The Challenges of Publishing in Top-Tier Finance Journals

First Meeting of the Association of Behavioral Economics

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University of Utah
and
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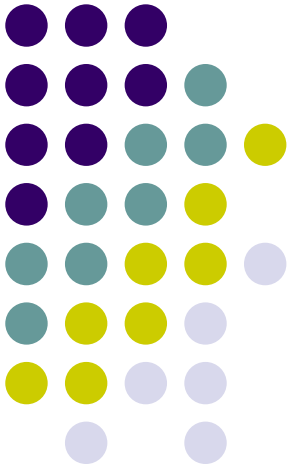
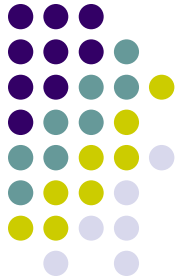


Publishing in top-tier finance journals



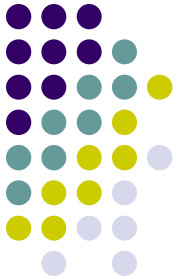
- Bad News.
- And
- Good News.

- Lets start with the bad news first.

Publishing in general is difficult

- “Production in the Finance Literature, Institutional Reputation, and Labor Mobility in Academia: A Global Perspective,” Kam C. Chan, Carl R. Chen, and Thomas L. Steiner, Financial Management, Volume 31, Number 4, Winter, 2002

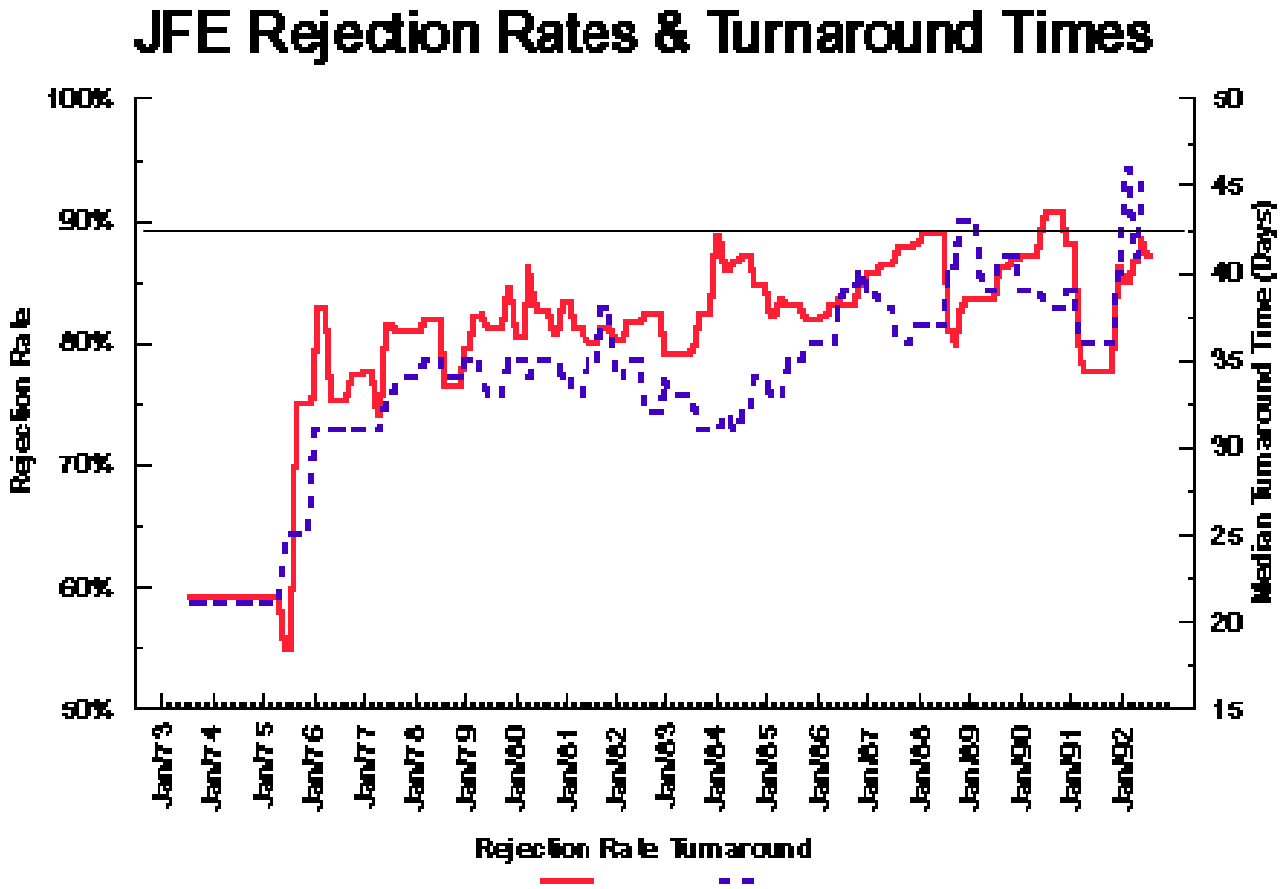
Number of publications in 16 academic journals



- Out of 4,990 unique authors, 55% published only one article over the twelve year period.
- 71% published no more than two articles.
- The top 5% published 8 or more articles.
- Publishing is hard work!

Why not publish in top-tier journals?

- It is harder to do in the top journals.



Why not publish in top-tier journals?

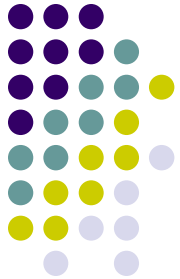
- And it is not getting any easier.

2006 Rejection Rates of Top Finance Journals

	JF	JFE	RFS
Rejection Rate	92.86%	88.50%	86.17%

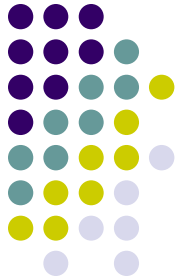
- So, what's the good news?

Why you might want to publish in top-tier journals



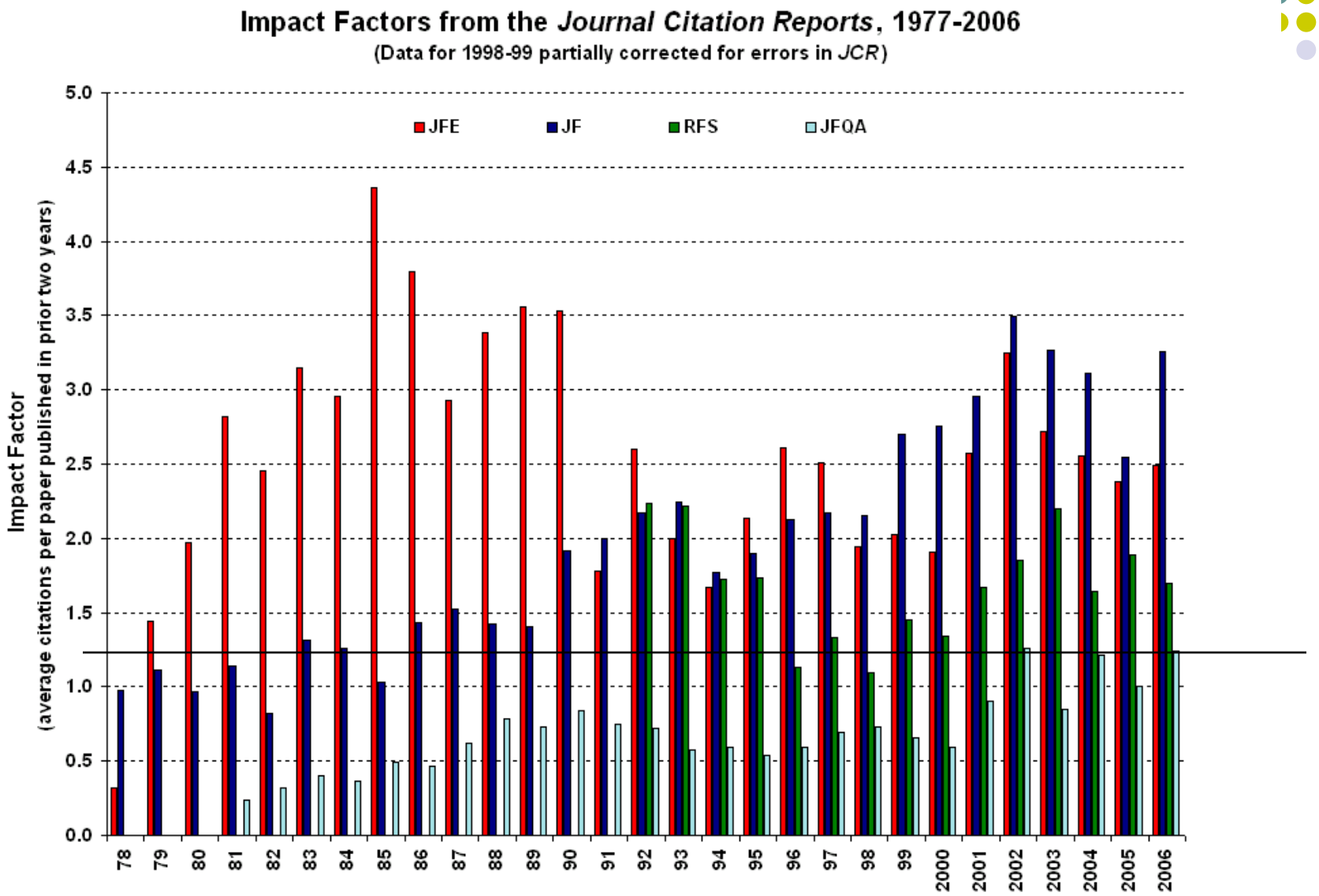
- Publishing and mobility.
- All else equal…..
- Publication record strongly related to ability to “move up” to a higher ranked institution.
- Even stronger effect for publications in top-tier journals.

Why you might want to publish in top-tier journals



- Publishing and wages.
- “The Value of a Finance Journal Publication,” Swidler and Goldreyer, Journal of Finance, Volume 53, Number 1, February 1998.
- All else equal…..
- Value of a first top-tier publication is as high as $33,754 (USD).
- Additional large returns to subsequent publications.

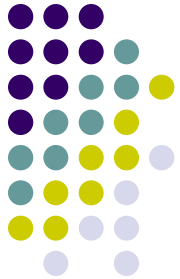
Your work is simply more visible



How do you publish?

- Choose a good question to answer.
  - Try to address fundamental questions in finance and economics.
- Be careful of the latest “hot” topic. For example, publishing a paper on the book-to-market effect in investments or the diversification “discount” in corporate finance is likely to be difficult unless you have a pretty unique twist.
- Don’t look for data first and then try to find something to do with it.
- Do look for unique institutional details or different ways to use the data that might allow for powerful tests of interesting hypotheses.

Examples using Japanese data



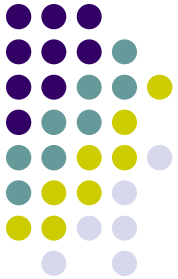
- Kato, Lemmon, Luo, and Schallheim (2005, JFE)
  - Exploits the rule change allowing the use of employee stock options in Japan in 1997 to examine several hypotheses about why firms grant stock options to employees.
- Gan (forthcoming, JFE and RFS)
  - Uses the decline in property values in Japan in the 1990's to identify a supply shock to lenders and traces the impact on corporate borrowers.

More publishing tips

- Tips from Rene Stulz (http://www.jfe.rochester.edu)

- Writing tips and paper topics from John Cochrane (http://faculty.chicagogsb.edu/john.cochrane/research/Papers/)

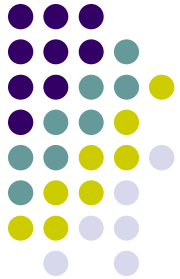
Empirical Corporate Finance



- Capital Structure
- Ownership Structure
- Payout Policy
- M & A

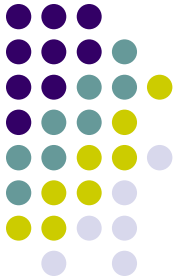
- Many stylized facts:
- Event studies
- Cross-Sectional Regressions
  - Performance on structure (e.g., Tobin's Q on ownership)
  - Structure on Structure (e.g., Poison pill on ownership)

Competing Theories



- In many cases there are competing explanations that are consistent with the documented facts.
  - Not always mutually exclusive.
  - An important issue is to carefully distinguish between alternative explanations of the observed phenomena.
  - I will call this the identification issue.
  - Disclaimer: I am not attempting to advocate for either traditional or behavioral approaches. I think both are quite useful.

Stock Returns Around Seasoned Equity Issues



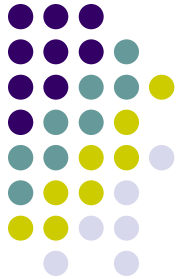
- Traditional View:
- Myers and Majluf (1984).
  - With asymmetric information an equity issue conveys bad news to the market.
  - Prices adjust immediately at the announcement.
  - No abnormal returns following equity issues.

Stylized Facts

- Large pre-issue runup.
  - 93% in year prior to issue (Loughran and Ritter (1997)).
- -2% to -3% price drop at announcement.
- Post Issue underperformance (Loughran and Ritter (1995)).

	First 6 Months	Second 6 Months	First Year	Second Year	Third Year	Fourth Year	Fifth Year	Geometric Mean, Years 1–5
Panel B. Firms Conducting SEOs								
(5) SEO firms (%)	5.6	0.5	6.6	0.1	7.5	9.1	11.8	7.0
(6) Matching firms (%)	5.7	6.8	12.9	12.3	16.2	17.7	17.4	15.3
(7) *t*-Statistic for difference	−0.22	−9.00	−5.59	−12.24	−8.08	−7.35	−4.50	−16.80
(8) Sample size	3,469	3,550	3,561	3,614	3,496	3,154	2,805	3,702

Stock Returns Around Seasoned Equity Issues

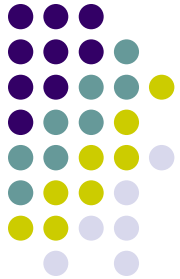


- The “New” View
- Investors become overoptimistic about some firms and push values away from fundamentals.
- Managers take advantage of these “windows of opportunity” and issue overvalued equity.
- The market reacts only partially at the announcement.
- Value continues to drift back toward fundamentals in the long run.

Behavioral Theory

- Daniel, Hirshleifer, and Subramanyam (1998).
- Investors are overconfident and have biased self attribution.
  - Good luck is skill, bad luck is just bad luck.
- Shows how underreaction can be generated by behavioral biases when arbitrage is limited.
  - Because of overconfidence investors underreact to equity issue announcement.
  - Only as more bad news accumulates do they revise downward their beliefs.

What should we really expect in an efficient market?



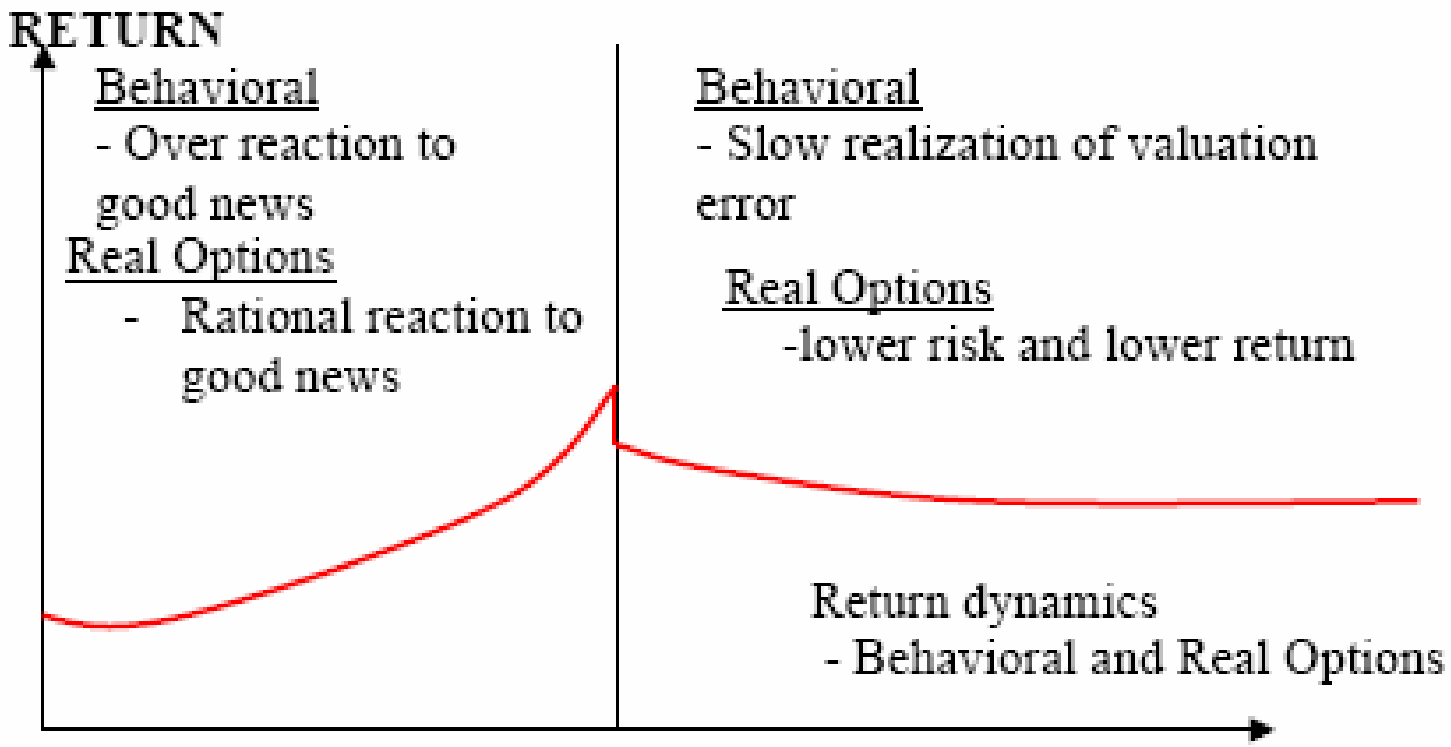
- Carlson, Fisher, and Giamarrino (2006).
- Real options model of firm.
- Firm consists of assets in place and an option to expand.
  - Two types of firms in the economy.
- Investors revise their beliefs over time about the value of the growth option.
- The growth option is a levered position.
  - When the option is exercised, the risk of the firm falls.
  - Standard matching techniques are not adequate to capture risk differences.

Calibrated Real Options Model

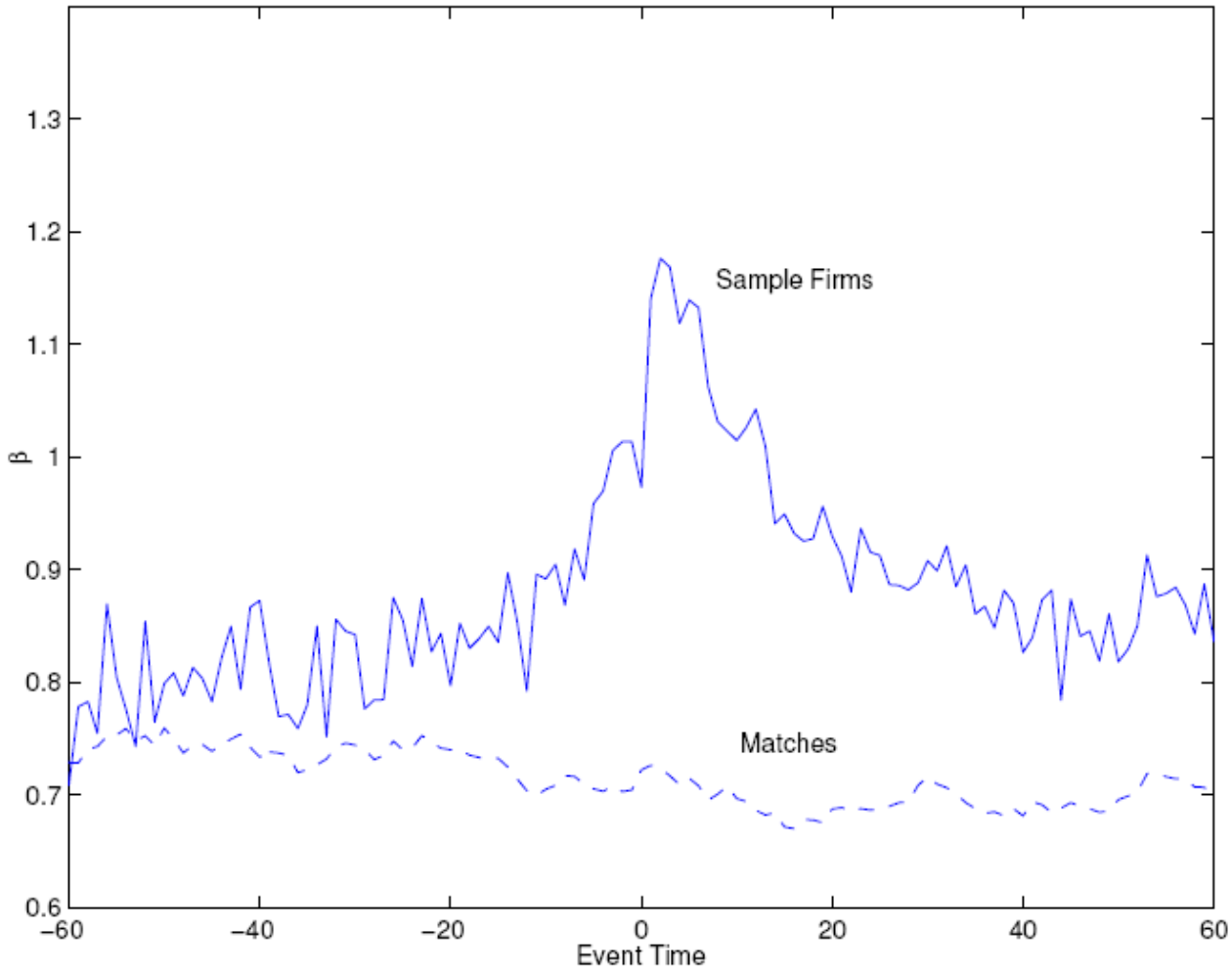
Carlson, Fisher, Giamarrino (2006)

- Where do the theories differ?
- Not clear what the behavioral theory says about dynamics of risk around equity issues.
- Real-options model says risk increases prior to issue and falls afterward.

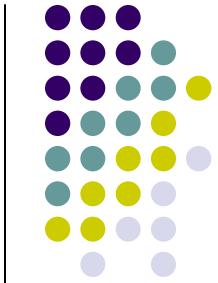
Carlson, Fisher, Giamarrino (2006)



Beta dynamics around new issues



Capital Structure

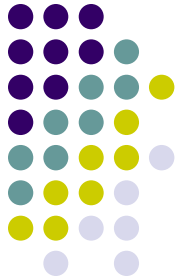


- Traditional Theories
  - Tradeoff theory (DeAngelo and Masulis) (Tax benefits versus distress and agency costs).
  - Target capital structure.
  - Pecking order (Myers) (information problems lead to financing hierarchy: Internal funds, then debt, then equity).
- New “Behavioral” Theories
  - Market timing (Baker and Wurgler) (firms issue equity when their valuations are high and do not subsequently rebalance).
  - Inertia (Welch 2004) (the primary determinant of a firm’s current leverage is past stock returns).

Capital Structure

- Traditional tradeoff view of capital structure implies that firms rebalance their debt ratios in response to shocks.
- This implication has been questioned by recent empirical evidence.
- Lets review the stylized facts.

Partial Adjustment Models and Slow Adjustment



- Fama and French (2002): Leverage is slow to mean revert.
- Partial Adjustment Models

$$\Delta Leverage_t = \alpha + \beta\left(Leverage_{t-1} - Target_{t-1}\right) + \varepsilon_t$$

- Estimates of β range from 10-16% → "Mean reversion is at a snail's pace"

Market Timing and Capital Structure

- Baker and Wurgler (2002): Firms fail to respond to timed equity issuances.
  - Managers time the market and issue equity when stock prices are high.
  - They do not appear to rebalance at other times.
  - Firms that have more market timing opportunities end up with low leverage.

Market Timing and Capital Structure

- Form a variable called external finance weighted market-to-book.

$$\left(\frac{M}{B}\right)_{efwa,\,t-1} = \sum_{s=0}^{t-1} \frac{e_s + d_s}{\sum_{r=0}^{t-1} e_r + d_r} \cdot \left(\frac{M}{B}\right)_s,$$

- Takes on higher values if the firm raises external finance when market-to-book ratios are high.
  - Under the market-timing hypothesis this variable is negatively related to leverage.

Market Timing and Capital Structure

$$\left(\frac{D}{A}\right)_t = a + b\left(\frac{M}{B}\right)_{efwa,t-1} + c\left(\frac{M}{B}\right)_{t-1} + d\left(\frac{PPE}{A}\right)_{t-1} + e\left(\frac{EBITDA}{A}\right)_{t-1} + f\ \log(S)_{t-1} + u_t.$$

		$M/B_{efwa,t-1}$		M/B_{t-1}		PPE/A_{t-1} %		$EBITDA/A_{t-1}$ %		$\log(S)_{t-1}$		
Year	N	b	$t(b)$	c	$t(c)$	d	$t(d)$	e	$t(e)$	f	$t(f)$	R^2
Panel A: Book Leverage %												
IPO + 1	2,652			−4.36	(−15.59)	0.13	(7.30)	−0.22	(−6.44)	5.00	(16.40)	0.25
IPO + 3	2,412	−4.93	(−8.40)	−0.86	(−1.50)	0.12	(6.63)	−0.31	(−7.41)	4.62	(15.53)	0.25
IPO + 5	1,668	−6.49	(−9.78)	0.05	(0.07)	0.12	(5.74)	−0.32	(−7.18)	4.30	(12.40)	0.26
IPO + 10	715	−10.81	(−10.59)	3.71	(3.23)	0.12	(3.65)	−0.38	(−5.01)	2.67	(4.82)	0.23
1980–1999 All firms	31,151	−7.21	(−21.20)	2.20	(3.38)	0.04	(3.62)	−0.48	(−7.20)	2.84	(21.79)	0.20

Inertia and Capital Structure

- Welch (2004): Firms fail to respond to equity shocks.
  - Although they do actively issue securities.

$$\mathrm{ADR}_t \equiv \frac{D_t}{E_t + D_t}, \qquad \mathrm{IDR}_{t,t+k} \equiv \frac{D_t}{E_t \cdot (1 + x_{t,t+k}) + D_t},$$

$$\mathrm{ADR}_{t+k} = \alpha_0 + \alpha_1 \cdot \mathrm{ADR}_t + \alpha_2 \cdot \mathrm{IDR}_{t,t+k} + \epsilon_t,$$

perfect readjustment hypothesis: $\alpha_1 = 1,\ \alpha_2 = 0,$

perfect nonreadjustment hypothesis: $\alpha_1 = 0,\ \alpha_2 = 1.$

Inertia and Capital Structure

TABLE 3

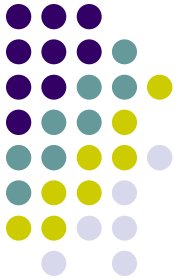
FAMA-MACBETH REGRESSIONS EXPLAINING FUTURE ACTUAL DEBT RATIOS ADR_{t+k} WITH DEBT RATIOS ADR_t AND STOCK RETURN–MODIFIED DEBT RATIOS $IDR_{t,t+k}$

Horizon k (Fama-MacBeth)	Constant	$IDR_{t,t+k}$	ADR_t	R^2 (%)	Cross-Sectional Regressions
		A. Without Intercept			
1-year		102.1 (1.4)	−.5 (1.4)	96.8	87
3-year		94.6 (2.1)	9.5 (2.1)	90.4	85
5-year		86.7 (2.8)	18.7 (2.1)	86.5	83
10-year		68.3 (4.6)	37.7 (1.8)	80.0	28
		B. With Intercept			
1-year	2.7 (.1)	101.4 (1.3)	−5.3 (1.2)	91.3	87
3-year	6.8 (.3)	94.4 (1.5)	−4.2 (1.4)	78.4	85
5-year	9.3 (.4)	86.9 (2.1)	−.5 (1.6)	70.2	83
10-year	13.8 (.6)	70.8 (3.7)	+6.9 (2.7)	56.0	28

Capital Structure

- The common theme of these findings is that shocks to leverage have a persistent effect.
- The recent studies view this evidence as contrary to the predictions of the tradeoff theory.
- How strongly should we view this evidence as proof of the demise of the tradeoff theory?

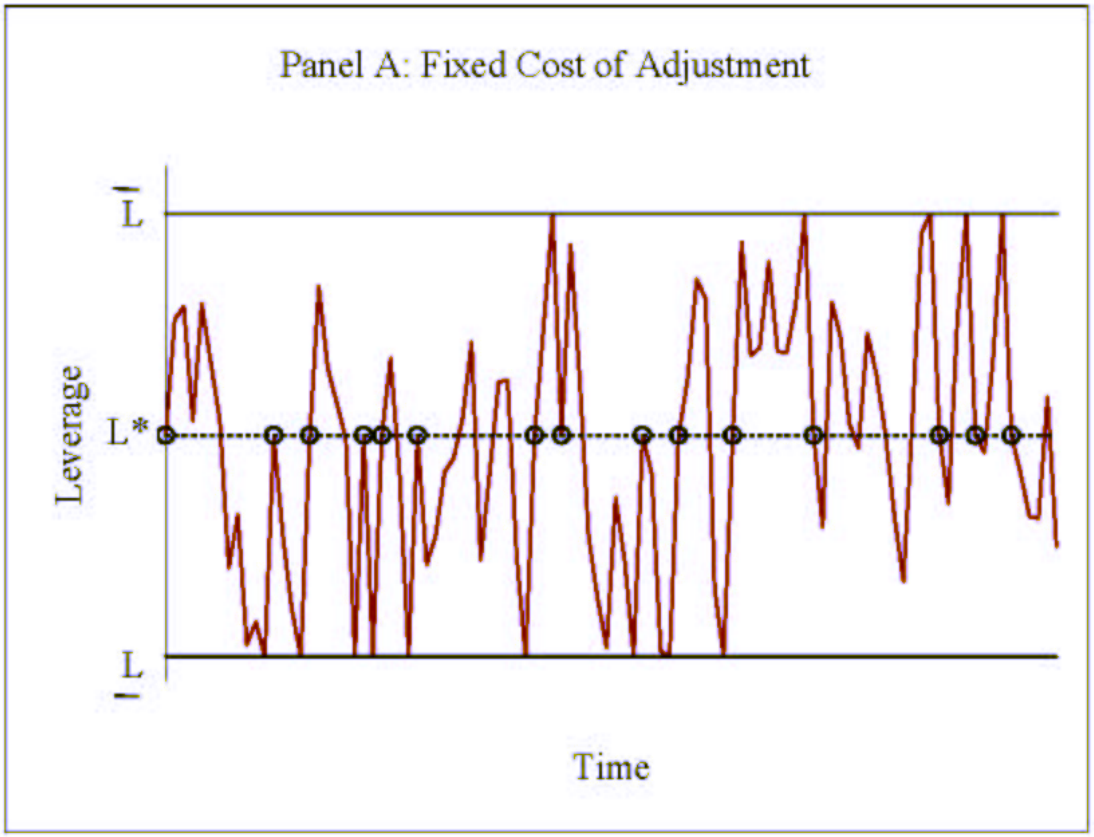
Leary and Roberts (2005, JF) Do Firms Rebalance Their Capital Structures?



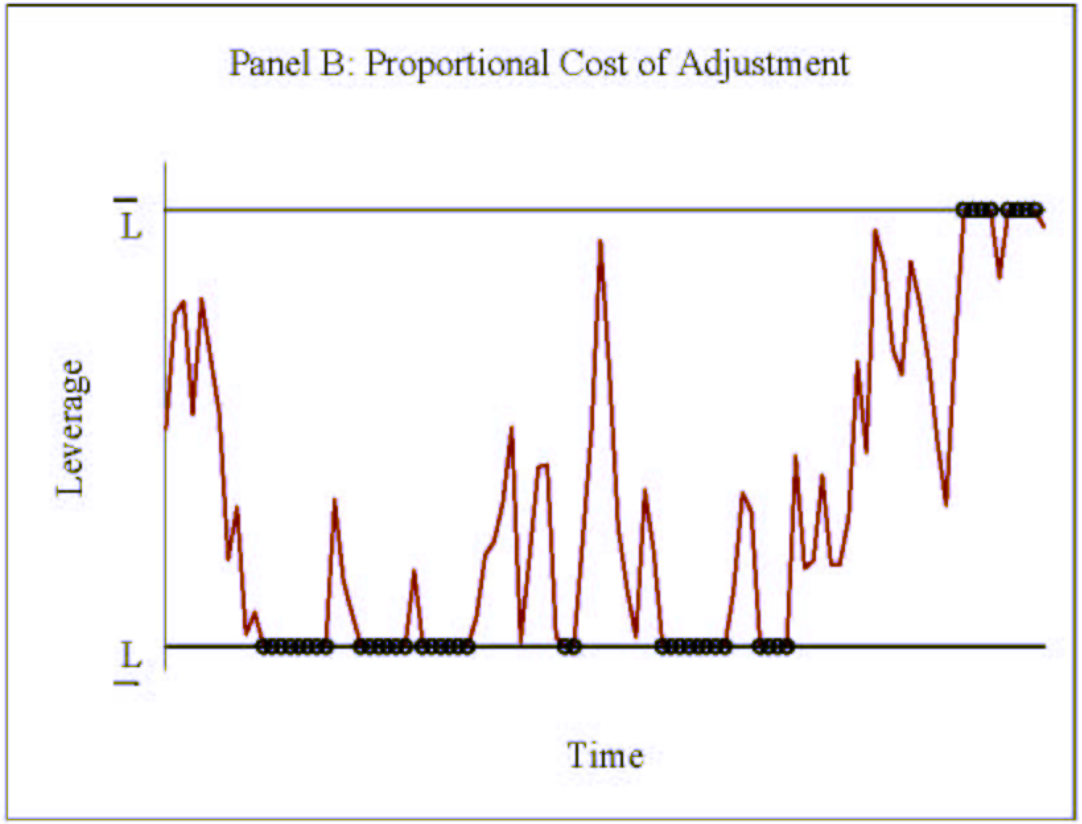
- Lets suppose a world where the tradeoff theory holds (i.e., there is a target capital structure), but there are transactions costs of rebalancing (e.g., fixed costs of issuing securities)
- What should the dynamics of leverage look like in this world?
  - Depends on the form of transactions costs.
  - Fixed.
  - Proportional.
  - Combination.

Leverage Dynamics with Adjustment Costs: Fixed Costs

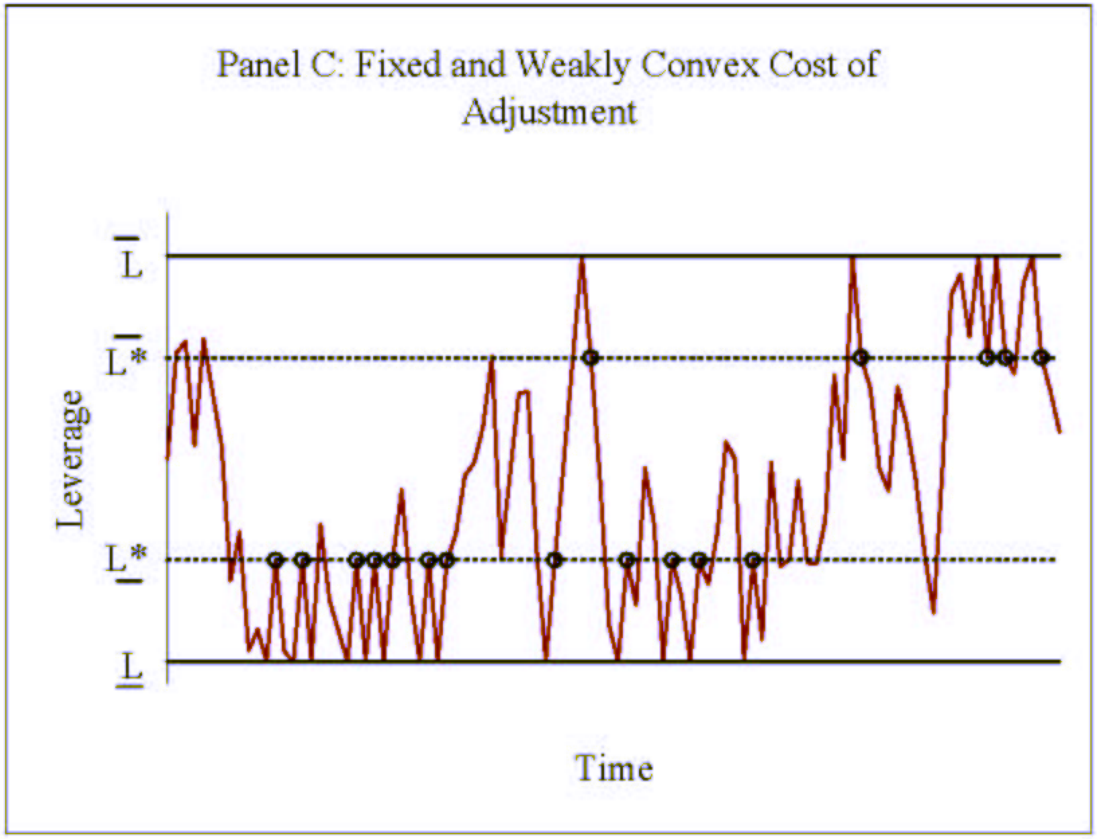
- Fischer, Heinkel & Zechner (1989)



Leverage Dynamics with Adjustment Costs: Proportional Costs

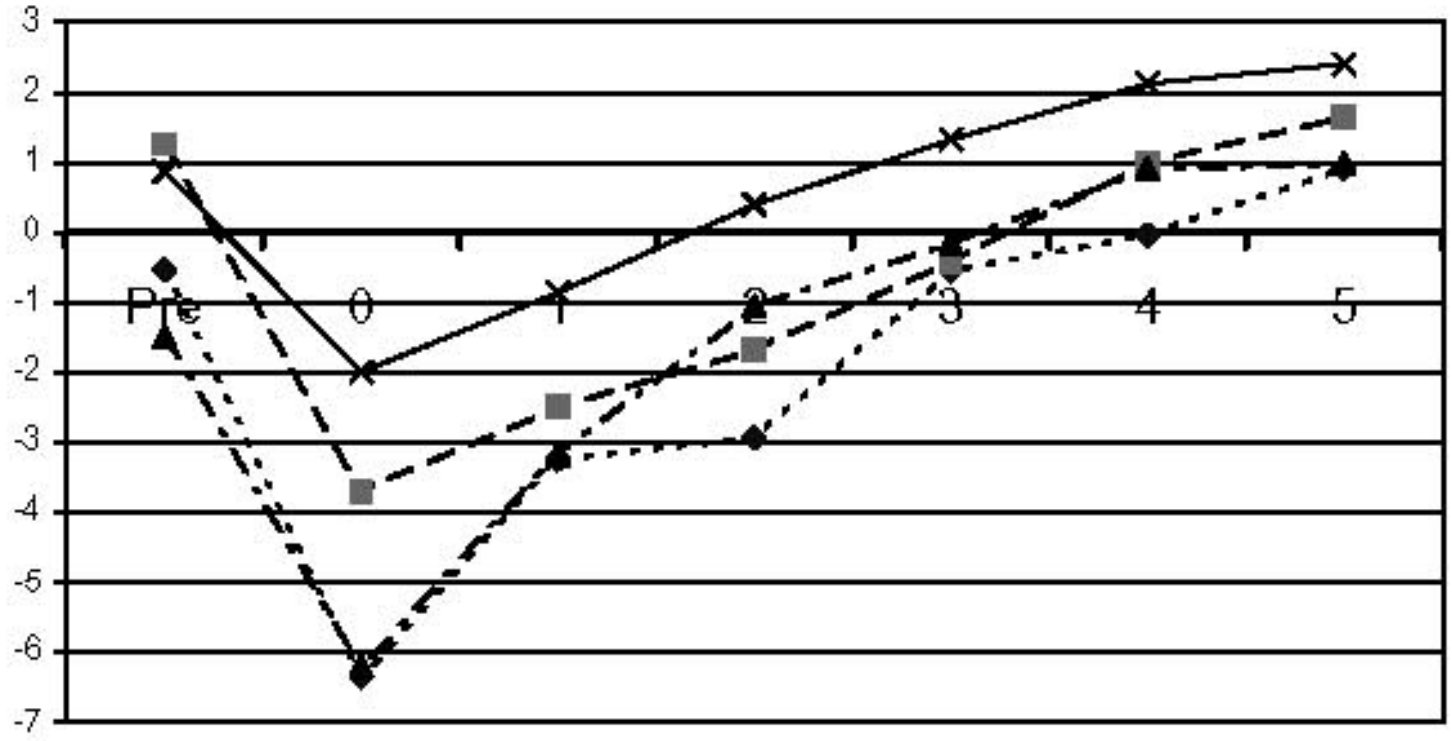


Leverage Dynamics with Adjustment Costs: Fixed and Weakly Convex



Implications for Market Timing: Response to Equity Issuances

Matched Sample Comparison
of Leverage for Equity Issuers
vs. Non-issuers



Implications for Market Timing:
Impact of Adjustment Costs on Market Timing

Baker & Wurgler (2002) All Firms Regression

$$Lev_t = \beta_0 + \beta_1 EFWA_{t-1} + \beta_2 \left(MA/BA\right)_{t-1} + \beta_3 \left(PPE/BA\right)_{t-1} + \beta_4 \left(EBITDA/BA\right)_{t-1} + \beta_5 Size_{t-1} + \varepsilon_t$$

Estimated Underwriter Spread	EFWA Coefficient (β_1)	Z-Sore	EFWA Coefficient (β_1)	Credit Rating	EFWA Coefficient (β_1)
High Cost	-10.04	High Cost	-8.15	High Cost	-9.32
Med Cost	-7.42	Med Cost	-8.94	----------	---------
Low Cost	-5.18	Low Cost	-5.64	Low Cost	-6.39

- Firms “time” equity markets and this effect is persistent.
- But, persistence more likely due to adjustment costs, as opposed to indifference.
- And, firms appear to rebalance fairly quickly (~ 2 years).

Implications for Inertia: Statistical Power of Welch's Empirical Model

Welch (2004) Empirical Model

$$\frac{D_{t+k}}{D_{t+k}+E_{t+k}} = \alpha_0 + \alpha_1 \frac{D_t}{D_t+E_t} + \alpha_2 \frac{D_t}{D_t+E_t\left(1+r_{t,t+k}\right)} + \varepsilon_{t,t+k}$$

Horizon (k)		Welch (2004) Results			
		α_0	α_1	α_2	R^2
1-Year		0.03	-0.05	1.02	0.91
3-Year		0.07	-0.04	0.94	0.78
5-Year		0.09	-0.01	0.87	0.70
10-Year		0.14	0.07	0.71	0.56

- Empirical model has no power against alternative of tradeoff theory with adjustment costs.

Implications for Inertia: Statistical Power of Welch's Empirical Model

Welch (2004) Empirical Model

$$\frac{D_{t+k}}{D_{t+k}+E_{t+k}} = \alpha_0 + \alpha_1 \frac{D_t}{D_t+E_t} + \alpha_2 \frac{D_t}{D_t+E_t\left(1+r_{t,t+k}\right)} + \varepsilon_{t,t+k}$$

	Reduced-Form Simulated Data				Welch (2004) Results			
Horizon (k)	α_0	α_1	α_2	R^2	α_0	α_1	α_2	R^2
1-Year	0.04	-0.12	1.02	0.98	0.03	-0.05	1.02	0.91
3-Year	0.09	-0.15	0.90	0.94	0.07	-0.04	0.94	0.78
5-Year	0.13	-0.19	0.83	0.89	0.09	-0.01	0.87	0.70
10-Year	0.21	-0.25	0.68	0.78	0.14	0.07	0.71	0.56

- Empirical model has no power against alternative of tradeoff theory with adjustment costs.

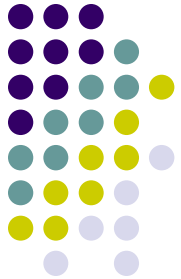
Implications for Partial Adjustment Models and Slow Adjustment

- Partial Adjustment Models

$$\Delta Leverage_t = \alpha + \beta\left(Leverage_{t-1} - Target_{t-1}\right) + \varepsilon_t$$

- Estimates of β range from 10-16% (Fama and French (2002)) → "Mean reversion is at a snail's pace".
- Simulated data result in estimates of 15 to 17%, despite the fact that firms are acting optimally.
- Partial adjustment models are hard to interpret when (1) adjustment is not continuous and (2) adjustments are not *Target.*

Capital Structure



- In short, dynamic versions of the tradeoff theory can create dynamics in leverage that are consistent with a large number of empirical regularities.

- Much still to be done here to better understand the frictions that create these leverage dynamics.

My views

- I think these examples illustrate some of the major challenges of moving forward in corporate finance.
- We often have different mechanisms that produce observationally equivalent matches to the stylized facts.
  - Sometimes competing traditional theories.
  - Sometimes competing behavioral theories.
  - Sometimes mixed.

My views

- Try to specify a reasonable null.
  - Is total readjustment really a reasonable benchmark?
  - What do return dynamics really look like in an efficient market with imperfect measurement?
- Consider all the implications of the theory.
  - Is it reasonable to assume that managers who are smart enough to time the market do not realize the tax and other benefits of debt?

My views

- Carefully consider where the predictions of the competing theories differ.
  - Risk dynamics compared to return dynamics.
  - Patterns in operating performance?
  - Focus directly on the security issuance decision.
- Try to construct powerful tests.
  - How good does measurement have to be to create a powerful test.
  - Simulations can be extremely useful.
  - Natural experiments.
  - Structural models with nested hypotheses.

Conclusions

- Good research will carefully specify the null that it is testing against and will design powerful tests to discriminate among competing explanations.
- I think this can be done both for traditional and behavioral theories.
- Done well, it will be publishable in the best journals.
  - Important for finance to move beyond just cataloging facts and move toward making quantitative predictions that can inform policymakers as well as other academics.