The Effects of Short-Term Incentives

Webinar | February 14, 2018

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Agenda

IRRC Institute

- Logistics & Introductions
- Research Review
- Q&A

Webinar Logistics

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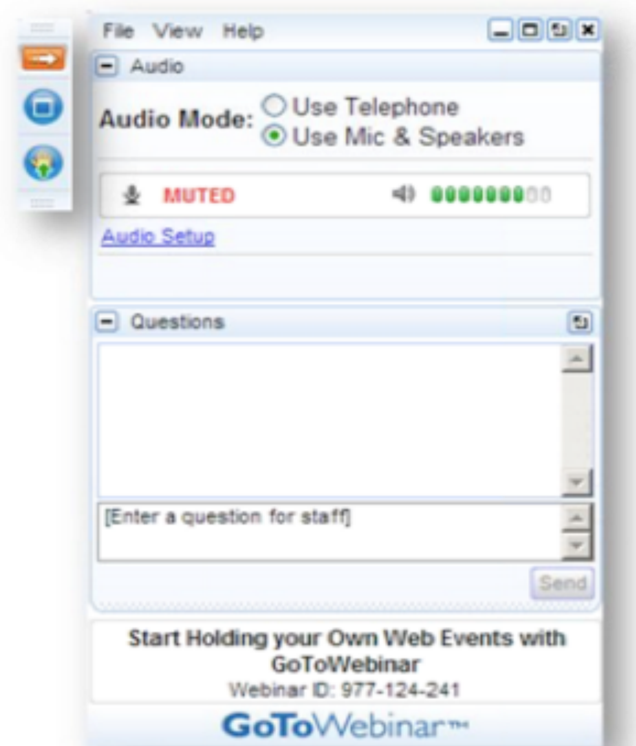

Speaker

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2018 IRRCi Investor Research Award

Equity Vesting and Investment

The Long-Term Consequences of Short-Term Incentives

IRRCi Award

IRRC
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- Annual award recognizing top research that examines the interaction between the real economy and investment theory.
- Academic & practitioner research.
- Two $10K awards.

About IRRCi

- The Investor Responsibility Research Center Institute is a not-for-profit established in 2005.
- Funds and disseminates objective, unbiased research on a range of issues at the intersection of corporate responsibility and investors informational needs.
- Funds academic and practitioner research.
- More than 65 research reports available at no charge at www.irrcinstitute.org.

The Debate on CEO Pay

- CEO pay has captured almost everyone's attention
- Common focus is on the level of pay
  - $10m pay is > 300 times average pay (Edmans, Gabaix, and Jenter, 2017)
  - But $10m pay is 0.05% of a $20b firm
- Much more important is the horizon of pay
  - Affects decisions, which have percentage point, not basis point, effects on firm value

Short-Term Incentives Believed To Be Damaging …

- Bebchuk and Fried (2010): "Paying for long-term performance"
- UK Government's Green Paper: increase vesting periods from 3 to 5 years

… But Where's The Evidence?

- Survey evidence that 78% of CFOs would cut investment to meet earnings targets
  - But that's what CEOs say they do
- McKinsey / FCLT study: "finally, evidence that managing for the long-term pays off"
  - But poor future prospects could cause low investment today
- What if CEO stock sales were correlated with investment cuts?
  - But poor future prospects could cause investment cuts and stock sales

Our Strategy

- Use scheduled vesting of equity
  - Relevance: highly correlated with equity sales
  - Exclusion: driven by grants several years prior
  - See “A Layman’s Guide to Separating Causation From Correlation”, www.alexedmans.com/correlation

Equity Vesting and Investment

- Edmans, Fang, and Lewellen (2017)
- How is investment related to vesting equity? Control for
  - Vested, unvested equity, salary, bonus
  - CEO age, tenure, new CEO
  - Investment opportunities
  - Financing capacity

Equity Vesting and Investment

	(1)	(2)	(3)	(4)	(5)
Dependent Variables	ΔRD_q	$\Delta CAPEX_q$	$\Delta NETINV_q$	$\Delta RDCAPEX_q$	$\Delta RDNETINV_q$
$VESTING_q$	**-0.060*****	**-0.089*****	**-0.149****	**-0.159*****	**-0.224*****
	(0.021)	(0.025)	(0.067)	(0.039)	(0.079)
$UNVESTED_{q-1}$	-0.003	0.004	0.051	0.002	0.054
	(0.009)	(0.013)	(0.036)	(0.018)	(0.040)
$VESTED_{q-1}$	-0.001*	0.002	-0.006	0.001	-0.008*
	(0.001)	(0.001)	(0.004)	(0.002)	(0.004)
Controls, year, qtr, firm FE	Yes	Yes	Yes	Yes	Yes
Observations	26,724	26,724	26,724	26,724	26,724
Adjusted R^2	0.093	0.066	0.053	0.099	0.058

1 SD increase in *VESTING* associated with 0.2% fall in *RDNETINV*, 11% of the average ratio. $1.8 million / year

Interpretation

- Myopia hypothesis: vesting equity *causes* CEOs to *inefficiently* reduce investment growth
- Efficiency hypothesis: vesting equity *causes* CEOs to *efficiently* reduce investment growth
  - Still causal
  - No significant link to sales growth, operating expenses, COGS ratio, adjusted net income
- Timing hypothesis: omitted variables explain correlation between vesting equity and investment
  - Requires boards to forecast quarter-level declines in IO several years in advance
  - Results robust to dropping all grants made within 2 years

Cross-Sectional Tests of Myopia Hypothesis

- Myopia hypothesis: CEO will trade off costs and benefits of myopia
- *VESTING*-induced investment cuts lower if
  - Benefit lower: more blockholders (Edmans (2009)), higher institutional ownership
  - Cost higher: younger CEOs, smaller firms, younger firms

Does the CEO Benefit?

- *VESTING* linked to
  - Same-quarter reductions in investment
  - Same-quarter equity sales
- But, earnings are not announced until start of next quarter
  - Does CEO communicate the earnings increases ahead of time?

Does the CEO Benefit? (cont’d)

- *VESTING* linked to
  - Same-quarter analyst forecast revisions (three measures)
  - Positive earnings guidance (but not negative or total), in turn associated with 2.5% return
    - Equity sales are concentrated in a window shortly after the guidance event
  - Beating the analyst forecast by ≤ 1 cent, but not > 1 cent

The Long-Term Consequences of Short-Term Incentives

- Edmans, Fang, and Huang (2017)
- EFL did not directly show that the investment cuts damage long-term value
  - Used cross-sectional tests, but indirect, so toned down "myopia" claims
  - LR returns not causal, no announcement date, short time period

Repurchases

- Boost the short-term stock price (Ikenberry, Lakonishok, and Vermaelen (1995))
- Can be
  - Myopic: Almeida, Fos, and Kronlund (2016)
  - Efficient: ILV, Dittmar (2000), Grullon and Michaely (2004)
- LR returns measure value created by the repurchase, even if not caused by them

Mergers and Acquisitions

- Can boost the short-term stock price
  - Jensen and Ruback (1983)
- Long-term returns often negative
  - Agrawal, Jaffe, and Mandelker (1992)
  - Negative and significant relation between announcement return and LR return
- Clear announcement date – and AD is relevant
- Significant event; likely that part of LR returns is due to M&A
  - Literature uses LR returns to evaluate M&A

M&A: An Example

- Bazaarvoice ("BV") acquired PowerReviews in June 2012. Stock price soared over $20
- BV's officers and directors sold $90m of stock
- US DoJ commenced an antitrust lawsuit in January 2013; stock price fell $7
  - "Elimination of our primary competitor" to leave them with "literally, no other competitors"
- Activist shareholder launched derivative lawsuit
  - Improved M&A, compensation, and insider trading policies, including increase in vesting horizon to 5 years

Repurchases

	(1)	(2)	(3)	(4)	(5)
	Probit	LPM		OLS	
Dep Var		*REP_q*		*$REP\%_q$*	
$VESTING_q$	**12.263*****	**4.354*****	**2.752*****	**11.888*****	**6.759*****
	(2.681)	(0.875)	(0.529)	(1.776)	(1.458)
Y-Q FE	Yes	Yes	Yes	Yes	Yes
Firm FE			Yes		Yes
Obs	93,537	93,537	93,537	93,537	93,537
Pseudo (Adj) R^2	0.113	0.137	0.507	0.0633	0.254

- Holds after controlling for investment
- Effect of 1σ: 1.2% increase, vs. 37.5%
  - 1.04% vs. 20% for above-mean repurchases
  - OLS: \$1.54m, or \$6.16m annualized. EFL: \$1.8m

Returns to Repurchases

	(1)	(2)	(3)	(4)	(5)
Period	[q-1, q]	[q+1, q+4]	[q+5, q+8]	[q+9, q+12]	[q+13, q+16]
Benchmark			Market		
$VESTING_q$	**0.897****	**-3.288*****	**-2.214*****	**-0.401**	**-0.476**
	(0.422)	(0.553)	(0.586)	(0.558)	(0.484)
Y-Q, Firm FE	Yes	Yes	Yes	Yes	Yes
Obs	28,535	28,479	28,360	27,171	23,458
Adjusted R^2	0.088	0.201	0.219	0.241	0.237
			FF 49 Industry		
$VESTING_q$	**0.722***	**-3.001*****	**-1.842*****	**-0.278**	**-0.722**
	(0.399)	(0.527)	(0.569)	(0.541)	(0.463)
			DGTW		
$VESTING_q$	**0.925****	**-2.884*****	**-1.913*****	**0.320**	**-0.038**
	(0.419)	(0.519)	(0.528)	(0.529)	(0.446)

- Effect of 1σ: 0.3% (0.61% annualized), -1.11%, -0.85%

M&A

	(1)	(2)	(3)
	Probit	LPM	
VESTING$_q$	**10.502*****	**3.597*****	**1.641****
	(2.248)	(0.759)	(0.670)
Y-Q FE	Yes	Yes	Yes
Firm FE			Yes
Obs	94,362	94,362	94,362
Pseudo (Adj.) R^2	0.069	0.059	0.159

- (Holds after controlling for investment)
- Effect of 1σ: 0.6% increase, vs. 15.8%

Returns to M&A

	(1)	(2)	(3)	(4)	(5)
Period	[q-1, q]	[q+1, q+4]	[q+5, q+8]	[q+9, q+12]	[q+13, q+16]
Benchmark			Market		
$VESTING_q$	**2.033****	**-2.260*****	**-0.981**	**-2.009****	**-1.715****
	(0.838)	(0.862)	(1.017)	(0.915)	(0.832)
Y-Q, Firm FE	Yes	Yes	Yes	Yes	Yes
Obs	12,294	12,294	12,258	12,207	11,751
Adjusted R^2	0.176	0.210	0.217	0.256	0.246
			FF 49 Industry		
$VESTING_q$	**1.768****	**-1.412***	**-1.584***	**-1.995****	**-1.530***
	(0.771)	(0.812)	(0.950)	(0.890)	(0.791)
			DGTW		
$VESTING_q$	**1.835****	**-1.623***	**-0.178**	**-0.667**	**-1.689****
	(0.902)	(0.928)	(1.102)	(1.008)	(0.838)

- Effect of 1σ: 1.47% (annualized), -0.81%, -0.35%, -0.72%, -0.62%

Implications for the Real World

- UK Government's Green Paper recommended increasing vesting periods from 3 to 5 years
- Norwegian Sovereign Wealth Fund, House of Commons Corporate Governance Inquiry advocating long-vesting equity
  - Unilever, Kingfisher, RBS implementing
- Change the conversation from pie-splitting to pie-enlarging

The Misuse of Academic Research

- Submission to House of Commons Corporate Governance Inquiry: “A second study … found that firm productivity is negatively correlated with pay disparity between top executive and lower level employees”

ELSEVIER

Journal of Banking & Finance

Volume 37, Issue 8, August 2013, Pages 3258–3272

The determinants and effects of CEO–employee pay ratios ☆

Olubunmi Faleye[a, 1], Ebru Reis[b], Anand Venkateswaran[a, 2]

Show more

http://dx.doi.org/10.1016/j.jbankfin.2013.03.003

Highlights

- We study the determinants and effects of the relative compensation of top executives and lower-level employees.
- We find that CEO–employee pay ratios depend on the balance of power between the CEO and ordinary employees.
- We find that employees do not perceive higher pay ratios as an inequitable outcome.
- We do not find a negative relation between relative pay and employee productivity.
- We find that firm value and operating performance both increase with relative pay.

The Misuse of Academic Research (cont'd)

Executive Pay + Add to myFT

UK chief executives earn much more than European peers

Study also fails to find link between higher pay and better performance

- But no-one has ever seen the study

The Value of Academic Research for the Real World

- "Academic" is not the opposite of practitioner
  - Large scale
  - Rigorous
  - Objective
- Caveat: there is a lot of bad academic evidence
  - Focus on the highest-quality research
- Confirmation bias: you can always hand-pick a study showing what you'd like it to show
  - Alice in Wonderland: "Sentence first – verdict afterwards"
  - See TEDx talk "From Post-Truth to Pro-Truth" (http://bit.ly/protruth)
- "Access to Finance" blog: www.alexedmans.com/blog


Questions?