The Earnings Distribution in Lithuania: The Role of the Minimum Wage[1]

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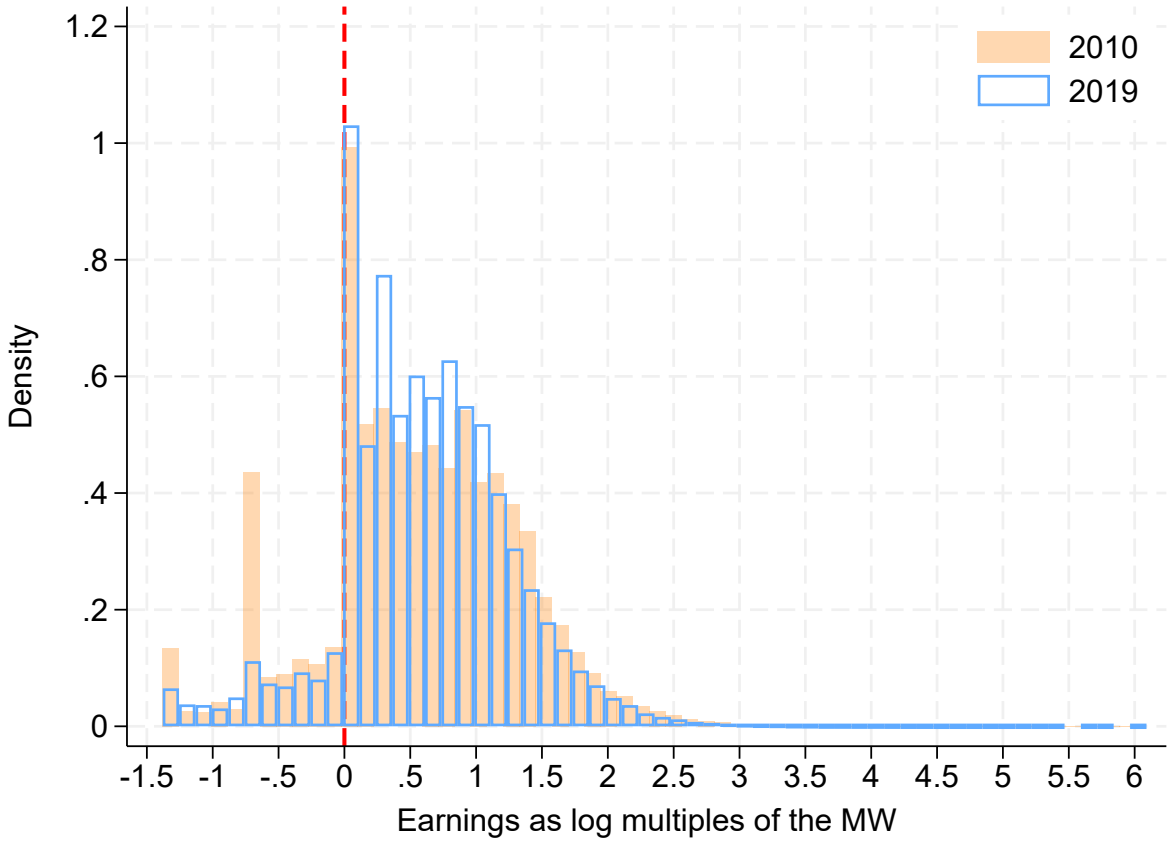
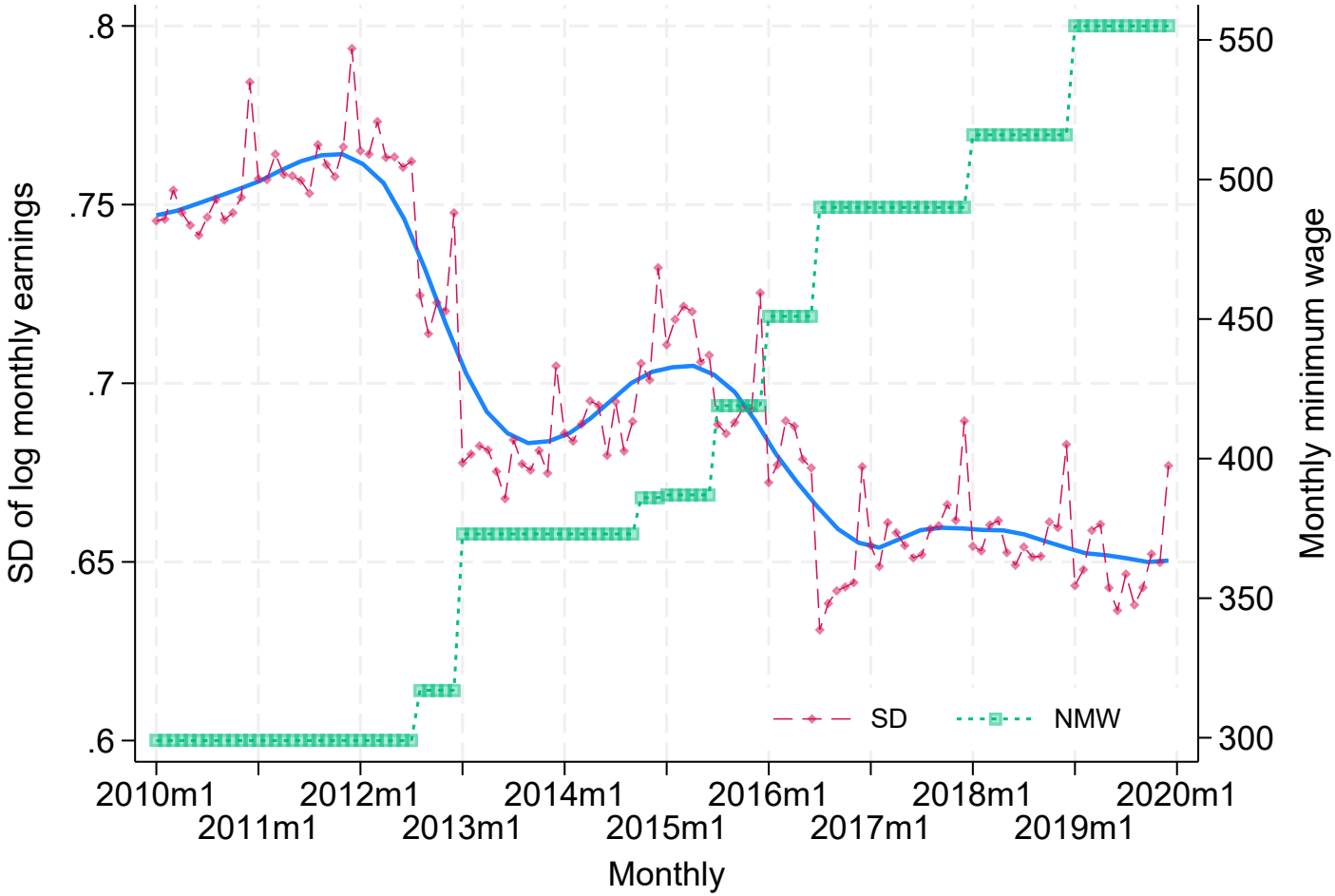
Overview

Motivation: tax and wage inequality in Lithuania

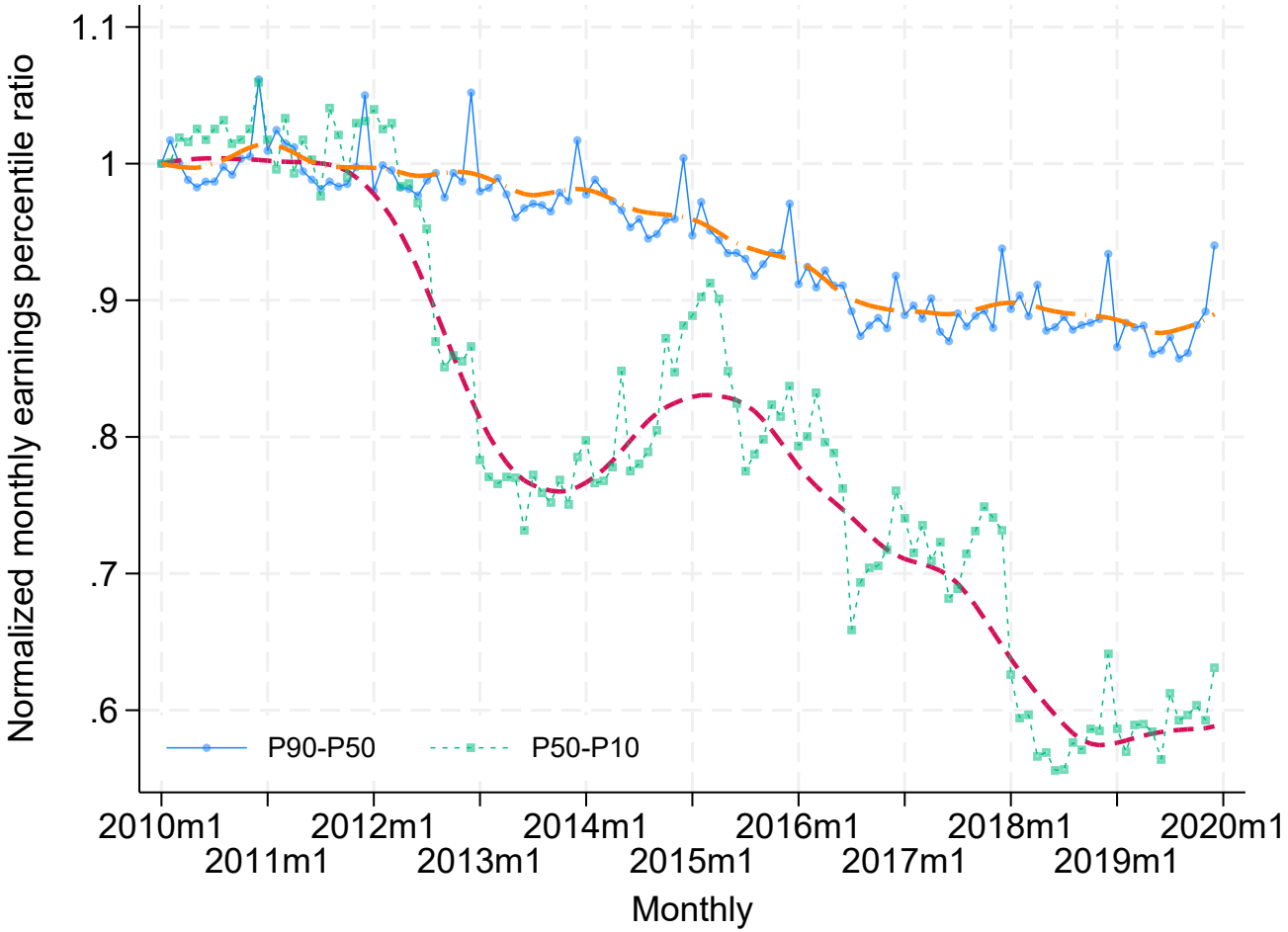


- Tax
- EUROMOD: (wage) inequality Ferraro et al. (2018); Fortin et al. (2021); Magda et al. (2021)

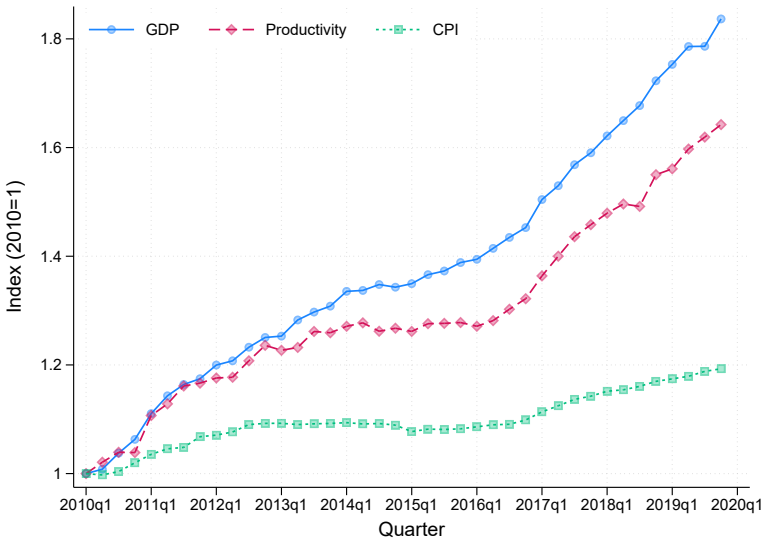
Motivation: wage inequality and the minimum wage

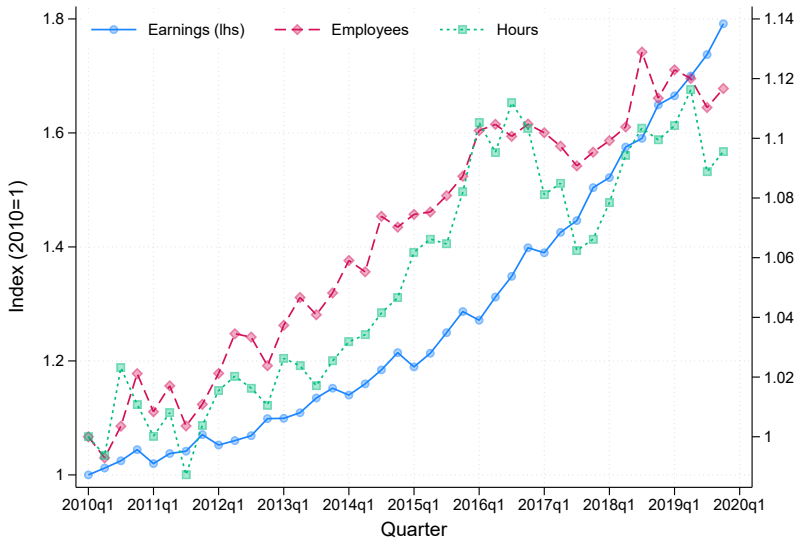


Motivation: wage inequality and the minimum wage



Motivation: macroeconomic performance, 2010-2019





Administrative Social Security Data

General

- monthly job (private and public) level data for 2010-2019
- 1/4 of population, 27 mil data points.

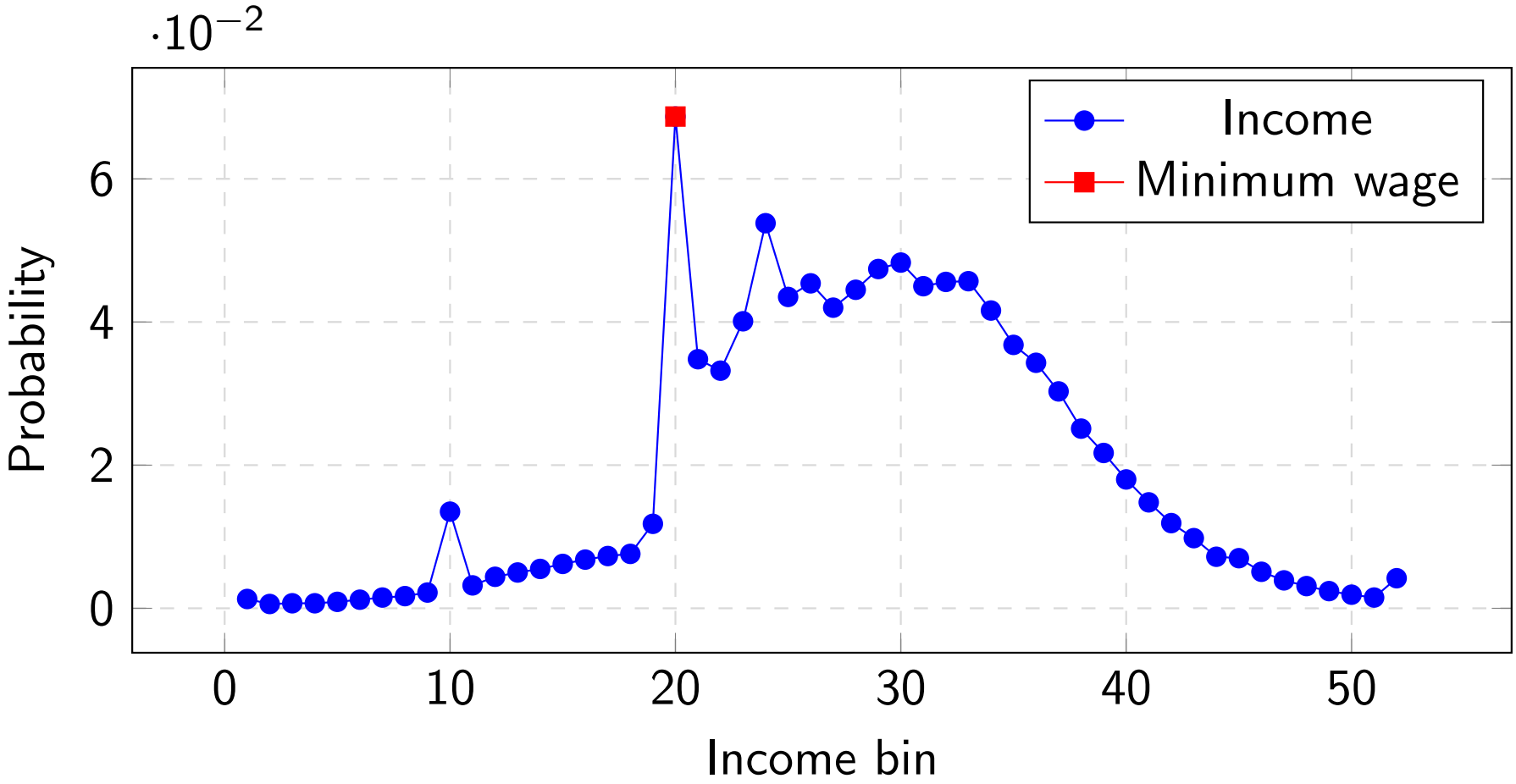
Variables

- job: insurable income, occupation, employed or not
- firm: sector, location
- demographics: sex, age, municipality.

Working subset

- age: 18 to 65
- income: does not receive benefits, earns $\geq 1/4$ of minimum wage
- work time: worked full month
- 15% of final sample.

Method: Fortin et al. (2021)



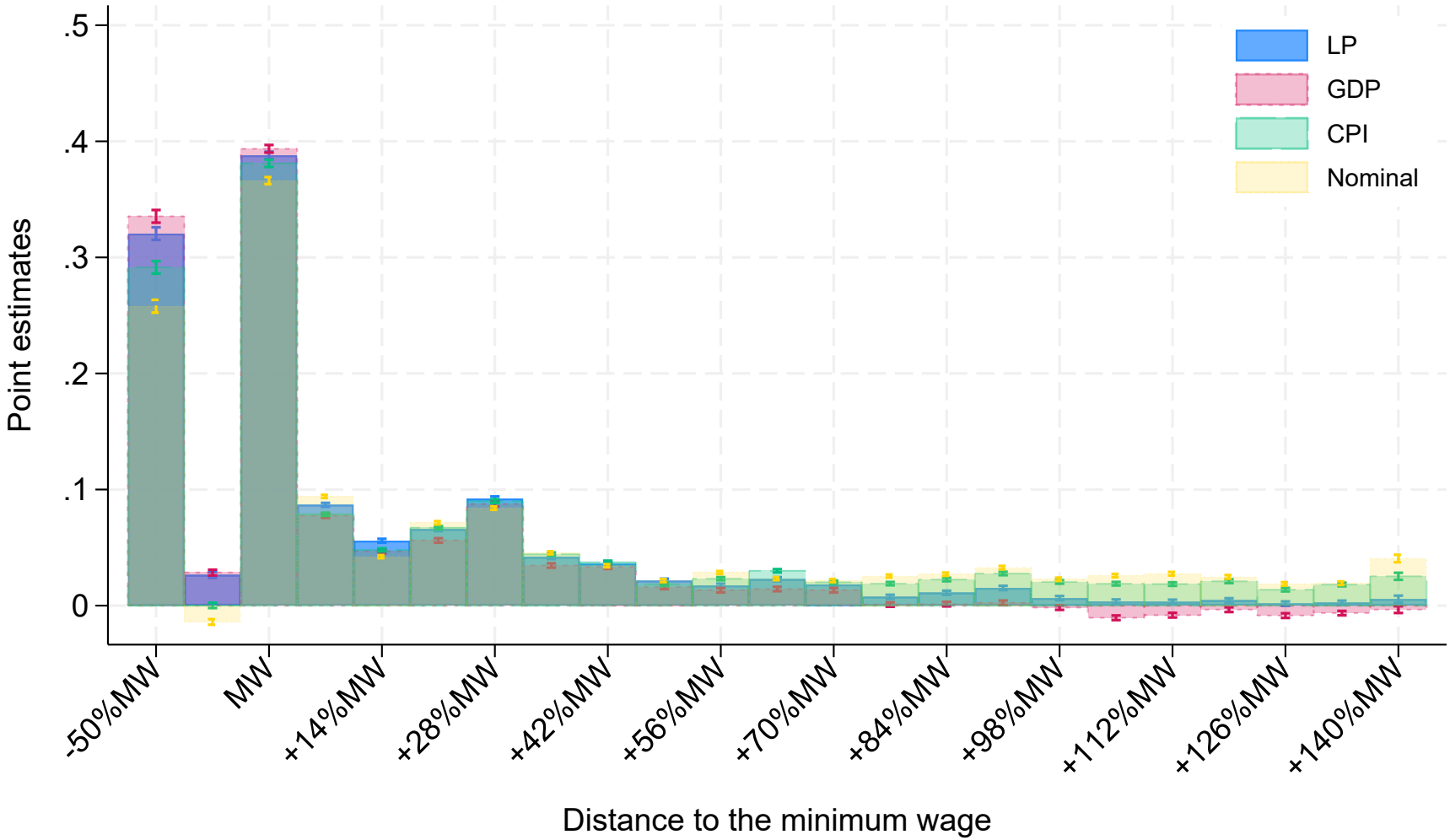
$$Pr(Y_{it} \geq y_k) = \Phi\left(\sum_m D_{kt}^m \varphi_m + ...\right) \quad (1)$$

Method: Fortin et al. (2021)

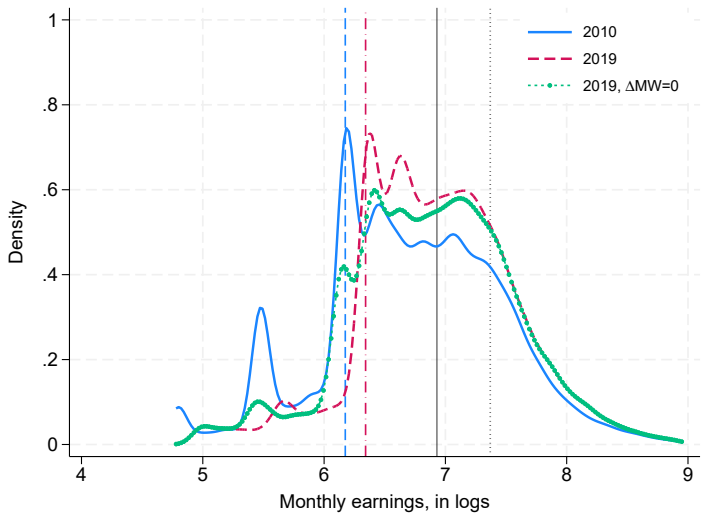
Table: Data example

i	t	k	y_k	Y_{it}	MW_t	$Pr(Y_{it} \geq y_k)$	$D_k(y_k \leq MW_t)$
1	2019	1	50	500	400	1	1
1	2019	2	100	500	400	1	1
1	2019	3	150	500	400	1	1
1	2019	4	200	500	400	1	1
1	2019	5	250	500	400	1	1
1	2019	6	300	500	400	1	1
1	2019	7	350	500	400	1	1
1	2019	8	400	500	400	1	1
1	2019	9	450	500	400	1	0
1	2019	10	500	500	400	1	0
1	2019	11	550	500	400	0	0
1	2019	12	600	500	400	0	0

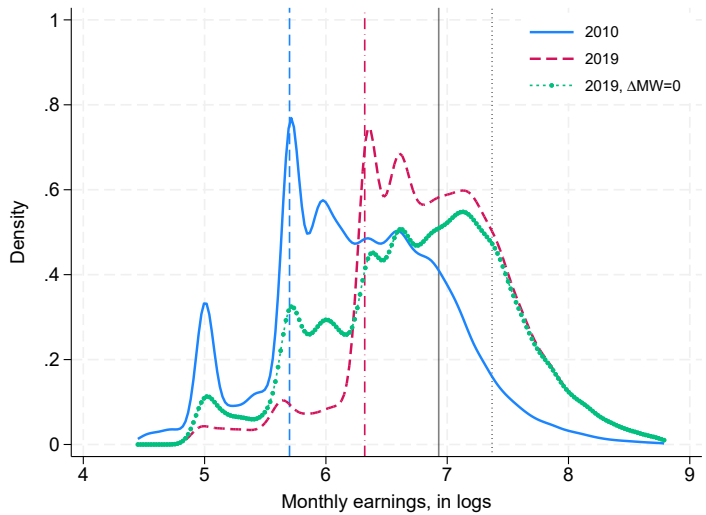
Point estimates of the minimum wage indicators



Actual and counterfactual distribution with 2010 minimum wage



Real terms



Nominal terms

The contribution of minimum wage changes to inequality

	SD	P90-P10	P90-P50	P50-P10
A. Observed inequality				
2010	0.751	1.940	0.920	1.020
2019	0.650	1.410	0.810	0.600
Actual change	-0.101	-0.530	-0.110	-0.420
B. LP-deflated counterfactual				
2019, ΔMW=0	0.682	1.600	0.830	0.770
Change	-0.068	-0.340	-0.090	-0.250
Change due to MW	0.033	0.190	0.020	0.170
Contribution (%)	-32.27	-35.85	-18.18	-40.48

The contribution of minimum wage changes to average earnings growth

	LP-deflated	GDP-deflated	CPI-deflated
2010	6.728	6.837	6.434
2019	6.935	6.937	6.921
2019, ΔMW=0	6.897	6.918	6.834
Actual change	0.207	0.100	0.487
Counterfactual change	0.169	0.080	0.400
Change due to MW	-0.038	-0.020	-0.087
Contribution (%)	-18.17	-19.79	-17.94

The End

References

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Fortin, N. M., Lemieux, T., and Lloyd, N. (2021). Labor market institutions and the distribution of wages: The role of spillover effects. *Journal of Labor Economics*, 39(S2):S369–S412.

Magda, I., Gromadzki, J., and Moriconi, S. (2021). Firms and wage inequality in Central and Eastern Europe. *Journal of Comparative Economics*, 49(2):499–552.