

研究报告

2015

10

10

2015

T- M

T- M

$$R_{it} - R_{ft} = \alpha_i + \beta_{i\ m} * (R_{mt} - R_{ft}) + \gamma_i * (R_{mt} - R_{ft})^2 + \beta_{i\ smb} * SMB_t + \beta_{i\ hml} * HML_t + \varepsilon_{it} \quad (2)$$

$$R_{it} - R_{ft} \quad t \quad i \quad R_{mt} - R_{ft} \quad t$$

$$A \quad SMB_t$$

$$t \quad HML_t \quad t$$

$$R_{ft} \quad t$$

γ

γ

T- M

α

α

α 12

1

1

α

α 0 2 α

17. 9% 19. 6% α

- 16. 8% T- M α - 22. 8%

34. 7 42. 3

1 α

α		T- M
	2. 5%	1. 2%
	17. 9%	19. 6%
75%	6. 7%	5. 5%
50%	2. 8%	2. 0%
25%	- 1. 2%	- 3. 2%
	- 16. 8%	- 22. 8%

α

5%

1 2 T- M α T

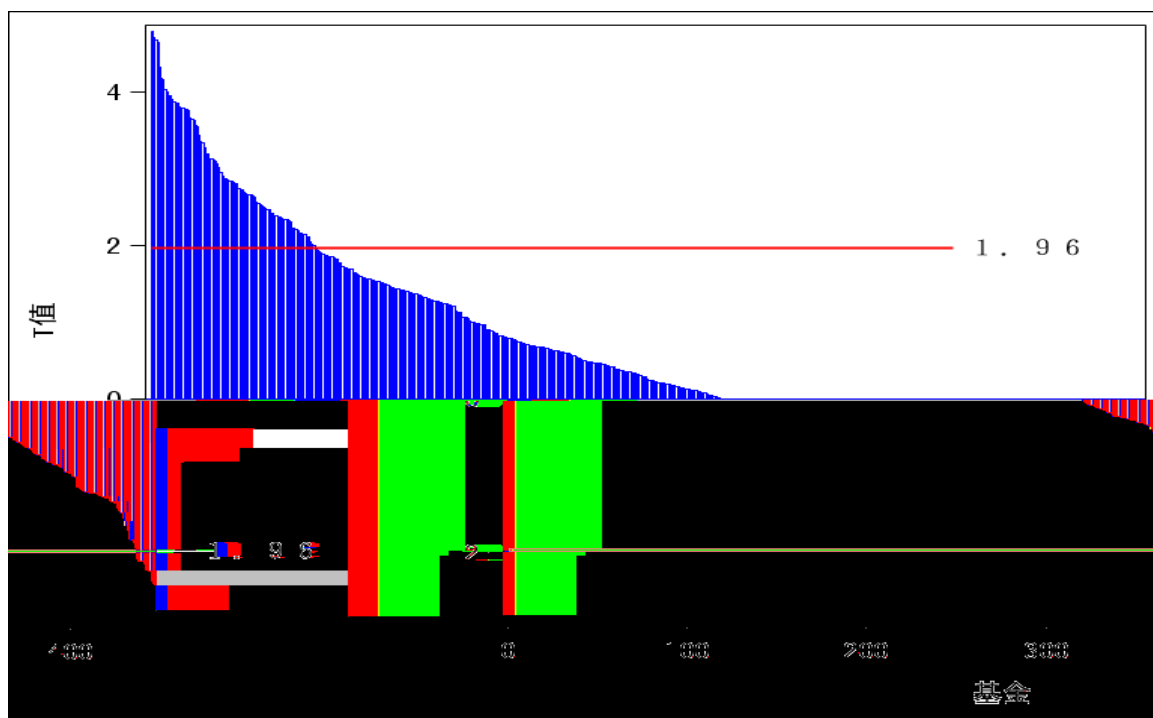
5%

α T 1. 96 α - 1. 96

α α

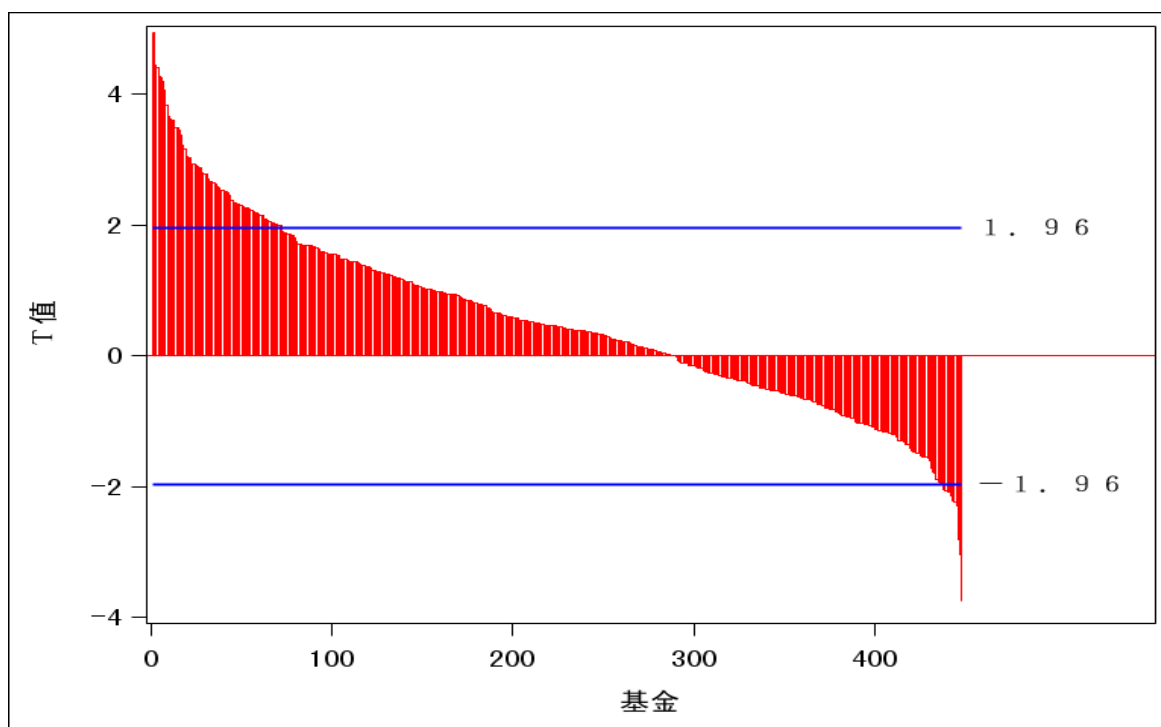
1

α



2 -

α



2

α

90

α

0

20.1%

α

68

15.2%

15% 20%

2 α

	α	α
	90	20.1%
T-M	68	15.2%

T-M γ

3-3 T-M γ

γ 0

5% 3 γ T 1.96

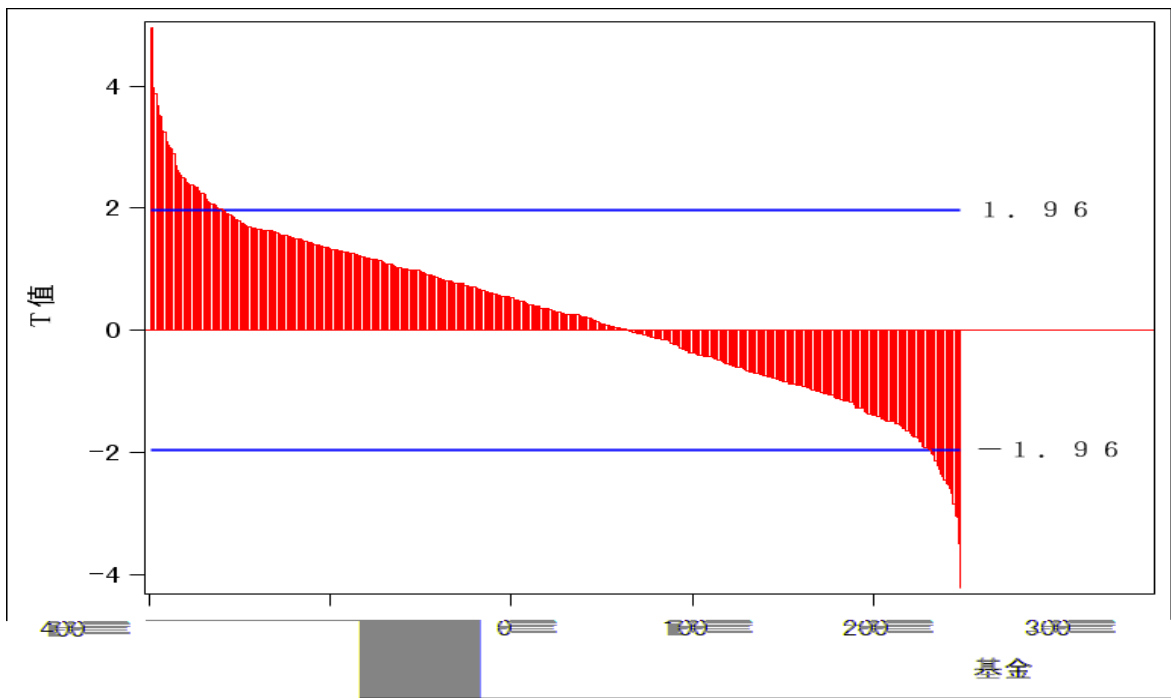
γ T -1.96

448

γ 42 9.4% 17 γ

3.8%

3 - γ ()



T- M	α	γ
71. 7%	α	γ

15. 2%	68
59	13. 2% 7
	1. 6% 2

3	α	γ		
	γ			
α				
	321	10	33	364
	9	0	7	16
	59	7	2	68
	389	17	42	448

4	α	γ		
	γ			
α				
	71. 7%	2. 2%	7. 4%	81. 3%
	2. 0%	0. 0%	1. 6%	3. 6%
	13. 2%	1. 6%	0. 5%	15. 2%
	86. 8%	3. 8%	9. 4%	100. 0%

T- M

T- M

T- M

42

9. 4%

2

20%

Boot st r ap

OLS

,

Boot st r ap

Boot st r ap

Boot st r ap

Boot st r ap

1 OLS

$$R_{it} - R_{ft} = \alpha + \beta_1 \text{Size}_i + \beta_2 \text{B/M}_i + \beta_3 \text{Leverage}_i + \beta_4 \text{Profit}_i + \beta_5 \text{Dividend}_i + \epsilon_{it}$$

Bootstrap

α γ

α γ

α γ

Bootstrap

α

γ

α γ

α γ

90

α

90

Bootstrap

5

Bootstrap

90

88

Bootstrap

P

0.05

		—				—	
	13.8%	4.76	0.000		8.2%	2.82	0.002
	14.2%	4.75	0.000		9.4%	2.8	0.009
	12.6%	4.67	0.000		9.1%	2.77	0.005
	13.9%	4.65	0.000		7.8%	2.77	0.006
	11.8%	4.34	0.000		7.4%	2.73	0.005
	8.3%	4.21	0.000		6.4%	2.72	0.004
	11.3%	4.15	0.000		7.3%	2.69	0.008
	8.3%	4.11	0.000		11.0%	2.69	0.008
	13.2%	4.02	0.000	2	9.0%	2.68	0.008
	15.2%	3.98	0.000		15.7%	2.66	0.010
	7.9%	3.95	0.000		8.2%	2.66	0.014

		—				—	
	9.1%	3.92	0.000		8.4%	2.66	0.006
	9.8%	3.91	0.000		7.3%	2.62	0.014
	9.2%	3.89	0.000		7.2%	2.6	0.015
	13.6%	3.86	0.000		11.0%	2.59	0.015
	10.7%	3.86	0.000		7.2%	2.54	0.010
	9.1%	3.84	0.000		8.6%	2.53	0.021
	12.6%	3.8	0.001		7.7%	2.52	0.009
	11.3%	3.78	0.000		6.4%	2.49	0.014
	10.9%	3.73	0.000		6.6%	2.46	0.009
	10.4%	3.7	0.002		8.5%	2.44	0.016
	9.6%	3.69	0.001		17.9%	2.43	0.009
	11.9%	3.66	0.001		7.6%	2.39	0.018
	15.4%	3.65	0.000		7.1%	2.39	0.015
	11.5%	3.56	0.001		8.3%	2.36	0.012
	10.4%	3.55	0.000		9.5%	2.36	0.019
	11.9%	3.44	0.001		7.6%	2.36	0.020
	8.9%	3.44	0.002		9.5%	2.35	0.025
	7.8%	3.33	0.000		5.9%	2.33	0.016
	15.6%	3.31	0.003		10.0%	2.27	0.024
	8.6%	3.21	0.004		9.5%	2.26	0.036
	12.4%	3.14	0.001	2	7.1%	2.23	0.021
	9.4%	3.13	0.003		14.0%	2.2	0.033
	7.8%	3.12	0.002		9.0%	2.19	0.026
	7.1%	3.12	0.004		6.1%	2.18	0.026
	10.2%	3.11	0.001		6.6%	2.17	0.033
	8.4%	3.04	0.001		7.1%	2.16	0.041
	7.3%	3.01	0.003		12.1%	2.16	0.030

α

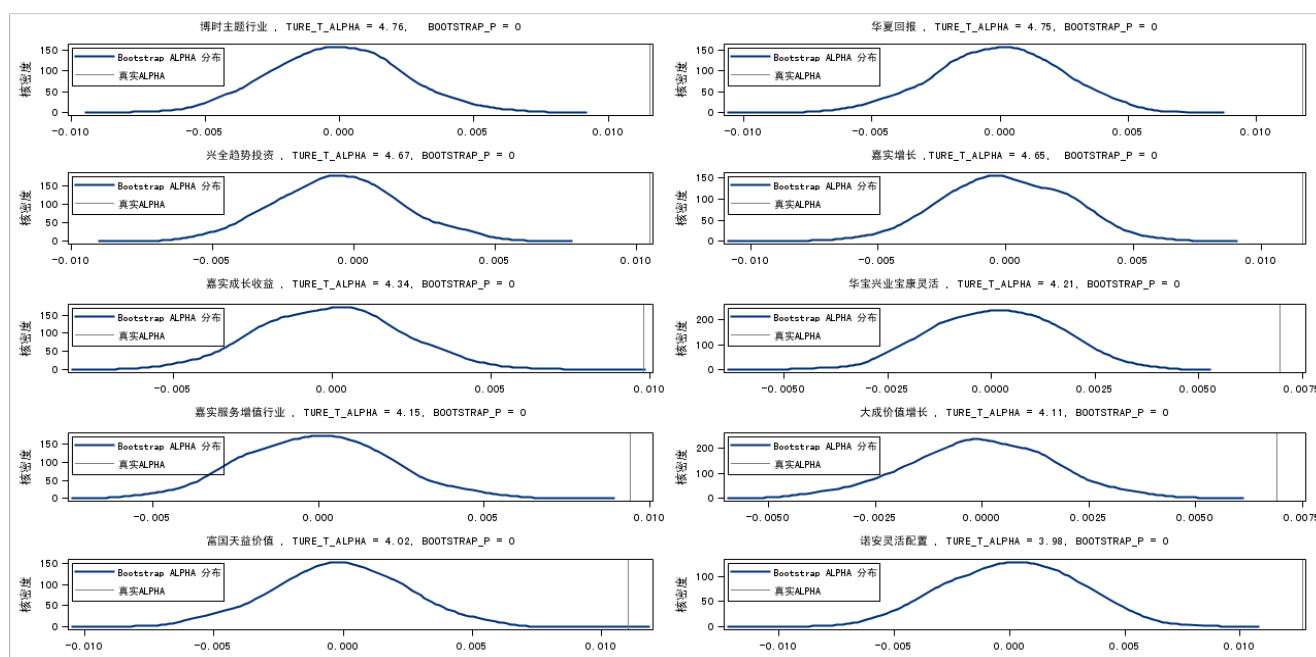
Bootstrap

α

α

1.2% 13.8% 12 Bootstrap

1.2%



T-M

42

γ

Bootstrap

6

T-M

Bootstrap

42

28

Bootstrap P

0.05

		—				—	
	0.95	4.88	0.000		0.43	2.39	0.015
	1.54	4.03	0.002		1.54	2.37	0.027
	1.06	3.84	0.022		0.43	2.36	0.030
	0.53	3.64	0.000		0.83	2.33	0.055
	1.42	3.63	0.009		0.94	2.33	0.064
	0.60	3.54	0.001		0.59	2.33	0.008
	0.78	3.25	0.001		0.66	2.32	0.062
	1.22	3.18	0.041		1.27	2.22	0.046
	1.60	3.12	0.000		0.62	2.18	0.103
	2.64	3.03	0.002		0.62	2.16	0.101
	1.30	3.01	0.012		0.37	2.12	0.113
	2.31	3.00	0.002		0.96	2.09	0.144
	0.79	2.97	0.027		1.16	2.08	0.027
	0.43	2.74	0.041		1.38	2.06	0.066
	0.90	2.64	0.006		0.41	2.05	0.067
	1.77	2.61	0.036		0.59	2.05	0.071
	1.63	2.54	0.020		1.44	2.04	0.010
	1.53	2.54	0.004		1.48	2.02	0.065
	0.60	2.47	0.086		1.31	2.00	0.045
	0.61	2.45	0.023		0.60	1.98	0.351
	2.45	2.44	0.005		1.13	1.96	0.061

5

T-M

Bootstrap

Bootstrap

T-M γ

Bootstrap

γ

T-M

Bootstrap

γ

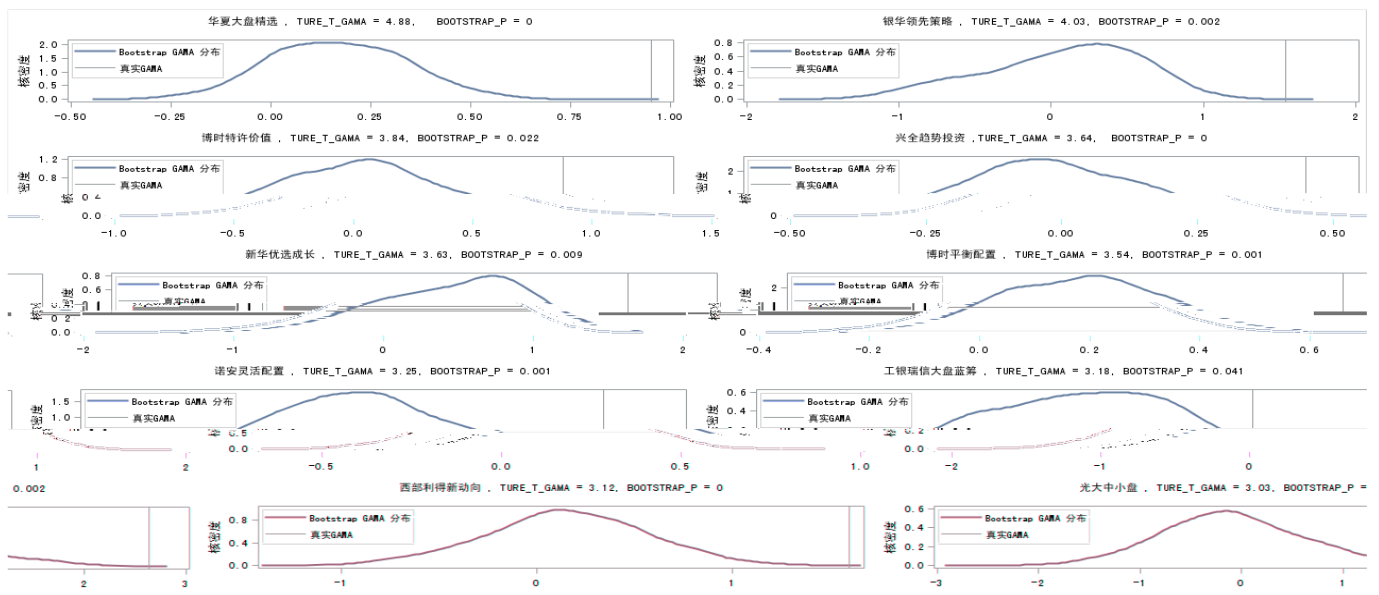
T-M

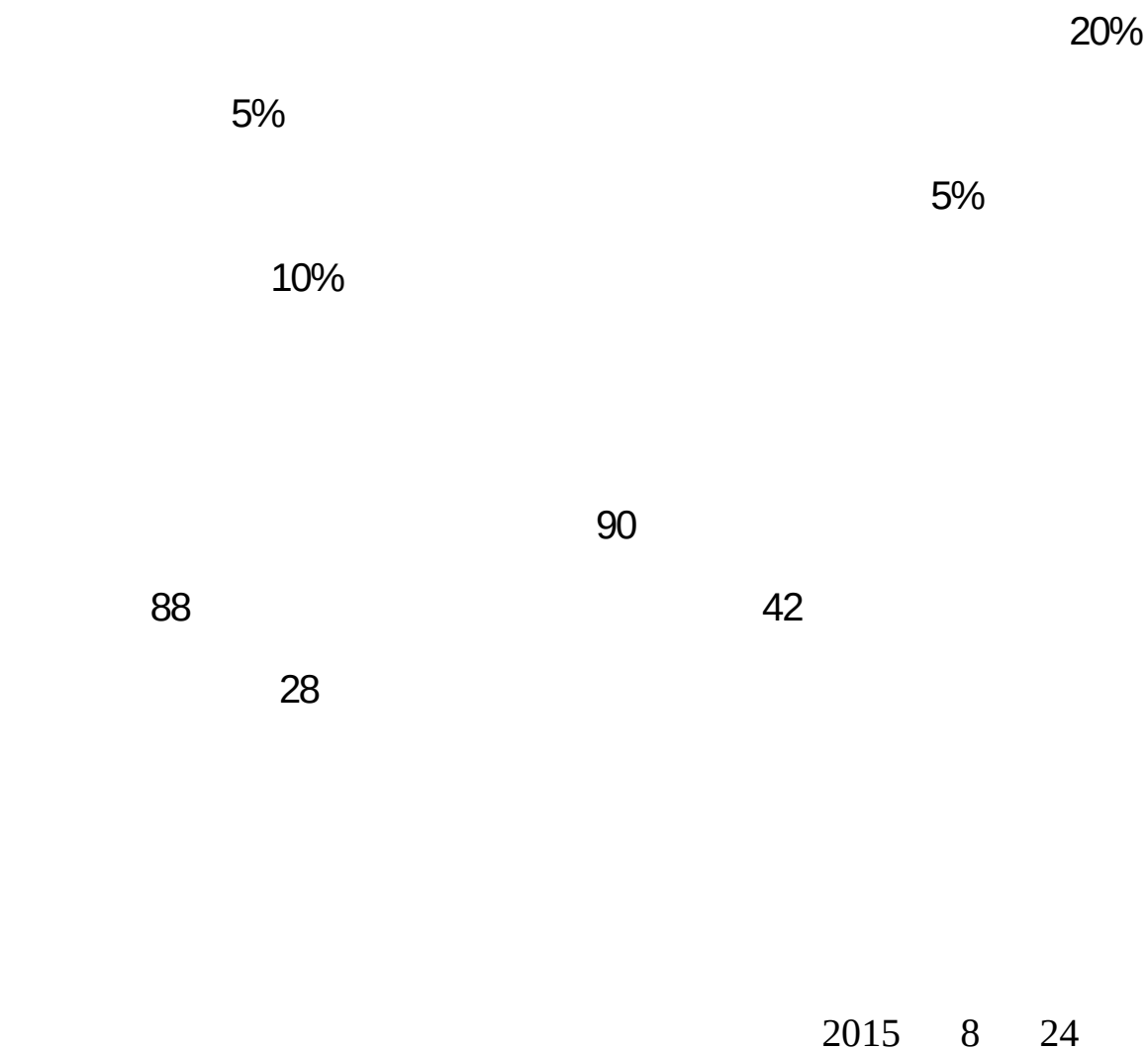
γ

0.95

Bootstrap

0.95





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