

Discussion

The Financing of Large Byouts: An Empirical Analysis

by

Ulf Axelson et al.

Illegal Byouts

by

Douglas Cumming and Simona Zambelli

Private Equity and Basel II

by

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I have been asked to discuss the three papers jointly, however they deal with different issues related to PE.

1. Axelson et al. : study the financial structure of firms that have been acquired by private equity funds
2. Cumming et al. : examine the effect of LBO regulation on the structure of LBO transactions
3. Bongaerts et al.: evaluate the regulatory capital guidelines for PE and in particular BO

However, What do the three studies have in common?

1. they study issues relevant for PE
 2. they are empirical papers
- They all share a common problem: measure a phenomenon, PE, without having a proper dataset.
 - I have decided to gather some data myself.
 - Two sources: EVCA and VentureXpert

Table 1

Country	EVCA	VeXpert	Ratio
Austria	17	24	1,41
Belgium	20	34	1,70
Denmark	18	29	1,61
Finland	16	30	1,88
France	63	182	2,89
Germany	80	98	1,23
Greece	7	4	0,57
Ireland	12	21	1,75
Italy	19	43	2,26
Louxeburg	5	14	2,80
Norway	16	27	1,69
Netherland	32	55	1,72
Portugal	11	8	0,73
Sweden	25	53	2,12
Spain	21	54	2,57
Switzerland	47	42	0,89
UK	99	150	1,52
EU	511	874	1,71

Table 2: Composition of funds raised, by geo area

Country	Amount raised	(of which)		
		(domestic)	(international)	
			(UE)	(extra-UE)
France	3.832.691	62,5%	19,5%	17,9%
Germany	2.187.066	84,4%	10,0%	5,6%
Italy	2.018.713	77,1%	12,6%	10,3%
UK	19.796.147	43,1%	20,5%	36,4%
UE	30.553.357	53,5%	19,1%	27,4%

Note: average 2001-2004, in percentage and thousand of 2004 euro. EVCA.

Table 3: Composition of funds raised, by sector

country	Tot. amount	Composition by investor								
		firms	private	Public sector	banks	Pension funds	insurance.	Funds of funds	university	other
France	3.832.691	5,5%	10,9%	4,7%	36,1%	8,7%	12,8%	12,1%	0,2%	8,7%
Germany	2.187.066	8,0%	4,7%	19,9%	31,7%	1,4%	24,1%	4,4%	0,2%	5,6%
Italy	2.018.713	8,6%	6,2%	2,6%	57,2%	6,4%	5,6%	10,1%	0,0%	3,3%
UK	19.796.147	3,6%	4,3%	6,5%	14,6%	33,4%	11,0%	16,4%	2,9%	7,2%
UE	30.553.357	5,7%	5,7%	7,0%	22,3%	23,6%	11,9%	13,8%	1,9%	

Note: average 2001-2004, in percentage and thousands of 2004 euro. EVCA.

Table 4: PE Investments

Country	Average	per capita	over PIL
France	3.191.811	0,054	2,03%
Germany	1.846.081	0,022	0,85%
Italy	1.485.651	0,028	1,15%
UK	9.198.187	0,155	5,60%
UE	18.434.195	0,041	1,76%

***Note: average 2001-2004, in percentage
and thousand of 2004 euro. EVCA.***

Table 5: Composition of investments, by geo area

Country	Amount invested	(of which)		
		(domestic)	(international)	
			(UE)	(extra-UE)
France	3.191.811	93,0%	5,4%	1,6%
Germany	1.846.081	73,0%	20,9%	6,1%
Italy	1.485.651	92,4%	6,6%	1,0%
UK	9.198.187	54,1%	42,4%	3,5%
UE	18.434.195	70,6%	25,5%	3,8%

Note: average 2001-2004, in percentage and thousands of 2004 euro. EVCA.

Tabella 6: PE Investments, dimentionality, 2003 and 2004

Country	Investment	Number of firms		Amount				Average Amount	
		2003	2004	2003	2004			2003	2004
France	small	332	364	688.000	822.000	28,2%	23,2%	2.072	2.258
	medium	25	29	1.163.000	1.079.000	47,7%	30,5%	46.520	37.207
	big	3	3	585.000	590.000	24,0%	16,7%	195.000	196.667
	mega	0	2	0	1.046.000	0,0%	29,6%	Nd	523.000
	Total	360	398	2.436.000	3.537.000				
Germany	small	35	40	122.000	132.000	6,9%	4,9%	3.486	3.300
	medium	16	14	848.000	778.000	47,9%	29,0%	53.000	55.571
	big	2	3	452.000	727.000	25,5%	27,1%	226.000	242.333
	mega	1	3	350.000	1.047.000	19,8%	39,0%	350.000	349.000
	Total	54	60	1.772.000	2.684.000				
Italy	small	41	27	272.000	166.000	12,1%	18,1%	6.634	6.148
	medium	7	11	327.000	414.000	14,5%	45,2%	46.714	37.636
	big	3	2	614.000	335.000	27,2%	36,6%	204.667	167.500
	mega	2	0	1.043.000	0	46,2%	0,0%	521.500	nd
	Total	53	40	2.256.000	915.000				
UK	small	232	243	637.000	1.467.000	6,7%	9,7%	2.746	6.037
	medium	49	103	4.444.000	6.883.000	47,1%	45,5%	90.694	66.825
	big	7	15	2.778.000	3.615.000	29,4%	23,9%	396.857	241.000
	mega	4	7	1.585.000	3.161.000	16,8%	20,9%	396.250	451.571
	Total	292	368	9.444.000	15.126.000				
UE	small	948	982	2.875.000	3.942.000	15,6%	15,4%	3.033	4.014
	medium	126	197	8.151.000	10.377.000	44,2%	40,6%	64.690	52.675
	big	15	28	4.431.000	5.668.000	24,0%	22,2%	295.400	202.429
	mega	7	13	2.979.000	5.554.000	16,2%	21,7%	425.571	427.231
	Total	1.096	1.220	18.436.000	25.541.000				

Note: data in thousands 2004 euro. Definitions: small: lower than 15 million euro, medium: between 15 and 150, big: between 150 and 300, mega, beyond 300. EVCA.

Table 7: Composition by type

country		MBOs/MBIs	Expantion	LBO	Turnaround
France	<i>Number</i>	31	166	353	15
	<i>Average mount</i>	99.196	14.972	99.236	3.158
	<i>Median amount</i>	29.169	6.212	15.513	3.158
	<i>Total</i>	1.785.533	838.479	4.664.119	6.316
Germany	<i>Number</i>	5	16	26	0
	<i>Average mount</i>	nd	12.178	125.396	nd
	<i>Median amount</i>	nd	6.943	134.110	nd
	<i>Total</i>	nd	97.426	626.984	nd
Italy	<i>Number</i>	0	10	44	1
	<i>Average mount</i>	nd	25.919	20.758	nd
	<i>Median amount</i>	nd	7.181	10.653,5	nd
	<i>Total</i>	nd	103.679	332.133	nd
UK	<i>Number</i>	133	524	743	61
	<i>Average mount</i>	29.918	13.546	147.634	43.350
	<i>Median amount</i>	11.607	7.012	37.400	36.240
	<i>Total</i>	1.825.021	3.427.246	34.251.117	216.750
EU	<i>Number</i>	220	1.037	1.500	89
	<i>Average mount</i>	2.262	3.360	2.620	5.081
	<i>Median amount</i>	2.552	2.952	2.878	28.800
	<i>Total</i>	29	15	33	26
VentureXpert;					

Tabella 8: number of firms in PE, independent and specialized, EVCA 2005.

Country	Total	Indep. (%)	PE only (%)
Germany	80	55 (69%)	20 (25%)
France	63	39 (62%)	26 (41%)
Italy	19	13 (68%)	15 (79%)
UK	99	70 (71%)	53 (54%)
UE	511	342 (67%)	219 (43%)
<i>EVCA.</i>			

Table 9: Average Amount per PE firm

country	Amount, total and by firm type			
	Independent	Banks	Corporate	Public
France	1.114.181	1.098.817	129.348	nd
Germany	1.135.607	1.162.950	194.200	9.628
Italy	1.695.944	1.250.000	280.367	48.000
UK	2.549.704	2.811.636	31.000.000	35.000
UE	760.643	532.347	1.976.407	83.888
EVCA				

Going back to the three papers:

1. Axelson et al.

- They construct a new dataset of PE buyouts sponsored by some of the largest private equity houses and they study the financial structure of firms that have been acquired by PE.

However: there is not a clear discussion regarding the sample bias. It is important to look at the dimension of the phenomenon at a macro level to understand whether the sample is representative, by country and sector at least.

After describing the way in which leverage is used in financial buyouts they compare the firms acquired by private equity funds to comparable firms that are publicly traded

- Some doubts on the matching methodology: the fact that the financial structure of the firms pre-LBO (for a sub-set of the sample) does line up cross-sectionally with matched industry median does not clearly tell us that the match has been done accurately.
- We need a multi-dimensional matching...what about propensity score or alternative matching functions?

2. Cummings et al.

- a. nice but very preliminary paper (just finished to gather data). Almost a natural experiment if the authors were to spend some time in understanding what happens before and after 2001 new legislation
- b. See how different is the number of PE firms in EVCA and in AIFI
- c. Again: high response rate... but the one who responded are representative? Are they all still alive?
- d. Still preliminary empirical results.

At least:

1. cluster standard error
2. look at correlation between dummy bubble and dark period.
Almost same period
3. Look at who partially completed the survey. You can get nice infos from them
4. banks and who else? Usually captive versus private..
5. are the three periods really comparable??

3. Bongaerts et al

- They study a very important issue that banks are discussing : evaluates the consistency of Basel II and the Capital Requirements Directive (CRD)
- As above: check Datasteam data with other sources of data. Not clear to me that you decide to multiply the data by 1000 or 1 million...
- Great need of robustness checks
- Great need of discussing why is it the case that , depending on the definition of equity we find different results. Which is the economically relevant definition?
- How much the results depend on the model and the calibration of the model. Again robustness checks are needed.