UNC
KENAN-FLAGLER
BUSINESS SCHOOL

Credit Market Equivalents and the Valuation of Private Firms

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Discussant: **Andrei S. Gonçalves**

2022 SFS Cavalcade

Outline

The Paper in a Nutshell

- Liquid Assets:

- Private Equity:

- GPME: $M_t = exp\{a - b^{'}f_t\}$ where f_t are public market factors

- This Paper:

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- Liquid Assets:

$$1 = \mathbb{E}_t[M_{t+1} \cdot R_{t+1}] \qquad \Rightarrow \qquad \alpha_t = \mathbb{E}_t[M_{t+1} \cdot R_{t+1}] - 1$$

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  - f_t that prices loans/bonds issued by firms held by PE funds
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Table 5: Realized equity- and traded loan performance

	All PE deals		
	(1)	(2)	(3)
Log average bid price	2.189***		
	(0.529)		
Log average bid price$_{t-1}$		2.119***	
		(0.638)	
Log average bid price$_{t-4}$			2.413***
			(0.395)
Loan maturity (yrs)	-0.100	-0.075*	-0.090
	(0.076)	(0.042)	(0.067)
# of quotes	-0.087	-0.259	0.034
	(0.198)	(0.324)	(0.285)
Portfolio size	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)
Fund vintage year FE	Yes	Yes	Yes
Observations	70	70	70
Adj. R^2	0.356	0.349	0.256

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Table 11: Returns and characteristics of loan portfolios sorted on characteristics

	1	2	3	4	5	5-1		1	2	3	4	5	5-1
Panel A: STM							**Panel E: Volatility**						
AREW	0.04***	0.02	0.04***	0.04***	0.04***	-0.00	AREW	0.02***	0.03***	0.03***	0.04***	0.05**	0.02***
t-stats	3.62	1.56	4.55	6.53	4.01	-1.77	t-stats	6.73	5.77	3.57	2.93	2.37	3.07
ARVW	0.03***	0.03***	0.03***	0.04***	0.03***	0.00	ARVW	0.03***	0.03***	0.03***	0.04***	0.04***	0.02***
t-stats	4.34	4.69	5.17	5.80	5.86	0.91	t-stats	6.82	5.72	5.12	4.05	3.48	4.03
Panel B: Momentum							**Panel F: Quotes**						
AREW	0.01	0.03***	0.03***	0.03***	0.06***	0.05***	AREW	0.04***	0.03*	0.03***	0.04***	0.03***	-0.01***
t-stats	0.29	3.99	5.57	4.35	5.68	6.38	t-stats	4.23	1.71	3.93	4.75	4.61	-3.52
ARVW	0.02*	0.03***	0.03***	0.03***	0.05***	0.03***	ARVW	0.04***	0.04***	0.03***	0.03***	0.03***	-0.01***
t-stats	1.82	4.69	5.66	5.35	6.15	8.23	t-stats	5.75	5.10	4.19	4.86	4.93	-4.61
Panel C: Price							**Panel G: BA-spread**						
AREW	0.03	0.03***	0.03***	0.03***	0.03***	0.00	AREW	0.03***	0.03***	0.02	0.03**	0.05**	0.01**
t-stats	1.15	2.85	5.37	7.05	9.68	0.14	t-stats	8.32	6.91	1.45	2.78	2.63	2.40
ARVW	0.04***	0.03***	0.03***	0.03***	0.03***	-0.01*	ARVW	0.03***	0.03***	0.03***	0.03***	0.05***	0.02***
t-stats	3.00	3.02	5.58	7.08	14.53	-1.72	t-stats	9.43	5.84	4.43	3.57	3.67	3.49
Panel D: MV							**Panel H: Size**						
AREW	0.04*	0.04***	0.03***	0.03***	0.03***	-0.01	AREW	0.03***	0.03***	0.03***	0.04***	0.04***	0.01***
t-stats	1.69	3.91	4.76	4.47	5.31	-1.28	t-stats	3.75	3.35	3.43	5.18	3.89	3.26
ARVW	0.05***	0.04***	0.04***	0.03***	0.03***	-0.02***	ARVW	0.04***	0.03***	0.03***	0.03***	0.03***	-0.00**
t-stats	4.23	4.46	5.33	5.45	5.57	-5.71	t-stats	4.95	5.57	5.04	6.05	7.02	-2.64

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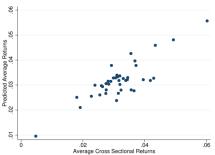| Panel D: MV	1	2	3	4	5	5-1	Panel H: Size	1	2	3	4	5	5-1
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Table 12: Cross-sectional regression of value weighted avg quarterly excess returns on the estimated betas from the first step

	(1) rmrf β / SE
Q5mQ1_mom	0.018***
	(0.004)
Q5mQ1_vola	0.017***
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Q5mQ1_price	-0.014***
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Q5mQ1_MV	-0.014***
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Observations	40
Adj. R^2	0.596

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Figure 1:
Predicted Loan Returns and Actual Loan Returns

Table 13: Valuation: Fund Portfolios

		(1)	(2)
		Preqin	Our Data
CME		-0.042	-0.023
		(0.243)	(0.148)
	$H_0 : CME = 0$	[0.863]	[0.876]
GPME		0.205	0.428
		(0.296)	(0.310)
	$H_0 : GPME = 0$	[0.490]	[0.168]
PME		0.062	0.399
		(0.053)	(0.115)
	$H_0 : PME = 0$	[0.243]	[0.000]

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Q5mQ1_MV	-0.014***
	(0.003)
Q5mQ1_BA	0.014***
	(0.003)
Observations	40
Adj. R^2	0.596

Table 17:

Cross-sectional regression of the avg quarterly excess **loan returns** of public companies on the estimated betas from the first step

	β / SE
Q5mQ1_mom	0.020***
	(0.003)
Q5mQ1_vola	0.009***
	(0.003)
Q5mQ1_MV	-0.005***
	(0.002)
Q5mQ1_BA	0.005***
	(0.002)
Observations	60
Adj. R^2	0.411

Table 19:
Cross-sectional regression of the avg quarterly excess **equity returns** of companies with traded loans on the estimated betas from the first step
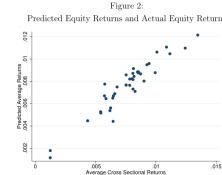
	β / SE
mmrf	-0.001
	(0.001)
smb	0.002***
	(0.000)
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Q5mQ1_mom	0.003
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	(0.005)
Q5mQ1_price	-0.013**
	(0.005)
Q5mQ1_MV	-0.003
	(0.002)
Q5mQ1_BA	0.005
	(0.006)
Observations	40
Adj. R^2	0.712

Table 19:
Cross-sectional regression of the avg quarterly excess **equity returns** of companies with traded loans on the estimated betas from the first step

	β / SE
mmrf	-0.001
	(0.001)
smb	0.002***
	(0.000)
hml	0.004***
	(0.001)
rmw	0.003***
	(0.001)
cma	0.003***
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Q5mQ1.mom	0.003
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	(0.006)
Observations	40
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Figure 2:
Predicted Equity Returns and Actual Equity Returns

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My Comments

Final Remarks

1) Segmentation vs Weak Factors

- A lot of effort on ruling out market segmentation:

- The more important issue is weak factors

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  ○ Core results start on Section 4 (Table 11)

  ○ I would keep one table about market segmentation

  ○ Maybe a table analogous to Table 16 (enter to exit returns)

  ○ Other market segmentation results can go to the appendix

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- Current Private Equity Analysis

- Current Public Equity Analysis (the "validation")

- Addressing weak factors: match validation to actual analysis

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  - Identify risk factors from loans

  - Estimate risk prices from loans

  - SDF is applied to price price private equities

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- Current Public Equity Analysis (the "validation")
  - Identify risk factors from loans
  - Add loan risk factors to FF5 factors
  - Estimate risk prices from public equities
  - SDF is applied to price price public equities

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