

THE EFFECTS OF GENDER EQUALITY ON ECONOMIC DEVELOPMENT IN EUROPE

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With 4 figures, 1 table and 5 appendices

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Summary: Gender equality is increasingly perceived as a central issue and discussed as an essential factor for competition, economic growth and solidarity in society. The starting point of this study is the identification of the main factors influenced by gender equality in the context of the economic performance of countries. Europe was chosen as the study area, with regional differences between Northern, Western/Central, Southern and Eastern Europe also being taken into account. The empirical analysis is based on panel regression models. These confirm that policies designed to increase the share of women in leadership positions and to achieve an equal representation of self-employed women and men have a significant positive impact on a country's economic performance across Europe. In addition, differentiated recommendations for action are derived from the results for the individual subregions.

Zusammenfassung: Die Gleichstellung von Frauen und Männern wird zunehmend als zentrale Thematik wahrgenommen und als wesentlicher Faktor für den Wettbewerb, das wirtschaftliche Wachstum und die Solidarität in der Gesellschaft diskutiert. Ausgangspunkt der vorliegenden Untersuchung ist die Identifikation wesentlicher Einflussgrößen von Gleichstellung auf die wirtschaftliche Leistungsfähigkeit von Ländern. Als Untersuchungsraum dient Europa, wobei auch die regionalen Unterschiede zwischen Nord-, West-/Zentral-, Süd- und Osteuropa berücksichtigt werden. Die empirische Analyse basiert auf Panelregressionsmodellen. Diese bestätigen, dass politische Maßnahmen zur Steigerung des Anteils von Frauen in Führungspositionen und zur Schaffung eines ausgewogenen Verhältnisses zwischen selbstständigen erwerbstätigen Frauen und Männern europaweit einen deutlichen positiven Einfluss auf die Wirtschaftsleistung eines Landes haben. Zudem werden für die einzelnen Teilregionen differenzierte Handlungsempfehlungen aus den Ergebnissen abgeleitet.

Keywords: Gender geography, economic geography, Europe, human capital, panel regression

1 Introduction

Numerous studies have demonstrated the importance of innovation as a source of economic growth (e.g. AUDRETSCH & FRISCH 2003). Specialized knowledge resources - such as personal knowledge and know-how - are of particular importance for the emergence of innovations (AUTIO et al. 2014). The so-called 'innovators' - the individuals involved in the innovation process - play a crucial role (SHANE 2003). Diversity and gender differences in innovation behaviour are therefore already the subject of current studies in entrepreneurship research (ALSOS et al. 2013: 237). Some macroeconomic studies show that 'gender gaps' - conscious and unconscious non-utilization of part of the human capital - have a negative impact on economic growth (SCHULTZ 1994). Other studies document positive economic effects of gender equality (VERHEUL & VAN STEL 2010, VAN DER ZWAN et al. 2012: 628, CARRASCO 2014: 420, MITRA et al. 2015).

ROMER'S (1990) endogenous growth theory considers the optimal use of the production factor 'human capital' as crucial for influencing economic growth (BRASSE & UHLMANN 2004: 123). Based on the assumptions of IHSEN et al. (2014: 12), improved equality of women as an economic factor of production can have a quantitative and qualitative impact. Quantitatively, the available human capital increases due to the greater participation of women in the labour market (VAN DER ZWAN et al. 2012: 628). This is particularly relevant in light of current megatrends - such as demographic change and an increasing shortage of skilled workers (IHSEN et al. 2014: 4). Qualitatively, workforce diversification and the inclusion of gender aspects in the innovation process seem to be beneficial for economic performance (ALSOS et al. 2013, IHSEN et al. 2014: 4). CABEZA-GARCÍA et al. (2018) were able to show in their study for the 127 OECD countries that women's access to secondary education, integration in the labour market, and active po-

litical participation have positive effects on economic growth. However, the current Gender Equality Index (EIGE 2021) for the European Union (EU) indicates that women are still underrepresented in the following areas: work (72.2), power (53.5) and knowledge (63.6). This underrepresentation is particularly relevant, since gender equality has been binding for all member states as a fundamental right since the Treaty of Lisbon in 2009 (ŠIKIRIĆ 2021). The United Nations also calls for gender equality in its Sustainable Development Goal 5 (UNITED NATIONS 2021). This article will therefore examine the extent to which gender equality affects the economic development of countries in Europe.

The study is organized as follows: the next section presents the current state of research. Section 3 describes the methodological approach and presents the data used. The results are presented in Section 4, followed by a discussion in Section 5. Appropriate policy recommendations can be derived from the findings of the preceding analyses.

2 Gender equality and economic development

Given the policy relevance of gender equality, a detailed examination of the relationship between gender equality and a country's economic development is necessary (CABEZA-GARCÍA et al. 2018: 121, DI BELLA et al. 2021).

Studies that focus on gender equality often consider women's participation in the labour market as the most important indicator (KLASEN 1999, BISELLO & MASCHERINI 2017, VÁSCONEZ-RODRÍGUEZ 2017: 96). A higher proportion of women in the labour market seems to have a positive impact on economic development (KLASEN & LAMANNA 2009, LÖFSTRÖM 2009, CARRASCO 2014: 418, CUBERES & TEIGNIER 2016, KLASEN & MINASYAN 2017, CABEZA-GARCÍA et al. 2018, MISHRA et al. 2020). One of the reasons for this is that the total economic human capital increases with the number of female employees. Therefore, higher female labour force participation has a positive impact on the innovation process and thus on economic performance. From this, the following initial hypothesis can be derived:

H1: Greater economic growth is expected with higher female labour force participation.

Since innovation-based economic growth depends to a large extent on the availability of qualified human capital, it is relevant to consider the propor-

tion of women with tertiary education (ROMER 1986, ZAHRA & NIELSEN 2002). The share of women is a relevant indicator especially in research and science (CARRASCO 2014: 419). Gender-specific segmentation in the labour market must also be considered when measuring equality. For example, fewer women tend to work in science and technology-intensive sectors (DE TIENNE & CHANDLER 2007, NISSAN et al. 2012). Conversely, a high proportion of female employees in innovation-related sectors can have a positive impact on economic development (CARRASCO 2014: 420). KECK & SARACENO (2013) were able to demonstrate for Cyprus, Italy, the Netherlands, Portugal and Spain that a low level of education has an additional negative effect on maternal employment. In addition, countries with a high part-time employment rate were also found to have a smaller difference between female and male employment rates (ŠIKIRIĆ 2021). Therefore, the following hypothesis can be derived:

H2: A high proportion of women with a tertiary education leads to economic growth.

Sociodemographic factors also play an important role. A high number of children is often associated with increasing domestic and family responsibilities for women (WHITTINGTON 2011, ALSOS et al. 2013: 243). Individual studies make contrary claims about the relationship between fertility rates and economic development in industrialized countries (DAY 2012, KOMURA 2013). However, a majority shows a negative relationship between fertility and economic growth (VAN DER ZWAN et al. 2012: 641, CABEZA-GARCÍA et al. 2018: 121). The literature suggests that women's family responsibilities prevent them from fully contributing to the country's economic performance. The third hypothesis is therefore:

H3: With higher fertility, lower economic growth is expected.

Work-family balance is essential to the study of gender equality. Previous analyses show that there are gender differences in the type and duration of employment due to family responsibilities (MUSUMECI & SOLERA 2013). Childcare - in public institutions as well as in the private sector - is a key factor influencing women's labour force participation (KECK & SARACENO 2013, SUDER & PFAFFENACH 2021). For Belgium, it has been shown that the establishment of additional childcare capacity leads to a slight increase in employment among women (DUJARDIN et al. 2018).

This observation is also found at the European level. GEHRINGER & KLASSEN (2017) found a positive correlation between childcare measures and women's part-time employment for EU countries between 1998 and 2007. In ŠIKIRIĆ (2021), it became clear for the period 2005 to 2015 that the differences between the employment rates of men and women decrease with a higher use of formal childcare. As examined in hypothesis 1, this leads to an increase in economic output. Therefore, the impact of formal childcare on economic performance should be investigated to identify possible indirect effects. This is reflected in the fourth hypothesis:

H4: Greater economic growth is expected with higher use of childcare services.

The gender wage gap is another indicator for the study of women's equality in a country. Research findings are ambivalent about its impact on economic growth. For example, SEGUINO (2000) concludes that a reduction in the gender wage gap leads to a decline in short-term economic growth, while other studies suggest positive effects (LÖFSTRÖM 2009, RAMANAYAKE & GHOSH 2017, SCHÖBER & WINTEREBMER 2009, DAY 2012, CAVALCANTI & TAVARES 2016). FLABBI et al. (2019) showed for Italy that a high share of female managers has a positive impact on the top of the female wage distribution. However, a negative impact on lower income groups was also found. Therefore, the fifth research hypothesis for the present study is:

H5: With a more balanced gender pay gap, greater economic growth is expected.

Another important link can be established between entrepreneurship and innovation-based economic growth. The inclusion of gender aspects in the innovation process and a greater representation of women as entrepreneurs have a positive impact on a country's economic performance (AIDIS et al. 2007, IHSEN et al. 2014, MINNITI & NAUDÈ 2010, VERHEUL & VAN STEL 2010). Therefore, the following hypothesis can be derived:

H6: Greater economic growth is expected with higher participation of women in self-employed entrepreneurship.

Moreover, some studies show a positive correlation between a higher representation of women in leadership positions and the economic success of

these companies (e.g. DEZSO & ROSS 2012, FLABBI et al. 2019). For Europe, ISIDRO & SOBRAL (2015) showed that a high proportion of women on supervisory boards of large European companies increases firm value. Moreover, for Central and Eastern European countries, it became clear that raising the proportion of women in leadership positions in companies in the IT and financial sectors, compared to the European average, leads to positive long-term effects in the service sector (GRAVILI et al. 2019). Moreover, HERNÁNDEZ-LARA et al. (2021) showed positive effects of gender diversity on R&D spending for 67 listed companies in Spain. In other words, it can be assumed that promoting female managers and thus increasing the accumulation of female human capital in decision-making positions will lead to an innovation process. This, in turn, increases overall production and thus economic growth (KAZANDJIAN et al. 2017). Therefore, a seventh hypothesis can be derived:

H7: Greater economic growth is expected with higher representation of women in leadership positions.

To date, there is little empirical evidence on the relationship between the representation of women in democratic parliaments and the economic development of a country. JAYASURIYA & BURKE (2013) conclude in their study that countries with a higher proportion of female parliamentarians experience higher economic growth. Other studies also point to a positive correlation between economic development and women's political participation (CABEZAGARCÍA et al. 2018, MISHRA et al. 2020). Traditionally, Northern European countries have been pioneers in terms of the proportion of women in parliament, despite the absence of quota regulations (BOTHFELD & FUCHS 2011). Therefore, based on previous research, the eighth hypothesis is:

H8: With higher political participation of women in democratic systems, greater economic growth is expected.

Furthermore, large differences can be observed between countries with regard to equality policies (ALSOS et al. 2013: 241), with Scandinavian countries in particular leading the way (ALSOS et al. 2013: 241, IHSEN et al. 2014: 12). Therefore, spatial differences within Europe will also be examined.

The variables used for the analysis as well as their description and literature evidence are listed in the table below.

3 Data basis and methodology

The analysis is based on a data set for the EU countries (excluding Liechtenstein), the United Kingdom, Iceland and Norway. For the 31 countries included in the analysis, information is available for all indicators listed in Tab. 1 over a 15-year period (2005 to 2019). However, there are individual reporting gaps in the data source used (EUROSTAT 2021 a-m) (e.g. for some years in Greece and Croatia), meaning that only 427 observations are available ('unbalanced panel').

GDP per capita is chosen as the dependent variable and independent variables are employment rate, total fertility rate, formal childcare, GPG, self-employed, female board members, members of parliament, part-time and tertiary education (see Tab. 1). Unemployment rates, R&D expenditures, and patents were used as additional control variables (NICKELL 1990, CASTELLS-QUINTANA & ROVUELA 2012, HAUSMANN & JOHNSTON 2014, ACS et al. 2002). Based on the social and economic characteristics of the countries, the classification of the group of countries took place primarily with regard to gender equality and the participation of women in the labor market. Historical background in the context of gender differences was also taken into account in the categorization process (e.g. Northern European: pioneering role; Eastern European: communist background (BOTHFELD & FUCHS 2011, FONDOR 2011, REIDL et al. 2020). In this process, it was possible to form a total of four groups with countries that share similarities in terms of the aspects described: Northern European: Denmark, Finland, Iceland, Norway, Sweden; Western and Central Europe: Austria, Belgium, France, Germany, Ireland, Luxembourg, Netherlands, United Kingdom; Eastern Europe: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia; Southern Europe: Cyprus, Greece, Italy, Malta, Portugal, Spain.

The soft and hard measures to increase the share of women in leadership positions were surveyed to examine the effectiveness of policy instruments for gender equality using a dummy variable (cf. Fig. 1).

A panel regression was performed in addition to the descriptive analyses. The idea of panel regression is to combine the cross-sectional dimension with a time series. The results of the Hausmann test, which tests for endogeneity, indicate a random effects model. In general, the random effects model is efficient, as opposed to the fixed effects model, and therefore should be preferred (CLARK & LINZER 2015). In addition,

the model is substantive, as time-constant characteristics such as country affiliation should also be modelled (BELL et al. 2019). The descriptive analysis also shows high variation in the dependent and independent variables across countries and relatively low variation within each country. This is also an argument in favour of using a random effects model (CLARK & LINZER 2015). The mathematical formulation of the model is as follows:

$$\log_{10}(y_{it}) = \log_{10}(x'_{it}\beta) + \alpha_i + \epsilon_{it} \quad (1)$$

where y_{it} represents the explanatory variable with the expression for region i and time t . In addition, $x'_{it}\beta$ denotes the values of the explanatory variables for i and t . The unaccounted effects are represented by α_i and the error term corresponds to ϵ_{it} . To counteract the problems of observable heterogeneity, we also integrated the output level of the independent variables with particularly large country differences (formal childcare, tertiary-level education) into the model (KLASEN & LAMANNA 2009). However, the differences are not statistically significant.

4 Presentation of the results

Fig. 2 and Fig. 3 illustrate the spatial patterns of the independent and dependent variables while Fig. 4 shows detailed differences between countries as well as between groups of countries. The descriptive analysis makes it clear that one key variable for studying gender equality and economic development is the ratio between the employment rate of women and men. In this regard, Fig. 2 and Fig. 4 show that Lithuania was the leading country in Europe over the period under study (mean 95.91), while the largest gender gap was measured for Malta, with an index value of 45.44. The largest increases over time were recorded in Malta (2005: 45.44, 2019: 76.21). In contrast, the fertility rate declined in most European countries. A particularly sharp decline was observed in Finland (2005: 1.8; 2019: 1.35 children per woman). However, countries such as Germany, the Czech Republic and Hungary show a slight increase in total fertility. Large increases are observed across Europe for women in leadership positions, led by Italy (2005: 2.7%; 2019: 36.1%), with an average growth rate of 20%. In contrast, some Eastern European countries (Bulgaria, Estonia and Romania) have seen slight declines. For self-employed women, an increase was recorded in almost all European countries. Sweden,

Tab. 1: Overview of the variables used and expected direction of effect of the independent variables

Variable	Description	References	Expected influence
GDP/capita	Gross domestic product at market prices in euros per inhabitant	CABEZA-GARCÍA et al. 2018	
<i>Explanatory variables</i>			
employment rate	Relationship between the employment rate of women aged 25-64 and the employment rate of men aged 25-64 years	CARRASCO 2014, BISELLO & MASCHERINI 2017, CABEZA-GARCÍA et al. 2018, VÁSCONEZ-RODRÍGUEZ 2017, KLASÉN & MINASYAN 2017, LÖFSTRÖM 2009, MITRA et al. 2015, CUBERES & TEIGNIER 2016, KLASÉN 1999, KLASÉN & LAMANNA 2009, VAN DER ZWAN et al. 2012, IHSEN 2014, MISHRA et al. 2020	positive
total fertility rate	Total fertility rate	CARRASCO 2014, VAN DER ZWAN et al. 2012, CABEZA-GARCÍA et al. 2018	negative
formal childcare	Proportion of children under 3 in formal childcare with more than 30 hours of use per week	CARRASCO 2014, MUSUMECI & SOLERA 2013, VAN DER ZWAN et al. 2012, DUJARDIN et al. 2018, GEHRINGER & KLASÉN 2016, KECK & SARACENO 2013	positive
GPG	Ratio of median total median net equivalised income of women to median total median net equivalised income of men in purchasing power standards of persons aged 15-64 years	LÖFSTRÖM 2009, RAMANAYAKE & GHOSH 2017, SCHÖBER & WINTER-EBMER 2009, CAVALCANTI & TAVARES 2008, DAY 2012	positive and negative
self-employed	Relation of self-employed women with tertiary education between the ages of 15 and 64 to the ratio of self-employed men with tertiary education between the ages of 15 and 64 years	IHSEN 2014, MINNITI & NAUDÉ 2010, VERHEUL & VAN STEL 2010	positive
female board members	Proportion of female board members in the largest listed companies	DEZSO & ROSS 2012, FLABBI et al. 2019, ISIDRO & SOBRAL 2015, GRAVILI et al. 2019, HERNÁNDEZ-LARA et al. 2021	positive
parliament members	Proportion of seats held by women in national parliaments and governments	JAYASURIYA & BURKE 2013, CABEZA-GARCÍA et al. 2018, MISHRA et al. 2020, BOTHFELD & FUCHS 2011	positive
part-time	Ratio between the share of part-time employment among women aged 20-64 and the share of part-time employment among men aged 20-64 years	GEHRINGER & KLASÉN 2017, SIKIRIĆ 2021	positive
tertiary-level education	Ratio of women with tertiary-level education to men with tertiary-level education	CARRASCO 2014, KECK & SARACENO 2013	positive
<i>Covariate</i>			
unemployment	Unemployment rate of persons aged 20-64 years	NICKELL 1990, CASTELLS-QUINTANA & ROVUELA 2012	negative
R&D	Expenditure on research and development (R&D) in all sectors (business enterprise sector, government sector, higher education sector, non-profit private sector) in euros per inhabitant	HAUSMANN & JOHNSTON 2014, ACS et al. 2002	positive
patents	Number of registered patents	ACS et al. 2002	positive



Fig. 1: Overview of policy measures to increase the share of women in management positions in Europe. Source: EU 2019: 27–23, BERTRAND et al. 2019, SMITH 2014. Cartography: Lisett Diehl.

on the other hand, shows slight declines. The proportion rose particularly sharply in Cyprus (2005: 46.21, 2019: 90.65). Another important influencing factor is formal childcare. In Luxembourg, the proportion of children in daycare rose from 8 % in 2005 to 47.2 % in 2019. Denmark had the highest childcare rate, ranging from 54.5 % to 69.6 %. The share of children in formal childcare was particularly low in Romania and Slovakia. Fig. 2 also shows that there were no significant changes in the gender pay gap variable across Europe. The percentage of female parliamentarians was particularly low in Hungary (8.8 % in 2005 and 12.2 % in 2019), while in Sweden it was above 40 % throughout the period.

The results of the panel regressions are presented in Appendix 1 to 5. First, Model 1 is presented as the baseline model. Appendix 1 highlights the fact that R&D spending and unemployment rate, as well as patents, have a significant impact on the outcome variable in all models. The increase in R&D spending and patents leads to an increase in economic

output, and the increase in unemployment rate has a negative impact on per capita income. Therefore, the content of all models is consistent with the preliminary conceptual considerations (see Tab. 1).

In all models, an increase in the fertility rate leads to a decrease in economic output. Moreover, a significant positive effect was found in all models for the ratio of self-employed women to self-employed men and for the share of female supervisory board members in the largest listed companies. For the variables ‘gender pay gap’, which is ambivalently discussed in the literature, the ratio of women to men with tertiary education, the part-time ratio and the share of seats in national parliaments and governments occupied by women, no effect on economic growth could be proven.

A dummy variable is added to the basic model in Model 2 to analyse the effects of soft and hard measures to increase the number of women in leadership positions. It becomes clear that there are no significant changes in direct comparison with the

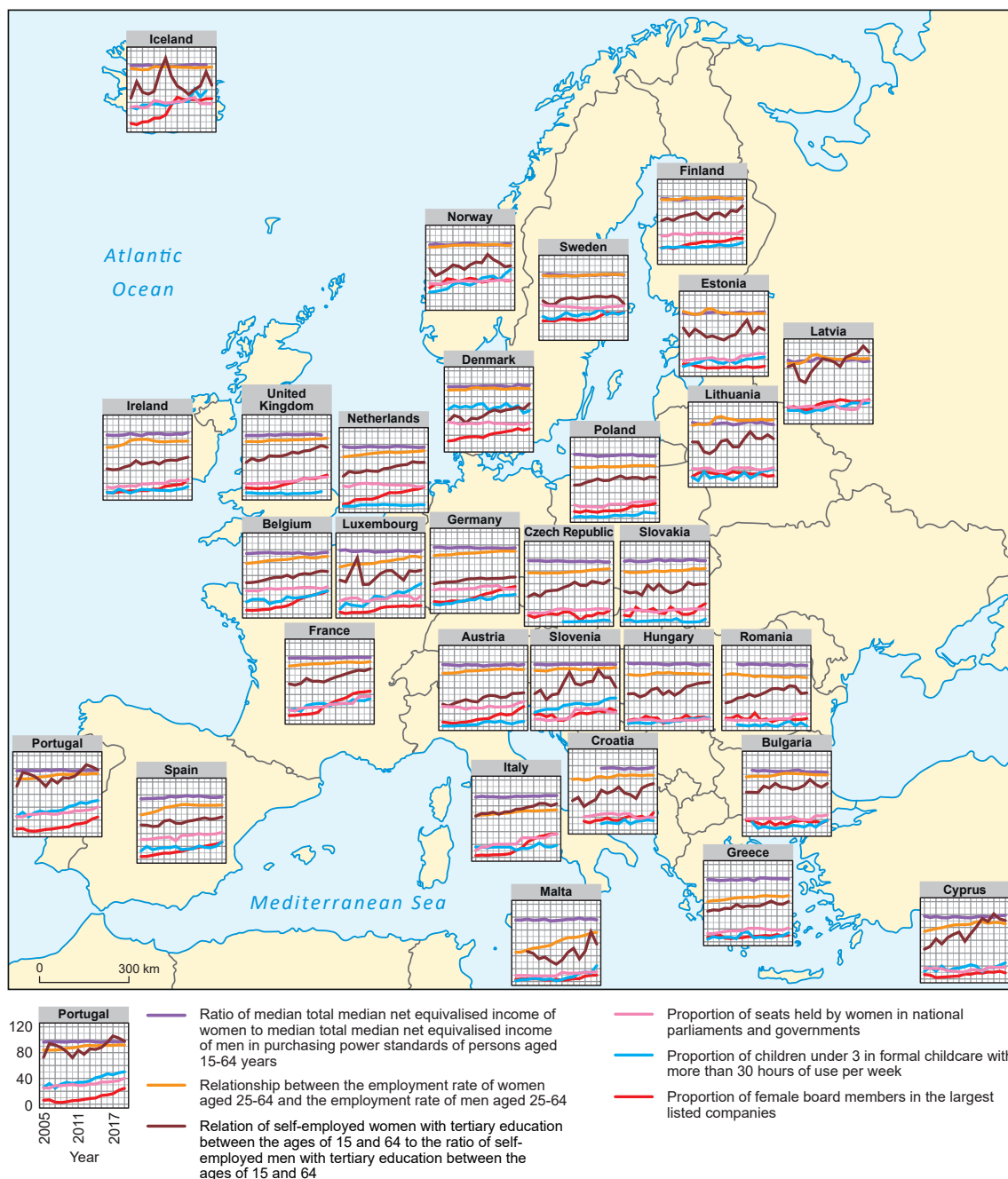


Fig. 2: Development of indicators of gender mainstreaming between 2005 and 2019 in European comparison. Data source: EUROSTAT 2021a-m. Cartography: Lisett Diehl.

baseline model. Nevertheless, soft and hard gender equality measures have a significant positive impact on GDP per capita.

The aforementioned spatial differences in gender equality in Europe are examined in Appendix 2-5. Appendix 2 considers the influence of Northern Europe using a dummy variable and interactions. It

becomes clear that in Northern Europe, particularly childcare measures, the share of women with tertiary education, supervisory board members and the general employment of women have a positive impact on economic growth. Furthermore, the fertility rate and the share of part-time employment are found to interact negatively.

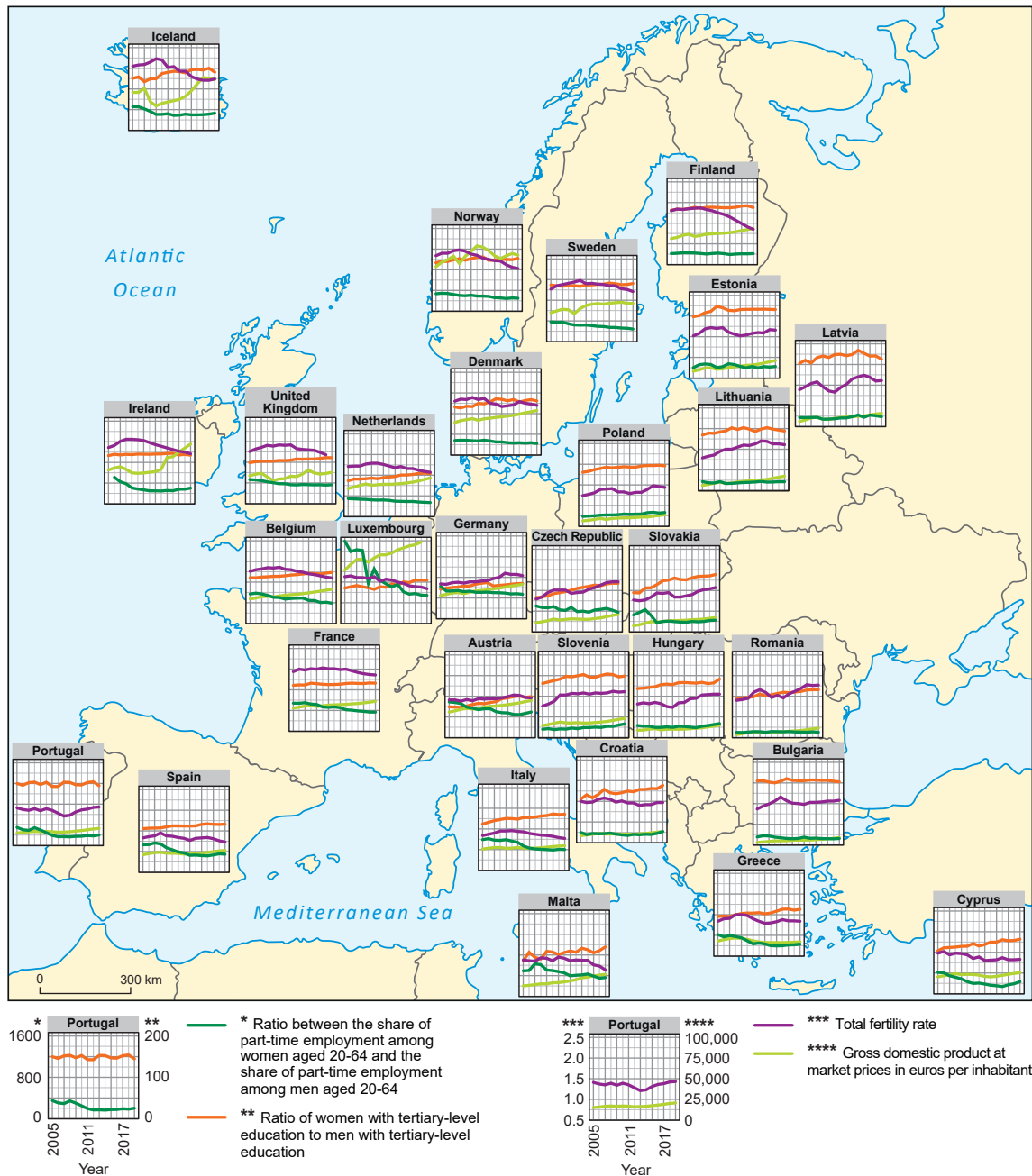


Fig. 3: Development of indicators of gender mainstreaming between 2005 and 2019 in European comparison. Data source: EUROSTAT 2021a-m. Cartography: Lisett Diehl.

For countries in Eastern Europe, it was found (cf. Appendix 3) that economic performance was boosted primarily by a high proportion of women with tertiary education and self-employment relative to men, a high proportion of female supervisory board members or parliamentarians, a high fertility rate and high employment. In addition, Appendix 4 shows that in Southern Europe, it

is above all the proportion of supervisory board members, the ratio of part-time employment between men and women, the employment rate and a high fertility rate that lead to an increase in economic performance, while the ratio of women to men with tertiary education and self-employment as well as the proportion of female parliamentarians have a negative impact.

For Western Europe, on the other hand, the share of female parliamentarians has a significant positive impact on economic growth (see Appendix 5). The fertility rate, on the other hand, has a negative impact.

5 Discussion and conclusion

The preceding results illustrate the relationship between gender equality and economic performance based on a panel regression. The objective was to examine a presumed impact of gender equality on the economic performance of countries in the study area using a secondary statistical panel regression.

Across Europe, it could be shown that women in management positions or female members of supervisory boards in the largest listed companies have a significantly positive impact on economic performance (cf. H7). In general, women are still underrepresented in leadership positions in Europe (cf. Fig. 2), which is why promoting gender equality in decision-making positions through appropriate measures is of great importance. Furthermore, this finding supports the results from Model 2 that both soft and hard measures can be effective instruments and key actions for improving gender equality.

It also became clear across Europe that the ratio of self-employed women to men (see H6) has a significant impact on a country's economic performance. Nevertheless, women are underrepresented in entrepreneurship compared to men (cf. Fig. 2). An equalization of the ratio can bring welfare gains for the economy, society and for individual women (EC & OECD 2016: 16). Therefore, measures should be developed to actively promote women's entrepreneurship and self-employment (e.g. mentoring programmes for women).

Despite these similar results across Europe, regional differences can be observed. While in principle an increase in employment (cf. for Eastern, Southern and Northern Europe) can lead to an increase in economic output, the value for Western/Central Europe, on the other hand, is not significant. A possible reason for this observation is that this group of countries is very heterogeneous. Countries such as Germany and Austria with rather conservative equality regimes are compared with countries such as the United Kingdom, which has a liberal equality regime (VON WAHL 2005).

A remarkable finding is that only for Northern Europe does formal childcare have a significant, albeit rather small, positive impact on GDP per capita

(see H4). Sweden and Denmark are pioneers in childcare, as both the childcare rate and the share of women in the labour market are the highest in Europe (EC & OECD 2016). In Sweden and Denmark, childcare is financed by the state - largely from taxpayers' money - and is thus equally accessible to all (WOLF & GRGIC 2009: 16). This suggests that, despite the empirical findings, a substantial financial contribution to childcare should be made by the public sector in other countries as well, in order to ensure the accessibility of childcare options and thus increase women's employment.

In principle, it should be pointed out in this context that the method used primarily measures the correlation of two characteristics. However, it cannot be conclusively clarified to what extent a well-developed childcare system leads to an increase in employment or whether high female employment leads to an expansion of childcare facilities.

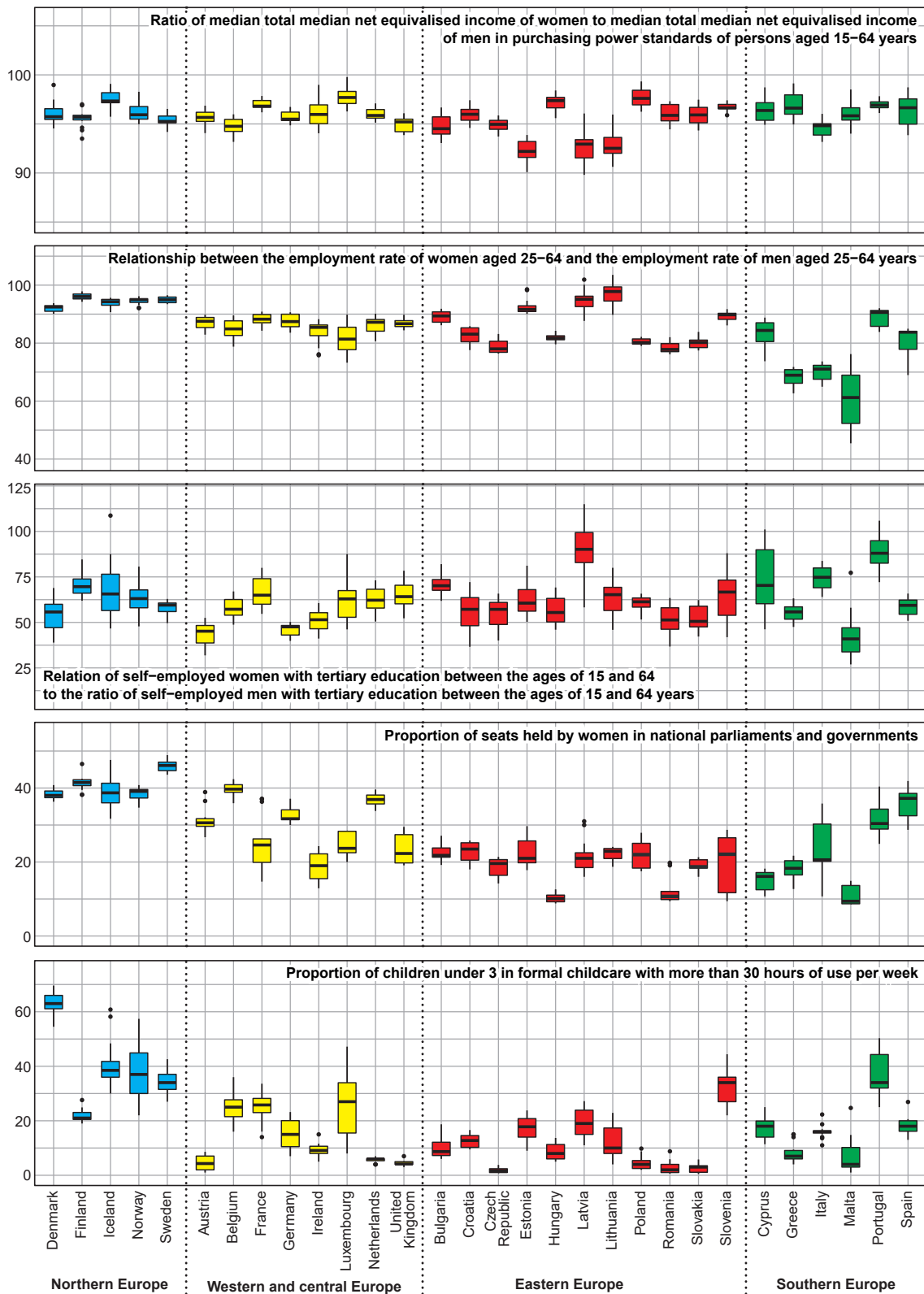
It is also surprising that increasing the fertility rate has a negative impact on economic performance especially in Western and Northern Europe (cf. H3), while in Southern and Eastern Europe a higher fertility rate has a positive impact.

Moreover, H8 could be confirmed for Western and Eastern Europe, where the share of women in parliamentary seats has a positive effect on GDP per capita. Therefore, targeted incentives should be provided in these country groups to attract women to parliamentary work. For tertiary education, it becomes clear (cf. H2) that the Eastern and Northern European countries in particular could further increase their economic performance with targeted measures to promote women (e.g. mentor programs in STEM fields).

Further differentiated analyses are still required for some of the variables used. In the existing literature, for example, ambivalent statements have been made regarding the gender pay gap (H5). The impact on economic growth is not clearly understood and may differ depending on the area under study.

However, methodological weaknesses should be taken into account when interpreting the results. One of the major limitations is the availability of data. It was not possible to obtain uniform age groups for all variables from Eurostat. Therefore, the variables 'GPG' and 'self-employed' refer to the 15 to 64 age group, the unemployment rate to the 20 to 64 age group and the employment rate for women to the 25 to 64 age group. This does not ensure optimal comparability.

It should be critically noted that hardly any social, religious, cultural or political factors are taken



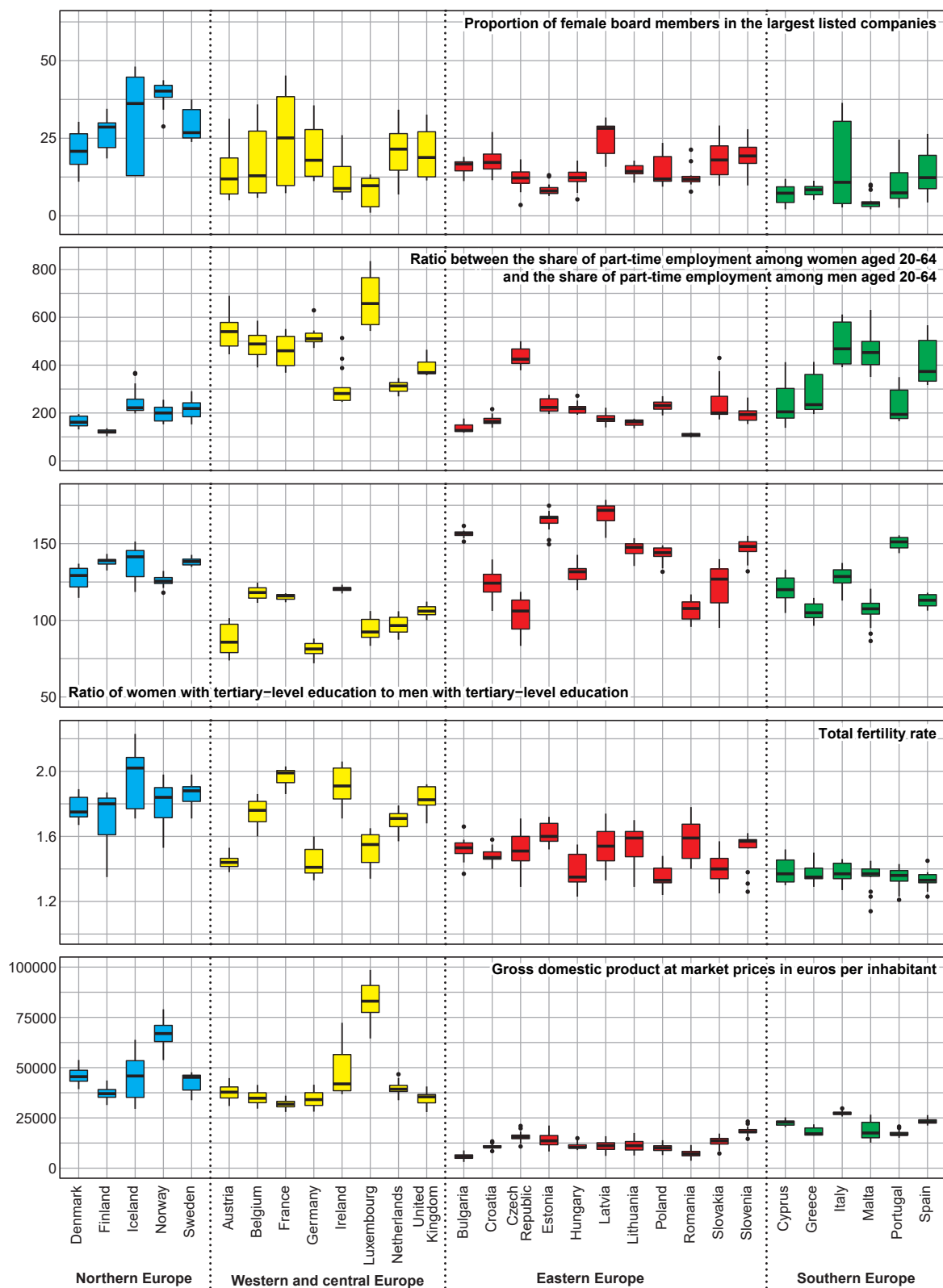


Fig. 4: Descriptive overview of the dependent and independent variables. Data source: EUROSTAT 2021a-m. Graphic design: Lisett Diehl.

into account in this analysis. Individual factors - such as household income, partnerships and the number of children - are also not included. An additional integration of variables into the models, e.g. to reflect the social position of women through a variable 'violence against women', would be a conceivable addition, but is statistically difficult to capture. It would also be advantageous to include the so-called 'career break' - represented, for example, by the duration of the family-related career interruption - in the model. Although some of these variables are provided by the Gender Index of the EU this is also based to a large part on data from Eurostat and is not available for the entire study period from 2005 to 2019.

In addition, regional differences - especially urban-rural differences (cf. COLLINS et al. 2004) - are not taken into account in this analysis. Due to insufficient data availability at the regional level, the factors mentioned could not be integrated into the analysis. Therefore, additional gender-specific data should be collected and published: firstly with regard to the spatial dimension, especially at the small-scale level such as the NUTS 3 level, and secondly with regard to essential variables such as the aforementioned duration of family-related work breaks.

In addition, more gender-specific data at different scale levels should be freely available for the entire EU for more differentiated research projects in the future. Further studies can thus contribute to a more precise and demand-oriented assessment of the family policy framework and the transfer into practice. Ultimately, these studies help the policy governance level with knowledge-based tools and a comprehensive understanding of the connection of women as an 'economic productive factor' for social cohesion, competitiveness and economic growth of countries (IHSEN et al. 2014: 12).

In light of the findings presented, greater consideration of all working-age individuals would be worthwhile, especially in economic terms, if the results are to be implemented by policy and economic decision-makers. Nevertheless, due to various limitations of the present research project, there is a need for further research on the relationship between gender equality and economic performance.

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Appendix

Appendix 1: Results of panel models. Data source: EUROSTAT 2021 a-m

	Dependent variable: log(GDP/capita)	
	(1)	(2)
Constant	7.0692*** (1.7859)	6.9677*** (1.7681)
log(R&D)	0.3060*** (0.0217)	0.2900*** (0.0218)
log(unemployment)	-0.1747*** (0.0143)	-0.1805*** (0.0142)
log(patens)	0.1042*** (0.0119)	0.0991*** (0.0118)
log(part-time)	0.0010 (0.0316)	-0.0132 (0.0314)
log(parliament members)	0.0163 (0.0263)	0.0137 (0.0260)
log(self-employed)	0.1026*** (0.0344)	0.1051*** (0.0340)
log(total fertility rate)	-0.1962*** (0.0702)	-0.1794*** (0.0695)
log(fem. board members)	0.0373*** (0.0114)	0.0347*** (0.0113)
log(employment rate)	0.0291 (0.1222)	0.0450 (0.1206)
log(GPG)	0.0759 (0.3796)	0.0108 (0.3761)
log(formal childcare)	0.0047 (0.0110)	0.0048 (0.0109)
log(tert.-level educ.)	0.0388 (0.0924)	0.0959 (0.0921)
Gender Equality Measure		0.3608*** (0.0908)
Observations	427	427
R ²	0.8199	0.8303
Adjusted R ²	0.8147	0.8250
F Statistic (p<0.01)	1734.7820	1831.6140

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 2: Results of panel models for Northern Europe. Data source: EUROSTAT 2021 a-m.

	Dependent variable:								
	log(GDP/capita)								
	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Constant	7.0929*** (1.8010)	6.7767*** (1.7891)	7.5426*** (1.7826)	7.0916*** (1.7844)	7.1288*** (1.7863)	6.9779*** (1.8307)	7.0651*** (1.8056)	6.7615*** (1.8002)	6.9014*** (1.7974)
log(R&D)	0.3073*** (0.0218)	0.3026*** (0.0217)	0.3109*** (0.0214)	0.3160*** (0.0215)	0.3001*** (0.0218)	0.3131*** (0.0217)	0.3089*** (0.0219)	0.3073*** (0.0217)	0.3093*** (0.0218)
log(unemployment)	-0.1731*** (0.0144)	-0.1750*** (0.0143)	-0.1780*** (0.0143)	-0.1757*** (0.0142)	-0.1730*** (0.0143)	-0.1714*** (0.0146)	-0.1737*** (0.0145)	-0.1758*** (0.0144)	-0.1786*** (0.0146)
log(patens)	0.1051*** (0.0120)	0.1049*** (0.0119)	0.1014*** (0.0119)	0.1011*** (0.0119)	0.1049*** (0.0119)	0.1055*** (0.0121)	0.1049*** (0.0120)	0.1025*** (0.0120)	0.1033*** (0.0120)
log(part-time)	0.0030 (0.0317)	0.0052 (0.0315)	-0.0126 (0.0315)	-0.0028 (0.0313)	-0.0007 (0.0315)	0.0059 (0.0318)	0.0022 (0.0318)	0.0076 (0.0317)	-0.0013 (0.0317)
log(parliament members)	0.0141 (0.0265)	0.0156 (0.0262)	0.0220 (0.0262)	0.0186 (0.0262)	0.0165 (0.0262)	0.0146 (0.0271)	0.0125 (0.0267)	0.0172 (0.0264)	0.0167 (0.0264)
log(self-employed)	0.1068*** (0.0348)	0.1091*** (0.0345)	0.1006*** (0.0344)	0.1107*** (0.0345)	0.1098*** (0.0345)	0.0989** (0.0388)	0.1092*** (0.0352)	0.1013*** (0.0347)	0.1014*** (0.0348)
log(total fertility rate)	0.0260 (0.0920)	0.0153 (0.0919)	-0.0906 (0.0954)	-0.0673 (0.0928)	-0.0283 (0.0932)	-0.0014 (0.0912)	0.0160 (0.0937)	0.0142 (0.0922)	0.0037 (0.0926)
log(fem. board members)	-0.2016*** (0.0707)	-0.1606** (0.0720)	-0.1379* (0.0719)	-0.1577** (0.0709)	-0.1134 (0.0767)	-0.2000*** (0.0717)	-0.1984*** (0.0712)	-0.1802** (0.0712)	-0.1944*** (0.0706)
log(employment rate)	0.0862 (0.3825)	0.1188 (0.3795)	0.0449 (0.3778)	0.1037 (0.3787)	0.0744 (0.3794)	0.1387 (0.3881)	0.0977 (0.3837)	0.1238 (0.3813)	0.1434 (0.3824)
log(GPG)	0.0162 (0.1227)	0.0652 (0.1232)	0.1016 (0.1234)	0.0953 (0.1234)	0.0813 (0.1239)	0.0114 (0.1248)	0.0200 (0.1235)	0.0654 (0.1247)	0.0357 (0.1227)
log(formal childcare)	0.0377*** (0.0115)	0.0359*** (0.0114)	0.0298*** (0.0115)	0.0261** (0.0118)	0.0358*** (0.0114)	0.0382*** (0.0116)	0.0370*** (0.0116)	0.0344*** (0.0115)	0.0345*** (0.0116)
log(tert.-level educ.)	0.0047 (0.0111)	0.0017 (0.0110)	0.0076 (0.0110)	0.0067 (0.0110)	0.0043 (0.0110)	0.0063 (0.0112)	0.0047 (0.0111)	0.0045 (0.0110)	0.0053 (0.0110)
Northern Europe	0.1030 (0.1156)	-0.5935* (0.3058)	-4.1082*** (1.1460)	-0.2474* (0.1418)	0.4138*** (0.1587)	-0.1324 (0.3514)	-0.1674 (0.6268)	1.0876** (0.5292)	-7.5210* (4.0427)
log(formal childcare): Northern Europe		0.1844** (0.0745)							
log(tert.-level educ.): Northern Europe			0.8588*** (0.2327)						
log(fem. board members): Northern Europe				0.1022*** (0.0274)					
log(total fertility rate): Northern Europe					-0.5242*** (0.1855)				
log(self-employed): Northern Europe						0.0551 (0.0806)			
log(parliament members): Northern Europe							0.0728 (0.1662)		
log(part-time): Northern Europe								-0.1743* (0.0914)	
log(employment rate): Northern Europe									1.6773* (0.8890)
Observations	427	427	427	427	427	427	427	427	427
R ²	0.8241	0.8252	0.8309	0.8328	0.8276	0.8310	0.8247	0.8246	0.8254
Adjusted R ²	0.8186	0.8192	0.8252	0.8272	0.8217	0.8253	0.8188	0.8187	0.8194
F Statistic (p<0.01)	1753.3460	1773.3360	1827.0570	1838.8310	1791.5310	1788.4120	1752.8770	1762.8540	1766.5020

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 3: Results of panel models for Eastern Europe. Data source: EUROSTAT 2021 a-m.

	<i>Dependent variable:</i>								
	log(GDP/capita)								
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Constant	7.2376*** (1.7572)	7.2405*** (1.7581)	7.8498*** (1.7633)	7.1934*** (1.7606)	7.8215*** (1.6736)	7.8293*** (1.7366)	6.7618*** (1.7629)	7.0641*** (1.7573)	7.7618*** (1.7780)
log(R&D)	0.2839*** (0.0221)	0.2829*** (0.0228)	0.2740*** (0.0224)	0.2866*** (0.0223)	0.2705*** (0.0212)	0.2727*** (0.0220)	0.2792*** (0.0221)	0.2839*** (0.0221)	0.2807*** (0.0221)
log(unemployment)	-0.1826*** (0.0142)	-0.1831*** (0.0145)	-0.1825*** (0.0141)	-0.1828*** (0.0142)	-0.1739*** (0.0136)	-0.1838*** (0.0140)	-0.1853*** (0.0142)	-0.1797*** (0.0143)	-0.1883*** (0.0146)
log(patents)	0.0983*** (0.0118)	0.0984*** (0.0119)	0.0949*** (0.0118)	0.0970*** (0.0119)	0.0931*** (0.0113)	0.1016*** (0.0117)	0.0972*** (0.0118)	0.0975*** (0.0118)	0.0958*** (0.0119)
log(part-time)	-0.0149 (0.0313)	-0.0153 (0.0315)	-0.0135 (0.0312)	-0.0096 (0.0321)	-0.0099 (0.0299)	-0.0227 (0.0310)	-0.0221 (0.0314)	0.0188 (0.0391)	-0.0267 (0.0320)
log(parliament members)	0.0162 (0.0258)	0.0165 (0.0258)	0.0141 (0.0257)	0.0149 (0.0259)	0.0012 (0.0247)	0.0079 (0.0255)	-0.0446 (0.0378)	0.0201 (0.0259)	0.0247 (0.0262)
log(self-employed)	0.1034*** (0.0338)	0.1035*** (0.0339)	0.1036*** (0.0336)	0.1025*** (0.0339)	0.0683** (0.0326)	0.0173 (0.0409)	0.0987*** (0.0337)	0.1067*** (0.0338)	0.1032*** (0.0337)
log(total fertility rate)	-0.1825*** (0.0691)	-0.1846*** (0.0704)	-0.2326*** (0.0719)	-0.1733** (0.0702)	-0.5185*** (0.0838)	-0.2586*** (0.0713)	-0.2004*** (0.0693)	-0.1891*** (0.0692)	-0.2041*** (0.0701)
log(fem. board members)	0.1258 (0.0935)	0.1287 (0.0947)	-0.0235 (0.1128)	0.1220 (0.0935)	0.0279 (0.0909)	0.1252 (0.0924)	0.1077 (0.0934)	0.1139 (0.0940)	0.1039 (0.0945)
log(employment rate)	0.0344*** (0.0112)	0.0345*** (0.0113)	0.0393*** (0.0114)	0.0385*** (0.0123)	0.0331*** (0.0107)	0.0404*** (0.0112)	0.0403*** (0.0115)	0.0393*** (0.0117)	0.0343*** (0.0112)
log(GPG)	0.0029 (0.0108)	0.0009 (0.0164)	0.0070 (0.0109)	0.0031 (0.0108)	0.0028 (0.0103)	0.0040 (0.0107)	0.0026 (0.0108)	0.0046 (0.0109)	0.0042 (0.0108)
log(formal childcare)	0.0443 (0.1202)	0.0503 (0.1252)	0.0938 (0.1212)	0.0418 (0.1203)	0.0988 (0.1149)	0.0991 (0.1194)	0.1122 (0.1236)	0.0783 (0.1222)	-0.0186 (0.1258)
log(tert.-level educ.)	0.0191 (0.3737)	0.0126 (0.3750)	0.0087 (0.3711)	0.0241 (0.3742)	0.0315 (0.3556)	-0.0536 (0.3683)	0.1415 (0.3761)	-0.0165 (0.3735)	0.0081 (0.3725)
Eastern Europe	-0.3771*** (0.0955)	-0.3870*** (0.1156)	-2.1698*** (0.7609)	-0.3166*** (0.1208)	-0.7748*** (0.1143)	-1.3214*** (0.2799)	-0.7353*** (0.1885)	0.0760 (0.3302)	-2.3867** (1.1985)
log(formal childcare): Eastern Europe		0.0032 (0.0205)							
log(tert.-level educ.): Eastern Europe			0.3641** (0.1533)						
log(fem. board members): Eastern Europe				-0.0206 (0.0261)					
log(total fertility rate): Eastern Europe					0.8701*** (0.1342)				
log(self-employed): Eastern Europe						0.2239*** (0.0622)			
log(parliament members): Eastern Europe							0.1095** (0.0498)		
log(part-time): Eastern Europe								-0.0820 (0.0570)	
log(employment rate): Eastern Europe									0.4490* (0.2669)
Observations	427	427	427	427	427	427	427	427	427
R ²	0.8269	0.8262	0.8277	0.8283	0.8402	0.8302	0.8292	0.8265	0.8268
Adjusted R ²	0.8215	0.8203	0.8219	0.8225	0.8348	0.8245	0.8234	0.8206	0.8209
F Statistic (p<0.01)	1813.5260	1804.1210	1828.8100	1820.2040	2013.8100	1865.0230	1837.1850	1811.6460	1815.4280

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 4: Results of panel models for Western and Central Europe. Data source: EUROSTAT 2021 a-m.

	Dependent variable:								
	log(GDP/capita)								
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
Constant	6.9995*** (1.7801)	6.9453*** (1.7909)	7.0190*** (1.7804)	6.7607*** (1.8091)	6.5585*** (1.7562)	7.0428*** (1.7799)	7.0049*** (1.7834)	6.6567*** (1.7886)	6.9626*** (1.8040)
log(R&D)	0.2971*** (0.0222)	0.2975*** (0.0224)	0.2953*** (0.0223)	0.3017*** (0.0221)	0.2961*** (0.0219)	0.2960*** (0.0222)	0.3017*** (0.0221)	0.2995*** (0.0223)	0.3006*** (0.0221)
log(unemployment)	-0.1771*** (0.0143)	-0.1771*** (0.0143)	-0.1776*** (0.0143)	-0.1738*** (0.0145)	-0.1711*** (0.0142)	-0.1777*** (0.0143)	-0.1738*** (0.0144)	-0.1762*** (0.0143)	-0.1754*** (0.0144)
log(patens)	0.1019*** (0.0120)	0.1020*** (0.0120)	0.1011*** (0.0120)	0.1027*** (0.0120)	0.0973*** (0.0118)	0.1016*** (0.0120)	0.1019*** (0.0120)	0.1010*** (0.0119)	0.1025*** (0.0120)
log(part-time)	-0.0063 (0.0317)	-0.0051 (0.0321)	-0.0075 (0.0318)	0.0004 (0.0322)	-0.0013 (0.0313)	-0.0067 (0.0317)	0.0031 (0.0321)	0.0112 (0.0338)	-0.0044 (0.0324)
log(parliament members)	0.0186 (0.0262)	0.0192 (0.0263)	0.0159 (0.0265)	0.0184 (0.0264)	0.0104 (0.0259)	0.0189 (0.0262)	0.0021 (0.0278)	0.0185 (0.0261)	0.0177 (0.0265)
log(self-employed)	0.1018*** (0.0343)	0.1021*** (0.0343)	0.1010*** (0.0343)	0.1025*** (0.0346)	0.0979*** (0.0337)	0.1072*** (0.0354)	0.0965*** (0.0345)	0.1046*** (0.0342)	0.1029*** (0.0346)
log(total fertility rate)	0.0886 (0.0959)	0.0837 (0.0983)	0.1237 (0.1060)	0.0696 (0.0958)	0.1003 (0.0947)	0.0966 (0.0964)	0.0985 (0.0960)	0.0862 (0.0958)	0.0756 (0.0960)
log(fem. board members)	-0.1971*** (0.0700)	-0.1975*** (0.0701)	-0.1972*** (0.0700)	-0.1976*** (0.0705)	-0.0872 (0.0757)	-0.1988*** (0.0701)	-0.1918*** (0.0701)	-0.1992*** (0.0698)	-0.1995*** (0.0705)
log(employment rate)	0.0349*** (0.0114)	0.0341*** (0.0117)	0.0368*** (0.0117)	0.0296** (0.0129)	0.0322*** (0.0113)	0.0365*** (0.0117)	0.0321*** (0.0116)	0.0308*** (0.0117)	0.0352*** (0.0120)
log(GPG)	0.0062 (0.0110)	0.0046 (0.0121)	0.0082 (0.0113)	0.0061 (0.0111)	0.0088 (0.0109)	0.0066 (0.0110)	0.0059 (0.0110)	0.0034 (0.0111)	0.0071 (0.0112)
log(formal childcare)	0.0686 (0.3783)	0.0787 (0.3809)	0.0410 (0.3799)	0.1370 (0.3836)	0.1400 (0.3731)	0.0495 (0.3789)	0.0443 (0.3794)	0.1138 (0.3786)	0.0954 (0.3838)
log(tert.-level educ.)	0.0102 (0.1223)	0.0161 (0.1233)	0.0005 (0.1230)	0.0015 (0.1231)	0.0181 (0.1205)	0.0074 (0.1225)	0.0223 (0.1227)	0.0209 (0.1220)	-0.0033 (0.1233)
Western/Central Europe	0.1944* (0.1048)	0.1757 (0.1246)	0.7318 (0.7116)	0.1358 (0.1057)	0.4849*** (0.1353)	0.3664 (0.2964)	-0.1338 (0.2102)	0.6274** (0.3030)	0.1830 (1.0735)
log(formal childcare): West- ern/Central Europe		0.0066 (0.0220)							
log(tert.-level educ.): Western/Central Europe			-0.1131 (0.1482)						
log(fem. board members): Western/Central Europe				0.0161 (0.0164)					
log(total fertility rate): Western/Central Europe					-0.5518*** (0.1579)				
log(self-employed): Western/Central Europe						-0.0415 (0.0673)			
log(parliament members): Western/Central Europe							0.0966* (0.0554)		
log(part-time): Western/Central Europe								-0.0729 (0.0479)	
log(employment rate): Western/Central Europe									0.0005 (0.2386)
Observations	427	427	427	427	427	427	427	427	427
R ²	0.8212	0.8207	0.8212	0.8270	0.8247	0.8205	0.8248	0.8210	0.8258
Adjusted R ²	0.8155	0.8146	0.8151	0.8211	0.8188	0.8144	0.8189	0.8149	0.8199
F Statistic (p<0.01)	1747.1450	1740.9800	1744.8250	1775.9920	1798.7740	1741.0340	1770.8810	1749.4350	1767.0170

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 5: Results of panel models for Southern Europe. Data source: EUROSTAT 2021 a-m.

	Dependent variable:								
	log(GDP/capita)								
	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)
Constant	6.9795*** (1.7790)	6.4567*** (1.8031)	4.9899*** (1.8039)	6.3541*** (1.7654)	6.7164*** (1.7792)	6.0911*** (1.7624)	5.3666*** (1.7790)	6.5432*** (1.7574)	5.7758*** (1.9275)
log(R&D)	0.3074*** (0.0217)	0.2995*** (0.0221)	0.3051*** (0.0213)	0.3036*** (0.0215)	0.3102*** (0.0218)	0.3006*** (0.0214)	0.3030*** (0.0213)	0.3167*** (0.0217)	0.3048*** (0.0217)
log(unemployment)	-0.1764*** (0.0143)	-0.1805*** (0.0144)	-0.1766*** (0.0140)	-0.1731*** (0.0141)	-0.1749*** (0.0143)	-0.1802*** (0.0140)	-0.1787*** (0.0140)	-0.1694*** (0.0142)	-0.1808*** (0.0144)
log(patterns)	0.1033*** (0.0119)	0.1053*** (0.0119)	0.0994*** (0.0117)	0.1042*** (0.0118)	0.1010*** (0.0119)	0.1039*** (0.0117)	0.0991*** (0.0117)	0.0982*** (0.0118)	0.1016*** (0.0119)
log(part-time)	-0.0002 (0.0315)	0.0027 (0.0315)	-0.0017 (0.0309)	-0.0049 (0.0311)	-0.0060 (0.0316)	-0.0114 (0.0311)	-0.0012 (0.0308)	-0.0466 (0.0339)	-0.0021 (0.0314)
log(parliament members)	0.0163 (0.0262)	0.0204 (0.0262)	0.0361 (0.0260)	0.0253 (0.0259)	0.0185 (0.0261)	0.0186 (0.0257)	0.0708** (0.0285)	0.0247 (0.0259)	0.0251 (0.0266)
log(self-employed)	0.0982*** (0.0343)	0.1052*** (0.0345)	0.0985*** (0.0336)	0.1006*** (0.0339)	0.1053*** (0.0344)	0.1596*** (0.0374)	0.0841** (0.0337)	0.1063*** (0.0339)	0.0981*** (0.0342)
log(total fertility rate)	-0.1809** (0.0704)	-0.1987*** (0.0710)	-0.2174*** (0.0694)	-0.1667** (0.0696)	-0.2154*** (0.0728)	-0.2107*** (0.0696)	-0.1882*** (0.0688)	-0.1779** (0.0694)	-0.1971*** (0.0708)
log(fem. board members)	0.0290 (0.0924)	0.0173 (0.0929)	0.1101 (0.0925)	-0.0182 (0.0931)	0.0172 (0.0927)	-0.0173 (0.0924)	0.0198 (0.0908)	-0.0288 (0.0936)	0.0089 (0.0938)
log(employment rate)	0.0383*** (0.0114)	0.0347*** (0.0115)	0.0298*** (0.0113)	0.0567*** (0.0126)	0.0370*** (0.0114)	0.0347*** (0.0112)	0.0407*** (0.0111)	0.0368*** (0.0112)	0.0330*** (0.0118)
log(GPG)	0.0027 (0.0110)	0.0089 (0.0116)	-0.0002 (0.0108)	-0.0012 (0.0109)	0.0036 (0.0110)	0.0033 (0.0110)	0.0001 (0.0108)	0.0003 (0.0109)	0.0020 (0.0110)
log(formal childcare)	0.0683 (0.1233)	0.1713 (0.1385)	0.3133** (0.1340)	0.1394 (0.1236)	0.1154 (0.1259)	0.2104* (0.1268)	0.2496* (0.1277)	0.1928 (0.1270)	0.3169 (0.1979)
log(tert.-level educ.)	0.0625 (0.3781)	0.0867 (0.3773)	0.1775 (0.3711)	0.1692 (0.3746)	0.0874 (0.3771)	0.1389 (0.3719)	0.2343 (0.3719)	0.1327 (0.3732)	0.1121 (0.3783)
Southern Europe	0.2109* (0.1091)	0.3226** (0.1312)	3.7627*** (0.8500)	0.3482*** (0.1198)	0.1076 (0.1256)	1.1792*** (0.2790)	0.8922*** (0.1932)	-0.6458** (0.2766)	1.5604* (0.8493)
log(formal childcare): Southern Europe		-0.0400 (0.0247)							
log(tert.-level educ.): Southern Europe			-0.7364*** (0.1747)						
log(fem. board members): Southern Europe				-0.0549*** (0.0168)					
log(total fertility rate): Southern Europe					0.3389* (0.1942)				
log(self-employed): Southern Europe						-0.2316*** (0.0611)			
log(parliament members): Southern Europe							-0.2135*** (0.0496)		
log(part-time) : Southern Europe								0.1527*** (0.0451)	
log(employment rate): Southern Europe									-0.3051 (0.1903)
Observations	427	427	427	427	427	427	427	427	427
R ²	0.8211	0.8213	0.8272	0.8241	0.8216	0.8255	0.8274	0.8243	0.8210
Adjusted R ²	0.8154	0.8152	0.8213	0.8181	0.8156	0.8196	0.8216	0.8183	0.8149
F Statistic (p<0.01)	1747.7160	1752.4560	1829.2150	1791.1130	1755.4720	1809.7210	1832.8420	1794.7040	1750.6590

Note: *p<0.1; **p<0.05; ***p<0.01