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An Exploratory
Research on
Mass Psychology and
China's Stock Market

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Abstract

- This study is a part of a large multicultural and multidisciplinary research project led by Prof. Annamaria de Rosa started at the beginning of 2009, entitled "Mass Psychology and Stock Market: Heterogeneous Agents, Media, Traders and Investors", in cooperation with a crosscontinent research team involving European countries (Italy, France, UK, Austria), US and China.
- This research is built on a general hypothesis that different financial behaviors are strongly correlated with a set of personal psychological dimensions that include specific metaphors and social representations of the stock market.

Abstract

Aim:

- ❖ To explore the content and structure of social representations of stock market of China among expert and laypeople, with the backdrop before and after the global financial crisis.
- ❖ To discover what factors and to what extent the fluctuation of stock market influence the emotion and decision-making of investors, and if there are significant differences of risk perception of investors with the explosion of financial crisis, attempting to describe the relationship between motivations behind the investment behavior and the positive or negative factors working on them.
- A comparison with European countries will be made.

General Introduction of China's Stock Market

- In 1990 and 1991, China set up stock exchanges in Shanghai and Shenzhen.
- Deficiencies: system lags behind, structural imbalance, low effectiveness, role dislocation of government, and the imperfect mechanism.
- ❖ The global financial crisis exploded in 2008 not only brought tremendous impact on China's economy and financial markets, but also induced a serious psychological crisis for domestic investors.

Shanghai and Shenzhen Composite Index changes in statistics

(1)	Hi	gh
Vol	ati	lity

2006: 129.88%

2007: 92.86%

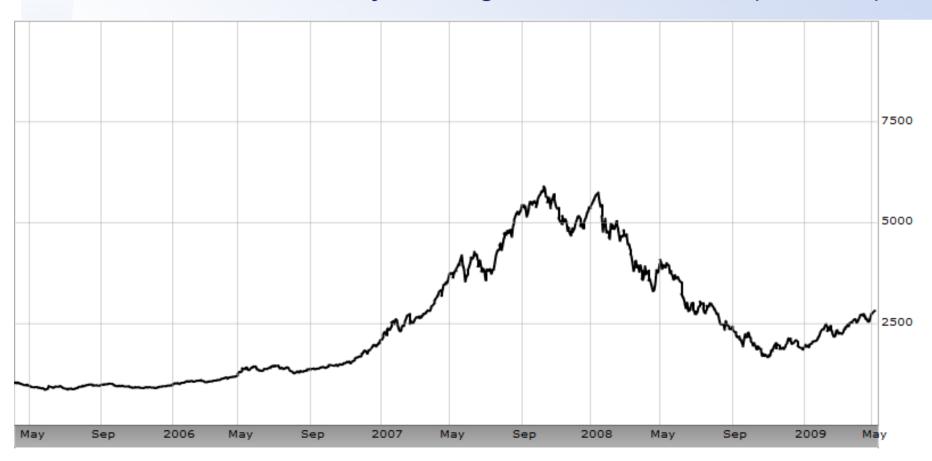
2008: -65.42%

2009: 77.24%

• •	Shanghai Index		Sh	enzhen Ind	ex	
Year	Highest	Lowest	Closing	Highest	Lowest	Closing
1992	1429.01	292.76	780.39	312.21	107.08	241.2
1993	1558.4	750.48	833.8	359.44	203.91	238.27
1994	1052.94	325.89	647.87	242.06	96.56	140.63
1995	926.41	524.43	555.29	169.66	112.63	113.24
1996	1258.69	512.83	917.01	473.02	105.34	327.45
1997	1510.18	870.18	1194.1	517.91	305.81	381.29
1998	1422.98	1043.02	1146.7	441.04	317.1	343.85
1999	1756.18	1047.83	1366.58	525.14	310.65	420.18
2000	2125.72	1361.21	2073.48	654.37	414.69	635.73
2001	2245.44	1514.86	1645.97	664.85	439.36	475.94
2002	1748.89	1339.2	1357.65	512.38	371.79	388.76
2003	1649.6	1307.4	1497.04	449.42	350.74	378.63
2004	1783.01	1259.43	1266.5	470.55	315.17	315.81
2005	1328.53	998.23	1161.06	333.28	237.18	278.75
2006	2698.9	1161.91	2675.47	550.59	283.48	550.59
2007	6124.04	2541.53	5261.56	1551.19	553.69	1447.02
2008	5522.78	1664.93	1820.81	1576.5	456.97	553.3
2009	3478.01	1844.09	3277.14	1234.17	571.13	1201.34

(2) Frequent Alternations between bullish and bearish market

Index variation tendency of Shanghai and Shenzhen 300 (2005-2009)



(3)Composition of investors: a large and diversified population: university students, unemployed, white collar, retiree...

Trading place: Securities Company







(4) Popularity of Speculation

High turnover rate indicates high speculation degree in stock market.

Turnover rate of China's stock market almost maintains above 400% since 1992, however in developed countries is usually less than 50%.

Academic researches on Stock Market of China

- **❖ Efficient Market Theory (Fama, 1965)**
- Behavioral Finance (prosperous during 80s-90s, 20th century)
- ✓ The relationship between consumer's psychological expectation and the rise and fall of shares of Shanghai and Shenzhen (based on an economic method. 2000.)
- ✓ Psychological state analysis of stock investors (questionnaires of SCL-90, SAS, SDS. 2000.)
- ✓ Coping style of Chinese stock investors (questionnaire. 2000.)
- ✓ Herd behavior of China's stock market(economic model. 2010)
- **✓** Social representations?

Research Methods

Media Analysis

- ✓ China Daily, from Sep.2008 to Jun. 2010
- ✓ On Oct. 16, 2008, the grid of media analysis was launched. 120 articles have been analyzed till now.

Multi-method Study: 3 versions of questionnaires

Qualitative:

- √ 5 free associations (stock market, financial advisor, securities company, internet, risk), ranking, and rating
- ✓ metaphors related to stock market
- ✓ perceived influence on financial behaviors taken effect by specific events

Quantitative:

- √ psychological characteristics
- ✓ evaluations of risk propensity
- ✓ investment strategies under the influence of financial crisis
- social interaction and communication with heterogeneous financial agencies
- ✓ demographic

Tools

- From Jul. 30th to Dec. 16th 2009, period for translation of the three versions of questionnaires.
- The revision of the translation from Prof. Jian Guan and Prof. Liu is very important and fundamental before data collection.
- Some items not suitable for Chinese situation.

Data Collection

Time period: from January 5th 2010 to May 27th 2010

- **♦ Population: N=372**
 - 104 for financial advisors
 - 130 for investors through financial advisors
 - 138 for autonomous online investors

This survey was carried out among 9 securities companies in 4 main and representative cities, which are Beijing, Shanghai, Shenzhen, and Tianjin.

Additionally, investigations among autonomous investors were carried out within 16 cities, seeking to reflect not only the representative, but also the common characters of investors of China.

Sample Composition

Variable	Type	Number	Percentage(%)
Gender	Male	53	51.0
	Female	51	49.0
City	Beijing	21	20.2
	Shanghai	16	15.4
	Shenzhen	10	9.6
	Tianjin	57	54.8
Education	High school	3	2.9
	University	96	92.3
	Other	5	4.8
Total		104	100

Sample Composition of Financial Advisor

Sample Composition

Variable	Type	Number	Percentage(%)
Gender	Male	75	57.7
	Female	55	42.3
City	Beijing	22	16.9
	Shanghai	20	15.4
	Shenzhen	18	13.8
	Tianjin	86	66.2
	Hebei	2	1.5
	Shandong	1	0.8
	Chongqing	1	0.8
Education	Primary school	0	0
	Middle school	6	4.6
	High school	42	32.3
	University	62	47.7
	Other	20	15.4
Profession	Unemployed	3	2.3
	University student	24	18.5
	Blue collar/Craftsman	20	15.4
	Teacher/White collar	30	23.1
	Executive/Law officer/Professor	13	10
	Entrepreneur/Freelancer	22	16.9
	Retired	14	10.8
	Other	4	3.1
Total		130	

Sample Composition of Investors through financial advisor

Sample Composition

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Variable	Type	Number	Percentage(%)
Gender	Male	75	54.3
	Female	63	45.7
City	Beijing	26	18.8
	Shanghai	20	14.5
	Shenzhen	16	11.6
	Tianjin	48	34.8
	Others	28	20.3
Education	Primary school	0	0
	Middle school	12	8.7
	High school	45	32.6
	University	81	58.7
Profession	Unemployed	6	4.3
	University student	4	2.9
	Blue collar/Craftsman	17	12.3
	Teacher/White collar	38	27.5
	Executive/Law officer/Professor	17	12.3
	Entrepreneur/Freelancer	21	15.2
	Retired	22	15.9
	Other	13	9.4
Total		138	

Sample Composition of Autonomous online investors

Methods for Data Analysis



- Quantitative variables: SPSS and LISREL
- Qualitative variables: SPAD or others

Translation of every free association and free answer from May 24th to June 24th, 2010

Total amount: nearly 20000

Exploratory Results

Invested Capital of Investors

	Before Sep.2008	After Sep.2008	Total
Small Investor(under 5%)	50%	49%	50%
Medium Investor(5-20%)	42%	32%	37%
Big Investor(above 20%)	8%	19%	13%
Total	100%	100%	100%

There is a dominant proportion of small and medium investors. However, as the number of both small and medium investors declined, the number of big investors rose with the ongoing financial crisis.

Big investors, are generally have a lower sense threshold of risk than small and medium investors, and indicate an inclination of risk-seeking in investment behavior.

Risk Tolerance

Investor through Financial Advisor

	Before Sep.2008	After Sep.2008	Total
Large and frequent oscillations	17%	7%	12%
Frequent, but not large oscillations	36%	28%	32%
Occasional oscillations	36%	29%	33%
Minimum fluctuations	6%	22%	14%
No risk	5%	14%	9%
Total	100%	100%	100%

Autonomous Online Investor

	Before Sep.2008	After Sep.2008	Total
Large and frequent oscillations	27%	15%	21%
Frequent, but not large oscillations	31%	20%	26%
Occasional oscillations	30%	33%	31%
Minimum fluctuations	7%	23%	15%
No risk	5%	9%	7%
Total	100%	100%	100%

Temporal Horizon of Investment

Investor through Financial Advisor

	Before Sep.2008	After Sep.2008	Total
Short-term(below 3 years)	54%	42%	49%
Medium-term(3-10 years)	23%	16%	19%
Long-term(above 10 years)	9%	14%	11%
All, diversifying the investment	14%	28%	21%
Total	100%	100%	100%

Autonomous Online Investor

	Before Sep.2008	After Sep.2008	Total
Short-term(below 3 years)	57%	53%	55%
Medium-term(3-10 years)	29%	23%	26%
Long-term(above 10 years)	4%	8%	6%
All, diversifying the investment	10%	16%	13%
Total	100%	100%	100%

Temporal Horizon for Financial Advisor

	Before Sep.2008	After Sep.2008	Total
Short-term(below 3 years)	59%	61%	60%
Medium-term(3-10 years)	19%	11%	15%
Long-term(above 10 years)	6%	6%	6%
All, diversifying the investment	16%	22%	19%
Total	100%	100%	100%

Preliminary Points of View

- The social representation of the stock market is influenced by the risk perception of different types of investors.
- The social representation of China's stock market is mediated by the macro-control of government, knowledge of stock market, and social interactions.
- Investors of China generally tend to be risk-aversion, and show preference to steady investment. However, autonomous investors are more inclined to be risky in financial activities than investors through financial advisor.
- Investors through financial advisor are more likely to make long-term investment, while autonomous investors would like to make short-term investment.
- Investors of China would be more likely to make decisions themselves in spite of consulting advisors.

