

Topics in Asset Pricing

Lecture 4: Real Effects

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Non-financial firms as arbitrageurs

▶ How?

- Issue/repurchase shares (“market timing”)

▶ Why?

- Lower transaction costs
- Less constrained

▶ Incentives?

- Suppose $P > V$ and manager can issue equity E
- Case 1: Manager maximizes existing shareholders' long term value

Solution:

- Case 2: Manager maximizes existing shareholders' short term value

Solution:

Baker and Wurgler (2000)

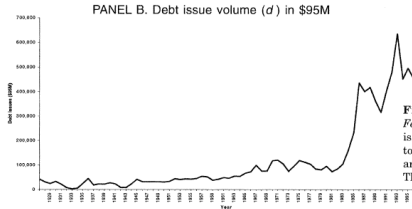
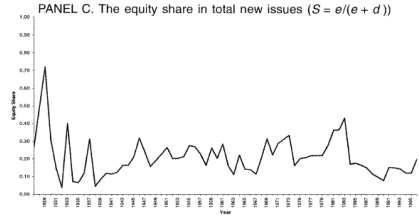
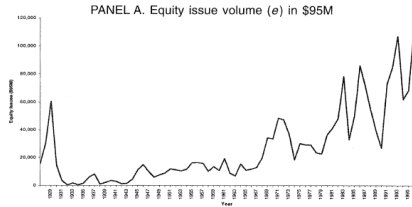


Figure 1. Equity and debt issues, 1927-1996. Equity and debt issue volumes are from the *Federal Reserve Bulletin*. The equity series (A) includes both common and preferred equity issues. The debt series (B) includes both public and private debt issues. The equity share in total new issues (C) is the fraction of equity issues in total issues. The equity and debt series are converted to 1995 dollars using the Consumer Price Index from Ibbotson Associates (1998). The data are available at the second author's web page, currently <http://som.yale.edu/~jaw52>.

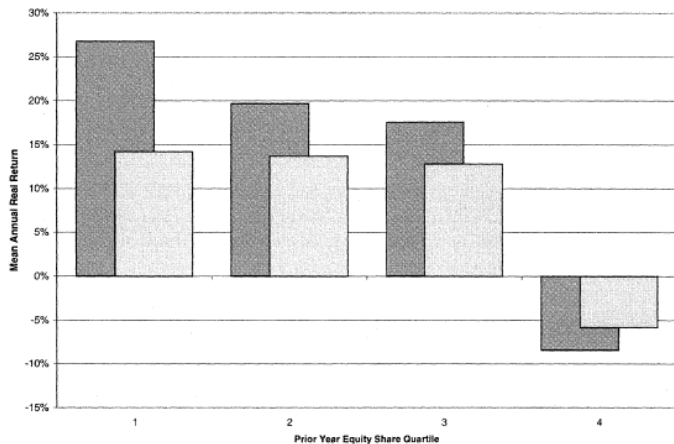


Figure 2. Mean equity returns by prior-year equity share in new issues, 1928-1997. Mean annual real returns on the CRSP value-weighted (light) and equal-weighted (solid) indexes by quartile of the prior-year share of equity issues in total equity and debt issues. Real returns are created using the Consumer Price Index from Ibbotson Associates (1998).

Real effects

- ▶ Previously: mispricing → capital structure
- ▶ What about: mispricing → capital budgeting?
 - ▶ Investment: present value V , convex cost $\frac{I^2}{2}$
 - ▶ Market: biased valuation $V^b \neq V$
 - ▶ Case 1: Manager maximizes long term value
 - ▶ Case 2: Manager maximizes short term price

[see Baker and Wurgler (2013) for a survey]

Real effects

- ▶ How to interpret investment reacting to stock price?
 - Manager short-termism
 - Learning
 - Risk (\sim low investment anomaly)

E.F. Fama, K.R. French / Journal of Financial Economics 123 (2017) 441–463

<i>Panel A: Means and standard deviations of factor returns</i>											
	<i>Mkt</i>	<i>SMB</i>	<i>HML</i>	<i>RMW</i>	<i>CMA</i>	<i>Mkt</i>	<i>SMB</i>	<i>HML</i>	<i>RMW</i>	<i>CMA</i>	
	<i>North America</i>						<i>Europe</i>				
<i>Mean</i>	0.62	0.17	0.20	0.34	0.29	0.47	0.05	0.32	0.41	0.20	
<i>Std Dev</i>	4.30	2.81	3.25	2.45	2.70	5.01	2.23	2.42	1.50	1.87	
<i>t-Mean</i>	2.53	1.05	1.08	2.46	1.86	1.64	0.39	2.30	4.76	1.89	
	<i>Japan</i>						<i>Asia Pacific</i>				
<i>Mean</i>	0.01	0.09	0.36	0.13	0.08	0.71	-0.08	0.59	0.21	0.39	
<i>Std Dev</i>	5.94	3.35	2.84	2.19	2.46	6.06	3.01	3.05	2.90	2.66	
<i>t-Mean</i>	0.04	0.46	2.19	1.03	0.59	2.05	-0.44	3.38	1.25	2.60	

Dessaint, Olivier, Otto, Thesmar (2020)

- ▶ Bidders in M&As use CAPM, whereas actual SML is flat
- ▶ Toy model

V^{bidder} : market valuation of bidder

V : market valuation of target (flat SML)

\tilde{V} : bidder's valuation of target (CAPM)

π : fraction acquired

ρ : proba deal completion

\Rightarrow Bidder's announcement CAR =

Panel A	(1)	(2)	(3)
Sample:	Private and Public Targets		
Dependent Variable:	WACC Used in DCF Analysis (in Percentage Points)		
Target Asset Beta	3.03*** (5.76)	3.69*** (12.92)	3.99*** (11.19)
Beta Spread			-1.81** (-2.46)
Deal Value (Log)		-1.30*** (-8.90)	-1.30*** (-9.17)
Public Target		-0.88*** (-2.85)	-0.94*** (-2.99)
Year FE	Yes	Yes	Yes
Observations	1,174	1,174	1,171

Panel B	(1)	(2)	(3)
Sample:	Private and Public Targets		
Dependent Variable:	Deal Value (Log)	FV/Sales	FV/EBIT
Target Asset Beta	-0.20*** (-2.63)	-2.58*** (-2.72)	-8.47*** (-2.66)
Bidder SDC Industry \times Year FE	Yes	Yes	Yes
Deal Controls	Yes	Yes	Yes
Target Controls	Yes	Yes	Yes
Bidder Controls	Yes	Yes	Yes
Observations	18,370	4,196	3,116

	(1)	(2)	(3)	(4)	(5)
Sample:		Private Targets			
Dependent Variable:		Bidder CAR (in Percentage Points)			
Target Asset Beta	1.02*** (3.02)	1.34*** (4.20)	1.73*** (4.72)	1.49*** (4.14)	2.55*** (5.06)
Beta Spread					-1.36*** (-2.60)
Deal Value (Log)		0.66*** (7.37)	0.65*** (7.34)	0.59*** (6.82)	0.59*** (6.69)
Equity		0.59** (2.24)	0.60** (2.26)	0.57* (1.87)	0.51* (1.69)
Cash		0.30 (1.07)	0.28 (0.98)	0.48 (1.45)	0.44 (1.34)
Toehold		-0.08 (-0.20)	-0.15 (-0.36)	-0.11 (-0.26)	-0.10 (-0.24)
Hostile		-2.26** (-2.19)	-2.44** (-2.26)	-2.82** (-2.26)	-3.22*** (-2.76)
Same Industry		0.11 (0.65)	0.12 (0.71)	0.12 (0.82)	0.14 (0.96)
Crossborder		-0.14 (-0.63)	-0.14 (-0.61)	-0.06 (-0.26)	-0.09 (-0.37)
Poison		-0.60 (-0.87)	-0.66 (-0.90)	-0.51 (-0.49)	-0.47 (-0.45)
Tender		-0.30 (-0.29)	-0.36 (-0.34)	-0.57 (-0.49)	-0.72 (-0.63)
Multiple Bidders		-0.40 (-0.54)	-0.38 (-0.51)	0.07 (0.09)	0.03 (0.04)
Relative Size		-0.06*** (-7.25)	-0.06*** (-7.20)	-0.06*** (-7.51)	-0.06*** (-7.59)
Bidder Size (Log)		-0.94*** (-12.40)	-0.94*** (-12.33)	-0.96*** (-12.50)	-0.96*** (-12.56)
Bidder SDC Industry × Year FE	Yes	Yes	Yes	Yes	Yes
Target Controls	No	No	Yes	Yes	Yes
Bidder Controls	No	No	No	Yes	Yes
Observations	13,916	13,599	13,486	12,209	12,109



References

- ▶ Baker and Wurgler 2000. The equity share in new issues and aggregate stock returns. *Journal of Finance*
- ▶ Baker and Wurgler 2013. Behavioral corporate finance: an updated survey. *Handbook of the Economics of Finance*
- ▶ Dessaint, Olivier, Otto and Thesmar 2018. CAPM-based company (mis)valuations. *Working Paper*