

# SME Financial Transformation on the JSE Junior Market

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### Problem and Research Question

- 1. Traditional theories look at the implications of capital structure for cost of capital but overlook implications for firm growth (Modigliani & Miller, 1958; Myers & Majluf, 1984; Berger & Udell, 1998)
- 2. IPOs of SMEs on the JSE Junior Market provide a unique opportunity to re-examine the theoretical assumptions that (i) capital structure is irrelevant in an environment free from corporate income tax and (ii) firms focus on cost of capital when deciding capital structure.
- 3. Do SMEs increase profitability after financial transformation (radical change in capital structure) by way of initial public offer on Jamaica Stock Exchange Junior Market?
- 4. This is the first academic study of the JSE Junior Market and extends finance literature by revealing that capital structure remains relevant for firm profitability in an environment free from corporate income tax.



# Theories and Hypothesis

#### THEORIES OF CAPITAL STRUCTURE – focus on cost of capital

- Modigliani and Miller (1958: 292) in an income tax free environment, "the type of instrument used to finance an investment is irrelevant to the question of whether or not the investment is worthwhile."
- Pecking Order Theory: Firms use external equity financing as a last resort (Myers & Majluf, 1984).
- The Life Cycle Theory: SMEs use external equity at the late growth or mature stages of their development (Berger & Udell, 1998).

#### THE RESOURCE BASED VIEW – focuses on firm growth

- Competitive advantage and profitable growth arises from the way the firm combines its resources (Penrose, 1959; Wernerfelt, 1984)
- The sustainable rate of growth in annual sales is constrained by the availability of financial resources (Higgins, 1977)
- Lang, Ofek and Stultz (1996) observed a negative relationship between leverage and firm growth.

H1: For SMEs undertaking initial public offer, there is a negative relationship between financial leverage (EM) and profitability (ROA)



Panel Model

 $ROA_{i,t} = \theta_0 + \theta_1 EM_{i,t} + \theta_2 logSales_{i,t} + \theta_3 SG_{i,t} + \varepsilon_{i,t}$ 

where,

 $B_0$  is the constant of the regression equation ROA<sub>i,t</sub> is profitability for firm i in time t EM<sub>i,t</sub> is capital structure for firm i at time t logSales<sub>i,t</sub> is the size of firm i in time t SG<sub>i,t</sub> is sales growth for firm i in time t  $\epsilon_{i,t}$  is the error term



Methodology

- 1. Similar to Abor (2005)
- 2. Ex post facto using secondary panel data from a purposive sample of firms on the JSE Junior Market
- 3. 21 SMEs observed from two years before IPO to three years after (121) observations in unbalanced panel dataset)
- 4. Descriptive statistics
- 5. Correlation coefficients
- 6. Fixed effects panel data analysis

### Measures:

- Profitability (ROA)
- Financial Leverage (EM = Assets/Equity)
- Firm Size (logSales)
- Sales Growth (SG = revenue change)









Age of Firm at IPO







Main Variables





# Descriptive Statistics

Variable		Mean	Std. Dev.	Min	Max
ROA	overall	0.14	0.27	-0.82	2.46
	between		0.09	-0.09	0.28
	within		0.25	-0.90	0.48
EM	overall	3.51	6.63	-6.21	61.06
	between		3.81	1.19	19.32
	within		5.39	-14.66	45.29
SG	overall	0.35	1.17	-0.39	12.29
	between		0.45	0.04	2.12
	within		1.08	-1.79	10.52
logsales	overall	6.50	1.27	3.53	9.20
	between		1.19	4.50	8.85
	within		0.50	4.63	7.71



# Correlation Coefficients

	ROA	SG	EM	LOGSALES
ROA	1.000			
SG	0.216**	1.000		
	(.000)			
	0 1 7 7 *	0 0 2 7	1 000	
EIVI	-0.177*	-0.027	1.000	
	(.056)	(.727)		
	0.062	0 0 2 7	0 0 0 0	1 000
LUGSALES	-0.062	-0.037	-0.088	1.000
	(0.504)	(.691)	(.342)	
ROE	0.364***	-0.085	0.4273***	-0.155*
	(.000)	(.388)	(.054)	(.094)

\* P <.10, \*\* p <.05, \*\*\* p<.001



### Panel Regression Results

ROA	Coefficient	Robust Std. Err	t	P> t	[95% Co Inte	nfidence rval]
EM	-0.007	0.002	-3.24	0.004	-0.011	-0.002
SG	0.018	0.005	3.49	0.002	0.007	0.029
logsales	-0.001	0.018	0.04	0.969	-0.036	0.038
Constant	0.153	0.117	1.30	0.207	-0.092	0.397
sigma_u	0.092					
sigma_e	0.095					
rho	0.483	(fraction of variance due to u_i)				

Model Diagnostics			
Observations (n)	117		
Number of Groups	21		
Observations per	Min = 3		
Group	Average = 5.6		
	Max = 6		
<i>R</i> <sup>2</sup>	Within: 19.0%		
	Between: 0.15%		
	Overall: 6.2%		
F (3.20):21.92	p-value 0.000		



# Discussion

#### <u>Findings</u>

- 1 The answer to the RQ might be **YES**! There is a negative relationship between profitability and leverage
- 2 No support for M&M (1958). The firm's goal is growth not lowest cost of capital
- 3 No support for pecking order theory, Myers & Majuf (1984)
- 4 Support for life cycle theory (Berger & Udell, 1998). Most IPO firms are over 5 years old and over \$300 million in assets

### **Implications**

IPO is a channel to increase firm profitability and reduce financial risk

Capital structure is not irrelevant in a climate free from corporate income tax

External equity is not the last resort when growth is the goal of the firm

Older firms use external equity financing



# Thank You!