

The Distributive Effects of an Increase in Low Pay in the Republic of Ireland

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Research for new economic policies

Outline

1. Context
2. Motivation/Aim
3. Data
4. Modelling an Increase in Low Pay
5. Who is Effected?
6. Distributive Effects
7. Conclusion

1. Context

- Low Pay is back on the agenda
 - Predistribution; Low Pay Commission; Government commitments...
- Elsewhere: introduction of National Living Wage in the UK for those aged 25+ as part of the intention to *“tackle low pay and ensure that lower wage workers can take a greater share of the gains from growth”*
 - 2016 – 55% of 25+ median wage
 - 2020 – 60% of 25+ median wage
- Eurostat (2012) define someone who is on low pay as an employee earning a wage that is below two thirds of the median hourly wage in that country.

2. Motivation/Aim

- To model an increase in the minimum wage to a level equivalent to the low pay threshold by 2020 & look at its distributive effects
 - A level that has a bite of 66.6% of the 2020 median wage for all employees
 - We have 2013 earnings distribution
 - Model this to 2020 (details next)
 - 2020 median = €18.79
 - 66.6% = **€12.50**
 - So, paper model an increase in low pay to an hourly minimum rate of **€12.50 per hour in 2020**
 - This modelled increase equates to a 36.6% increase in the minimum wage or an increase of €3.35 an hour

- Equivalent to the previous increase in the minimum wage between October 2002 and July 2007 – 36.2% increase in the wage floor

Table 1: Ireland’s Adult Minimum Wage Rate, 2000-2016

Date	€ per hour	IRL£ per hour
1st April 2000	€5.58	£4.40
1st July 2001	€5.97	£4.70
1st October 2002	€6.35	£5.00
1st February 2004	€7.00	
1st May 2005	€7.65	
1st January 2007	€8.30	
1st July 2007	€8.65	
1st February 2011	€7.65	
1st July 2011	€8.65	
1st January 2016	€9.15	

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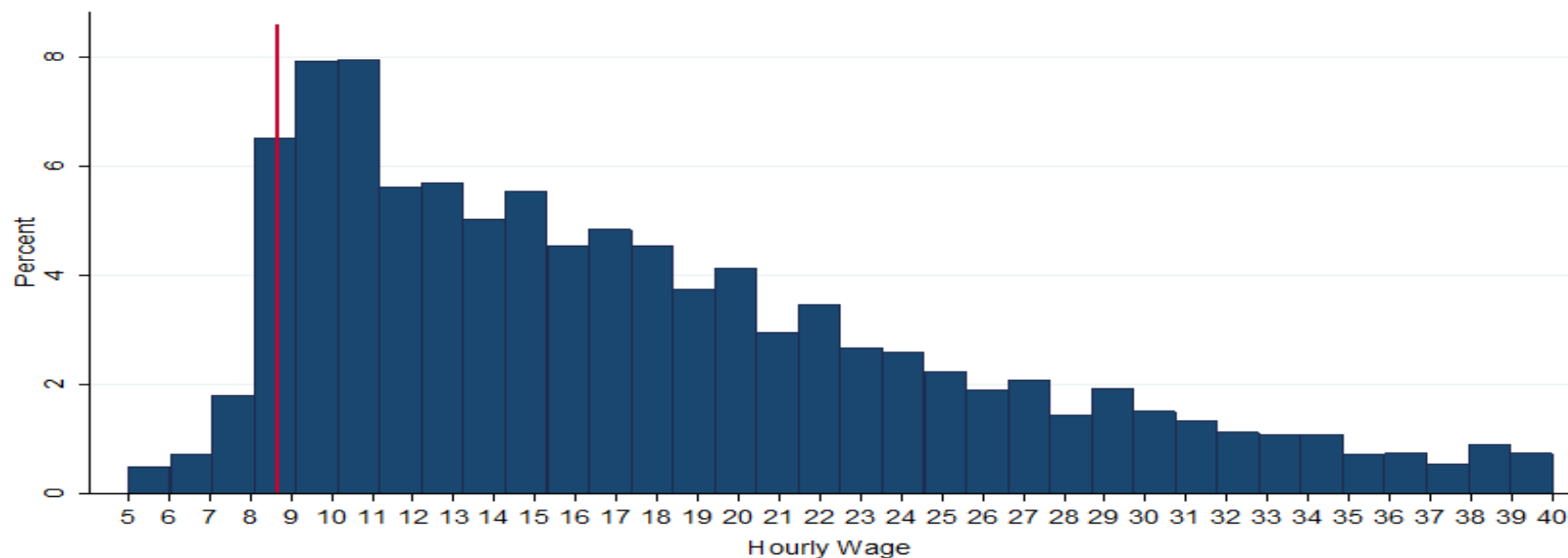
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3. Data

- CSO's 2013 EU Survey on Income and Living Conditions
 - 4,922 Households and 12,663 Individuals
- Detailed data on income, earnings and living conditions
 - Income data cross checked with tax and welfare records
 - Sampling frame and weighting procedures are designed to ensure the sample is representative of the population
- Employees
 - 3,369 employees
 - PES=at work
 - Detailed personal and household characteristics
 - Hourly wage

4. Modelling an Increase

Chart 1: Distribution of Hourly Earnings and Selected Pay Thresholds, Ireland 2013 (% of employees)



Source: EU Survey on Income and Living Conditions

Notes: 2013 Earnings distribution compiled using EU-SILC 2013 data. The red line represents the minimum wage of €8.65. There are some entries with spurious values where the hourly wage is very low; earnings less than €5 an hour are dropped to give a more robust data basis

The earnings graph only shows the earnings for those earning a wage less than €40 an hour. 6.9% of employees earn a wage above €40 an hour

Assumptions

- The composition and size of the workforce remains constant at 2013 levels
- For all unaffected employees: incorporate average annual wage growth for 2014 of 1.4% (CSO, 2015) and an estimate of 2% for 2015-2020
- For simplicity of estimation we assume that the sub-minima rates increase by the nominal increase in the minimum wage
- There will be spillover effects to an increase in a wage floor as employers may want to maintain some pre-measures wage differentials
- Spillovers will be implemented using Lee (1999) formula with a central assumption of a spillover parameter of 0.03

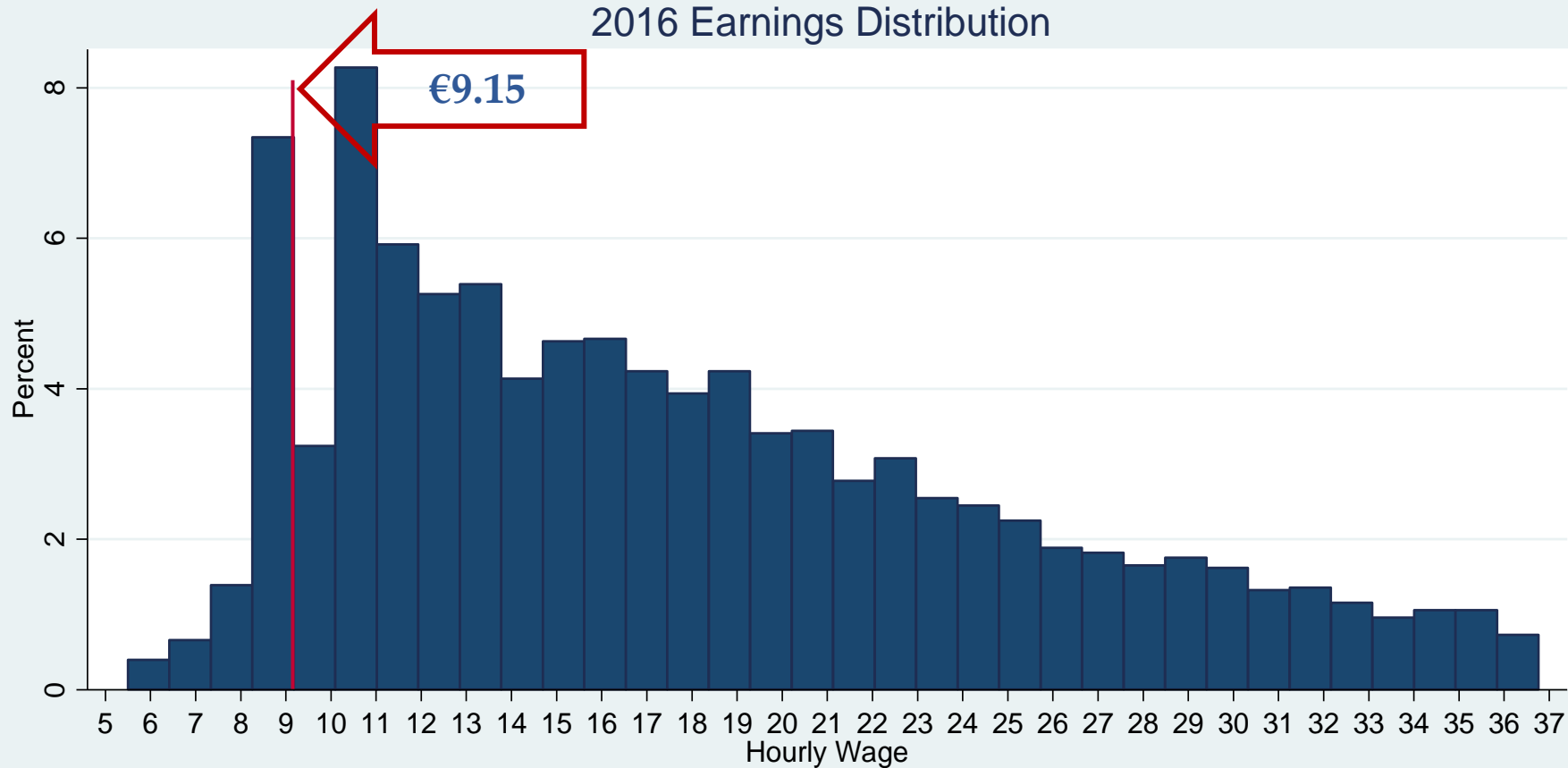


2013 → 2016

1. Forecast 2016 hourly wage distribution before the minimum wage increase
 - Incorporate average wage growth from 2013-2016
2. Implement the increase in the minimum wage from €8.65 - €9.15
 - Increase wages of all those earning a wage between €8.22 and €9.08 to €9.15
 - Increase sub-minima rates by the nominal increase in the minimum wage
 - Incorporate spillover effects to those earning a wage just above the new minimum – spillover effects start at the 10th percentile and extend to the 25th percentile

2016 Distribution

2016 Earnings Distribution



2016 → 2020

3. Forecast the 2020 hourly wage distribution prior to any increases in low pay
 - Incorporate average wage growth from 2016-2020
 - 2020 median wage is €18.79
 - Value that represents a bite of **66.6% of median earnings = €12.50**

4. Implement an increase in the minimum wage to €12.50
 - Increase the wages of those earning a wage between €9.15 - €12.50 to the €12.50 wage floor
 - Increase sub-minima wages by the nominal increase in the minimum wage
 - Incorporate spillover effects to those earning a wage just above the new minimum

2020 Distribution

2020 Earnings Distribution

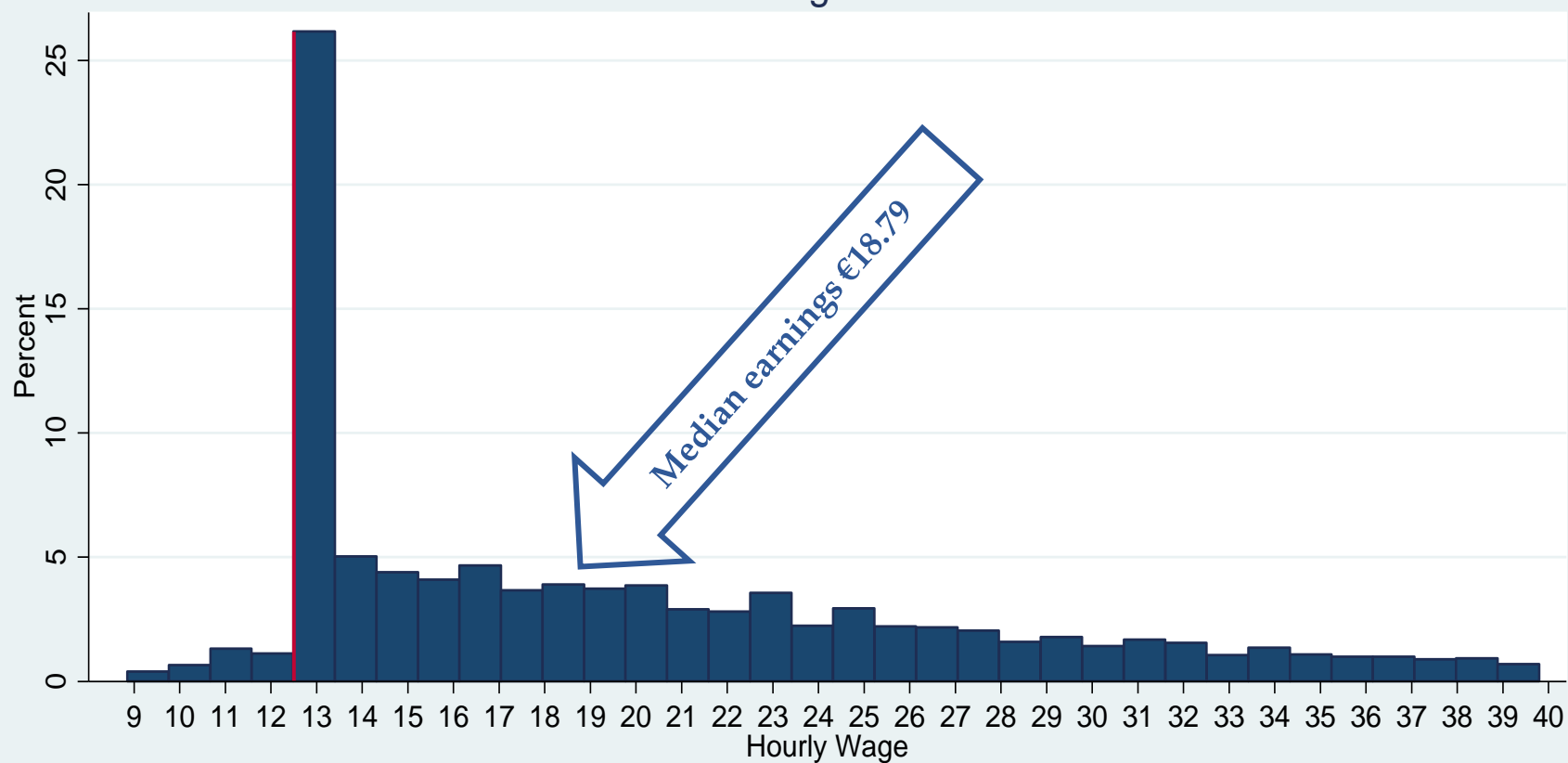
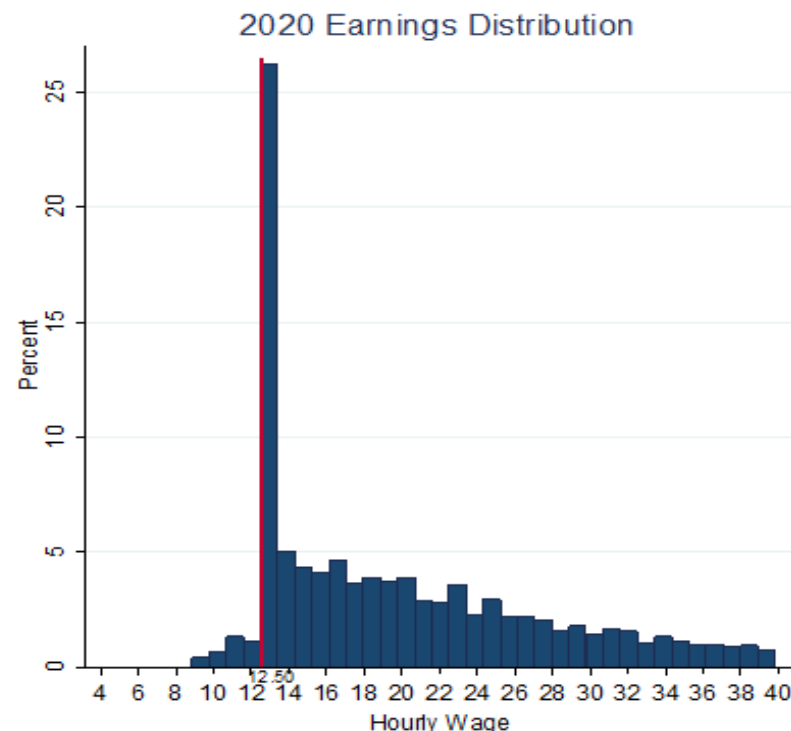
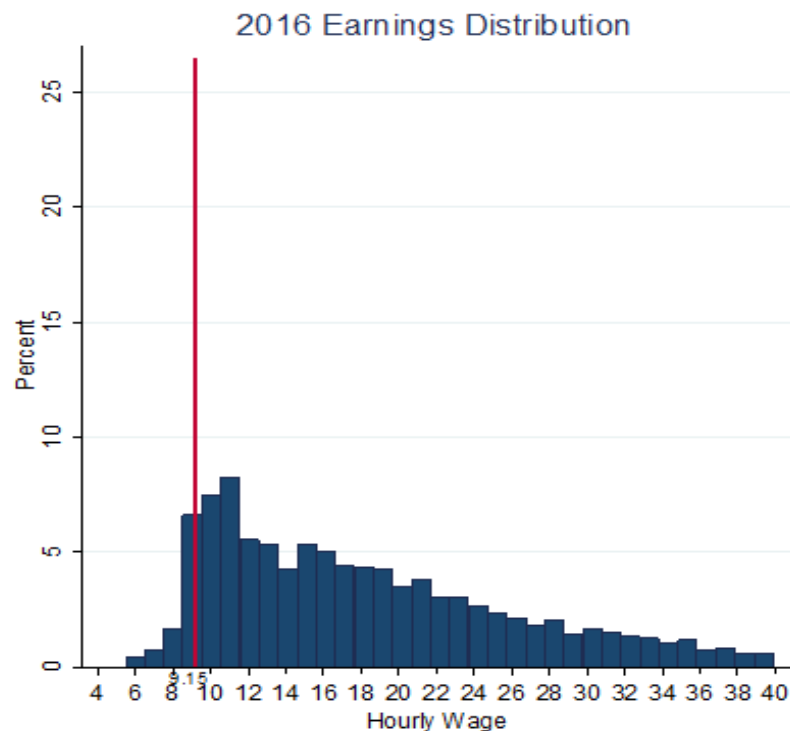


Chart 2: Projected Distribution of Hourly Earnings, Ireland 2016 and 2020 (% of employees)



Notes: The 2016 earnings distribution is modelled to account for the direct and indirect effects of the increase in the minimum wage to €9.15. The 2020 distribution includes a further increase in the minimum wage to €12.50 and includes both the direct and indirect effects resulting from this increase. We assume there are no changes in the minimum wage between 2016 and 2020 and the composition and size of the workforce remains constant at 2013 levels.

5. Who is Effected?

Table 3: Projected Distribution of Earnings per Selected Pay Threshold in 2020 (% of employees)

Threshold	% above	% at each category	Average Hourly Increase	Average Annual Increase
Below €12.50	96.63%	3.37%	€3.35	€4,599
At €12.50	76.04%	20.59%	€2.28	€3,345
Above €12.50 with spillovers	69.05%	6.99%	€1.16	€1,876
Other Employees	0.00%	69.05%	€2.19	€3,948

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Table 4: Characteristics of those who Directly Benefit from the Minimum Wage Increase

	Share of Employees Affected (%)	Share of all Affected (%)	Average Hourly Gain	Average Yearly Gain
Total	20.59	100.00	€2.28	€3,345
Gender				
Male	17.87	41.30	€2.17	€3,784
Female	23.07	58.70	€2.36	€3,072
Age group				
18-29yrs	39.40	33.30	€2.36	€3,541
30-39yrs	19.26	30.56	€2.29	€3,502
40-49yrs	13.96	16.80	€2.31	€3,305
50-59yrs	14.06	13.28	€2.13	€2,839
60+yrs	22.01	6.06	€2.19	€2,917
Hours				
Full-time	14.60	51.17	€2.23	€4,516
Part-time	36.18	48.83	€2.35	€2,215
NACE Sector				
Agri, Forestry/Fishing	-	-	-	-
Industry	14.14	11.07	€2.41	€4,335
Wholesale and Retail	33.94	23.31	€2.28	€3,132
Accommodation and Food	49.78	18.22	€2.45	€3,145
Admin & Support Services	43.60	5.84	€2.24	€3,160
Health and Social Work	18.86	14.30	€2.13	€2,938
Pub Adm. Defence, Educ.	7.41	6.26	€2.10	€2,661
All Other Sectors	14.37	17.61	€2.27	€3,627

Notes: - Less than 25 observations
 This table looks only at those who were brought up to and are now on the 2020 minimum wage of €12.50 per hour. It does not include sub minimum wage workers or those who benefitted from spillover effects.

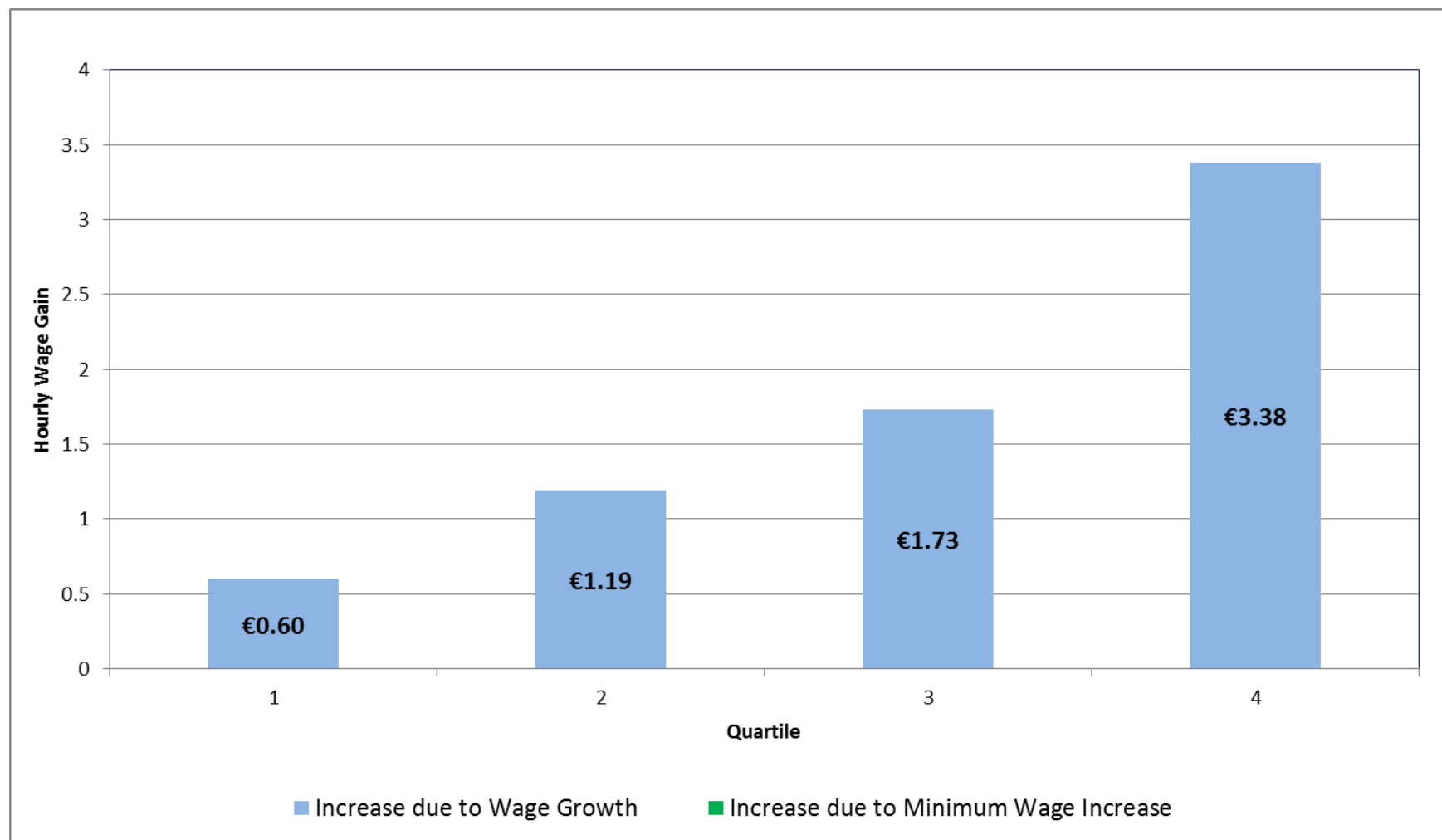
6. Distributive Effects

- Looking at this by:
 - Earnings quartiles
 - Earnings distributions
 - Household deciles (equivalised)

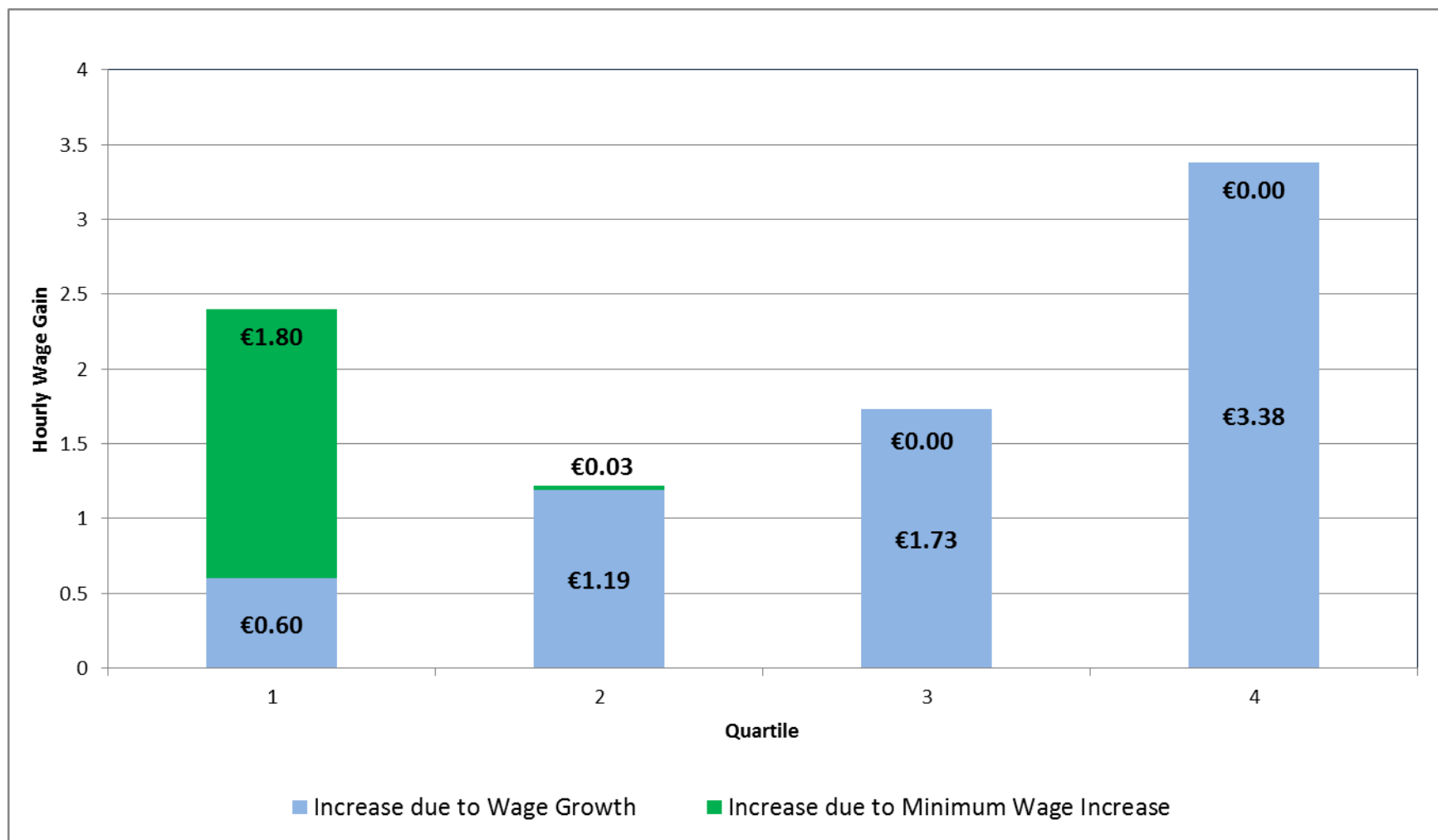
Earnings quartiles



Earnings quartiles



Earnings quartiles



Earnings distribution

Table 7: Evolution of Inequality in the Hourly Wage Distribution

	2013	2016	2020	2020*
Gini	0.32433	0.32363	0.30435	0.32699
P90/P10	3.794	3.733	3.174	3.733
P90/P50	2.106	2.106	2.106	2.106
P10/P50	0.555	0.564	0.663	0.564

Notes: The P90/P50 ratio is the ratio between earnings at the top decile and median (middle) earnings in the distribution.

The P10/P50 ratio is the ratio between earnings at the bottom decile and the median (middle) earnings in the distribution

*shows the Gini and decile ratios for 2020 in the absence of the minimum wage increase

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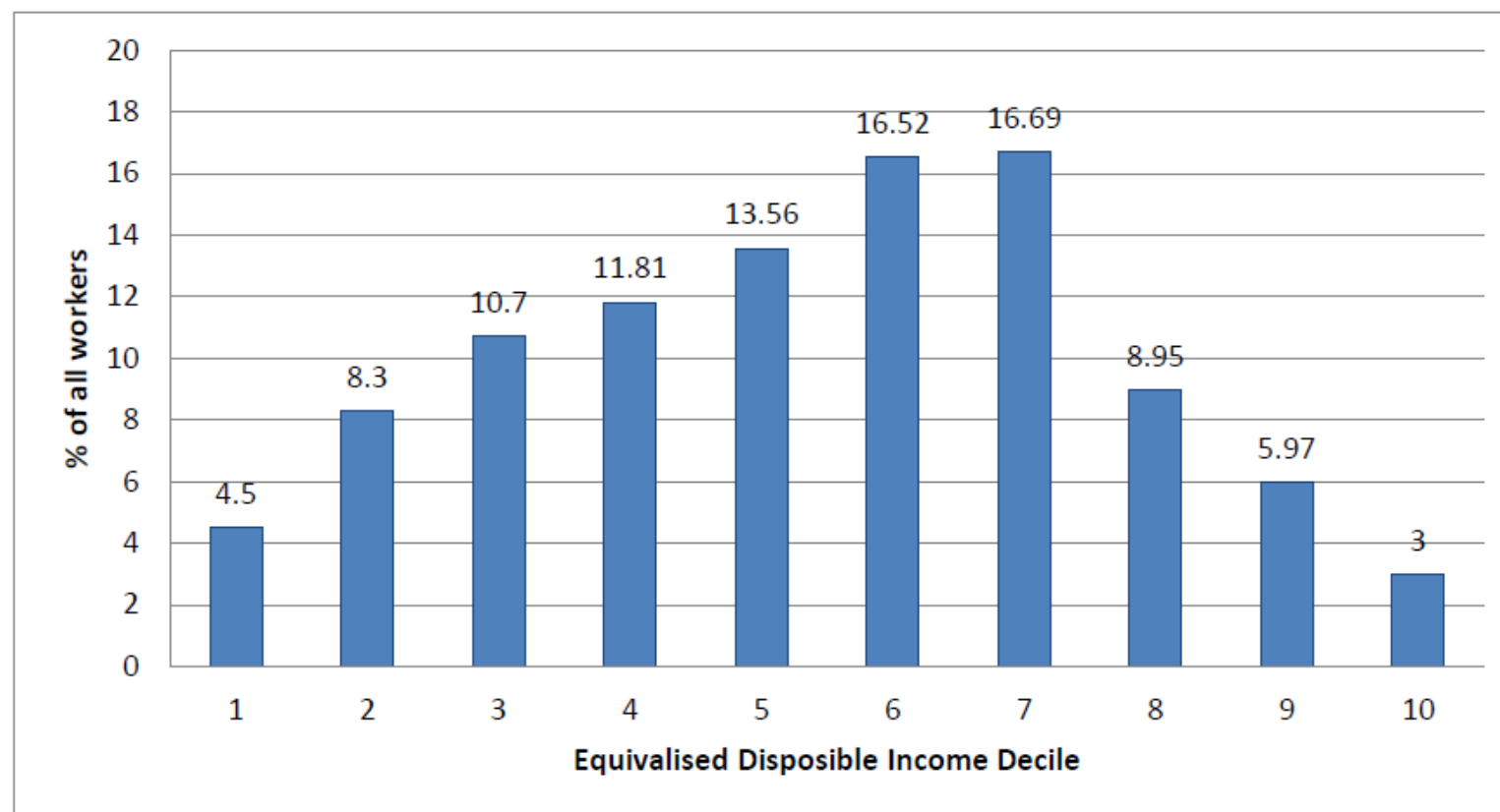
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Household Deciles

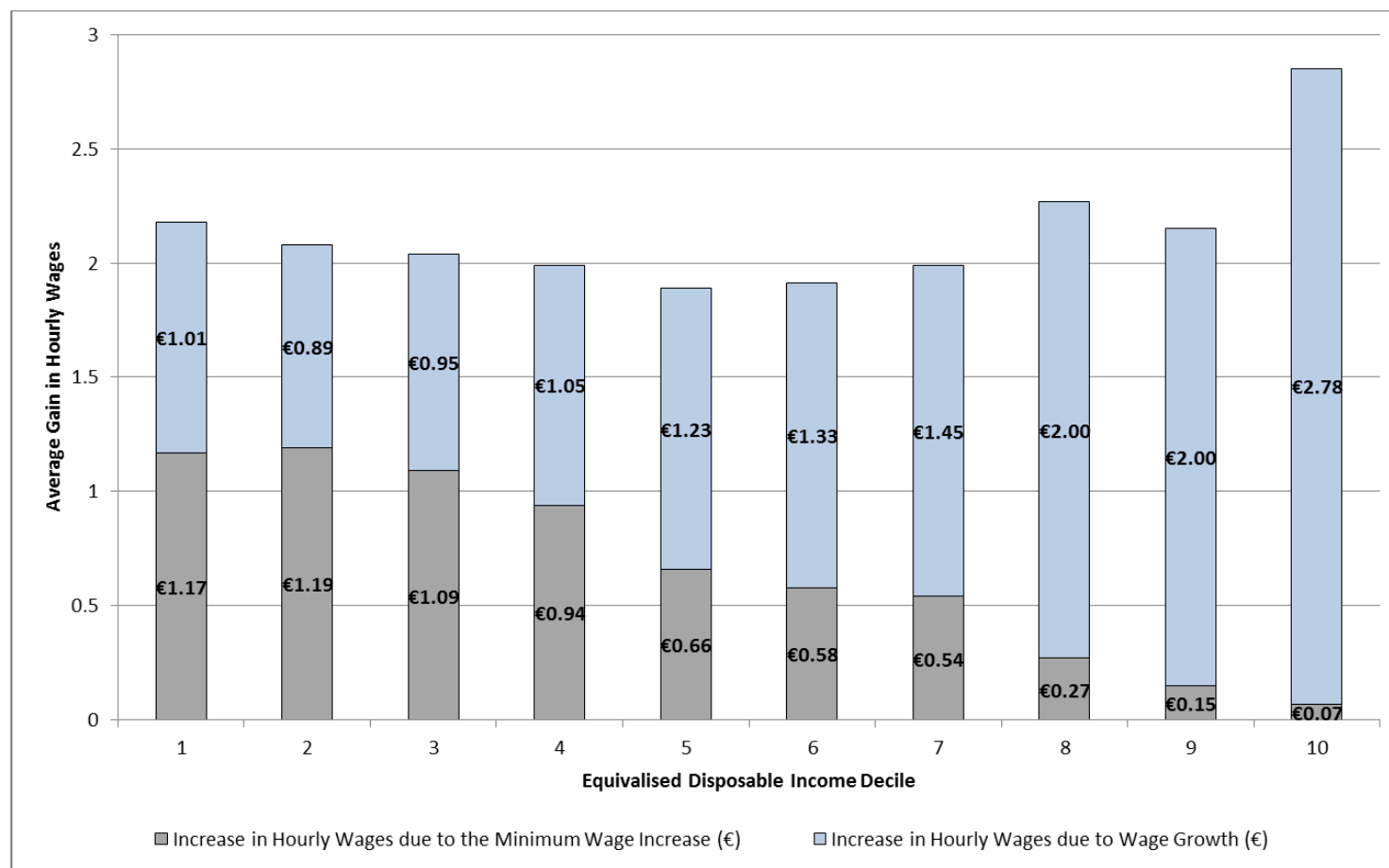
Chart 4: Location of those who would gain from the increase of the minimum wage across the Income Distribution



Notes: Distribution of employees who receive an increase in 2020 due to the minimum wage increase across the 2013 equivalised disposable income deciles using the national equivalence scale.

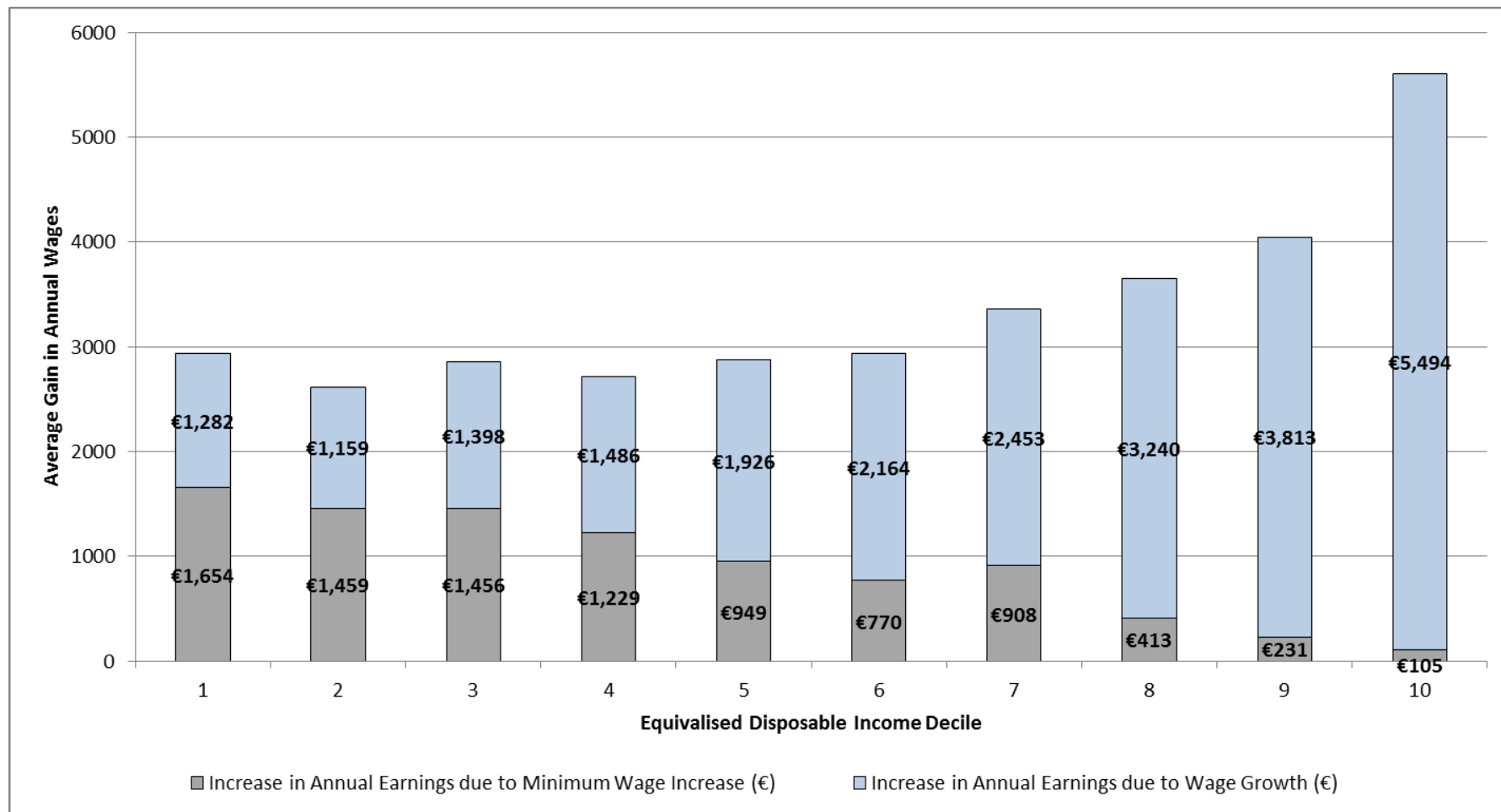
Household Deciles

Chart 5: Average gain in hourly earnings across the household disposable income distribution



Household Deciles

Chart 6: Average Gain in Annual Wages across the Income Distribution



7. Conclusion

- Low Pay is back on the agenda
- Paper models **↑** in the MW to the Low Pay Threshold in 2020
 - It is modelled as a once off increase. In reality it would be implemented incrementally over a couple of years
 - An increase in the Minimum Wage by 36.6% to €12.50
- Distributive effects
 - 31% of employees benefitting: 24% directly, 7% indirectly
 - **↓** wage inequality by **↑** wages of the bottom third of the wage distribution closer to the median
 - Gini falls
 - Yet, pay elsewhere in the earnings and income distribution continues to **↑**
 - Implies need for increases linked to earnings distribution are needed if policy objective is determined to address/reduce/eliminate low pay

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