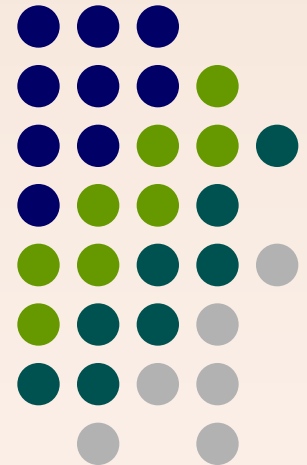


# Golden Parachutes and the Wealth of Shareholders

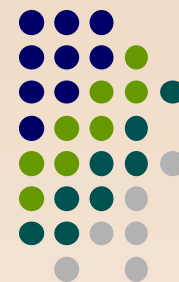


Lucian Bebchuk (Harvard)  
Alma Cohen (Tel-Aviv, Harvard)  
Charles C.Y. Wang (Stanford, Harvard)

Yale SOM, November 2010

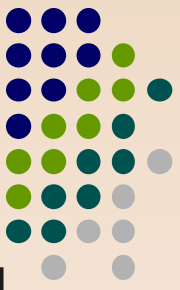


# Motivation



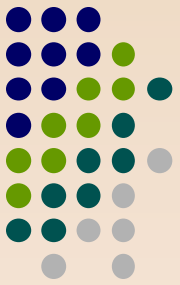
- GPs have attracted much debate and attention since the late '70s and early '80s
  - Congress in '84 imposed substantial tax penalties on large GPs to discourage their use
  - Rise in shareholder precatory resolutions opposing GPs
  - President Obama and Treasury Secretary Geithner aim to *“take the air out of golden parachutes”*
  - 2010 Dodd-Frank Act mandates shareholder advisory votes on all adoptions of GP by public firms.
- We seek to inform this debate by investigating how GPs are associated with:
  - Acquisition outcomes: likelihood, premiums, and expected premiums.
  - The evolution of firm value over time.

# Main Findings



- GPs and Acquisition Outcomes:
  - GPs positively associated with likelihood of receiving acquisition bid and of being acquired
  - GP negatively associated with acquisition premia
  - GPs positively associated with expected premia from an acquisition.
  
- GPs and Evolution of Firm Value:
  - Firms adopting GPs tend to have lower Tobin's Q value already in the IRRC volume preceding the adoption
  - The value of firms adopting GPs – but their value continues to erode during the inter-volume period of adoption and continues to erode subsequently.

# Literature Review



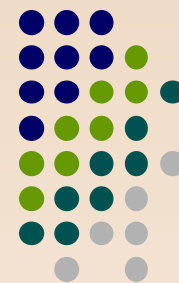
There is substantial empirical literature on GPs

- Event studies around GP adoptions, with mixed results (Lambert & Larcker '85; Born, Faria, & Trahan '93; Mogavero & Toyne '95; Hall & Anderson '97)

Unlike these studies, we examine the evolution of value in a much longer window.

- Evidence of negative correlation between GP and Q, but does not indicate timing when the negative correlation arises (Gompers, Metrick, Ishii '03; Bebchuk, Cohen, and Farrell '09)
- Literature on the direct effects of GPs on acquisition likelihood and premia (but not on the expected premia) but with mixed results. (Machlin, Choe, and Miles '93; Born, Faria, & Trahan '93; Cotter and Zenner '94; Hall and Anderson '97; Lefanowicz, Robinson, and Smith '00; Fich, Tran, and Walking '09)

# Data Description



- Data on Golden Parachutes
  - Investor Responsibility Research Center (IRRC)
    - 8 Volumes: 1990, 1993, 1995, 1998, 2000, 2002, 2004, 2006
    - Tracks corporate governance provisions for 1400~1800 largest firms
- Benefits of IRRC
  - Broad coverage (> 90% of total U.S. market cap)
  - Long time series
  - Data on other governance measures (poison pill, staggered board, etc...)
- Weaknesses of IRRC
  - No exact GP contract details and size of parachute
  - Only has snap-shots every 2~3 years, don't have exact adoption dates

# Summary Statistics I

Stock of GPs in each IRRC volume rising over time



<b>IRRC Volume</b>	<b># Firms in IRRC Volume</b>	<b>Firms w/ GP</b>	<b>% of Firms w/ GP</b>
1990	1,467	740	50.4%
1993	1,463	780	53.3%
1995	1,496	802	53.6%
1998	1,913	1060	55.4%
2000	1,886	1223	64.9%
2002	1,894	1282	67.7%
2004	1,982	1455	73.4%
2006	1,897	1473	77.7%

# Summary Statistics II

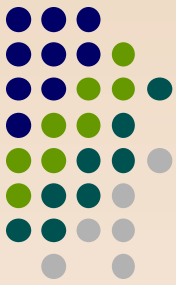
Adoption of GPs in each IRRC volume averages to 22.4% of eligible adopters



<b>Years</b>	<b>Total Firms</b>	<b>Firms with no GP beginning of period</b>	<b>Num of Adopters</b>	<b>% of Adopters</b>
1990~1993	1,272	639	101	15.8%
1993~1995	1,344	641	79	12.3%
1995~1998	1,214	594	142	23.9%
1998~2000	1,667	768	214	27.9%
2000~2002	1,416	533	160	30.0%
2002~2004	1,654	529	131	24.8%
2004~2006	1,656	455	100	22.0%

# Summary Statistics III

## Incidence of acquisition positively associated with GPs



	% Receiving Initial Bid in the Next Calendar Year			% Acquired in the Next Calendar Year		
	No GP	GP	Diff	No GP	GP	Diff
1990	4.64%	4.70%	+	2.48%	2.35%	-
1991	2.71%	3.63%	+	1.86%	2.57%	+
1992	2.96%	3.42%	+	2.79%	3.11%	+
1993	3.24%	4.58%	+	1.87%	2.08%	+
1994	5.76%	8.05%	+	1.92%	5.46%	+
1995	3.97%	7.45%	+	2.64%	4.41%	+
1996	4.78%	9.87%	+	3.92%	8.56%	+
1997	8.41%	9.08%	+	5.01%	7.32%	+
1998	7.85%	12.74%	+	6.25%	10.24%	+
1999	6.17%	9.68%	+	6.47%	9.43%	+
2000	3.66%	5.14%	+	3.66%	5.57%	+
2001	1.94%	2.64%	+	1.08%	2.75%	+
2002	3.54%	3.90%	+	2.29%	2.57%	+
2003	3.21%	4.75%	+	3.00%	4.02%	+
2004	4.27%	6.06%	+	1.76%	4.58%	+
2005	6.98%	8.08%	+	5.43%	4.81%	-
2006	5.28%	9.80%	+	5.59%	8.16%	+
<b>Mean</b>	<b>4.7 %</b>	<b>6.7 %</b>	<b>2.0 % ***</b>	<b>3.4 %</b>	<b>5.2 %</b>	<b>1.8 % ***</b>

Bid (acquisition)  
incidence is  
**43% (52%)**  
greater for GP firms  
over Non-GP firms



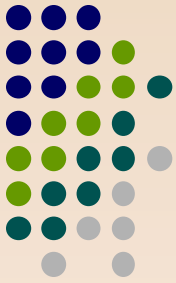
# GP and Likelihood of Acquisitions

## GP associated with higher bid/acquisition likelihood

Probit Dependent Var	Receive Bid Next Year		Acquired Next Year	
	(1)	(2)	(3)	(4)
Golden Parachute	0.0148 *** (0.003)	0.0154 *** (0.003)	0.0128 *** (0.002)	0.0136 *** (0.002)
EIndex-GP	-0.0046 *** (0.001)	-0.0048 *** (0.001)	-0.0015 (0.001)	-0.0017 (0.001)
GIndex - EIndex	0.0003 (0.001)	0.0004 (0.001)	0.0004 (0.001)	0.0004 (0.001)
Log Rel Q	-0.0196 *** (0.004)	-0.0174 *** (0.004)	-0.0074 *** (0.003)	(0.006) ** (0.003)
Ind Rel Market Cap	(0.001) ***	-0.0012 *** (0.000)	-0.0009 *** (0.000)	-0.0011 *** (0.000)
Ind Rel Debt/Asset	0.0143 (0.009)	0.0122 (0.009)	-0.0014 (0.007)	-0.0038 (0.007)
Delaware Inc	0.0133 *** (0.003)	0.0109 *** (0.003)	0.0076 *** (0.002)	0.0066 *** (0.002)
Log(CEO Age)	-0.0060 (0.015)	-0.0015 (0.014)	-0.0050 (0.012)	-0.0002 (0.012)
Log(CEO Tenure)	-0.0044 *** (0.001)	-0.0044 *** (0.001)	-0.0020 (0.001)	-0.0021 * (0.001)
Herfindahl Index	-0.0190 * (0.011)		-0.0152 * (0.009)	
Dependent Var Mean	0.0567	0.0569	0.0398	0.0401
Proportional Marginal Effect	0.2609	0.2706	0.3220	0.3388
Year Controls	Yes	Yes	Yes	Yes
Industry Controls	No	Yes	No	Yes
Cluster SE	Yes	Yes	Yes	Yes
Pseudo R-squared	0.0500	0.0640	0.0700	0.0840
Observations	19,747	19,683	19,747	19,554

Note1: Marginal FX reported

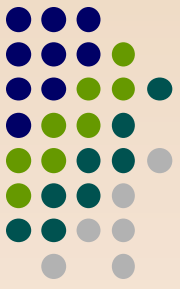
# Generality of the Association between GP & Acquisitions II



<b>A) Delaware Incorporated vs. None Delaware Incorporated</b>			
	GPxDEInc	GPxNotDEInc	Diff
(1) Using HHI as Ind Control	0.0117 *** (0.003)	0.0098 *** (0.005)	0.0019 (0.005)
(2) Using FE as Ind Control	0.0133 *** (0.003)	0.0130 *** (0.006)	0.0003 (0.005)
<b>B) Positive Industry Relative Q vs. Negative Industry Relative Q</b>			
	GPx +IndRelQ	GPx -IndRelQ	Diff
(1) Using HHI as Ind Control	0.0138 *** (0.003)	0.0167 *** (0.005)	-0.0029 (0.005)
(2) Using FE as Ind Control	0.0142 *** (0.003)	0.0160 *** (0.005)	-0.0018 (0.005)
<b>C) Positive Industry Relative Mcap vs. Negative Industry Relative Mcap</b>			
	GPx +IndRelSize	GPx -IndRelSize	Diff
(1) Using HHI as Ind Control	0.0125 *** (0.003)	0.0128 *** (0.004)	-0.0003 (0.005)
(2) Using FE as Ind Control	0.0135 *** (0.003)	0.0139 *** (0.004)	-0.0004 (0.005)
<b>D) Top Quartile HHI vs. Low Quartile HHI</b>			
	GPxHiHHI	GPxLowHHI	Diff
(1) Using HHI as Ind Control	0.0125 *** (0.003)	0.0125 *** (0.004)	0.0000 (0.005)
(2) Using FE as Ind Control	0.0127 *** (0.003)	0.0103 *** (0.004)	0.0024 (0.005)

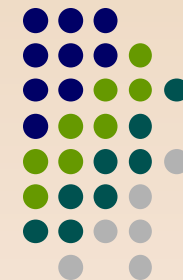
Note 1: Marginal FX reported  
 Note 2: Only interaction terms reported. Main effects and controls suppressed

# Interpreting the Association between GP and Acquisitions I



- Positive association between GP and acquisition likelihood result from...
  - Incentive (Causality) Effect
  - Private Information Effect (Lambert-Larcker, 85)
- We test whether the effect is entirely driven by private information using the timing of GP adoption
  - If managers adopt GP in anticipation of acquisition bid → relationship with acquisition should be driven by newly-adopted GP's

# Interpreting the Association between GP and Acquisitions II

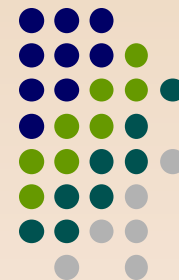


Probit Dependent Var	Acquired by Next IRRC Vol		Acquired by Next IRRC Vol	
	(1)	(2)	(3)	(4)
Golden Parachute	0.0337 *** (0.005)	0.0353 *** (0.005)		
Old GP			0.0345 *** (0.006)	0.0377 *** (0.006)
Fresh GP			0.0392 *** (0.013)	0.0406 *** (0.013)
Eindex-GP	-0.0012 (0.002)	-0.0016 (0.002)	-0.0002 (0.002)	-0.0006 (0.002)
Gindex - Eindex	0.0021 (0.001)	0.0021 (0.001)	0.0016 (0.001)	0.0016 (0.001)
Log Rel Q	-0.0057 (0.005)	-0.0040 (0.005)	-0.0039 (0.005)	-0.0021 (0.005)
Ind Rel Market Cap	-0.0011 *** (0.000)	-0.0013 *** (0.000)	-0.0012 *** (0.000)	-0.0014 *** (0.000)
Ind Rel Debt/Asset	-0.0039 (0.013)	-0.0053 (0.013)	-0.0007 (0.013)	-0.0028 (0.014)
Delaware Inc	0.0155 *** (0.005)	0.0133 *** (0.005)	0.0173 *** (0.005)	0.0150 *** (0.005)
CEO Age	-0.0235 (0.028)	-0.0121 (0.027)	-0.0249 (0.028)	-0.0132 (0.028)
CEO Tenure	-0.0054 * (0.003)	-0.0060 ** (0.003)	-0.0055 * (0.003)	-0.0062 ** (0.003)
Herfindahl Index	-0.0163 (0.018)		-0.0171 (0.018)	
Dependent Var Mean	0.0950	0.0956	0.0950	0.0956
Proportional Marginal Effect	0.3548	0.3694	.4127/.3632	.4249/.3946
Year Controls	Yes	Yes	Yes	Yes
Industry Controls	No	Yes	No	Yes
Cluster SE	Yes	Yes	Yes	Yes
Pseudo R-squared	0.1750	0.1870	0.1730	0.1860
Observations	10,422	10,361	10,422	10,361

**Diff = -0.003**  
**PVal= 0.324**

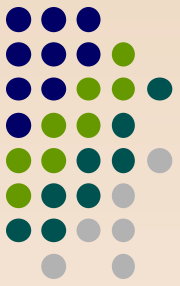
Note 1: Marginal FX reported  
Note 2: Estimation using HHI to control for industry yields similar results

# GP and Acquisition Premium



Dependent Var	1Wk Prem	ln(1Wk Prem)	4Wk Prem	ln(4Wk Prem)
	(1)	(2)	(3)	(4)
Golden Parachute	-0.0357 ** (0.017)	-0.1280 <sup>a</sup> (0.077)	-0.0433 ** (0.020)	-0.1921 ** (0.093)
EIndex-GP	0.0166 ** (0.007)	0.0428 (0.026)	0.0124 (0.009)	0.0311 (0.029)
GIndex-EIndex	0.0062 (0.004)	0.0194 (0.019)	0.0002 (0.005)	(0.002) (0.015)
Delaware Inc	0.0092 (0.015)	-0.0418 (0.059)	0.0140 (0.017)	-0.0193 (0.070)
Log Rel Q	-0.0303 (0.028)	-0.0242 (0.075)	-0.0368 (0.035)	-0.0142 (0.077)
Inside Ownership	-0.0014 (0.002)	0.0006 (0.006)	-0.0025 (0.002)	-0.0053 (0.008)
Log(Assets)	-0.0179 * (0.009)	-0.0377 (0.034)	-0.0221 ** (0.010)	-0.0625 * (0.032)
Debt/Asset	0.0590 (0.049)	0.1813 (0.206)	0.0462 (0.047)	0.2567 (0.173)
Hostile Bid	0.0930 * (0.053)	0.2503 * (0.139)	0.0545 (0.040)	0.2869 *** (0.105)
Tender Offer	0.0591 * (0.034)	0.2175 ** (0.089)	0.1031 *** (0.037)	0.2771 ** (0.114)
Toehold	-0.0011 (0.002)	-0.0036 (0.006)	-0.0021 (0.001)	-0.0026 (0.005)
Termination Fee	-0.0068 (0.023)	-0.0027 (0.071)	0.0005 (0.021)	0.1233 (0.091)
Stock Swap	-0.0125 (0.026)	-0.1606 * (0.083)	-0.0183 (0.026)	-0.1640 * (0.085)
Log(Time)	0.0180 (0.021)	0.0528 (0.065)	0.0152 (0.023)	0.0443 (0.067)
Log(CEO Age)	-0.0910 (0.134)	-0.4395 (0.489)	-0.1810 (0.127)	-0.8681 ** (0.413)
Log(CEO Tenure)	0.0180 (0.019)	0.1000 ** (0.046)	0.0130 (0.021)	0.0636 (0.049)
Adjusted R-squared	0.1140	0.0780	0.1530	0.0720
Observations	756	756	753	753

# Interpreting Association between GP and Acquisition Premium I



- Explanations?
  - GP decreases manager's threshold, making manager more receptive to acquisitions
    - \* Weakens bargaining position in acquisitions that will take place regardless of a GP
    - \* Introduces additional (lower-value) acquisitions.

# Interpreting Association between GP and Acquisition Premium II



- Alternative Explanations?
  - GP as a compensation-shifting tool (Choi '04)
    - Shareholder shifts compensation burden to buyer in the event of acquisition
    - Lowers shareholder return in acquisition, but benefits shareholder ex-ante by lowering manager's non-acquisition compensation
    - But, model also predicts GPs decrease acquisition likelihood
  - Disloyal managers trading off premiums and private benefits (Hartzell, Ofek, and Yermack '04)
    - Certain CEOs negotiate increased golden parachutes along with special cash bonuses during acquisition deals in exchange for lower premium
    - The GPs we study in our data set are adopted ex ante

# GP and Expected Acquisition Premiums



Dependent Var	1Wk Prem	ln(1Wk Prem)	4Wk Prem	ln(4Wk Prem)
	(1)	(2)	(3)	(4)
Golden Parachute	0.0036 *** (0.001)	0.0344 *** (0.008)	0.0036 *** (0.001)	0.0367 *** (0.008)
EIndex-GP	-0.0002 (0.000)	-0.0034 (0.003)	0.0000 (0.000)	-0.0032 (0.003)
GIndex-EIndex	-0.0003 (0.000)	-0.0015 (0.002)	0.0000 (0.000)	-0.0008 (0.002)
Delaware Inc	0.0022 * (0.001)	0.0157 (0.010)	0.0019 * (0.001)	0.0148 (0.010)
Log Rel Q	-0.0033 ** (0.001)	-0.0173 (0.012)	-0.0031 ** (0.001)	-0.0192 * (0.011)
Log Size	0.0000 (0.000)	-0.0004 * (0.000)	0.0000 (0.000)	-0.0004 * (0.000)
Inside Ownership	-0.0002 *** (0.000)	-0.0013 ** (0.001)	-0.0002 ** (0.000)	-0.0013 ** (0.001)
Log(Assets)	-0.0027 *** (0.000)	-0.0196 *** (0.003)	-0.0023 *** (0.000)	-0.0184 *** (0.003)
Debt/Asset	0.0009 (0.005)	-0.0038 (0.033)	-0.0013 (0.003)	-0.0229 (0.025)
Log(CEO Age)	-0.0007 (0.005)	0.0142 (0.032)	-0.0010 (0.003)	0.0193 (0.028)
Log(CEO Tenure)	0.0002 (0.000)	0.0005 (0.004)	0.0003 (0.000)	-0.0001 (0.004)
Adjusted R-squared	0.0160	0.0180	0.0140	0.0170
Observations	22918	22915	22918	22918

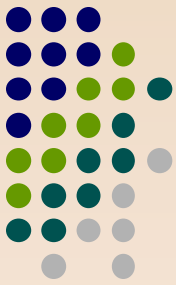


# GP and Firm Value



- Earlier literature has documented the negative association between Q and GP (GIM '03; BCF '09)
  - However, the timing in the deterioration of firm value is unclear.
- We investigate whether the negative association arises...
  - Prior to adoption of GP?
  - In period between IRRC volumes around the adoption of GP?
  - After adoption of GP?
- To answer these, use inter-volume changes in GP

# Adopters have low Q prior to adoption of GP



Dependent Var	Log(Industry Relative Q)		
	(1)	(2)	(3)
Future GP Adopter	-0.0494 ** (0.024)	-0.0554 ** (0.024)	-0.0475 * (0.025)
Other Provisions in E	-0.0352 *** (0.009)	-0.0308 ** (0.013)	-0.0350 *** (0.013)
Other Provisions in G	0.0172 *** (0.005)	0.0132 * (0.008)	0.0171 ** (0.008)
ROA	0.4928 *** (0.186)	0.4724 *** (0.179)	0.4905 *** (0.187)
Log(Assets)	0.0058 (0.007)	0.0077 (0.013)	0.0055 (0.011)
CAPEX / Assets	0.5411 *** (0.154)	0.9536 *** (0.243)	0.5525 *** (0.198)
Log(Age)	-0.1254 *** (0.014)	-0.1139 *** (0.020)	-0.1251 *** (0.019)
Rel Debt / Assets	-0.4504 *** (0.081)	-0.4266 *** (0.129)	-0.4504 *** (0.123)
R&D / Sales	0.0226 (0.017)	0.0261 (0.017)	0.0229 (0.017)
Herfindahl Index			0.0761 (0.103)
Industry FE	No	Yes	No
Year FE	No	Yes	Yes
SE	Robust	Cluster	Cluster
Adjusted R-squared	0.2197	0.2682	0.2198
Observations	2,540	2,540	2,540

- Relative to non-adopters, future GP adopters' Q 4~5% lower

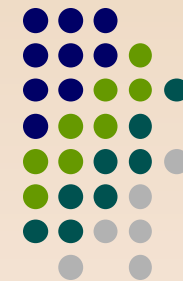
Note:

Future GP Adopter is an indicator where...

1: a firm that adopts GP by the next IRRC volume

0 indicates firm that does not have GP in current and next volume

# Q continues to decrease around adoption I



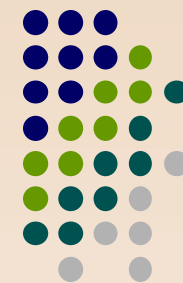
Dependent Var	$\Delta \text{Log}(\text{Industry Relative } Q)$		
	(1)	(2)	(3)
Future GP Adopter	-0.0582 *** (0.020)	-0.0475 ** (0.021)	-0.0581 *** (0.020)
$\Delta$ Other Provisions in E	-0.0218 (0.022)	-0.0200 (0.022)	-0.0216 (0.022)
$\Delta$ Other Provisions in G	-0.0031 (0.011)	-0.0050 (0.011)	-0.0032 (0.011)
$\Delta$ ROA	0.2038 ** (0.096)	0.2122 ** (0.102)	0.2038 ** (0.096)
$\Delta$ Log Assets	-0.1055 *** (0.030)	-0.1061 *** (0.031)	-0.1053 *** (0.030)
$\Delta$ CAPEX / Assets	0.3373 * (0.198)	0.3497 (0.222)	0.3386 (0.216)
$\Delta$ Log Rel Debt / Assets	-0.3212 *** (0.060)	-0.2803 *** (0.061)	-0.3201 *** (0.059)
$\Delta$ Log Age	-0.4800 *** (0.090)	-0.4867 *** (0.094)	-0.4803 *** (0.093)
$\Delta$ R&D / Sales	-0.0001 (0.009)	-0.0003 (0.008)	-0.0001 (0.008)
$\Delta$ Herfindahl Index			0.0612 (0.115)
Industry FE	No	Yes	No
Year FE	No	Yes	Yes
SE	Robust	Cluster	Cluster
Adjusted R-squared	0.1386	0.1346	0.1383
Observations	2,429	2,429	2,429

► Relative to non-adopters, future GP adopters experience volume-to-volume (over next 2~3 yrs) change in Q 4~5% lower

Note:

Future GP Adopter is an indicator where...  
 1: firm adopts GP by the next IRRC volume  
 0: firm does not have GP in current and next volume

# Q continues to decrease around adoption II



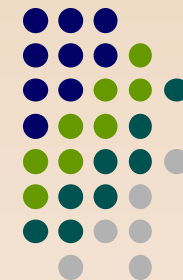
Dependent Var	$\Delta \text{Log(Industry Relative Q)}$		
	(1)	(2)	(3)
$\Delta \text{ GP}$	-0.0460 *** (0.016)	-0.0435 ** (0.017)	-0.0460 *** (0.017)
$\Delta \text{ Other Provisions in E}$	-0.0218 * (0.012)	-0.0190 (0.012)	-0.0216 * (0.012)
$\Delta \text{ Other Provisions in G}$	0.0001 (0.007)	-0.0003 (0.008)	0.0002 (0.008)
$\Delta \text{ ROA}$	0.3285 ** (0.149)	0.3322 ** (0.149)	0.3285 ** (0.149)
$\Delta \text{ Log Assets}$	-0.1816 *** (0.020)	-0.1811 *** (0.022)	-0.1813 *** (0.022)
$\Delta \text{ CAPEX / Assets}$	0.4300 *** (0.138)	0.4313 *** (0.151)	0.4318 *** (0.150)
$\Delta \text{ Log Rel Debt / Assets}$	-0.2681 *** (0.061)	-0.2656 *** (0.067)	-0.2685 *** (0.067)
$\Delta \text{ Log Age}$	-0.2155 *** (0.038)	-0.184 *** (0.036)	-0.2147 *** (0.036)
$\Delta \text{ R\&D / Sales}$	-0.0004 (0.006)	-0.0004 (0.006)	-0.0004 (0.006)
$\Delta \text{ Herfindahl Index}$			0.0799 (0.062)
Industry FE	No	Yes	No
Year FE	No	Yes	Yes
SE	Robust	Cluster	Cluster
Adjusted R-squared	0.1280	0.1288	0.1280
Observations	6,287	6,287	6,287

► The long-term event window (2~3 years) surrounding GP adoption associated with a 4.5% decrease in Q

Note:

This is a changes regression run on the full set of firms that show up in two consecutive volumes

# Q continues to drop for long-term adopters



Dependent Var	$\Delta \text{Log}(\text{Industry Relative Q})$		
	(1)	(2)	(3)
LT GP Adopter	-0.0484 <sup>a</sup>	-0.0619 <sup>*</sup>	-0.0531 <sup>*</sup>
	(0.031)	(0.032)	(0.030)
$\Delta$ Other Provisions in E	0.0121	0.0124	0.0106
	(0.024)	(0.026)	(0.025)
$\Delta$ Other Provisions in G	-0.0019	-0.0031	-0.0015
	(0.011)	(0.012)	(0.012)
$\Delta$ ROA	1.0137 <sup>***</sup>	1.0136 <sup>***</sup>	1.0123 <sup>***</sup>
	(0.147)	(0.158)	(0.155)
$\Delta$ Log Assets	-0.1033 <sup>**</sup>	-0.116 <sup>**</sup>	-0.1049 <sup>**</sup>
	(0.044)	(0.045)	(0.043)
$\Delta$ CAPEX / Assets	-0.0775	-0.0342	-0.0774
	(0.206)	(0.240)	(0.231)
$\Delta$ Log Rel Debt / Assets	-0.4042 <sup>***</sup>	-0.3849 <sup>***</sup>	-0.4039 <sup>***</sup>
	(0.120)	(0.123)	(0.121)
$\Delta$ Log Age	-0.2035	-0.2503 <sup>*</sup>	-0.2075 <sup>*</sup>
	(0.129)	(0.129)	(0.121)
$\Delta$ R&D / Sales	-0.0494 <sup>***</sup>	-0.0495 <sup>***</sup>	-0.0495 <sup>***</sup>
	(0.011)	(0.011)	(0.011)
$\Delta$ Herfindahl Index			-0.3045 <sup>**</sup>
			(0.137)
Industry FE	No	Yes	No
Year FE	No	Yes	Yes
SE	Robust	Cluster	Cluster
Adjusted R-squared	0.1631	0.1567	0.1645
Observations	1,410	1,410	1,410

- Relative to LT non-adopters, LT GP adopters experience volume-to-volume (2~3 years) change in Q about 4~6% lower

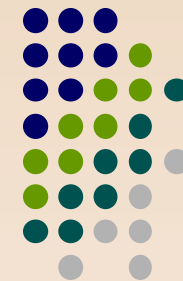
Note:

LT GP Adopter is an indicator where...

1: firm has GP in the preceding, current, and next IRRC volumes

0: firm does not have GP in the preceding, current, and next volumes

# Stock returns decrease prior to adoption



Dependent Var	Monthly Portfolio Returns	
	(1) VW	(2) EW
Alpha	-0.0059 *** (0.002)	-0.0035 *** (0.001)
Rm-Rf	0.0034 (0.056)	0.0153 (0.030)
SMB	0.0834 (0.067)	0.1219 *** (0.037)
HML	0.2827 *** (0.096)	0.1256 *** (0.042)
Carhart	-0.0175 (0.043)	-0.0169 (0.027)
N	160	160
Adj. Rsq	0.0861	0.0852

- On annualized basis...  
VW: -6.85% EW: -4.12%

Note on portfolio formation:

- Long future adopters  
i.e., firms with no GP in current and next IRRC volume, adopts by 2 IRRC volume from now
- Short long-term non-adopters  
i.e., firms with no GP in current and subsequent 2 IRRC volumes
- Rebalance monthly
- Update portfolio whenever new governance information from IRRC becomes available

# Stock returns decrease 2~3 years around adoption



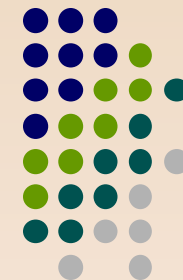
Dependent Var	Monthly Portfolio Returns			
		(1)		(2)
		VW		EW
Alpha		-0.0037 **		-0.0020 *
		(0.002)		(0.001)
Rm-Rf		-0.0320		-0.0195
		(0.040)		(0.027)
SMB		0.2017 ***		0.1310 ***
		(0.050)		(0.037)
HML		0.2120 ***		0.0942 *
		(0.066)		(0.051)
Carhart		-0.0585 **		-0.1262 ***
		(0.025)		(0.024)
N		184		184
Adj. Rsq		0.1185		0.2695

- On annualized basis...  
VW: -4.35% EW: -2.37

### Note on portfolio formation

- Long firms with no GP in current IRRC volume and adopts by the next IRRC volume
- Short firms with no GP in current and subsequent IRRC volumes
- Rebalance monthly
- Update portfolio whenever new governance information from IRRC becomes available

# Stock returns decrease after adoption



Dependent Var	Monthly Portfolio Returns			
	Firms in 3 Consecutive Volumes		Including Acquired Firms	
	(1) VW	(2) EW	(3) VW	(4) EW
Alpha	-0.0037 ** (0.001)	-0.0028 *** (0.001)	-0.0032 ** (0.001)	-0.0024 ** (0.001)
Rm-Rf	0.0183 (0.039)	0.0127 (0.021)	0.0155 (0.040)	0.013 (0.023)
SMB	0.1203 *** (0.040)	0.0242 (0.028)	0.1189 *** (0.041)	0.0141 (0.030)
HML	0.5274 *** (0.062)	0.2904 *** (0.031)	0.5306 *** (0.062)	0.2866 *** (0.033)
Carhart	0.0285 (0.028)	0.0063 (0.013)	0.0269 (0.028)	0.0133 (0.013)
N	150	150	150	150
Adj. Rsq	0.5094	0.4876	0.5156	0.4755

On annualized basis...

VW: -4.35%

EW: -3.31%

On annualized basis...

VW: -3.77%

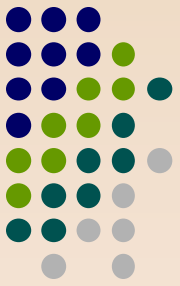
EW: -2.84%

Note on portfolio formation

- ▶ Long firms with GP in current and subsequent IRRC volumes
- ▶ Short firms with no GP in current and subsequent IRRC volumes
- ▶ Rebalance monthly
- ▶ Update portfolio whenever new governance information from IRRC becomes available



# Interpreting Results on GP and Firm Value



- Firms have low Q and declining returns prior to adoption of GP
  - Consistent with selection
  
- Firms have declining Q and stock returns in the long-term event window (2~3 years between IRRC volumes) around GP adoption
  - Consistent with selection
  - Consistent with managerial slack  
(Shleifer and Vishny '98; GIM '03; BCF '09)
  
- Firms continue to experience decrease in stock returns (and Q) post-adoption, relative to non-adopters
  - Consistent with managerial slack  
(Shleifer and Vishny '98; GIM '03; BCF '09))
  - Not consistent with GP inducing LT focus  
(Stein '98)

# Conclusion

- We contribute to the empirical evidence on the long-term implications of GPs using IRRC data
  - GPs are positively associated with acquisition likelihood, negatively associated with premiums in the event of an acquisition, and positively associated with (unconditional) premia from an acquisition.
  - Firms adopting GPs have lower value to begin with but their value continues to erode during the inter-volume period of adoption and subsequently .

