

# Are gender wage gaps different in size between domestic and foreign-owned firms?

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# Motivation

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- Foreign firms usually offer **wage premia** -> direct impact on foreign/domestic pay gap (Conyon et al., 2002; Eriksson & Pytlikova, 2011; Hijzen et al., 2013)
  - Wage premia due to **technology, capital** and **competition** externalities from multinationals (Bandick, 2011; Conyon et al., 2002; Chen, Ge, & Lai, 2011)
- But are these foreign-ownership wage premia higher or lower for men than for women?
- Is GWG increased or decreased by FDI inflows?

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# Theory: GWG should be...

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## ... **lower** in foreign-owned firms:

- competition: discrimination is costly (Becker, 1957; Arrow, 1973)
- competition: weaker product market competition could create opportunity for higher rents, likely shared with employees (Black & Strahan, 2001; Nekby, 2003)
- societal demand: foreign-owned firms are quicker in introducing gender equality measures and family-friendly practices (Kodama, Javorcik & Abe, 2018)
- globalisation: abundant production factors (Black & Brainerd, 2004)

## ... **higher** in foreign-owned firms:

- working time requirements: men are more likely than women to meet them (Goldin, 2014; Vahter & Masso, 2018)
- ‘cherry picking’: selecting the most productive workers (Almeida, 2007)

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# Empirical literature: on China we know a lot

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- China: higher wage premia for men in the foreign-owned sector -> a positive link between foreign ownership and GWG (Maurer-Fazio et al., 1999; Liu et al., 2000; Hughes and Maurer-Fazio, 2002).
- China: higher GWG in the foreign owned firms reflects higher **productivity gap** between men and women; domestic firms - higher discrimination (Chen, Ge, Lai, & Wan, 2013)
- China, patterns over time: mid 1990s – FDI benefitted women’s wages more compared to men, early 2000s – reversed (Braunstein & Brenner, 2004)

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## Empirical literature: different mechanisms in developed and developing countries

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- Taiwan: positive correlation between total FDI and GWG, Korea: no relationship (Seugino, 2000)
- Macedonia: higher GWG in the foreign-owned firms (Zulfiu-Alili, 2014)
- Estonia: higher GWG in the foreign-owned firms (Vahter & Masso, 2018)
  
- Poland?

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# Data

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- Polish Structure of Earnings Survey 2008, 2010, 2012, 2014
  - pure private domestic and private foreign ownership only
  - total of 1,230,945 individual observations in a pooled sample
- We proxy the age of the firm by the tenure of 99<sup>th</sup> percentile of its workers

# Empirical strategy

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1. OLS regression:
  - Dependent variable: logarithm of hourly wage
  - Model 1: female
  - Model 2: female # foreign
  - Model 3: female # foreign # firm\_existed\_before\_1990
  - Controls: age (and age squared), education dummies, tenure, experience, parttime dummy, fixed-term contract dummy, occupation dummies, NACE dummies, logarithm of firm size, collective bargaining, share\_women, share\_edu\_tert, share\_young, share\_old, year dummies
  - Standard errors clustered at firm level
  
2. Within/between firm variance of error terms (Model 1) (Barth et al., 2016)
  
3. Unconditional quantile regression (Model 3) (Firpo et al., 2009)
  - Bootstrap standard errors

# Descriptives: differences between domestic and foreign-owned firms

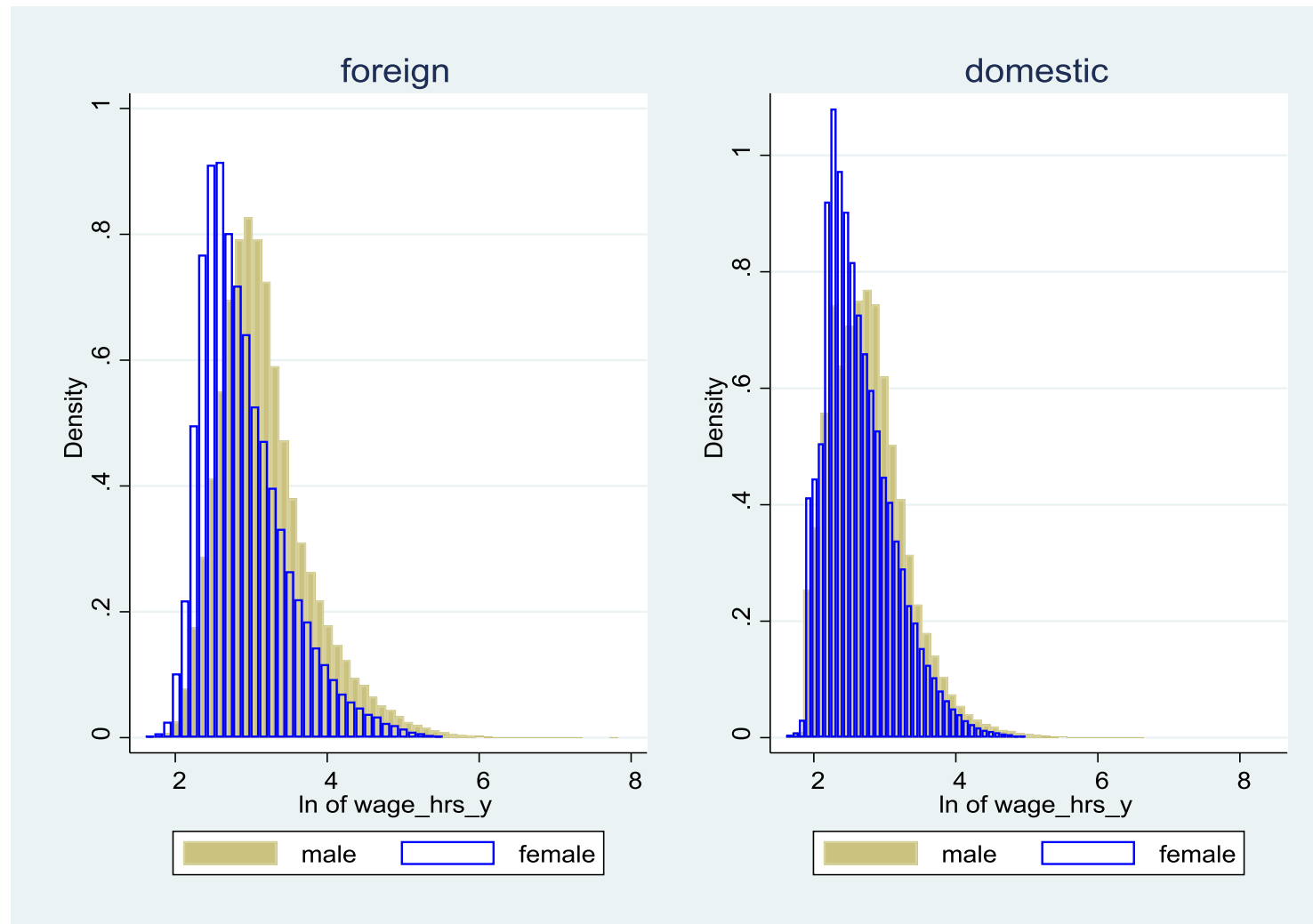


	domestic	foreign
female (share)	40%	43%
age (average)	40	37
primary education (share)	7%	7%
basic-vocational education (share)	30%	18%
secondary education (share)	38%	36%
tertiary education (share)	24%	39%
job experience (average)	16	13
tenure (average)	8	7
firm size (average)	334	1136
fixed term contracts (share)	39%	28%
collective agreements (both firm-level and industry)	38%	34%
Men, average hourly wage (PLN)	19.77	34.80
Women, average hourly wage (PLN)	17.37	25.59
Number of observations	222,203	120,940

Source: Own calculations based on the Polish SES 2014 data.



# Women's wages more shifted to the left in foreign firms



Source: Own calculations based on the Polish SES 2008, 2010, 2012, and 2014 data.

# Adjusted GWG higher in foreign firms, especially those established after the transition

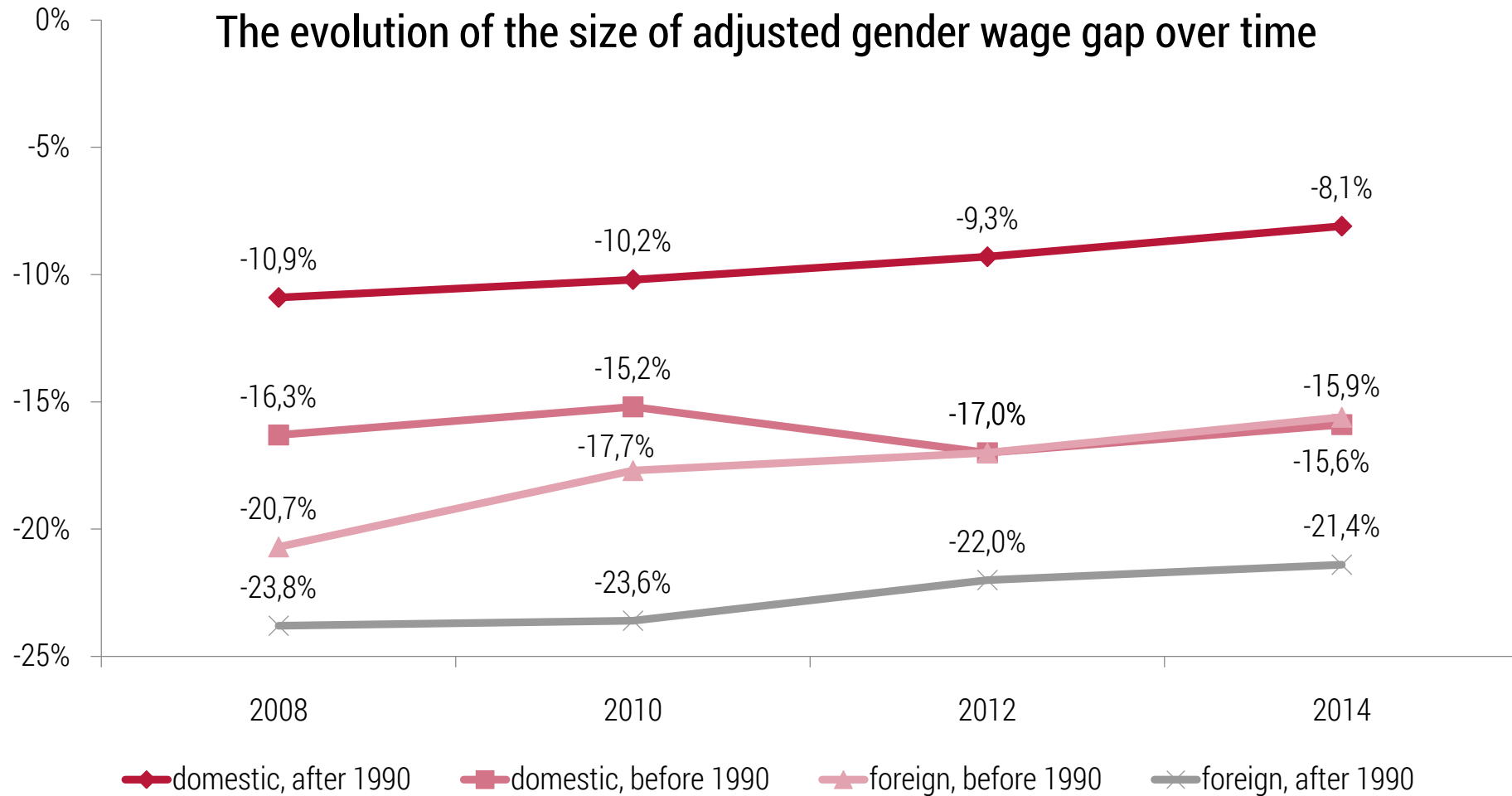


Gender wage gaps in domestic and foreign-owned firms, adjusted for firms' and workers' characteristics

ownership	the firm's establishment year		
	before 1990	after 1990	all
domestic	16.1%	9.6%	11.4%
foreign	17.4%	22.7%	21.7%

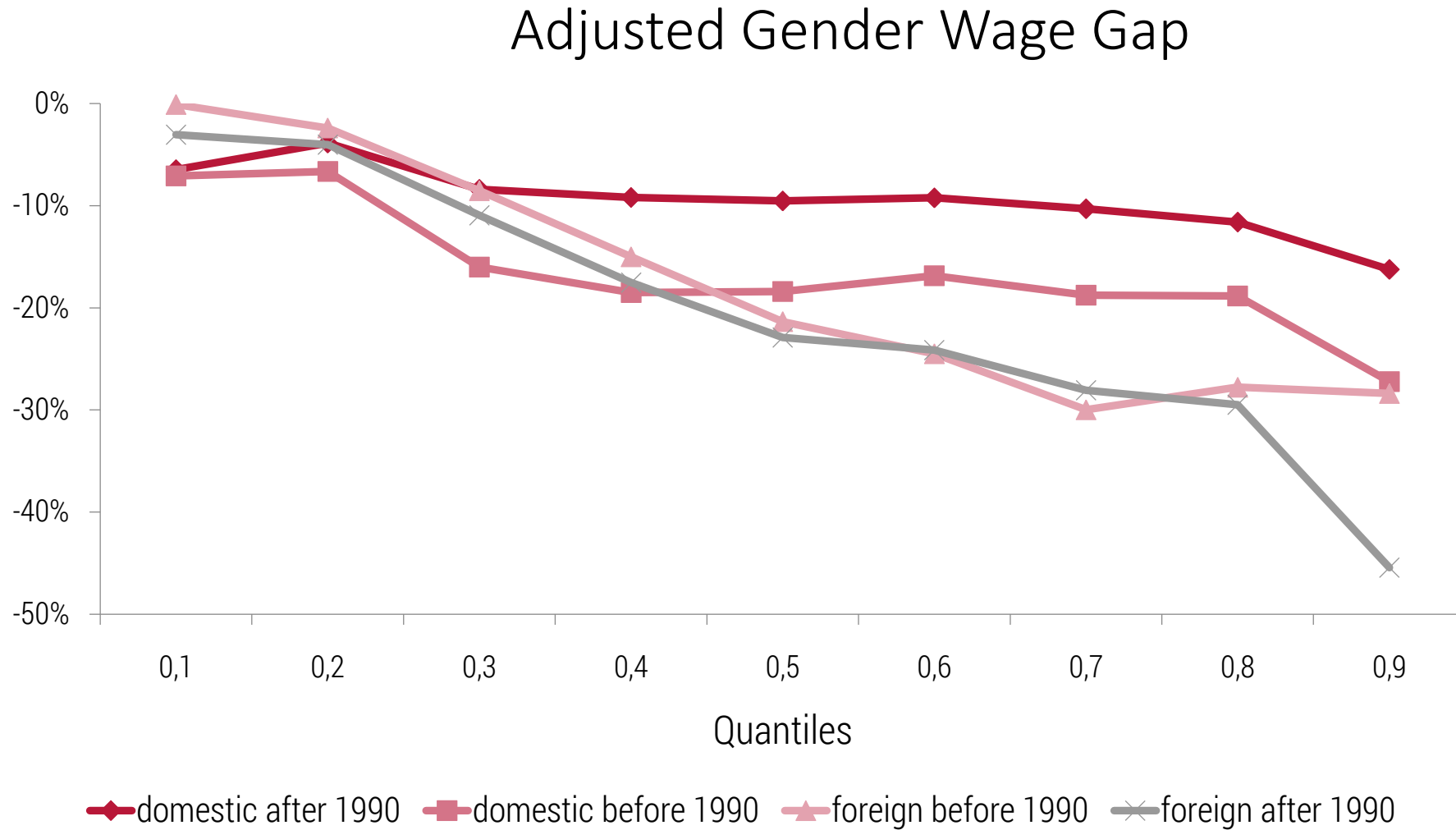
*Source: Own calculations based on the Polish SES 2008, 2010, 2012, and 2014 data.*

# Decreasing GWG in both domestic and foreign owned firms: common pattern



Source: Own calculations based on the Polish SES 2008, 2010, 2012, and 2014 data.

# The highest GWG among top earners in foreign firms . | :



Source: Own calculations based on the Polish SES 2008, 2010, 2012, and 2014 data.

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# Summary

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- Adjusted (“unexplained”) GWG are significantly higher in foreign-owned firms (compared to domestic ones)
- Patterns of GWG differ, depending on whether the firm entered the market after/before the economic transition
- Adjusted GWG in foreign-owned firms is distinguishingly large mainly among better paid workers
- Adjusted GWG among low paid workers is higher in domestic firms

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