



# Article The Impact of Gambling Culture on Entity Financialization

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Abstract: Culture is an important factor that affects the investment behavior of enterprises, while gambling culture to a certain extent reflects people's risk-taking spirit or speculative preferences. Taking Chinese A-share listed companies from 2008 to 2020 as a sample, we ran industry and year effect regressions to test the impact of gambling culture on corporate financialization from the perspective of speculative culture. Gambling culture is measured by regional per capita lottery consumption. The results show that a gambling culture plays a significant role in promoting the share of financial assets held by local enterprises. Economically speaking, every CNY 1000 increase in per capita lottery sales will lead to a 3% increase in the share of financial assets held by local enterprises. It is verified that a gambling culture affects corporate financial asset investment by enhancing management's overconfidence level. In addition, by subdividing financial assets, we find that a gambling culture mainly increases holdings of profit-driven financial assets. Heterogeneity tests show that economic policy uncertainty, corporate performance pressure, and attribution of corporate property rights play a moderating role in the relationship between gambling culture and corporate financial asset investment. The conclusions of this paper help enrich the study of the economic consequences of gambling culture for micro-enterprises and broaden the understanding of financialization from a cultural perspective.

**Keywords:** gambling culture; corporate financialization; management's overconfidence; economy policy uncertainty; performance pressure

# 1. Introduction

At present, the global economy has gone through a downward trend. Affected by economic transformation and the COVID-19 pandemic, the Chinese economy has been in a downturn for a long time. This poses an unprecedented test to the sustainable development of enterprises. In the context of deepening trade and financial globalization, traditional productive industries' profit rates are declining, which dramatically weakens enterprises' enthusiasm for investment in the real economy. However, the financial sectors, especially the banking sector, have higher yields due to policy advantages related to monopoly positions and interest rate regulations. Enterprises are willing to increase the proportion of financial assets in their investment structure. As a result, many entity enterprises attempt to enter the financial sector, real estate, and other fields to obtain higher profits, which has led to the "shift from the real economy to the virtual economy" phenomenon in China. The US economic crisis in 2008 provided a lesson for our country. Excessive concentration of capital in the financial sector accumulates huge financial risks, which seriously hinders the development of real economy and the stability of the economic system. Development of the world economy has proved that we must balance the relationship between the real and virtual economies and promote the virtual economy to serve the real economy to achieve sustained and steady economic growth.

Corporate financialization is an increasingly common phenomenon (Crotty, 2005; Krippner, 2005; Lapavitsas, 2011) [1–3]. Krippner (2005) [2] defines financialization as a pattern of accumulation in which profit-making increases through financial channels rather than through trade and commodity production. At the macro level, the "shift from real



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**Copyright:** © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). economy to virtual economy" shows that financial resources circulate within the financial system and deviate from serving the real economy. At the micro level, it demonstrates that the entity enterprises increase the level of financial asset allocation and reduce the proportion of operating asset investment. Palley (2013) [4] shows that financialization leads to a reallocation of resources from physical investment toward financial investment.

There are two opinions about the relationship between financialization and enterprise development. Hu et al. (2017) [5] claim that, in line with "precautionary savings motivation", firms might choose to invest financial assets in an easing financial condition and sell them in a tight financial condition to adjust their liquidity level. On the other hand, Orhangazi (2008) [6] and Krippner (2005) [2] believe that based on "profit-seeking motivation," the financialization of entity enterprises will produce a "crowding out effect" on the main business of enterprises. Since different financial motivations lead to different consequences, it is necessary to explore the drivers of financialization. Scholars have identified several factors that influence investment in corporate financial assets: the profit crisis in the manufacturing sector (Krippner, 2005; Demir, 2009) [2,7], the change in the concept of corporate governance (Lazonick, 2010) [8], and the pressure of shareholder value (Lazonick and Sullivan, 2002) [9]. From the macro policy perspective, scholars have explored economic policy uncertainty's impact on enterprise financialization (Peng et al. (2018)) [10]. However, few studies have examined the shaping of implicit factors, such as the impact of social culture values on investment preferences in enterprises. In fact, corporations closely interact with their local environment through local employees, customers, and suppliers. Therefore, companies are subject to soft cultural constraints. Harrison and Huntington (2013) [11] have identified culture as a key factor affecting society, politics, and the economy. In addition, the emergence of behavioral finance in recent years demonstrates the important impact of both formal and informal institutional factors, such as culture, on enterprise behavior (Griffin et al. (2012); Hilary and Hui, 2009) [12,13].

Gambling culture can reflect a population's speculative tendency or mirror the adventurous spirit of people in a region. As a result, enterprise managers may be affected by the local gambling culture and invest in high-risk projects (Manso, 2011) [14]. Chen et al. (2014) [15] showed that companies in areas with a high propensity to gamble tend to undertake more speculative and risky projects. Inspired by this observation, we have reasons to speculate that under the influence of gambling culture, enterprises may pay more attention to investing in real estate and the financial industry with short-term excess returns and higher risk. Real enterprises attempt to improve corporate performance by conducting arbitrage projects through financial asset allocation, which would further aggravate the financial biases. Given this, we attempt to fill a gap in the literature by exploring the high-risk and high-return relationship between gambling culture and corporate financial assets.

We used A-listed shares on the main boards of the Shanghai and Shenzhen Stock exchanges from 2008 to 2020 to verify the impact of gambling culture on corporate financialization. The results showed that the gambling culture increases the likelihood of the enterprise holding financial asset investments through enhanced confidence level in management. After a robustness test using the instrumental variable method and variable substitution method, the results were still credible. Heterogeneity tests showed that the influence coefficient of gambling culture on corporate financialization is relatively larger for companies facing low economic policy uncertainty, those under high performance pressure, and those that are state-owned. This study makes the following contributions.

First, previous literature mainly focuses on the effect of formal institution factors such as the external environment and management characteristics on corporate financialization. However, few studies have examined how informal institutions affect investment decisions of financial assets. A few scholars have verified the influence of corporate social responsibility (Liu et al. (2019)) [16] and social credit (Xiang et al. (2021)) [17] on corporate business behavior from the perspective of informal institutions. We take gambling culture as a representative variable of informal institutions and explore cultural values' impact on corporate decision making. This research adds a new perspective on factors that impact corporate financialization.

Second, most studies on gambling culture examine how investors' speculative tendencies affect the stock price performance of enterprises in the capital market (Kumar, 2009; Kumar et al. (2011); Ji et al. (2021); Zheng and Sun, 2013) [18–21]. Some studies have also found that a gambling culture would affect micro-enterprises' merger and acquisition decisions (Doukas and Zhang, 2013) [22], innovation investments (Chen et al. (2014); Adhikari and Agrawal, 2016) [15,23], and financial information disclosure (Christensen et al. (2018)) [24]. This study regards gambling culture as a non-institutional factor and examines its unique role in corporate investment. Our research deepens the understanding of the economic effect of gambling culture from the micro-enterprise decision-making perspective.

Third, the findings indicate that a robust gambling culture environment increases the allocation of enterprises' financial assets, implying that the social and cultural environment is closely related to micro-entity enterprises' investment and financing tendencies. Our research provides a reference for Chinese enterprises to achieve sustainable and healthy development within an economical and cultural environment. These findings can help alleviate the problem of corporate financialization and thus achieve sustainable development.

The remainder of this paper is structured as follows. We review the previous literature, develop the research hypotheses, and then provide the data and estimation method in the Section 2. The Section 3 provides the empirical results. The Section 4 presents a further analysis, including the subdivision testing of financial assets and heterogeneity tests. Conclusion and enlightenments are provided in the Section 5.

### 2. Materials and Methods

### 2.1. Literature Review and Research Hypotheses

The development of China's capital market is at the forefront of reform. In recent years China has established a modern enterprise management system. This process includes the standardization of the corporate governance system and accounting standards. However, due to constraints on system design and implementation, there are still several potential problems and systemic contradictions in China's capital market, which making its functions of allocation and adjustment can not exerted effectively (Allen, 2005) [25]. Imperfections in the system hinder market information circulation and aggravate market information asymmetry, providing speculators with opportunities. Therefore, against a highly active market mechanism with an imperfect formal system, a speculative culture with regional heterogeneity could play an essential role in the market as an informal system. The institutional economics theory suggests that individuals' and organizations' behavioral decisions are restricted and constrained by formal institutions and subtly influenced by informal institutions such as the cultural environment. The long history of gambling in Asia reflects the strong cultural beliefs in superstition and luck, making Asians more susceptible to gambling (Rossen et al. (2012)) [26]. Thus, gambling culture may play a more critical role in decision-making investment at the individual and enterprise level.

From a personal level, under the influence of this culture and in the pursuit of wealth, people's speculative psychology is often amplified, which is also evident in China's stock market. Many studies have verified the effect of gambling and speculation on individual investors and their impacts on stock trading volume, volatility, and return rates (Kumar et al. (2011); Zheng and Sun, 2013) [19,21]. Investors with a "lottery preference" tend to be keen on investing in "lottery stocks" that are typified by low prices and high volatility (Zhang et al. (2021)) [27]. These stocks bring extremely positive returns in the stock market, such as the IPO market, which leads to overpricing after an IPO (Barberis and Huang, 2008) [28]. Lee et al. (2019) [29] took the volume of alcohol sold in a community as a measurement of the propensity of local gambling culture and showed that those who live in states with higher alcohol sales are more likely to trade in lottery stocks and trade them more frequently.

From the enterprise level, if an enterprise is in a region with a traditional gambling culture, its managers, employees, and other stakeholders will undoubtedly be influenced by the local culture. Management affected by a speculative culture will consciously or unconsciously bring the speculative culture to become part of the corporate culture. Their investment behaviors are more likely to have speculative tendencies to seek short-term gains and high returns. Enterprises will actively seek out price differences caused by market instability and make full use of them to earn short-term profits by "buying low and selling high". At the same time, scholars have verified that rather than precautionary saving, speculation is the underlying motivation that drives firms to increase their non-currency financial asset holdings (Huang et al. (2019)) [30]. Therefore, we can speculate that under the influence of gambling culture, enterprises will increase their holdings of financial assets to obtain speculative profits. Based on the above analysis, hypothesis H1 can be put forward.

### **H1.** *The local gambling culture promotes allocating enterprise financial assets.*

According to upper echelons theory, enterprise management's behavior and value orientation are influenced mainly by the growth soil and cultural background and therefore reflected in managers' investment decisions. Corporate managers have decision-making powers of an enterprise's daily operations, which allows them to exert their personal preferences and tendencies on corporate decisions. Even in a highly globalized world with sophisticated managers, individualism significantly affects corporate risk-taking (Griffin, 2012) [12]. Although the personal characteristics of managers cannot entirely dominate an enterprise, managers can still make business decisions aligned with their local cultural values through their leadership position and power. Ultimately, local culture will affect the business decisions of the enterprise (Xie et al. (2021)) [31].

Local gambling attitudes encourage individuals to take risks and thus increase the risk tolerance of management teams. Managers are also more inclined to be overconfident. Overconfident managers tend to believe they have more in-depth knowledge and experience than their competitors and a more remarkable ability to make accurate judgments when choosing high-risk investment projects (Larwood et al. (1977)) [32]. Thus, overconfident managers also tend to prefer aggressive investment strategies and pay more attention to the possible high returns of financial investments in the future while underestimating the potential risks (Hackbarth, 2008; Hirshleifer et al. (2012)) [33,34]. In addition, the principal agent points out that the shareholders' interests are not consistent with the managers' interests. A gambling culture can induce or aggravate managers' selfish motives and worsen agency conflict, thus promoting the holding and investment of corporate financial assets. In order to meet the requirements of their performance assessments, overconfident managers will increase their allocation of financial assets if the profit space of the company's primary business is compressed. Since financial assets have high-profit rates and strong liquidity, overconfident managers prefer to chase short-term investments by increasing the allocation of financial assets. As a result, overconfident management is more effective in spurring financial investment in firms predisposed to gambling preferences. Based on the above analysis, our corresponding hypothesis is as follows:

**H2.** Gambling culture will facilitate corporate financialization by enhancing management's overconfidence.

### 2.2. Research Design

### 2.2.1. Data

Our sample starts with all Chinese A-share listed firms in Shanghai and Shenzhen stock markets from 2008 to 2020. We started our research in 2008 because that was the year that statistical data on lottery sales in China's provinces began to be collected. The samples were screened in the following ways: (1) Finance and insurance industry samples were excluded due to the specificity of disclosure requirements and accounting rules of listed companies. (2) There was an abnormal operation in the relevant data of ST

companies, so the samples of listed companies that were ST were excluded. (3) Due to the lack and abnormality of relevant data of the enterprise, it was impossible to reflect the actual situation, so the samples with missing data and abnormal financial data were excluded. (4) To avoid the influence of extreme values, we carried out a two-sided 1% tail reduction treatment for all continuous variables. After the above processing, our final sample included 24,902 firm-year observations. The company-level accounting data in this paper were all from the China Stock Market & Accounting Research Database (CSMAR), and the lottery sales data were from the Chinese Research Data Services Platform (CNRDS). The empirical analysis was completed by Stata15.0 software.

### 2.2.2. Measurement

### Gambling Culture

Zhao et al. (2018) [35] used the ratio of lottery sales to GDP in a certain province as an independent variable to test the relationship between gambling culture and innovation. However, the lottery is not a luxury consumer good. Even if one's income is not exceptionally high, one could still buy a large number of lottery tickets as long as they have the motive of speculation. In reference to Christensen et al. (2018) [24], we measured gambling culture based on the ratio of lottery sales to the population in different provinces in China. We used two variables to describe the degree of gambling culture. First of all, we used a continuous variable (Gambling<sub>i,t</sub>), calculated as total lottery spending in each province where the firm is headquartered, scaled by the population in a year, that is, the per capita spending on lotteries. The higher the per capita spending on lottery tickets, the deeper the local gambling preference. Second, based on the practice of Ji et al. (2021) [20], we adopted Gambling\_M<sub>i,t</sub>, a dummy variable, as the second measurement index to characterize gambling culture. The specific method is as follows: if the per capita lottery sales (Gambling<sub>i,t</sub>) of a province in a given year are greater than the mean of per capita lottery sales, then the value is 1. Otherwise, it is 0.

### Corporate Financialization

One of the external manifestations of non-financial enterprise's financialization is that enterprises would invest large amounts of capital in the financial field. We established the variables of corporate financialization based on the ratio of financial assets held by real enterprises to total assets. Referring to the measurement of financial assets by Peng et al. (2018) [10], the following items were included: trading financial assets, derivative financial assets, available-for-sale financial assets, buy-and-resold financial assets, and holding-tomaturity investments. In addition, real estate has been increasingly separated from the real economy sector in recent years in China, showing virtualization characteristics. Thus, the item "investment in real estate" is included in financial assets, as an alternative explained variable used for the robustness test.

### Control Variables

We followed the work of Peng et al. (2018) [10] and selected control variables from the following three aspects: enterprise level, province level, and macro monetary level. At the enterprise level, we first controlled the relative rate of return between finance and the real economy (Return\_Gap), which was measured by the difference between financial investment return and real investment return. In reference to the method proposed by Zhang and Zhang (2016) [36], the return on investment of financial assets was measured by financial profit dividing the total financial assets. Financial profit was the sum of investment income, profit and loss from changes in fair value, and net exchange income after deducting the investment income of the joint venture. The return on investment of entity assets was measured by operating profit divided by the operating assets. Operating profit was measured by operating income deducting operating costs, operating taxes and surcharges, period expenses, and asset impairment losses. Subsequently, variables at the enterprise characteristic level included the size of the company (Size), the age of the

company (FirmAge), financial leverage (Lev), and the profitability (ROA). As basic financial indicators, these variables were used to indicate the company's fundamental financial position. We also controlled corporate governance characteristics as follows: the largest shareholder governance (Top1); the board size (Board); proportion of independent directors (Indep); and whether there was a dual CEO and board chairman (Dual). These variables can comprehensively reflect enterprises' corporate governance related to the operation of their core business. At the provincial level, we controlled for the GDP growth rate of each province (GDP\_growth), the ratio of males to females over the age of 15 (Male\_ratio), and the ratio of people with a college education or above to the total population (Edu\_ratio). At the macro level, we controlled for monetary policy factors such as M2 growth rate (M2\_growth). Specific variable names and calculation methods are shown in Table 1.

 Table 1. Variable definitions.

Variable	Variable Calculation Method
Key variables	
Fin	The proportion of financial assets held by enterprises to the total assets of enterprises at the end of year t.
Gambling	Annual lottery sales of a certain province divided by the total population at the year t.
Gambling_M	If per capita lottery spending in a certain province is greater than the national average level, the value is 1, otherwise, it is 0.
Overconfidence	The percentage of the compensation of the top three executives on the total compensation of all executives at the year t.
Control variables	
Size	The natural logarithm of the assets at the end of year t.
FirmAge	The natural logarithm of the observation year minus the establishment year plus 1.
Lev	The ratio of total liabilities to total assets at the end of year t.
ROA	The ratio of net profit to average balance of total assets.
Top1	The ownership percentage of the largest shareholder at the end of year t.
Board	The natural log of board numbers plus 1 at the end of year t.
Indep	The ratio of independent directors to the number of directors at the end of year t.
Dual	If the chairman and CEO are one person at the end of year t, it is 1, 0 otherwise.
Return_gap	The difference of financial investment return rate to real investment return rate.
Male_ratio	The ratio of men to women over the age of 15.
Edu_ratio	The proportion of the province's population with tertiary education or higher education.
GDP_growth	The ratio of current year's real GDP to last year's real GDP minus 1.
M2_growth	The ratio of M2 supply in the current year to M2 supply in the previous year minus 1.

### 2.2.3. Methodology

First, we initially established a baseline model (1) to observe the relationship between gambling culture and financialization as follows:

$$Fin_{it} = a_0 + a_1 Gambling_{it} + a_2 Controls_{it} + \sum Year + \sum Industry + \varepsilon_{it}$$
(1)

Among them, the explained variable is the level of corporate financialization (Fin<sub>i,t</sub>), and the core explanatory variable is gambling culture (Gambling<sub>i,t</sub>, Gambling\_M<sub>i,t</sub>). Controls<sub>i,t</sub> denotes a set of control variables that affect corporate financialization;  $\varepsilon_{i,t}$  is the error term. In addition, we used an ordinary least squares (OLS) method to estimate the equation. Year and industry effects were controlled. We mainly focused on the signal and the statistical significance of coefficient  $a_1$ . If it is significantly greater than 0, then the gambling atmosphere promotes the financial asset allocation of the enterprise. If it is less than 0, it means that the gambling atmosphere will inhibit the financialization of the firm. At the same time, to further investigate the mediating role of management overconfidence level mentioned in H2, models (2) and (3) were constructed.

$$OC_{it} = b_0 + b_1 Gambling_{it} + b_2 Controls_{it} + \sum Year + \sum Industry + \varepsilon_{it}$$
 (2)

$$Fin_{it} = c_0 + c_1OC_{it} + c_2Gambling_{it} + c_3Controls_{it} + \sum Year + \sum Industry + \varepsilon_{it}$$
(3)

where  $OC_{i,t}$  represents management overconfidence degree. (2) tests whether gambling culture significantly impacts management's overconfidence. Based on the results, we could estimate whether the intermediary effect exists. Finally, (3) tests whether gambling culture still significantly impacts corporate financial asset investment after adding the

management's overconfidence. We would then decide whether the overconfidence level of management is partially or fully mediated. The variable definitions of Formulas  $(1)\sim(3)$  are the same as those in Table 1.

# 3. Results and Discussion

# 3.1. Descriptive Statistics

Table 2 summarizes the descriptive statistics for the variables used in the regression. As shown, the mean of Fin is 6.317%, the min is 0, and the max is 53.962%, indicating that the degree of financialization varies greatly between businesses. The mean of gambling culture (Gambling<sub>i,t</sub>) is 292.152, that is, the per capita lottery expenditure is CNY 292.152, the min is 53.263, and the max is 596.251, indicating that the gambling culture atmosphere varies significantly by region. This outcome is consistent with the statistical data obtained by Luo et al. (2021) [37]. From the relevant statistical results of control variables, the mean of Size is 22.296, the max is 26.352, and the min is 19.736. The mean of FirmAge is 2.830, the max is 3.466, and the min is 1.609. The mean of Lev is 0.457, the max is 0.898, the min is 0.056, and the Std. is 0.206, indicating that the sample covers enterprises with various liability levels and has a wide range. The max of the ROA of the enterprise is 0.212, the min is -0.229, and the mean is 0.036, indicating that the income of the sample enterprises is quite different. The mean of Top1 is 0.343, the max is 0.743, and the min is 0.088, indicating that the difference in the shareholding ratio of the largest shareholder between companies is very significant. The Dual is a dummy variable with a mean value of 0.227. The mean of Return\_gap is 0.540, which means the return on investment in financial assets is 0.54 percentage points higher than the return on real projects. The mean of Male\_ratio is 1.036, which means that the ratio of males to females over 15 in each province is 1.036. The mean of Edu\_ratio is 0.689, which means that the proportion of the population obtaining higher education in each province is 0.689. The mean of GDP\_growth is 9.659%, and the mean of M2\_growth is 12.7%.

Variable	Ν	Mean	Sd	Min	P50	Max	
Fin	24,902	6.317	9.530	0.000	2.633	53.962	
Gambling	24,902	292.152	127.284	53.263	306.087	596.251	
Gambling_M	24,902	0.510	0.500	0.000	1.000	1.000	
Size	24,902	22.296	1.313	19.736	22.132	26.352	
FirmAge	24,902	2.830	0.364	1.609	2.890	3.466	
Lev	24,902	0.457	0.206	0.056	0.457	0.898	
ROA	24,902	0.036	0.062	-0.229	0.034	0.212	
Top1	24,902	0.343	0.150	0.088	0.320	0.743	
Board	24,902	2.152	0.199	1.609	2.197	2.708	
Indep	24,902	0.373	0.053	0.333	0.333	0.571	
Dual	24,902	0.227	0.419	0.000	0.000	1.000	
Return_gap	24,902	0.540	2.339	-0.731	0.011	18.178	
Male_ratio	24,902	1.036	0.053	0.943	1.024	1.180	
Edu_ratio	24,902	0.689	0.163	0.336	0.135	0.995	
GDP_growth	24,902	9.659	7.121	-11.209	8.917	27.049	
M2_growth	24,902	12.700	4.453	8.174	11.333	27.582	

Table 2. Results of descriptive statistics.

# 3.2. Baseline Regression Analysis

Table 3 lists the OLS estimation results for Equation (1). Columns (1) and (2) only include the independent variable of gambling culture (Gambling, Gambling\_M). We controlled for the effect of both industry and year in the regression model and found that the coefficients between Gambling, Gambling\_M, and Fin were 0.006 and 1.072 at a 1% significance level. The result indicates that the gambling culture positively correlates to financial asset allocation. For columns (3) and (4), we brought the control variables into regression. As listed in column (3), the regression coefficient between Gambling and Fin is

0.003, with a 1% significance level. Specifically, for its economic effect, if the per capita lottery consumption increases by 1 unit in year t, the proportion of firms invested in financial assets would increase by 0.003%. In terms of control variables, the regression coefficient between Size and Fin is 0.558. It shows that an enterprise with a larger size may increase the proportion of financial asset allocation. The regression coefficient between FirmAge and Fin is 4.217 at a 1% significant level. It shows that the older the enterprise is, the more financial assets firms tend to hold. Lev and ROA are negatively influencing the company's financial asset investment. From the perspective of corporate governance-related variables, the coefficient between Top1 and Fin is -2.378 at a 1% significance level, and it shows that higher shareholding of the largest shareholder helps reduce financial investment through supervising and balancing the managers. The number of directors (Board) is negatively correlated with the level of corporate financialization. This means that the rise in the number of directors has curbed the trend toward financialization. In addition, Dual is negatively correlated with Fin, indicating that a relatively good corporate governance structure can inhibit the tendency of corporate financialization investment. Overall, the empirical results confirm H1 to be true.

	(1)	(2)	(3)	(4)
Variable	Fin	Fin	Fin	Fin
Gambling	0.006 ***		0.003 ***	
C C	(9.77)		(3.27)	
Gambling_M		1.072 ***		0.405 **
0		(7.56)		(2.52)
Size			0.558 ***	0.558 ***
			(9.23)	(9.23)
FirmAge			4.217 ***	4.199 ***
Ū.			(21.53)	(21.45)
Lev			-10.160 ***	-10.173 ***
			(-26.98)	(-27.01)
ROA			-7.076 ***	-6.995 ***
			(-6.68)	(-6.61)
Top1			-2.378 ***	-2.372 ***
L			(-5.73)	(-5.72)
Board			-2.321 ***	-2.333 ***
			(-6.55)	(-6.59)
Indep			-2.756 **	-2.857 **
1			(-2.18)	(-2.26)
Dual			-0.612 ***	-0.601 ***
			(-4.28)	(-4.21)
Return_Gap			-0.298 ***	-0.298 ***
*			(-12.16)	(-12.15)
Male_ratio			5.572 ***	5.667 ***
			(4.84)	(4.91)
Edu_ratio			0.626 ***	0.772 ***
			(5.12)	(7.48)
GDP_growth			-0.014	-0.013
0			(-1.08)	(-1.02)
M2_growth			0.254 ***	0.254 ***
0			(6.86)	(6.86)
Constant	4.259 ***	4.837 ***	-14.784 ***	-14.619 ***
	(8.25)	(9.38)	(-7.49)	(-7.38)
Observations	24,902	24,902	24,301	24,301
R-squared	0.083	0.081	0.137	0.137
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Table 3. Gambling culture and corporate financialization: main evidence.

\*\*\*, and \*\* denote statistical significance at the 1%, and 5% levels, respectively.

### 3.3. Mediation Effect of Management's Overconfidence

The previous study found that keeping other conditions equal, the stronger the gambling culture in the company's geographical location, the higher the level of corporate financialization. However, it is still unclear what the underlying mechanisms are for the impact of gambling preferences on corporate financialization. In this section, we explore possible channels. We argue that if an enterprise is in an area with a robust gambling atmosphere, the management will be more optimistic in making investment decisions, thus increasing the holding of financial assets. In order to verify this conjecture, we refer to Jiang et al. (2009) [38], using the proportion of the compensation of the top three executives in the total compensation of all executives to depict the overconfidence of the management (OC). Generally speaking, the higher the relative compensation, the more power a manager has, and thus the more likely to be overconfident. Table 4 lists the regression results of the intermediary mechanism. The influence coefficient between gambling culture and corporate overconfidence is 0.013, as shown in column (1). The result means that the gambling atmosphere in the company's operating place significantly enhances managerial overconfidence. Columns (3) and (4) show that after adding the mediation variable OC, the influence coefficients of Gambling and Gambling\_M on Fin are 0.002 and 0.338, respectively, which are lower than those of 0.003 and 0.405 in Table 3. The results suggest that the presence of gambling culture promotes the investment of financial assets by enhancing overconfidence in management. Management's overconfidence plays a partial intermediary role in the relationship between gambling culture and corporate financialization. A manager who implements compensation incentives will pay more attention to the enterprise's short-term profits, resulting in the manager's myopia, and the resource allocation for financial assets will be increased. The result verifies hypothesis H2.

### 3.4. Test for Robustness

### 3.4.1. Instrumental Variable Method

To mitigate the possible endogeneity concern, we conducted instrumental variable checks. Following the research of Chen and Chen (2021) [39], we took the losses from natural disasters of the province where the enterprise operates as an instrumental variable. We hypothesized that extreme adverse events such as natural disasters bring economic losses and produce pessimism and panic, thus reducing people's willingness to speculate, such as gambling items. Therefore, we took the direct economic losses caused by natural disasters over the years and calculated the logarithm as the instrumental variable of gambling culture (Lnloss). Table 5 shows the test results of instrumental variables. Through the first-stage test results, we find that the regression coefficient between natural disaster loss (Lnloss) and gambling culture (Gambling) is -3.014 at the 1% significance level. The results show that extreme adverse events significantly reduce people's consumption expenditure on the lottery. In the second-stage regression results, gambling culture (Gambling) significantly increases corporate financial asset holdings (Fin). The related test value is greater than 10, indicating no insufficient identification or weak IV problems. Therefore, the conclusion mentioned above can still be reached.

### 3.4.2. Alternative Measures of Key Variables

The investment in real estate property has had a specific "financial" attribute in recent years. It could be regarded as a special financial asset according to the principle of "substance over form". Therefore, when calculating alternative explained variables (Fin1), we reckon in "investment real estate". Table 6 shows the regression results. The correlation coefficients between the explaining variables (Gambling, Gambling\_M) and Fin1 are 0.001 and 0.243 at a 1% significance level, which means that gambling culture still significantly aggravates the financial level of enterprises after replacing the explaining variables. In addition, since the decision of purchasing financial assets is mainly made by a company's chairman, their behavior is closely related to the growth environment. As a

result, the gambling culture in the chairman's hometown may affect the level of corporate financialization, so we replaced the level of gambling culture in the company's location to that of the chairman's hometown. Column (3) in Table 6 shows that the coefficient of Gambling\_CEO on Fin is 0.004 at a 1% significant level. The results show that the gambling culture in the chairman's birthplace can indeed promote the investment of financial assets.

	(1)	(2)	(3)	(4)
Variable	OC	OC	Fin	Fin
Gambling	0.013 ***		0.002 ***	
	(8.13)	<b>0</b> 407 444	(2.85)	0.000 **
Gambling_M		2.486		0.338 **
00		(7.97)	0 029 ***	(2.10) 0.030 ***
00			(8.88)	(8.92)
Size	-3.165 ***	-3.163 ***	0.654 ***	0.654 ***
	(-27.02)	(-27.00)	(10.66)	(10.66)
FirmAge	3.480 ***	3.413 ***	4.128 ***	4.111 ***
Lav	(9.17)	(9.01)	(21.03)	(20.96)
Lev	(-3.08)	(-3.15)	(-26.82)	(-26.84)
ROA	-15.605 ***	-15.303 ***	-6.662 ***	-6.585 ***
	(-7.61)	(-7.47)	(-6.28)	(-6.22)
Top1	6.723 ***	6.754 ***	-2.579 ***	-2.573 ***
	(8.35)	(8.39)	(-6.19)	(-6.18)
Board	-18.533 ***	-18.555 ***	$-1.801^{***}$	-1.810 ***
Indon	(-26.98) -8.840 ***	(-27.02) -9.230 ***	(-5.00) -2.480 **	(-5.03) -2 571 **
indep	(-3.61)	(-3.78)	(-1.96)	(-2.04)
Dual	0.801 ***	0.836 ***	-0.635 ***	-0.625 ***
	(2.89)	(3.02)	(-4.44)	(-4.37)
Return_Gap	0.175 ***	0.177 ***	-0.306 ***	-0.306 ***
	(3.64)	(3.69)	(-12.33)	(-12.32)
Male_ratio	13.908	(6.16)	$5.104^{***}$	$5.202^{444}$
Edu ratio	-1 213 ***	-0.674 ***	0.656 ***	0 788 ***
Euu_iuio	(-5.12)	(-3.37)	(5.35)	(7.63)
GDP_growth	0.008	0.005	-0.015	-0.014
C	(0.34)	(0.22)	(-1.14)	(-1.07)
M2_growth	0.127 *	0.126 *	0.248 ***	0.248 ***
Constant	(1.77) 146 DEE ***	(1.75)	(6.66)	(6.65)
Constant	(38 25)	(38.48)	(-9.35)	(-9.26)
Observations	24.244	24.244	24.244	24.244
R-squared	0.145	0.145	0.140	0.140
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

 Table 4. Gambling culture and corporate financialization: mechanism effect of management overconfidence.

\*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 5. Test results of instrumental variables.

First Stage Gambling	Second Stage Fin
-3.014 *** (-7.73)	
	0.031 ** (2.00)
-1.168 (-1.58)	0.351 *** (3.92)
	First Stage Gambling -3.014 *** (-7.73) -1.168 (-1.58)

	First Stage	Second Stage
Variable	Gambling	Fin
FirmAge	-12.384 ***	3.854 ***
5	(-4.70)	(10.67)
Lev	-6.754	-8.812 ***
	(-1.47)	(-15.85)
ROA	73.001 ***	-5.734 ***
	(5.86)	(-3.05)
Top1	2.625	-0.777
-	(0.50)	-1.24)
Board	-18.499 ***	-1.540 **
	(-4.11)	(-2.56)
Indep	-85.324 ***	0.817
-	(-5.33)	(0.35)
Dual	5.079 ***	-0.493 **
	(3.00)	(-2.28)
Return_Gap	0.184	-0.252 ***
-	(0.65)	(-7.43)
Male_ratio	384.888 ***	-3.715
	(30.91)	(-0.64)
Edu_ratio	103.368 ***	-2.501
	(79.30)	(-1.50)
GDP_growth	3.013 ***	-0.064
	(22.10)	(-1.29)
M2_growth	-2.049 *	0.178
C C	(-1.87)	(1.34)
_cons	-49.742 *	-7.999 **
	(-1.84)	(-2.30)
Ν	12,031	12,031
r2_a	0.541	0.091

Table 5. Cont.

\*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

 Table 6. Test results of substitution variables.

	(1)	(2)	(3)
Variable	Fin1	Fin1	Fin
Gambling	0.001 *** (2.15)		
Gambling_M		0.243 *** (2.28)	
Gambling_CEO		~ /	0.004 *** (3.20)
Size	0.400 ***	0.401 ***	0.606 ***
	(5.60)	(5.60)	(5.05)
FirmAge	5.656 ***	5.652 ***	4.246 ***
	(24.43)	(24.44)	(12.16)
Lev	-12.004 ***	$-12.009^{***}$	$-10.164^{***}$
	( $-26.97$ )	(-26.98)	(-13.02)
ROA	-9.553 ***	-9.533 ***	-5.004 **
	( $-7.64$ )	(-7.62)	(-2.13)
Top1	-1.385 ***	-1.383 ***	-2.647 ***
	(-2.82)	( $-2.82$ )	(-3.34)
Board	$-3.145^{***}$	$-3.145^{***}$	-3.300 ***
	(-7.51)	(-7.51)	(-4.85)
Indep	(-1.405)	-1.432	-4.147 *
	(-0.94)	(-0.96)	(-1.73)
Dual	-0.725 *** (-4.29)	-0.723 *** (-4.28)	(-1.120 *** (-3.83))

	(1)	(2)	(3)
Variable	Fin1	Fin1	Fin
Return_Gap	-0.299 ***	-0.299 ***	-0.383 ***
	(-10.32)	(-10.31)	(-7.04)
Male_ratio	9.937 ***	9.891 ***	1.113
	(7.30)	(7.25)	(0.47)
Edu_ratio	1.141 ***	1.178 ***	0.922 ***
	(7.89)	(9.66)	(4.93)
GDP_growth	-0.027 *	-0.028 *	-0.172 ***
0	(-1.79)	(-1.83)	(-5.07)
M2_growth	0.312 ***	0.312 ***	0.254 ***
0	(7.13)	(7.13)	(4.63)
Constant	-17.328 ***	-17.163 ***	-6.049
	(-7.43)	(-7.33)	(-1.55)
Observations	24,301	24,301	5562
R-squared	0.177	0.177	0.140
Industry FE	YES	YES	YES
Year FE	YES	YES	YES

Table 6. Cont.

\*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

## 4. Further Analysis

## 4.1. Subdivision Test on Financial Assets

According to Demir (2009) [40], "trading financial assets" can be regarded as cash equivalents, and enterprises with precautionary saving motivation would like to hold this type of financial asset. However, due to the lack of liquidity for the other financial assets, real enterprises allocate these assets mainly for profit-seeking or speculation. Therefore, we categorized "trading financial assets" as liquid financial assets and other types of assets as profit-driven financial assets, further examining the influence of gambling culture on different types of financial assets. Table 7 lists the regression test results of gambling culture on these two types of financial assets. The results in columns (1) and (2) show that the regression coefficients of gambling culture on liquid financial assets are 0.001 and 0.123, while the results of columns (3) and (4) show that the coefficients of gambling culture on profit-driven financial assets are 0.002 and 0.253 at a 1% significance level. We find that the influence of the gambling culture atmosphere on profit-driven financial assets is significantly greater than that of liquid financial assets. Based on the above analysis, we can conclude that gambling culture promotes holding corporate financial assets, especially profit-driven ones.

### 4.2. Heterogeneity Test

### 4.2.1. Different Levels of Economic Policy Uncertainty

The management makes the self-serving choice of holding the financial assets based on the changes in the external environment and the enterprise's conditions. Thus, we cannot ignore the external environment's influence on corporate financialization. To deal with the problem of "over-financialization of corporate" and release the vitality of the real economy, the relevant government departments of China have introduced a series of economic policies, such as monetary policy, fiscal policy, and industrial policy, aiming to provide a good business environment for enterprises. However, by adjusting the magnitude and frequency of macroeconomic policy, the implied economic policy uncertainty (EPU) may substantially impact enterprises' decision making. As the direct target of macroeconomic policies, microenterprises' operation status and management modes are primarily reflected in changes in their investment and financing behaviors. When the economic policy environment changes, the speculative tendency in the decision-making process of enterprises will be affected. As a result, corporations will change their willingness to hold financial assets. We explore here

13 of 19

whether there are significant differences in the influence of gambling culture on corporate financial investment under different levels of economic policy uncertainty.

	(1)	(2)	(3)	(4)			
Variable	Liquid Financial Assets		ble Liquid Financial Assets Profit-		Profit-Driven F	t-Driven Financial Assets	
Gambling	0.001 **		0.002 **				
Ū	(2.50)		(2.20)				
Gambling_M		0.123 **		0.253			
Ŭ		(2.28)		(1.56)			
Size	0.023	0.023	0.565 ***	0.564 ***			
	(1.13)	(1.13)	(9.26)	(9.25)			
FirmAge	0.399 ***	0.395 ***	4.033 ***	4.019 ***			
0	(6.08)	(6.02)	(20.41)	(20.36)			
Lev	-2.094 ***	-2.097 ***	-8.846 ***	-8.855 ***			
	(-16.57)	(-16.59)	(-23.28)	(-23.31)			
ROA	0.704 **	0.721 **	-8.000 ***	-7.941 ***			
	(1.98)	(2.03)	(-7.49)	(-7.44)			
Top1	0.191	0.192	-2.448 ***	-2.444 ***			
I I	(1.37)	(1.38)	(-5.85)	(-5.84)			
Board	-0.125	-0.126	-2.282 ***	-2.292 ***			
	(-1.05)	(-1.06)	(-6.39)	(-6.41)			
Indep	-0.324	-0.346	-2.472 *	-2.545 **			
r	(-0.76)	(-0.82)	(-1.94)	(-2.00)			
Dual	0.084 *	0.086 *	-0.730 ***	-0.722 ***			
	(1.74)	(1.79)	(-5.06)	(-5.01)			
Return Gap	0.013	0.013	-0.317 ***	-0.317 ***			
	(1.62)	(1.63)	(-12.80)	(-12.80)			
Male ratio	0.167	0.170	5.049 ***	5.137 ***			
intalo_ratio	(0.43)	(0.44)	(4.35)	(4.41)			
Edu ratio	-0.074 *	-0.043	0.730 ***	0.835 ***			
	(-1.81)	(-1.24)	(5.91)	(8.02)			
GDP growth	0.008 *	0.008 *	-0.021	-0.020			
- <u>-</u> <u>-</u> <u>6</u> -0-1-41	(1.80)	(1.78)	(-1.61)	(-1.55)			
M2 growth	0.037 ***	0.037 ***	0.216 ***	0.215 ***			
	(3.02)	(3.01)	(5.77)	(5.77)			
Constant	-0.814	-0.747	-14 331 ***	-14 247 ***			
conomit	(-1.23)	(-1.12)	(-7.20)	(-7.13)			
Observations	24,301	24.301	24.301	24.301			
R-squared	0 168	0 168	0 108	0 108			
Industry FE	YES	YES	YES	YES			
Year FE	YES	YES	YES	YES			

Table 7. Subdivision test on financial assets.

\*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

For the description of EPU, we refer to the research results of Baker et al. (2016) [41]. The team constructed the index by analyzing text from the South China Morning Post, Hong Kong's largest English-language newspaper, and searched news for terms related to economic policy fluctuations and identified the percentage of articles in each month's edition related to uncertainty over China's economic policy. Since the index is published monthly, we took the current year's arithmetic average of the monthly index to obtain the annual variable. The index reflects the general fluctuation in various economic policies and the public's expectations and understanding of such changes. Following Phan et al. (2019) [42] and Peng et al. (2018) [10], we used the EPU index to represent policy stability in our research. According to whether EPU is higher than the mean of EPU, we divided the sample into two groups.

Table 8 shows the heterogeneity test results of EPU. Columns (1,2) and (3,4) show the regression results of gambling culture and corporate financialization of samples with

higher and lower EPU levels, respectively. The correlation coefficients between gambling culture (Gambling, Gambling\_M) and Fin of the high EPU sample are 0.002 and 0.113, respectively, which are lower than the coefficients of the low EPU sample, 0.003 and 0.139. This result may be explained by enterprises' speculative willingness to hold financial assets being weakened with the increase in EPU, which weakens the influence of gambling culture on holding corporate financial assets. The unstable environment means vast risks, which compresses the management's speculative behavior and profit-seeking motivation, reducing the physical investment of financial assets.

	(1)	(2)	(3)	(4)
Variable	High EPU		Low EPU	
Gambling	0.002		0.003 ***	
0	(1.28)		(2.81)	
Gambling_M		0.113 **		0.139
Ū.		(2.20)		(0.66)
Size	0.421 ***	0.420 ***	0.613 ***	0.608 ***
	(4.37)	(4.36)	(7.91)	(7.85)
FirmAge	3.593 ***	3.571 ***	4.296 ***	4.266 ***
Ū.	(9.42)	(9.38)	(19.19)	(19.06)
Lev	-11.904 ***	-11.889 ***	-8.939 ***	-8.959 ***
	(-19.59)	(-19.57)	(-18.71)	(-18.75)
ROA	-5.338 ***	-5.330 ***	-7.353 ***	-7.215 ***
	(-3.37)	(-3.37)	(-5.08)	(-4.99)
Top1	-1.534 **	-1.516 **	-2.750 ***	-2.734 ***
1	(-2.17)	(-2.15)	(-5.40)	(-5.37)
Board	-1.375 **	-1.355 **	-2.950 ***	-2.982 ***
	(-2.31)	(-2.28)	(-6.74)	(-6.82)
Indep	-0.715	-0.707	-3.803 **	-3.946 **
*	(-0.34)	(-0.34)	(-2.43)	(-2.52)
Dual	-0.204	-0.204	-0.933 ***	-0.906 ***
	(-0.89)	(-0.90)	(-5.11)	(-4.97)
Return_Gap	-0.217 ***	-0.216 ***	-0.374 ***	-0.375 ***
	(-5.76)	(-5.74)	(-11.36)	(-11.39)
Male_ratio	7.271 ***	6.647 ***	2.176	2.354
	(4.06)	(3.65)	(1.40)	(1.51)
Edu_ratio	0.769 ***	0.739 ***	0.538 ***	0.852 ***
	(4.21)	(4.44)	(3.15)	(6.48)
GDP_growth	0.016	0.013	-0.097 ***	-0.096 ***
Ũ	(0.94)	(0.75)	(-4.56)	(-4.48)
M2_growth	0.028	0.028	0.243 ***	0.242 ***
Ŭ	(0.22)	(0.22)	(6.48)	(6.47)
Constant	-13.764 ***	-12.907 ***	-9.628 ***	-9.492 ***
	(-3.89)	(-3.63)	(-3.75)	(-3.70)
Observations	10,282	10,282	13,962	13,962
R-squared	0.144	0.144	0.127	0.127
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Table 8. Heterogeneity test result of different EPU levels.

\*\*\*, and \*\* denote statistical significance at the 1%, and 5% levels, respectively.

### 4.2.2. Different Performance Pressures

The rise and fall trend of enterprises' main business income will exert performance review pressure, affecting the management's investment decisions. Due to the financial assets having strong liquidity, enterprises with more significant operating performance pressure usually hold financial assets to achieve short-term returns and make up the business's losses. By contrast, enterprises with stable or rising business revenue usually invest in financial assets to properly allocate surplus funds. Therefore, different speculative tendencies exist to invest in financial assets under different performance pressures. We explore here whether there are significant differences in the influence of gambling culture on corporate financial investment under different performance pressures.

According to the yearly fluctuation in corporate operations, we could evaluate the performance pressure faced by an enterprise. If the operating income increases compared to the previous year, it will face less performance pressure; on the contrary, if the operating income decreases compared to the previous year, it will face performance pressure. We divided the sample into two subsamples based on corporate performance pressure and conducted regression tests on the two groups of samples, respectively. Table 9 shows the results of the heterogeneity tests. Columns (1) and (2) show that the coefficients of gambling culture (Gambling, Gambling\_M) on the financialization level of companies under high performance pressure are 0.002 and 0.222, which are lower than the coefficients of companies under low performance pressure, 0.004 and 0.767, listed in columns (3) and (4). The influence of gambling culture on corporate financialization is more significant for companies with high performance pressure than companies with low performance pressure. The result can be explained by the management trying to make up for the loss of the leading business and relieve the pressure of corporate profit by allocating financial assets.

	(1)	(2)	(3)	(4)
Variable	High Performance Pressure		Low Performa	ance Pressure
Gambling	0.002 **		0.004 **	
0	(2.31)		(2.46)	
Gambling_M		0.222		0.767 **
		(1.23)		(2.28)
Size	0.612 ***	0.611 ***	0.481 ***	0.478 ***
	(9.20)	(9.20)	(3.63)	(3.61)
FirmAge	3.724 ***	3.704 ***	5.224 ***	5.206 ***
	(17.80)	(17.72)	(11.18)	(11.15)
Lev	-9.073 ***	-9.086 ***	-11.133 ***	-11.132 ***
	(-21.07)	(-21.09)	(-14.64)	(-14.63)
ROA	-4.701 ***	-4.620 ***	-1.258	-1.183
	(-3.58)	(-3.52)	(-0.60)	(-0.57)
Top1	-2.133 ***	-2.129 ***	-3.729 ***	-3.698 ***
	(-4.68)	(-4.67)	(-4.10)	(-4.07)
Board	-2.087 ***	-2.106 ***	-2.987 ***	-2.964 ***
	(-5.39)	(-5.44)	(-3.82)	(-3.78)
Indep	-2.205	-2.311 *	-4.219	-4.322
	(-1.60)	(-1.68)	(-1.51)	(-1.55)
Dual	-0.572 ***	-0.560 ***	-0.662 **	-0.650 **
	(-3.67)	(-3.60)	(-2.08)	(-2.04)
Return_Gap	-0.267 ***	-0.267 ***	-0.365 ***	-0.364 ***
-	(-9.97)	(-9.97)	(-6.76)	(-6.74)
Male_ratio	6.970 ***	7.149 ***	2.251	2.258
	(5.56)	(5.69)	(0.87)	(0.88)
Edu_ratio	0.551 ***	0.698 ***	0.784 ***	0.954 ***
	(4.07)	(6.19)	(2.98)	(4.18)
GDP_growth	-0.008	-0.007	-0.037	-0.036
e	(-0.60)	(-0.47)	(-1.28)	(-1.27)
M2_growth	0.236 ***	0.236 ***	0.172 ***	0.157 ***
0	(6.65)	(6.63)	(4.17)	(3.94)
Constant	-17.118 ***	-17.104 ***	-11.052 **	-10.141 **
	(-8.03)	(-7.99)	(-2.40)	(-2.20)
Observations	17,671	17,671	6630	6630
R-squared	0.127	0.127	0.159	0.159
Industry FE	YES	YES	YES	YES
Year ÉE	YES	YES	YES	YES

Table 9. Heterogeneity test result of different performance pressures.

\*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

4.2.3. Different Enterprise Property Rights

Ultimate control ownership is a unique feature of Chinese firms. State-owned enterprise directors are usually assigned by the government. In addition to achieving economic goals, state-owned enterprises should undertake non-economic functions, such as political and social functions. Considering the vast differences between principal-agent conflict and the enterprise control right problem, which may affect corporate investment decisions, we further discuss the heterogeneous effect of gambling culture on financial asset investment decisions in different property rights. According to whether the actual controller of the enterprise has a state-owned background, we divided the sample into two groups. Table 10 shows the results of the heterogeneity tests. Columns (1,2) and (3,4) show the regression results of gambling culture and corporate financialization of state-owned enterprises and non-state-owned enterprises, respectively. For state-owned enterprises, the coefficients of gambling culture (Gambling, Gambling\_M) on Fin are 0.005 and 0.761 at the 1% significance level, which are higher than the coefficient of non-state-owned enterprises. The results can be explained in the following two ways. On the one hand, gambling contains two kinds of culture, the spirit of adventure and gambling preference. State-owned enterprises are less adventurous than non-state-owned enterprises. They would be more adversely affected by the same gambling culture environment. With their close ties to the government, state-owned enterprises may have more advantages in obtaining external financing, suffer fewer financial constraints, and thus have more capital to invest in financial assets. On the other hand, the corporate governance of state-owned enterprises is generally poor, leading to informal systems, such as culture, playing a much more pronounced effect on the corporate investment decisions of non-state-owned enterprises.

	(1)	(2)	(3)	(4)
VARIABLES	State-Owned Enterprise		Non-State-Ow	ned Enterprise
Gambling	0.005 ***		-0.000	
0	(4.08)		(-0.07)	
Gambling_M		0.761 ***		0.041
0		(3.05)		(0.20)
Size	0.424 ***	0.422 ***	0.743 ***	0.742 ***
	(4.94)	(4.91)	(8.38)	(8.38)
FirmAge	5.698 ***	5.663 ***	3.323 ***	3.324 ***
	(15.60)	(15.50)	(13.90)	(13.91)
Lev	-12.999 ***	-13.027 ***	-8.741 ***	-8.742 ***
	(-22.34)	(-22.38)	(-17.41)	(-17.41)
ROA	-10.125 ***	-10.121 ***	-5.074 ***	-5.080 ***
	(-5.50)	(-5.50)	(-3.89)	(-3.89)
Top1	0.696	0.717	-4.060 ***	-4.066 ***
	(1.11)	(1.14)	(-6.85)	(-6.87)
Board	-2.342 ***	-2.355 ***	-1.686 ***	-1.686 ***
	(-4.66)	(-4.69)	(-3.27)	(-3.26)
Indep	-2.635	-2.775	-0.569	-0.560
	(-1.48)	(-1.56)	(-0.31)	(-0.31)
Dual	-0.493 *	-0.484	-0.545 ***	-0.545 ***
	(-1.66)	(-1.63)	(-3.26)	(-3.26)
Return_Gap	-0.382 ***	-0.382 ***	-0.239 ***	-0.239 ***
	(-9.35)	(-9.35)	(-7.86)	(-7.86)
Male_ratio	7.467	7.736 ***	4.281	4.213
	(3.86)	(4.00)	(2.95)	(2.90)
Edu_ratio	0.062	0.368 **	1.082 ***	1.062
	(0.34)	(2.48)	(6.38)	(7.20)
GDP_growth	-0.037 **	-0.038 **	-0.002	-0.003
	(-1.97)	(-1.97)	(-0.13)	(-0.18)
M2_growth	0.141 **	0.142 **	0.291	0.291 ***
	(2.47)	(2.48)	(5.94)	(5.94)
Constant	-14.347	-14.096	-18.755	-18.657
	(-4.82)	(-4.72)	(-6.52)	(-6.46)
Observations	10,750	10,750	13,526	13,526
K-squared	0.160	0.159	0.145	0.145
Industry FE	YES	YES	YES	YES
iear FE	YES	YES	YES	YES

Table 10. Heterogeneity test result of different property rights.

\*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% levels, respectively.

## 5. Conclusions

This study examined the effect of gambling culture on the financialization of nonfinancial corporations by using 24,902 sets of firm-year data on listed Chinese companies from 2008 to 2020. We can draw the following conclusions. Firstly, our empirical results support the hypothesis that gambling culture could facilitate corporate financialization. The stronger the gambling culture, the higher the degree of financialization. The results are still significant after controlling for the industry-fixed and year-fixed effects. To ensure the reliability of the conclusion, we conducted the robustness test utilizing the instrumental variable method and the substituting key variables, and the conclusion remained valid. Secondly, further investigation revealed that gambling culture affects corporate financial asset investment by enhancing management overconfidence. Thirdly, by subdividing financial assets, we found that gambling culture promotes the holdings of profit-driven financial assets. Heterogeneity tests show that economic policy uncertainty, corporate performance pressure, and corporate property right attribution play moderating roles in the relationship between gambling culture and corporate financial asset investment.

We demonstrated empirical evidence on how cultural elements drive corporate financialization. Based on the research findings, we derive the following insights. Policymakers should strengthen socialist cultural construction and try to alleviate the negative impacts of gambling culture as much as possible. The state should foster mainstream culture and values and create a cultural atmosphere of working hard to rejuvenate the country, which can inspire people's spirit of hard work, curb the tendency of speculation, and promote the development of high-quality enterprises. In addition, according to the analysis of this paper, the over-financialization of enterprises results from management's motivations to satisfy personal interests. The management would invest in the high-risk and high-profit virtual industry at the expense of the enterprise's primary business development capital. From the corporation's perspective, the board of directors and supervisors should design a reasonable compensation incentive system and strengthen the supervisory role. The appropriate manager's incentive design could enhance the corporate governance effect and optimizes the enterprise's resource allocation.

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### References

- 1. Crotty, J. The Neoliberal Paradox: The Impact of Destructive Product Market Competition and Impatient Finance on Nonfinancial Corporations in the Neoliberal Era. *Rev. Radic. Politi-Econ.* **2003**, *35*, 271–279. [CrossRef]
- 2. Krippner, G.R. The financialization of the American economy. Socio-Econ. Rev. 2005, 3, 173–208. [CrossRef]
- 3. Lapavitsas, C. Theorizing financialization. *Work. Employ. Soc.* 2011, 25, 611–626. [CrossRef]
- Palley, T.I. Financialization: What it is and why it matters. In *Financialization*; Springer: Berlin/Heidelberg, Germany, 2011; pp. 17–40. [CrossRef]
- 5. Hu, Y.; Wang, X.; Zhang, J. The motivation for financial asset allocation:reservoir or substitution?—Evidence from Chinese listed companies. *Econ. Res. J.* 2017, *1*, 181–194.
- Orhangazi, Ö. Financialization and Capital Accumulation in the Nonfinancial Corporate Sector: A Theoretical and Empirical Investigation on the US Economy: 1973–2003. *Camb. J. Econ.* 2008, 32, 863–886. [CrossRef]

- 7. Demir, F. Financial liberalization, private investment and portfolio choice: Financialization of real sectors in emerging markets. *J. Dev. Econ.* **2009**, *88*, 314–324. [CrossRef]
- Lazonick, W. Innovative Business Models and Varieties of Capitalism: Financialization of the US Corporation. *Bus. Hist. Rev.* 2010, 84, 675–702. [CrossRef]
- 9. Lazonick, W.; O'Sullivan, M. Maximizing shareholder value: A new ideology for corporate governance. In *Corporate Governance and Sustainable Prosperity*; Palgrave: New York, NY, USA, 2002; pp. 11–36. [CrossRef]
- 10. Peng, Y.; Han, X.; Li, J. Economic Policy Uncertainty and Corporate financialization. China Ind. Econ. 2018, 1, 137–155. [CrossRef]
- 11. Harrison, L.E.; Huntington, S.P. Culture Matters: How Values Shape Human Progress; Xinhua Publishing House: BeiJing, China, 2013.
- 12. Griffin, D.W.; Li, K.; Yue, H.; Zhao, L. How does culture influence corporate risk-taking? J. Corp. Finance 2012, 23, 1–22. [CrossRef]
- 13. Hilary, G.; Hui, K. Does religion matter in corporate decision making in america? J. Financ. Econ. 2009, 93, 455–473. [CrossRef]
- 14. Manso, G. Motivating Innovation. J. Finance 2011, 66, 1823–1869. [CrossRef]
- 15. Chen, Y.; Podolski, E.J.; Rhee, S.G.; Veeraraghavan, M. Local gambling preferences and corporate innovative success. *J. Financ. Quant. Anal.* **2014**, *49*, 77–106. [CrossRef]
- Liu, S.; Liu, J.; Yang, Y.; Yang, S. Corporate Social responsibility and Corporate financialization: A financialTool or Management Tool. Account. Res. 2009, 9, 57–64.
- 17. Xiang, Y.; Dai, Q.; Ma, J. Research on the Impact of Social Credit on Enterprise financialization and Its Mechanism: An Analysis Based on the Data of the Urban Credit-Losing Persons Subjected to Enforcement. *Contemp. Financ. Econ.* **2021**, *12*, 126–136. [CrossRef]
- 18. Kumar, A. Who Gambles in the Stock Market? J. Finance 2009, 64, 1889–1933. [CrossRef]
- 19. Kumar, A.; Page, J.K.; Spalt, O.G. Religious beliefs, gambling attitudes, and financial market outcomes. *J. Financ. Econ.* **2011**, 102, 671–708. [CrossRef]
- 20. Ji, Q.; Quan, X.; Yin, H.; Yuan, Q. Gambling preferences and stock price crash risk: Evidence from china. *J. Bank. Finance* 2021, *128*, 106158. [CrossRef]
- 21. Zheng, Z.; Sun, Q. Lottery-Like Stock Trading behavior Analysis: Evidence from Chinese A-share Stock Market. *Econ. Res. J.* 2013, 48, 128–140.
- 22. Doukas, J.A.; Zhang, W. Managerial gambling attitudes: Evidence from bank acquisitions. *Rev. behav. Financ.* 2013, *5*, 4–34. [CrossRef]
- 23. Adhikari, B.K.; Agrawal, A. Religion, gambling attitudes and corporate innovation. J. Corp. Finance 2016, 37, 229–248. [CrossRef]
- Christensen, D.M.; Jones, K.L.; Kenchington, D.G. Gambling attitudes and financial misreporting. *Contemp. Account. Res.* 2018, 35, 1229–1261. [CrossRef]
- 25. Allen, F.; Qian, J.; Qian, M. Law, finance, and economic growth in china. J. Financ. Econ. 2005, 77, 57–116. [CrossRef]
- Rossen, F.; Sobrunmaharaj, A.; Wong, A.S. The Impact of gambling and Problem gambling on Asian Families and Communities in New Zealand. *Asian J. Gambl. Issues Public Health* 2012, 1, 1–16.
- Zhang, T.; Wei, D.; Liu, Z.; Wu, X. Lottery preference and stock market participation: Evidence from china. *China Finance Rev. Int.* 2021, 13, 46–62. [CrossRef]
- 28. Barberis, N.; Huang, M. Stocks as Lotteries: The Implications of Probability Weighting for Security Prices. *Am. Econ. Rev.* 2008, 98, 2066–2100. [CrossRef]
- 29. Lee, S.; Pantzalis, C.; Park, J.C. Does local culture trigger speculative investment behavior? J. Bus. Res. 2019, 103, 71–88. [CrossRef]
- Huang, J.; Luo, Y.; Peng, Y. Corporate financial asset holdings under economic policy uncertainty: Precautionary saving or speculating? *Int. Rev. Econ. Finance* 2019, 76, 1359–1378. [CrossRef]
- 31. Xie, L.; Zhai, S.; Tong, L. Gambling Culture and Enterprise Expense Stickiness. Counting Res. 2021, 5, 121–132.
- Larwood, L.; Whittaker, W. Managerial myopia: Self-serving biases in organizational planning. J. Appl. Psychol. 1977, 62, 194–198. [CrossRef]
- 33. Hackbarth, D. Managerial Traits and Capital Structure Decisions. J. Financ. Quant. Anal. 2008, 43, 843–881. [CrossRef]
- 34. Hirshleifer, D.; Low, A.; Teoh, S.H. Are overconfident CEOs better innovators? J. Finance 2012, 67, 1457–1498. [CrossRef]
- 35. Zhao, Q.; Zhao, W.; Lu, D.; Zhao, Q. Gambling and Enterprise innovation: A Study based on cultural perspective. *Financ. Trade Econ.* **2018**, *39*, 122–140.
- 36. Zhang, C.; Zhang, B. The mystery of the decline of China's industrial investment rate: From the perspective of economic financialization. *Econ. Res. J.* 2016, *12*, 32–46.
- 37. Luo, D.; Liu, C.; Tan, Y. Speculative culture and Controlling shareholders' Equity pledge. Account. Res. 2021, 10, 69–83.
- 38. Jiang, F.; Zhang, M.; Lu, Z.; Chen, C. Managerial Overconfidence, Firm Expansion and financial Distress. *Econ. Res. J.* 2009, 44, 131–143.
- Chen, X.; Chen, D.Q. Speculative Culture, Managers' Characteristics and Corporate Innovation. *Manag. Rev.* 2021, 1, 133–143. [CrossRef]
- 40. Demir, F. Capital Market Imperfections and Financialization of Real Sectors in Emerging Markets: Private Investment and Cash Flow Relationship Revisited. *World Dev.* **2009**, *37*, 953–964. [CrossRef]

- 41. Baker, S.R.; Bloom, N.; Davis, S.J. Measuring economic policy uncertainty. Q. J. Econ. 2016, 131, 1593–1636. [CrossRef]
- 42. Phan, H.V.; Nguyen, N.H.; Nguyen, H.T.; Hegde, S. Policy uncertainty and firm cash holdings. J. Bus. Res. 2019, 95, 71–82. [CrossRef]

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