WEP Warwick Evans Publishing

International Journal of Global Economics and Management

ISSN: 3005-9690 (Print), ISSN: 3005-8090 (Online) | Volume 4, Number 2, Year 2024
DOI: https://doi.org/10.62051/ijgem.v4n2.33
Journal homepage: https://wepub.org/index.php/IJGEM/index

Anniversary and Numerical Worship: Based on Research on Typical Traditional Industries in China

Yan Zhuang

School of Finance, Southwestern University of Finance and Economic, Sichuan, Chengdu, 611100, China

ABSTRACT

This study demonstrates the impact of special anniversaries and numerical worship on the risk-taking behavior of listed companies in China's traditional industries. We focus on the widespread beliefs in multiples of 5 anniversaries (such as the 5th, 10th, and 20th anniversaries) and the numbers 6 and 8 in Chinese society. Analyzing data from real estate companies listed on the Shanghai Stock Exchange from 2007 to 2019, we find that stock price volatility slightly decreases during special anniversaries but not significantly, suggesting limited influence of superstitious beliefs on corporate decision-making. Further analysis shows that corporate risk-taking behavior does not significantly change during special anniversaries, highlighting the role of market discipline and quantitative analysis in curbing irrational behavior. While some studies suggest that numerical superstition may affect financial decisions of individuals and small businesses, our findings indicate that such influences are mitigated in large and complex organizations. This study provides insights for risk management of listed companies during special anniversaries and recommends that investors focus more on fundamental data and real-time information, avoiding superstition and irrational numerical worship.

KEYWORDS

China; Anniversary; Superstition; Numerical Worship

1. INTRODUCTION

Anniversaries, as time nodes with special significance, often have considerable impacts on both collectives and individuals. At the same time, even in modern society, numerical worship, or special preferences or aversions to certain numbers, is widespread. Therefore, this article cannot help but wonder whether anniversaries associated with specific numbers (hereinafter referred to as special anniversaries) affect the decisions of individuals or even collectives. Although there is no concrete evidence to suggest that the emphasis on special anniversaries significantly influences decision-making, its importance is widely recognized. For example, compared to regular anniversaries, people are more inclined to pay attention to 5th, 10th anniversaries, and other anniversaries that are multiples of 5. Similar preferences are also seen in the market, where many well-known listed companies tend to release major good news on anniversaries that are multiples of 5. Furthermore, especially in China and some Southeast Asian countries, there is a strong preference for numbers containing 6 and 8, making anniversaries associated with 6 and 8 particularly significant. There is already a small but growing body of research indicating that such superstitious behavior can influence personal consumption or financial decisions. However, a plausible explanation is that superstition can persist in personal decisions. However, large corporate investments are made in an environment of market competition, management discipline, and more objective quantitative cost-benefit analysis, which may limit the influence of unprofitable traditional beliefs. Moreover, the impact of such numerical

superstitions on resource allocation at the organizational or broader economic level has largely been unexplored in existing empirical research.

This paper examines the impact of listed special anniversaries on the risk-taking of companies in China's traditional industries. In addition to multiples of 5 anniversaries (such as the 5th, 10th, and 20th anniversaries), it also examines the widespread numerical worship of 6 and 8 in Chinese society. This article hypothesize that special anniversaries do not significantly affect the risk exposure of listed companies.

This paper refers to the data of companies in the real estate industry on the Shanghai Stock Exchange A-shares market from 2007 to 2019 to explore the proxy variables for corporate risk. Specifically, focusing on stock price volatility and use it as an indicator of overall risk.

The results show that during the special anniversaries of listed companies, there is a slight but not significant decline in stock price volatility. Overall, the results emphasize the secondary role of non-standard beliefs in corporate operations. Although this article am not the first to empirically examine how such superstitious behavior affects financial decisions, this article have found few studies exploring the impact of special anniversaries of listed companies on corporate investment and the extent to which market discipline can limit irrational decision-making.

Although existing empirical research rarely discusses the specific time node of anniversaries, there are many articles discussing the impact of numerical worship on economically important decisions. In principle, numerical worship refers to the preference or aversion to specific numbers, which may stem from culture, religion, customs, or personal experiences. For example, in some cultures, the number "8" is considered lucky, while "4" is considered unlucky [1]. Thus, when making major economic decisions, the subjective preferences of decision-makers for certain numbers may bring psychological security and increase decision confidence [2]. For example, studies have shown that the preference for certain numbers may affect the choice of stock codes and investor behavior. For example, stock codes containing lucky numbers may be more popular, and stocks with the number 8 in their codes have the highest P/E ratios on the first day of listing and the subsequent 12 months among all tail number combinations [3]. Meanwhile, "getting rich codes don't make you rich." Apart from the first day of listing, these stocks have lower long-term abnormal returns and larger long-term declines [4]. On the other hand, the preference or aversion to specific numbers may lead to biases in decision-making, ignoring other more important factors [5]. In some cases, due to the preference for certain numbers, decision-makers may miss better options, increasing opportunity costs [6].

Combining previous empirical research on numerical worship with writer’s personal understanding of special anniversaries, this article explores the extent to which corporate special anniversaries affect corporate risk.

2. DATA

The sample consists of all real estate companies traded on the Shanghai Stock Exchange from 2007 to 2019. The starting date is set because listed companies have been required to report decomposed (annual) accounts in financial statements only since 2007; before this date, it was impossible to observe items such as cash holdings. In addition, China implemented new accounting rules in 2006 to better align with international financial reporting standards. These rules came into effect in 2007, making it difficult to compare data before and after 2007 in general. Using CSMAR data to create the main outcome variables. Our primary risk measure is idiosyncratic volatility, which we define as the natural logarithm of the variance of daily abnormal returns in year t+1. This follows Cassell et al., who argue that risk investment will increase the volatility of future cash flows, thereby making (future) stock returns more volatile [7]. Following Xu and Malkiel, we estimate expected returns for year t+1 based on the market model parameters estimated using daily company return data for the 36 months prior to the start of fiscal year t+1 [8].

This paper also use CSMAR financial data to define a series of additional company-level control variables: the cash ratio is defined as the total cash and cash equivalents in year t divided by total assets in year t-1; Tobin's Q, directly from CSMAR, is the total market value (at year-end) plus the book value of debt divided by total assets; short-term leverage and long-term leverage are the ratios of short-term or long-term debt to total assets in year t, respectively.

Since 1949, China has used the Gregorian calendar, and based on this, CSMAR records the listing dates of companies. Because corporate decisions may span the entire year of special anniversaries, when judging whether it is a special anniversary (1) or not (0), only simple year differences are used for judgment.

3. RESULTS

The main model of this paper is as follows:

$$\text{IdiosyncraticVolatility} = \text{All\_Anniversary} + \text{FirmControls} + \epsilon \quad (1)$$

The dependent variable is idiosyncratic volatility, and ALL_Anniversary indicates whether the company is in a special anniversary, which contains multiples of 5 anniversaries and anniversaries with the numbers 6 or 8. Company control variables include the natural logarithm of the book value of assets, cash ratio, short-term and long-term leverage ratios, and Tobin's Q value.

Table 1. Summary Statistics

	mean	sd	min	max	Obs
Anniversary_All	0.413	0.492	0	1	641
Ln(Assets) [million]	4.961	0.574	3.536	6.389	641
ShortTerm_Leverage	0.063	0.086	0	0.414	641
LongTerm_Leverage	0.131	0.097	0	0.407	641
TobinQ	1.546	1.269	0.886	1.296	641
Cash_Ratio	0.183	0.188	0.016	1.502	641

Table 2. Regression Results

IdiosyncraticVolatility	(1)	(2)	(3)	(4)	(5)
Anniversary_All	-0.020	-0.032	-0.033	-0.032	-0.023
	(0.053)	(0.050)	(0.050)	(0.049)	(0.048)
Ln(Assets) [million]	-0.379***	-0.385***	-0.345***	-0.248***	
	(0.043)	(0.046)	(0.046)	(0.051)	
ShortTerm_Leverage	0.560*	0.797***	0.939***		
	(0.293)	(0.292)	(0.291)		
LongTerm_Leverage	0.383	0.316	0.450*		
	(0.271)	(0.267)	(0.266)		
Cash_Ratio	0.621***	0.567***			
	(0.132)	(0.131)			
TobinQ	0.090***				
	(0.022)				
Constant	-7.816***	-5.933***	-5.987***	-6.308***	-6.946***
	(0.034)	(0.215)	(0.226)	(0.233)	(0.279)
Obs	641	641	641	641	641

Table 3. Heterogeneous Effects

	(1)	(2)	(3)	(4)	(5)
	Idiosyncratic volatility				
All_Anniversary	0.509	0.009	0.002	-0.053	-0.043
	(1.21)	(0.16)	(0.03)	(-0.80)	(-0.55)
All_Anniversary_lnAssests	-0.107				
	(-1.28)				
All_Anniversary_S_Leverage		-0.513			
		(-0.93)			
All_Anniversary_L_Leverage			-0.192		
			(-0.39)		
All_Anniversary_Cash_Ratio				0.169	
				(0.65)	
All_Anniversary_TobinQ					0.013
					(0.32)
lnAssests_million	-0.200**	-0.249***	-0.248***	-0.246***	-0.247***
	(-3.14)	(-4.83)	(-4.82)	(-4.78)	(-4.78)
ShortTerm_Leverage	0.924**	1.176**	0.933**	0.948**	0.937**
	(3.17)	(3.03)	(3.20)	(3.25)	(3.22)
LongTerm_Leverage	0.450	0.447	0.532	0.459	0.452
	(1.69)	(1.68)	(1.57)	(1.72)	(1.70)
Cash_Ratio	0.561***	0.565***	0.564***	0.500**	0.567***
	(4.29)	(4.32)	(4.30)	(2.99)	(4.34)
TobinQ	0.093***	0.091***	0.090***	0.091***	0.086***
	(4.13)	(4.05)	(4.03)	(4.07)	(3.46)
Constant	-7.187***	-6.958***	-6.956***	-6.946***	-6.947***
	(-21.33)	(-24.90)	(-24.80)	(-24.87)	(-24.87)
Obs	641	641	641	641	641

Based on the above empirical results, special anniversaries have little impact on the stock volatility of listed companies, with only a negligible negative impact, at least based on the data involved in the sample. In the regression analysis, the coefficient of the special anniversary factor is smaller and insignificant than the coefficients of other fundamental factors. At the same time, in the heterogeneity analysis, after studying the interaction terms between the special anniversary factor and various fundamental factors, it was found that the special anniversary factor had no significant relationship with any fundamental factor. In addition, all fundamental factors significantly affect the stock volatility of the target listed companies in a positive or negative way. This result undoubtedly shows that this kind of number worship-style anniversary superstition cannot be a determining factor in stock volatility.

4. SUMMARY

This paper demonstrates the impact of special anniversaries on corporate risk exposure. The research results emphasize that non-standard beliefs do not have a significant role in influencing important decisions, indicating that in relatively large and complex organizations, the influence of superstition and numerical worship is weakened. Such results not only provide suggestions for the risk-taking behavior of listed companies during special anniversaries but also advocate that investors break the superstition and irrational numerical worship and pay more attention to fundamental data and real-time information.

We see many promising further research directions. The most direct connection to our current research is to consider how special anniversaries affect the behavior of investors (rather than the behavior of the subjects we studied in this paper). Additionally, in this paper, we cannot make a definitive conclusion about whether the special anniversaries we studied lead to long-term resource misallocation or merely a shift in the timing of investment. Such fine-grained assessments and the consequences of their results may require more modeling structures.

REFERENCE

[1] Chan, T. Y. (2008). Numerical superstition in Chinese culture. Journal of Cross-Cultural Psychology, 39(1), 57-77.

[2] Raghubir, P., & Srivastava, J. (2009). Numerical perception: The impact of digit superstitions on pricing. Journal of Consumer Research, 36(3), 451-463.

[3] Feng, L., & Seasholes, M. S. (2005). Do investors trade too much? The impact of numerical superstition on trading behavior. Journal of Finance, 60(2), 919-946.

[4] Zhao, J. M., & Wu, F. Y. (2009). Numerical superstition and anomalies in financial asset prices. Economic Research Journal, 6, 129-141.

[5] Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. Science, 185(4157), 1124-1131.

[6] Thaler, R. (1980). Toward a positive theory of consumer choice. Journal of Economic Behavior & Organization, 1(1), 39-60.

[7] Cassell, C. A., Huang, S. X., Sanchez, J. M., & Stuart, M. D. (2012). Seeking safety: The relation between CEO inside debt holdings and the riskiness of firm investment and financial policies. Journal of Financial Economics, 103(3), 588-610.

[8] Xu, Y., & Malkiel, B. G. (2003). Investigating the behavior of idiosyncratic volatility. The Journal of Business, 76(4), 613-645.