Labour demand adjustment:

Does foreign ownership matter?
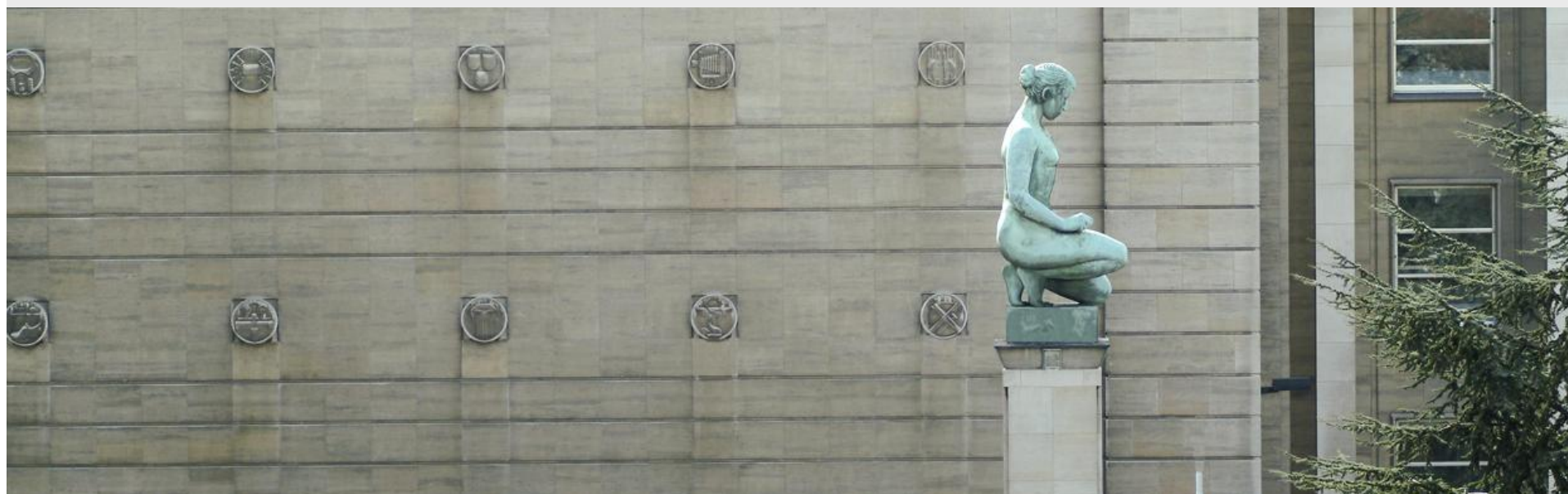
Catherine Fuss (National Bank of Belgium)

Emmanuel Dhyne (National Bank of Belgium, Université de Mons)

Claude Mathieu (ERUDITE, Université de Paris XII)

National Bank OF BELGIUM

Eurosystem

Introduction

- **Importance of multinational firms (MNFs)**

	2002	2003	2004	2005	2006	2007
Inwards FDI flows/gross capital formation						
Belgium	33.6	57.4	61.8	45.1	71.5	114.8
EU	16.8	11.7	8.6	18.1	19.5	23.7
US	4.0	2.7	6.3	4.4	9.3	10.9
Inwards FDI stock/GDP						
Belgium	91.1	113.4	129.7	100.7	121.2	130.4
EU	30.8	32.9	34.3	32.3	38.3	41.2
US	12.7	12.7	13.0	13.1	13.9	15.2

Source: UNCTAD (2009)

- **Multinational firms are large employment providers ...**

  ... but they may be characterised by higher employment volatility

  - the fooloose nature of multinationals (Van Beveren, 2007, for Belgium, Alvarez & Görg, 2009; Bernard & Jensen, 2009; Bernard & Sjoholm, 2003; Görg & Strobl, 2003)

  - do multinationals have a more flexible labour management?
    e.g. size, use of flexible labour contract and procedures, workforce composition, ...

Introduction: Plan of the analysis

1. **Net job creation analysis** (Davis, Haltiwanger and Schuh, 1996)

    - domestic firms / Belgian MNFs / foreign MNFs

    - new firms / incumbent firms / exiting firms

    - → incumbent firms account for a large fraction of net employment creation

2. **Estimates of labour adjustment costs**

    - domestic firms / MNFs

    - white-collar workers / blue-collar workers

    - related microeconomic empirical literature

        - labour demand estimation: speed of adjustment (Navaretti, Checci, Turini, 2003)

        - estimates of adjustment costs from Euler equations for net employment flows
          (Pfann and Palm, 1993, Alonso-Borrego, 1996, Mathieu and Nicolas, 2006)

    - → lower adjustment costs for MNFs, especially for white-collar workers

3. **Explanations for these differences**

    - nationality

    - union representation, fixed-term contracts, use of early retirement

    - firm size

Data

- **Merging**

  Survey on FDI + Social Security (L^B, L^W, W^B, W^W) + annual accounts

- **Selection**

  "profit-maximising" firms, with 10 employees, full annual accounts,

  excluding agriculture, extraction, non market services, and other business activities;

  consistency between the wage bill in annual accounts and that in Social Security data

- **→115 706 observations and 13 932 firms**

  812 Belgian MNFs, 2117 foreign MNFs

- **Additional trimming to estimate production function and adjustment costs**

  firms with both blue-collar and white-collar workers; nominal fixed assets > 100 €;

  excluding outliers on employment flows and on Y/L, K/L, log(WL/L)-log(Y/L);

  at least two consecutive observations

Net employment creation: domestic firms vs. MNFs

	1998	1999	2000	2001	2002	2003	2004	2005
Domestic firms								
Net creation (thousands)	**16.7**	**15.4**	**19.7**	**3.1**	**0.4**	**-1.0**	**6.1**	**-2.8**
Incumbent firms	20.0	22.3	25.0	8.5	4.2	5.6	8.6	5.5
Firm exit	-6.8	-10.2	-8.5	-8.6	-8.0	-7.3	-4.0	-8.6
Average net creation (units)	1.7	1.6	2.0	0.3	0.0	-0.1	0.7	-0.3
Belgian MNFs								
Net creation (thousands)	**0.3**	**-2.3**	**-7.6**	**-2.9**	**-4.1**	**3.7**	**-2.4**	**-1.2**
Incumbent firms	0.6	-2.1	2.2	-1.3	-4.0	3.7	-1.7	-0.7
Firm exit	-0.3	-0.2	-9.8	-1.6	-0.1	0.0	-0.7	-0.5
Average net creation (units)	0.9	-6.6	-22.3	-6.7	-9.5	8.9	-5.9	-3.5
Foreign MNFs								
Net creation (thousands)	**6.1**	**0.7**	**9.3**	**0.7**	**-9.9**	**-3.8**	**4.0**	**-1.2**
Incumbent firms	7.1	1.6	10.0	1.8	-9.4	-0.2	5.5	0.7
Firm exit	-1.1	-0.9	-0.7	-1.1	-0.5	-4.0	-1.5	-2.1
Average net creation (units)	6.2	0.8	8.8	0.5	-7.1	-2.6	2.9	-0.9

Net employment creation: domestic firms vs. MNFs

	1998	1999	2000	2001	2002	2003	2004	2005
Domestic firms								
Net creation (thousands)	16.7	15.4	19.7	3.1	0.4	-1.0	6.1	-2.8
Incumbent firms	20.0	22.3	25.0	8.5	4.2	5.6	8.6	5.5
Firm exit	-6.8	-10.2	-8.5	-8.6	-8.0	-7.3	-4.0	-8.6
Average net creation (units)	**1.7**	**1.6**	**2.0**	**0.3**	**0.0**	**-0.1**	**0.7**	**-0.3**
Belgian MNFs								
Net creation (thousands)	0.3	-2.3	-7.6	-2.9	-4.1	3.7	-2.4	-1.2
Incumbent firms	0.6	-2.1	2.2	-1.3	-4.0	3.7	-1.7	-0.7
Firm exit	-0.3	-0.2	-9.8	-1.6	-0.1	0.0	-0.7	-0.5
Average net creation (units)	**0.9**	**-6.6**	**-22.3**	**-6.7**	**-9.5**	**8.9**	**-5.9**	**-3.5**
Foreign MNFs								
Net creation (thousands)	6.1	0.7	9.3	0.7	-9.9	-3.8	4.0	-1.2
Incumbent firms	7.1	1.6	10.0	1.8	-9.4	-0.2	5.5	0.7
Firm exit	-1.1	-0.9	-0.7	-1.1	-0.5	-4.0	-1.5	-2.1
Average net creation (units)	**6.2**	**0.8**	**8.8**	**0.5**	**-7.1**	**-2.6**	**2.9**	**-0.9**

Net employment creation: incumbents vs firm exit

	1998	1999	2000	2001	2002	2003	2004	2005
Domestic firms								
Net creation (thousands)	16.7	15.4	19.7	3.1	0.4	-1.0	6.1	-2.8
Incumbent firms	**20.0**	**22.3**	**25.0**	**8.5**	**4.2**	**5.6**	**8.6**	**5.5**
Firm exit	**-6.8**	**-10.2**	**-8.5**	**-8.6**	**-8.0**	**-7.3**	**-4.0**	**-8.6**
Average net creation (units)	1.7	1.6	2.0	0.3	0.0	-0.1	0.7	-0.3
Belgian MNFs								
Net creation (thousands)	0.3	-2.3	-7.6	-2.9	-4.1	3.7	-2.4	-1.2
Incumbent firms	**0.6**	**-2.1**	**2.2**	**-1.3**	**-4.0**	**3.7**	**-1.7**	**-0.7**
Firm exit	**-0.3**	**-0.2**	**-9.8**	**-1.6**	**-0.1**	**0.0**	**-0.7**	**-0.5**
Average net creation (units)	0.9	-6.6	-22.3	-6.7	-9.5	8.9	-5.9	-3.5
Foreign MNFs								
Net creation (thousands)	6.1	0.7	9.3	0.7	-9.9	-3.8	4.0	-1.2
Incumbent firms	**7.1**	**1.6**	**10.0**	**1.8**	**-9.4**	**-0.2**	**5.5**	**0.7**
Firm exit	**-1.1**	**-0.9**	**-0.7**	**-1.1**	**-0.5**	**-4.0**	**-1.5**	**-2.1**
Average net creation (units)	6.2	0.8	8.8	0.5	-7.1	-2.6	2.9	-0.9

Euler equations for labour demand

- ## Assumptions

    - Cobb-Douglas production function and Cournot competition

- ## Adjustment costs function

$$AC\left(\Delta L_{it}^{B}, \Delta L_{it}^{W}\right) = \frac{a^{B}}{2}(\Delta L_{it}^{B})^{2} + \frac{a^{W}}{2}(\Delta L_{it}^{W})^{2} + \frac{d^{B}}{3}(\Delta L_{it}^{B})^{3} + \frac{d^{W}}{3}(\Delta L_{it}^{W})^{3} + g\Delta L_{it}^{B}\Delta L_{it}^{W}$$

    - differences between blue-collar workers and white-collar workers

    - convexity: a^{B} and a^{W}

    - asymmetry: when d^{B}, $d^{W}<0$ downsizing cost are larger than upsizing costs

    - cross adjustment term: when $g<0$,
      adjusting both L^{B} and L^{W} in the same direction reduces costs
      but substitution between L^{B} and L^{W} is costly

- ## Euler equation for worker-type j

$$P_{st}\left(\frac{1}{\mu_{it}}\right)\alpha^{j}\frac{Q_{it}}{L_{it}^{j}} - W_{it}^{j} = a^{j}\Delta L_{it}^{j} + d^{j}\Delta L_{it}^{j^{2}} + g\Delta L_{it}^{k} - \beta E_{t}[a^{j}\Delta L_{it+1}^{j} + d^{j}\Delta L_{it+1}^{j^{2}} + g\Delta L_{it+1}^{k}]$$

    - the discount factor is set to $\beta = 0.97$ (robustness $\beta = 0.95, 0.99$)

    - type j labour production coefficient, α^{j}, and firm market power, μ
      obtained from estimates of production function

Estimates of production function coefficients

- **Allowing for market power**

  - estimates of α^K/μ, α^B/μ, α^W/μ (Griliches and Mairesse, 1995)
  - correction for the use of sector-level deflator instead of firm-level prices

- **Ackerberg, Caves and Frazer (2006)**

  - assuming that capital, blue-collar workers and white-collar workers are fixed inputs
  - robustness tests wrt alternative assumptions on L^B and L^W flexibility
    and Olley and Pakes and Levinsohn and Petrin procedures (correcting for selection bias)

	α^K/μ	α^B/μ	α^W/μ
Food and textile	0.178	0.424	0.388
Wood, paper, chemicals, metal and non metal products, machinery	0.161	0.358	0.437
Equipment and recycling	0.138	0.354	0.433
Energy and construction	0.106	0.502	0.338
Trade and hotels and restaurants	0.126	0.176	0.561
Communication and financial intermediation	0.163	0.268	0.361
Real estate and business activities	0.179	0.071	0.612

Note: Estimates based on the 1997-2005 period; 58594 observations and 8688 firms.

Estimates of adjustment costs

- **Differences between domestic firms and MNFs**

$$P_{st}\frac{\alpha^j}{\mu}\frac{Q_{it}}{L_{it}^j} - W_{it}^j =$$

$$a^j\left(\Delta L_{it}^j - \beta E_t\left[\Delta L_{it+1}^j\right]\right) + \boldsymbol{a_{MNF}^j}\left(\Delta L_{it}^j - \beta E_t\left[\Delta L_{it+1}^j\right]\right).MNF$$

$$+d^j\left(\Delta L_{it}^{j\,2} - \beta E_t\left[\Delta L_{it+1}^{j\,2}\right]\right) + \boldsymbol{d_{MNF}^j}\left(\Delta L_{it}^{j\,2} - \beta E_t\left[\Delta L_{it+1}^{j\,2}\right]\right).MNF$$

$$+g\left(\Delta L_{it}^k - \beta E_t\left[\Delta L_{it+1}^k\right]\right) + \boldsymbol{g_{MNF}}\left(\Delta L_{it}^k - \beta E_t\left[\Delta L_{it+1}^k\right]\right).MNF$$

- **Estimation**

  - System GMM, i.e. firms form rational expectations

Estimates of adjustment costs

	(1)	(2)
a^B	**228.75***	291.84***
a^B_{MNF}		-93.67
d^B	**-2.22**	-7.99**
d^B_{MNF}		7.98**
a^W	**835.20***	1191.58***
a^W_{MNF}		-692.26***
d^W	**-8.36***	-20.98**
d^W_{MNF}		14.40
g	**-216.40***	-283.13***
g_{MNF}		185.13
Sargan	**19.15***	30.41

Notes: 37553 observations and 5544 firms over the period 1998-2006.
Joint estimation for blue-collar workers and white-collar workers by SGMM estimation.
All equations include year and sector dummies.
*** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

Estimates of adjustment costs

	(1)	(2)
a^B	228.75***	**291.84***
a^B_{MNF}		**-93.67**
d^B	-2.22**	**-7.99**
d^B_{MNF}		**7.98**
a^W	835.20***	**1191.58***
a^W_{MNF}		**-692.26***
d^W	-8.36***	**-20.98**
d^W_{MNF}		**14.40**
g	-216.40***	**-283.13***
g_{MNF}		**185.13**
Sargan	19.15*	**30.41**

Notes: 37553 observations and 5544 firms over the period 1998-2006.
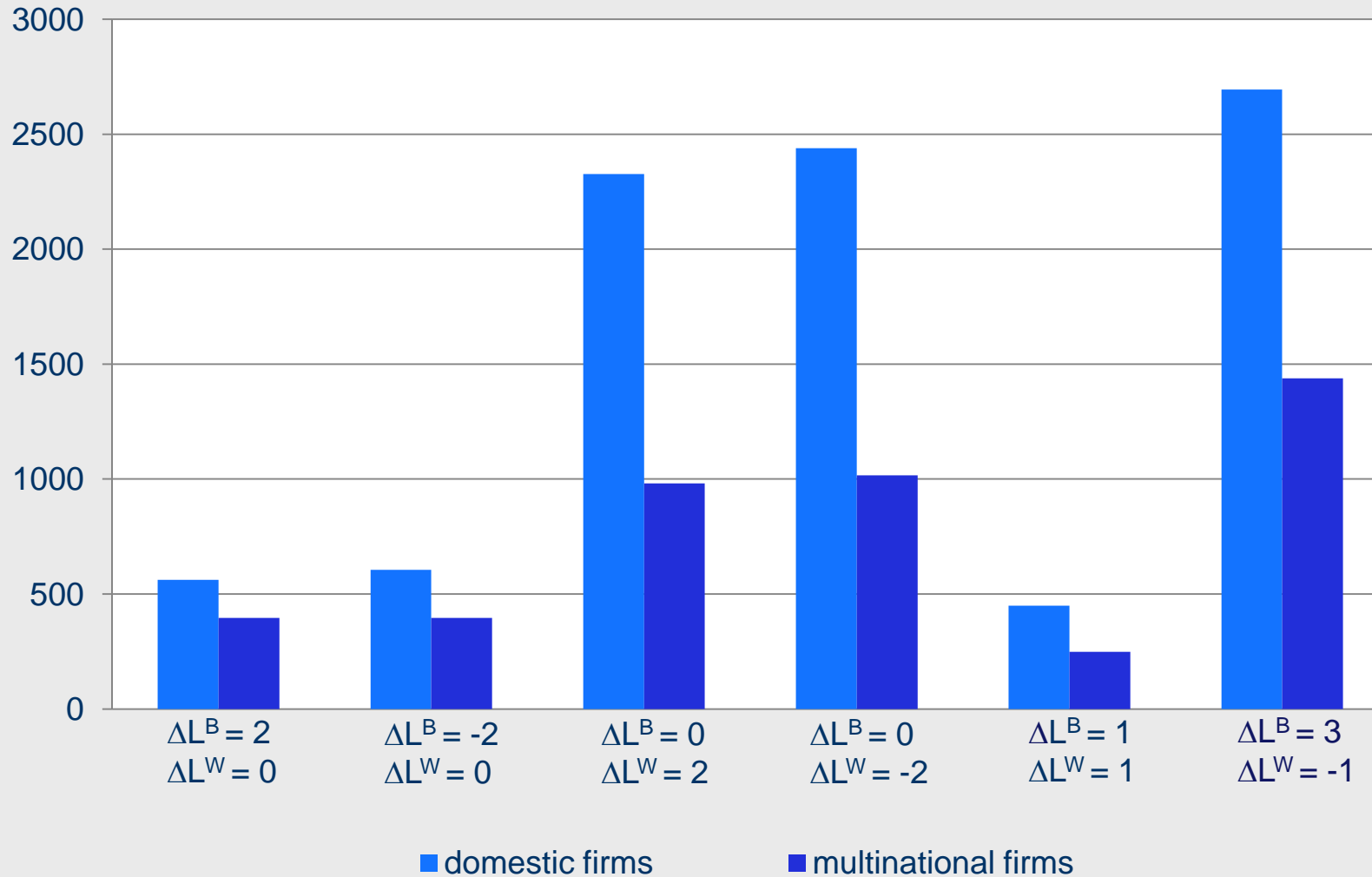Joint estimation for blue-collar workers and white-collar workers by SGMM estimation.
All equations include year and sector dummies.
*** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.
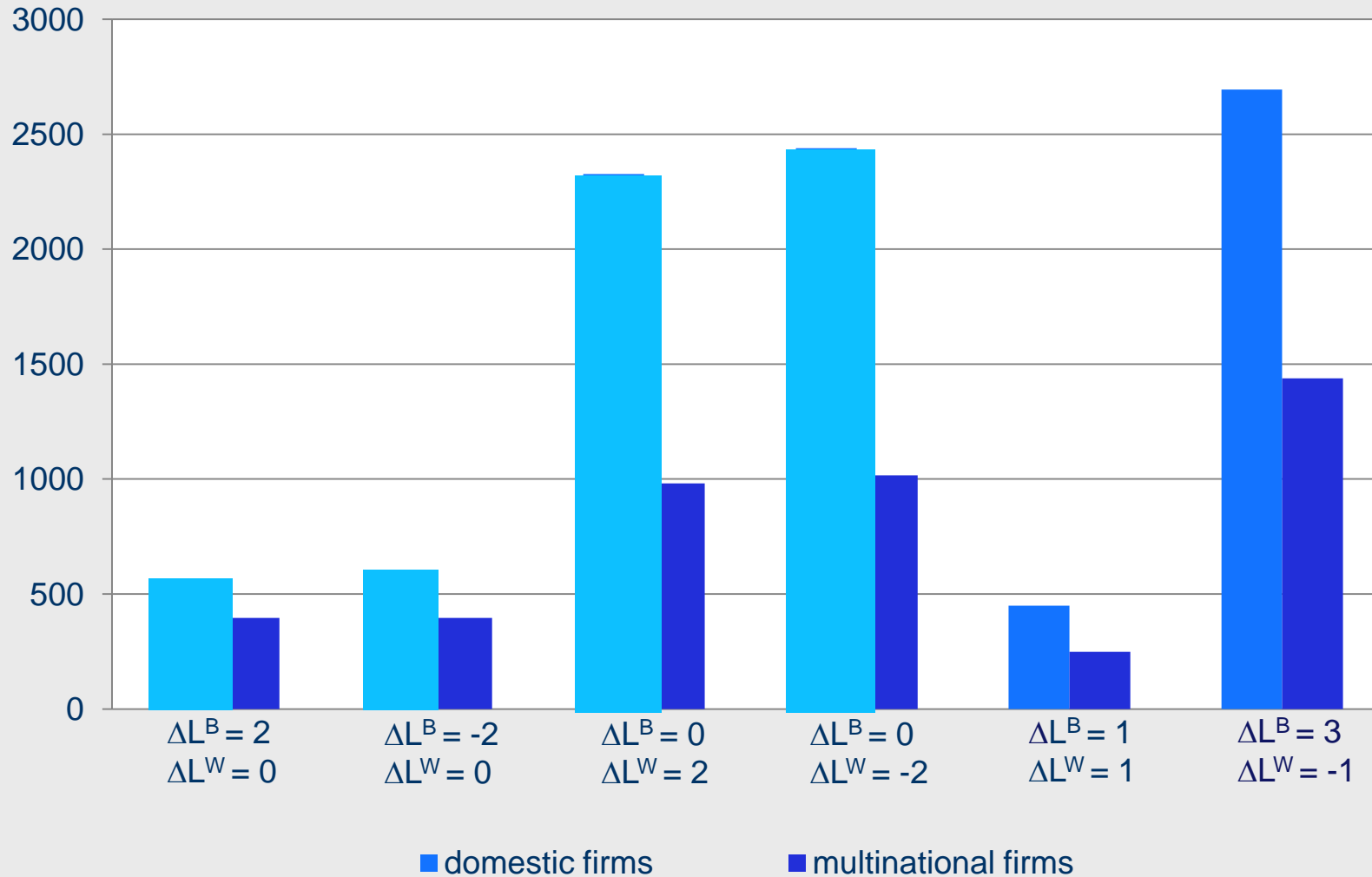
Examples of adjustment costs

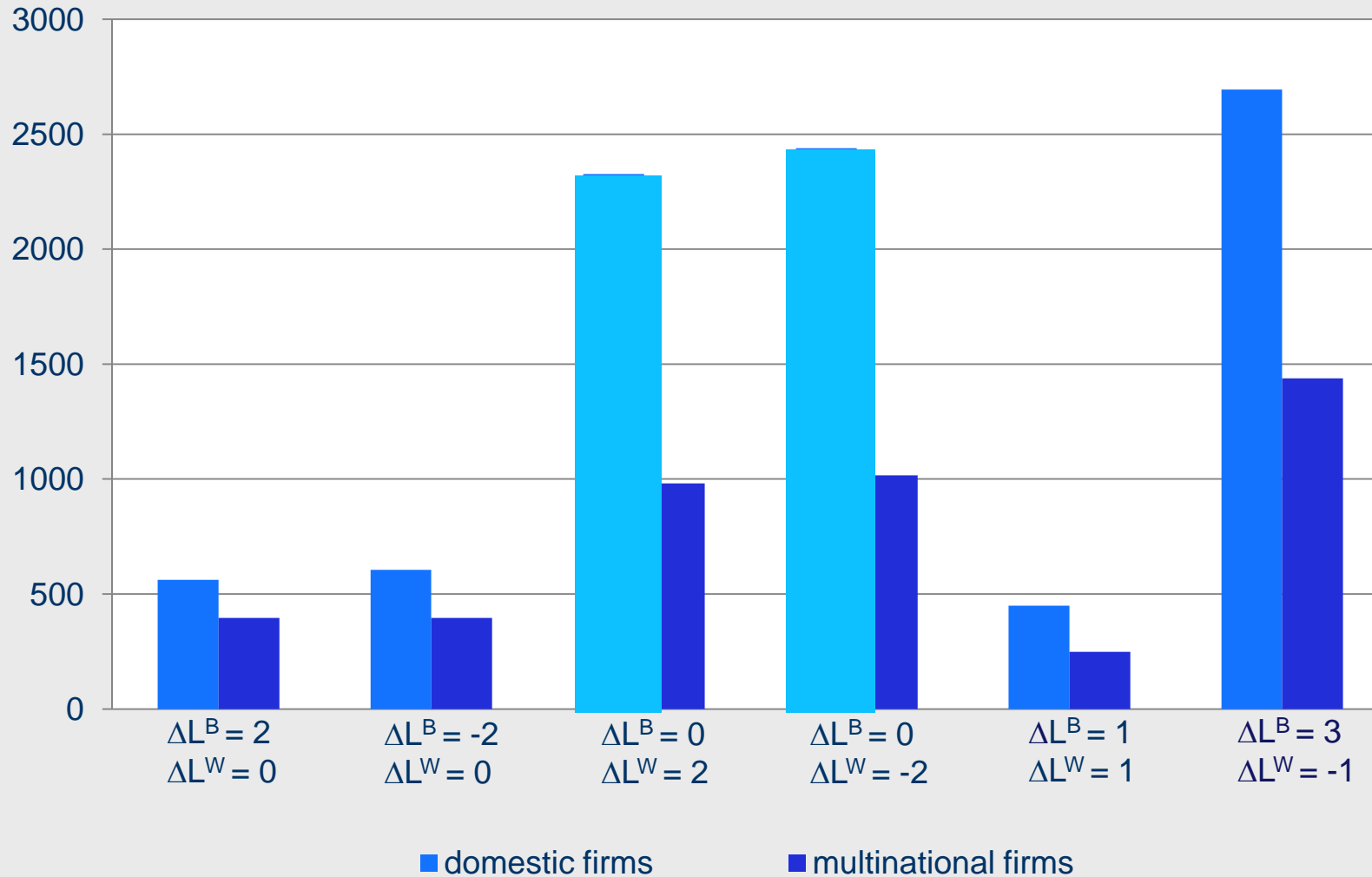**Total adjustment costs for a net employment change of 2 (in absolute value)**

Categories (x-axis):
- $\Delta L^B = 2$, $\Delta L^W = 0$
- $\Delta L^B = -2$, $\Delta L^W = 0$
- $\Delta L^B = 0$, $\Delta L^W = 2$
- $\Delta L^B = 0$, $\Delta L^W = -2$
- $\Delta L^B = 1$, $\Delta L^W = 1$
- $\Delta L^B = 3$, $\Delta L^W = -1$

Legend: ■ domestic firms   ■ multinational firms

Examples of adjustment costs

Total adjustment costs for a net employment change of 2 (in absolute value)

Examples of adjustment costs

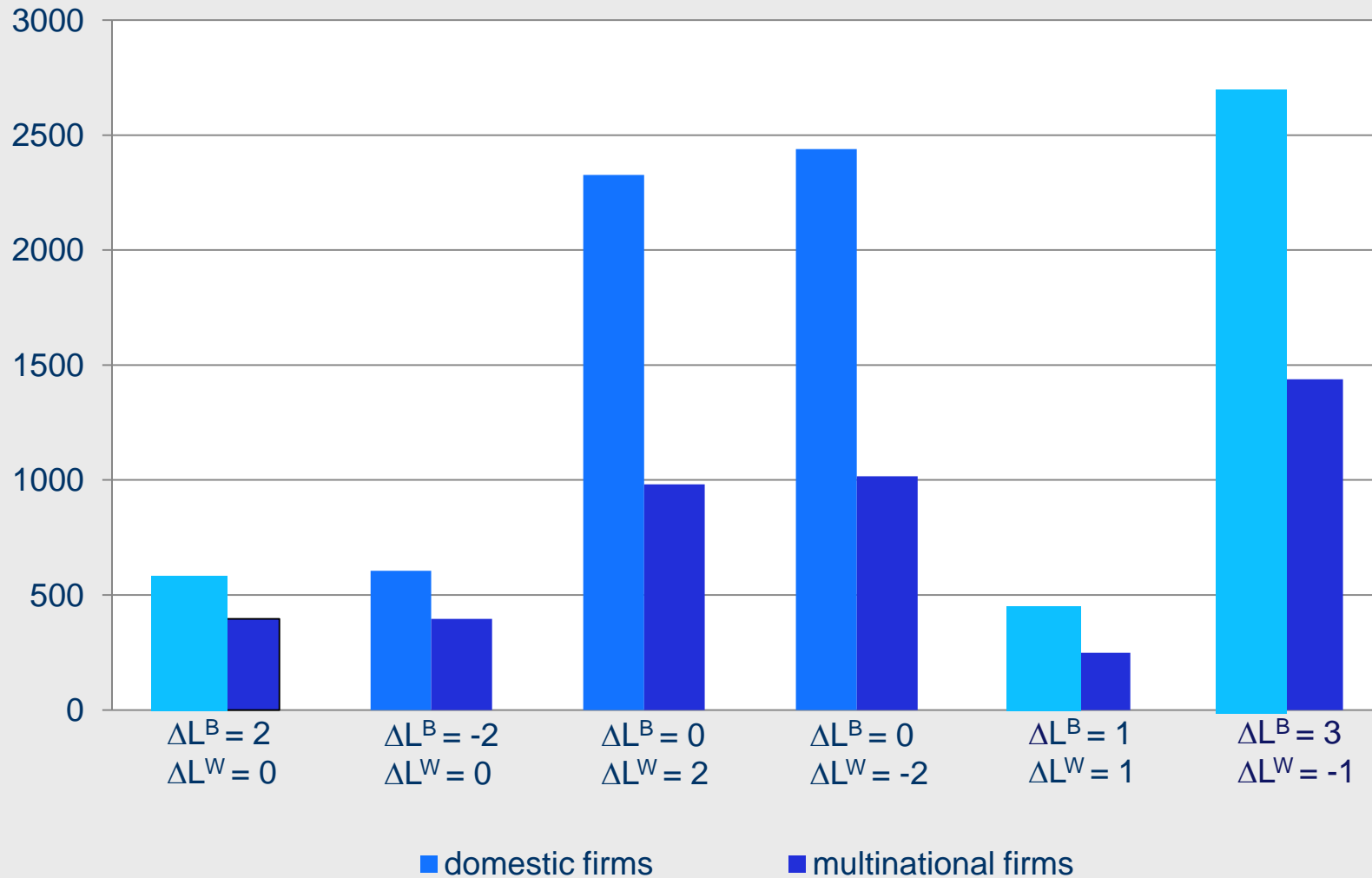**Total adjustment costs for a net employment change of 2 (in absolute value)**

Legend: ■ domestic firms ■ multinational firms

Categories:
- $\Delta L^B = 2$, $\Delta L^W = 0$
- $\Delta L^B = -2$, $\Delta L^W = 0$
- $\Delta L^B = 0$, $\Delta L^W = 2$
- $\Delta L^B = 0$, $\Delta L^W = -2$
- $\Delta L^B = 1$, $\Delta L^W = 1$
- $\Delta L^B = 3$, $\Delta L^W = -1$

Examples of adjustment costs

Total adjustment costs for a net employment change of 2 (in absolute value)

Examples of adjustment costs

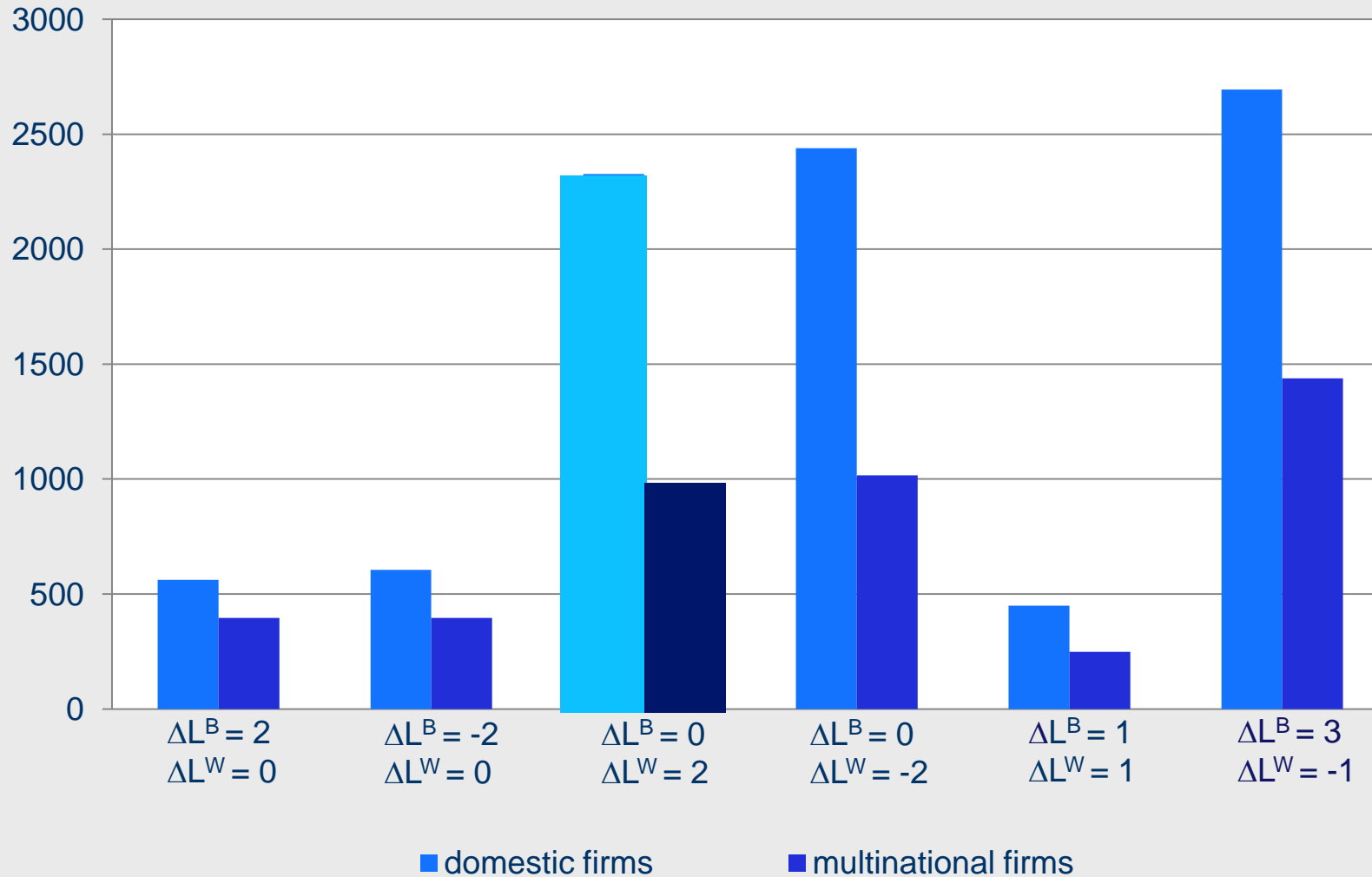**Total adjustment costs for a net employment change of 2 (in absolute value)**

Legend:
- ■ domestic firms
- ■ multinational firms

X-axis categories:
- $\Delta L^B = 2$, $\Delta L^W = 0$
- $\Delta L^B = -2$, $\Delta L^W = 0$
- $\Delta L^B = 0$, $\Delta L^W = 2$
- $\Delta L^B = 0$, $\Delta L^W = -2$
- $\Delta L^B = 1$, $\Delta L^W = 1$
- $\Delta L^B = 3$, $\Delta L^W = -1$

Differences in adjustment costs

- **Differences between domestic firms and MNFs**

$$P_{st} \frac{\alpha^j}{\mu} \frac{Q_{it}}{L_{it}^j} - W_{it}^j =$$

$$a^j \left(\Delta L_{it}^j - \beta E_t \left[\Delta L_{it+1}^j \right] \right) + a_{MNF}^j \left(\Delta L_{it}^j - \beta E_t \left[\Delta L_{it+1}^j \right] \right).MNF$$

$$+ d^j \left(\Delta L_{it}^{j\,2} - \beta E_t \left[\Delta L_{it+1}^{j\,2} \right] \right) + d_{MNF}^j \left(\Delta L_{it}^{j\,2} - \beta E_t \left[\Delta L_{it+1}^{j\,2} \right] \right).MNF$$

$$+ g \left(\Delta L_{it}^k - \beta E_t \left[\Delta L_{it+1}^k \right] \right) + g_{MNF} \left(\Delta L_{it}^k - \beta E_t \left[\Delta L_{it+1}^k \right] \right).MNF$$

- **Role of additional variables**

$$P_{st} \frac{\alpha^j}{\mu} \frac{Q_{it}}{L_{it}^j} - W_{it}^j =$$

$$a^j \left(\Delta L_{it}^j - \beta E_t \left[\Delta L_{it+1}^j \right] \right) + a_{MNF}^j \left(\Delta L_{it}^j - \beta E_t \left[\Delta L_{it+1}^j \right] \right).MNF + a_{proxy}^j \left(\Delta L_{it}^j - \beta E_t \left[\Delta L_{it+1}^j \right] \right).proxy$$

$$+ d^j \left(\Delta L_{it}^{j\,2} - \beta E_t \left[\Delta L_{it+1}^{j\,2} \right] \right) + d_{MNF}^j \left(\Delta L_{it}^{j\,2} - \beta E_t \left[\Delta L_{it+1}^{j\,2} \right] \right).MNF + d_{proxy}^j \left(\Delta L_{it}^{j\,2} - \beta E_t \left[\Delta L_{it+1}^{j\,2} \right] \right).proxy$$

$$+ g \left(\Delta L_{it}^k - \beta E_t \left[\Delta L_{it+1}^k \right] \right) + g_{MNF} \left(\Delta L_{it}^k - \beta E_t \left[\Delta L_{it+1}^k \right] \right).MNF + g_{proxy} \left(\Delta L_{it}^k - \beta E_t \left[\Delta L_{it+1}^k \right] \right).proxy$$

Differences in adjustment costs

		Bel. MNF	L ≥ 50	turn ftc	early ret.
a^B_{MNF}	**-93.67**	-96.21	-30.81	-12.17	48.54
a^B_{proxy}		-24.72	-337.67***	-166.36*	-456.12***
d^B_{MNF}	**7.98****	7.85**	8.76***	4.91	4.53*
d^B_{proxy}		0.36	1.60	2.37	17.13***
a^W_{MNF}	**-692.26****	-704.23***	-388.59	-691.96***	-564.39**
a^W_{proxy}		285.21	-994.36***	-518.61**	179.24
d^W_{MNF}	**14.40**	12.07	5.67	14.95*	7.76
d^W_{proxy}		-8.30	40.26***	5.79	5.23
g_{MNF}	**185.13**	159.24	194.87*	223.70**	257.46***
g_{proxy}		166.12	23.00	-276.51	-55.03
Sargan	**30.41**	34.77	39.43	38.12	42.26

Notes: 37553 observations and 5544 firms over the period 1998-2006.
a^B, a^W d^B, d^W, g not reported.
Joint estimation for blue-collar workers and white-collar workers by SGMM estimation.
All equations include year and sector dummies.
*** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

Differences in adjustment costs

	Bel. MNF	L ≥ 50	turn ftc	early ret.
a^B_{MNF}	-93.67	**-96.21**	-30.81	-12.17	48.54
a^B_{proxy}		**-24.72**	-337.67***	-166.36*	-456.12***
d^B_{MNF}	7.98**	**7.85****	8.76***	4.91	4.53*
d^B_{proxy}		**0.36**	1.60	2.37	17.13***
a^W_{MNF}	-692.26***	**-704.23****	-388.59	-691.96***	-564.39**
a^W_{proxy}		**285.21**	-994.36***	-518.61**	179.24
d^W_{MNF}	14.40	**12.07**	5.67	14.95*	7.76
d^W_{proxy}		**-8.30**	40.26***	5.79	5.23
g_{MNF}	185.13	**159.24**	194.87*	223.70**	257.46***
g_{proxy}		**166.12**	23.00	-276.51	-55.03
Sargan	30.41	**34.77**	39.43	38.12	42.26

Notes: 37553 observations and 5544 firms over the period 1998-2006.
a^B, a^W d^B, d^W, g not reported.
Joint estimation for blue-collar workers and white-collar workers by SGMM estimation.
All equations include year and sector dummies.
*** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

Differences in adjustment costs

		Bel. MNF	**L ≥ 50**	turn ftc	early ret.
a^B_{MNF}	-93.67	-96.21	**-30.81**	-12.17	48.54
a^B_{proxy}		-24.72	**-337.67***	-166.36*	-456.12***
d^B_{MNF}	7.98**	7.85**	**8.76***	4.91	4.53*
d^B_{proxy}		0.36	**1.60**	2.37	17.13***
a^W_{MNF}	-692.26***	-704.23***	**-388.59**	-691.96***	-564.39**
a^W_{proxy}		285.21	**-994.36***	-518.61**	179.24
d^W_{MNF}	14.40	12.07	**5.67**	14.95*	7.76
d^W_{proxy}		-8.30	**40.26***	5.79	5.23
g_{MNF}	185.13	159.24	**194.87***	223.70**	257.46***
g_{proxy}		166.12	**23.00**	-276.51	-55.03
Sargan	30.41	34.77	**39.43**	38.12	42.26

Notes: 37553 observations and 5544 firms over the period 1998-2006.
a^B, a^W d^B, d^W, g not reported.
Joint estimation for blue-collar workers and white-collar workers by SGMM estimation.
All equations include year and sector dummies.
*** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

Differences in adjustment costs

		Bel. MNF	L ≥ 50	**turn ftc**	early ret.
a^B_{MNF}	-93.67	-96.21	-30.81	**-12.17**	48.54
a^B_{proxy}		-24.72	-337.67***	**-166.36***	-456.12***
d^B_{MNF}	7.98**	7.85**	8.76***	**4.91**	4.53*
d^B_{proxy}		0.36	1.60	**2.37**	17.13***
a^W_{MNF}	-692.26***	-704.23***	-388.59	**-691.96***	-564.39**
a^W_{proxy}		285.21	-994.36***	**-518.61***	179.24
d^W_{MNF}	14.40	12.07	5.67	**14.95***	7.76
d^W_{proxy}		-8.30	40.26***	**5.79**	5.23
g_{MNF}	185.13	159.24	194.87*	**223.70***	257.46***
g_{proxy}		166.12	23.00	**-276.51**	-55.03
Sargan	30.41	34.77	39.43	**38.12**	42.26

Notes: 37553 observations and 5544 firms over the period 1998-2006.
a^B, a^W d^B, d^W, g not reported.
Joint estimation for blue-collar workers and white-collar workers by SGMM estimation.
All equations include year and sector dummies.
*** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

Differences in adjustment costs

	Bel. MNF	L ≥ 50	turn ftc	**early ret.**
a^B_{MNF}	-93.67	-96.21	-30.81	-12.17	**48.54**
a^B_{proxy}		-24.72	-337.67***	-166.36*	**-456.12***
d^B_{MNF}	7.98**	7.85**	8.76***	4.91	**4.53***
d^B_{proxy}		0.36	1.60	2.37	**17.13***
a^W_{MNF}	-692.26***	-704.23***	-388.59	-691.96***	**-564.39**
a^W_{proxy}		285.21	-994.36***	-518.61**	**179.24**
d^W_{MNF}	14.40	12.07	5.67	14.95*	**7.76**
d^W_{proxy}		-8.30	40.26***	5.79	**5.23**
g_{MNF}	185.13	159.24	194.87*	223.70**	**257.46***
g_{proxy}		166.12	23.00	-276.51	**-55.03**
Sargan	30.41	34.77	39.43	38.12	**42.26**

Notes: 37553 observations and 5544 firms over the period 1998-2006.
a^B, a^W d^B, d^W, g not reported.
Joint estimation for blue-collar workers and white-collar workers by SGMM estimation.
All equations include year and sector dummies.
*** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level.

The role of firm size

- **Generalised adjustment cost specification**

$$AC\left(\Delta L_{it}^{B}, \Delta L_{it}^{W}, L_{i,t-1}\right) = \frac{a^{B}}{2}\Delta L_{it}^{B\,2} L_{i,t-1}^{\theta} + \frac{a^{W}}{2}\Delta L_{it}^{W2} L_{i,t-1}^{\theta} + \frac{d^{B}}{3}\Delta L_{it}^{B\,3} L_{i,t-1}^{2\theta} + \frac{d^{W}}{3}\Delta L_{it}^{W3} L_{i,t-1}^{2\theta} + g\Delta L_{it}^{B}\Delta L_{it}^{W} L_{i,t-1}^{\theta}$$

- $\theta = 0$: adjustment costs are independent of firm size (Alonso-Borrego, 1998)

- $\theta = -1$: adjustment costs depend on firm size (Meghir, Ryan, Van Reenen, 1996)

	θ=0	θ=-0.5	θ=-0.6	θ=-0.8	θ=-1	θ=-1.2
a^{B}_{MNF}	-93.67	457.60	3,494	18,598**	62,345***	201,126***
d^{B}_{MNF}	7.98**	280.81	-265	-6,537*	-50,170*	-347,951***
a^{W}_{MNF}	-692.26***	-3,809.59*	-3,545	6,327	40,434	137.725**
d^{W}_{MNF}	14.40	-33.14	-1,622	-32,028**	-235,198*	-1,365,632**
g_{MNF}	185.13	621.80	997	2,715	5,994	1,552
Sargan	30.41	36.48	35.41	35.24	35.87	34.26

Summary

1. **Net employment creation of MNEs is driven by incumbent firms**

   - foreign MNFs generate substantial employment creation

   - incumbent firms are responsible for a large fraction of net employment creation

2. **Differences in adjustment costs across firms and workers**

   - adjustment costs are convex; downsizing costs are larger than upsizing costs; substitution is costly

   - adjustment costs are smaller for blue-collar workers than for white-collar workers

   - adjustment costs are smaller for MNFs than for domestic firms, especially for white-collar workers

3. **Explanations for the differences between MNFs and domestic firms**

   - the origin of multinationals (Belgian or foreign) does not matter

   - fixed-term contracts and the use of early retirement have no major role

   - no robust results for firm size

THANK YOU FOR YOUR ATTENTION