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Logit

210095  
210095

100190

2015 6

2015

Hellmann 2000

2013

2015

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Nagarajan and Meyer 1995 Gajanan Joshi 2005

1

IDG

2

[1]

3

2007

" "

Milde Riley 1988

San

chez- Schwarz 1996 Gajanan Joshi 2005

Ahlers et al 2015

1

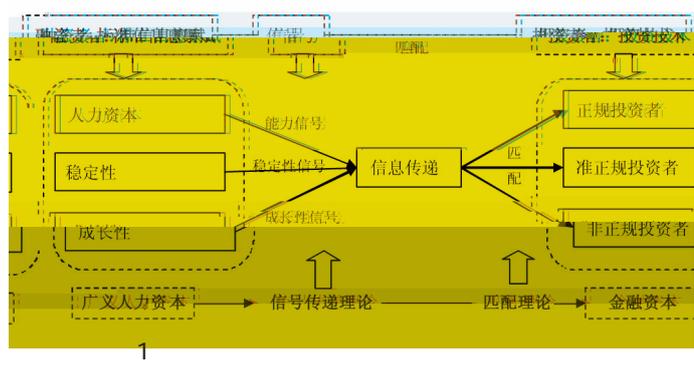
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[1]

1.

$Q B A \sigma$   
 $B A$

$\sigma$



$r$

$B$

$P$

$1+r B$

$\theta = \bar{p}$

$\theta$

$F_s \theta \delta$

$R=1+r \theta$

$\theta Q < 1+r B$   
 $\theta = \frac{RB}{Q(B,A,a)} \quad \theta > \theta$   
 $\theta Q(\cdot) - RB \quad \theta < \theta$

$B$

1

$$\max_B \pi = \int_0^{\theta} \theta Q dF_s(\theta) - RB[1 - F_s(\theta)]$$

1

$\sigma \in [0, 1]$

$\sigma = 0$

$\sigma = 1$

$K^y(W, \sigma)$

i

$$\frac{K(\cdot)}{w} > 0$$

$$\frac{K(\cdot)}{\sigma} < 0 \quad \frac{^2K(\cdot)}{w^2} < 0 \quad \frac{^2K(\cdot)}{\sigma^2} < 0$$

$K^F(\sigma)$

$K^{IF}(\sigma)$

$K^y(W, \sigma)$

$w \quad 2$

$$K(W, \sigma) = wK^F(\sigma) + (1-w)K^{IF}(\sigma)$$

2

2.

$w$

$w \in [0, 1] \quad w=0$

$w=1$

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$$\text{Max}_{w_j} \left\{ \text{Max}_B \pi^j(B^j, R) \mid K^j(w, \sigma) \right\} \quad 7$$

$$\text{s.t.} \quad g^j(B^j, R) = 0, \quad \pi^j(B^j, R) - B^j = 0$$

$w_j$

$x^*$

8

$$\text{Max}_w x^*(w, \sigma) = \pi(\cdot) - L(w, \sigma) - K(w, \sigma) \quad 8$$

$$R = I(w) = 1 + i(w)$$

$$x_{ww}^* = Q_B E(\theta) \frac{B^*}{I} \frac{dI}{dw} - B^* \frac{dI}{dw} \left[ 1 + \frac{B^*}{I} \frac{I}{B^*} \right] - [\sigma L_w^F + (1 - \sigma) L_w^{IF}] - [K^F(\sigma) - K^{IF}(\sigma)] = 0 \quad 9$$

$$x_{ww}^* = Q_B E(\theta) B_I^* I_{ww} + Q_{BB} E(\theta) [B_I^* I_w]^2 - B^* I_{ww} \left( 1 + B_I^* \frac{I}{B^*} \right) - 2B_I^* I_w^2 - [\sigma L_{ww}^F + (1 - \sigma) L_{ww}^{IF}] < 0 \quad 10$$

$$x_{w\sigma}^* = Q_{B\sigma} E(\theta) B_I^* I_w - B_I^* I_w - [L_w^F - L_w^{IF}] - [K_\sigma^F - K_\sigma^{IF}] > 0 \quad 11$$

$w \quad \sigma$

$$x_{ww}^* dw + x_{w\sigma}^* d\sigma = 0 \quad 12$$

$$\frac{dw}{d\sigma} = - \frac{x_{w\sigma}^*}{x_{ww}^*} > 0 \quad \sigma \quad 1 \quad w$$

1

[1]

1. Logit

[1]

1994 Logit Ordered Logit Model OLM Liao

$$y^* = \beta x' + \varepsilon \quad \text{Logit} \quad 13$$

$$y_i = m \quad \tau_{m-1} < y_i^* < \tau_m \quad m=1,2,\dots,j \quad 14$$

$$\text{Prob}(y=i) = \frac{\exp(\tau_i - \sum_{k=1}^K \beta_k x_k) - \exp(\tau_{i-1} - \sum_{k=1}^K \beta_k x_k)}{\sum_{i=1}^j \exp(\tau_i - \sum_{k=1}^K \beta_k x_k)} \quad 15$$

$$\frac{\text{Prob}(y=i)}{x_k} = [\lambda(\tau_i - \sum_{k=1}^K \beta_k x_k) - \lambda(\tau_{i-1} - \sum_{k=1}^K \beta_k x_k)] \beta_k \quad 16$$

2. " " [1]

2014-2015

2014 2015

6

528

5

16

2262

31.82%

25.76%

1

16.48%

1

3.

Ahlers 2015

2015

		%
	137	25.95%
	168	31.82%
	136	25.76%
	87	16.48%
	528	100.00%

Liu et al 2011 Huckman and Staats 2011 [2]

Ahlers 2015

Van Osnabrugge 2000 Haines 2003 Huckman 2011

[1]

[2] 5%

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Mason and Harrison 2002 Maxwell and Jeffrey 2011

2

Logit

4

3

0.40%

0.04%

3

Logit

		-0.0645	0.0033	0.0003	-0.0028	-0.0008
		-1.03	1.04	0.78	-1.02	-1.02
		0.1126***	-0.0057***	-0.0005*	0.0049***	0.0013***
		2.78	-2.98	-1.98	2.97	2.57
		0.2628*	-0.0133**	-0.0013	0.0115*	0.0031**
		2.36	-2.45	-1.30	2.31	2.22
		0.0031	-0.0002	-0.0002	0.0001	0.0000
		0.03	-0.03	-0.03	0.03	0.03
		0.0790**	-0.0040***	-0.0004*	0.0034***	0.0009**
		2.97	-3.01	-2.07	3.03	2.63
		1.7452***	-0.0884***	-0.0083*	0.0761***	0.0206***
		2.66	-2.67	-1.95	2.68	2.54
		0.0162***	-0.0008***	-0.0001*	0.0007***	0.0002***
		2.56	-2.87	-1.83	2.59	2.55
		2.9227***	-0.1481***	-0.0139*	0.1275***	0.0345***
		2.57	-2.89	-1.84	2.61	2.56
		0.2133	-0.0108	-0.0010	0.0093	0.0025
		0.74	-0.75	-0.58	0.73	0.74
		0.0214*	-0.0011*	-0.0001	0.0009*	0.0003*
		1.87	-1.89	-1.41	1.89	1.77

8.84%

0.83%

0.08%

0.01%

1 8.2996 SE=1.9159  
 2 14.4992 SE=2.1016  
 3 21.7117 SE=2.3531

z \*\*\* \*\* \* 1% 5% 10%

Logit

528

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The present research studies the operating mechanism of venture capital market as well as the formation mechanism of its equity transaction from the perspective of matching theory, and testifies the determinants of equity investment and financing matching empirically with the Ordered Logit Model based on survey data. The results show that human capital, stability, growth and other standard information endowment increases the opportunity of entrepreneurs to gain access to formal and quasi-formal investors, verifying the theoretical hypothesis that the main basis for formal investors to identify the capacity and creditworthiness of the entrepreneurs is their standard information endowment. The results also verify the hypothesis that informal entrepreneurs are more likely to be matched with informal investors. Therefore, the future direction of venture capital market reform should be establishing the evaluation system of standard information for entrepreneurs and reducing their financing barriers, so as to synthesize the comparative advantages of formal and informal finance to provide better financial support for entrepreneurship and innovation.

venture capital market; equity transaction; matching; signaling theory