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# Exporting, ambition, finance and SME performance

Exploratory analysis of the Longitudinal Small Business Survey 2015 and 2016

Stephen Roper, Areti Gkypali and Bo Peng



# Introduction

- Three exploratory analyses of the Longitudinal Small Business Survey (LSBS) for 2015 and 2016 with a focus on the drivers of business performance.
- In each case the aim is to exploit the longitudinal aspect of the LSBS, relating firms' performance in 2016 to firms' strategy choices and activities in 2015.
- The areas we consider are:
  - Exporting, non-exporting and performance: How do firms' exporting and non-exporting choices impact performance?
  - How are growth ambition and performance related? What determines whether ambition is achieved?
  - How does the availability or non-availability of funding influence subsequent performance?



# Exporting, non-exporting and performance

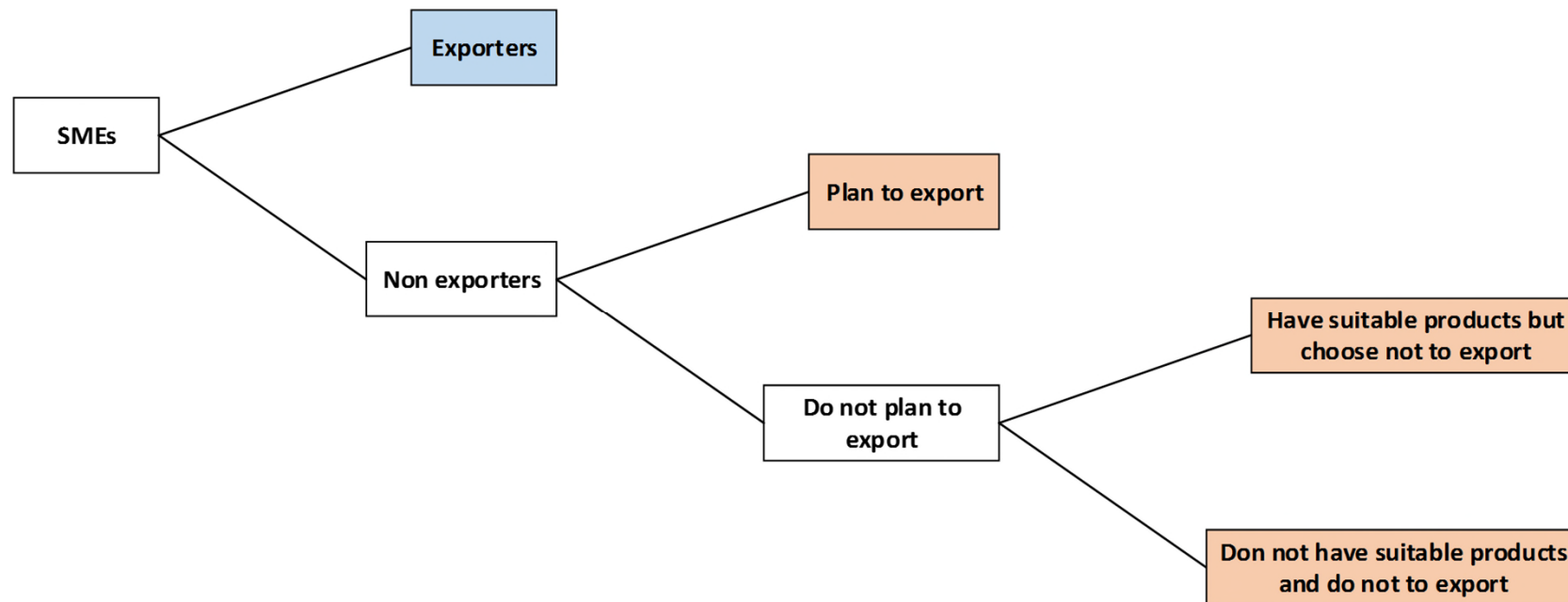


# Exporting, non-exporting and performance

## - issues and data

- It is widely accepted that exporting firms are more productive than non-exporters. There almost no evidence pertaining to the heterogeneity of non-exporters and the implications for performance
- LSBS provides data not only on the distinction between exporters and non-exporters but also distinguishes between groups of non-exporters based on their willingness and ability to export.
- We can identify the following groups of firms:
  - Exporting firms: firms reporting exporting activities (goods or services)
  - Non-exporting but willing/planning-to-export firms
  - Non-exporting, not-willing but able to export firms
  - Non-exporting, not-willing and not-able to export firms.

# Exporting, non-exporting and performance - issues and data



# Exporting, non-exporting and performance - analysis

- Estimate series of treatment models with many controls to identify performance effect of different export status. Reference groups differ
- Dependent variables:
  - (i) **Productivity**: sales to employee ratio (2016, log) levels,
  - (ii) **Profitability** : Whether firms achieved surplus (2016, 0/1)
  - (iii) **Sales growth**: Log difference of revenues (2016-2015)
  - (iv) **Employment growth**: Log difference of total number of employees (2016-2015)
  - (v) **Productivity growth**: Log difference of total productivity levels (2016-2015)

## Exporting, non-exporting and performance – key results

	Productivity	Profitability	Sales growth	Employment growth	Productivity growth
Exporters v non-exporters	+	(+)	-	(-)	-
Exporters v not able/willing	+	(+)	-	(-)	-
Planners v not able/willing	(+)	(+)	(+)	(+)	-
Could v not able/willing	+	(+)	(-)	(+)	(+)

Table indicates whether (e.g.) exporting ‘treatment’ was related to higher productivity. + indicates significant positive treatment, (+) insignificant effect



# Exporting, non-exporting and performance - conclusions

- Our exploratory analysis suggests three main conclusions:
  - A robust ‘export premium’ exists in terms of productivity even after we control for non-exporters heterogeneity.
  - Besides the export premium there seems to be an ‘export penalty’ on sales, employment, and productivity growth indicators.
  - Businesses planning to export are not necessarily better performing compared to those firms neither willing nor able to export (not what the theory suggests!)
- Our analysis suggests the potential value of examining different groups of non-exporting firms and how these different groups might be encouraged – where relevant – to internationalise.



## Expected and achieved growth



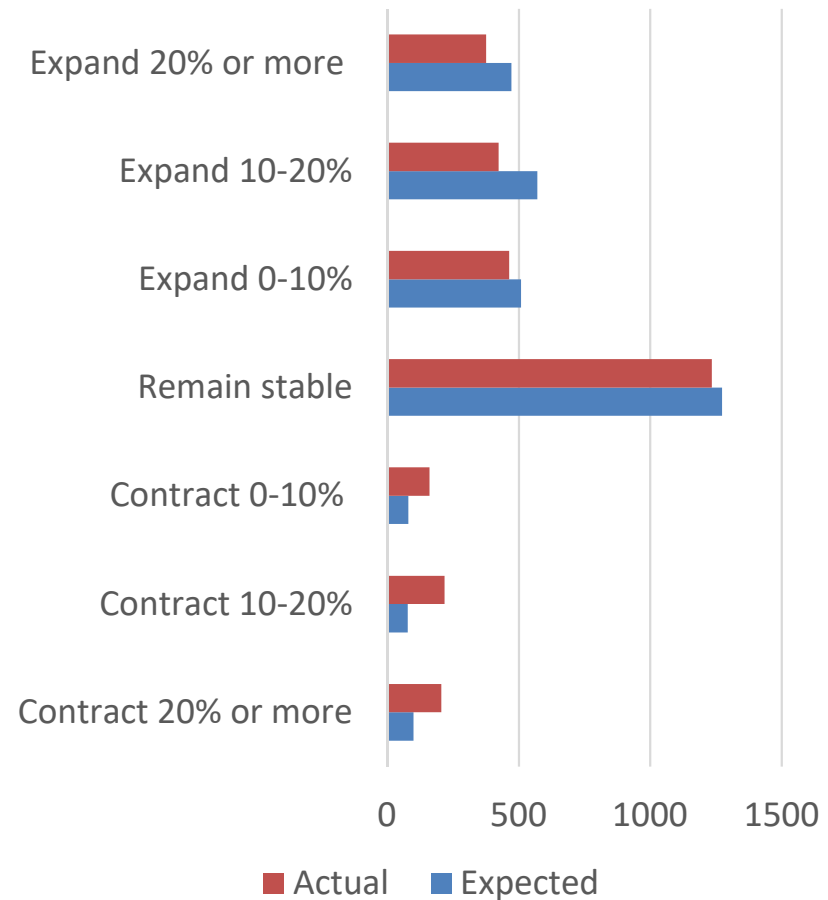
# Expected and achieved growth – issues and data

- Growth ambition or expectation has attracted significant attention in the SME literature
- Questions considered here are:
  - What drives growth expectations and outcomes?
  - Are growth expectations actually realised?
  - Is this more likely among specific types of firms?
- The LSBS provides some potentially unique insights into these questions as we have information on a large sample of businesses which provided information on their expected turnover growth in 2015-16 and then, a year later, their actual growth over the same period.



# Expected and achieved growth – analysis

- Expected growth in 2015 and actual sales growth in 2016 are categorised as follows (7 point scale):
  - Decline in actual or expected sales by 20 per cent or more;
  - Decline in actual or expected sales by 10 to 20 per cent;
  - Decline in actual or expected sales by 0 to 10 per cent;
  - Static actual or expected sales;
  - Increase in actual or expected sales by 0 to 10 per cent;
  - Increase in actual or expected sales by 10 to 20 per cent;
  - Increase in actual or expected sales by 20 per cent or more.



# From expected to actual growth

	Actual Growth							
	Contract 20% or more	Contract 10-20%	Contract 0-10%	Remain stable	Expand 0-10%	Expand 10-20%	Expand 20% or more	Total
<b>Expected growth</b>								
<b>Contract 20% or more</b>	42	6	2	32	3	6	9	100
<b>Contract 10-20%</b>	12	19	3	31	8	5	0	78
<b>Contract 0-10%</b>	6	10	19	29	13	2	1	80
<b>Remain stable</b>	86	100	77	684	143	106	77	1,273
<b>Expand 0-10%</b>	10	29	33	176	175	61	25	509
<b>Expand 10-20%</b>	22	32	19	166	87	154	91	571
<b>Expand 20% or more</b>	28	22	8	117	35	90	173	473
<b>Total</b>	206	218	161	1,235	464	424	376	3,084

# Expected and achieved growth – analysis

- Ordered probits on expected and actual growth highlight common drivers of growth
- Probits on achieved or over-achieved growth (right) highlight predictors of outcomes

	Achieved expected growth or over-achieved	Over-achieved expected growth
Productivity (2015, £000 pe)	+	(+)
Profitability (2015, 0/1)	+	+
Family business (2016, 0/1)	(-)	(-)
Employment (2015, log)	(+)	+
Product/service innovator (2015)	(-)	(-)
Process innovator (2015, 0/1)	-	-
Age of the firm (2015, years)	(+)	(-)
Exporting (2015, 0/1)	-	(-)
Sought external finance (2015, 0/1)	-	(+)
General business advice (2015)	(-)	(+)
Brexit impacts (2016, 0/1)	(-)	(-)
Multiple sites (2015, 0/1)	(+)	-
Number of observations	3084	3084

# Expected and achieved growth - conclusions

- Our analysis suggests three main conclusions:
  - A number of factors have a common relationship with both growth expectations and growth achievement. These include firms' commitment to product and service innovation and a range of capability building activities
  - There is a positive, albeit relatively weak, correlation between the extent of firms' growth expectations and their achieved growth: the higher firms growth expectations the higher their achieved growth
  - It proves difficult to identify many variables which have a strong and consistent fit with whether firms will either achieve or surpass their growth expectations. Profitability (positive) and process innovation (negative) are the only variables which consistently predict growth outcomes.
- Our results emphasise again the difficulty of the picking winners problem: even – as here - where growth expectations can be observed it proves difficult to identify any clear predictors of whether expected growth will actually be achieved.

## Funding and performance





# Funding and performance – issues and data

- External finance is undeniably one of the most important resources for the exploitation and expansion of small and medium-sized enterprises
- We explore whether and how financial status influences different dimensions of performance.
- Firms are categorised into 4 groups:
  - ***Self-sufficient enterprises*** - firms who did not try to obtain external finance since they had no need for external funding;
  - ***Discouraged non-borrowers*** - firms who did not obtain external finance since something stopped them from applying. For example, they thought their application would be rejected, they did not want to take additional risks, or they thought obtaining external finance would be too expensive, etc.;
  - ***Failed seekers*** - firms who had applied for external finance but failed to get any;
  - ***Successful seekers*** - firms who had applied for external finance and succeeded in obtaining the finance in full or partially.
- 21% of the SMEs tried to obtain external finance in 2015, 85.7% of which succeeded in getting some or all of the finance they were seeking. 14.3% of firms failed to obtain funding from external sources.
- Among firms (79%) who did not try to obtain external finance, 8.9% of them still needed external funding, but gave up trying for various reasons.



# Funding and performance – analysis

	Self-sufficient enterprise	Discouraged borrowers	Failed seekers	Successful seekers
Productivity (£ pe)	128961	83735	83947	130343
Profitability (% firms)	0.876	0.781	0.703	0.819
Sales growth (% firms)	0.356	0.388	0.419	0.46
Firm age (yrs)	8.00	7.68	7.5	8.03
Employment (no)	23.15	20.19	21.04	36.42
Board size (avg)	4.45	2.12	1.97	2.79
Innovator (% firms)	0.45	0.54	0.48	0.52
Family business (% firms)	0.74	0.71	0.77	0.7

# Funding status treatment effects

	Profitability	Sales Growth	Productivity Growth
Discouraged borrower vs Self-sufficient enterprise	-	(+)	-
Failed seeker vs Self-sufficient enterprise	-	(+)	-
Successful seeker vs Self-sufficient enterprise	+	+	+
Failed seeker vs Discouraged borrower	(-)	(+)	+
Successful seeker vs Discouraged borrower	+	(+)	+
Successful seeker vs Failed seeker	+	(+)	+



# Funding and performance – conclusions

- Our analysis suggests a close relationship between financial status in 2015 and the performance of the SMEs in 2016.
- Succeeding in obtaining external finance significantly increases the probability that firms are profitable, increases their sales, and also helps to improve their operation efficiency.
- However, the level of significance and the effect sizes of finance status vary widely for difference performance indicators, suggesting that the effect of financial constraints on profitability and growth, for example, are rather different.



## Final remarks

- Working closely with the LSBS in developing this report highlights the breadth and depth of the data contained in the LSBS and the complexity of the dataset
- Issues for longitudinal analysis
  - Questions change and are dropped/included
  - Weighting – what to use?
  - Coverage – we miss more on the entrepreneur
- Finally worth recalling that at the moment we are working with only two years' data and so lags are limited

