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Factsheet

SOCIAL AND ECONOMIC BENEFITS OF EQUAL PAY BETWEEN WOMEN AND MEN

Iceland
Liechtenstein
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Abstract

The main objective of this project is to analyse the social and economic benefits of eliminating the wage gap between women and men, as well as to assess the effects of eliminating this same differential on household income, protection against poverty and economic growth.

Methodology

The impacts on income and poverty were measured by estimating the household income that would be received assuming that there was no wage differential between women and men – counterfactual incomes. Using the microdata provided by the Survey on Living Conditions and Income (ICOR) of the INE (National Institute of Statistics), the counterfactual household incomes were estimated for the years 2006, 2012 and 2018¹, with the aim of covering a relatively broad period of analysis, corresponding to different socioeconomic conjunctures. This estimation was made by allocating to the women in the household the wage that a man with the same characteristics earns, obtained through the regression of wages/pensions for the men in the sample, as a function of a set of previously selected socioeconomic variables. The values of this counterfactual income were used to calculate monetary poverty indicators for the incidence, intensity and severity of poverty, making it possible to measure the effect of eliminating the wage gap between women and men on poverty protection.

From a macroeconomic point of view, unequal pay between women and men also has a negative impact on the growth of a country's economy. This impact can be divided into direct and indirect effects, the latter resulting from the impact that wage inequalities have on the determinants of economic growth, such as total hours of work, participation in the labour market (labour force) and aggregate investment. The quantification of all these effects on the Portuguese economy was obtained through the estimation of the Solow² economic growth model with simultaneous equations.

¹ These years were chosen in order to take into consideration: the period before the economic and labor crisis that began in 2008, "in the crisis" (the year in which labor market indicators deteriorated very significantly) and after the crisis (the last year available at the time of the analysis, coinciding with the phase of economic recovery and improvement of labor market indicators).

² Cassells, R., Vidyattama, Y., Miranti, R., & McNamara, J. (2009). *The impact of a sustained gender wage gap on the Australian economy. Report to the Office for Women.*

Results

Impacts on income

In assessing the impacts of eliminating the gender pay gap (GPG) between women and men at the **income** level, only female and male salaried workers were considered, in order to eliminate possible biases resulting from the fact that there were a relatively small number of very heterogeneous observations. In this context, we highlight the following results:

- On average, women's hourly earnings were about 15% lower than men's;
- This gap has not changed significantly in the three years analysed;
- With the elimination of the wage gap between women and men, the average hourly income of women would be about 35% higher than observed;
- The average annual income of households with women in the labour market would increase by about 24%.

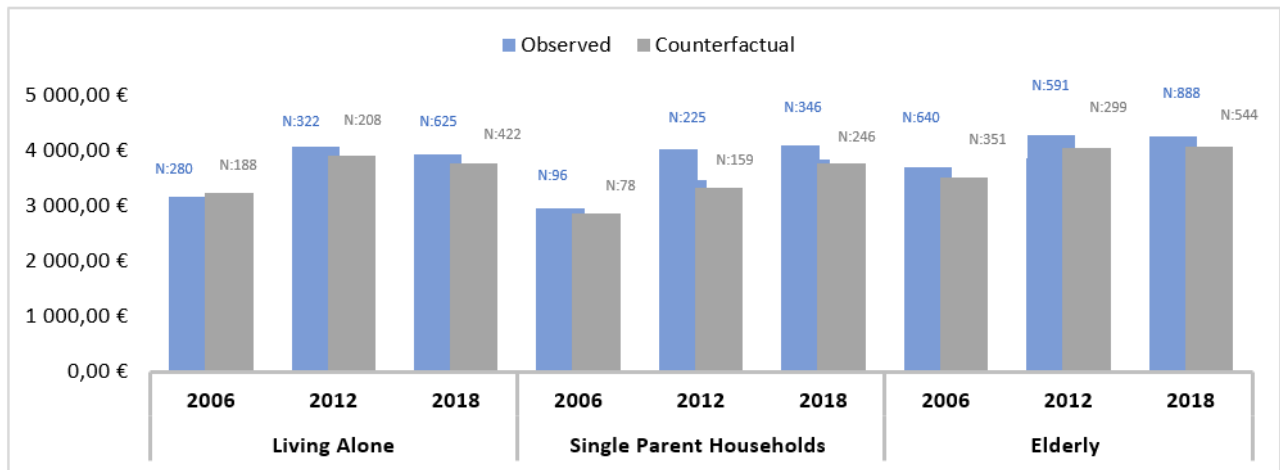
Figure 1. Average income, per hour (salaried workers)

| | | | | | | | | |
|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|
| €7,26 ▲ | €6,64 ▲ | €9,12 ▲ | €7,44 ▲ | €6,55 ▲ | €8,96 ▲ | €8,21 ▲ | €7,36 ▲ | €10,14 ▲ |
| OBSERVED MEN | OBSERVED WOMEN | COUNTERFACTUAL | OBSERVED MEN | OBSERVED WOMEN | COUNTERFACTUAL | OBSERVED MEN | OBSERVED WOMEN | COUNTERFACTUAL |
| 2006 | | | 2012 | | | 2018 | | |

Analysing the subgroups of women who are the most vulnerable either in terms of their participation in the labour market or in terms of poverty, the results obtained show that:

- The counterfactual median equivalent income is lower than the one observed in all the typologies considered – living alone, single-parent households and the elderly;
- This is a result of the income structure of the poor population: the people who remain below the poverty line are those with the lowest qualification/education levels, and therefore the elimination of the gender pay gap has a very marginal or even non-existent impact on their income.

Figure 2. Median annual income per equivalent adult of the poor, by population subgroup

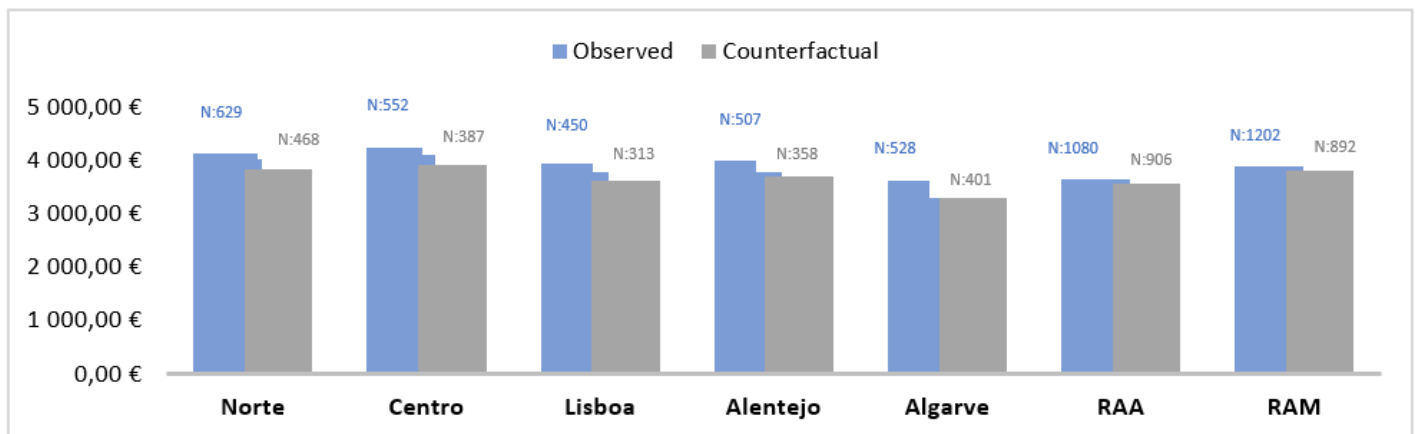


Source: ICOR and own calculations

N: Number of observations

A territorial analysis reveals a similar pattern in terms of observed and counterfactual income. Moreover, at this level, there is almost no change in the annual median income per equivalent adult of the poor population in the seven regions observed.

Figure 3. Median annual income per equivalent adult of the poor, by region.



Source: ICOR and own calculations

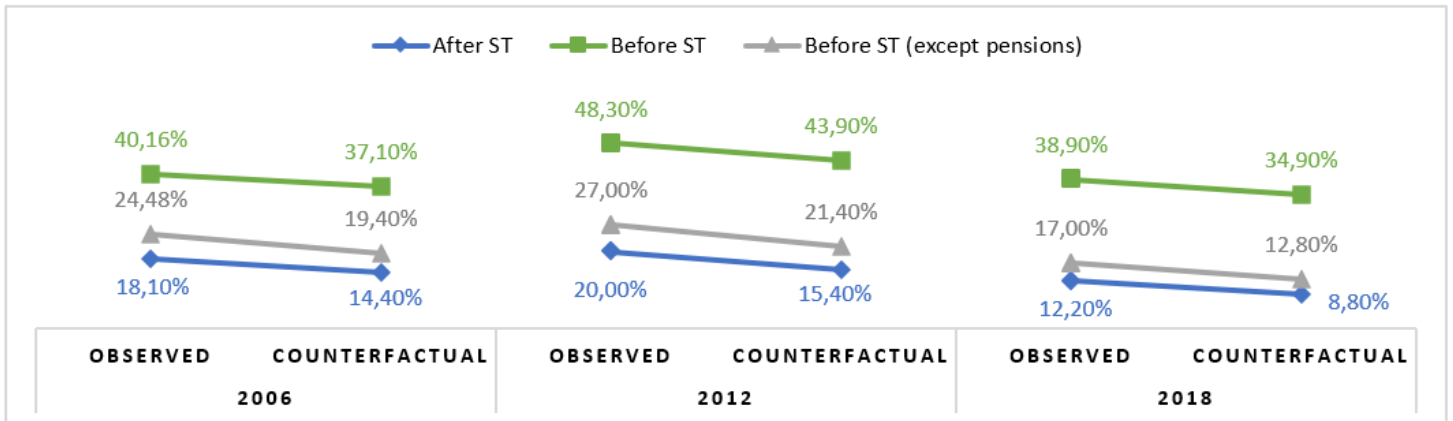
N: Number of observations

Impacts on poverty

As far as the impacts on **poverty** due to the elimination of the gender pay gap are concerned, the results are more significant at the level of incidence and show that:

- There was a particularly significant drop in the incidence of poverty in 2018;
- A trend that was naturally followed by the counterfactual indicators;
- The relationship between the incidence values after social transfers (After ST), before social transfers (Before ST) and before social transfers (except pensions) remains the same for the three years observed;
- The poverty incidence among women in the labour market was about half of what it would be if there were no GPG.

Figure 4. Poverty incidence at the national level

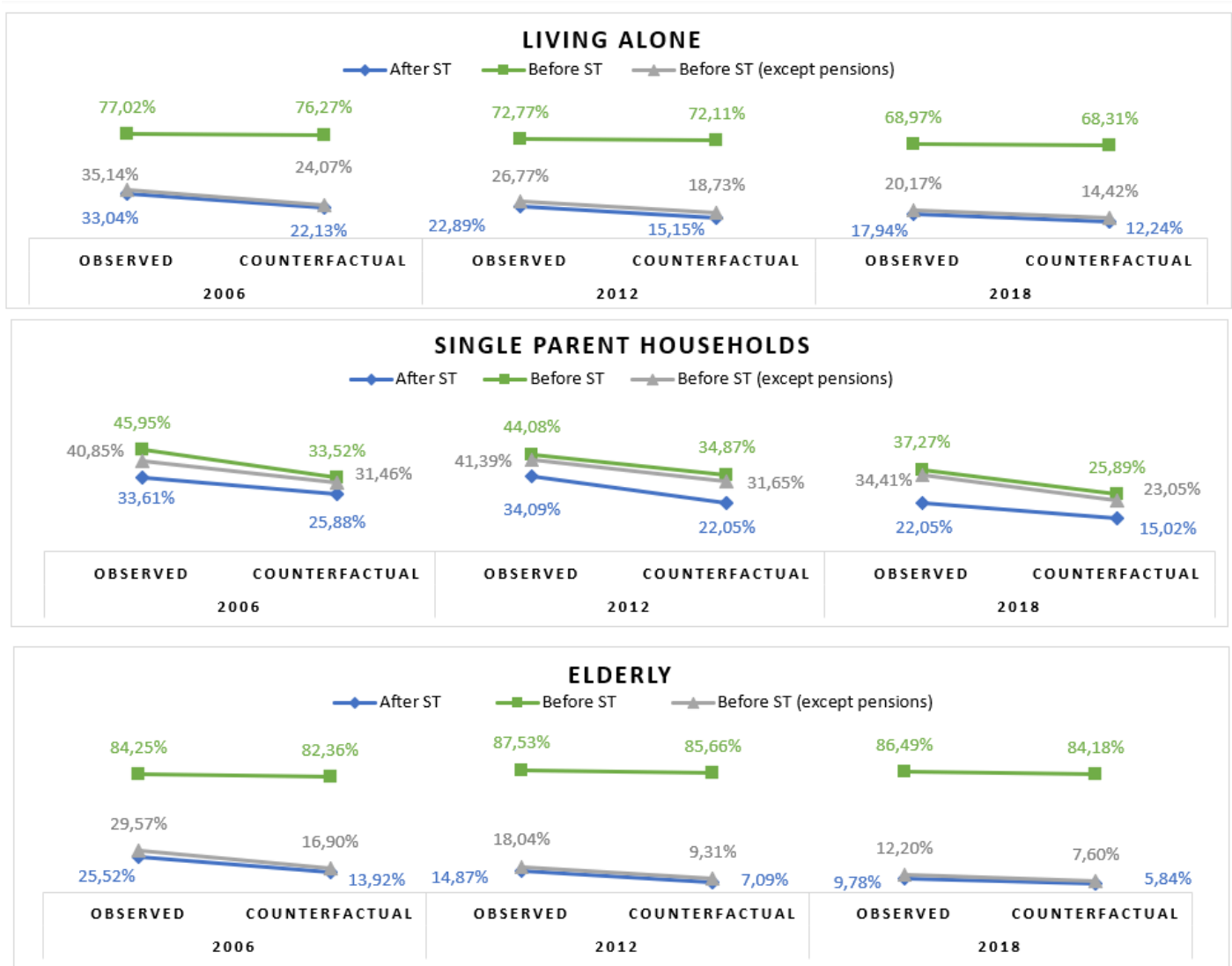


Source: ICOR and own calculations

The analysis by population sub-groups shows that the incidence of poverty is more significant at the level of single-parent households. It is also in this family context that the highest values of poverty intensity and severity are recorded, underlining their vulnerability to poverty.

The counterfactual values show that it is also at the level of single-parent households that the decline in the incidence of poverty resulting from the elimination of the gender pay gap is larger, suggesting an accentuated inequality between women and men in this context.

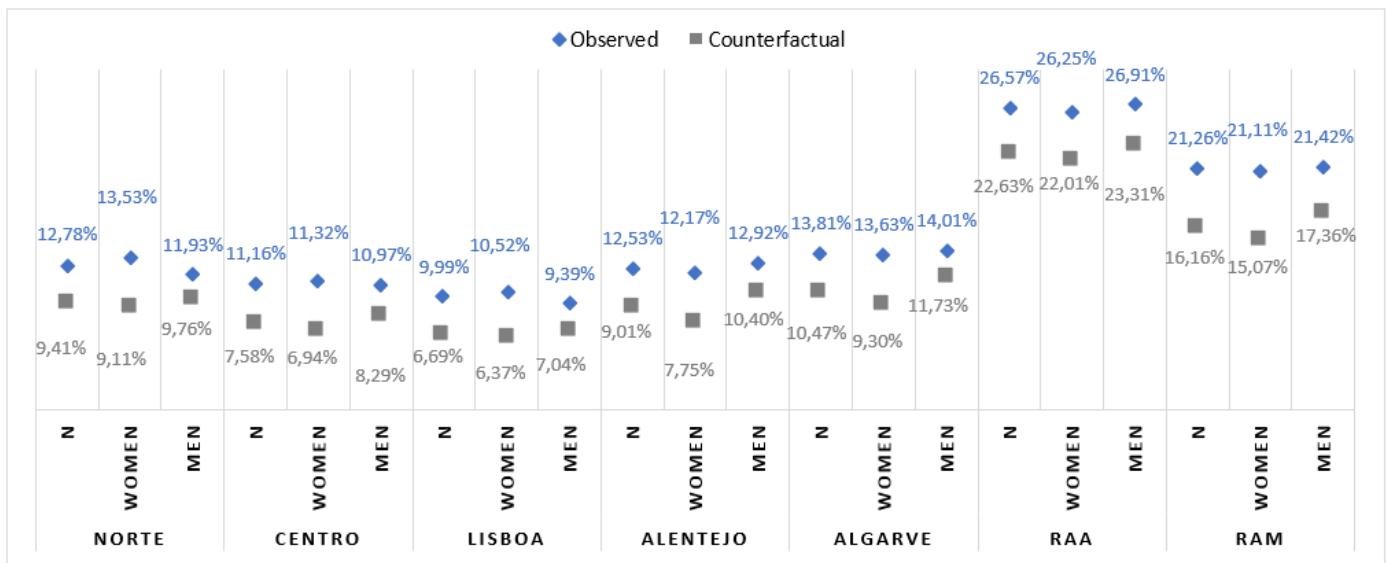
Figure 5. Poverty incidence by population sub-groups



Source: ICOR and own calculations

From the territorial point of view, the results obtained show that the elimination of the wage gap between women and men would have a greater impact on the Autonomous Regions of the Azores and Madeira, where the highest poverty incidence values were also recorded.

Figure 6. Poverty incidence by region



Source: ICOR and own calculations

Impacts on economic growth

The estimation of the model using aggregate macroeconomic data allowed us to identify the following relevant results in the national context:

- Labour market participation, hours worked and investment are channels by which wage inequality indirectly impacts on Portuguese GDP per capita.
- For each percentage point reduction in the GPG, it is estimated that the Portuguese GDP per capita grows on average by approximately 1.4%, corresponding to an increase of 263 euros. This corresponds to an increase of 2.7 billion euros in GDP, assuming that the population size remains constant.
- The elimination of the GPG is estimated to result in a 4.0% increase in GDP per capita, which results in an increase of 737 euros. For GDP, this corresponds to 7.56 billion euros, again assuming a constant population size. In these calculations, it was considered that the number of working hours of women and men is similar,

lowering the proportion of women in part-time work and making their labour participation equal to that of men, both in terms of working time and in terms of activity and employment rates.

- With an equal distribution of women and men across the various jobs and sectors of activity, there would be an estimated increase of 2.14 billion euros in GDP. On the other hand, with the elimination of vertical segregation, it is estimated that GDP would grow by around 330 million euros.
- At the territorial level, the Metropolitan Area of Lisbon, the North and the Centre are the regions that contribute most to GDP. Since they are also the regions where the GPG is highest, the greatest potential gains associated with GPG mitigation can be expected in these regions.

Tables 1 and 2 provide details of the contribution of the different macroeconomic channels in increasing GDP per capita by decreasing the GPG, while also permitting an analysis of the economic gains associated with the elimination of the GPG.

Table 1. Direct and indirect effects of the GPG for each percentage point decrease in the gap

| Variables | The effect on the variable of decreasing the GPG by 1pp | The effect of the variable on GDP per capita | Indirect effects of the GPG on GDP per capita |
|--|---|--|---|
| GDP <i>per capita</i> (Direct effect) | -1.2%*** | - | - |
| Investment | 4.4%*** | 0.27*** | 1.2% |
| Fertility rate | 2.9%** | 0.08 | 0.2% |
| Labour participation | 1.7%** | 0.44*** | 0.7% |
| Working hours (full-time work regime with equal expression for men and women) | 0.6%*** | 1.19** | 0.7% |
| TOTAL EFFECT on GDP per capita (direct + indirect effects) (GDP <i>per capita</i> in 2019 = 18 600 euros, constant prices) | | | 1.4% 263 € |
| TOTAL EFFECT on GDP | | | 2.7 billion euros |

Table 2. Effects of GPG elimination

| | |
|-----------------------------------|--------------------|
| GDP per capita growth rate | 4.0% |
| PIB per capita | 737 euros |
| PIB | 7.56 billion euros |

Table 3 shows the potential gains in GDP at the regional level by combining the results obtained above with the proportion of GDP associated with each region.

Table 3. Impact of the GPG on economic growth, by region

| Region | Share in observed GDP in 2018 (%) (source: INE and own calculations) | Potential increase in GDP, assuming constant population growth (billions, 2010 Euros) |
|------------------------------|--|---|
| North | 29.54% | 0.80 |
| Centre | 18.76% | 0.51 |
| Área Metropolitana de Lisboa | 35.97% | 0.97 |
| Alentejo | 6.43% | 0.17 |
| Algarve | 4.74% | 0.13 |
| Região autónoma dos Açores | 2.09% | 0.06 |
| Região autónoma da Madeira | 2.40% | 0.07 |

The proportion of GDP by region has 2018 as the reference year.

Conclusion

The analysis made in terms of **income** shows that:

- On average, women receive lower salaries and pensions than men. The fact that the counterfactual incomes are systematically higher than the observed ones provides evidence of the importance of the gender pay gap;

- Single-parent households have the lowest median income per equivalent adult of the poor, suggesting that this sub-group is more vulnerable to poverty;
- In territorial terms, there are no significant differences in the median income of the poor population in the regions corresponding to NUTS 2.

From a **poverty** point of view, the results obtained show that the elimination of the gender pay gap between women and men:

- Would promote a fall of about 4 percentage points in the incidence level, and would also be felt, to a lesser extent, in both the intensity and severity of poverty;
- In terms of population sub-groups, this elimination has more significant effects on single-parent households;
- And, in territorial terms, this elimination has a greater impact on the Autonomous Regions of the Azores and Madeira.

Finally, in terms of **economic growth**, the study presented here allows us to conclude that:

- A decrease in the pay gap has a significant positive effect on the growth of an economy by equalising the labour participation of women and men, both in terms of working time and in terms of their respective activity and employment rates;
- The elimination of the GPG results in a 4.0% increase in GDP per capita;
- From a territorial point of view, the reduction of the GPG has more significant gains in the Metropolitan Area of Lisbon, the North and Centre of the country.

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For more information about the project: <https://genderpaygap-elimination.pt/>

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