Personal Taxes, Labour Regulation, and the Location Decisions of Multinationals

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1 Introduction and Literature

- There is now vast evidence that high taxes discourage FDI inflows.
- Summary of results e.g. by de Mooij and Ederveen (2003) , Feld and Heckermayer (2011).
- Location decisions have been analyzed by Devereux and Griffith (1998), Buettner and Ruf (2008), and Egger and Merlo (2011).

- Introducing firm heterogeneity: M&A vs. Greenfield (GF)
- So far little differentiation.
- Although GF may have quite a different impact on the host economy (Harms and Moen 2011).

- Swenson (2001): high tax states in the US host a lower number of plants owned by foreign parents, particularly when the regressions concentrate on GF.
- Hebous, Ruf and Weichenrieder (2011): new German outbound projects, but no consideration of labour market regulation and labour taxes.

- Egger and Radulescu (2011): study impact of differences in the personal tax rates between home and host country, $\Delta = (t - t^*)$, on bilateral FDI flows.
- Theoretical motivation: high personal taxes make it costly to implement pay-for-performance contracts.
- Multinationals will prefer low personal taxes when deciding on headquarters and this may be reflected in bilateral FDI.
- Empirical finding: $d(FDI)/d\Delta < 0$.

- Emphasis in the present paper: host country tax.
- We expect the personal income tax entering negatively (rather than positively) in the location decision.
- New investment projects abroad require transfer of experienced staff from the parent.
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  Compensation for differences required. Alternatively, managers of parent company may lobby against high tax location. The project may just not fly.

- Intuitively, GF requires more new personal from parent than M&A.
- Harzing (2002), extensive survey of MNEs:
  - Headquarters’ control over their Greenfield subsidiaries higher.
  - Headquarters assign more expatriates to top positions in their Greenfield projects.

- Literature on labour market rigidity.
  - Haaland, Wooton and Faggio (2002) find that labour market flexibility significantly affects location choice.
  - Javorcik and Spatareanu (2005): labour market flexibility is conducive for FDI inflows.
  - Görg (2005): inflexible labour markets create a situation of uncertainty and lock in.

2 Hypotheses

- **Hypothesis 1**: High values of personal income tax rate reduce the probability of selecting a location.
- **Hypothesis 2**: The effect of personal income taxation on attracting new FDI is larger in the case of Greenfield investments.
- **Hypothesis 3**: The effect of labour regulation on attracting new FDI is negative.

3 Data

- MiDi data base, Deutsche Bundesbank
- Comprehensive data set for all foreign affiliates with balance sheet total >€3m.
- Since 2005, German investors are required to report whether a new investment is GF or M&A.
- We use 2005-2008 data (more than 4300 new affiliates) for 25 host economies.

Country	Share GF	Share M&A	Rank GF	Rank M&A	CIT	PIT	protection
USA	17.1	10.3	1	2	40	41.9	0.17
China	9.3	3.5	2	7	25	45	3.3
UK	5	10.8	3	1	28	40	1.12
Luxembourg	4.8	1.9	4	13	29.6	39	2.75
France	4.4	7.3	5	3	33.33	45.8	2.47
Austria	4.3	5.4	6	4	25	50	2.37
Netherlands	4.1	4.9	7	5	25.5	52	2.72
Spain	3	3.4	8	8	30	43	2.46
Russia	3	1.8	8	15	24	13	2.97
Poland	2.7	3	10	9	19	40	2.06
Italy	2.2	4.1	11	6	31.4	44.9	1.77
Czech R.	2.2	2.3	11	12	21	15	3.05
Hungary	1.9	1.3	13	20	16	36	1.92
Canada	1.8	1.9	14	13	33.5	46.4	1.25
Japan	1.5	1.3	15	20	40.69	50	1.87
Mexico	1.5	1.3	15	20	28	28	2.25
Belgium	1.4	2.9	17	10	34	53.5	1.73
India	1.3	1.4	18	17	33.99	30	3.54
Sweden	1.25	2.4	19	11	28	56.4	2.86
Turkey	1	1.3	20	20	20	35	2.56
Portugal	0.8	0.8	21	25	25	42	4.17
Australia	0.7	1.4	22	17	30	46.5	1.42
Brazil	0.7	1.6	22	16	34	27.5	1.37
Finland	0.5	1.4	24	17	26	50.7	2.17
Ireland	0.5	1.2	24	24	12.5	41	1.6

- Correlation matrix (country level)

	PIT	CIT	Protection	Share GF	Share M&A
PIT	1				
CIT	0.251	1			
Protection	-0.200	-0.300	1		
Share GF	0.067	0.303	-0.309	1	
Share M&A	0.202	0.298	-0.438*	0.722*	1

4 Results

- Logit regressions
- Left hand variable: 1 if a given parent invests in the respective country, 0, otherwise.
- Pooled data 2005-2008

Estimation Results for the Location Equation (Elasticities)

	Full Sample		GF Sample	M&A Sample
PIT	**-0.275[b]**	**-0.819[a]**		
CIT	**-0.714[a]**	**-0.705[a]**		
Protection	**-0.141[a]**	**-0.159[b]**		
No. affiliates	0.306[a]	0.308[a]		
Total assets	0.015[a]	0.010		
GDP capita	1.092[a]	0.889[a]		
Population	0.571[a]	0.560[a]		
Distance	-0.385[a]	-0.478[a]		
Corruption	0.129	0.138		
Market cap	0.155[a]	0.028		
Real wage index		-0.109		
R&D/GDP		0.388[a]		
Observations	108,220	88,241		

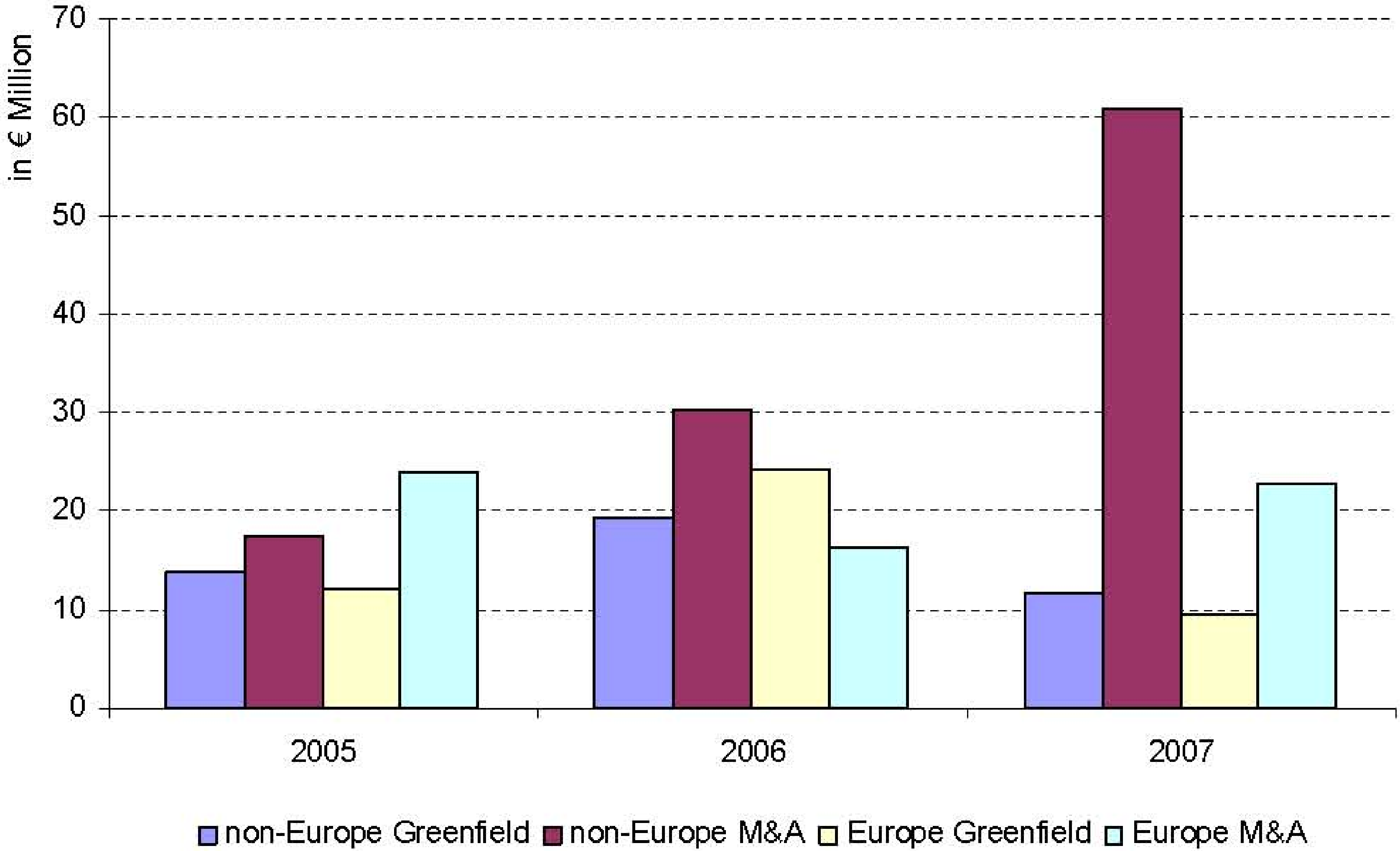
5 Conclusions

- (Personal) taxes matter
- Heterogeneity of FDI matters for tax effects.
  - GF is more sensitive to corporate
  - and personal taxation

- Food for further thought
  - Labour regulation only significant for M&A.
  - Corruption only relevant for Greenfield.

END

Size


in € Million
70
60
50
40
30
20
10
0
2005
2006
2007
non-Europe Greenfield
non-Europe M&A
Europe Greenfield
Europe M&A