland	2015	249.32	84.96	183.27	114.33	155.31	208.97	29.62	14.85	18.16	144.74	67.60	31.93	…
Poland	2014	252.44	78.98	184.97	118.66	168.50	184.46	32.71	15.98	16.51	143.30	66.39	31.77	…
Poland	2013	263.81	74.21	185.03	119.32	182.61	183.65	32.52	14.96	16.63	140.79	68.23	30.62	…
Poland	2012	260.60	73.96	182.71	120.24	182.49	187.35	27.77	14.79	17.38	140.36	70.80	30.77	…
Poland	2011	252.91	76.19	186.93	124.96	174.90	178.79	26.18	15.54	17.67	133.34	72.78	31.36	…
Poland	2010	250.99	68.84	200.66	123.97	194.18	200.44	29.52	15.72	16.72	120.37	76.48	31.06	…
Poland	2009	263.80	64.77	200.59	137.24	211.55	214.95	33.98	16.79	17.27	120.81	80.80	32.21	…
Poland	2008	262.83	65.32	200.08	131.08	199.90	209.87	33.58	18.67	18.65	127.25	79.95	33.62	…
Portugal	2018	212.73	67.00	164.62	90.21	178.07	192.76	21.99	19.04	50.55	227.75	46.69	43.36	…
Portugal	2017	204.54	56.08	163.08	88.26	173.93	180.40	28.50	18.58	52.14	231.41	46.62	42.96	…
Portugal	2016	180.50	60.43	155.13	88.21	190.97	183.19	32.59	19.05	51.93	236.80	50.93	43.11	…
Portugal	2015	148.68	55.17	157.82	88.87	182.37	185.64	31.86	19.36	52.84	245.01	53.52	43.81	…
Portugal	2014	141.00	62.99	160.67	85.52	186.90	178.61	30.27	20.70	50.77	255.30	54.49	43.76	…
Portugal	2013	142.39	55.08	168.72	83.89	169.10	170.06	28.26	20.71	51.85	255.30	59.48	42.97	…
Portugal	2012	147.46	55.38	167.58	81.80	175.31	182.01	38.09	21.75	42.14	255.30	65.84	39.57	…
Portugal	2011	160.50	52.62	157.09	75.96	187.74	180.76	33.68	21.46	42.98	255.30	69.38	38.76	…
Portugal	2010	210.52	58.85	154.70	101.30	174.59	224.13	24.91	27.08	28.70	210.12	86.35	38.54	…
Portugal	2009	233.42	58.89	146.95	99.30	181.80	236.18	35.64	25.26	26.02	218.55	93.76	37.62	…
Portugal	2008	245.31	39.03	141.15	103.45	158.97	223.03	43.31	27.08	19.79	199.89	93.76	36.63	…

Table 21 (Cont.) – Final database of Poland and Portugal.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Poland	2018	131.32	1.46	2.60	0	0	5	1	1	0	1	1	0	91.50
Poland	2017	131.92	1.48	2.60	0	0	5	1	1	0	1	1	0	93.00
Poland	2016	132.38	1.39	2.70	0	0	5	1	1	0	1	1	0	92.90
Poland	2015	130.45	1.32	2.70	0	0	5	1	1	0	1	1	0	92.70
Poland	2014	129.33	1.32	2.70	0	0	5	1	1	0	1	1	0	92.30
Poland	2013	129.85	1.29	2.80	0	0	5	1	1	0	1	1	0	92.90
Poland	2012	129.22	1.33	2.80	0	0	5	1	1	0	1	1	0	93.60
Poland	2011	127.93	1.33	2.80	0	0	5	1	1	0	1	1	0	94.50
Poland	2010	127.96	1.41	2.80	0	0	5	1	1	0	1	1	0	95.50
Poland	2009	130.82	1.40	2.80	0	0	5	1	1	0	1	1	0	92.00
Poland	2008	129.87	1.39	2.90	0	0	5	1	1	0	1	1	0	88.60
Portugal	2018	133.26	1.42	2.50	0	0	5	1	0	1	1	1	0	91.10
Portugal	2017	132.04	1.38	2.50	0	0	5	1	0	1	1	1	0	89.20
Portugal	2016	131.89	1.36	2.50	0	0	5	1	0	1	1	1	0	86.10
Portugal	2015	131.05	1.31	2.50	0	0	5	1	0	1	1	1	0	84.00
Portugal	2014	129.91	1.23	2.60	0	0	5	1	0	1	1	1	0	85.10
Portugal	2013	130.41	1.21	2.60	0	0	5	1	0	1	1	1	0	86.70
Portugal	2012	134.52	1.28	2.60	0	0	5	1	0	1	1	1	0	85.00
Portugal	2011	132.31	1.35	2.60	0	0	5	1	0	1	1	1	0	87.10
Portugal	2010	129.91	1.39	2.70	0	0	5	1	0	1	1	1	0	87.20
Portugal	2009	129.65	1.34	2.70	0	0	5	1	0	1	1	1	0	90.00
Portugal	2008	127.02	1.39	2.70	0	0	5	1	0	1	1	1	0	90.80

Table 21 (Cont.) – Final database of Poland and Portugal.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Romania	2018	69.12	68.08	107.80	52.67	74.89	82.51	80.51	95.20	95.44	99.45	103.83	97.14	…
Romania	2017	70.35	69.22	108.17	52.29	75.94	82.69	86.28	95.20	95.44	99.36	101.67	97.64	…
Romania	2016	71.42	67.65	103.41	47.57	74.51	81.46	80.51	94.97	95.44	99.19	104.19	97.97	…
Romania	2015	74.22	66.98	102.95	52.29	74.69	81.67	80.51	97.66	103.33	98.44	105.99	97.62	…
Romania	2014	81.55	68.20	101.76	52.29	76.79	83.19	80.51	93.19	98.25	99.22	106.99	97.19	…
Romania	2013	89.49	66.80	103.49	52.29	77.27	83.10	81.55	94.48	100.07	95.96	106.93	97.01	…
Romania	2012	92.93	67.45	102.03	52.29	78.18	83.81	80.51	90.21	95.82	99.39	108.12	97.21	…
Romania	2011	94.78	68.56	100.06	55.96	79.04	84.68	80.51	90.50	97.76	97.31	108.82	97.24	…
Romania	2010	90.79	67.73	97.62	55.96	77.36	82.95	80.51	92.17	96.48	97.91	109.11	97.02	…
Romania	2009	62.05	69.11	131.55	59.88	79.65	84.66	80.51	88.65	94.50	99.06	112.17	97.30	…
Romania	2008	62.05	69.11	131.73	59.88	79.94	85.00	82.39	85.58	99.00	99.95	110.88	97.20	…
Slovakia	2018	79.94	73.03	114.81	47.51	82.37	86.58	112.07	99.85	96.51	99.45	99.77	96.36	…
Slovakia	2017	92.31	73.23	117.15	71.97	83.15	86.81	108.63	99.85	99.87	100.24	99.78	95.99	…
Slovakia	2016	93.47	72.93	118.27	57.34	82.57	85.99	105.88	95.68	95.64	99.36	96.59	96.45	…
Slovakia	2015	96.34	73.72	111.01	80.04	81.99	86.07	109.83	119.01	100.09	94.97	94.99	96.17	…
Slovakia	2014	87.95	73.18	106.92	48.99	80.25	84.40	103.26	110.22	104.52	96.26	97.38	97.18	…
Slovakia	2013	96.61	72.56	109.27	47.57	80.33	83.80	117.13	108.54	103.71	96.93	95.28	97.56	…
Slovakia	2012	94.95	71.14	114.52	52.29	79.57	83.43	106.76	107.26	104.43	95.25	98.19	97.53	…
Slovakia	2011	96.70	71.41	110.11	52.29	79.17	83.05	95.25	110.24	103.57	95.84	99.68	97.05	…
Slovakia	2010	91.85	74.38	108.59	52.29	80.76	83.81	103.42	112.62	101.87	90.60	101.00	97.83	…
Slovakia	2009	62.05	68.62	131.55	55.96	79.68	82.67	112.38	110.38	95.16	94.06	99.53	98.15	…
Slovakia	2008	62.05	69.11	131.55	59.88	80.82	83.76	104.85	98.98	100.63	97.01	100.74	97.49	…

Table 22 – Final database of Romania and Slovakia.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Romania	2018	206.04	52.88	139.71	108.73	168.07	168.83	33.25	27.08	29.72	70.71	67.00	32.53	…
Romania	2017	182.38	50.98	138.05	121.00	175.06	169.34	40.01	27.08	32.29	73.96	67.92	32.53	…
Romania	2016	173.18	59.60	129.14	119.22	162.89	166.06	35.49	27.08	31.44	75.38	69.52	32.53	…
Romania	2015	173.10	55.66	130.76	120.98	164.90	160.23	34.20	27.08	30.53	79.66	69.52	31.85	…
Romania	2014	204.98	53.99	133.00	114.68	178.72	162.23	29.51	27.08	32.64	78.13	69.52	31.85	…
Romania	2013	198.23	52.23	136.95	121.87	175.19	163.84	17.37	27.08	32.52	79.58	69.52	31.85	…
Romania	2012	192.60	53.81	135.79	113.28	193.98	168.43	25.88	27.08	32.72	79.73	69.52	31.85	…
Romania	2011	199.15	55.34	135.41	106.23	215.43	160.25	19.91	27.08	31.45	89.92	69.52	31.85	…
Romania	2010	182.36	58.02	102.03	167.47	226.21	191.91	20.67	27.08	32.45	74.48	69.52	31.85	…
Romania	2009	185.05	60.64	109.04	163.85	239.44	194.57	26.23	27.08	35.73	70.33	67.92	31.85	…
Romania	2008	198.64	51.17	106.74	162.68	237.75	212.28	25.16	27.08	40.64	68.39	67.92	31.85	…
Slovakia	2018	202.36	62.78	174.60	97.93	275.95	148.45	40.71	17.42	40.54	116.16	30.42	33.86	…
Slovakia	2017	193.96	65.71	172.44	104.40	233.36	157.04	52.54	19.46	40.01	127.82	29.58	34.96	…
Slovakia	2016	180.13	72.58	184.35	105.35	219.57	164.34	32.14	19.17	35.23	120.12	27.91	34.91	…
Slovakia	2015	189.41	55.73	170.51	111.54	236.67	153.68	42.44	18.37	35.22	124.64	22.59	34.10	…
Slovakia	2014	174.17	57.21	164.63	122.01	222.81	157.98	42.60	18.23	34.18	121.63	27.16	33.13	…
Slovakia	2013	172.49	63.28	168.39	116.50	243.35	167.85	50.23	16.09	34.33	117.30	28.66	31.19	…
Slovakia	2012	187.75	63.82	168.03	132.13	252.99	170.43	44.22	14.10	32.85	117.93	29.07	32.43	…
Slovakia	2011	204.57	54.95	162.06	148.34	222.65	189.07	36.88	15.76	33.47	104.16	25.77	33.56	…
Slovakia	2010	177.79	73.67	166.99	171.41	208.69	209.58	51.96	16.49	37.00	83.56	32.23	33.90	…
Slovakia	2009	184.41	62.80	157.17	166.63	215.70	205.98	60.00	19.25	35.86	84.64	33.23	34.56	…
Slovakia	2008	262.79	48.66	170.79	160.30	240.76	223.30	76.26	20.30	35.39	94.60	31.97	36.51	…

Table 22 (Cont.) – Final database of Romania and Slovakia.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Romania	2018	129.59	1.76	2.60	0	1	7	1	0	1	1	2	0	97.80
Romania	2017	129.59	1.71	2.60	0	1	7	1	0	1	1	2	0	97.10
Romania	2016	129.28	1.69	2.60	0	1	7	1	0	1	1	2	0	95.20
Romania	2015	129.28	1.62	2.70	0	1	7	1	0	1	1	2	0	94.40
Romania	2014	129.28	1.56	2.70	0	1	7	1	0	1	1	2	0	95.50
Romania	2013	129.28	1.46	2.70	0	1	7	1	0	1	1	2	0	95.10
Romania	2012	129.28	1.52	2.70	0	1	7	1	0	1	1	2	0	93.10
Romania	2011	129.59	1.47	2.70	0	1	7	1	0	1	1	2	0	90.40
Romania	2010	129.59	1.59	2.70	0	1	7	1	0	1	1	2	0	91.20
Romania	2009	129.88	1.66	2.90	0	1	7	1	0	1	1	2	0	92.60
Romania	2008	129.88	1.60	2.90	0	1	7	1	0	1	1	2	0	91.50
Slovakia	2018	135.04	1.54	2.70	0	0	3	1	2	0	2	0	0	80.20
Slovakia	2017	139.45	1.52	2.70	0	0	3	1	2	0	2	0	0	79.90
Slovakia	2016	133.10	1.48	2.70	0	0	3	1	2	0	2	0	0	80.80
Slovakia	2015	132.20	1.40	2.80	0	0	3	1	2	0	2	0	0	80.30
Slovakia	2014	131.85	1.37	2.70	0	0	3	1	2	0	2	0	0	80.30
Slovakia	2013	136.53	1.34	2.70	0	0	3	1	2	0	2	0	0	81.20
Slovakia	2012	135.80	1.34	2.80	0	0	3	1	2	0	2	0	0	79.20
Slovakia	2011	134.94	1.45	2.80	0	0	3	1	2	0	2	0	0	79.90
Slovakia	2010	136.11	1.43	2.80	0	0	3	1	2	0	2	0	0	80.40
Slovakia	2009	132.31	1.44	2.80	0	0	3	1	2	0	2	0	0	78.10
Slovakia	2008	136.52	1.34	2.90	0	0	3	1	2	0	2	0	0	79.10

Table 22 (Cont.) – Final database of Romania and Slovakia.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Slovenia	2018	73.04	67.20	132.46	55.99	85.94	92.78	109.22	95.68	95.16	98.60	107.31	93.34	…
Slovenia	2017	78.46	65.65	141.48	54.38	87.51	93.75	104.05	95.68	94.87	97.18	105.90	93.90	…
Slovenia	2016	84.85	65.04	143.19	42.20	87.36	93.77	111.36	95.68	94.87	97.18	101.12	93.71	…
Slovenia	2015	83.00	65.44	134.67	38.60	85.06	92.13	108.43	92.37	86.35	101.03	102.56	94.30	…
Slovenia	2014	89.43	66.22	132.65	37.39	85.15	91.85	102.59	90.18	85.17	99.28	105.90	94.17	…
Slovenia	2013	72.95	68.30	133.85	37.39	84.54	91.45	106.02	94.59	98.34	98.10	101.08	94.95	…
Slovenia	2012	76.56	68.43	141.65	37.39	85.75	91.98	108.03	94.89	98.01	94.50	102.17	95.38	…
Slovenia	2011	80.55	68.69	138.26	37.39	84.98	91.45	121.64	103.61	97.42	95.78	97.11	95.53	…
Slovenia	2010	81.24	70.14	131.65	43.60	84.19	90.81	109.06	97.23	103.53	98.17	98.49	94.82	…
Slovenia	2009	76.98	68.56	136.47	41.10	84.73	91.29	105.80	98.56	93.04	110.00	97.19	95.91	…
Slovenia	2008	76.98	68.56	136.47	41.10	84.20	91.53	107.23	96.63	88.51	105.23	99.66	95.91	…
Spain	2018	65.43	91.03	108.67	86.81	86.84	87.70	106.29	110.95	108.19	111.08	93.92	83.53	…
Spain	2017	66.41	89.33	109.72	87.69	86.83	87.94	106.98	110.95	108.19	111.08	92.65	83.51	…
Spain	2016	66.06	89.32	111.29	87.12	86.86	88.17	101.71	110.95	108.19	111.08	91.73	83.63	…
Spain	2015	66.87	87.51	109.79	91.51	86.06	87.13	99.86	107.37	111.85	120.71	88.25	82.84	…
Spain	2014	68.22	89.42	105.82	93.71	85.73	87.33	100.53	111.67	112.52	119.50	86.52	82.28	…
Spain	2013	67.35	91.76	105.19	98.22	85.20	86.83	107.36	122.34	118.03	118.71	81.64	82.57	…
Spain	2012	66.57	89.90	104.71	98.07	84.02	86.06	112.54	117.62	126.87	115.43	79.81	82.57	…
Spain	2011	64.93	87.64	103.92	95.53	82.25	84.49	109.80	123.09	126.87	112.19	77.77	83.15	…
Spain	2010	63.59	84.66	103.41	92.40	80.29	82.49	110.89	128.59	126.05	110.30	76.56	82.85	…
Spain	2009	67.79	86.09	103.67	91.96	78.48	80.74	120.16	128.61	117.70	103.11	76.26	82.95	…
Spain	2008	67.79	86.09	103.67	91.96	75.74	78.07	123.89	117.71	111.63	100.45	77.75	82.74	…

Table 23 – Final database of Slovenia and Spain.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Slovenia	2018	211.68	77.17	153.46	105.43	126.94	168.16	25.64	15.87	43.52	176.62	70.74	39.03	…
Slovenia	2017	191.17	88.03	170.39	90.79	132.51	171.96	32.54	14.53	38.77	199.57	66.75	36.06	…
Slovenia	2016	209.97	88.96	175.50	95.93	131.41	186.19	10.45	13.26	40.96	190.53	62.71	36.76	…
Slovenia	2015	178.82	75.71	157.90	102.77	121.19	161.19	17.90	13.64	43.17	149.36	84.00	34.96	…
Slovenia	2014	175.91	73.63	148.97	105.46	131.95	160.67	20.90	14.88	41.54	169.21	83.53	35.69	…
Slovenia	2013	173.50	77.39	158.77	104.02	124.04	160.78	27.34	12.30	43.43	144.94	78.00	36.68	…
Slovenia	2012	173.34	86.58	171.41	103.19	141.67	154.51	53.19	11.69	42.98	159.59	75.18	37.12	…
Slovenia	2011	162.26	84.16	169.46	111.04	143.44	158.62	30.48	11.82	40.81	158.71	73.56	36.28	…
Slovenia	2010	166.40	77.42	153.92	111.80	164.39	165.15	82.91	8.15	42.56	143.60	79.58	40.69	…
Slovenia	2009	158.11	82.52	157.02	110.65	173.99	172.48	80.41	8.84	40.54	147.24	82.74	43.03	…
Slovenia	2008	167.19	76.72	156.65	108.84	176.82	168.90	39.53	10.10	40.48	137.36	79.75	41.51	…
Spain	2018	351.18	55.81	140.25	69.90	199.56	155.39	11.46	8.69	16.40	140.95	30.76	25.74	…
Spain	2017	329.82	52.25	141.75	68.87	195.52	156.70	11.05	8.77	16.29	148.33	31.20	25.19	…
Spain	2016	312.87	49.18	141.93	70.22	194.70	152.43	11.28	8.35	15.53	147.14	29.99	24.38	…
Spain	2015	322.77	50.94	141.64	66.88	191.72	148.76	11.49	9.16	14.76	156.15	30.21	24.70	…
Spain	2014	331.52	46.89	135.00	70.05	193.15	150.18	10.83	9.41	15.58	167.59	31.77	24.70	…
Spain	2013	322.30	47.29	137.81	68.51	187.20	154.73	11.30	8.72	16.64	169.55	31.27	24.44	…
Spain	2012	370.89	49.11	135.54	66.33	189.56	159.47	14.18	8.76	16.31	172.08	35.26	24.96	…
Spain	2011	392.36	50.48	131.51	67.08	187.59	165.52	16.20	8.28	15.63	161.88	35.48	22.56	…
Spain	2010	435.09	41.43	126.05	96.63	188.19	176.12	10.75	7.25	16.01	142.20	34.82	22.65	…
Spain	2009	468.74	38.14	127.23	94.11	199.20	177.67	12.23	7.11	16.51	139.05	35.19	21.93	…
Spain	2008	539.78	37.77	126.63	90.88	198.60	180.85	13.97	6.26	17.07	133.98	36.77	20.60	…

Table 23 (Cont.) – Final database of Slovenia and Spain.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Slovenia	2018	127.10	1.60	2.30	0	0	2	1	0	1	1	2	2	90.70
Slovenia	2017	134.62	1.62	2.30	0	0	2	1	0	1	1	2	2	91.60
Slovenia	2016	133.98	1.58	2.30	0	0	2	1	0	1	1	2	2	91.90
Slovenia	2015	124.45	1.57	2.30	0	0	2	1	0	1	1	2	2	91.80
Slovenia	2014	124.52	1.58	2.40	0	0	2	1	0	1	1	2	2	93.00
Slovenia	2013	122.57	1.55	2.40	0	0	2	1	0	1	1	2	2	93.70
Slovenia	2012	126.45	1.58	2.40	0	0	2	1	0	1	1	2	2	95.50
Slovenia	2011	130.40	1.56	2.50	0	0	2	1	0	1	1	2	2	96.70
Slovenia	2010	124.07	1.57	2.50	0	0	2	1	0	1	1	2	2	99.10
Slovenia	2009	122.15	1.53	2.60	0	0	2	1	0	1	1	2	2	100.90
Slovenia	2008	125.59	1.53	2.60	0	0	2	1	0	1	1	2	2	95.90
Spain	2018	114.96	1.26	2.50	0	0	2	1	2	1	1	2	1	88.10
Spain	2017	114.77	1.31	2.50	0	0	2	1	2	1	1	2	1	86.50
Spain	2016	114.49	1.34	2.50	0	0	2	1	2	1	1	2	1	85.20
Spain	2015	113.99	1.33	2.50	0	0	2	1	2	1	1	2	1	85.90
Spain	2014	114.20	1.32	2.50	0	0	2	1	2	1	1	2	1	85.10
Spain	2013	115.72	1.27	2.50	0	0	2	1	2	1	1	2	1	82.20
Spain	2012	115.65	1.32	2.60	0	0	2	1	2	1	1	2	1	81.30
Spain	2011	115.96	1.34	2.60	0	0	2	1	2	1	1	2	1	82.40
Spain	2010	115.32	1.37	2.60	0	0	2	1	2	1	1	2	1	83.80
Spain	2009	116.30	1.38	2.60	0	0	2	1	2	1	1	2	1	83.30
Spain	2008	115.32	1.45	2.70	0	0	2	1	2	1	1	2	1	83.90

Table 23 (Cont.) – Final database of Slovenia and Spain.

Country	Year	Ed2 (%)	Ed3 (%)	Ed4 (%)	Img (%)	LMPart (%)	Exp (%)	Tnr1 (%)	Tnr2 (%)	Tnr3 (%)	Tnr4 (%)	Tnr5 (%)	FulT (%)	…
Sweden	2018	72.19	70.99	128.52	69.38	90.85	95.78	112.21	101.87	93.87	98.81	97.63	92.25	…
Sweden	2017	77.21	70.48	127.20	72.00	90.50	95.54	108.66	101.87	93.87	98.81	99.02	92.11	…
Sweden	2016	75.91	70.89	129.67	74.69	90.91	95.50	110.15	101.87	93.87	97.63	99.56	91.41	…
Sweden	2015	73.58	72.19	131.73	79.70	90.91	95.02	112.50	103.91	92.31	92.49	98.83	91.73	…
Sweden	2014	73.52	73.35	128.42	80.94	90.23	94.09	113.53	100.30	85.91	95.16	100.95	91.34	…
Sweden	2013	75.65	73.73	129.35	77.78	90.35	94.06	111.41	96.01	91.11	93.43	102.57	91.26	…
Sweden	2012	78.48	73.89	129.13	76.49	90.21	94.02	109.52	91.00	94.24	95.88	102.94	90.76	…
Sweden	2011	79.11	73.85	128.19	73.78	89.66	93.51	104.59	95.10	93.49	96.58	103.23	90.18	…
Sweden	2010	80.13	74.09	124.25	78.10	88.84	92.31	104.59	99.07	90.21	98.68	102.31	89.67	…
Sweden	2009	78.53	73.99	126.22	80.32	90.04	93.67	112.73	91.65	92.68	98.83	100.89	89.13	…
Sweden	2008	78.53	73.99	126.22	80.32	90.19	93.70	106.48	87.15	86.65	106.74	102.35	88.93	…
UK	2018	73.70	80.83	104.00	86.10	88.38	88.67	109.41	103.72	100.64	102.53	93.07	71.78	…
UK	2017	76.57	81.75	101.03	85.94	88.14	88.62	111.10	103.72	100.64	102.53	92.07	71.18	…
UK	2016	75.33	81.51	99.92	83.10	87.39	87.68	111.46	103.56	97.16	99.09	92.08	70.78	…
UK	2015	77.71	80.98	100.27	86.89	87.32	87.17	112.10	103.67	100.08	101.59	92.01	70.72	…
UK	2014	81.56	79.69	100.06	83.52	87.31	86.89	106.22	103.77	101.19	109.97	89.63	70.19	…
UK	2013	78.57	80.22	99.94	85.38	86.57	86.41	108.21	103.44	103.57	105.73	90.25	69.76	…
UK	2012	79.90	81.25	96.73	82.22	86.22	85.68	106.25	104.33	109.18	103.96	89.47	69.08	…
UK	2011	83.15	80.37	96.84	83.92	85.80	85.82	104.36	111.85	105.41	103.47	88.87	68.71	…
UK	2010	86.25	77.82	98.02	81.47	85.53	85.33	106.51	110.41	102.98	104.78	88.36	68.64	…
UK	2009	78.84	76.89	112.26	81.58	85.63	85.12	112.35	110.34	101.18	105.52	85.42	68.73	…
UK	2008	78.84	76.89	112.26	81.58	85.14	84.22	108.41	105.62	109.21	107.94	83.82	69.35	…

Table 24 – Final database of Sweden and UK.

Country	Year	PartT (%)	Occ1 (%)	Occ2 (%)	Occ3 (%)	Occ4 (%)	Occ5 (%)	Occ6 (%)	Occ7 (%)	Occ8 (%)	Occ9 (%)	Sec1 (%)	Sec2 (%)	…
Sweden	2018	168.04	70.88	149.93	83.73	153.18	212.12	43.96	7.82	19.19	97.40	30.09	23.06	…
Sweden	2017	167.70	73.95	147.28	80.95	152.53	210.51	46.05	8.37	18.85	111.43	35.87	22.84	…
Sweden	2016	176.32	74.47	151.69	82.43	166.41	203.81	45.64	7.26	18.03	118.16	34.11	22.32	…
Sweden	2015	169.60	75.91	151.15	82.45	199.95	213.64	38.68	5.95	18.11	116.17	31.39	21.93	…
Sweden	2014	173.48	70.97	148.26	83.39	211.10	223.02	42.71	6.04	17.38	125.33	28.08	22.48	…
Sweden	2013	173.95	66.20	147.03	87.51	216.68	227.17	44.29	6.87	19.59	122.81	29.64	23.83	…
Sweden	2012	180.29	63.74	149.58	84.88	224.66	237.01	47.31	6.55	19.33	133.05	29.83	23.08	…
Sweden	2011	187.03	59.25	151.02	83.03	233.22	240.44	44.19	6.76	18.50	129.98	27.27	21.91	…
Sweden	2010	191.62	51.89	111.33	117.81	209.21	289.09	46.85	5.75	19.45	97.45	27.47	21.98	…
Sweden	2009	197.84	52.80	111.24	115.72	227.45	294.58	44.73	5.32	19.86	98.42	27.07	22.17	…
Sweden	2008	203.72	53.61	110.82	113.47	219.21	307.30	40.57	5.43	18.72	111.98	23.79	22.41	…
UK	2018	320.00	58.47	100.58	109.19	217.27	217.80	11.91	7.55	13.21	82.11	37.37	24.04	…
UK	2017	322.03	57.84	101.07	111.42	207.64	218.06	5.91	7.47	14.57	84.54	35.67	24.68	…
UK	2016	321.08	57.67	98.35	113.35	213.01	227.47	7.90	7.33	14.49	79.51	35.27	23.91	…
UK	2015	317.51	56.90	98.43	111.84	213.77	228.70	4.57	7.11	15.65	78.23	36.19	23.88	…
UK	2014	324.12	55.53	102.43	109.77	218.78	223.10	6.26	6.97	15.35	78.23	36.27	24.47	…
UK	2013	318.49	52.39	100.48	114.84	221.73	221.64	8.37	6.84	14.04	83.17	36.32	23.66	…
UK	2012	321.41	54.35	97.37	116.47	224.01	222.15	9.08	6.75	14.27	79.78	37.06	23.14	…
UK	2011	336.15	54.93	97.00	120.13	225.81	217.71	8.73	6.64	13.29	81.00	33.71	22.46	…
UK	2010	338.76	57.34	90.90	126.52	316.48	245.39	25.89	3.84	15.20	63.84	30.39	22.11	…
UK	2009	357.54	57.09	87.85	121.30	338.94	266.87	25.89	3.45	15.12	65.29	30.40	22.48	…
UK	2008	370.33	55.50	89.77	123.27	345.69	257.87	8.55	3.42	15.88	61.24	45.74	24.44	…

Table 24 (Cont.) – Final database of Sweden and UK.

Country	Year	Sec3 (%)	FertR	HsH	LgO	Rlgn	Rlgst	PwD	Indv	Masc	UAv	LngT	Indg	UGPGI (%)
Sweden	2018	120.82	1.76	1.80	0	2	0	0	1	1	0	2	1	87.90
Sweden	2017	120.67	1.78	1.90	0	2	0	0	1	1	0	2	1	87.50
Sweden	2016	122.38	1.85	1.90	0	2	0	0	1	1	0	2	1	86.70
Sweden	2015	122.52	1.85	1.80	0	2	0	0	1	1	0	2	1	86.00
Sweden	2014	122.17	1.88	2.00	0	2	0	0	1	1	0	2	1	86.20
Sweden	2013	122.31	1.89	1.90	0	2	0	0	1	1	0	2	1	85.40
Sweden	2012	124.11	1.91	1.90	0	2	0	0	1	1	0	2	1	84.50
Sweden	2011	124.14	1.90	1.90	0	2	0	0	1	1	0	2	1	84.40
Sweden	2010	123.05	1.98	2.00	0	2	0	0	1	1	0	2	1	84.60
Sweden	2009	126.77	1.94	2.00	0	2	0	0	1	1	0	2	1	84.30
Sweden	2008	127.62	1.91	2.00	0	2	0	0	1	1	0	2	1	83.10
UK	2018	114.66	1.68	2.30	4	4	1	0	1	0	0	2	1	80.20
UK	2017	114.53	1.74	2.30	4	4	1	0	1	0	0	2	1	79.20
UK	2016	114.12	1.79	2.30	4	4	1	0	1	0	0	2	1	79.30
UK	2015	114.43	1.80	2.30	4	4	1	0	1	0	0	2	1	79.00
UK	2014	114.90	1.81	2.30	4	4	1	0	1	0	0	2	1	79.10
UK	2013	114.75	1.83	2.30	4	4	1	0	1	0	0	2	1	79.00
UK	2012	114.78	1.92	2.30	4	4	1	0	1	0	0	2	1	77.40
UK	2011	116.24	1.91	2.30	4	4	1	0	1	0	0	2	1	78.20
UK	2010	116.82	1.92	2.30	4	4	1	0	1	0	0	2	1	76.70
UK	2009	117.40	1.89	2.30	4	4	1	0	1	0	0	2	1	79.40
UK	2008	117.19	1.91	2.30	4	4	1	0	1	0	0	2	1	78.60

Table 24 (Cont.) – Final database of Sweden and UK.

Annex II – Scatter plots of potential relations between numerical variables.

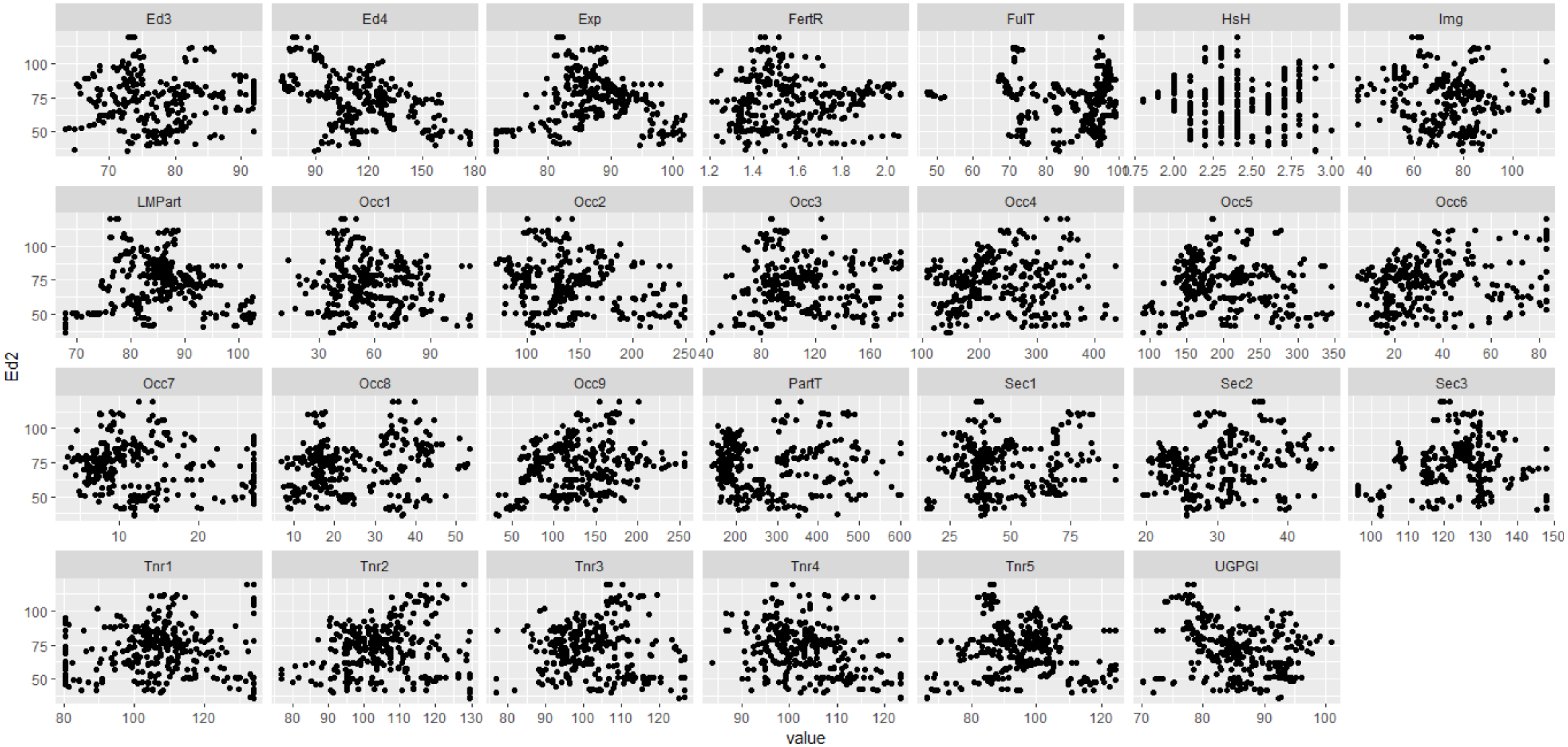

Illustration 29 – Relationships with “Ed2”.

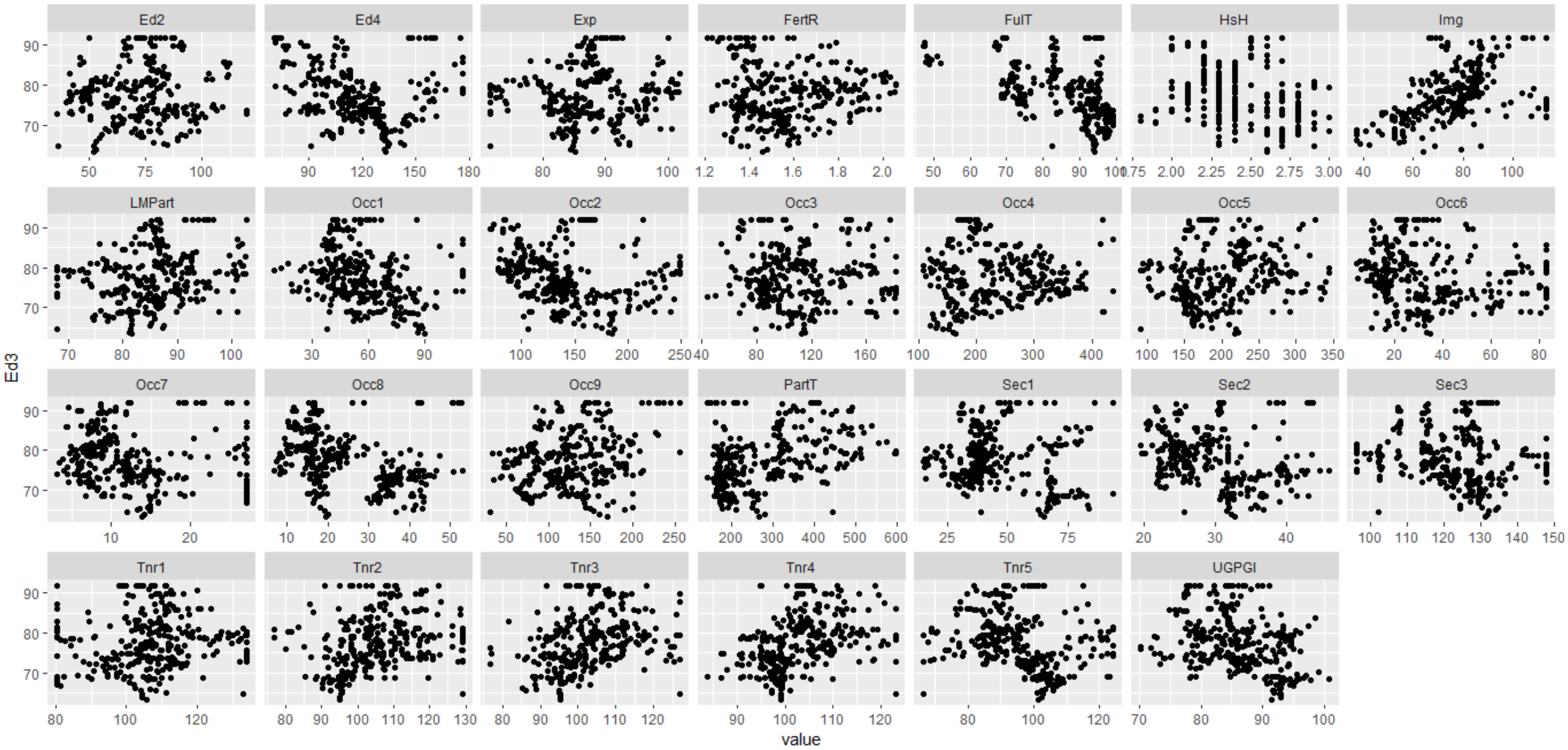

Illustration 30 – Relationships with "Ed3".

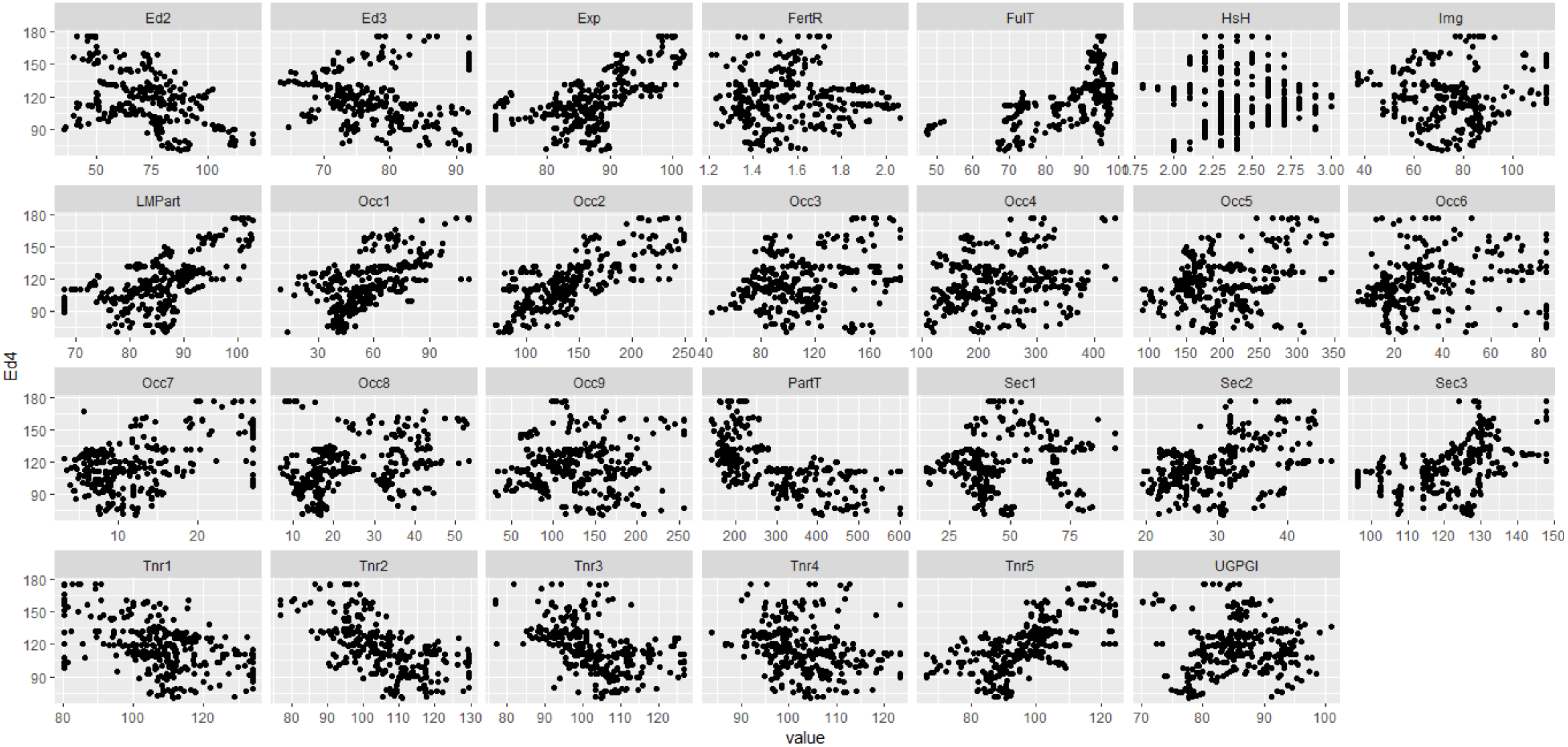

Illustration 31 – Relationships with “Ed4”.

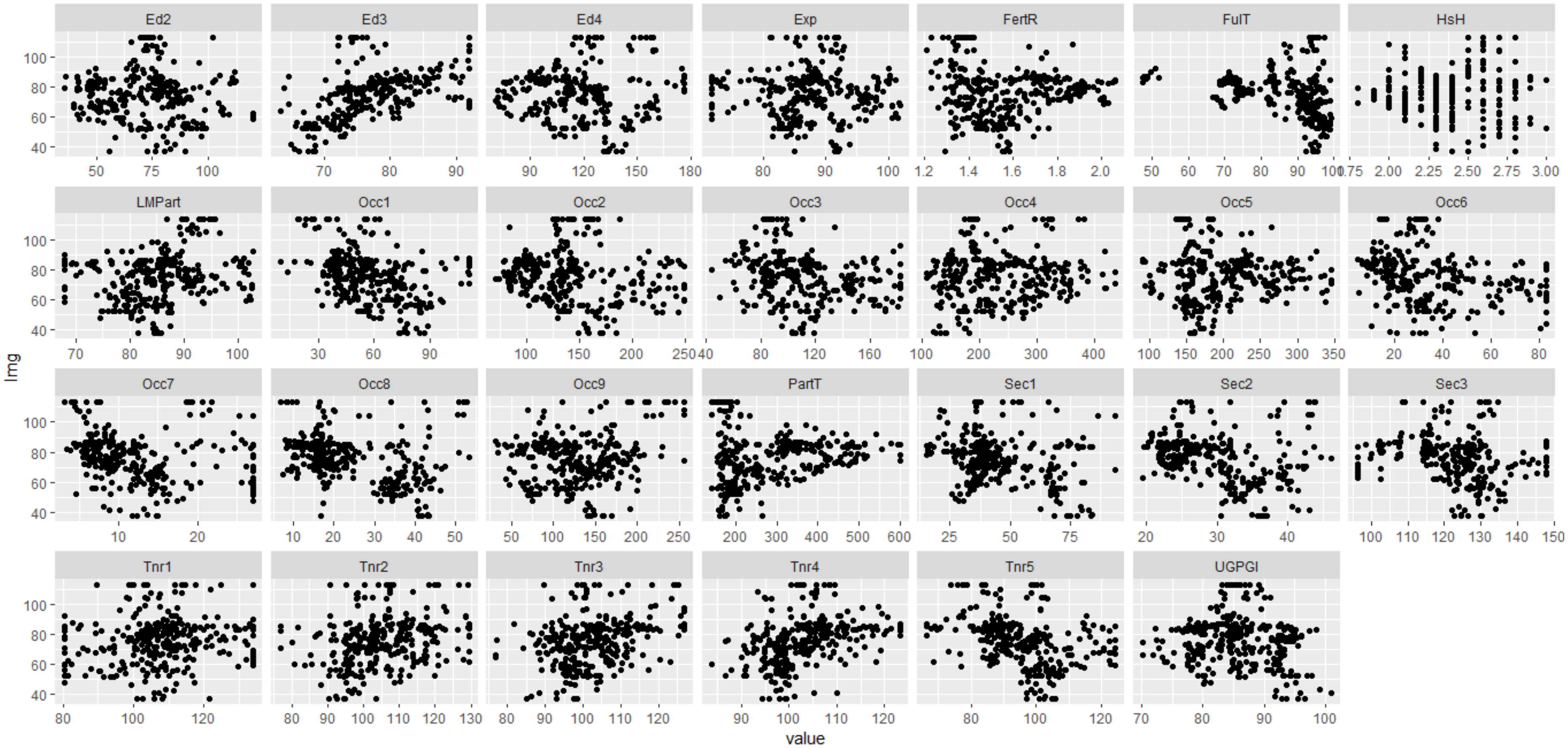

Illustration 32 – Relationships with “Img”.

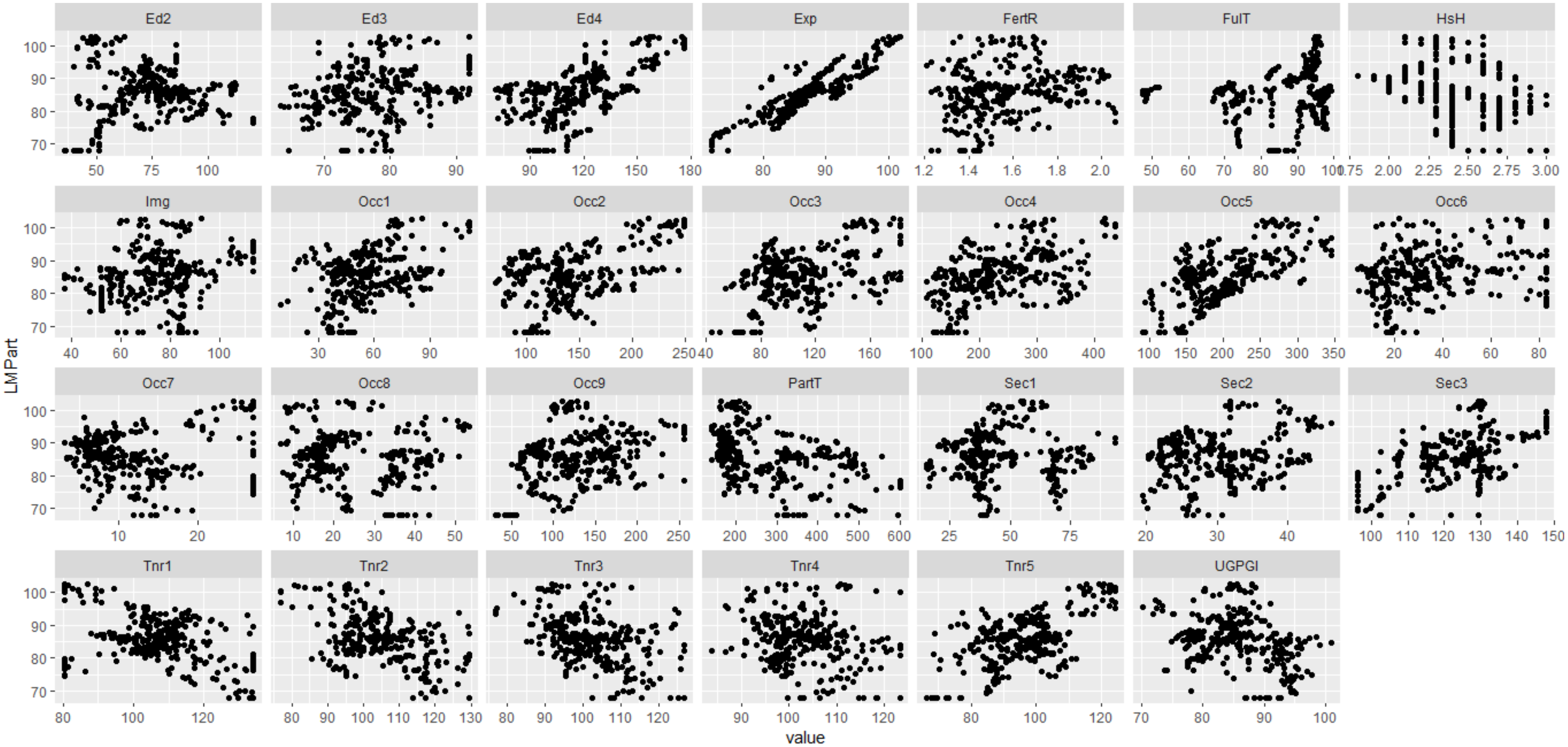

Illustration 33 – Relationships with “LMPart”.

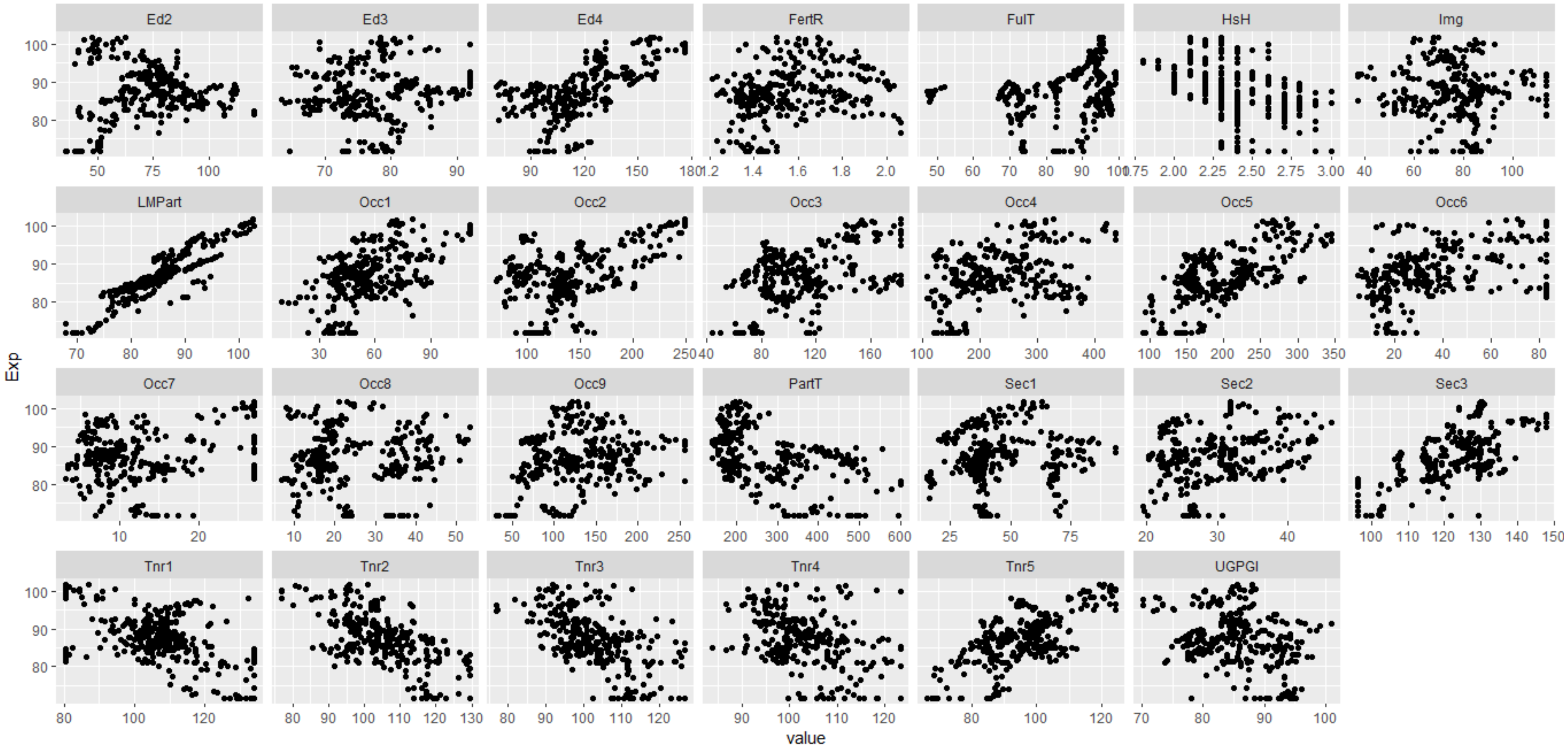

Illustration 34 – Relationships with "Exp".

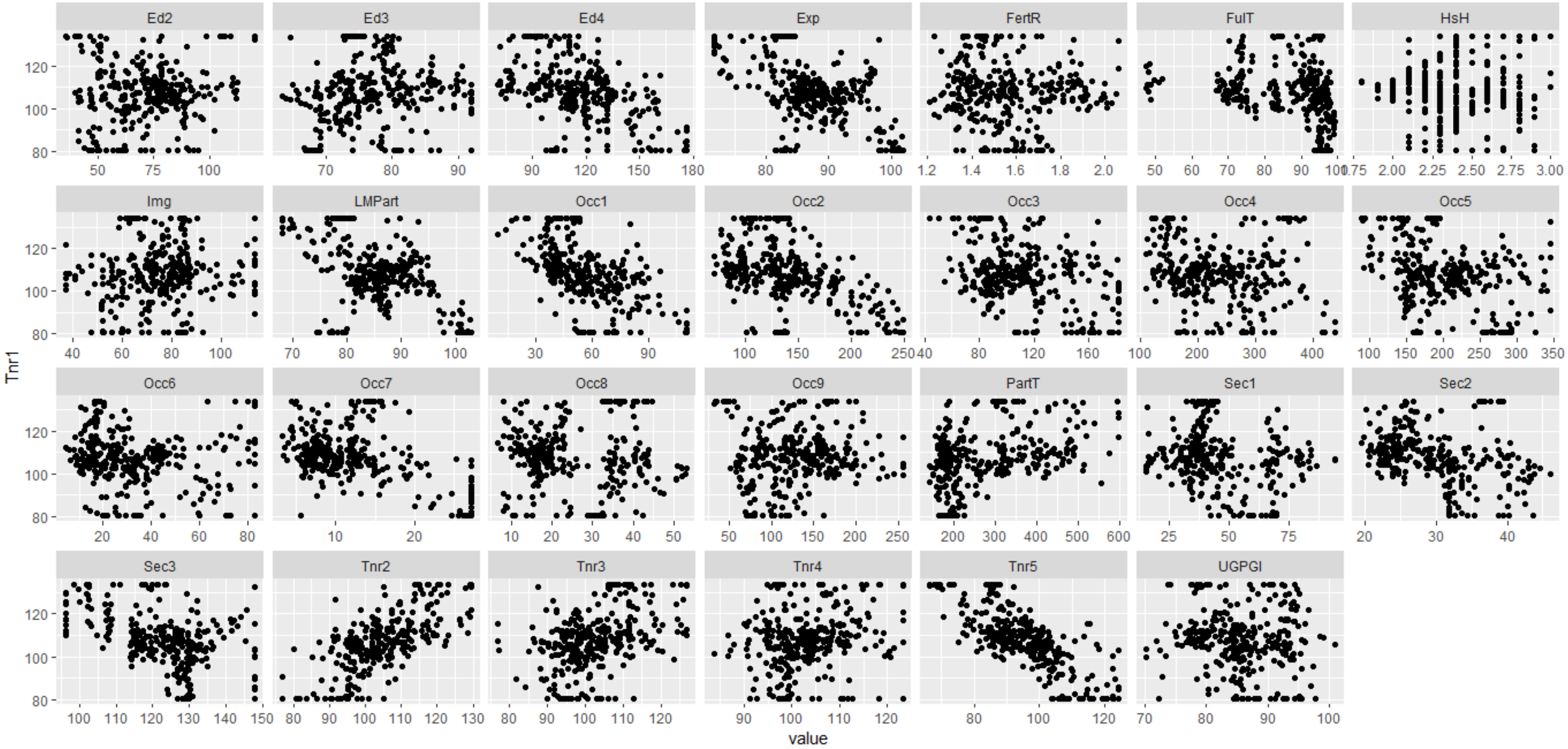

Illustration 35 – Relationships with "Tnr1".

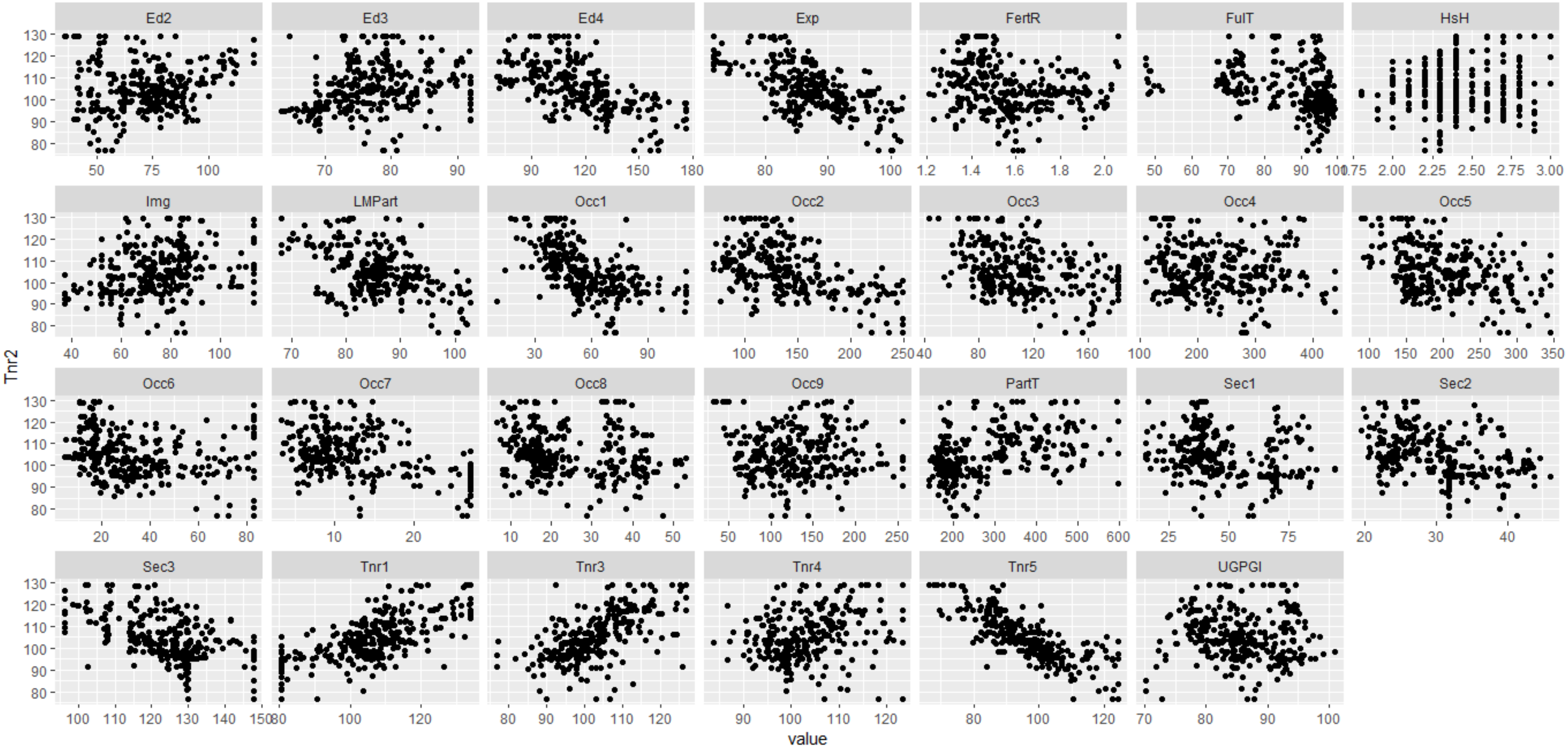

Illustration 36 – Relationships with "Tnr2".

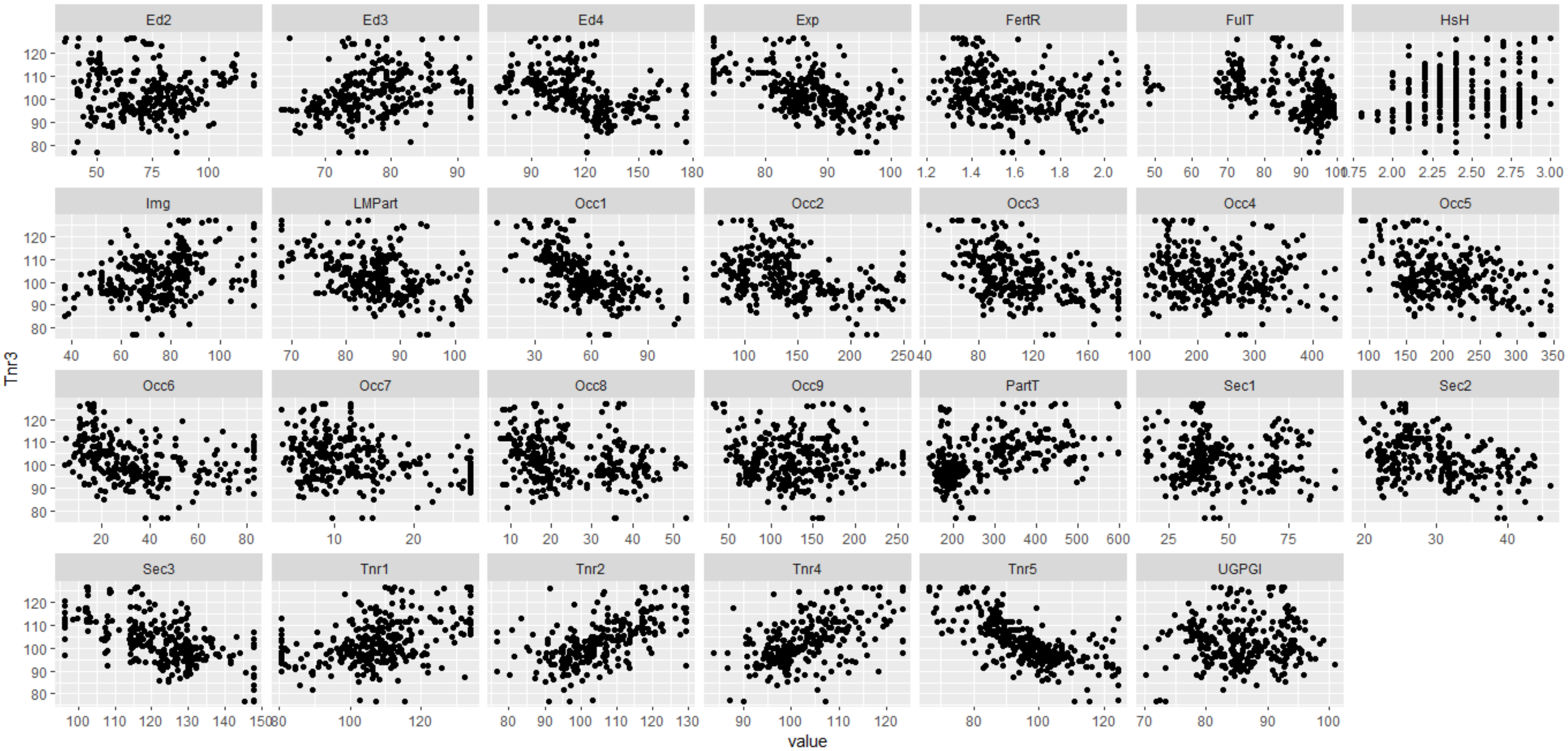

Illustration 37 – Relationships with “Tnr3”.

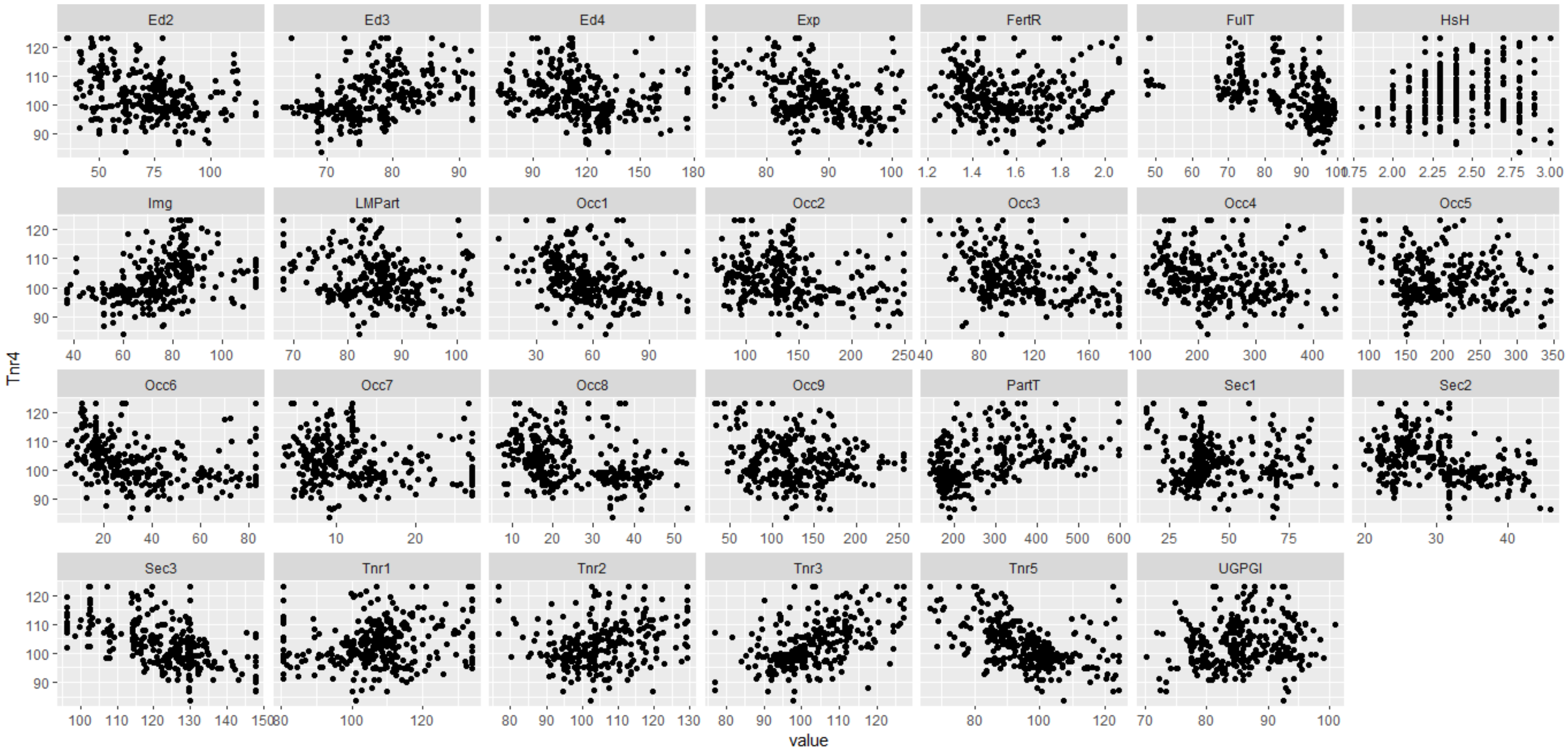

Illustration 38 – Relationships with “Tnr4”.

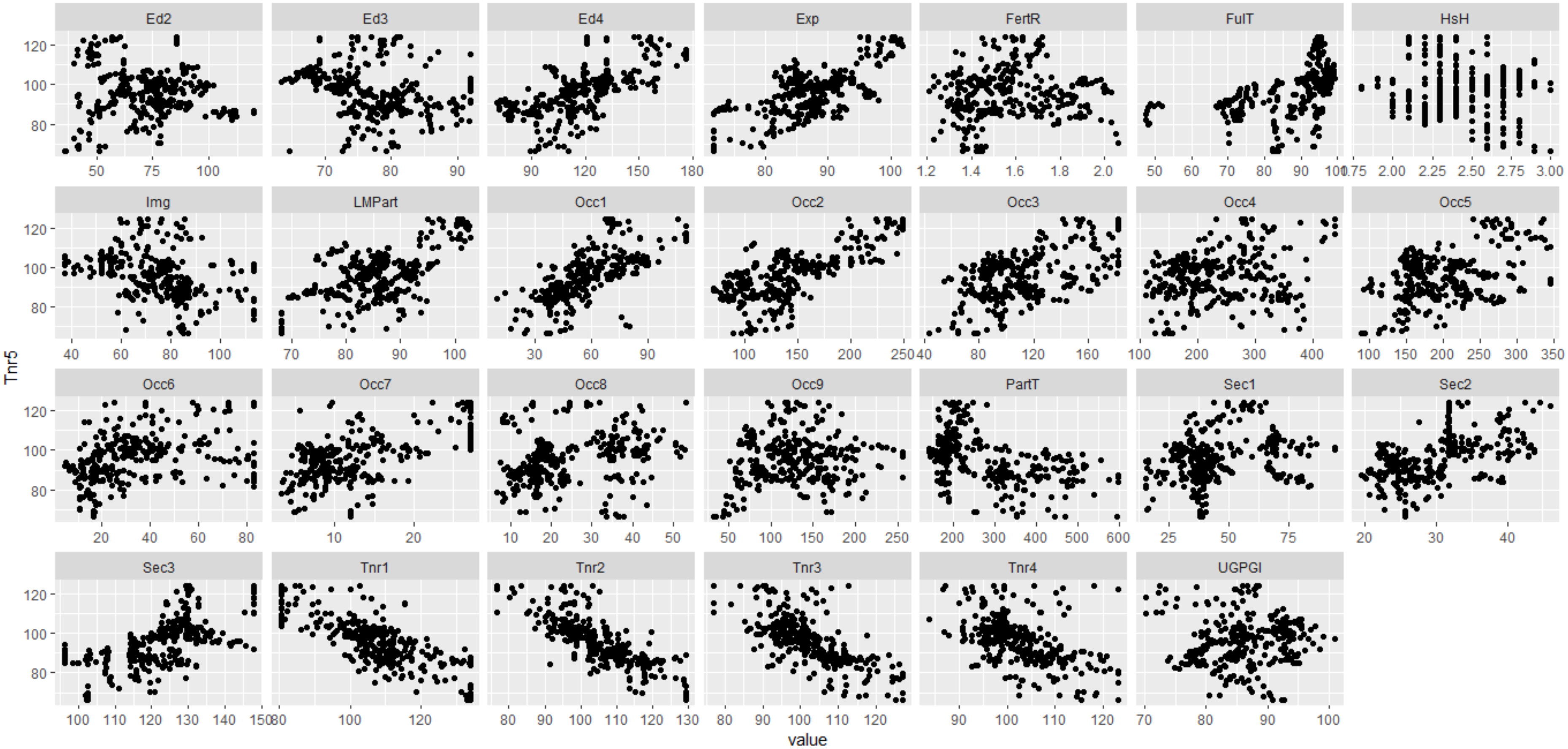

Illustration 39 – Relationships with “Tnr5”.

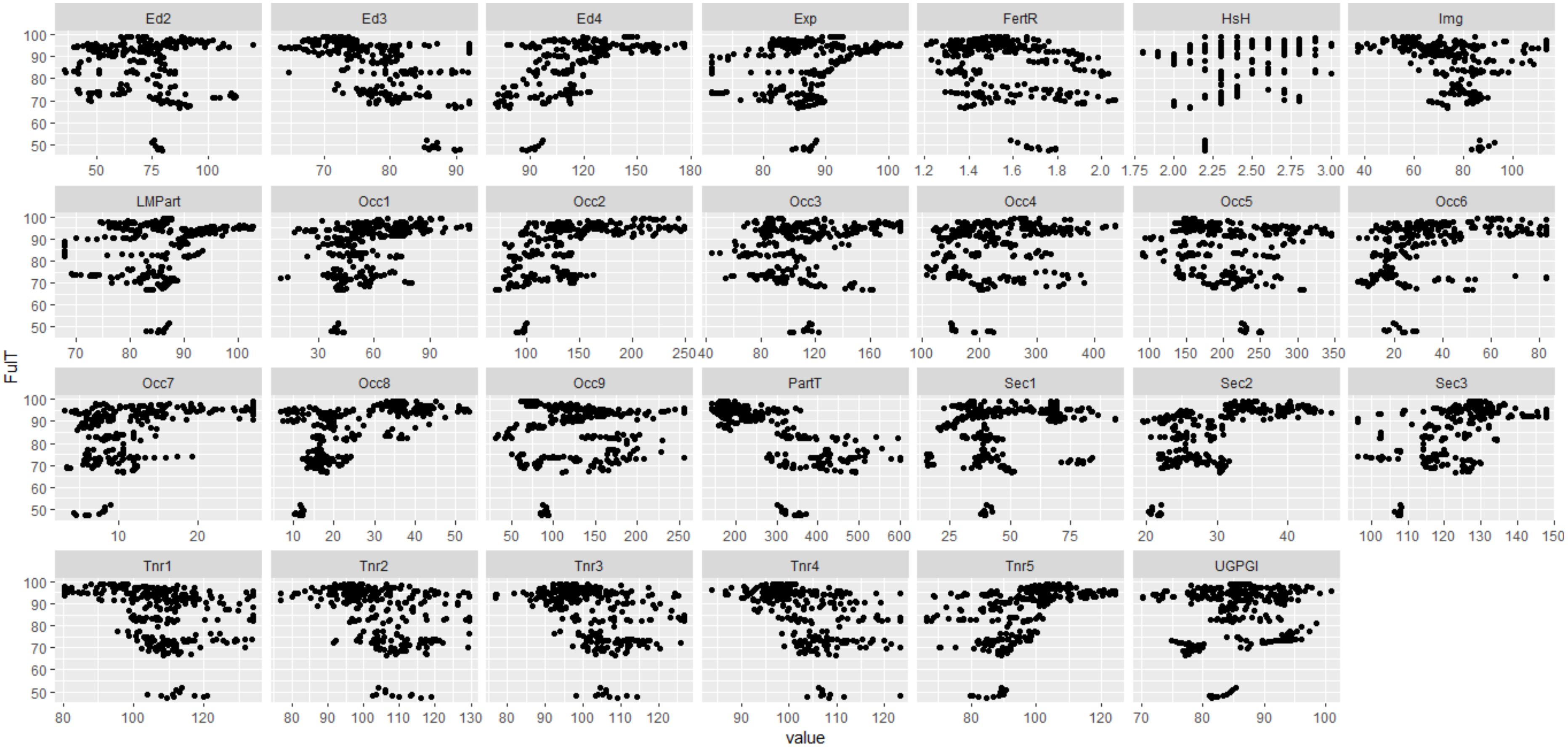

Illustration 40 – Relationships with "FulT".

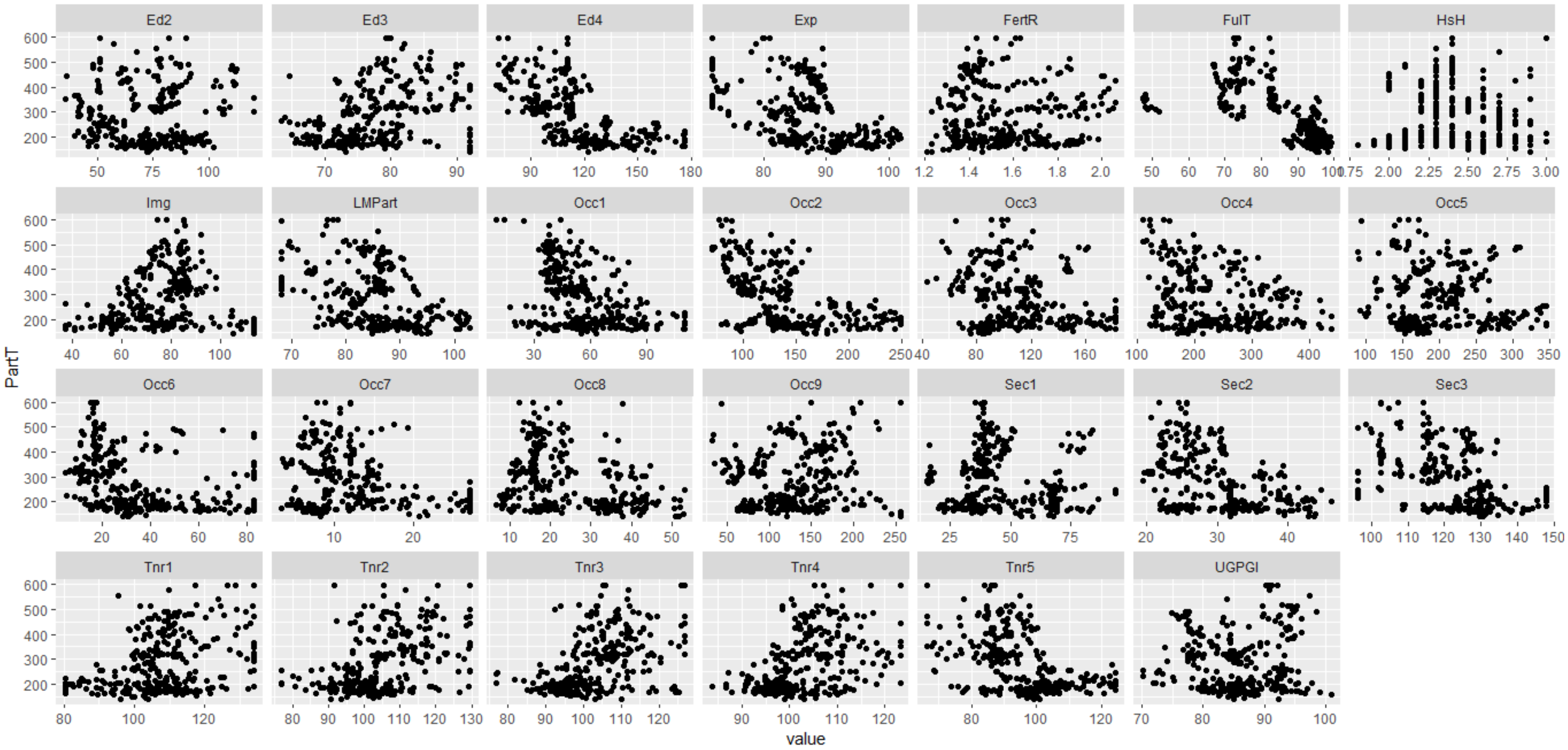

Illustration 41 – Relationships with "PartT".

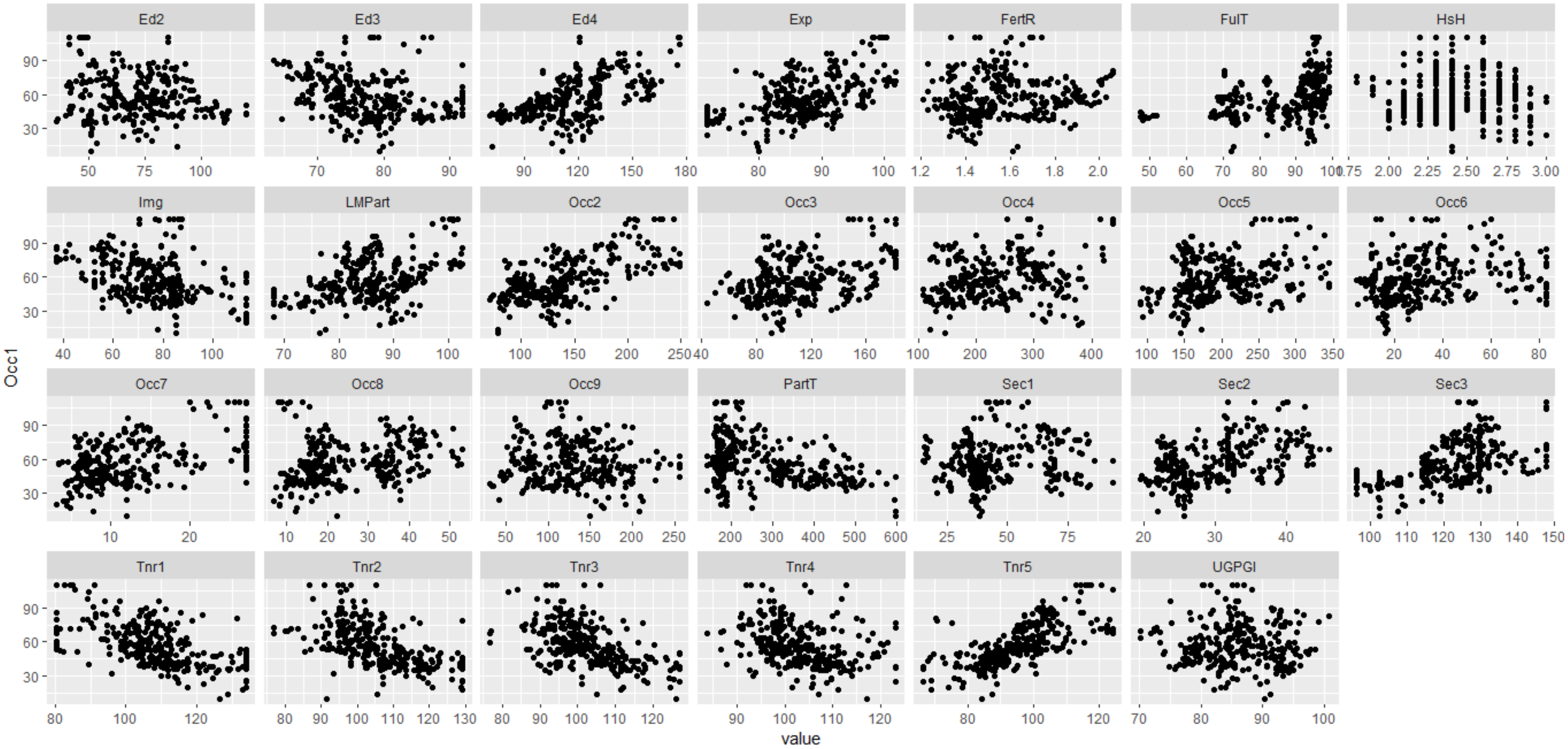

Illustration 42 – Relationships with “Occ1”.

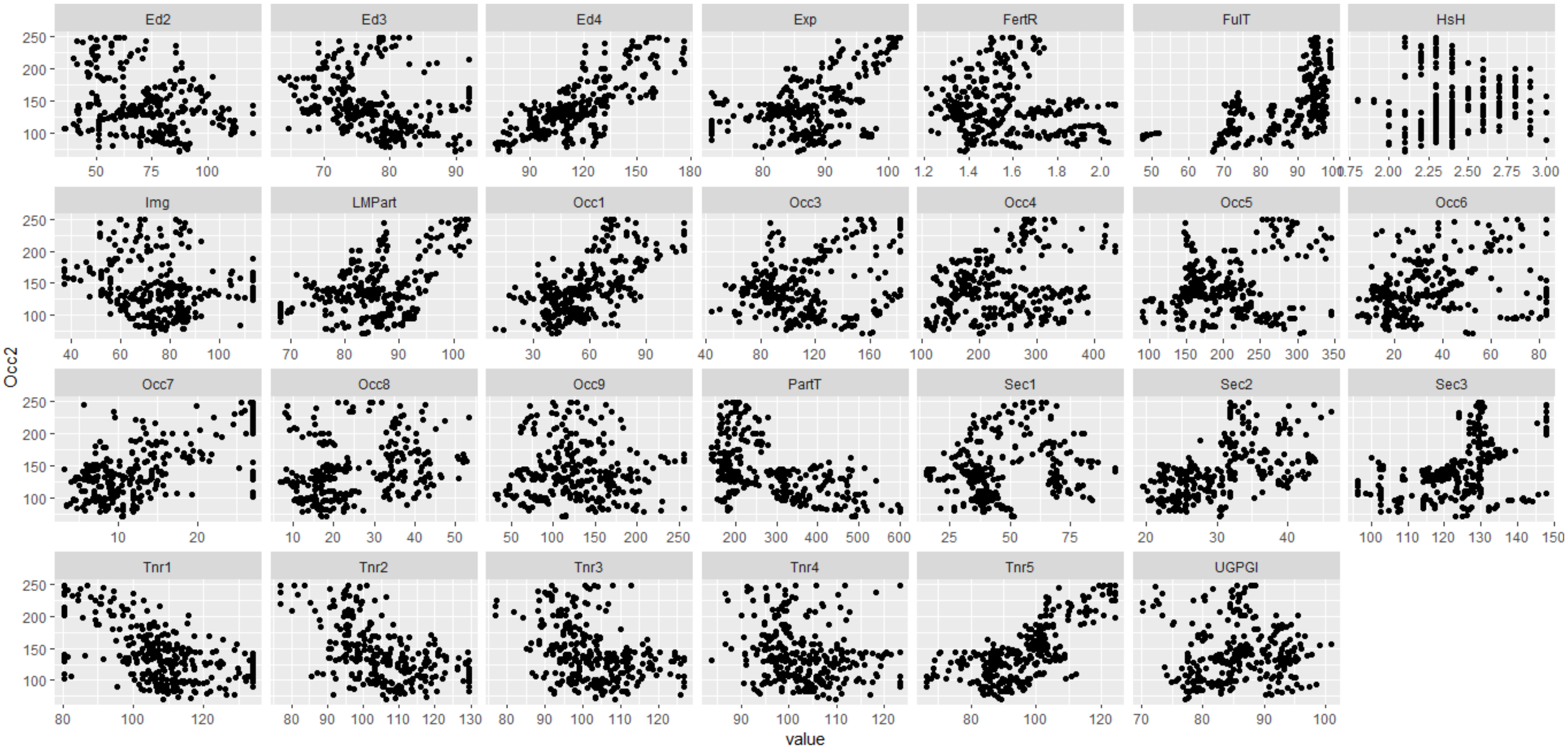

Illustration 43 – Relationships with "Occ2".

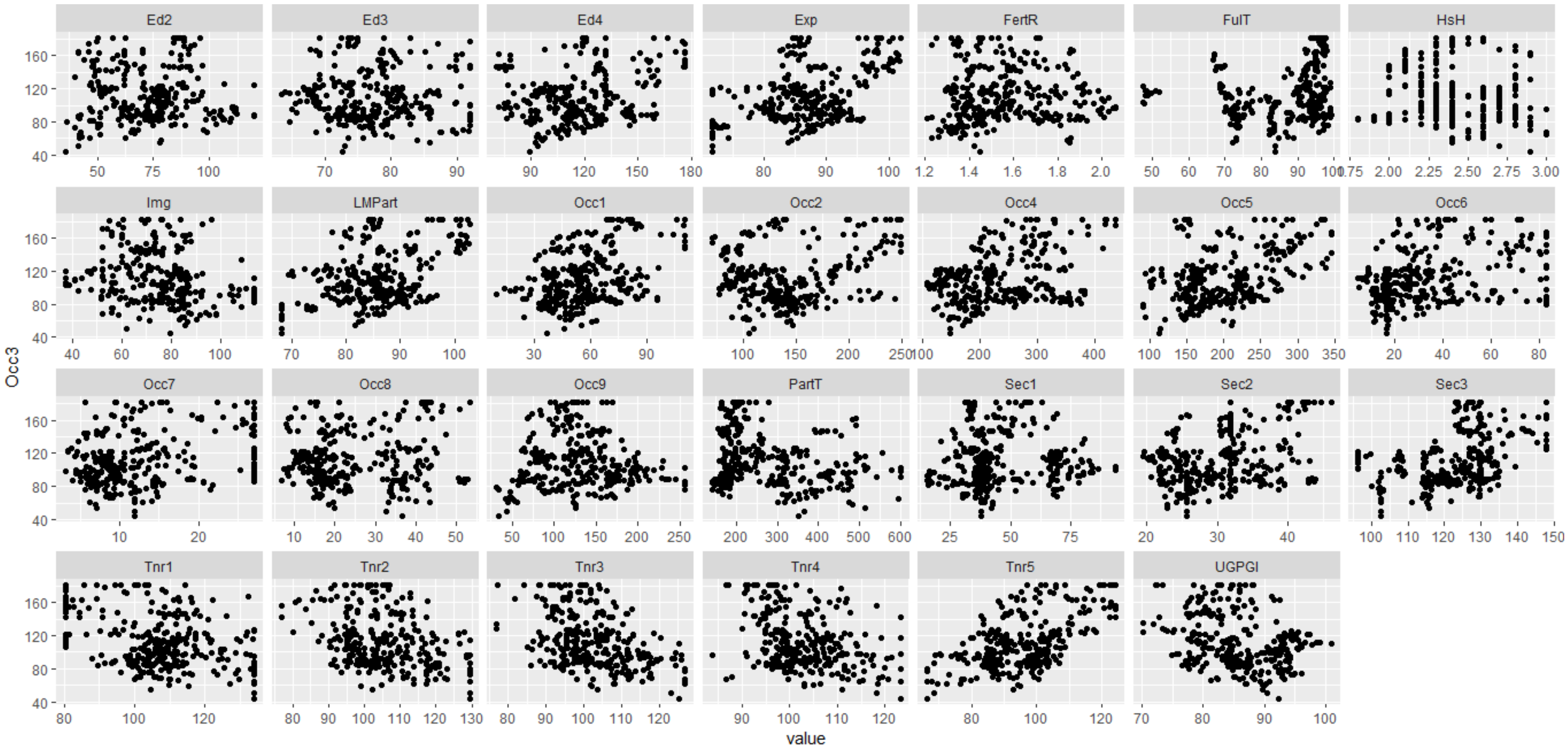

Illustration 44 – Relationships with “Occ3”.

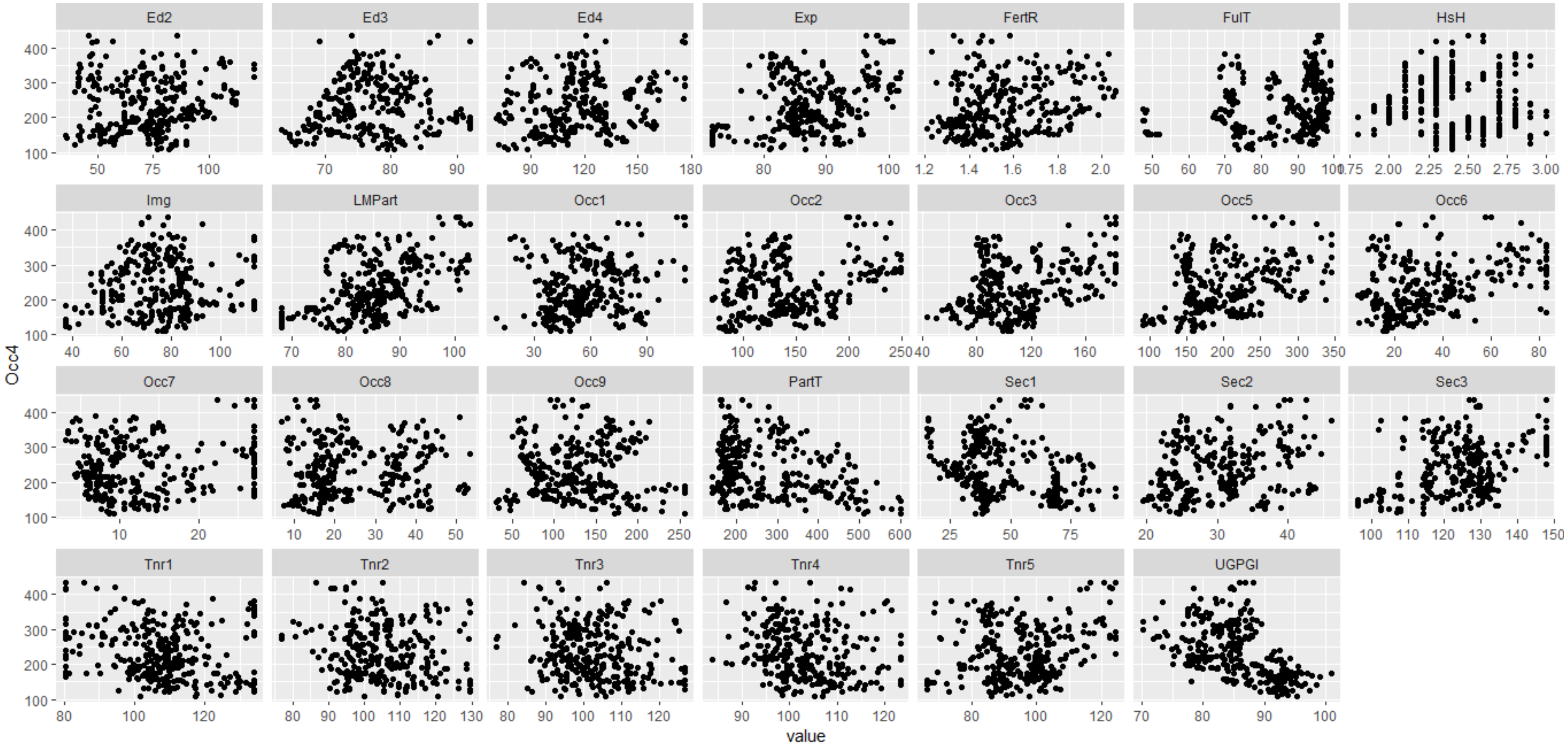

Illustration 45 – Relationships with “Occ4”.

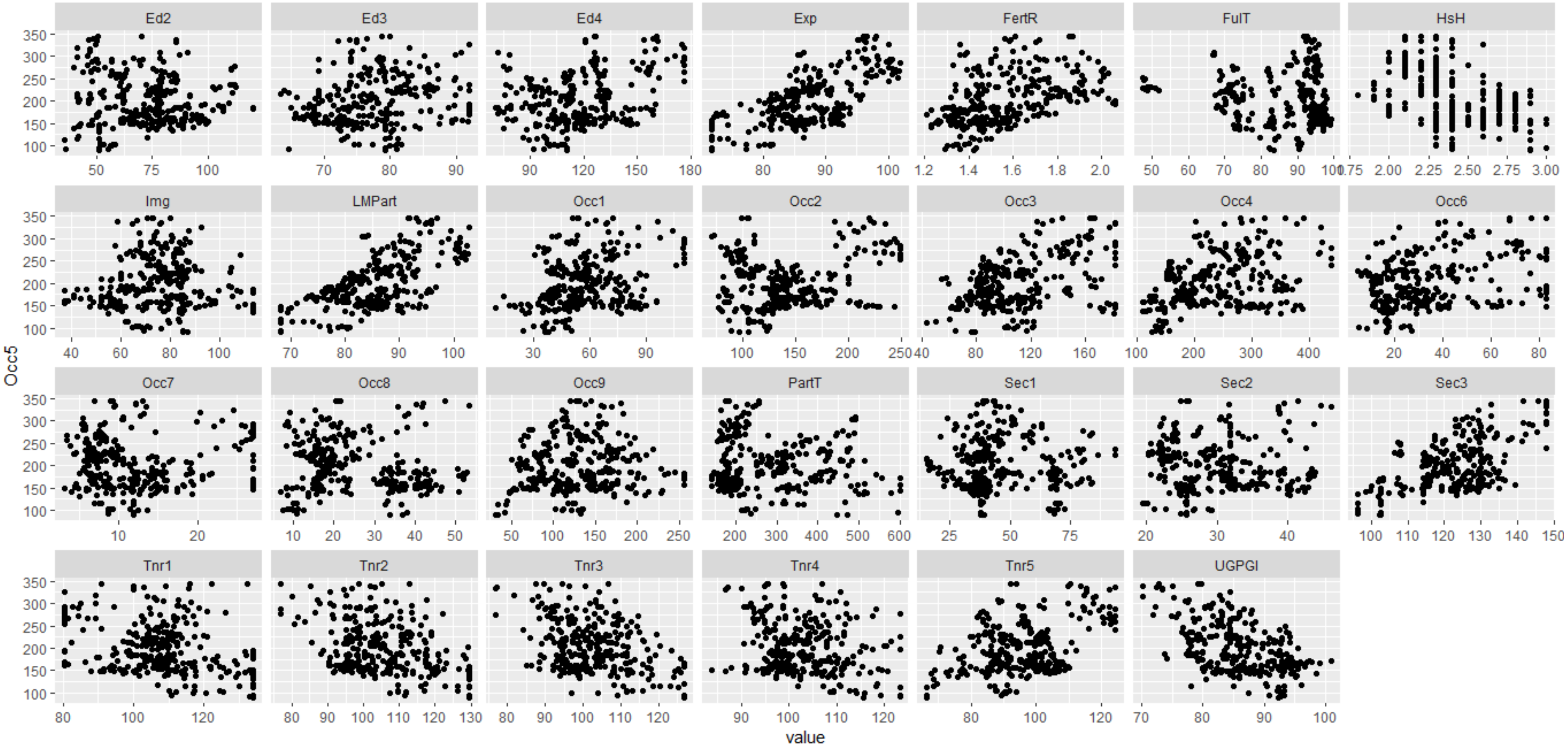

Illustration 46 – Relationships with "Occ5".

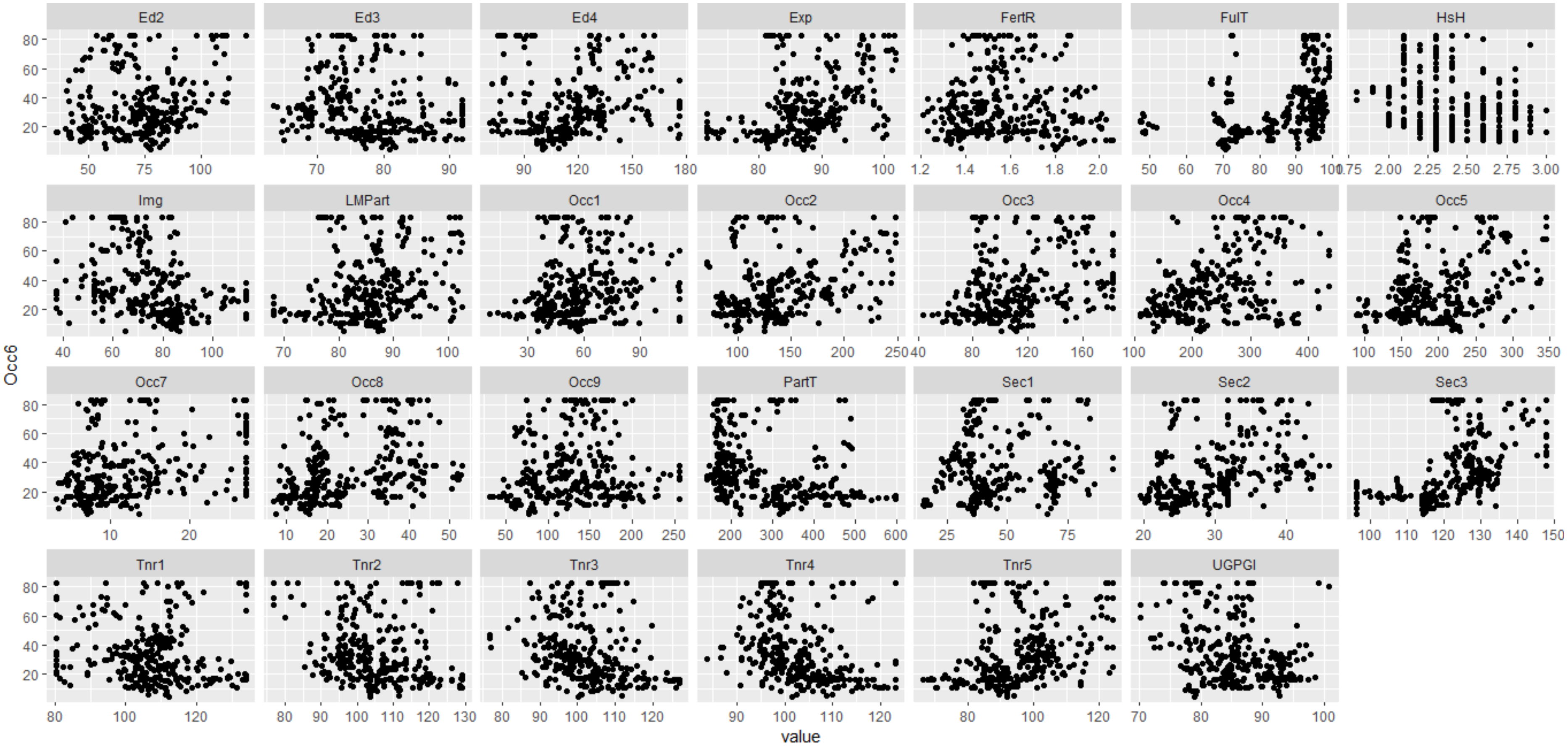

Illustration 47 – Relationships with "Occ6".

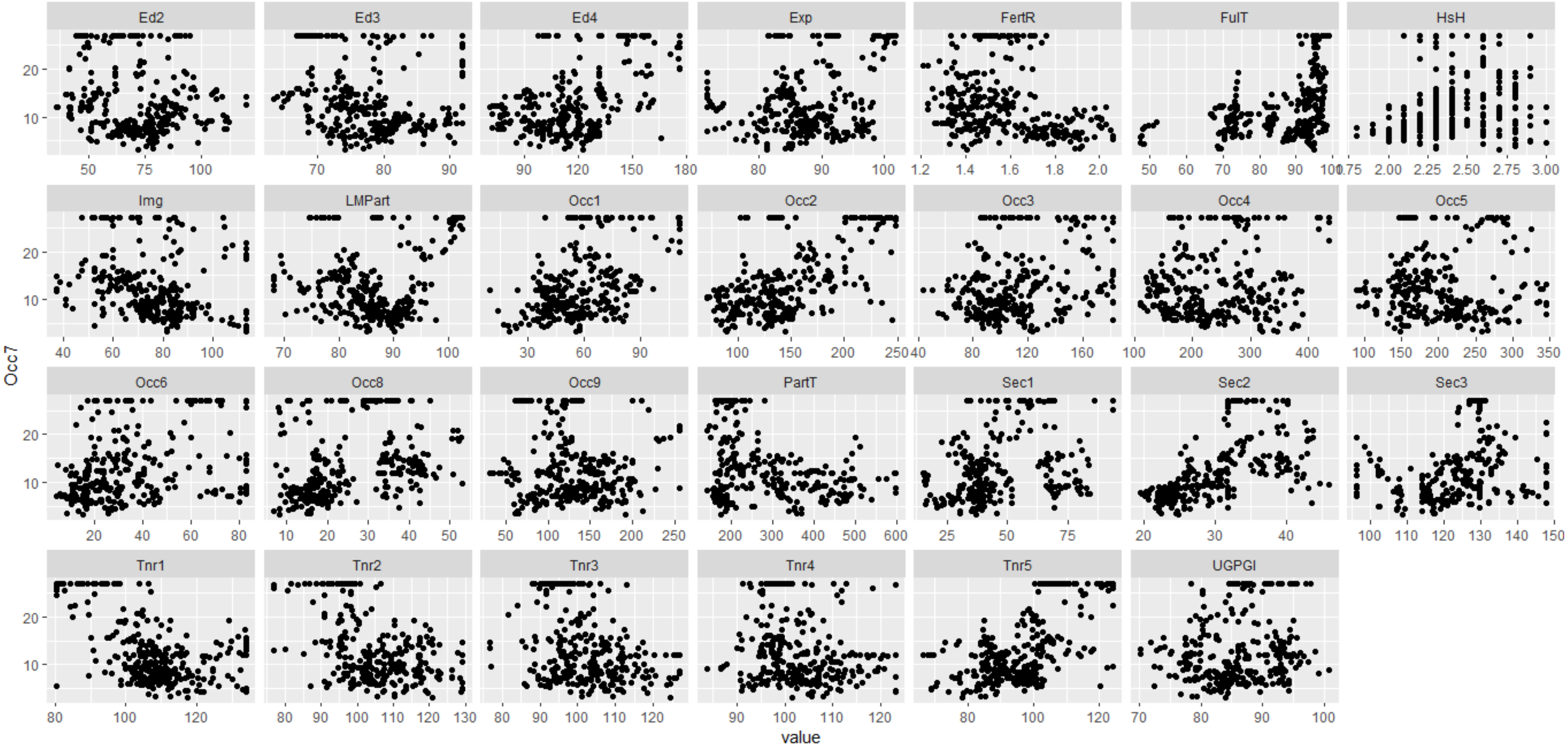

Illustration 48 – Relationships with "Occ7".

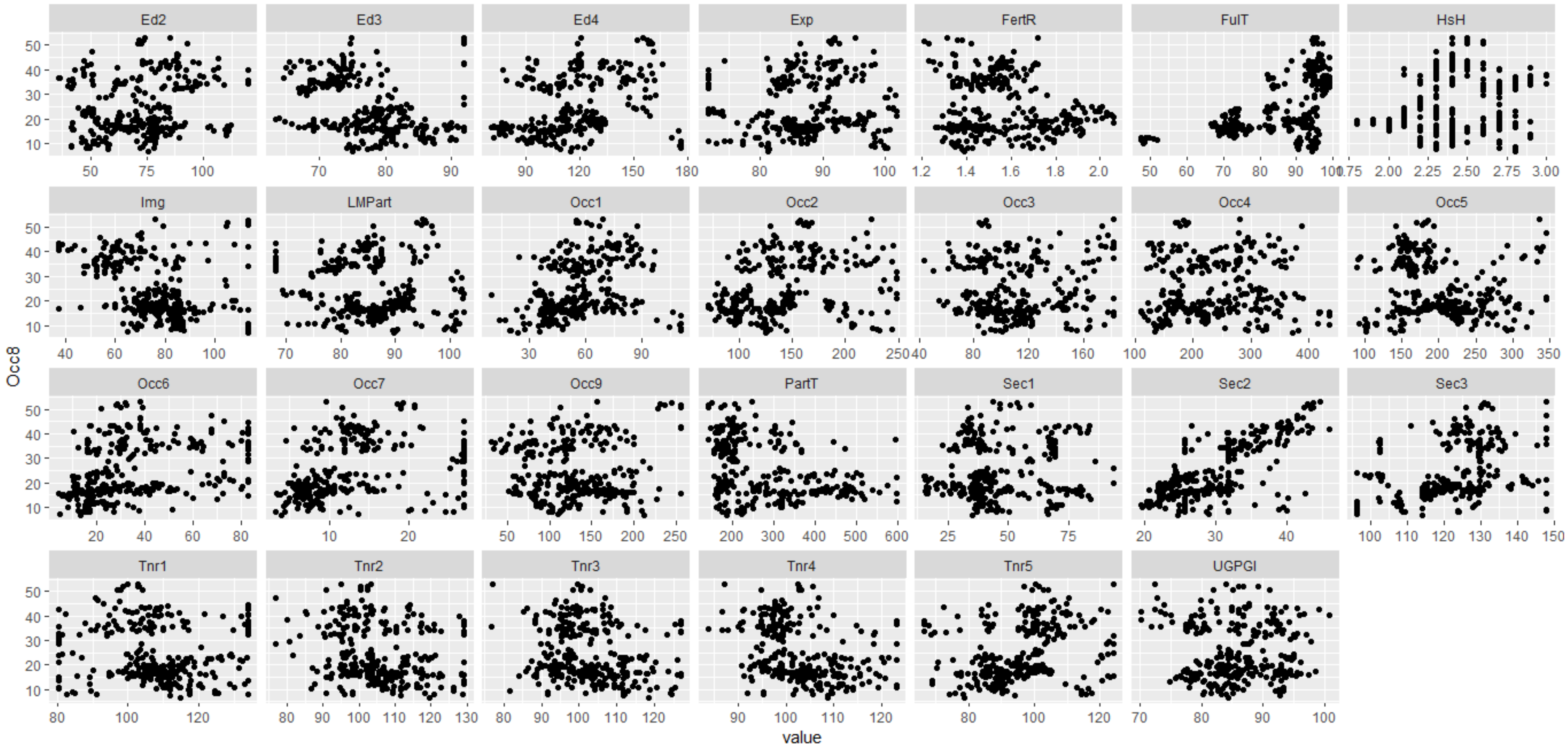

Illustration 49 – Relationships with "Occ8".

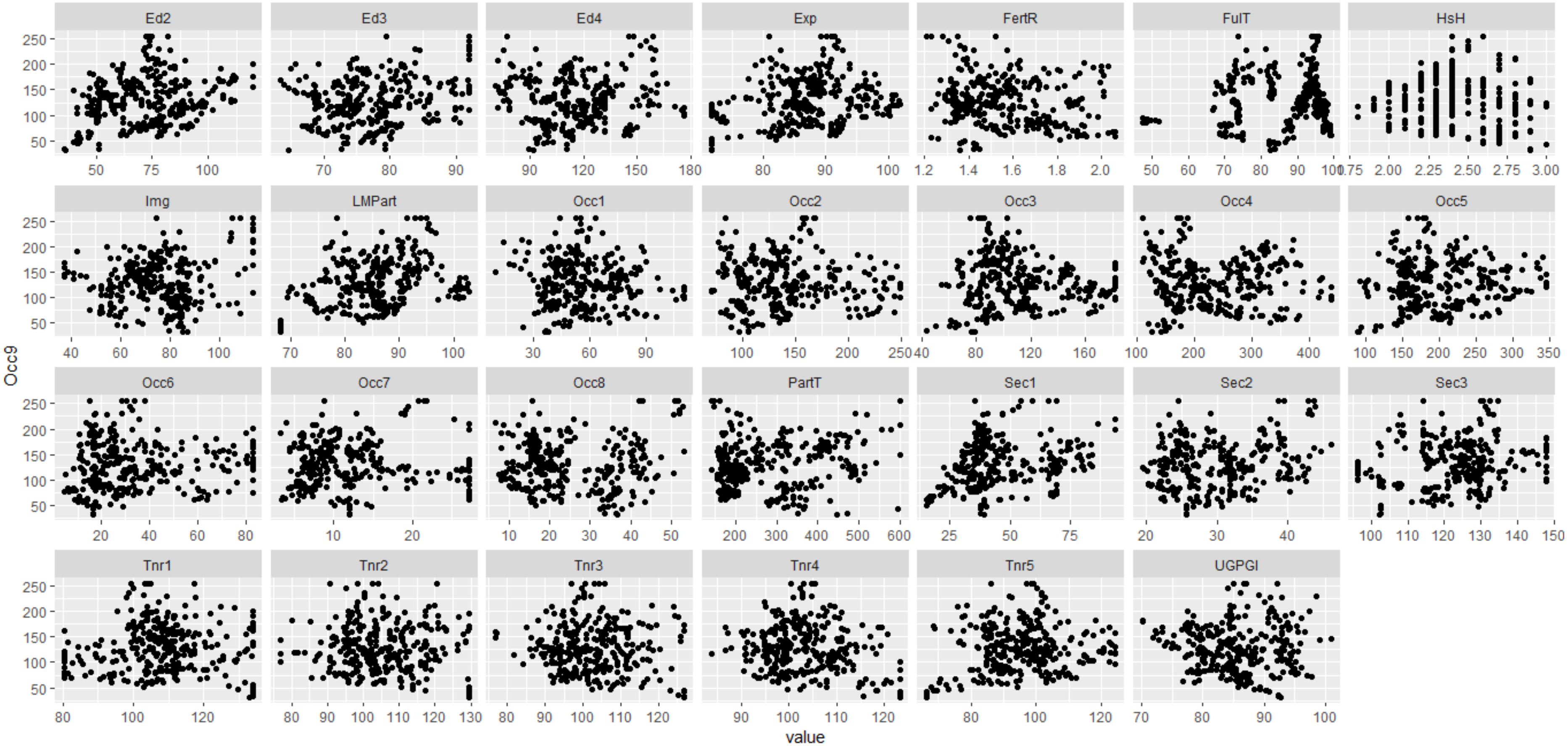

Illustration 50 – Relationships with "Occ9".

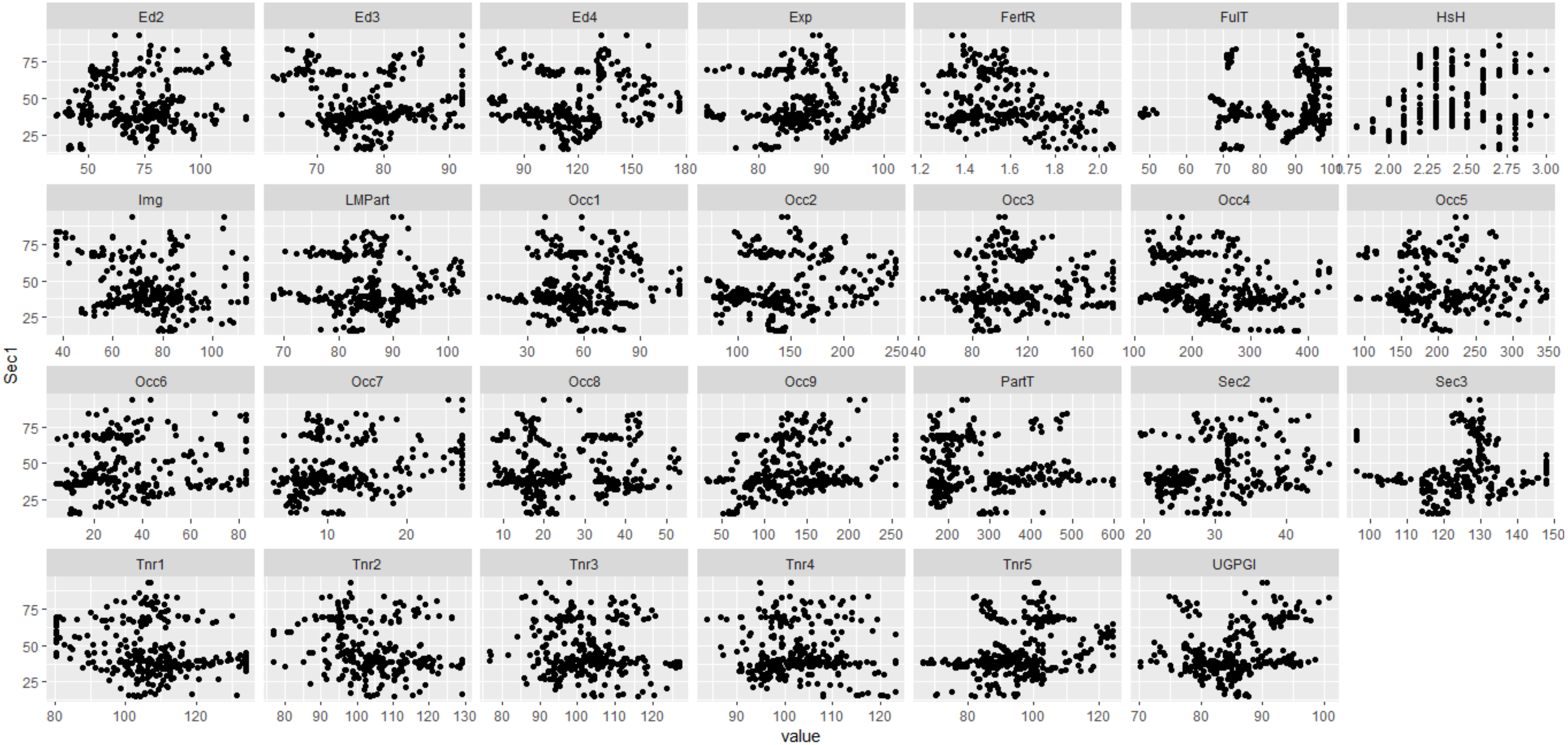

Illustration 51 – Relationships with "Sec1".

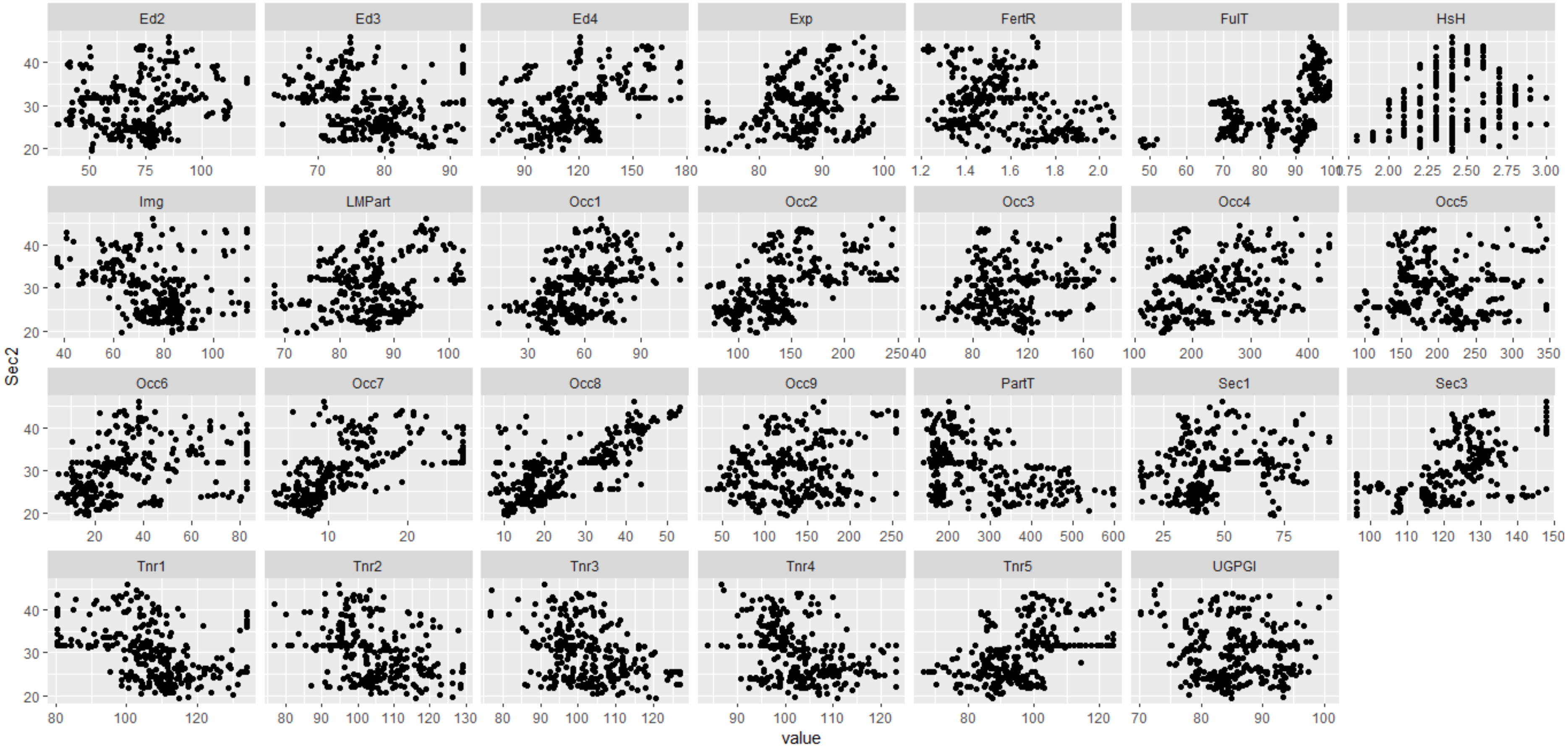

Illustration 52 – Relationships with "Sec2".

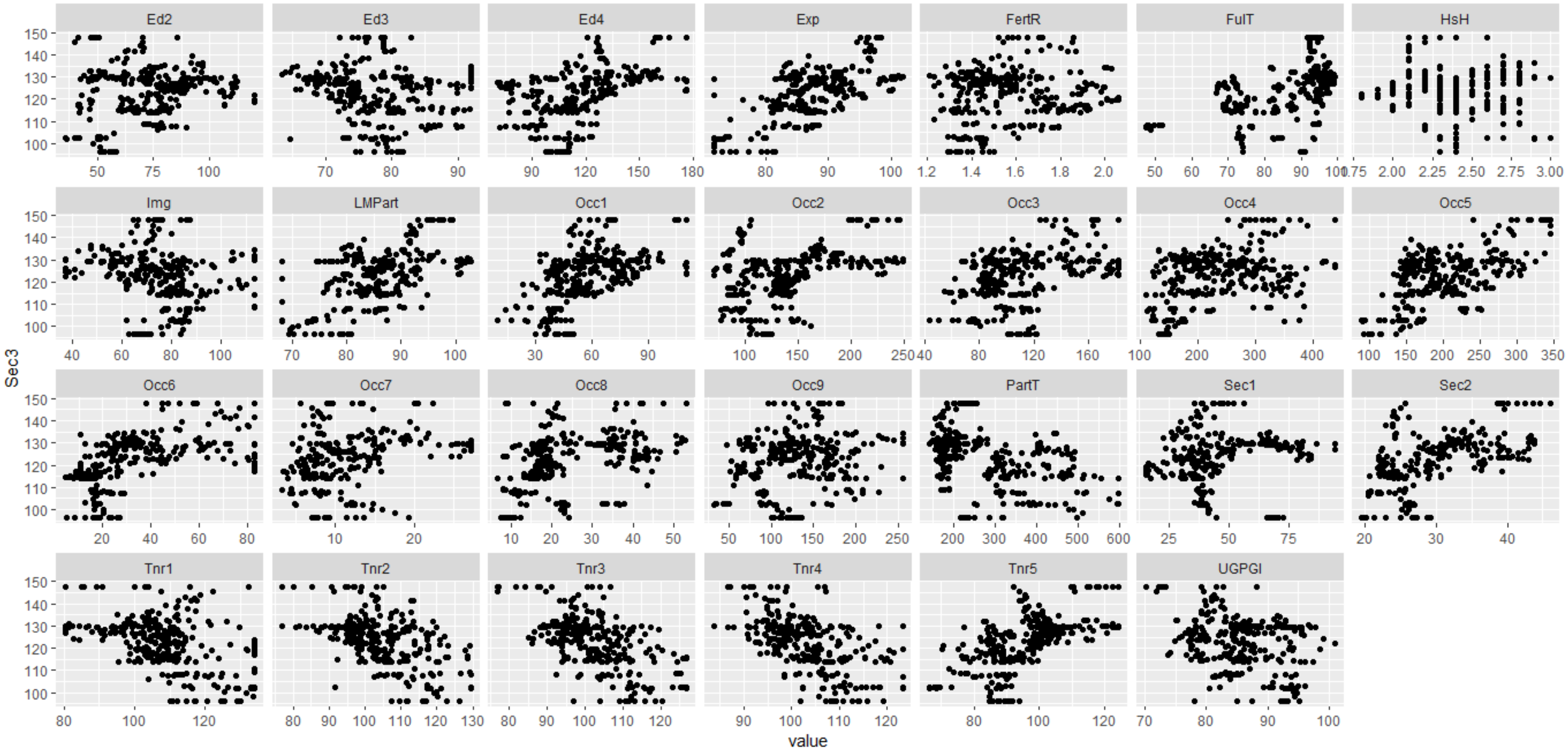

Illustration 53 – Relationships with "Sec3".

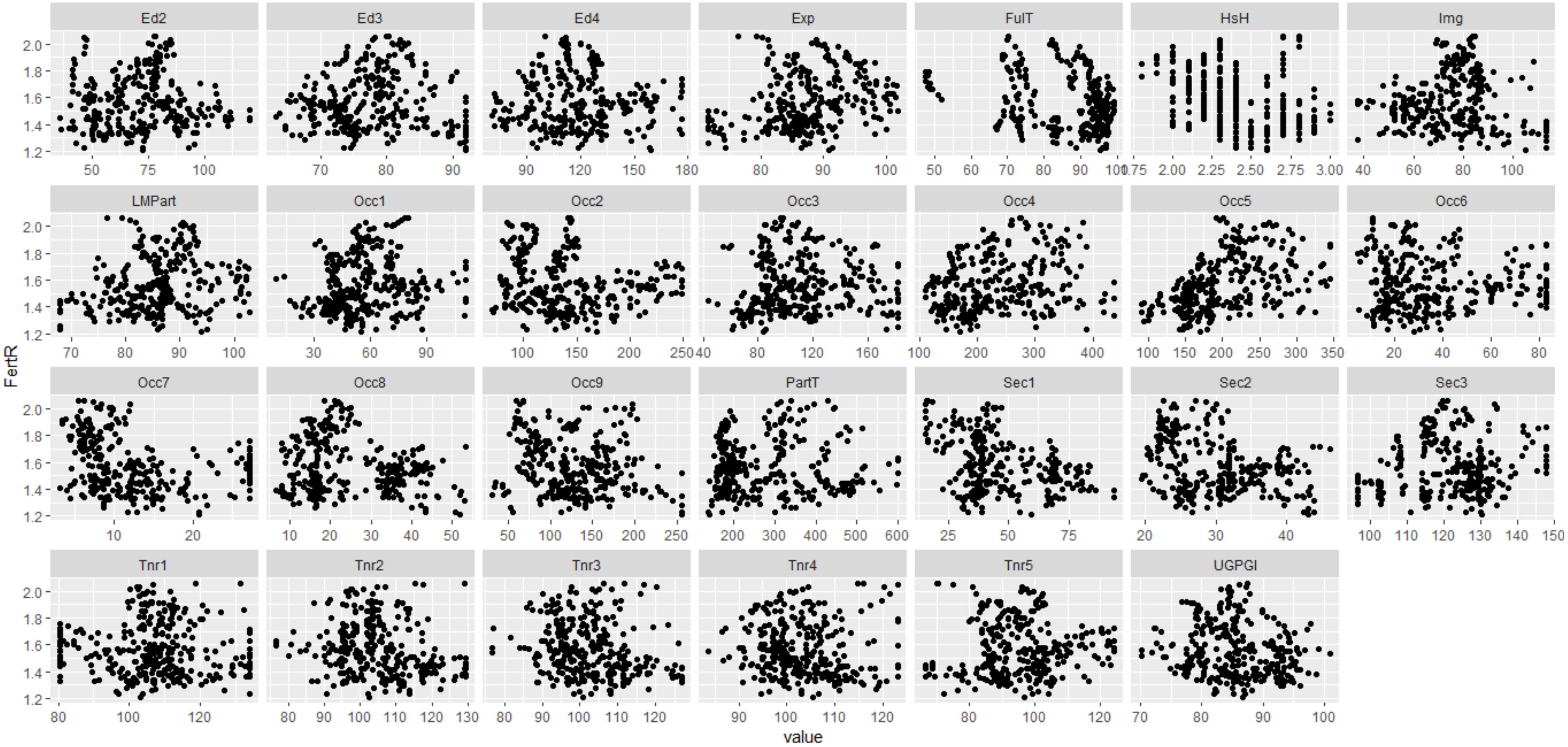

Illustration 54 – Relationships with "FertR".

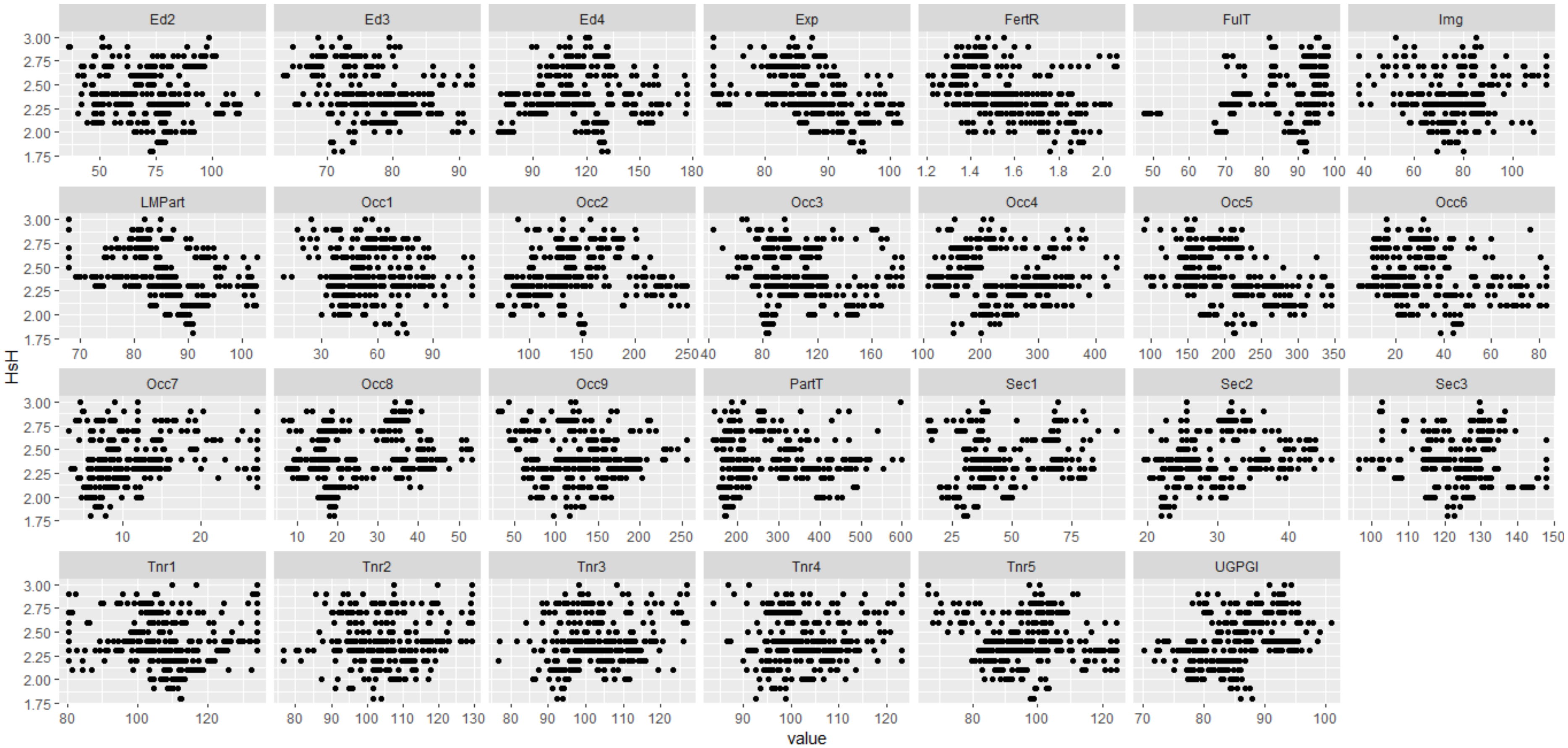

Illustration 55 – Relationships with "HsH".

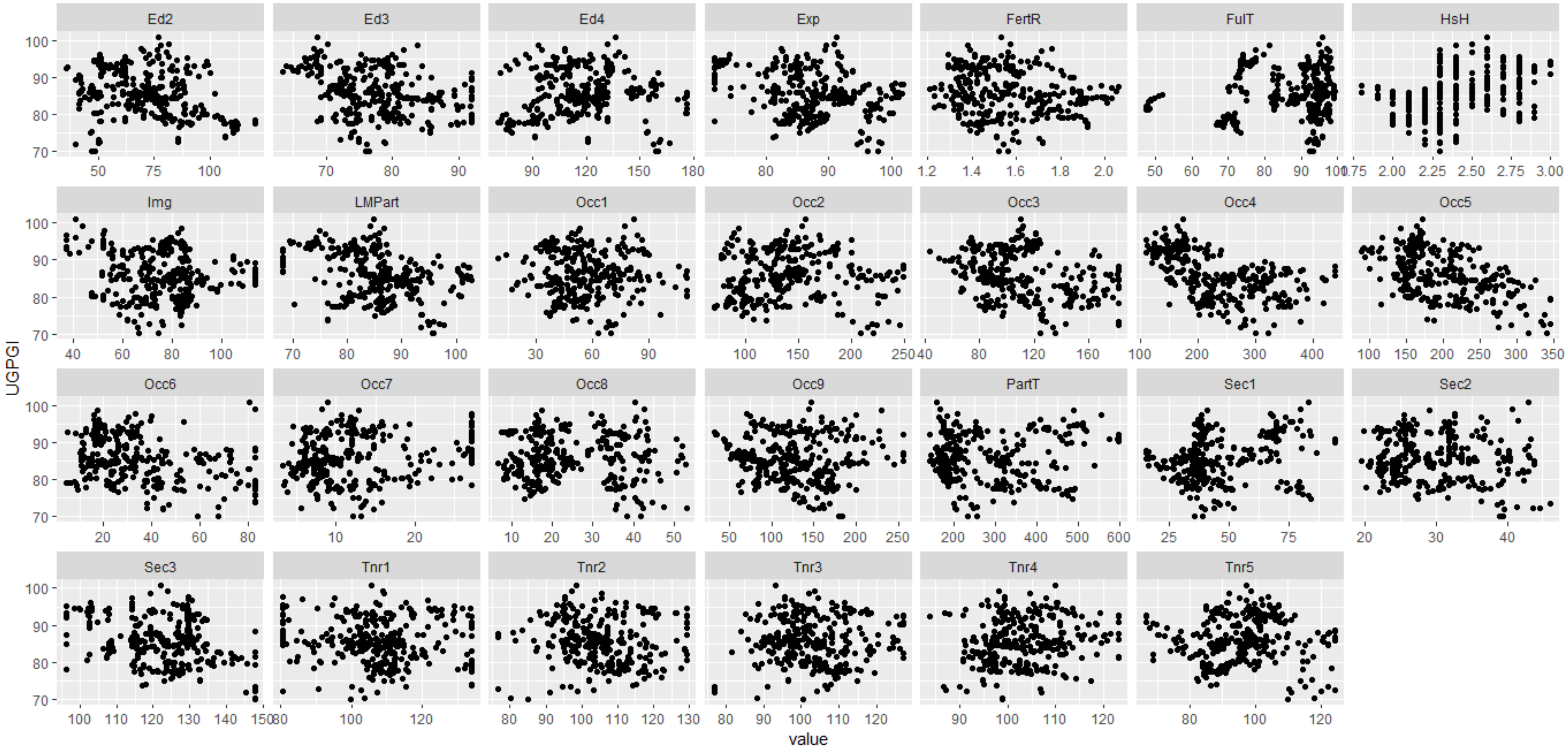

Illustration 56 – Relationships with "UGPGI".

Annex III – Display of the general view of the dashboard.

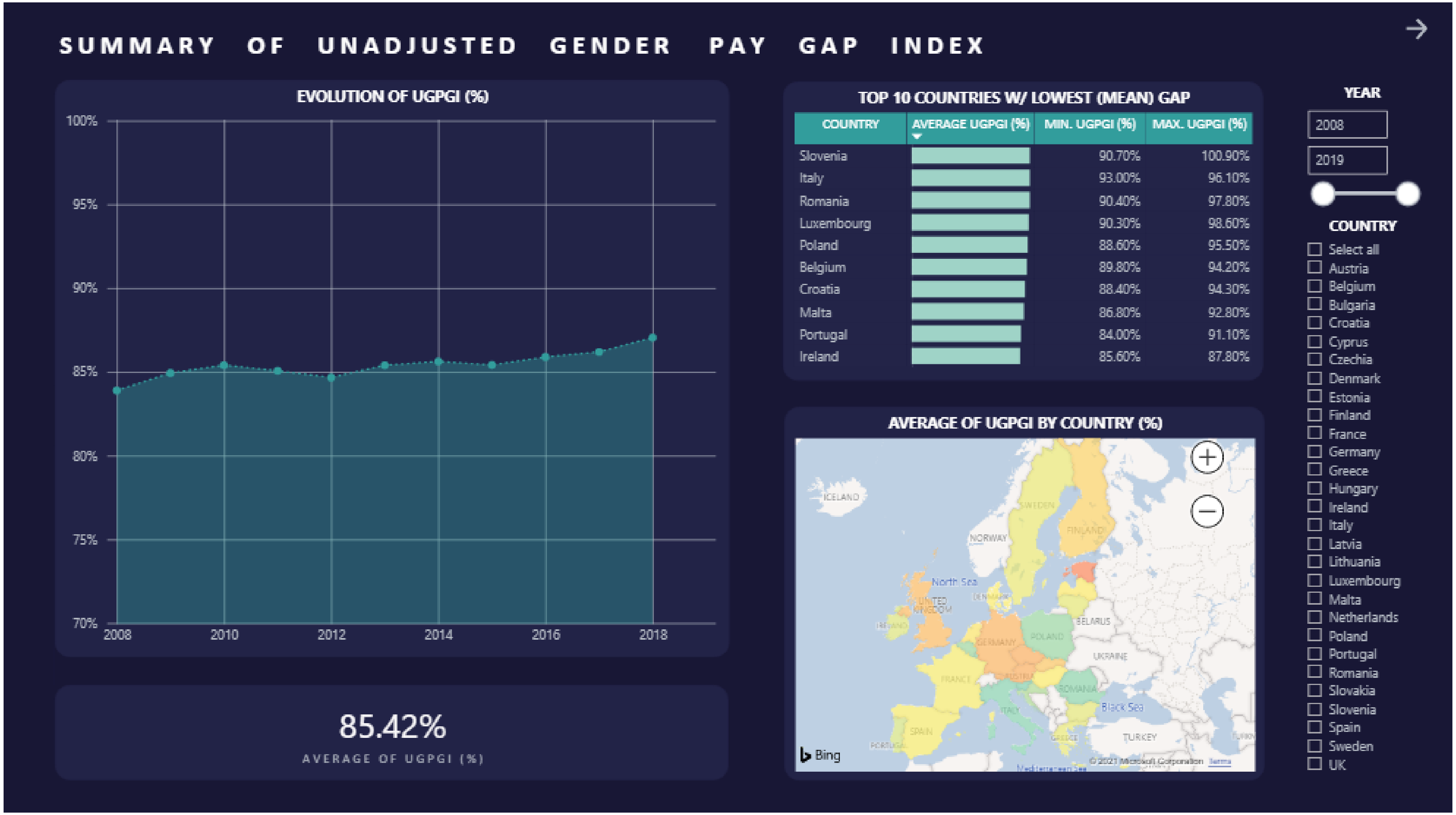

Illustration 57 – "Summary of UGPGI" sheet.

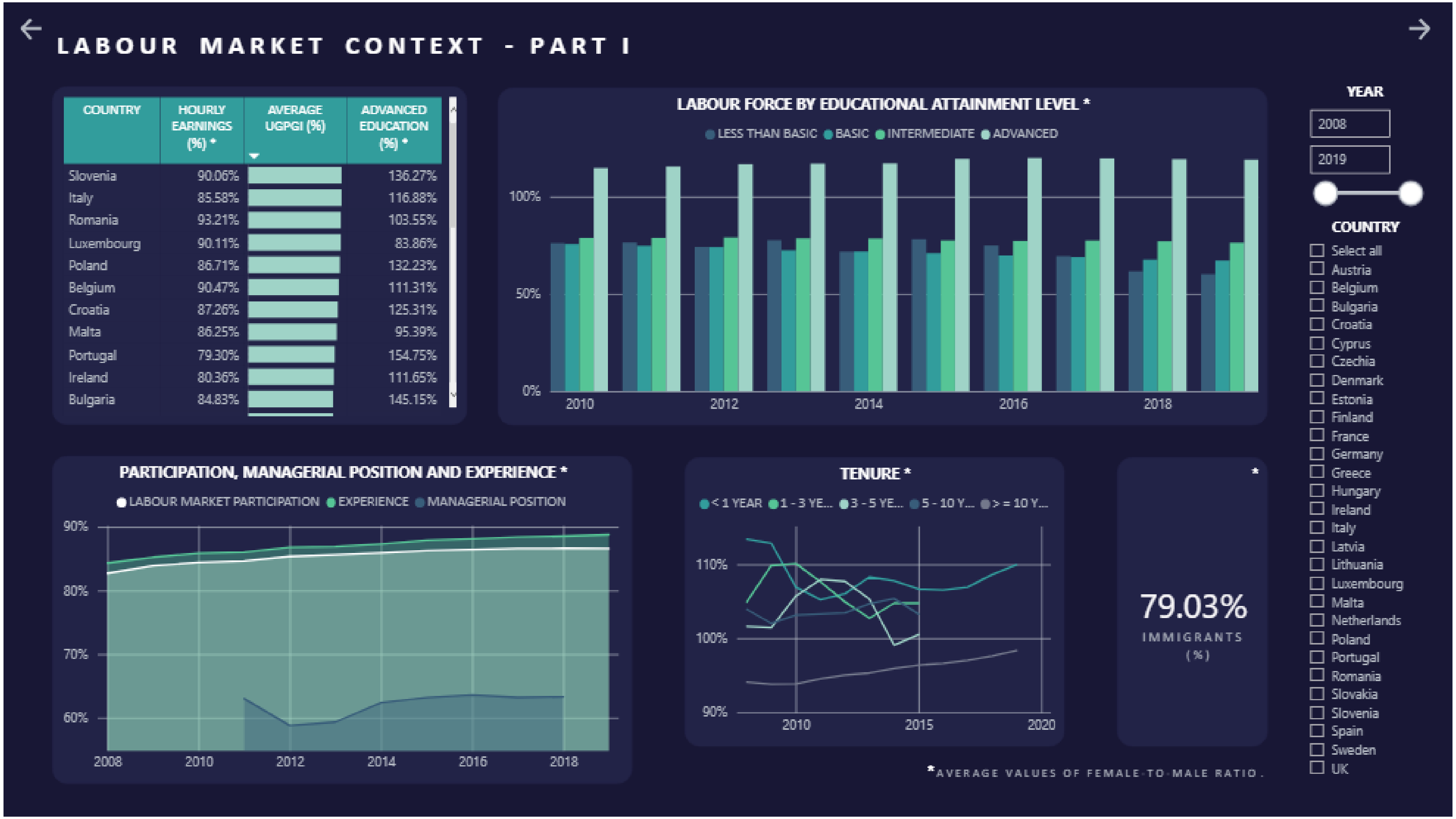

Illustration 58 – "Labour Market I" sheet.

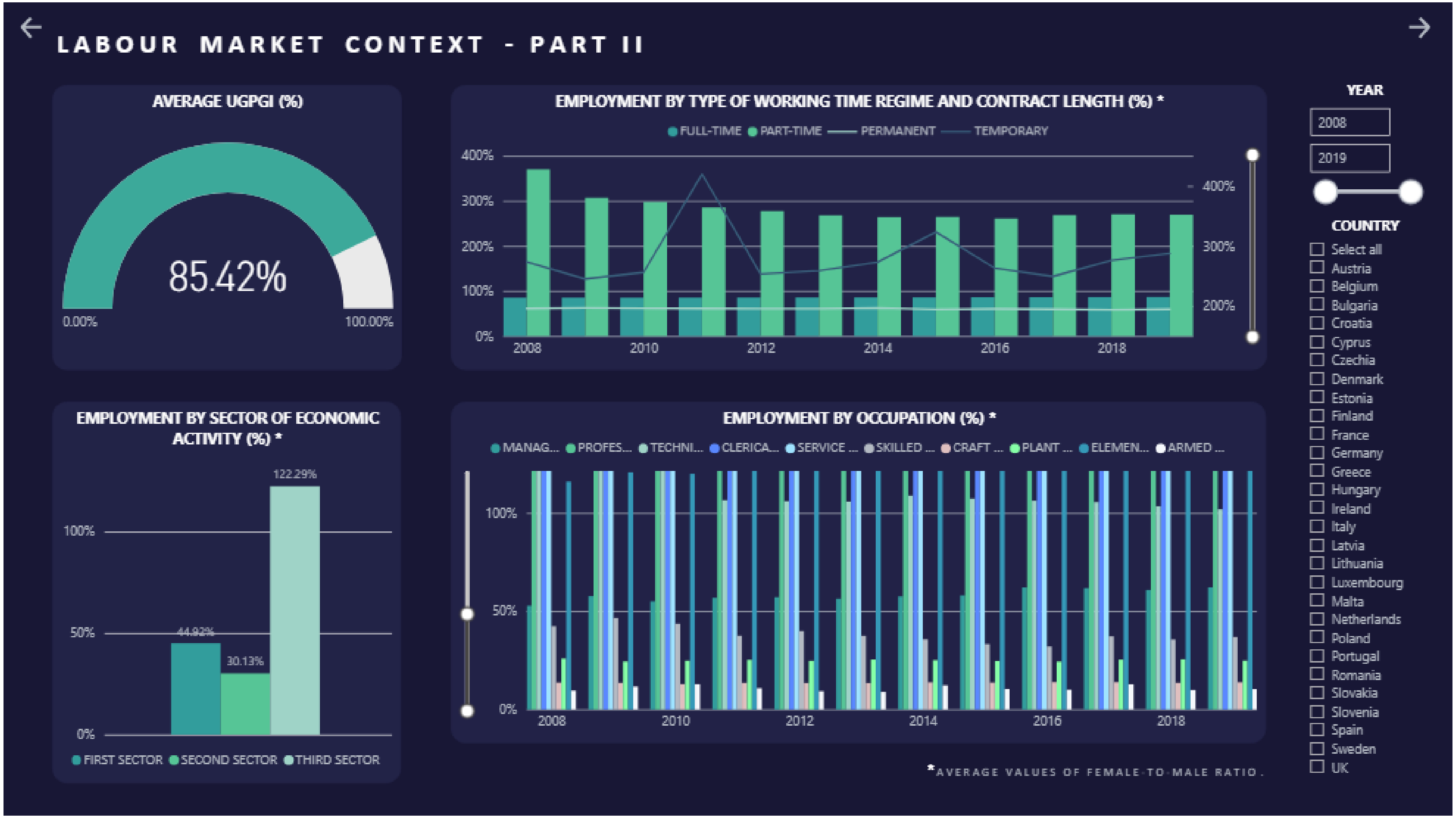

Illustration 59 – “Labour Market II” sheet.

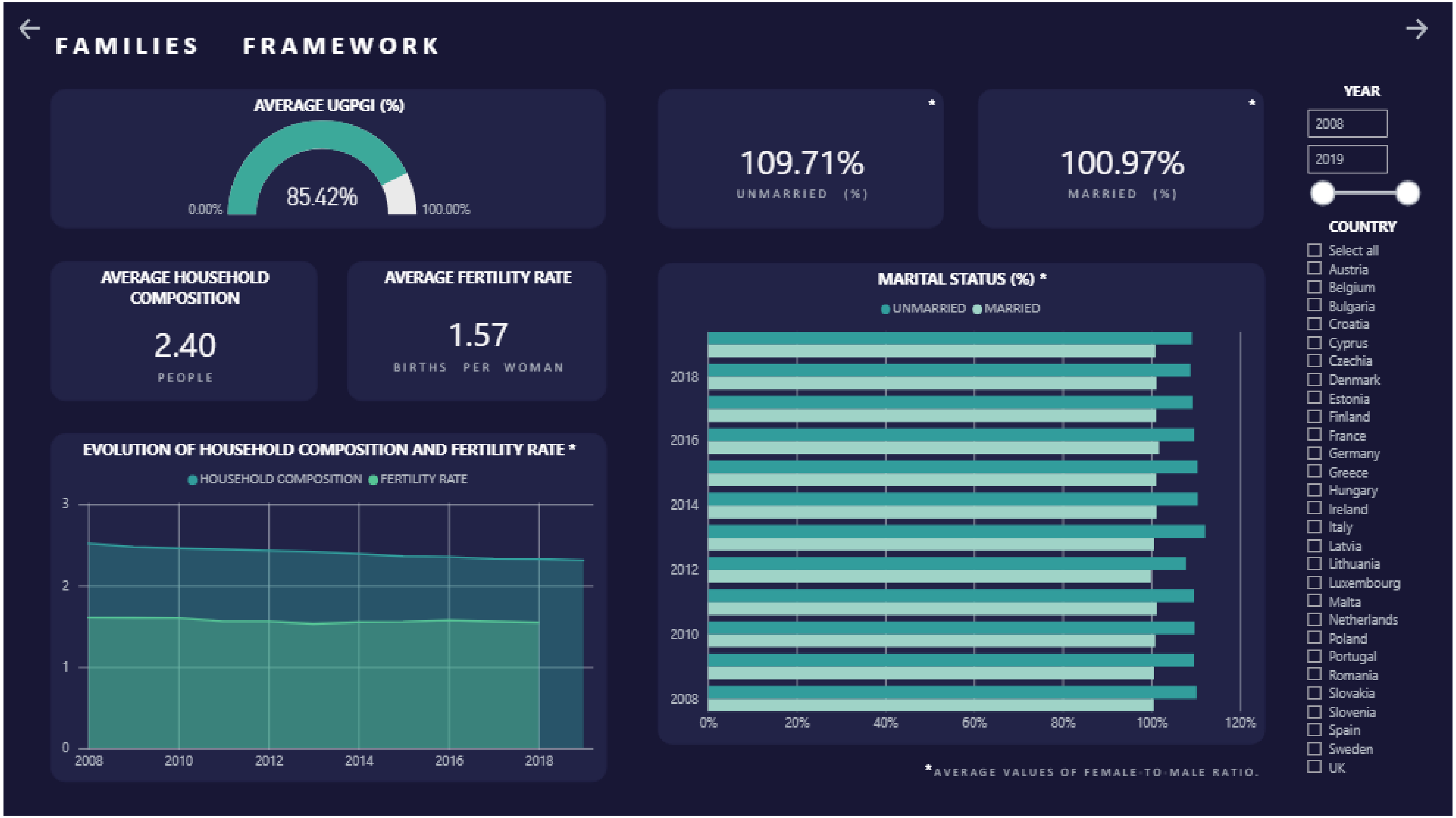

Illustration 60 – "Family" sheet.

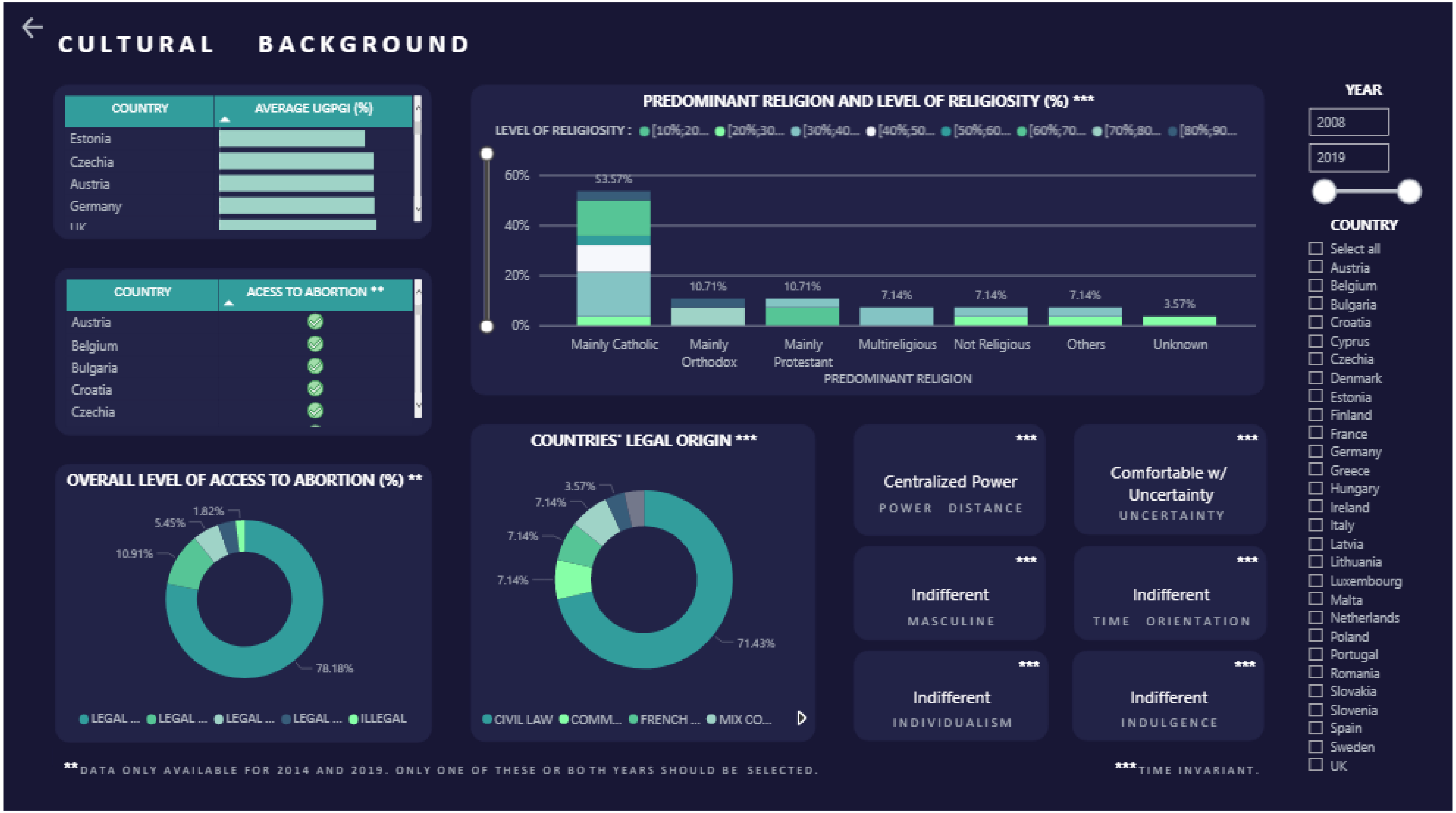

Illustration 61 – "Culture" sheet.

Annex IV – Assumptions of the Classic Linear Regression.

Essentially, there are seven assumptions (Greene, 2002; Gujarati & Porter, 2009; Silva et al., 2018):

- linearity between the dependent and independent variables needs to be established by the model, meaning linearity must be observed in the parameters and not necessarily in the variables;
- absence of (perfect) multicollinearity, meaning the independent variables cannot have an exact linear relationship – full rank assumption;
- the regressors cannot be correlated with the disturbances – exogeneity assumption;
- the disturbances not only need to have the same null variance (homoscedasticity assumption), but also cannot be related with each other (non-autocorrelation or no-serial correlation assumption);
- non-stochasticity of the regressors, meaning they are fixed in repeated samples, and not random;
- the disturbances should follow a normal distribution.

Annex V – Description of the Performed Tests Statistics.

For the description of the formal tests, let us consider the regression present in equation (7):

$$Y = X\beta + u \tag{7}$$

To test the *homoscedasticity assumption*, the Breusch-Pagan test was used. This test assumes that

$$\sigma_i^2 = f(\alpha_0 + \alpha_1 Z_{1i} + \cdots + \alpha_p Z_{pi}) \tag{8}$$ [7]

or, more specifically,

$$\sigma_i^2 = \alpha_0 + \alpha_1 Z_{1i} + \cdots + \alpha_p Z_{pi} \tag{9}$$

meaning the disturbances' variance is a function of a linear combination of p observable variables, in which the independent variables Z_1, Z_2, …, Z_p may or may not be part of X (Mendes de Oliveira et al., 1997; Gujarati & Porter, 2009). Furthermore, the test statistic is computed by

$$\frac{1}{2}ESS = \frac{1}{2}(TSS - RSS) \tag{10}$$.

Given this, the null (H0) hypothesis can be translated into the following:

$$H_0: \alpha_1 = \alpha_2 = \cdots = \alpha_p = 0 \text{ (homoscedasticity)}.$$

In this test, the rejection of the null hypothesis indicates there is statistical evidence

[7] It should be noted that the notation presented here for this test is the same one as of the Mendes de Oliveira et al. (1997), which in turn is very similar to the one used by Breusch & Pagan (1979). Specifically, in this case, the symbol used for the coefficients of equations (8) and (9), i.e., the alpha (α), should not be confused with the significance level, as its representation is done by the same symbol.

of heteroscedasticity of the disturbances, meaning "too much of the variance is explained by the additional explanatory variables" (Zeileis, 2020a).

Regarding the *non-autocorrelation* or *no serial correlation assumption*, two tests were performed – the Durbin-Watson test and the Breusch-Godfrey/Wooldridge test. The first one has the computation of its statistic based on the least squared residuals – see equation (11), retrieved from Gujarati and Porter (2009, p.434) –, being its value comprehended between 0 (the lower bound of d, d_L) and 4 (the upper bound of d, d_U).

$$d = \frac{\sum_{t=2}^{n}(\hat{u}_t - \hat{u}_{t-1})^2}{\sum_{t=1}^{n}\hat{u}_t^2} \tag{11}$$

While the null hypothesis can be specified as:

$$H_0: \rho = 0 \text{ (no serial correlation),}$$

the definition of the alternative hypothesis depends on the type of autocorrelation:

$$H_1: \rho > 0 \text{ (positive autocorrelation),}$$

or

$$H_1: \rho < 0 \text{ (negative autocorrelation),}$$

or

$$H_1: \rho \neq 0 \text{ (positive or negative autocorrelation).}$$

Taking this into account, the interpretation of the test's result is not as straight forward as in the remaining tests presented in this appendix. In fact, there are some established decision rules to help with this interpretation. Table 25 and Illustration 62 summarise those rules.

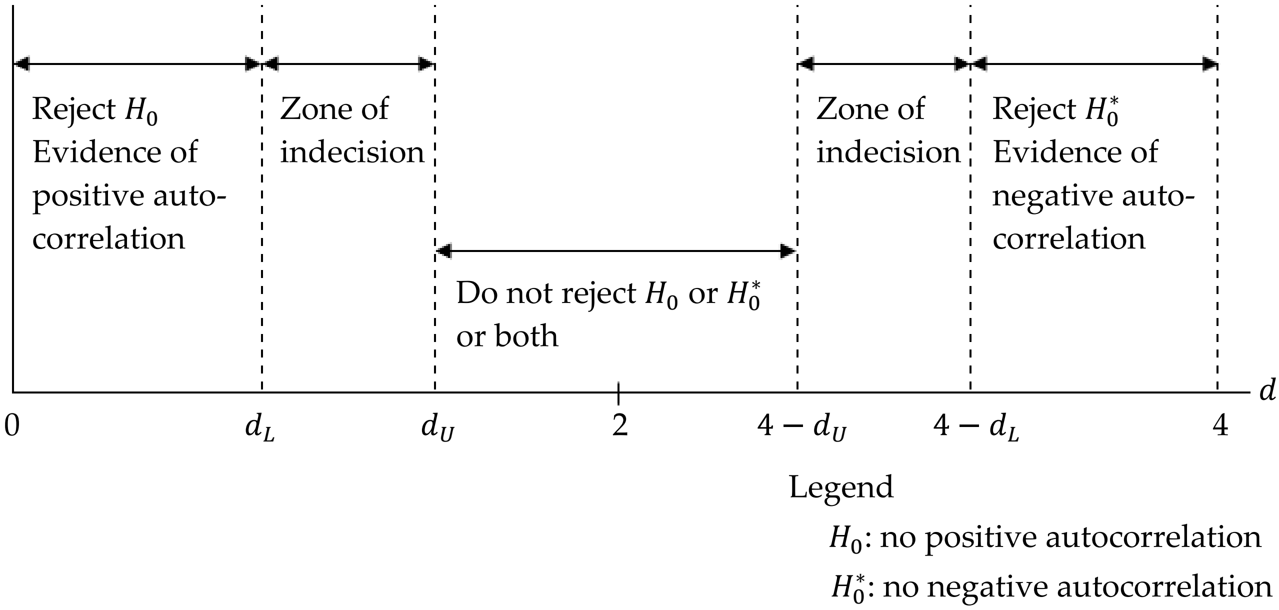

Illustration 62 – Bounds of the Durbin-Watson's statistic and decision rules.
Source: Gujarati and Porter (2009, p.435)

Null Hypothesis (H0)	**Decision**	**If**
No positive autocorrelation	Reject	$0 < d < d_L$
No positive autocorrelation	No decision	$d_L \leq d \leq d_U$
No negative correlation	Reject	$4 - d_L < d < 4$
No negative correlation	No decision	$4 - d_U \leq d < 4 - d_L$
No autocorrelation, positive or negative	Do not reject	$d_U < d < 4 - d_U$

Table 25 – Decision Rules of the Durbin-Watson test.
Source: Gujarati and Porter (2009, p.436)

The second test is based on the Lagrange multiplier and so, as stated by Greene (2002), the hypothesis of this test can be defined as:

$$H_0: no\ serial\ correlation$$

and

$$H_1: u_t = AR(P)$$

or

$$H_1: u_t = MA(P).$$[8]

The null hypothesis can also be defined in a similar way as the one presented for the Durbin-Watson test. Considering equation (7) translates into equation (12), and assuming that the "u_t follows the Pth-order autoregressive, AR(P)" (Gujarati and Porter, 2009, p.439), just like in equation (13):

$$Y_t = \beta_1 + \beta_2 X_t + u_t \quad (12)$$

$$u_t = \rho_1 u_{t-1} + \rho_2 u_{t-2} + \cdots + \rho_P u_{t-P} + \varepsilon_t \quad (13)$$

then, the null hypothesis can be established as:

$$H_0: \rho_1 = \rho_2 = \cdots = \rho_P = 0.$$

In both tests, when the null hypothesis is rejected it means there is statistical proof of serial correlation of disturbances. Note that when both tests give different results, this only suggests that the one that did not reject H0 did not find enough statistical evidence of autocorrelation like the other test did. Thus, whenever such differing results occurred, it was considered autocorrelation to be present, meaning the assumption was violated.

Let us move forward to the formal tests applied to choose the best method for our panel regression – pooled OLS, fixed effects or random effects.

The F-test is applied when we are comparing the pooled OLS with the fixed effects. The following description of the hypothesis indicate that, when the H0 is not rejected, there is no statistically significant evidence of such effects and, so, each individual – or country in our case – (and the model) has no constant or intercept. For that reason,

[8] Note that the $AR(P)$ and the $MA(P)$ refer to autoregressive and moving average models, respectively, both with order P. For further understanding of these models see Chapter 20 of Greene (2002) or Chapter 22 of Gujarati and Porter (2009).

pooled OLS is the chosen method in this comparison.

$$H_0\text{: } pooled\ OLS\ model\ is\ appropriate,$$

and

$$H_1\text{: } pooled\ OLS\ model\ is\ not\ appropriate$$

$$(fixed\ effects\ model\ is\ prefered).$$

The LM-test (or Lagrange multiplier test) of Breusch-Pagan is performed whenever the choice is done between pooled OLS and random effects, being its computation based on the residuals of the former method (Greene, 2002). According to Greene (2002), the hypothesis can be defined as:

$$H_0\text{: } \sigma_u^2 = 0 \text{ (no random effects)},$$

and

$$H_1\text{: } \sigma_u^2 \neq 0.$$

Or, in short:

$$H_0\text{: } pooled\ OLS\ model\ is\ appropriate,$$

and

$$H_1\text{: } pooled\ OLS\ model\ is\ not\ appropriate$$
$$(random\ effects\ model\ is\ prefered).$$

In the event of the rejection of the null hypothesis, the pooled OLS method is no longer appropriate, being the random effects method the better choice.

The Hausman test is used to choose between fixed effects and random effects, being conducted when the two previous tests reject the null hypothesis, leading to the disregard of the pooled OLS. According to Gujarati and Porter (2009), the null hypothesis is that the fixed effects model and random effects' "estimators do not differ substantially" (p. 604). In other words, this test's hypothesis can be expressed as:

$$H_0: random\ effects\ model\ is\ appropriate,$$

and

$$H_1: random\ effects\ model\ is\ not\ appropriate$$

$$(fixed\ effects\ model\ is\ prefered).$$

As a final note, keep in mind that all the tests presented above reject the null hypothesis whenever the p-value is small enough to do so. Specifically, in the present study, H0 is considered to be rejected at the 5% level.

Annex VI – Plotting the evolution of "LMPart" and "Occ5" by Country.[9]

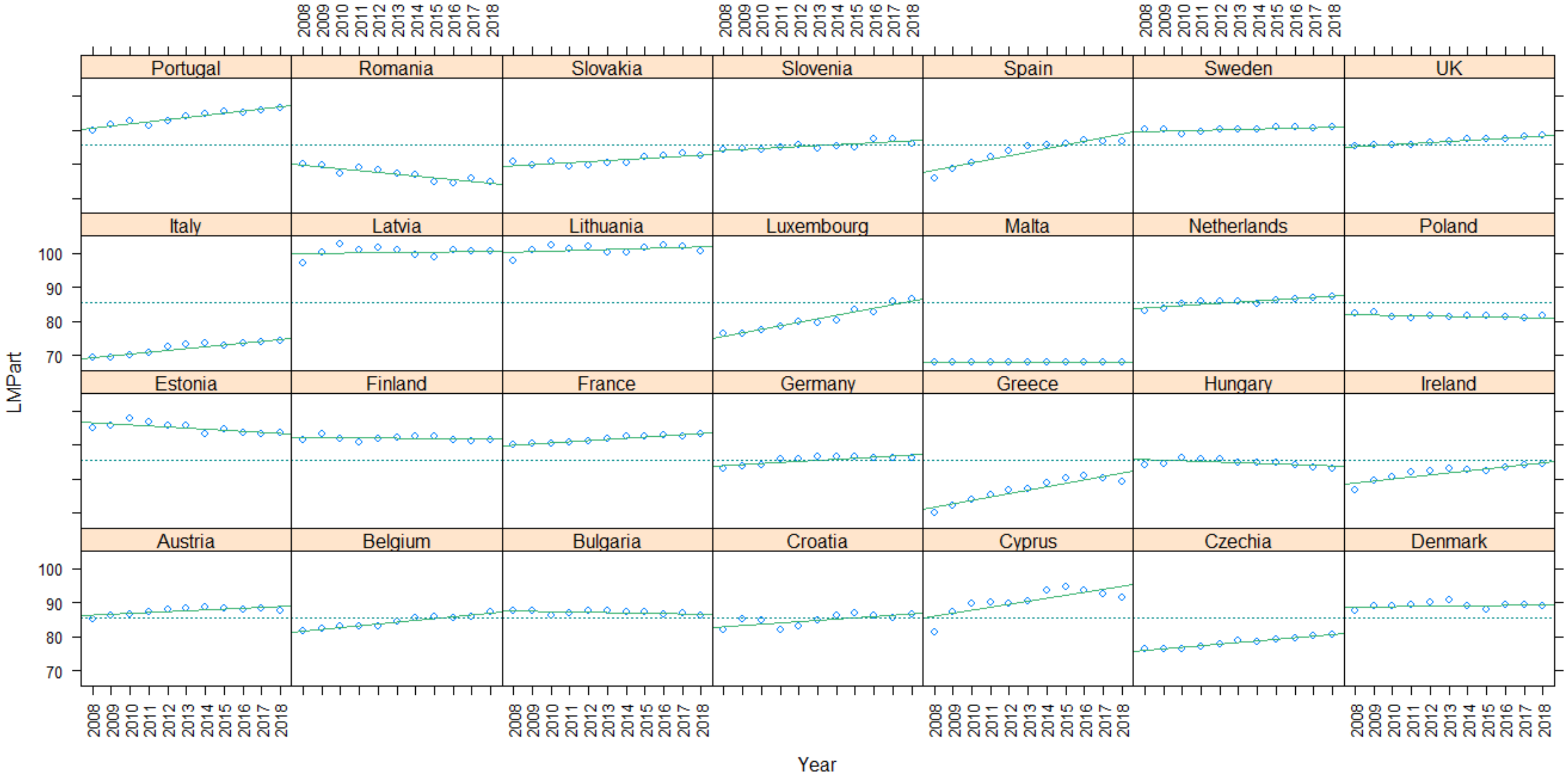

Illustration 63 – Evolution of "LMPart" by country.

[9] The dashed lines presented in each plot refer to the (EU's) mean value of the considered variable.

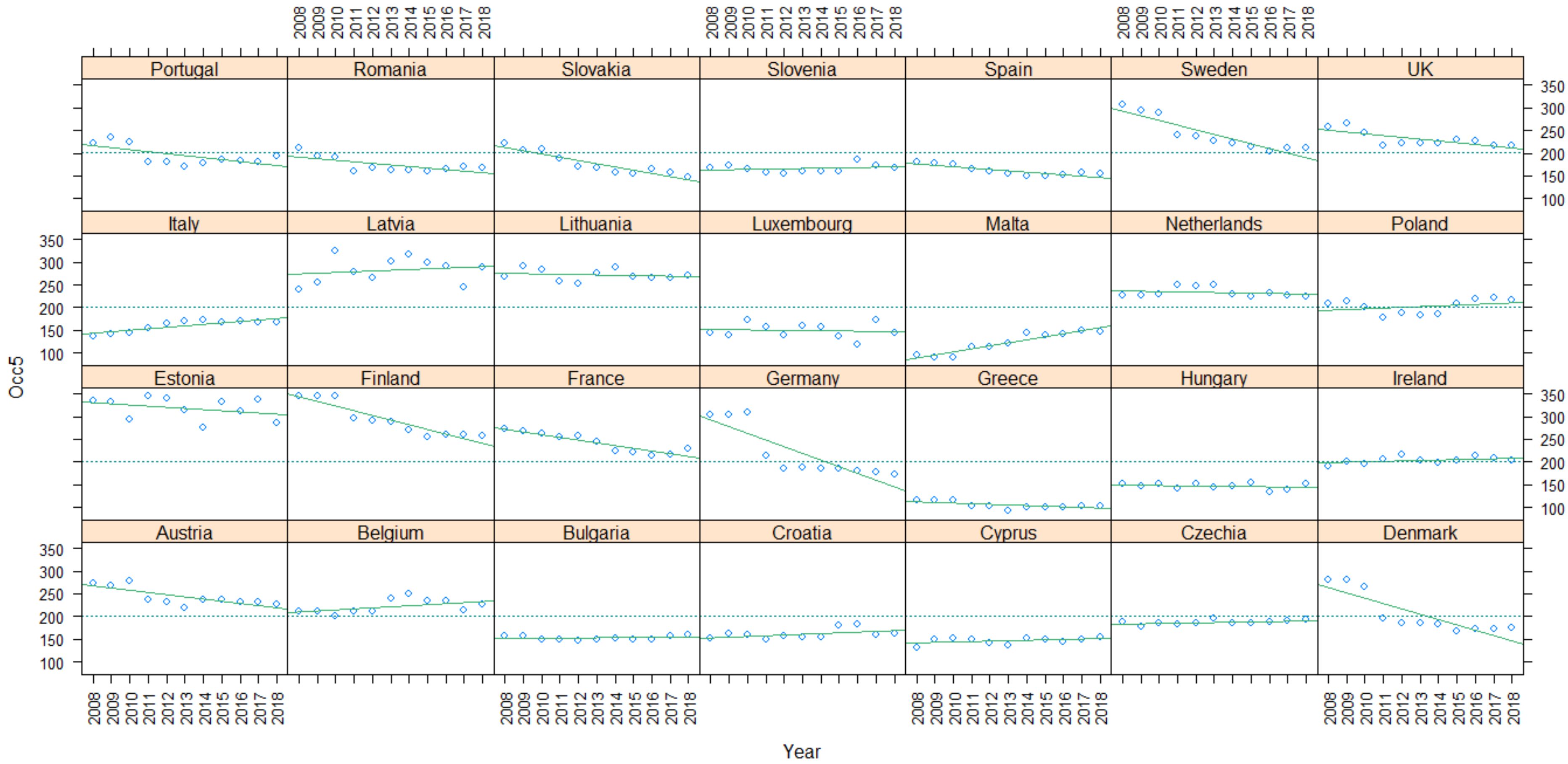

Illustration 64 – Evolution of "Occ5" by country.

Annex VII – Plotting "LMPart" and "Occ5" by Year.[10]

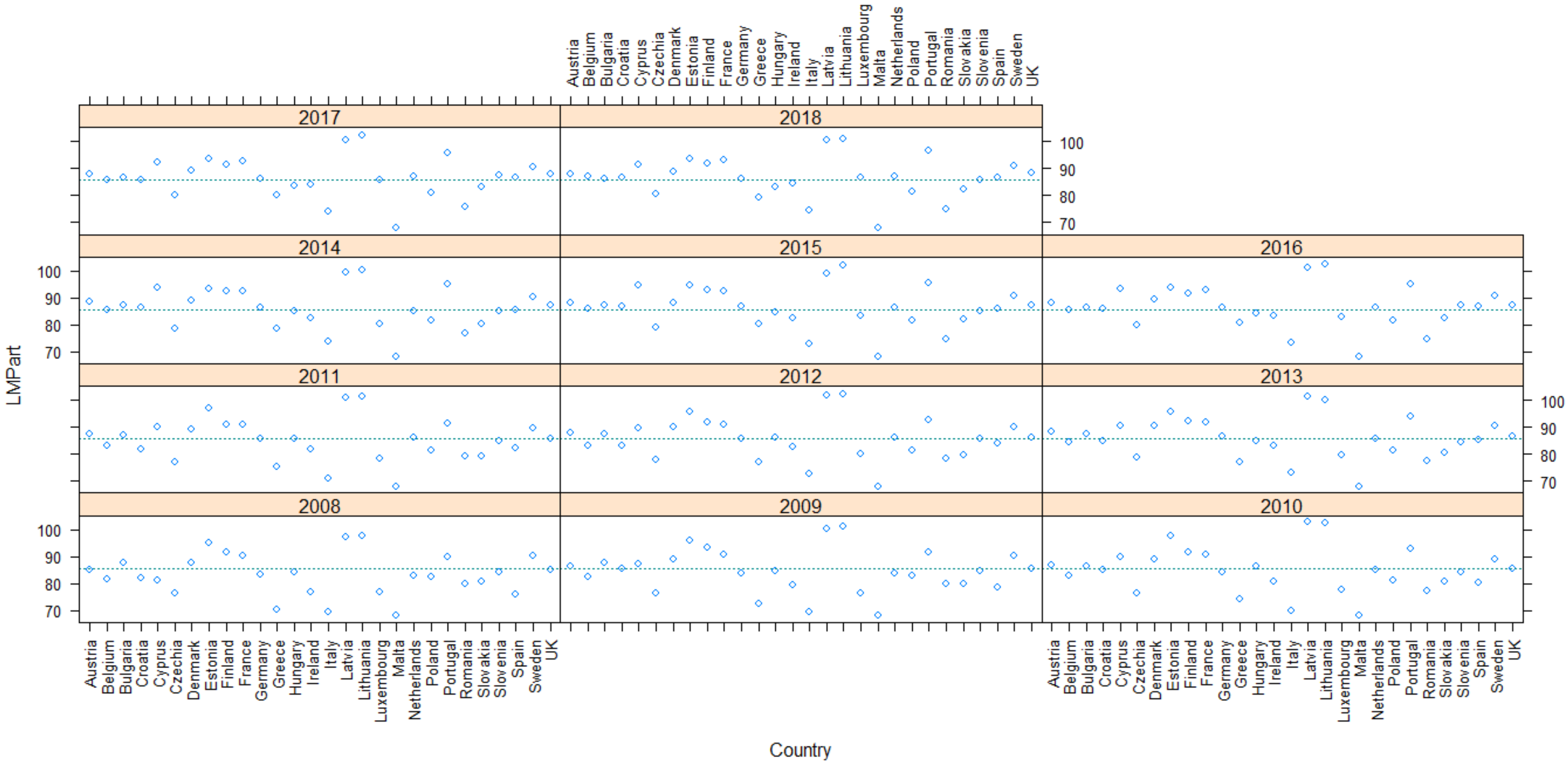

Illustration 65 – "LMPart" by year.

[10] The dashed lines presented in each plot refer to the (EU's) mean value of the considered variable.

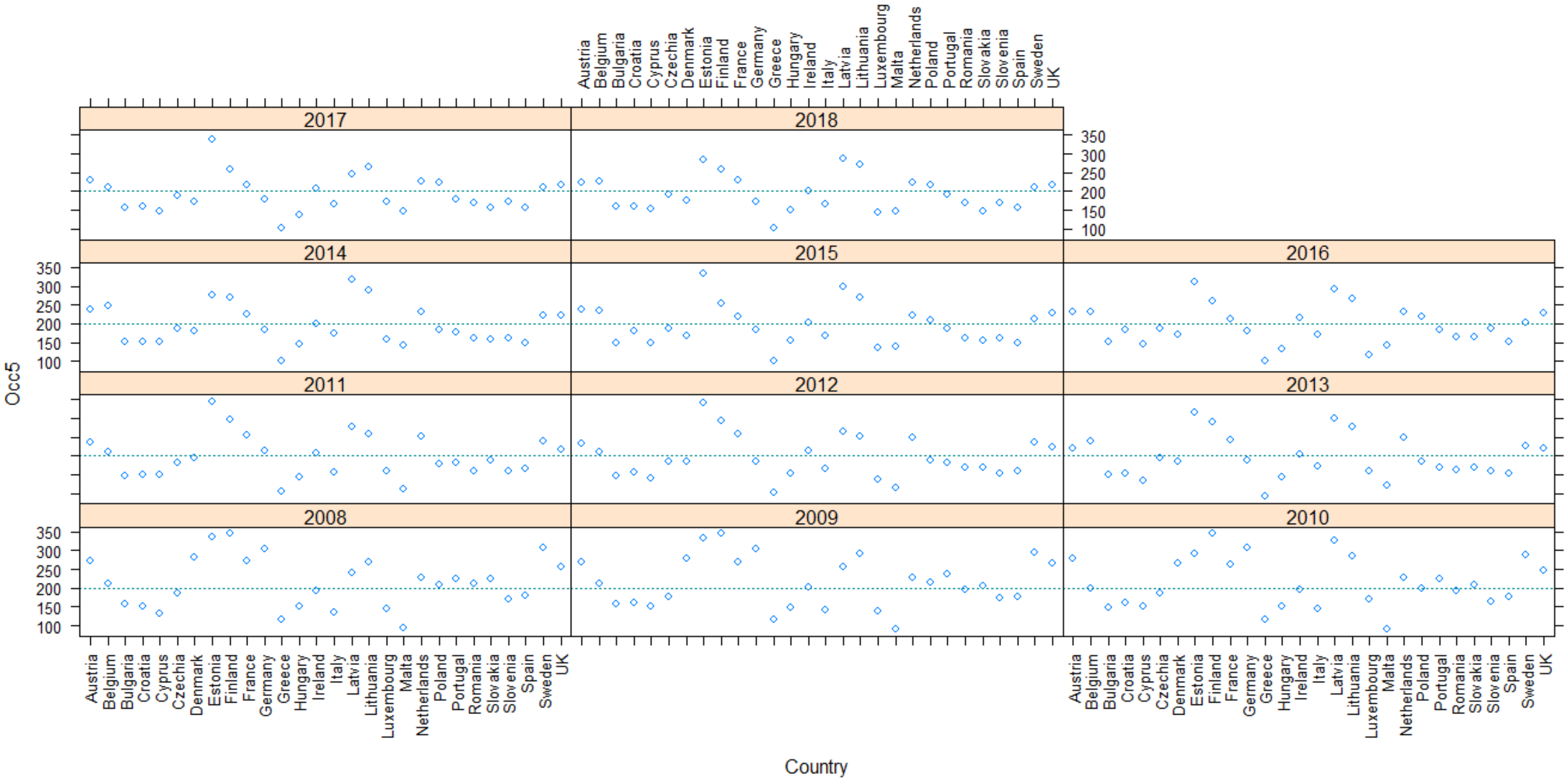

Illustration 66 – “Occ5” by year.

Annex VIII – Plotting "Rlgn", "Rlgst" and "LgO".

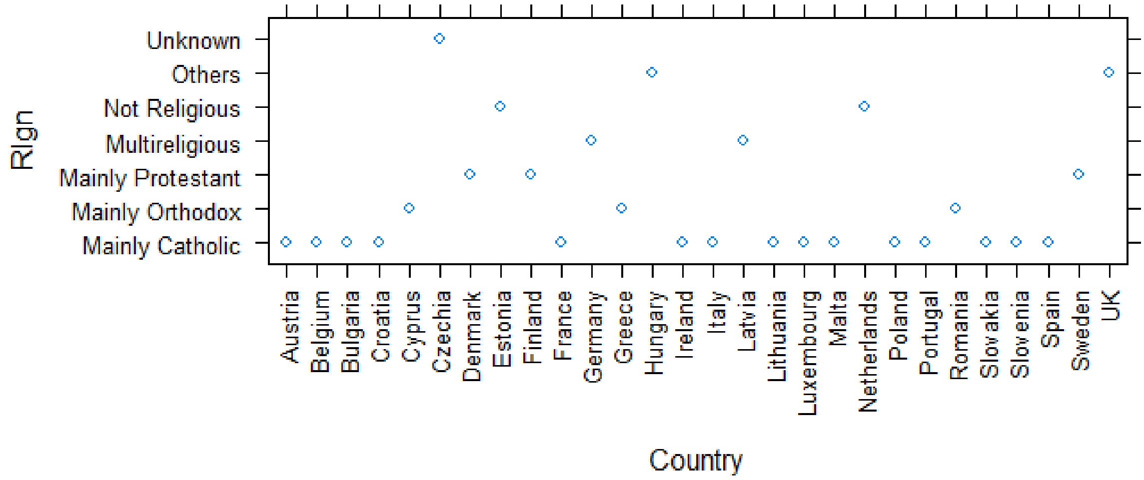

Illustration 67 – Predominant religion by country.

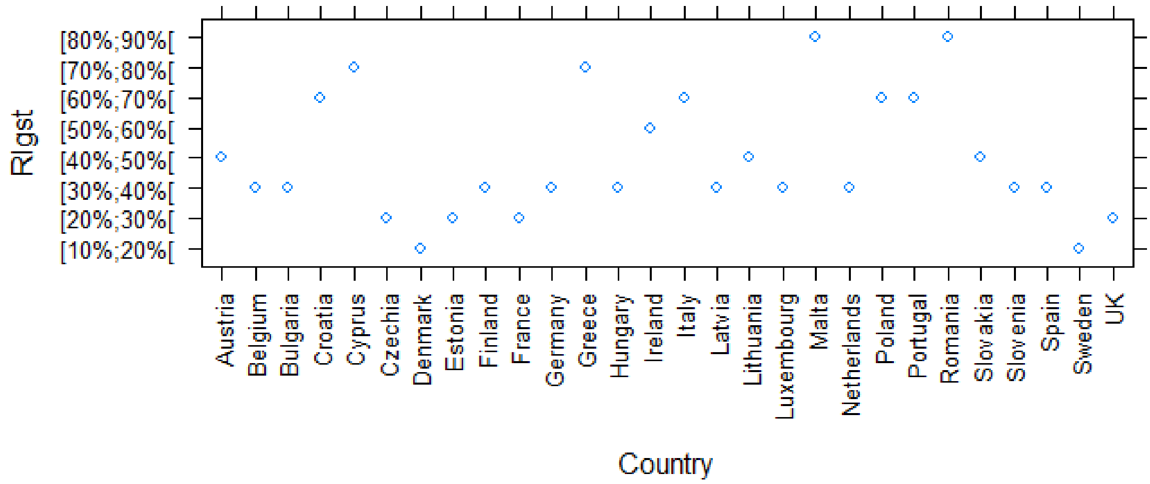

Illustration 68 – Religiosity level by country.

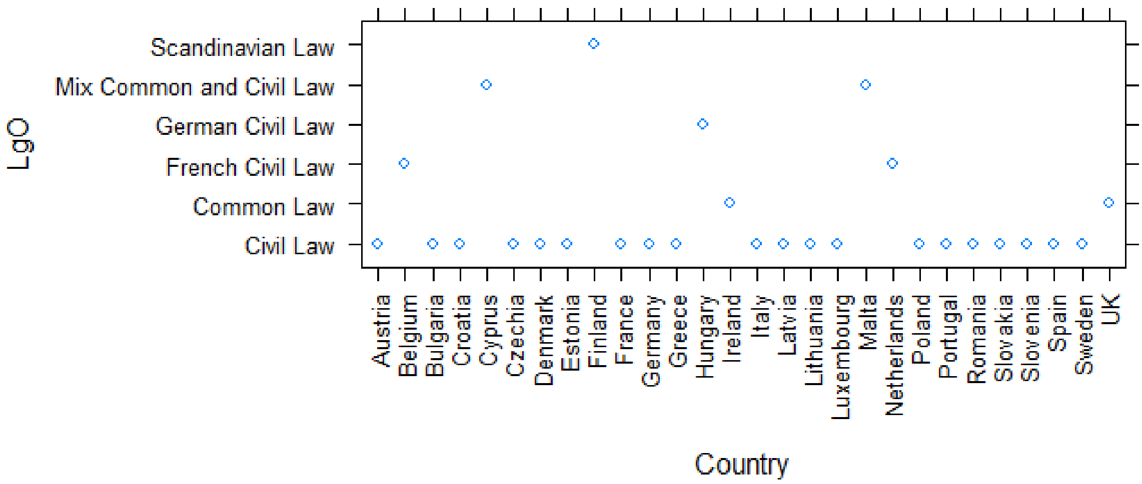

Illustration 69 – Legal origin by country.

Annex IX – Evolution of “LMPart” and “Occ5” in Greece and Romania.

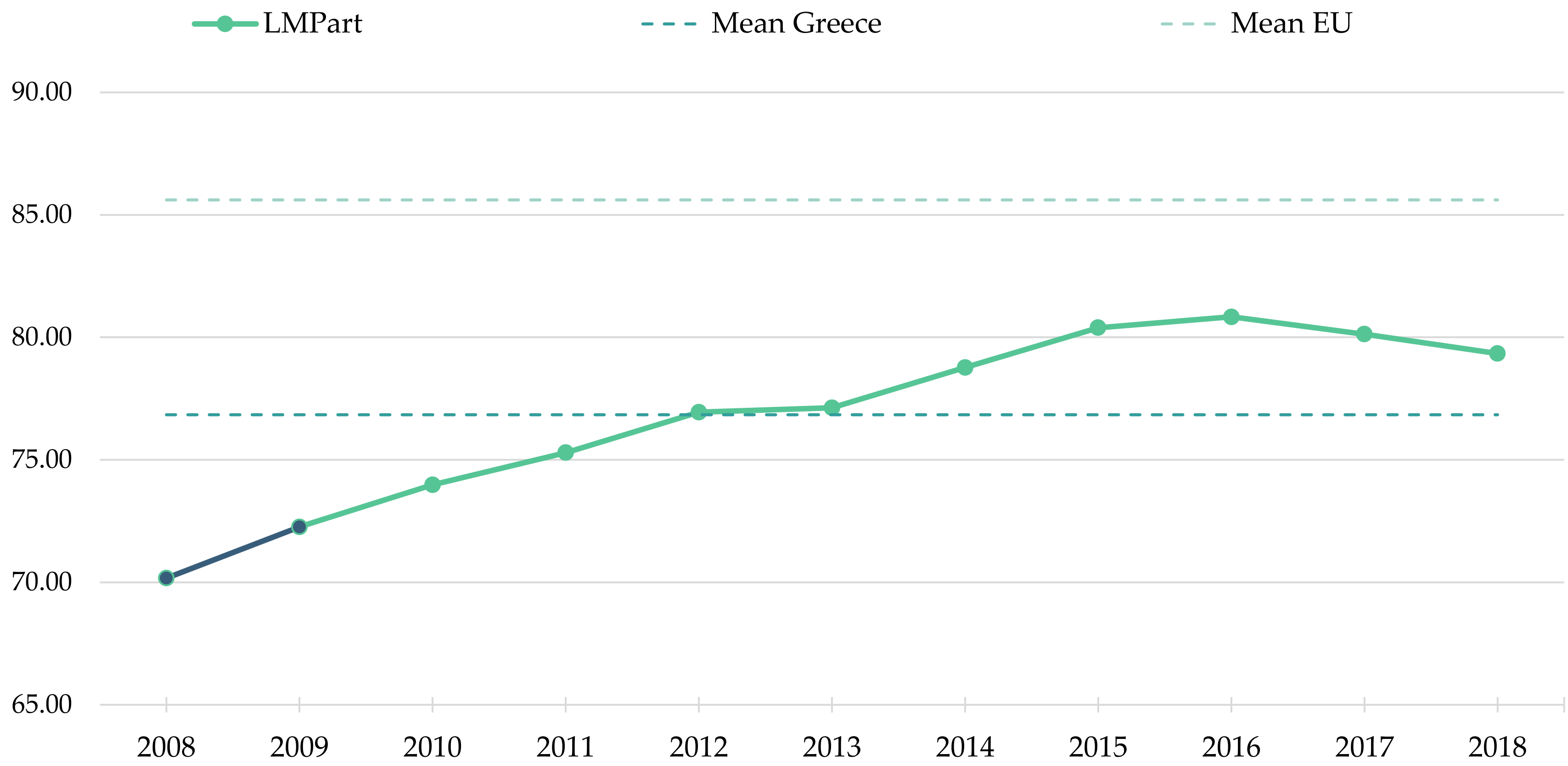

Illustration 70 – Evolution of “LMPart”in Greece.

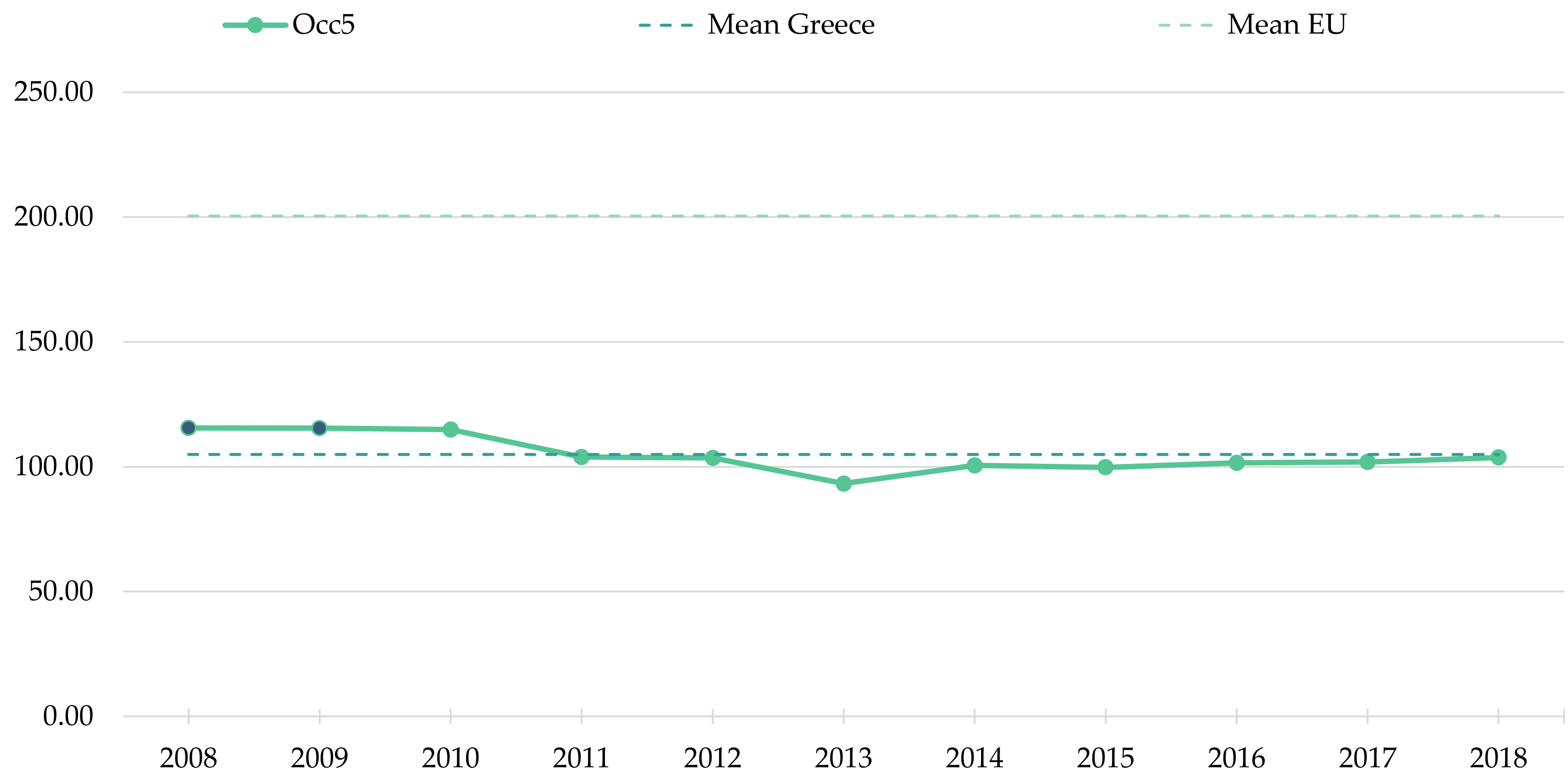

Illustration 71 – Evolution of “Occ5” in Greece.

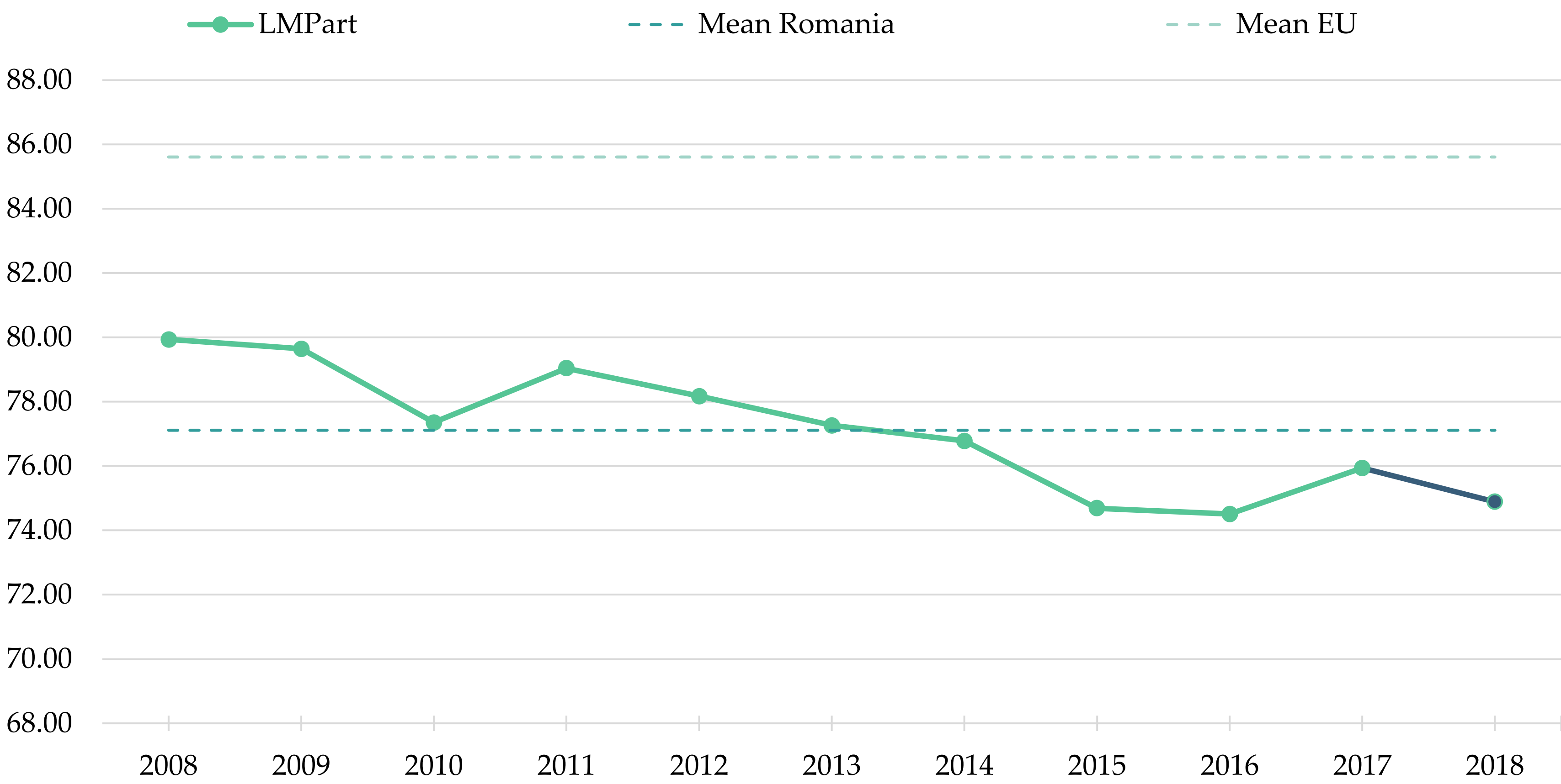

Illustration 72 – Evolution of "LMPart" in Romania.

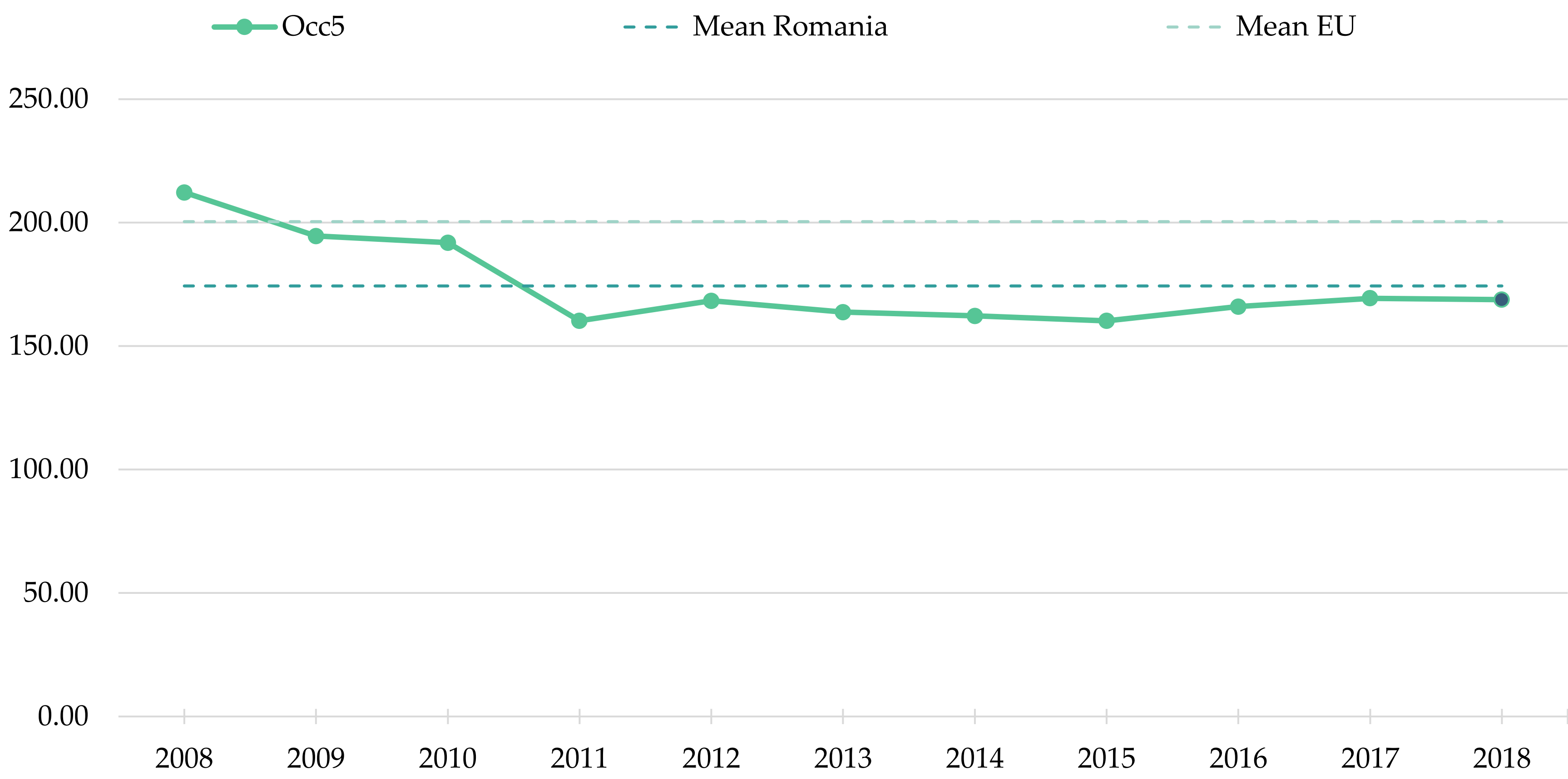

Illustration 73 – Evolution of "Occ5" in Romania.