

Internationalization of Service SMEs: Evidence from France

Harald Oberhofer

University of Salzburg

5TH FIW RESEARCH CONFERENCE INTERNATIONAL ECONOMICS

Vienna, April 2012

MOTIVATION

- ▶ SMEs constitute the overwhelming majority of firms all around the world (OECD 2009)
- ▶ During the last decades economic activity has shifted away from agriculture and manufacturing and, nowadays, is mostly conducted in service industries
- ▶ Production processes are organized more internationally today implying that firms compete on world markets rather than focusing on their domestic markets only

For economies which are characterized by a large proportion of service SMEs, the international competitiveness of these firms is crucial for the overall economic prosperity

THIS PAPER . . .

- ▶ Analyzes potential export restrictions by utilizing firm level data for service industries in France
- ▶ Estimates firm-specific export probabilities by taking firm- and industry characteristics into account and controls for unobservable heterogeneity across firms.
 - ▶ Puts a specific focus on small SMEs
 - ▶ Tests for the self-selection hypothesis put forward by the new-new trade theory
 - ▶ Investigates the persistence of export decisions

MAIN THEORETICAL HYPOTHESES

1. SMEs might be less likely to export to foreign markets
 - ▶ Exporting induces additional fixed-costs as well as variable trade costs (e.g., Melitz 2003)
 - ▶ Financial constraints for small firms (e.g., Cabral and Mata 2003)
 - ▶ Risk of failure is large for small firms (e.g., Caves 1998)
2. More productive firms are more likely to serve foreign markets
 - ▶ **More productive firms are able to bear additional fixed and variable costs (e.g., Melitz 2003)**
3. \implies **A firm's exporter status is relatively persistent**
4. Risk of engaging in foreign markets can be reduced by incorporation
 - ▶ Incorporation might lead to financial advantages (Sloan and Chittenden 2006)
 - ▶ Business owners are willing to accept higher risks if their firms are incorporated (e.g., Storey 1994)

THE ECONOMETRIC MODEL

- ▶ Estimating export probabilities:

$$Pr(\text{ex}_{it} = 1) = \Phi(\rho \text{ex}_{i,t-1} + \mathbf{x}_{it}\gamma + \alpha_i)$$

- ▶ The **first model** assumes that
 - ▶ $\rho = 0$
 - ▶ $\alpha_i | \mathbf{x}_{it} \sim N(0, \sigma_a^2)$ (random effects assumption)
- ▶ The **second model**
 - ▶ estimates ρ and accounts for the initial conditions problem by including $\text{ex}_{i,0}$
 - ▶ assumes $\alpha_i | \text{ex}_{i,0}, \mathbf{x}_{it} \sim N(\gamma_0 + \gamma_1 \text{ex}_{i,0} + \bar{\mathbf{x}}_i \zeta, \sigma_a^2)$
(see, Mundlak 1978 and Chamberlain 1980)

DATA AND EMPIRICAL SPECIFICATION

- ▶ *Data source:* AMADEUS database (update. 170, Nov. 2008)
- ▶ Export information is most comprehensively collected for France
- ▶ Included service industries:
 - ▶ Accommodation and food service industries
 - ▶ Information and communication industries
 - ▶ Financial service activities
 - ▶ Legal and accounting activities
 - ▶ Activities of head offices and management consultancy activities
 - ▶ Architectural and engineering activities
 - ▶ Administrative and support service activities
 - ▶ Other service activities
- ▶ x_{it} includes:
 - ▶ Firm size (employment)
 - ▶ Total factor productivity (Levinsohn and Petrin 2003)
 - ▶ Net investment
 - ▶ No. of subsidiaries
 - ▶ Legal form

DESCRIPTIVE STATISTICS

Variable	Firms ^a	Mean	Std.Dev.	Min.	Max.
Exporter status	165, 165	0.152	0.359	0	1
No. of employees	165, 165	33.252	636.036	1	213,000
Log(TFP)	165, 165	3.908	0.652	-2.91	12.707
Net investment p.e. (in thousands)	165, 165	19.832	4, 479.966	-262,518	2,969,184
No. of subsidiaries	165, 165	0.456	4.613	0	899
<i>Legal forms</i>					
Société à responsabilité limitée (SARL)	165, 165	0.606	0.489	0	1
Entre. unip. à responsabilité limitée (EURL)	165, 165	0.058	0.233	0	1
Société anonyme simplifiée (SAS)	165, 165	0.200	0.400	0	1
Société anonyme (SA)	165, 165	0.120	0.326	0	1
Société en nom collectif (SNC)	165, 165	0.007	0.083	0	1

Notes: ^a The 165,165 firms in the sample are typically observed repeatedly leading to 519,289 firm-year observations.

ESTIMATION RESULTS: FIRST MODEL

Variable	Ex-all	Ex-10	Ex-25
Log (no. of employees)	0.0280***	0.0014***	0.0004***
Log(TFP)	0.0209***	0.0015***	0.0006***
Net investment p.e.	0.0000	0.0000	0.0000
No. of subsidiaries	-0.0005***	0.0000	0.0000
<i>Legal forms</i>			
SARL	-0.0041	-0.0007	0.0003
EURL	-0.0222***	-0.0025***	-0.0003
SAS	0.0230***	0.0021**	0.0015**
SA	0.0308***	0.0034***	0.0023***
SNC	0.0005	-0.0003	0.0005
<i>Fixed effects</i>			
2-digit industry ^a	17,282.143***	8,987.634***	7,600.724***
Year ^b	101.810***	49.542***	24.730***
Observations	519,289	519,289	519,289

Notes: Average marginal effects reported (see, Bartus 2005). *, ** and *** denote significance at 10%, 5% and 1% levels, respectively. ^a Wald-test with 27 degrees of freedom. ^b Wald-test with 8 degrees of freedom.

ESTIMATION RESULTS: SECOND MODEL

Variable	Ex-all	Ex-10	Ex-25
Lagged exporter status	0.4352***	0.4416***	0.4845***
Log (no. of employees)	0.0201***	0.0030***	0.0013
Log(TFP)	0.0099***	0.0009	0.0012
Net investment p.e.	0.0000	0.0000	0.0000
No. of subsidiaries	-0.0003***	0.0000	0.0000
<i>Legal forms</i>			
SARL	0.0006	-0.0016	0.0008
EURL	-0.0072	-0.0046	0.0013
SAS	0.0095**	0.0007	0.0018
SA	0.0107**	0.0016	0.0026
SNC	0.0075	0.0056	0.0047
<i>Fixed effects</i>			
2-digit industry	3,441.619***	1,335.298***	596.849***
Year	18.220***	12.627**	15.532***
Observations	290,222	190,367	125,672

Notes: Average marginal effects reported (see, Bartus 2005). *, ** and *** denote significance at 10%, 5% and 1% levels, respectively. ^aWald-test with 27 degrees of freedom. ^bWald-test with 5 to 7 degrees of freedom.

CONCLUSIONS

- ▶ The probability of engaging in any export activities is an increasing function of firm size
- ▶ There is some evidence for the self-selection hypothesis of the new-new trade theory
- ▶ We obtain ambiguous results for the impact of a firm's legal form
- ▶ Export decisions in French service firms seem to be extremely persistent

POLICY CONCLUSION

Export promotion policies should be directed towards (small) firms which face difficulties in establishing their first export relationships