

1. Motivation

- **Monetary policy** typically targets price and currency stability but also **affects social outcomes**
- Due to **structural gender inequalities in the labour market**, women and men may be differently affected by exchange rate fluctuations
- Understanding the nature and extent of these structural inequalities is important for **formulating gender aware policies**

2. Research Question

Which distributional gender impacts resulted from the 2015 Swiss franc shock?

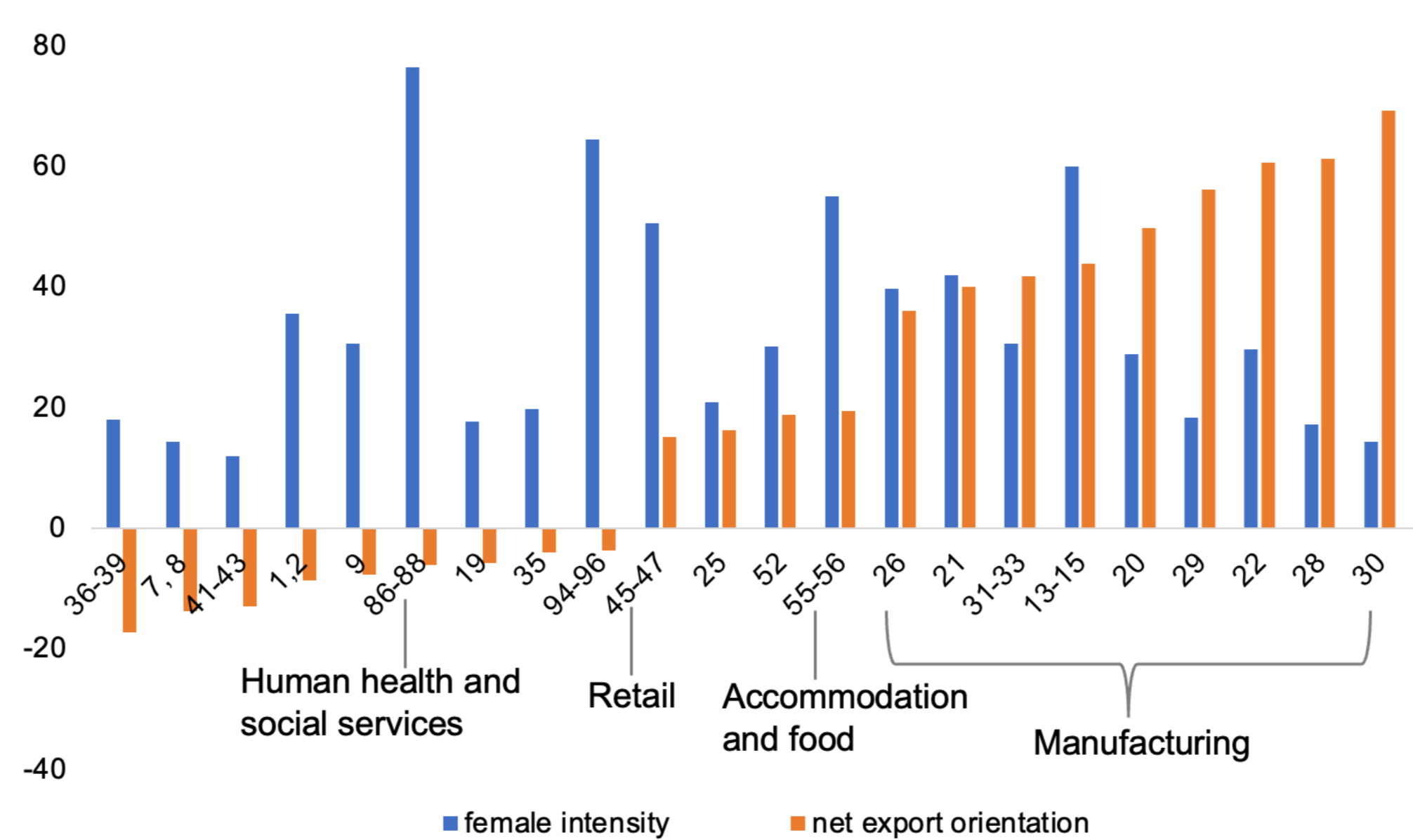
3. Contribution

- Demonstrate how **exchange rate policy** can result in **distributional impacts** by gender
- First paper to exploit an **exogenous exchange rate shock** to causally identify gender impacts
- **Granular employer-employee matched data** enables investigation of dynamics at individual, firm and household level

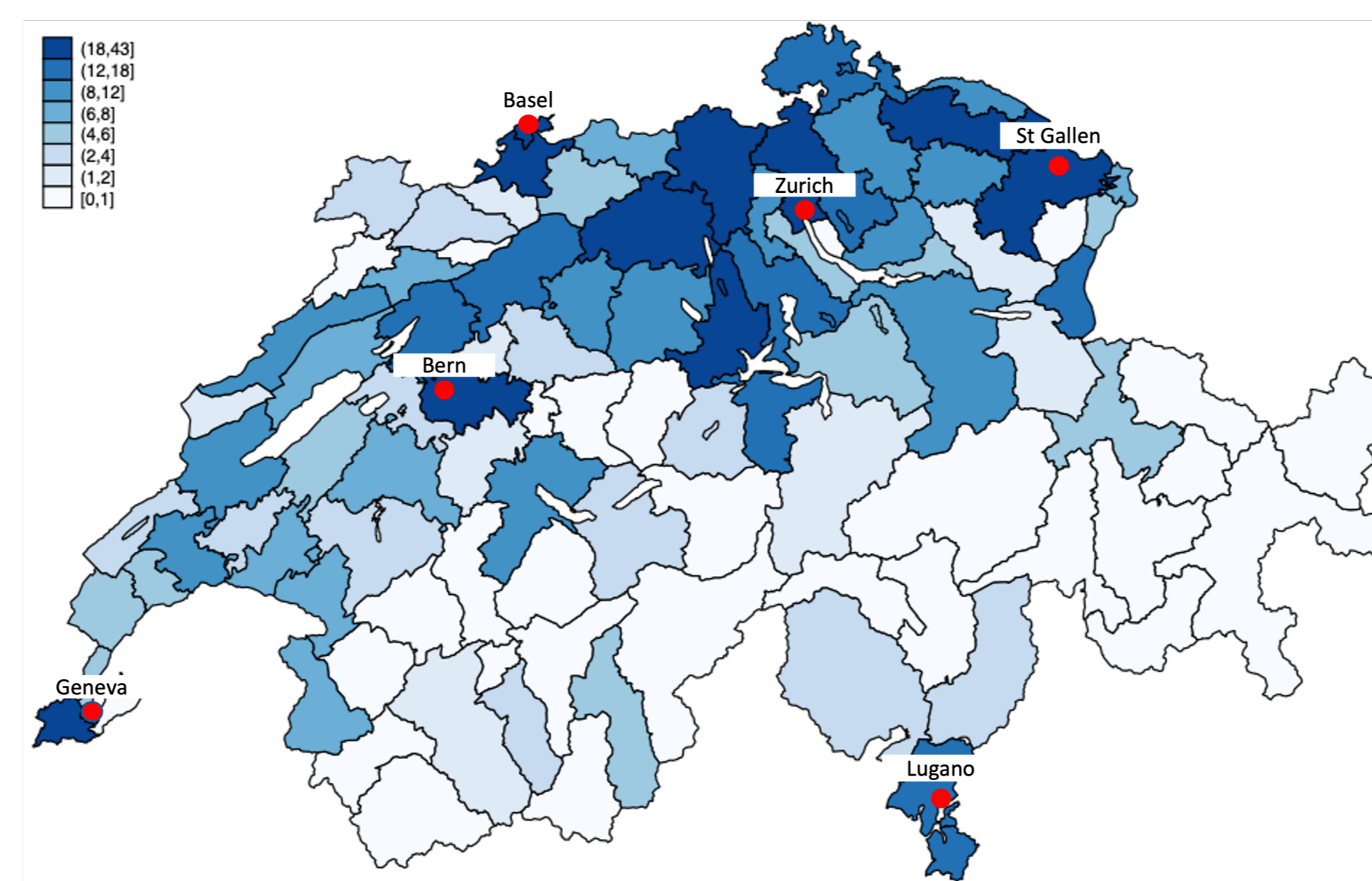
4. The Swiss franc shock

In 2015, the Swiss National Bank unexpectedly lifted the currency floor against the Euro. This led to an approx. 15 percent currency appreciation, within an otherwise relative stable economic environment (Funk and Kaufmann 2020). The shock hit the exporting sector, impacting firm profits and, consequently, employment and wages. Indeed, existing research has illustrated that the Swiss franc shock had a negative impact on income and employment and led to upskilling in the manufacturing sector (Funk and Kaufmann 2020; Colella 2021; Egger et al. 2018).

Trade exposure ($x_{j,2014}$) and female intensity for select industries (ISIC Rev.4)



Switzerland: Trade exposure by local labour market ($x_{m,2014}$)



"The Swiss are feeling shocked and discombobulated by their central bank" (The Economist, 2015)

5. Measuring trade exposure

Variation in trade exposure allows for causal estimation by comparing individuals likely to have been affected with those who were not.

- **Trade exposure of industry ($x_{j,2014}$)**: net exports as a share of total output by industry j in 2014

- **Trade exposure at local labour market m :**

$$x_{m,2014} = \sum_j \frac{L_{m,j,2014}}{L_{j,2014}} x_{j,2014} \quad (1)$$

where L =number employed, m =local labour market

6. Outcome Variables

1. Gross income

2. Percentage employed (100=full time)

Table 1: Summary statistics for exposed industries, 2014

| | Men | Women |
|--------------------|------------------|------------------|
| gross income (CHF) | 6'515 (3'021) | 3'993 (2'595) |
| perc. empl. | 0.94 (0.186) | 0.72 (0.314) |
| N | 455'981 | 297'472 |

Source: ESS 2014. Weighted mean coefficients; sd in parentheses

Other variables:

γ_t : time fixed effects

π_f : firm fixed effects

T_t : shock (equal to 1 if year > 2015)

$exposed_i$: =1 if x_j is above median

g_i : gender of individual i

Z_{it} : vector of control variables

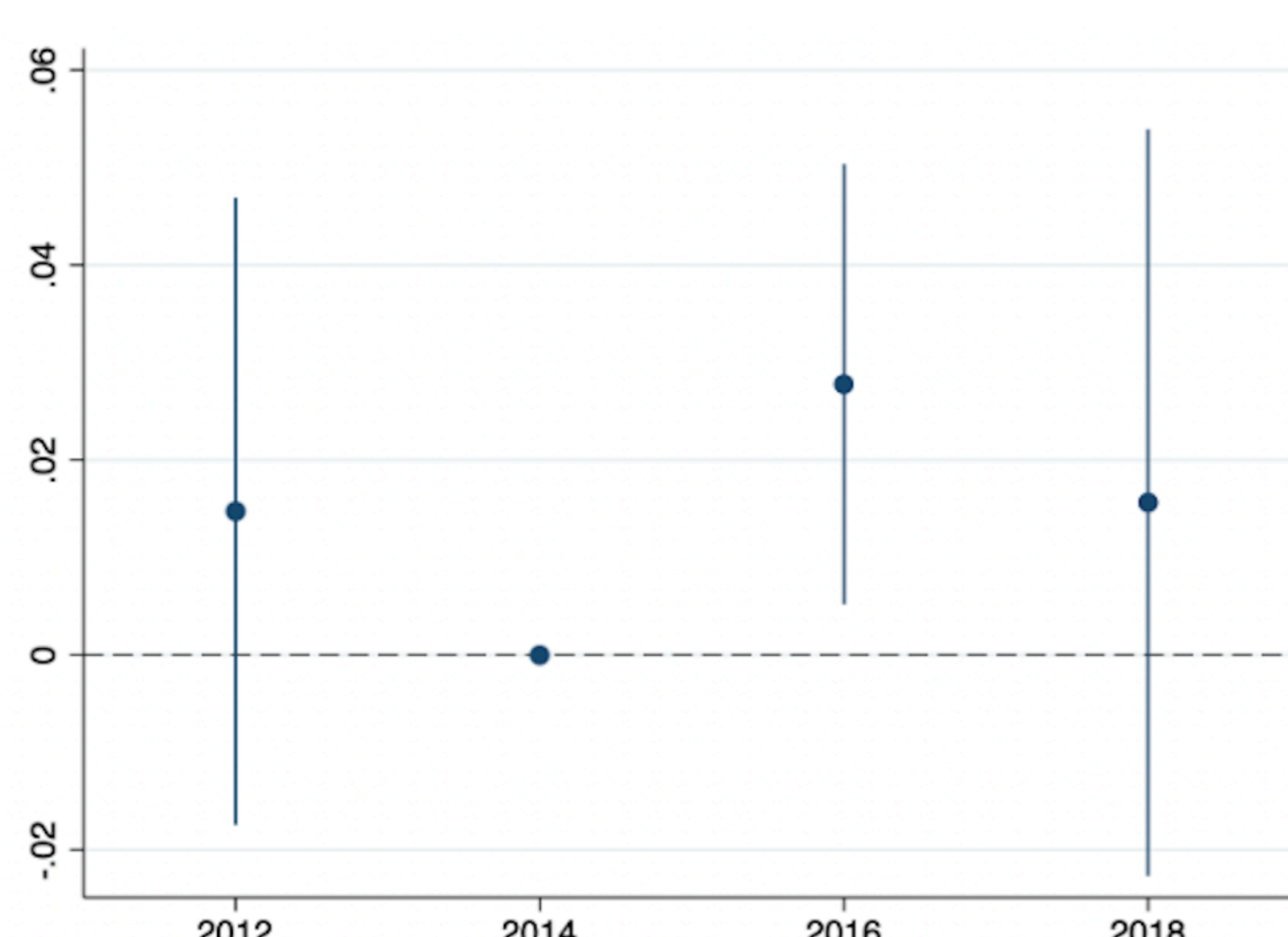
7. Effect of the Swiss franc shock on women's versus men's income and employment level

Triple Difference (time, trade exposure, gender)

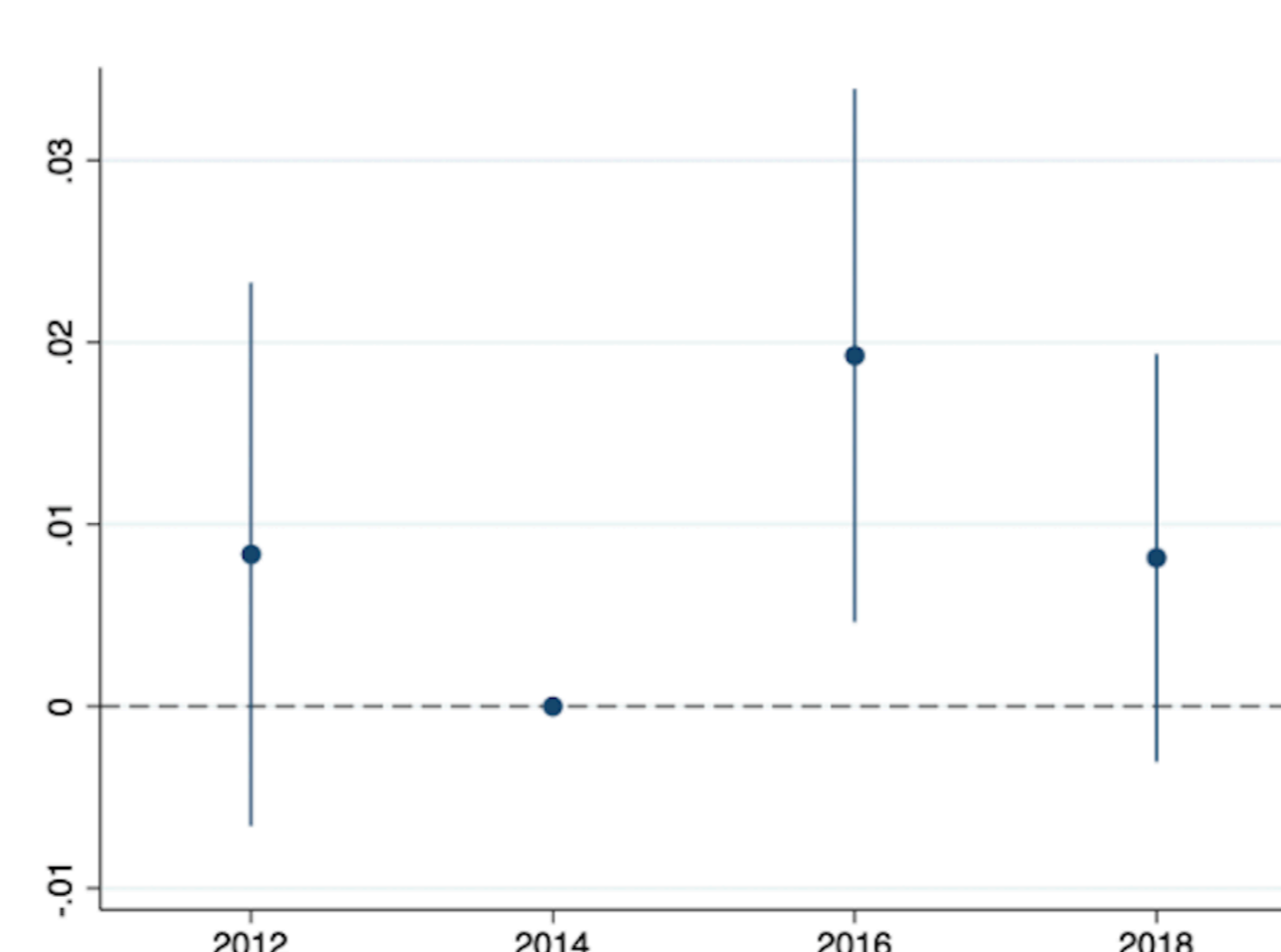
$$Y_{it} = \alpha + \beta_1 post_t \times exposed_i + \beta_2 post_t \times female_i + \beta_3 exposed_i \times female_i + \beta_4 post_t \times female_i \times exposed_i + Z_{i,t} + \gamma_t + \pi_{firm} + \varepsilon_{it}$$

8. Results: Event-Study Plots

Triple difference coefficients (logged gross income):



Triple difference coefficients (percentage employed):



Mechanism: Further analysis suggests that the change in women's labour is driven by low-income women acting as a buffer labour force.

Conclusions

1. Women's average earnings and employment **increased** in exporting firms
2. Women's labour acts as adjustment mechanism to macroeconomic policy

9. Related literature

- Colella, F. (2021). The Effect of Trade on Skill Requirements: Evidence from Job Postings.
- Egger, P. H., Schwarzer, J., Shingal, A. (2018). Labour market effects of currency appreciation: The case of Switzerland. Robert Schuman Centre for Advanced Studies Research Paper No. RSCAS, 30.
- Erten, B., Metzger, M. (2019). The real exchange rate, structural change, and female labor force participation. World Development, 117, 296-312.

- Funk, A. K., Kaufmann, D. (2020). Do sticky wages matter? New evidence from matched firm-survey and register data. KOF Working Papers, 480, 1-30.
- Goldberg, L., Tracy, J. (2001). Gender differences in the labor-market effects of the dollar. American Economic Review, 91(2), 400-405.
- Munyo, I., Rossi, M. A. (2015). The effects of real exchange rate fluctuations on the gender wage gap and domestic violence in Uruguay (No. IDB-WP-618). IDB Working Paper Series.
- Veeramani, C., Banerjee, P. (2022). Exchange rate fluctuations, labour laws, and gender differences in job flows: Analysis of manufacturing industries across Indian states. World Development, 152, 105802.