ZESZYTY NAUKOWE
WYDZIAŁU NAUK EKONOMICZNYCH

ISSN 2300-1232 27/2023, 9-34

Ernest BURZAK*

SELECTED INDICATORS OF THE GENDER PAY GAP IN THE EU AND ITS RELATIONSHIP WITH LABOUR FORCE PARTICIPATION RATE OF WOMEN

Abstract: The paper explores the causal relationship between the Gender Pay Gap and the Labour Force Participation Rate of women in the EU. Having outlined the nature and role of remuneration in the economy, it analyses the causes for both phenomena through the scope of various schools of economic thought, as well as uses recent empirical evidence and data to offer possible determinants for both the GPG and female LFPR, stemming from the social structure as well as legislation. Further, it uses regression analysis of historical data to find a negative relationship between the Gender Pay Gap and female Labour Force Participation Rate and discusses the limitations of the findings using the model. Lastly, using the above findings and previous legislation it offers policy solutions for states and private entities towards narrowing the pay and LFPR gaps, per the author's opinion.
Keywords: gender pay gap, labour force participation gap, European Union.

Introduction

Every developed country in the world is faced with solving the issue of the Gender Pay Gap, as well as the labour force participation gap. These phenomena have reports dedicated to them from the World Bank, the UN, the European Commission etc., with just the latter being identified as causing an economic loss of €370 billion annually[1]. It was also attempted to quantify the GPG's impact on the EU economy, and the findings suggest that for a 1%

* Politechnika Koszalińska, Wydział Nauk Ekonomicznych, absolwent kierunku finanse i rachunkowość

[1] *Women's situation in the labour market.* The European Commission, 2022, https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/women-labour-market-work-life-balance/womens-situation-labour-market_en, (22.07.2023).

reduction of the gap, the GDP would increase by 0.1%[2], possibly leading to an additional €1.95 to €3.15 trillion by 2050[3]. This is said to be due to the increase of women's consumption, lessening strain on the welfare system, increase in fertility rate, decreasing the likelihood of women's poverty after retiring, and most importantly for this work – lessening of the labour force participation gap. Furthermore, within the efficiency wage relation theory one could imagine a noticeable decrease in wages having an impact on women's motivation within the workplace, not to mention a more qualitative influence on their livelihoods and the general welfare of society[4]. It is therefore said that "bridging the gender pay gap" is more of an investment than a cost, as it is expected to increase economic output and overall generate returns in the future.

The research questions of this paper are formulated as follows:

- What is the relation between GPG and female labour force participation?
- How much of the labour force participation gap can be explained by GPG?
- What other previously theorized determinants of the labour force participation
- gap are identifiable in EU?
- What other previously theorized determinants of the gender pay gap are identifiable in EU?

The first two questions are the primary focus of the work, to increase the understanding of how the phenomena of GPG and labour force participation gap are connected and to what extent policies that affect one of those issues can affect the other. The remaining two questions are to facilitate the exploratory nature of this paper and expand the scope of recommendations. The research hypotheses based on the above questions are therefore:

- H1 There is no relation between GPG and female labour force participation.
- H2 No amount of the labour force participation gap can be explained by GPG.

---

[2] *European added value assessment on the application of the principle of equal pay for men and women for equal work of equal value.* Directorate-General for Internal Policies of the Union (European Parliament), 2013, https://op.europa.eu/en/publication-detail/-/publication/98a2b7d9-eb87-490b-81cb-987deea0d078 (22.07.2023).

[3] *Economic Benefits of Gender Equality in the European Union.* European Institute for Gender Equality, 2017, https://eige.europa.eu/newsroom/economic-benefits-gender-equality?language_content_entity=en (22.07.2023).

[4] *Understanding the gender pay gap: definition and causes. European Parliament* https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vl59mpupm0vq?ctx=vk4jic6t1dxz (22.07.2023).

- H3 There are no other previously theorized determinants of the labour force participation identifiable in the EU.
- H4 There are no other previously theorized determinants of the gender pay gap identifiable in the EU.

Literature Review

As empirical support for a gender pay gap (hereinafter GPG) in different economies mounts, stating its existence as fact has now become uncontroversial. Following that, research has shifted to examine outcomes that can logically follow from a pay gap. One such outcome could be diminishing of female labour force participation, as the lack of prospects for promotion or pay rise associated with the gender pay gap could contribute to decreased numbers of women joining the workforce. This is a two-fold effect, as when showcased to the public it can challenge the proposition of „equal pay for equal work", reducing worker morale and further driving them away from pursuing employment[5]. There are also inquiries into this relation from the economical perspective. This idea can be inferred from Smith's *The Wealth of Nations*, wherein he identifies the overall tendency of the "liberal reward of labour" to be tied to the demand for labour, and where demand increases the reward must also increase. This is significant as it sets the theoretical foundation for the presumption that the reward for women's labour being lower than men's will necessarily lead to women's labour force participation rate (the supply side of labour) to also be lower than that of men's. Additionally, where he mentions the money price of labour as being comprised of the demand for labour and "the price of the necessaries of life" (what Marx would later call the cost of reproduction of labour power in e.g. *Capital: A Critique of Political Economy*) it is important to note that child bearing will necessarily be part of that cost of reproduction, and where it is not met that reproduction will not happen or will happen suboptimally. Admittedly, the Gender Pay Gap or the Labour Force Participation Gap are not specifically identified and examined as issues by Smith, however he does identify the phenomenon of women performing unpaid labour, either in sewing or agriculture, for the benefit of their family, and overall that women's work is separate to that of men's work, as is their societal role. One of the main Keynesian policy goals for the State is to strive towards full productive employment of the workforce. That goal is made more difficult in an economic environment where downward pressure is exerted on female labour force participation.

[5] *How the gender pay gap affects women's mental health* CNBC 2020, https://www.cnbc.com/2020/03/31/how-the-gender-pay-gap-affects-womens-mental-health.html (22.07.2023).

These reasons alone make the above an especially important issue for boards of directors who represent shareholder interests, as well as lawmakers, who are accountable to the public. On the micro-scale, motivated employees are the building blocks of successful companies (Lee, Raschke; 2016)[6]. On the macro-scale, increased labour force participation increases overall productivity of the economy and GDP (Bryant et al. 2004)[7], while also positively impacting public opinion.

One of the previous studies relating to this topic[8] found GPG and LFPR of women positively correlated across the EU. The finding was based on data from 2018, one data point per member state of the EU. The discussion of the results emphasized the importance of family policy, particularly improving access to childcare, in response to both GPG and LFPR. A positive relationship between GPG and LFPR suggests that women with lower human capital are disincentivized from joining the labour market. Where the demand for labour, welfare policies or other factors incentivize these women to find employment, their market outcomes are worse than their peers with higher human capital. This is consistent with one of the hypothesized outcomes of diminished human capital in women. However, the study is not primarily focused on this relationship. Single data points and little statistical modelling diminish the study's usefulness in further analysis of the GPG-LFPR relationship. Another paper[9] discusses the reasons for changes in labour market outcomes, including the gender earnings gap and female labour force participation over the period 1968-1997. It discusses the importance of asymmetrical information in the labour market, and shows that it is quantitatively important as a determinant. It further emphasizes education and education signalling, but as the variables were beyond the scope of the study it suggests these to be included in future research.

---

[6] M. Lee, R. Raschke, *Understanding employee motivation and organizational performance: Arguments for a set-theoretic approach* 2016, https://www.sciencedirect.com/science/article/pii/S2444569X16000068 (22.07.2023).

[7] J. Bryant, V. Jacobsen, M. Bell, D. Garrett*, Labour Force Participation and GDP in New Zealand* 2004 https://www.econstor.eu/bitstream/10419/205547/1/twp2004-07v2.pdf (22.07.2023).

[8] Schmieder, J., Wrohlich, K. *Gender pay gap in a European comparison: Positive correlation between the female labor force participation rate and the gender pay gap*, 2021, https://www.econstor.eu/bitstream/10419/232991/1/1750212218.pdf (22.01.2024).

[9] Gayle, G., Limor, G. *Estimating a Dynamic Adverse-Selection Model: Labour-Force Experience and the Changing Gender Earnings Gap 1968-1997*, 2011, https://academic.oup.com/restud/article-abstract/79/1/227/1563407 (22.01.2023).

A different paper[10] found female earnings and labour participation to both trend upwards over time in South Africa, but did not comment on correlation or causation, rather attributing these to decreasing employment in male-dominated sectors and increasing employment in the tertiary sector. However, it does attribute the narrowing of the gender pay gap to increased representation of women in technical and professional occupations and offers educational attainment as a determinant.

In summary, several studies have been done around this topic, however only one looked into specifically the GPG-LFPR correlation in the EU. The correlation was found to be positive. This suggests a gap in knowledge, as of the examined studies only one specifically modelled the relation between these variables, based on a single data point per variable and the resulting relation is inverse compared to the supply-side explanation offered by selected works of political economy cited earlier in this paper. I believe this to be a sufficient reason to analyse the available data further.

The above builds the theoretical basis of this research paper, whose objectives in the next chapters are to examine the phenomenon of the gender pay gap, as well as investigate its relation to female labour force participation in the EU, and the second – to suggest possible solutions for both company directors as well as lawmakers. It will be shown further that both the GPG and the discrepancy in the rate of participation in labour force in part stem from the same issues that women face, such as bias in recruiting, periods off work etc. The analytical chapters will attempt to investigate the extent to which these are correlated, by methods of regression analysis, trend analysis etc. The findings are going to influence the recommendations.

Empirical Analysis

Methodology

The quantitative methods include statistical analysis using regression models and descriptive statistics acquired from primarily MS Excel and IBM SPSS, in accordance with the Statistics for Business and Economics textbook. The databases used to acquire data for this research are specified where appropriate, but include publications from the European Statistical Office, International Labour Organization ILOSTAT database, the United Nations Statistics Division and the Organisation for Economic Co-operation and

[10] Mosomi, J. *An empirical analysis of trends in female labour force participation and the gender wage gap in South Africa*, 2019, https://www.tandfonline.com/doi/full/10.1080/10130950.2019.1656090 (22.01.2023).

Development Statistics. Care was taken to maintain definitional consistency between data items and labels from set to set. Nevertheless, the diverse spectrum of databases used gives rise to issues pertaining to changes in labeling, missing data in one set being available in another and other such inconsistencies between sets, which impact the predictive power of this research negatively (on an individual basis such issues lead to the excising of compromised data from the sample or forgoing the use of the set altogether; tables and visualisations affected are supplied with notes of the aforementioned). On the other hand, the difference in databases employed could be argued to improve the applicability of this research, especially where different samples analyzed point to the same conclusion. The surveys used are as follows:

- OECD Education at a Glance, which is a dataset of internationally comparable data of matched education, earnings by educational attainment, age and gender, gathered from national data sources.
- GUS Structure of wages and salaries by occupations, an analysis of differences in average monthly and hourly earnings by gender, age, educational attainment and other demographic indicators.
- Eurostat LFS main indicators, a dataset of main statistics regarding the EU labour market – unemployment and employment rates by gender, GPG adjusted and unadjusted and other selected indicators. The data is either based on the results of EU Labour Force Survey or imported from national accounts for certain EU members.

The sampled data is mostly composed of annual items from years 2015-2021. The examined timespans vary severely from one survey to another, especially across databases, but due to the limited quantity of available data (especially detailed, including sorting by industry, seniority etc.) this can only be acknowledged and is unlikely to be remedied. Therefore, throughout the analysis attempts were made to maintain high levels of consistency, and where the inconsistency could have impacted the results it is stated with transparency.

The areas sampled are the EU and its selected members for most of the research, and the rest of the world is only mentioned where applicable as comparison or in qualitative review. Selected EU members are examined individually and in more detail where resources allowed and where it was believed the predictive power of the research benefitted from such approach. Most of the research showcases broad trends and is based on averages of data of all EU states.

Subjects of study are the earnings of persons of working age, here defined as 15-64 (prioritised where data available, specified if altered to ie. 20-64), segregated by sex, and in specific tables also by other factors such as industry, line of employment, educational attainment. This ensures the highest

availability of data while supplying information allowing the study to be conducted. Furthermore, it will allow to infer additional information from both extremes of this age spectrum, contrary to previous examinations of less diverse and more stable populations, such as 25-55 in Bhalotra and Fernández.

Additionally, for examination of the GPG, these persons' income from labour is looked into, especially female in relation to male. Where definition of income from labour is altered from one database to the next, a note was made.

Qualitative methods include literature review for a theoretical background to the issue of the GPG and LFPG, to establish precedent for how these issues are formed, how they stem from labour relations of company-employee and remuneration inequality, and most importantly for this research, how those issues are argued to be interconnected, with influence on each other or shared causes. This theoretical foundation is primarily built on XIX and XX century seminal works of political economy. Further, additional newer theories more specific to the issues analysed in this paper are employed, such as for the Human Capital Theory, or the Efficiency Wage Relation. Lastly, specific research examining the GPG and LFPG in a similar manner to this paper is also used, with priority given to newer findings where possible.

The research herein was conducted using both quantitative and qualitative methods.

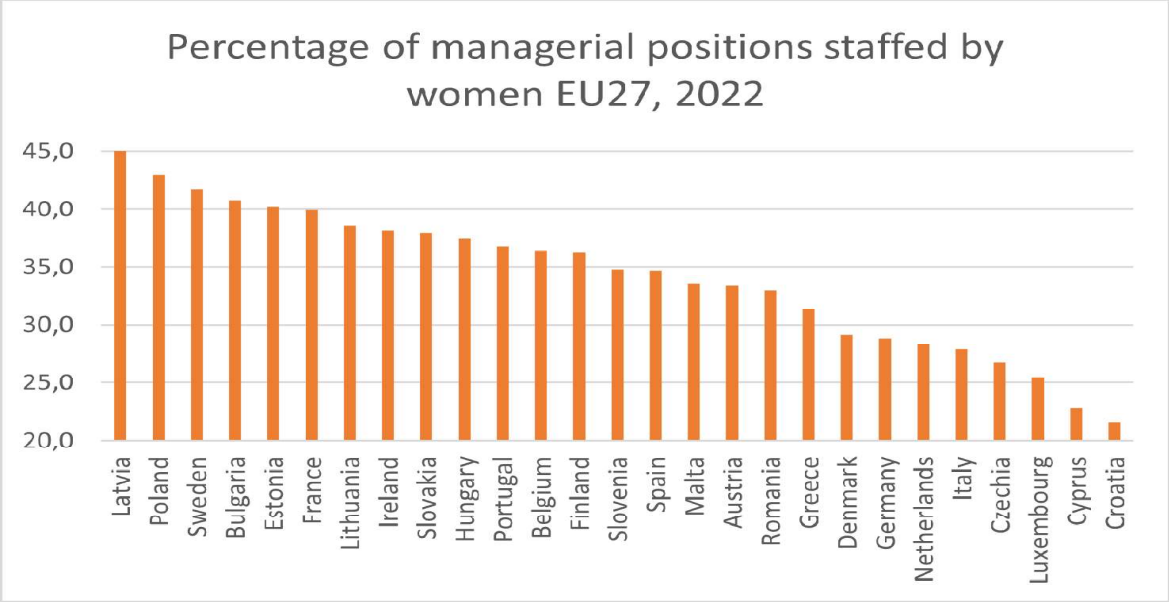
Selected GPG related phenomena – analysis

GPG is associated with a number of hypotheses and effects, which all form parts of the issue and are connected with it. Because of this, in order to understand the problem in the aggregate, it is necessary to examine its particulars. Following are selected phenomena contributing to and comprising the GPG, along with their empirical analysis:

- *Glass ceilings*, which is a term used to describe an occurence of men making up the overwhelming majority of executive and other high-paying positions in a given company[11], thus lowering the average pay of women in the company in the aggregate. This is usually caused when a company has a much higher tendency to give promotions to male employees of similar competency to their female coworkers, rather than their female peers. Logically, a crowding of higher remunerated positions by men follows, and with it an increase in the gender pay gap. The figure below demonstrates this tendency in the EU.

[11] A. Babic, I. Hansez, *The Glass Ceiling for Women Managers: Antecedents and Consequences for Work-Family Interface and Well-Being at Work,* https://www.frontiersin.org/articles/10.3389/fpsyg.2021.618250/full.

Figure 1. Percentage of managerial positions staffed by women in the EU 27, 2022



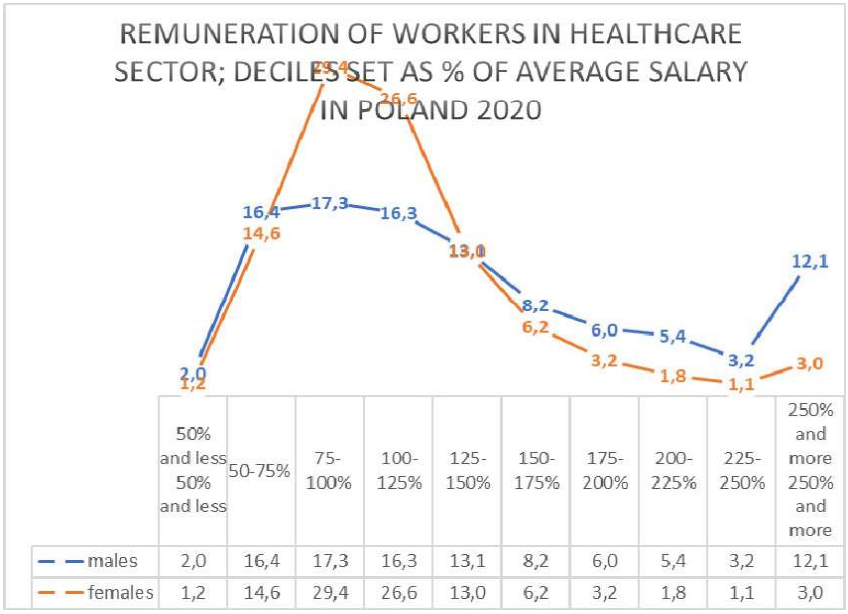
Source: ILOSTAT SDG indicator 5.5.2 – Proportion of women in managerial positions (%) Annual, own study.

As seen above in fig. 1, glass ceilings can certainly be identified in some countries of the EU, especially Croatia, Cyprus, Luxembourg. The country whose female populace is least susceptible to this phenomenon is Latvia, where after adjusting for labour force participation of female v male workers (75,5% v 78,6% respectively) a conclusion could be reached that the effect of this problem is greatly diminished. Data adjusted for the gap in labour force participation could prove beneficial to determining the extent to which this issue manifests in other countries.

The effect is also likely to demoralize the female employees, who might feel their work goes unrewarded.

- *Glass escalators*. A phenomenon that impacts men joining occupations which are traditionally "women's work". These men are much more likely to be given promotions in fields such as teaching or nursing, for example by being appointed principal in a school. This issue is said to appear predominantly in the healthcare and education sectors, as they mostly employ women. Therefore, the following examination showcases precisely these sectors in Poland. Due to lack of quantitative data regarding staffing of managerial or higher positions in these fields, the characteristic of remuneration is instead used, with more senior positions being assumed as being more highly remunerated. With that assumption in mind, the following charts were constructed from the available data.

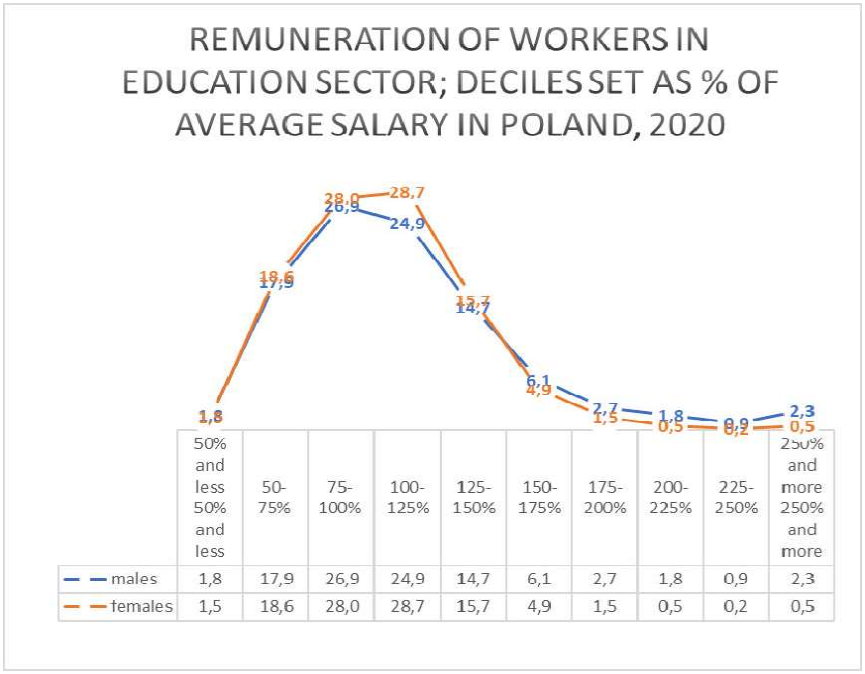
Figure 2. Remuneration of workers in healthcare sector; deciles set as % of average salary in Poland 2020



	50% and less 50% and less	50-75%	75-100%	100-125%	125-150%	150-175%	175-200%	200-225%	225-250%	250% and more 250% and more
males	2,0	16,4	17,3	16,3	13,1	8,2	6,0	5,4	3,2	12,1
females	1,2	14,6	29,4	26,6	13,0	6,2	3,2	1,8	1,1	3,0

Source: GUS structure of remuneration by occupational groups for October 2020.

Figure 3. Remuneration of workers in Education sector; deciles set as % of average salary in Poland, 2020



	50% and less 50% and less	50-75%	75-100%	100-125%	125-150%	150-175%	175-200%	200-225%	225-250%	250% and more 250% and more
males	1,8	17,9	26,9	24,9	14,7	6,1	2,7	1,8	0,9	2,3
females	1,5	18,6	28,0	28,7	15,7	4,9	1,5	0,5	0,2	0,5

Source: GUS structure of remuneration by occupational groups for October 2020.

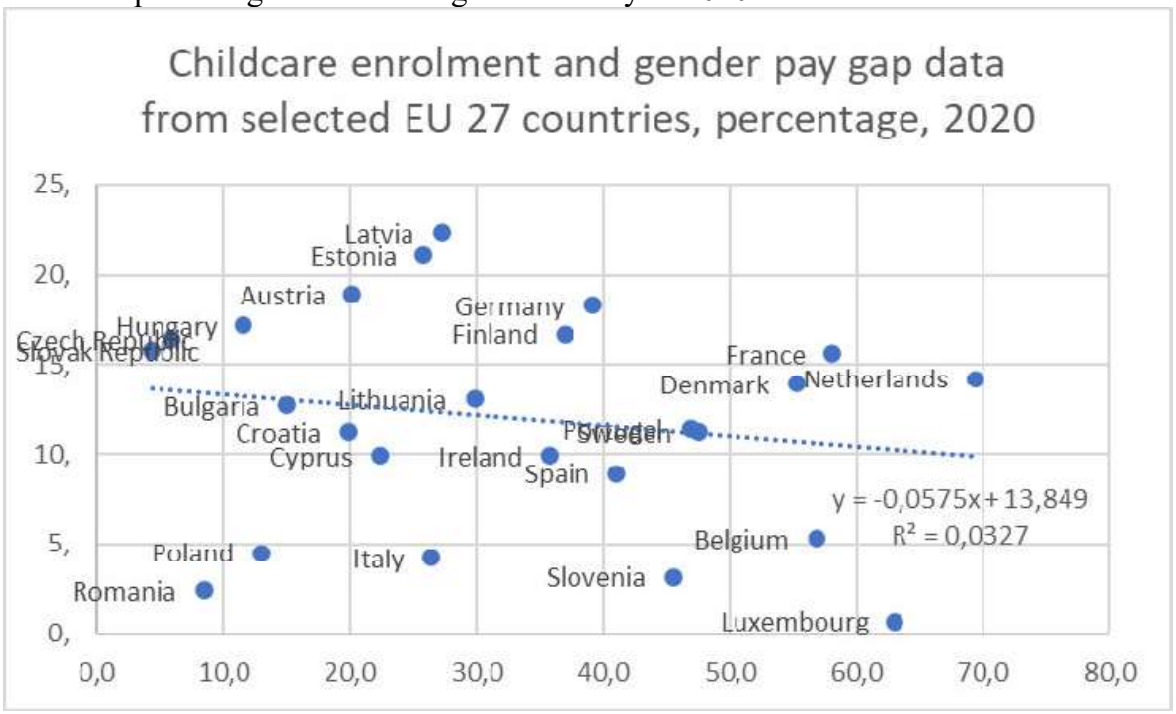
In a perfectly gender-equal society, with opportunities, education, human capital etc. being unimpacted by the person's gender, it could be logically assumed that the relative percentage of employees by gender would remain equal between deciles, ie. the same relative % of women and men would be remunerated at the highest decile of "250% and more". While the former is the case in the healthcare sector, the latter is not true for both healthcare and educations sectors, where there is a disproportionate number of men – around 400 to 450% of the percentage of women. The second highest decile can also be seen exhibiting this characteristic of being proportionally overstaffed by men (3 to 4.5 times the proportion of women). This would suggest that there is, in fact, some additional advantage for men in these sectors, even adjusting for the standard GPG (17% in healthcare, 0.5% in education). This observation is consistent with what would be seen if the theory of glass escalators were assumed to be true.

Returning to the topic of GPG in the study of Ngai and Petrongolo[12], the narrowing of the earnings gap can be attributed to a number of factors other than the aforementioned marketization – primarily policy solutions addressing the issue – both expansions of employment law to combat cases of direct discrimination, as well as increases in spending for safety nets for young mothers, childcare provisions and other pro-family projects such as early education[13]. This allowed women to return to work sooner, as they had the option to leave their children e.g. in preschool after they reached the age of admission. The same goes for public education expenditure, and it could be argued that those projects also facilitated the marketization of home service, through reduction of household expenses that would normally have to be incurred in order to purchase childcare and early education.

The above hypothesis has been examined by Polachek (2017)[14] and a model created for this examination. The figure that follows was made using a model similar to the aforementioned that was altered to fit the available data.

[12] L. Ngai, B. Petrongolo *Gender Gaps and the Rise of the Service Economy* 2017, https://www.aeaweb.org/articles?id=10.1257/mac.20150253 (22.07.2023).
[13] G. Cortes, A. Oliveira, A. Salomons, *Do technological advances reduce the gender wage gap?* 2020, https://academic.oup.com/oxrep/article/36/4/903/6124297 (22.07.2023).
[14] S. Polachek *Equal pay legislation and the gender wage gap* 2019, https://wol.iza.org/articles/equal-pay-legislation-and-the-gender-wage-gap/long (22.07.2023).

Figure 4. Childcare enrolment and gender pay gap data from selected EU 27 countries, percentage and linear regression analysis 2020



Source: OECD PF3.2: Enrolment in childcare and pre-school, Eurostat Gender pay gap in unadjusted form, own study.

The above visualization (fig. 4) using an adjusted version of the model developed by Polachek (2017)[15] shows a negative relation between the pay gap and enrollment of 0-2 year-old children in formal care, consistent with previous theory and findings of Polachek upon examination of 2017 data using their model. The importance of this data is great, as it shows that supply-side solutions could be worthwhile in reducing the gender pay gap, despite wage price stickiness. This topic will be expanded upon in conclusions and recommendations.

Regression of panel data

The following chapter contains analysis of panel regression of annual female LFPR from all EU member states and annual GPG from all EU member states in years 2015-2021. Dummy variables added for all member states. Greece and Luxembourg excluded from model – the former due to lack of available GPG data, the latter due to being used as the baseline for GPG as in 2021 that country's GPG index was the lowest in the EU at -0.2%.

[15] Ibid.

The model used is thus:

$$Y = \alpha + \beta_1 + \beta_{d1,2,3,4,5\ldots25}$$

Where:
Y = LFPR of women, from specified EU member states collected annually 2015-2021,
α = Constant,
β_1 = GPG from specified EU member states collected annually 2015-2021,
$\beta_{d1,d2,d3,d4,d5\ldots d25}$ = Dummy variables for each specified EU member state (transcribed in short form).

Table 1. Summary of female LFPR – GPG linear regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,962[a]	,925	,913	2,0159734060980

a. Predictors: (Constant), Sweden, 2015 gpg, Ireland, Lithuania, Bulgaria, Croatia, Portugal, Denmark, Spain, Malta, Netherlands, Cyprus, Hungary, France, Finland, Slovenia, Slovakia, Poland, Latvia, Belgium, Czechia, Italy, Germany, Austria, Romania, Estonia.

Source: Eurostat Employment and activity by sex and age – annual data, Eurostat Gender pay gap in unadjusted form, IBM SPSS regression, own study.

Table 2. Summary of female LFPR – GPG linear regression cont'd

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7704,947	26	296,344	72,917	,000[b]
	Residual	621,815	153	4,064		
	Total	8326,762	179			

a. Dependent Variable: 2015 lfpr
b. Predictors: (Constant), Sweden, 2015 gpg, Ireland, Lithuania, Bulgaria, Croatia, Portugal, Denmark, Spain, Malta, Netherlands, Cyprus, Hungary, France, Finland, Slovenia, Slovakia, Poland, Latvia, Belgium, Czechia, Italy, Germany, Austria, Romania, Estonia.

Source: Eurostat Employment and activity by sex and age – annual data, Eurostat Gender pay gap in unadjusted form, IBM SPSS regression, own study.

Table 3. Summary of female LFPR – GPG linear regression cont'd 2

Coefficients[a]

Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	64,146	,790		81,181	,000		
2015 gpg	-,585	,102	-,487	-5,753	,000	,068	14,659
Austria	15,707	2,135	,446	7,355	,000	,132	7,548
Belgium	-,823	1,140	-,023	-,722	,471	,464	2,153
Bulgaria	6,300	1,616	,179	3,899	,000	,231	4,323
Croatia	-1,592	1,478	-,042	-1,077	,283	,321	3,116
Cyprus	4,944	1,408	,141	3,511	,001	,305	3,283
Czechia	13,333	2,067	,379	6,451	,000	,141	7,071
Denmark	15,254	1,664	,434	9,166	,000	,218	4,585
Estonia	20,995	2,393	,597	8,772	,000	,105	9,482
Finland	14,740	1,861	,419	7,923	,000	,175	5,730
France	8,375	1,777	,238	4,712	,000	,191	5,230
Germany	18,172	2,100	,517	8,652	,000	,137	7,303
Hungary	10,772	1,767	,306	6,096	,000	,193	5,169
Ireland	4,885	1,539	,129	3,175	,002	,296	3,379
Italy	-12,433	1,119	-,353	-11,109	,000	,482	2,073
Latvia	15,859	2,064	,451	7,682	,000	,142	7,054
Lithuania	14,243	1,603	,405	8,885	,000	,235	4,254
Malta	2,776	1,444	,079	1,922	,056	,290	3,453
Netherlands	18,644	1,688	,530	11,047	,000	,212	4,714
Poland	-,709	1,168	-,020	-,607	,545	,443	2,258
Portugal	7,558	1,476	,215	5,121	,000	,277	3,605
Romania	-12,188	1,088	-,346	-11,201	,000	,510	1,960
Slovakia	11,086	1,990	,315	5,569	,000	,152	6,559
Slovenia	5,461	1,188	,155	4,597	,000	,428	2,336
Spain	-1,463	1,453	-,042	-1,007	,316	,286	3,495
Sweden	17,050	1,499	,485	11,376	,000	,269	3,718

a. Dependent Variable: lfpr

Source: Eurostat Employment and activity by sex and age – annual data, Eurostat Gender pay gap in unadjusted form, IBM SPSS regression, own study.

The results from the above table answer the first two specific research questions posed in the first chapter. It also allows us to reject hypotheses H1 and H2, ie. there is a relation between LFPR and GPG (a negative one, where a 1% rise in GPG causes a .585% decrease in female LFPR), and there is some amount of LFPR that can be explained specifically by GPG. The R^2 of the model at .925 suggests that it explains the vast majority of the variance within the sampled data. However, there is a distinct limitation to that explanation, ie. the member states' dummy variables only suggest that some of the residual LFPR variance that is not explained by GPG is down to characteristics – possibly laws, societal makeup etc. – of the member states within the sample. Therefore, the fact that the model has such high R^2 might be the effect of the sheer number of used variables, or their vagueness. Due to the research limitations of this paper there will be no further exploration into developing a more useful model. Nevertheless, the dummy variables for member states are useful insofar as being guidance towards further examination of specific laws or policies of countries whose LFPR exceeds expectations brought by a high GPG score. An example would be Estonia, with a 20.5% GPG – the highest in the EU in 2021 – but a 72,4% female LFPR and the highest coefficient for its' variable within the model. Other countries by dummy coefficient that have significantly exceeded expectations are Austria (15,707 unstandardized B), Sweden (17,050 unstandardized B) and Germany (18,172 unstandardized B). To suggest factors that caused this, one would have to return to the works and ideas in political economy discussed within the theoretical chapter.

One important facet of the above regression model that must be discussed is the collinearity statistic. Due to the analysis being conducted on members of the same political entity, which share much of their market, legislation and even some labour force (due to low restrictions of movement within the Schengen zone), some multicollinearity was expected when the model was constructed. Nevertheless, VIF at 14,659 for the GPG coefficient is worrying in terms of the usefulness of this model for more complex inferences from the results of the above regression. While the direction of the GPG-LFPR relationship is correctly predicted by the model and the result of the theorized downward pressure on LFPR from the GPG, due to multicollinearity one cannot presuppose the Beta of this coefficient will remain the same with its increase or decrease, i.e. the linearity of the relationship cannot be assumed.

Another important note must be made regarding the model chosen, and specifically its nature as a fixed effect model, with dummy variables for countries included. This approach, while introducing high multicollinearity, helps do away with Simpson's paradox. While it can be seen within each of the several countries being examined, that generally the female LFPR tends to

decrease with increases to the GPG, which is also logically sound and consistent with the current economic theory, this relationship becomes inverse when all the data is introduced into one model.

A noteworthy aspect of the results is the impact of the dummy variables. In a previous study[16] the relation between GPG and LFPR of women was found to be positive in the EU for 2018. The model used included only the data for GPG and corresponding LFPR for each EU member with a fitted trend line. With inclusion of dummy variables, the correlation becomes inverse. This suggests that, when controlled for specific conditions of each member state, and with a larger sample size, the universal characteristic of GPG is that it diminishes women's LFPR. This issue warrants further investigation. While it is consistent with the labour supply-side explanation, the model used within this study has multicollinearity problems, and to better understand the true GPG-LFPR relation a stronger model should be developed in future research. In summary, the results seem to reinforce the argument of a negative relation between GPG and women's LFPR. Causation is likely if examined through economic theory, but should be further examined in future studies.

Recommendations for the public sector

1. *Pay and pay gap transparency laws*[17]. The primary objective of pay and pay gap transparency laws is to allow interested parties – usually governments and employees – to gather information pertaining to the status of the GPG. With this data, it becomes possible for governments to monitor the level of GPG in response to new legislation or changes in the economy, and improve the laws passed in relation to the GPG. On the micro level, GPG audits provide vital information for government agencies responsible for compliance assurance of listed firms to pay gap legislation. Where an audit shows a pay gap in excess of the set threshold, the relevant government body can conduct additional investigations into the status of the GPG within the specific firm, gather information about the reason for this occurrence and, possibly, issue penalties for non-compliance. For employees on an individual level, pay and pay gap transparency may also be useful in identifying unequal treatment. Cases of gender discrimination or comparatively reducing

[16] Schmieder, J., Wrohlich, K., *Gender pay gap in a European comparison: Positive correlation between the female labor force participation rate and the gender pay gap*, 2021, https://www.econstor.eu/bitstream/10419/232991/1/1750212218.pdf (22.01.2024).
[17] M. Bennedsen, B. Larsen, J. Wei, *Gender wage transparency and the gender pay gap: A survey* 2023, https://onlinelibrary.wiley.com/doi/full/10.1111/joes.12545 (22.07.2023).

remuneration on the basis of disallowed metrics – such as pregnancy, possibility of pregnancy or part-time status – would become significantly more difficult to conceal within a workplace. Additionally, collective bargaining would become more effective with comprehensive audit data on salaries, which could also contribute to the reduction of GPG[18]. This is especially true for part-time workers, which tend to be penalized more than the persons who work full-time, in addition to that field being comprised majorly of women.

2. *Minimum wage laws*[19]. Increases in minimum wage can also be an effective tool for decreasing the GPG[20]. This is primarily true for the lower income workers, where the women earning minimum wage at t-1 would have their remuneration be increased to (or close to) the level of remuneration of workers who receive a premium over the minimum wage. This is additionally true for earners penalized for part time work, which, as established in previous chapters, are majorly women[21]. However, this is likely to only be a short-term solution when employed on its own and without other policies, as an increase to the minimum wage might diminish the overall purchasing power through inflationary pressure (though there are studies showing that effect to be rather miniscule[22], which is also consistent with economic theory in light of phenomena such as nominal rigidity). That, coupled with the psychological factors of reducing the premium of a worker with comparably higher human capital, may lead to renegotiation of employment contracts to maintain the previous premium over the minimum wage, which in a long enough timespan are likely to lessen the positive impact of this legislation. In conclusion, while useful, minimum wage increases should be used in conjunction with other policies to achieve maximum potential in reducing the GPG for low-income workers.

[18] OECD, *Can collective bargaining help close the gender wage gap for women in non-standard jobs?* https://www.oecd.org/gender/collective-bargaining-and-gender-wage-gap-2020.pdf (22.07.2023).

[19] A. Majchrowska, P. Strawiński, *Impact of minimum wage increase on gender wage gap: Case of Poland* 2018, https://www.sciencedirect.com/science/article/pii/S0264999317306661 (22.07.2023).

[20] Ibid.

[21] Eurostat, *Share of women working part-time higher than men* 2023, https://ec.europa.eu/eurostat/web/products-eurostat-news/w/EDN-20230303-1 (5.12.2023).

[22] S. Lemos, *The Effect of the Minimum Wage on Prices* 2004, https://docs.iza.org/dp1072.pdf (22.07.2023).

3. *Creation of childcare institutions*. Another way to improve the situation of women on the labour market is to lessen the impact pregnancy has on their earning prospects and depreciation of their human capital. To that end some of the unpaid work that women are required to do in relation to their pregnancy could be transferred more extensively to specific institutions such as nurseries, daycares etc., becoming registered as economic activity. A significant number of women want to spend time with their newborns post-pregnancy, however when maternity leave ends and employers expect them to return to work, some women are faced with the reality of a lack of childcare institutions in their area or town. In many societies that burden is then carried by the grandparents or other relatives in retirement. This solution has its positives, but with increases to the retirement age in the EU, as well as the modern atomization of families, many working-class women are unlikely to have that option. This would in turn leave them with the compulsion to either leave employment entirely to be able to tend to their child, or at least work part-time or from home, and divide responsibilities with their partner to secure their livelihood. Either solution resulting in lack of sufficient childcare facilities will likely result in the degradation of their human capital in the eyes of prospective employers, though the latter less so than the former.
4. *Paid internship programs for women after a career break who are returning to work.* Women, who have temporarily exited the labour market due to pregnancy and the necessity of childcare suffer diminished human capital as a result of their career break[23]. To facilitate their effective return into the workforce and employment in positions adequate for their qualifications, a program of government subsidized internships could be offered. The target would have to specifically be women who, as a result of their pregnancy or childcare, were unemployed or employed quarter-time or less, or worked in a manner that prospective employers would deem as having decreased their human capital. A paid internship program could be a way to introduce these persons back into the workforce (possibly as part of the company the specific internship took place in) and allow women who have had a career break to quickly establish themselves as employees, whose labor's value is equal to that of others with a similar employment history and education. This would give them a higher chance of

[23] Gary S. Becker, *Human Capital, Effort, and the Sexual Division of Labor* 1985, https://www.jstor.org/stable/2534997 (22.07.2023).

receiving remuneration closer to the average for employees without a career break in that time, due to being able to provide their prospective employer with evidence that they have been provided with knowledge and rebuilt the hard and soft skills necessary to return to work. Without that, they might be forced to sign a labor contract with reduced pay compared to the average worker on a similar position, and rely on the possibility of renegotiating remuneration at a later date. It is the author's opinion that this would narrow the GPG and improve the living standard of women.

Recommendations for private entities

A way to equalize the numbers of women and men in a given workplace is to give priority to the underrepresented gender in choosing managers and directors, as well as in recruiting, when candidates are equally qualified (eliminate prior gender bias in hiring and promotion). This mirrors the EU resolution that has thus far only been implemented for boards of directors. It would likely have to be introduced gradually, and first in sectors (or even specific companies) where men are largely overrepresented in employee population or in management. The extent to which this would be applied would also need to vary between sectors or companies, requiring persons responsible to analyze the structure of the company and where gender bias is most apparent – whether in upper management, lower-level management, ordinary employees etc.

This approach carries with it a significant risk of introducing a bias towards female candidates, rather than counteracting the male bias assumed to have been previously exhibited. It also would need to carry with it strict guidelines as to what qualifications could be deemed "equal", lest more ground for female bias be created. However, insofar as narrowing the recruitment gap and, consequently, the pay gap, it may be useful. This approach is selected in lieu of the job application anonymization approach, where information allowing for identification of the candidate's gender by managers is omitted. While some alteration to recruiting policies is warranted to create more gender-equal workplaces, anonymization has been shown by several studies to favor male candidates, or allow management to deduce the candidate's gender based on information which cannot be omitted, such as through long periods of leave during their career being interpreted as indicative of pregnancy[24]. Because of

[24]Workplace Gender Equality Agency *Gender equitable recruitment and promotion* 2019, https://www.wgea.gov.au/publications/gender-equitable-recruitment-and-promotion#should-organisations-anonymise-job-applications (22.07.2023).

that, prioritizing female candidates in situations of candidates possessing equal qualification has been deemed the more effective approach to be included in recommendations.

1. Internal (other than compulsory) gender pay gap audits, pay transparency[25]. Firms could create a paper trail of internal, proactive audits in regard to appraisal of the level of GPG within the workplace. This would not only help in narrowing the GPG before possible government inquiry (due to new EU regulations), but also allow the firm to raise employee morale and create perception that the company is interested in employee well-being and gender equality. This could be useful for reaching prospective employees and interns and improving recruitment as well as retention, especially for demographics who deem these issues important[26].
2. Remote working policies for mothers – reduce employee burnout and decrease risk of career gap. Implementation of a remote working or home office system would allow women to continue working full-time during and post-pregnancy (specifically in a situation where shared parental leave is implemented) and make it easier for them to tend to their newborn while continuing their career. Through that, this solution would theoretically allow companies to reduce employee turnover and burnout.
3. Creation of privately owned nurseries and preschools close to the workplace, priority given to children of employees; business agreements with existing facilities. Due to the results of previous research by Polachek, as well as the regression shown in fig. 5 (p. 29) showing enrolment in childcare facilities is negatively correlated with GPG, another recommendation would be the creation of private nurseries, preschools and possibly other facilities that are close to workplaces. This may only really be feasible for large companies with 250+ employees within one office or workspace, however companies within one capital group could benefit from a shared facility if close together, or contracts could be made with other companies outside the capital group to create shared facilities for employees' children.

[25] Chartered Institute of Internal Auditors *Auditing gender pay* 2023, https://www.iia.org.uk/resources/auditing-business-functions/human-resources/auditing-gender-pay/ (22.07.2023).

[26] Hays, *HAYS UK SALARY & RECRUITING TRENDS* 2020, https://www.hays.co.uk/documents/34684/1349902/UK+Salary+Guide+2020_DAC.pdf/c3f9a548-68a2-08b3-950d-09620858575d (22.07.2023).

Conclusions

The study explored the nature of the GPG in the EU in regard to the previously put forward theories and has managed to show the existence for specific datasets of two phenomena which are deemed causes of the GPG. The study posits that these phenomena have meaningful impact on the level of the GPG in the EU27 countries. In the EU the phenomena tested and identified as occurring for selected countries are: glass ceilings and glass escalators. Others were also looked into in chapter 2 but could not be empirically proven with the data used – notably glass cliffs – or fell beyond the scope of the paper. Also examined is the idea of "equal pay for equal work" legislation as a solution to the issue of GPG. It was logically argued within the paper that while useful for protection against the unexplained part of the GPG in the EU, it fails to address the explained part of the gap and further laws must be instituted and initiatives created (as proposed in the recommendations) to combat this latter issue.

There is a statistically significant relationship between the GPG and LFPR of women. Economic theory suggests that the direction of causality is from GPG to LFPR. Interpretation of the causal factors offers another explanation, one that seems to indicate that, in fact, both of the variables are influenced by the same phenomena. The two primary reasons seem to be the career gap due to post-pregnancy maternal leave (possibly also leading to redundancy during the leave or termination of the employment contract shortly after returning to work) depreciating the employee's human capital, according to Becker, and the post-pregnancy or other circumstances forcing women into part-time work, for which they are penalized financially in the form of a decreased average hourly remuneration compared to full-time employees. The above seems to be the case for all members of the European Union. Numerous ways to reduce the impact of this issue can be offered, however the extent to which these solutions can be expected to remedy the problem of GPG remains to be determined. The implementation of these theorized approaches is going to require continuous research and study of available data in the coming years and decades. Primary care should be given to the state of GPG and female LFPR post-transition to a uniform retirement age and equal parental leave for both genders, as these seem to be the most important developments happening as of the time of this paper's writing.

References

1. Andersen S. H., *Paternity Leave and the Motherhood Penalty: New Causal Evidence,* https://onlinelibrary.wiley.com/doi/full/10.1111/jomf.12507, (14.10.2023).
2. Anderson D., Freeman J., Shoesmith E., Sweeney D., Williams T., *Statistics for Business and Economics 4th edition.* Cengage Learning EMEA 2017.
3. Babic A., Hansez I., *The Glass Ceiling for Women Managers: Antecedents and Consequences for Work-Family Interface and Well-Being at Work,* https://www.frontiersin.org/articles/10.3389/fpsyg.2021.618250/full.
4. BBC How a 'concrete floor' could get more women into power 2018.
5. Gary S. Becker *Human Capital, Effort, and the Sexual Division of Labor* 1985, https://www.jstor.org/stable/2534997 (22.07.2023).
6. Bennedsen M., Larsen B., Wei J., *Gender wage transparency and the gender pay gap: A survey* 2023, https://onlinelibrary.wiley.com/doi/full/10.1111/joes.12545 (22.07.2023).
7. Bergmann A., *The Effect on White Incomes of Discrimination in Employment,* 1971 https://www.jstor.org/stable/1832111 (22.07.2023).
8. Bhalotra S., Fernández M., *The Distribution of the Gender Wage Gap*. IZA Institute of Labor Economics, 2018, https://docs.iza.org/dp11640.pdf (22.07.2023).
9. Bryant J., Jacobsen V., Bell M., Garrett D.*, Labour Force Participation and GDP in New Zealand* 2004, https://www.econstor.eu/bitstream/10419/205547/1/twp2004-07v2.pdf (22.07.2023).
10. *Kobiety cały czas z niższymi zarobkami niż mężczyźni. W jakiej branży jest najgorzej?* Businessinsider 2021, https://businessinsider.com.pl/twoje-pieniadze/praca/luka-placowa-w-polsce-najgorzej-w-finansach-i-ubezpieczeniach/xn2hrhx (22.07.2023).
11. Casado-Díaz J., Driha O., Simón H., *The Gender Wage Gap in Hospitality: New Evidence From Spain* 2020, https://journals.sagepub.com/doi/abs/10.1177/1938965520971273?journalCode=cqxb (22.07.2023),
12. Carrera E., Policardo L., Punzo L., *On the wage–productivity causal relationship* 2018, https://link.springer.com/article/10.1007/s00181-018-1428-5 (22.07.2023),
13. Chartered Institute of Internal Auditors *Auditing gender pay* 2023 https://www.iia.org.uk/resources/auditing-business-functions/human-resources/auditing-gender-pay/ (22.07.2023).
14. Chevalier A., Harmon C., O'sullivan V., *The impact of parental income and education on the schooling of their children* 2013, https://izajole.springeropen.com/articles/10.1186/2193-8997-2-8 (22.07.2023).

15. *How the gender pay gap affects women's mental health* CNBC 2020, https://www.cnbc.com/2020/03/31/how-the-gender-pay-gap-affects-womens-mental-health.html (22.07.2023).
16. *Remuneration Compensation or payment received for services or work rendered*. Corporate Finance Institute Team, 2018, https://corporatefinanceinstitute.com/resources/career/remuneration/ (14.10.2023).
17. Cortes G., Oliveira A., Salomons A., *Do technological advances reduce the gender wage gap?* 2020, https://academic.oup.com/oxrep/article/36/4/903/6124297 (22.07.2023).
18. D. Coviello, Deserranno E., Persico N., *Minimum Wage and Individual Worker Productivity: Evidence from a Large US Retailer*, https://www.journals.uchicago.edu/doi/10.1086/720397#_i61 (14.09.2023).
19. Directive (EU) 2022/2381 of the European Parliament and of the Council of 23 November 2022 on improving the gender balance among directors of listed companies and related measures https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2022.315.01.0044.01.ENG (17.07.2023).
20. *European added value assessment on the application of the principle of equal pay for men and women for equal work of equal value.* Directorate-General for Internal Policies of the Union (European Parliament), 2013, https://op.europa.eu/en/publication-detail/-/publication/98a2b7d9-eb87-490b-81cb-987deea0d078 (22.07.2023).
21. *Labour law* European Commission 2023, https://ec.europa.eu/social/main.jsp?catId=157&langId=en (22.07.2023).
22. *Economic Benefits of Gender Equality in the European Union.* European Institute for Gender Equality, 2017, https://eige.europa.eu/newsroom/economic-benefits-gender-equality?language_content_entity=en (22.07.2023).
23. *Gender pay gap: Parliament adopts new rules on binding pay-transparency measures* European Parliament press release 2023, https://www.europarl.europa.eu/news/en/press-room/20230327IPR78545/gender-pay-gap-parliament-adopts-new-rules-on-binding-pay-transparency-measures (22.07.2023).
24. *Understanding the gender pay gap: definition and causes.* European Parliament https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vl59mpupm0vq?ctx=vk4jic6t1dxz (22.07.2023).
25. European Statistical Office, https://ec.europa.eu/eurostat (22.07.2023).
26. *Share of women working part-time higher than men* Eurostat 2023, https://ec.europa.eu/eurostat/web/products-eurostat-news/w/EDN-20230303-1 (5.12.2023).

27. Foster L., Tomlinson M., Walker A., *Social Quality and Work: What impact does Low Pay Have on Social Quality?* https://www.cambridge.org/core/services/aop-cambridge-core/content/view/6833C5169D657A453F0AF894F9E0910C/S0047279415000732a.pdf/social-quality-and-work-what-impact-does-low-pay-have-on-social-quality.pdf (22.07.2023).
28. Gayle G., Limor G., *Estimating a Dynamic Adverse-Selection Model: Labour-Force Experience and the Changing Gender Earnings Gap 1968-1997*, 2011, https://academic.oup.com/restud/article-abstract/79/1/227/1563407 (22.01.2023).
29. Główny Urząd Statystyczny *Rocznik demograficzny 2022,* https://stat.gov.pl/obszary-tematyczne/roczniki-statystyczne/roczniki-statystyczne/rocznik-demograficzny-2022,3,16.html (22.07.2023).
30. Gu B., Hong Y., Liang C., Peng J., *Gender Wage Gap in Online Gig Economy and Gender Differences in Job Preferences,* https://par.nsf.gov/servlets/purl/10120934 (22.07.2023).
31. Hays, *HAYS UK SALARY & RECRUITING TRENDS* 2020, https://www.hays.co.uk/documents/34684/1349902/UK+Salary+Guide+2020_DAC.pdf/c3f9a548-68a2-08b3-950d-09620858575d (22.07.2023).
32. *The new EU Directive on minimum wage sets a dual goal* International Labor Organization 2022, https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_861051/lang--en/index.htm (22.07.2023).
33. International Labour Organization Database, https://ilostat.ilo.org/ (22.07.2023).
34. IZA – Institute of Labor Economics*, Open Access Journals*, https://www.iza.org/content/publications/iza-journals (13.10.2023).
35. E Josserand., Kaine S., *The organisation and experience of work in the gig economy* 2019, https://journals.sagepub.com/doi/abs/10.1177/0022185619865480?journalCode=jira.
36. Judge E., *Women on board: help or hindrance?* 2003, https://www.thetimes.co.uk/article/women-on-board-help-or-hindrance-2c6fnqf6fng (22.07.2023).
37. Katz L., *Efficiency Wage Theories: A Partial Evaluation,* https://www.journals.uchicago.edu/doi/epdfplus/10.1086/654025 (22.07.2023).
38. Keynes J., *The General Theory of Employment, Interest and Money,* https://www.files.ethz.ch/isn/125515/1366_keynestheoryofemployment.pdf (22.07.2023).
39. Lee M., Raschke R., *Understanding employee motivation and organizational performance: Arguments for a set-theoretic approach,* 2016, https://www.sciencedirect.com/science/article/pii/S2444569X16000068 (22.07.2023).

40. Lemos S., *The Effect of the Minimum Wage on Prices,* 2004, https://docs.iza.org/dp1072.pdf (22.07.2023).
41. Lips H., *The gender pay gap: Challenging the rationalizations, perceived equity, discrimination, and the limits of human capital models,* 2012, https://link.springer.com/article/10.1007/s11199-012-0165-z (22.07.2023).
42. Majchrowska A., Strawiński P., *Impact of minimum wage increase on gender wage gap: Case of Poland* 2018, https://www.sciencedirect.com/science/article/pii/S0264999317306661 (22.07.2023).
43. Meng X., *The Role of Education in Wage Determination in China's Rural Industrial Sector*, 2006, https://www.tandfonline.com/doi/abs/10.1080/09645299500000022 (14.10.2023).
44. Moreno-Mencía P., Fernández-Sainz A., Rodríguez-Poo J., *The gender wage gap in the public and private sectors: The Spanish experience,* 2020, https://journals.sagepub.com/doi/abs/10.1177/1350506820979023?journalCode=ejwa (22.07.2023).
45. Mosomi J., *An empirical analysis of trends in female labour force participation and the gender wage gap in South Africa,* 2019, https://www.tandfonline.com/doi/full/10.1080/10130950.2019.1656090 (22.01.2023)
46. Millea M., *Disentangling the wage-productivity relationship: Evidence from select OECD member countries,* 2002, https://link.springer.com/article/10.1007/BF02295506 (22.07.2023).
47. *Wynagrodzenie za pracę i inne świadczenia związane z pracą.* Ministry of Family and Social Policy, Poland, n.d. https://www.gov.pl/web/rodzina/wynagrodzenie-za-prace-i-inne-swiadczenia-zwiazane-z-praca (22.07.2023).
48. Ngai L., Petrongolo B., *Gender Gaps and the Rise of the Service Economy* 2017 https://www.aeaweb.org/articles?id=10.1257/mac.20150253 (22.07.2023).
49. OECD, *Can collective bargaining help close the gender wage gap for women in non-standard jobs?* https://www.oecd.org/gender/collective-bargaining-and-gender-wage-gap-2020.pdf (22.07.2023).
50. OECD *Career Interruptions Due to Parental Leave A Comparative Study of Denmark and Sweden,* https://www.oecd-ilibrary.org/social-issues-migration-health/career-interruptions-due-to-parental-leave_048564246616 (14.10.2023).
51. OECD Statistics, https://stats.oecd.org/ (22.07.2023).
52. Piore M., *Fragments of a "Sociological" Theory of Wages,* https://www.jstor.org/stable/1817099 (22.07.2023).
53. S. Polachek, *Equal pay legislation and the gender wage gap,* 2019, https://wol.iza.org/articles/equal-pay-legislation-and-the-gender-wage-gap/long (22.07.2023).

54. Rękas M., *Kobiety matki i ich powrót na rynek pracy po urodzeniu dziecka w wynikach* badań 2013, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjdy9WkyZb6AhVOmosKHYnmBCgQFnoECAUQAQ&url=https%3A%2F%2Fbibliotekanauki.pl%2Farticles%2F586488.pdf&usg=AOvVaw0GO2FA8LmtydD2eufbvTWt (22.07.2023).
55. Ryan M., Haslam K., Alexander S., *The Glass Cliff: Evidence that Women are Over-Represented in Precarious Leadership Positions,* 2005, https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-8551.2005.00433.x (22.07.2023).
56. Schmieder J., Wrohlich K., *Gender pay gap in a European comparison: Positive correlation between the female labor force participation rate and the gender pay gap*, 2021, https://www.econstor.eu/bitstream/10419/232991/1/1750212218.pdf (22.01.2024).
57. Sheehy-Skeffington J., Rea J., *How poverty affects people's decision-making processes,* https://www.lse.ac.uk/business/consulting/assets/documents/how-poverty-affects-peoples-decision-making-processes.pdf (22.07.2023).
58. Smith A., *An Inquiry into the Nature and Causes of The Wealth of Nations https://www.ibiblio.org/ml/libri/s/SmithA_WealthNations_p.pdf (14.09.2023)*.
59. Sharma G., *Monopsony and Gender, 2023,* https://economics.mit.edu/sites/default/files/inline-files/monopsony_gender_gsharma_march_0.pdf (11.09.2023).
60. *Dość dyskryminacji płacowej! Równe płace za taką samą pracę!* The All-Poland Alliance of Trade Unions, 2023, https://www.opzz.org.pl/aktualnosci/kraj/2023/03/dosc-dyskryminacji-placowej-rowne-place-za-taka-sama-prace (22.07.2023).
61. *Women's situation in the labour market.* The European Commission, 2022, https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/women-labour-market-work-life-balance/womens-situation-labour-market_en (22.07.2023).
62. United Nations Statistics Division, https://unstats.un.org/UNSDWebsite/ (22.07.2023).
63. *Concept of "glass cliff" resonates for women* University of Exeter 2016, https://news-archive.exeter.ac.uk/featurednews/title_552607_en.html (22.07.2023).
64. Võrk A., *Labour supply incentives and income support systems in Estonia* 2009, https://www.praxis.ee/wp-content/uploads/2014/03/2009-Labour-supply-incentives-and-income-support-systems.pdf (22.07.2023).

65. Workplace Gender Equality Agency *Gender equitable recruitment and promotion,* 2019, https://www.wgea.gov.au/publications/gender-equitable-recruitment-and-promotion#should-organisations-anonymise-job-applications (22.07.2023).
66. World Economic Forum https://www.weforum.org/ (13.10.2023).
67. World Economic Forum *Global Gender Gap Report, 2023,* https://www.weforum.org/reports/global-gender-gap-report-2023/in-full/gender-gaps-in-the-workforce/ (14.10.2023).
68. Yeyati E., Rozada M., *The 'ask gap': New evidence on the supply side of the gender wage gap* CEPR, 2018, https://cepr.org/voxeu/columns/ask-gap-new-evidence-supply-side-gender-wage-gap (22.07.2023).
69. *The Freelancer Pay Gap* Zenbusiness, 2022, https://www.zenbusiness.com/freelancer-pay-gap/ (22.07.2023).

WYBRANE WSKAŹNIKI RÓŻNICY WYNAGRODZEŃ PŁCI W UE I JEJ ZWIĄZEK ZE WSPÓŁCZYNNIKIEM AKTYWNOŚCI ZAWODOWEJ KOBIET

Zarys treści: W artykule zbadano związek przyczynowy pomiędzy różnicą w wynagrodzeniach kobiet i mężczyzn a współczynnikiem aktywności zawodowej kobiet w UE. Po zarysowaniu natury i roli wynagrodzeń w gospodarce, analizowano przyczyny obu zjawisk w ramach różnych szkół myśli ekonomicznej, a także wykorzystano najnowsze dowody i dane empiryczne, aby zaproponować możliwe determinanty zarówno dla GPG, jak i kobiet LFPR, wynikające ze struktury społecznej, a także legislacji. Ponadto wykorzystano analizę regresji danych historycznych w celu znalezienia negatywnego związku między różnicą w wynagrodzeniach kobiet i mężczyzn a wskaźnikiem aktywności zawodowej kobiet oraz omówiono ograniczenia wyników uzyskanych za pomocą modelu. Wreszcie, korzystając z powyższych ustaleń i poprzedniego prawodawstwa, zaproponowano rozwiązania polityczne dla państw i podmiotów prywatnych w kierunku zmniejszania różnic w wynagrodzeniach i LFPR, zgodnie z opinią autora.
Słowa kluczowe: luka w wynagrodzeniach kobiet i mężczyzn, luka w aktywności zawodowej, Unia Europejska.