Really „Lost in Translation“?

The economic consequences of increased international exposure of financial reports

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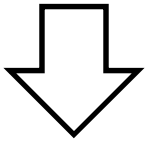
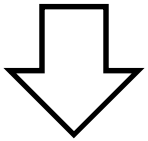
Story and background

Companies want to increase their visibility



Companies decide to increase their international exposure



English as the common language of business

Story and background

- The increasing pace of globalization over recent years has forced the pace for the adoption of truly comparable and consistent financial reports
  - Adoption of IFRS is an important step towards comparable financial reports
  - However, past research showed limited impact of the transition to IFRS (Daske et al., 2008)

- In this paper, we go beyond IFRS adoption and analyze the economic consequences of increased international exposure of the firm

Tension

- Predicting the role of increased international exposure of financial reports is far from being obvious:

  - On the one hand, one may think that “going international” is not an issue:
    - financial institutions are sophisticated investors
    - financial data exist for all listed firms in databases

  - On the other hand, one may think that “going international” is an issue:
    - If there were no benefits from issuing an ARE, why do firms decide to issue an ARE albeit costly (direct and indirect costs)?
    - Serious commitment to transparency

Proxy for “international exposure”

- Various means to increase “international” exposure of financial reports:
  - multilingual investor relation service
  - international staff and changing corporate culture
  - international accounting standards
- Our proxy : communication in English through the release of an English annual report.
  - *Financial literacy:* Rules have to be clear, unambiguous and enforced
  - *Language fluency:* Investors must understand the language used by the firm: idea of “language barrier”

Research question

What are the economic consequences, if any, of the decision to increase the international exposure of annual reports by using English as an additional reporting language in non-English speaking countries?

Contributions

- No direct evidence on the consequences of "international exposure" of financial reports by adopting English for external reporting purposes
  - "The firm's language, culture and distance are three important familiarity attributes that might explain an investor's preference for a certain firm" [Grinblatt et al. (2001)]
- We contribute to the definition of "comparability"
  - We show that, beyond standards, language matters to be able to "compare" financial statements
- We add a dimension to the "institutions" that shape the quality of financial reports
  - To some extent, we show that commitment to increased visibility can substitute to the "traditional" features of institutions (legal enforcement, investor protection, etc.)

Overview of the findings

- For a sample of non-cross-listed firms, “increasing international exposure” leads to:
  - significant increase in visibility by information intermediaries
  - significant decrease in information asymmetry
  - significant increase in visibility by foreign investors

  compared to a sample of matched firms (selected with propensity score matching procedure)

- This finding is consistent with Merton (1987) investor recognition hypothesis

Hypothesis development

- How can “increasing the international exposure of financial reports” have economic consequences? We draw on the *investor base hypothesis* developed by Merton (1987):
  - Starting point = The acquisition and the dissemination of information is not automatic
  - “For party A to convey useful information to party B, requires not only that party A has a transmitter and send accurate message, but also that party B has a receiver” [Merton, 1987, p. 489]
  - All the stockholders of a particular company are informed, but “investors that are not aware of the firm (…) will not become stockholders of the firm” (1987, p. 500)
  - In equilibrium, Merton (1987, p. 500) shows that “an increase in the relative size of the firm’s investor base will (…) increase the market value of the firm”

Hypothesis development

- **H1**: Firms adopting English in their annual report experience a reduction in information asymmetry
  - Information asymmetry: bid-ask spread
- **H2**: Firms adopting English in their annual report increase their analyst following
  - Analyst following: ln(1+number of analysts)
- **H3**: Firms adopting English in their annual report enlarge their investor base with foreign investors
  - Enlargement of investor base: Number of foreign shareholders

Research design

Difference-in-Differences setting

- *Cross sectional analysis* versus *Change analysis*
- *Sample of Annual Report in English (ARE) adopters*
  - **Treatment firms** = firms that decided to switch to English for their financial reports ("adopters")
  - **Control sample** = firms that do not switch to English (still use exclusively their local language)

$$\text{Economic Consequence} = \beta_0 + \beta_1 Treatment + \beta_2 Time + \beta_3 Treatment \times Time + \beta_s \text{Control variables} + \varepsilon$$

Predicted *Economic Consequence*	Time = 0	Time = 1
Treatment = 0	β_0	$\beta_0 + \beta_2$
Treatment = 1	$\beta_0 + \beta_1$	$\beta_0 + \beta_1 + \beta_2 + \beta_3$

Research design

- The interpretation of a significant β_3 might be problematic:
  - **Information effect:** the ARE contains more information than the local language version => NO
  - **Self selection issue** => Propensity score matching
- Propensity score matching
  - First step: compute the likelihood for each of the firms with available information to issue an ARE

$$Log\left[\frac{\Pr(\text{ARE}=1)}{1-\Pr(\text{ARE}=1)}\right] = \alpha_0 + \alpha_1 \text{Size} + \alpha_2 \text{R}eturn + \alpha_3 \text{Growth opportunities}$$
$$+ \alpha_4 \text{L}everage + \alpha_5 \text{Foreign sales} + \alpha_6 \text{Closely held shares} + \alpha_7 \text{Future equity increase}$$
$$+ \alpha_8 \text{Future debt increase} + \sum_k \alpha_{9,k} \text{I}ndustry + \sum_k \alpha_{10k} Year$$

  - Second step: match each treatment firm with one firm that has a similar propensity to use English in its annual reports but which continues to use its local language only (same country and year)

Sample: overview

	Number of Firm-Year Observations	%	Number of Firms
Total number of annual reports stated in Global Reports (Infinancials) with available financial data (excluding cross-listed firms)	10,278		3,236
Split between:			
- Number of companies that issue an annual report in English (at least once over the period) (A)	5,015	48.8	1,811
- Number of companies that do not issue an annual report in English (B)	5,263	51.2	2,069
Number of adopters* with available data			166

*"Adopter": company deciding for the first time to publish an English version of its annual report, in addition to the local language version.

Our "Treatment group"

Sample overview: a first look

	N	Mean (Universe)	Median	N	Mean (Treatment)	Median
Sales	10,278	4.506	4.693	556	4.324	4.556
Return	10,278	0.017	0.036	556	0.024	0.037
Growth opportunities	10,278	1.672	1.306	556	1.961	1.465
Leverage	10,278	0.512	0.536	556	0.526	0.550
Foreign sales	10,278	0.216	0.000	556	0.176	0.000
Closely held shares	10,278	0.362	0.361	556	0.363	0.365
Future equity increase	10,278	0.442	0.000	556	0.570	1.000
Future debt increase	10,278	0.739	1.000	556	0.790	1.000

- European listed firms with observation period 2004-2007
- Exclusion of cross listed firms as of end of 2009
- Exclusion of firms from market segments with special regulations concerning the language of annual reports

PSM: Step 1

	Predicted signs	Coefficients	z	p
Size	+	0.594	26.331	0.000
Return	-	-0.695	-3.872	0.000
Growth opportunities	+	0.179	7.670	0.000
Leverage	-	-1.428	-11.005	0.000
Foreign sales	+	0.016	15.353	0.000
Closely held shares	-	-0.005	-5.819	0.000
Future equity increase	+	0.352	6.855	0.000
Future debt increase	+	0.203	3.523	0.000
Industry effects		Included		
Year effects		Included		
Country effects		Included		
Constant		-1.710	-3.300	0.001
Number of observations		10,278		
Chi square		2052.846		
p(chi2)		0.000		
Pseudo R-square		0.253		
Nagelkerke R-square		0.394		
Pct classified in sample		74.518		

Descriptive statistics – Bid ask spread

	N (Total)	Mean (before) (a)	Mean (after) (b)	Difference (b-a)	T-test	p-value
Bid Ask Spread - Treatment(i)	588	-3.892	-4.317	-0.425	-4.849	0.000
Bid Ask Spread - Control (ii)	602	-3.930	-3.954	-0.024	-0.524	0.601
Difference (i-ii)	.	0.038	-0.363	-0.401	.	.
T-Test	.	0.521	-5.508	-4.082	.	.
p-value	.	0.602	0.000	0.000	.	.

Descriptive statistics – Analyst following

	N (Total)	Mean (before) (a)	Mean (after) (b)	Difference (b-a)	T-test	p-value
Analyst Following - Treatment(i)	672	0.580	0.980	0.399	5.904	0.000
Analyst Following - Control (ii)	683	0.584	0.715	0.131	1.823	0.069
Difference (i-ii)	.	-0.004	0.265	0.268	.	.
T-Test	.	-0.053	3.692	2.609	.	.
p-value	.	0.958	0.000	0.010	.	.

Descriptive statistics – Foreign ownership

	N (Total)	Mean (before) (a)	Mean (after) (b)	Difference (b-a)	T-test	p-value
Foreign ownership - Treatment(i)	567	0.124	0.262	0.138	5.802	0.000
Foreign ownership - Control (ii)	497	0.136	0.155	0.019	0.837	0.403
Difference (i-ii)	.	-0.012	0.106	0.118	.	.
T-Test	.	-0.537	4.410	3.025	.	.
p-value	.	0.592	0.000	0.003	.	.

Main results

	Bid Ask Spread		Analyst Following		Foreign Ownership	
	coef.	p-value	coef.	p-value	coef.	p-value
Treatment	0.025	0.749	0.023	0.739	-0.015	0.563
Time	0.056	0.116	0.013	0.754	-0.034	0.069
Treatment * Time	-0.239	0.008	0.182	0.000	0.100	0.000
IFRS	-0.040	0.551	0.074	0.482	-0.021	0.608
Log of Market value	-0.311	0.000				
Share turnover	-0.117	0.034				
Return Variability	0.037	0.001				
Size			0.224	0.000	0.033	0.001
Lag Return on Assets			0.001	0.725		
Growth opportunities			0.116	0.000	0.026	0.011
Leverage					0.053	0.552
Return					-0.001	0.334
Country effects	Included		Included		Included	
Industry effects	Included		Included		Included	
Year effects	Included		Included		Included	
Number of observations	1190		1355		1064	
F	27.354		17.334		98.177	
Prob>F	0.000		0.000		0.000	
R-square	0.529		0.289		0.210	
Adjusted R-square	0.514		0.269		0.180	

Period of analysis: 3 years before and 3 years after

Robustness checks – Big vs. small countries

	Bid Ask Spread - Big countries		Bid Ask Spread - Small countries		Analyst Following - Big countries		Analyst Following - Small countries		Foreign Ownership - Big countries		Foreign Ownership - Small countries	
	coef.	p-value	coef.	p-value	coef.	p-value	coef.	p-value	coef.	p-value	coef.	p-value
Treatment	0.028	0.778	0.029	0.774	0.321	0.002	-0.148	0.112	-0.008	0.866	-0.006	0.877
Time	0.046	0.316	0.228	0.000	0.073	0.371	-0.006	0.941	-0.002	0.898	0.015	0.620
Treatment * Time	-0.108	0.252	-0.328	0.001	0.120	0.110	0.194	0.000	0.099	0.021	0.103	0.013
IFRS	-0.092	0.396	-0.072	0.110	0.093	0.352	-0.001	0.984	-0.019	0.508	-0.014	0.520
Log of Market value	-0.307	0.000	-0.336	0.000								
Share turnover	-0.124	0.049	-0.113	0.025								
Return Variability	0.040	0.346	-0.028	0.346								
Size					0.199	0.000	0.248	0.000	0.024	0.052	0.035	0.012
Lag Return on Assets					-0.002	0.381	0.002	0.521				
Growth opportunities					0.108	0.004	0.141	0.000	0.019	0.204	0.029	0.012
Leverage									0.030	0.807	0.079	0.449
Return									-0.001	0.288	0.000	0.717
Country effects	Included		Included		Included		Included		Included		Included	
Industry effects	Included		Included		Included		Included		Included		Included	
Number of observations	518		672		548		807		457		607	
F	17.336		28.171		17.86		18.241		5.442		72.248	
Prob>F	0.000		0.000		0.000		0.000		0.000		0.000	
R-square	0.487		0.554		0.357		0.295		0.175		0.268	
Adjusted R-square	0.467		0.538		0.332		0.274		0.135		0.238	

Robustness checks – Big vs. small countries

Year of Change = 0	-3	-2	-1	0	1	2	3
BAS - Control	0.033	0.027	0.022	0.022	0.023	0.028	0.027
BAS - Treatment	0.050	0.041	0.028	0.019	0.020	0.024	0.024
AF - Control	1.599	1.566	1.910	2.179	2.297	1.883	0.950
AF - Treatment	1.368	1.500	1.645	2.307	2.855	2.464	1.197
Foreing Ownership - Control	0.109	0.128	0.144	0.146	0.148	0.178	0.169
Foreing Ownership - Treatment	0.110	0.103	0.136	0.183	0.219	0.272	0.279

Thank you for your attention