GREENFIELD FOREIGN DIRECT INVESTMENTS AND INSURANCE MARKET DIVERSIFICATION: A CROSS-COUNTRY ANALYSIS

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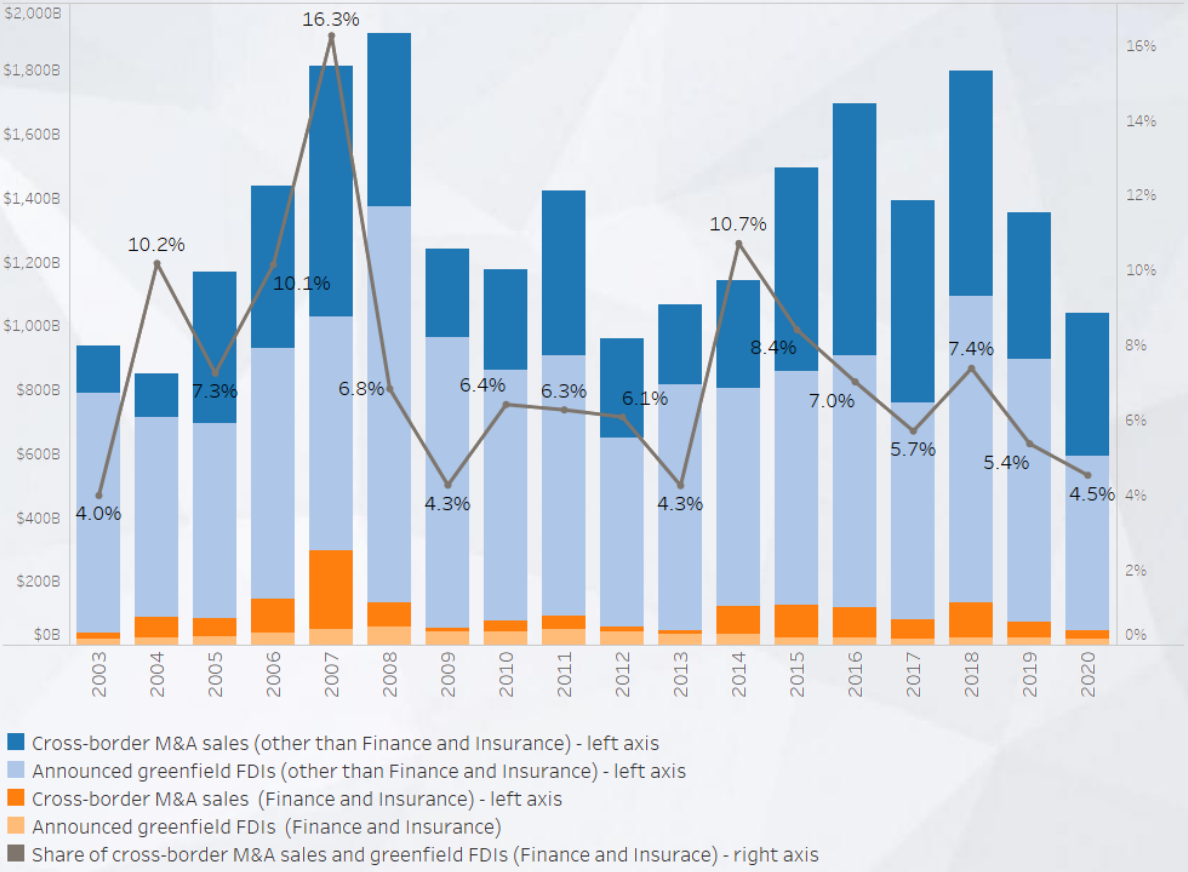
Introduction

The aggregation of different types of FDIs captures not only the direct impact of FDIs in finance and insurance development but also indirect intersectoral spillover effects.

The amount of GF FDIs in Finance and Insurance is negligible!



What has been done

What drives FDIs in insurance?

- National and cross-country studies
- Determinants - **country, industry and firm characteristics**: market size, demand for insurance, FDIs in manufacturing, trade barriers, market concentration, loss experience etc.

How do FDIs impact insurance development?

- **Positive effects** of FDIs on life and non-life insurance penetration

What makes insurers to diversify? Do FDI-related shocks play some role?

- Insurers' decisions to specialize or diversify their portfolios depend on **growth opportunities** in different lines of business
- Property-causality insurers diversify their product portfolio when they face **barriers to growth** in their existing line(s) of business
- If growth opportunities exist, insurers would efficiently use their resources, capabilities, and competencies to create competitive advantage and capture new growth opportunities (**resource-based theory**)

Current situation & problems

FDIs affect insurance markets

Direct effects (FDIs in insurance) and indirect effects (spillover cross-sectoral effects)
GF FDIs in insurance are negligible

01

Aggregation

GF, M&A ...

02

Focus

Only growth effects

03

External shocks

FDIs not considered

Problems

Study objectives

Demand effects

Greenfield FDIs affect insurance markets via cross-sectoral spillover effects

Market diversification

Greenfield FDIs reshape insurance markets on the long run

External shocks

The decisions to diversify do not depend only on internal processes

The narrative

Existing arguments		Our narrative
GF FDIs - related arguments	**Relevant arguments**	The barriers to growth in different lines of business may be dynamic and affected by external shocks such as, greenfield FDIs. By distorting the barriers to growth in different lines of business, greenfield FDIs push insurers to capture the new opportunities in their existing product lines or diversify across different lines of business, thus increasing the diversity of the insurance market.
• GF FDIs in insurance – **negligible** • GF FDIs have crowding-out effects **(substitute)** • GF FDIs have growth-enhancing effects **(complement)**	**Argument 1** P/C insurers -> barriers to growth -> diversify (Berry-Stölzle et al. 2012) **Argument 2** Insurers -> growth opport. -> competit. adv. -> capture growth (resource-based theory)	

One hypothesis

Hypothesis 1

Greenfield FDIs do affect insurance market diversification

Data and Methodology

Data sample	Dependent vars			Independent vars
28 European countries 2004-2019	Herfindahl-Hirschman Index (HHI), Theil Index and the share of motor insurance premium in total non-life premiums **Lines of business:** motor, accident, property, general liability, legal expenses, MAT (maritime, aviation and transport) and other insurance			Economic development, Inflation, Openness, Education, Urbanization, Financial development, Institutional development
Methods	**Data averaging**	**Assumption on main ind. variable**	**Assumption on relationship**	**Instruments**
OLS (fixed effects)	4-year data averages	Exogenous	Linear	No
IV-2SLS (fixed effects)		Endogenous		Greenfield FDIs to GDP ratio (t-1); share of population living in the country's largest city (t-1); Index of tax burden (t-1)
PPML (fixed effects)		Exogenous	Non-linear	No
IV-PPML (fixed effects) Lin & Wooldridge's (2019) control function approach		Endogenous		Greenfield FDIs to GDP ratio (t-1); share of population living in the country's largest city (t-1); Index of tax burden (t-1)
Robustness checks: 3-year data averages Legal expenses line included (reduced sample) Extended models (more controls)				

Analysis of the results

Baseline (fixed effects) estimation with 4-year data averages

Linear Models		OLS			IV-2SLS	
Dependent vars	HHI	Theil	% Motor ins.	HHI	Theil	% Motor ins.
GF to GDP	**-0.611****	**-0.982****	**-0.607****	**-1.270*****	**-2.204*****	**-1.438*****
	(-2.546)	(-2.250)	(-2.132)	(-4.070)	(-3.229)	(-3.319)
Observations	103	103	103	102	102	102
# countries	28	28	28	27	27	27
F statistic	8.687	5.049	5.114	4.415	3.412	5.092
R-squared	0.413	0.373	0.488	0.340	0.280	0.341
Hansen test (p-value)				0.347	0.325	0.233
Non-linear models		PPML			IV-PPML	
Dependent vars	HHI	Theil	% Motor ins.	HHI	Theil	% Motor ins.
GF to GDP	**-1.249*****	**-1.112***	**-0.967****	**-3.292****	**-3.805****	**-2.948***
	(-2.932)	(-1.907)	(-2.563)	(-2.243)	(-2.275)	(-1.899)
Residuals (1st stage)				2.932***	3.796***	2.849**
				(3.511)	(2.832)	(2.183)
Observations	102	102	102	102	102	102
# countries	27	27	27	27	27	27
Chi-squared	66.76	45.76	43.71	93.9	57.27	47.2

Robust t-statistics in parentheses (OLS); Robust z-statistics in parentheses (IV-2SLS; PPML) Bootstrapped z-statistics in parentheses (IV-PPML); Country FE and time dummies included; Baseline model includes the following variables: GF to GDP ratio, real GDP per capita, CPI, trade to GDP ratio, School enrollment (secondary) and urban population (%); IV regression instruments: GF to GDP ratio (t-1); share of population living in the country's largest city (t-1); Index of tax burden (t-1); *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Discussion

1. Complex effects (FDIs-Insurance)

2. Developed and higher-income countries

3. By distorting the barriers to growth in different lines of business, greenfield FDIs push insurers to capture the new opportunities in their existing product lines or diversify across different lines of business, thus increasing the diversity of the insurance market

Conclusions

Demand effects

Greenfield FDIs affect insurance markets via cross-sectoral spillover effects

Market diversification

Greenfield FDIs reshape insurance markets on the long run

External shocks

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THANK YOU!