

# The Effect of Liquidity on Governance



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# Theoretical Framework

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- Traditional theories: blockholders govern through “voice” (intervention):
  - Shleifer and Vishny (1986), Burkart, Gromb, and Panunzi (1997), Kahn and Winton (1998), Bolton and von Thadden (1998)
  - Liquidity is undesirable because it encourages blockholders to “cut and run” rather than intervene: Coffee (1991), Bhide (1993), Maug (2002). Policy proposals to reduce liquidity
  - But liquidity can encourage intervention: Maug (1998), Faure-Grimaud and Gromb (2004)



# Theoretical Framework (cont'd)

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- Recent theories: “exit” is a governance mechanism in itself
  - Admati and Pfleiderer (2009), Edmans (2009), Edmans and Manso (2011)
- Liquidity strengthens the threat of exit:
  - Encourages blocks to form in the first place: Kyle and Vila (1991), E
  - Encourages costly information acquisition once a block has been formed: E, EM
- This paper aims to resolve the theoretical and policy debate



# Empirical Challenges

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- Many blockholders do not engage in “voice”
  - Diversification reqts, “prudent man” rules (Del Guercio (1996)), conflicts of interest (Agrawal (2011))
  - Del Guercio and Hawkins (1999), Yermack (2010): little success of institutional activism
- We study activist hedge funds as
  - Few conflicts and legal restrictions. Have the full “menu” to choose from; liquidity affects choice
  - Strong incentives to make optimal choice: Clifford and Lindsey (2011)
  - Governance is strategic and ex ante, vs. incidental and ex post: Kahan and Rock (2007)



# Empirical Challenges (cont'd)

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- Theories are about *threat* of exit and voice
  - Parrino, Sias, and Starks (2003): actual exit. Norli, Ostergaard, and Schindele (2009): actual voice
  - We use Schedule 13D (active) and 13G (passive) filings to proxy for governance intent
    - But 13G can be consistent with both “exit” and “no governance”
- Liquidity may be endogenous and determined by governance: Chung, Elder, and Kim (2010)
  - We study governance *events* (Schedule 13 filings) rather than governance *characteristics*
  - Decimalization as an exogenous shock to liquidity: Fang, Noe, and Tice (2009)



# Summary of Findings

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- Liquidity encourages block formation
  - Particularly among firms with high incentives
- Conditional on block formation, liquidity encourages filing of 13G rather than 13D
  - Consistent with both “exit” and “no governance”
  - Particularly among firms with high incentives
- Filing of 13G leads to positive market reaction
  - Particularly among firms with high liquidity
- Unconditional effect on 13D filings is positive
- Bottom line: liquidity attracts blockholders, and facilitates governance through “exit”



# Literature Review

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- Effect of liquidity on firm outcomes
  - Fang, Noe, and Tice (2009): increase in firm value
  - Bharath, Jayaraman, and Nagar (2011): particularly among firms with blockholders
  - Norli, Ostergaard, and Schindele (2009): encourages *actual* voice (proxy fights)
  - Gerken (2009): no effect on voice vs. exit
- Role of hedge funds in governance
  - Brav et al. (2008), Clifford (2008), Greenwood and Schor (2009), Klein and Zur (2009, 2011), Boyson and Mooradian (2011), Clifford and Lindsey (2011)



# Data

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- Factiva search on “hedge”, “activism”, “activist” (cf. Brav et al. (2008)), 1995-2010. Yields 223 HFs
- EDGAR database for 13D/13G schedules
  - 13D (13G): filed upon acquiring 5% if (do not) intend to engage in activism
- Will HFs file truthfully?
  - 13G filers are legally prohibited from activism. Misrepresentation can lead to a fraud claim (e.g. NACCO Industries vs. Applica)
  - 13D leads to target hostility, credit downgrades (Klein and Zur (2011)), worse loan terms (Li and Xu (2009))
  - 13D filing requirements are more onerous and hinder exit
  - Reputational loss if 13D filer does not engage in activism



# Data (cont'd)

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- Two liquidity measures using daily data
  - Amihud (2002): cost-per-volume. Goyenko, Holden, and Trzcinka (2009): best out of 12 low-frequency proxy for capturing price impact
  - Fong, Holden, and Trzcinka (2011): cost/price. Highly correlated with percent-cost benchmarks using intraday data (e.g. % effective spread, % quoted spread)
  - Decimalization of minimum tick size in 2001
- Managerial incentives using scaled WPS of Edmans, Gabaix, and Landier (2009)
- Controls following Brav, Jiang, and Kim (2010): MV, Q, SGR, ROA, LEV, DIVYIELD, RDTA, HINDEX, NANLYST; also year and industry FE
- S.E. clustered by firm and heteroskedasticity-adjusted



# The Effect of Liquidity on Block Formation

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- H1: Liquidity increases the likelihood that a HF acquires a block
  - Predicted by “voice” (Kyle and Vila (1991)) and “exit” (Edmans (2009)) theories

# The Effect of Liquidity on Block Formation: Results

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variables	BLOCK <sub>t+1</sub> (=1 if 13D Filing or 13G Filing; 0 if no block acquisition)					
LIQAM <sub>t</sub>	0.079*** (0.013) [0.0026***]	0.171*** (0.021) [0.0045***]				
LIQFHT <sub>t</sub>			3.975*** (0.747) [0.1295***]	3.902*** (1.064) [0.1062***]		
DECIMAL					0.299*** (0.024) [0.0094***]	0.544*** (0.064) [0.0158***]
Controls	No	Yes	No	Yes	No	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
# Obs.	88,742	88,742	88,742	88,742	88,742	88,742
Pseudo R <sup>2</sup>	0.003	0.052	0.003	0.046	0.013	0.044

One s.d. increase in LIQAM (LIQHT) increases Pr(BLOCK) by 0.5% (0.2%) vs. 1.3% unconditional probability



# The Effect of Liquidity on Block Formation (cont'd)

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- *DECIMAL* may be capturing other events around 2001
  - Panel B splits sample by *LOWPRIC*. *DECIMAL* is only significant in the subsample with *LOWPRC=1*, coefficients are significantly different at 1% level
- Regress block formation in  $t+2$  on change in liquidity from  $t-1$  to  $t+1$  and drop all other years
  - Both liquidity measures are significant, despite vastly reduced sample size



# The Effect of Liquidity on Block Formation: Role of WPS

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- H2: Effect of liquidity is stronger in firms with higher managerial incentives
  - Predicted by “exit” (AP, E, EM)

# The Effect of Liquidity on Block Formation: Role of WPS

Dependent Variables	(1)	(2)
	BLOCK <sub>t+1</sub> (=1 if 13D Filing or 13G Filing; 0 if no block acquisition)	
LIQAM <sub>t</sub>	0.180* (0.101)	
LIQAM <sub>t</sub> × WPS <sub>t</sub>	0.019* (0.010)	
LIQFHT <sub>t</sub>		8.326* (5.042)
LIQFHT <sub>t</sub> × WPS <sub>t</sub>		0.049** (0.021)
Controls	Yes	Yes
Year Fixed Effects	Yes	Yes
Industry FE	Yes	Yes
# Obs.	24,645	24,645
Pseudo R <sup>2</sup>	0.087	0.086



# The Effect of Liquidity on Governance Mechanisms

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- H3: Conditional on block acquisition, liquidity increases the likelihood that a HF files 13G vs. 13D
  - Predicted by “no governance” (Coffee (1991), Bhidé (1993), Maug (2002)) and “exit”; inconsistent with Maug (1998), Faure-Grimaud and Gromb (2004)
- H4: Effect of liquidity is stronger in firms with higher managerial incentives
  - Predicted by “exit”

# The Effect of Liquidity on Gov. Mechanisms: Results

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variables		13Dvs13G <sub>t+1</sub>	(=1 if 13D Filing; 0 if 13G Filing)			
LIQAM <sub>t</sub>	-0.152*** (0.046)	-0.169*** (0.064)				
	[-0.0598***]	[-0.0662***]				
LIQFHT <sub>t</sub>			-4.047* (2.456)	-6.662** (3.260)		
			[-1.5907*]	[-2.6138**]		
DECIMAL					-0.295*** (0.084)	-0.492** (0.236)
	(0.043)	(0.535)	(0.046)	(0.412)	[-0.1164***] (0.071)	[-0.1936**] (0.477)
Controls	No	Yes	No	Yes	No	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
# Obs.	1,135	1,135	1,135	1,135	1,135	1,135
Pseudo R <sup>2</sup>	0.007	0.096	0.002	0.092	0.008	0.087

One s.d. increase in LIQAM (LIQHT) reduces Pr(13D) by 7% (5%), vs. 43% conditional probability

# The Effect of Liquidity on Gov. Mechanisms: Role of WPS

	(1)	(2)
Dependent Variables	13Dvs13G <sub>t+1</sub> (=1 if 13D Filing; 0 if 13G Filing)	
LIQAM <sub>t</sub>	0.722 (0.927)	
LIQAM <sub>t</sub> x HIGHWPS <sub>t</sub>	-2.390* (1.298)	
LIQFHT <sub>t</sub>		7.337 (11.494)
LIQFHT <sub>t</sub> x HIGHWPS <sub>t</sub>		-38.281* (22.928)
Controls	Yes	Yes
Year Fixed Effects	Yes	Yes
Industry FE	Yes	Yes
# Obs.	322	322
Pseudo R <sup>2</sup>	0.161	0.157



# The Effect of Liquidity on Activism

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- Liquidity increases the likelihood of block formation (H1), but reduces the likelihood of activism, conditional upon block formation (H3)
  - Which effect dominates?
- H5: Unconditionally, liquidity increases the likelihood that a firm is targeted by a 13D filer

# The Effect of Liquidity on Activism

Dependent Variables	(1)	(2)	(3)
	13DFILING <sub>t+1</sub> (=1 if 13D Filing; 0 if 13G Filing or no block acquisition)		
LIQAM <sub>t</sub>	0.103*** (0.026) [0.0013***]		
LIQFHT <sub>t</sub>		3.851*** (1.435) [0.0493***]	
DECIMAL			0.309*** (0.088) [0.0041***]
Controls	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Number of Obs. Used	88,742	88,742	88,742
Pseudo R <sup>2</sup>	0.040	0.038	0.036

Consistent with Norli, Ostergaard, and Schindele (2009)

# Market Reactions to 13G Filings



- Positive effect of liquidity on 13G is consistent with both “exit” and “no governance”
  - Effect of liquidity is stronger in firms with higher WPS
  - Prior papers found a positive effect of liquidity (Fang, Noe, and Tice (2009)), particularly for firms with blockholders (Bharath, Jayaraman, and Nagar (2011))
- H6a: Market reaction to a 13G filing is significantly positive
  - Predicted by “exit”, but could also be due to blockholder having private information that the firm is undervalued
- H6b: Market reaction is stronger for firms with high liquidity
  - Predicted by “exit”

# Market Reactions to 13G Filings: Results

	(1) Pooling	(2) Low LIQAM	(3) High LIQAM	(4) Low LIQFHT	(5) High LIQFHT
Testing CAR (-1, +1) > 0	0.007*** (0.002)	0.004 (0.004)	0.010*** (0.003)	0.005 (0.004)	0.009*** (0.003)
Number of Obs. Used	630	315	315	315	315

	(1)	(2)
Dependent Variables	CAR(-1, +1) (surrounding 13G Filings)	
HIGHLIQAM <sub>t</sub>	0.015** (0.007)	
HIGHLIQFHT <sub>t</sub>		0.010* (0.006)
Controls (Size, BM)	Yes	Yes
Number of Obs. Used	630	630
Adjusted R <sup>2</sup>	0.014	0.010



# Conclusion

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- Liquidity encourages block formation
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