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**Article**

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## Inter-regional M&As, home bias and the post-merger performance

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### ABSTRACT

The under-performance of mergers and acquisitions (M&As) resulting from impairment of goodwill is of great interest to regulators and investors. This study investigates the performance of M&As from the perspective of home bias. The results indicate that (1) Post-merger performance is worse when purchased companies are in high-level executives' hometowns. (2) When located in the executives' hometown, listed companies pay higher premiums, and further loss of goodwill occurs in the following years. Integration efficiency after M&As is lower, as reflected in the higher degree of excess employees. (3) Cross-sectional analyses indicate that M&A under-performance only occurs when the province has a low level of market development, listed companies are non-state-owned enterprises, or listed companies' executives are older. (4) Interactive effect test results suggest that fund holding, analyst following and media coverage can alleviate the negative impact of home bias on long-term performance.

### KEYWORDS

Home bias; post-merger performance; merger premium; integration efficiency

## 1. Introduction

Spurred by the trend of adjusting the mode and structure of China's economic development, mergers and acquisitions (M&As) have become an important means for listed companies to realise industrial integration. Policy-making institutions also vigorously support enterprises' pursuit of M&A activities to improve the function of the capital market in the interest of the development of the real economy. In March 2014, the State Council issued the 'Opinions on Further Optimising the Market Environment of Mergers and Reorganisations', which promoted M&As in China's capital market. According to Sina Corporation's 2017 financial data, the M&A transaction amount of listed companies was 889.2 billion yuan in 2013 and increased to 2.39 trillion yuan by 2016, with an average annual growth rate of 41.14%, ranking second in the world.<sup>1</sup> Under this background, listed companies have reported huge goodwill after M&As, which brought the risk of impairment. For example, in 2018, a total of 882 listed companies made provision

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<sup>1</sup><http://finance.sina.com.cn/roll/2017-09-13/doc-ifykuftz6781889.shtml>

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for goodwill impairment losses, resulting in the highest number (469) of companies with net profit losses in history.<sup>2</sup> Regulators and investors are extremely concerned about this phenomenon.

The performance of M&As is a research field to which Chinese scholars have always paid close attention. In addition to traditional theories, such as information asymmetry and the synergy effect, China's unique institutional factors, such as tax competition (Wang & Miao, 2015), local protection (Fang, 2008), government intervention (Qiao, 2012) and marketisation degree (Yao et al., 2014), will also affect M&As' performance. As an informal system embedded in individual consciousness, the concept of home bias can have an impact on the efficiency of resource allocation in capital markets, an occurrence that has been verified in many fields. In practice, many cases also demonstrate that entrepreneurs are keen to invest in their hometowns.

Home bias has different definitions in differing situations. In terms of international transactions, 'hometown' refers to one's home country; From the perspective of domestic transactions, 'hometown' refers to a specific region. Studies have demonstrated that investors prefer to hold shares of listed companies in their hometowns (Coval & Moskowitz, 1999; Grinblatt & Keloharju, 2001). Chinese scholars also found that government officials' and capital market participants' home bias has a significant impact on regional economic development, government transfer payments and corporate investment and financing (Fan et al., 2016; Zhang, 2012). Can the home bias of senior executives affect long-term performance following M&As? What is the mechanism of this influence? The answers to these questions will not only broaden the research perspective in the field of M&A but also have important practical guiding significance.

There are two main perspectives regarding the existence of home bias in capital markets. One is the information view, which also has two levels. The first level is 'familiarity'; that is, capital market participants are familiar with the culture, traditions and economic environment of their hometowns. The second is the convenience of information acquisition. Existing natural links and social relations with one's hometown can result in more convenient information access and advantages. The other perspective of home bias is the concept of identity. People usually have a natural affection for their hometowns and are willing to contribute and serve their hometowns. In this process, they can achieve self-satisfaction and improve perceptions of their own utility.

Based on the above two theories, home bias may have two opposite effects on M&As' performance. Executives are familiar with the economic environments in their hometowns and are practical elites in an industry, capable of obtaining useful information and making more efficient M&A decisions through existing relationships in their hometowns. Compared with enterprises in other regions, choosing enterprises in their hometown for M&As is based on the principle of maximising firms' interests. From this perspective, M&As' long-term performance in hometowns will be better. In contrast, executives' hometown identities will make the maximisation of listed companies' interests secondary, as it is mixed with feelings for their hometowns. Therefore, compared with other M&As, the long-term performance of M&As in hometowns may be worse.

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<sup>2</sup>The number of listed companies with net profit losses in 2017 is only 246.

To test this research question with tension, 1460 M&As initiated by listed companies from 2005 to 2016 were used as research samples. There are two types of samples in this study. If the acquired enterprise is located in the province where the executives of listed companies were born, it will be called 'M&As-in-Hometown'. The other is called 'other M&As'. The results indicate that the long-term market performance of M&As-in-Hometown is worse, but only among executives at the level of chairman or CFO. This finding remains valid after considering five alternative explanations. Furthermore, the results using short-term market performance, Cumulative Abnormal Return (CAR), as an alternative indicator of M&As' performance also support the finding. Second, the poor performance of M&As-in-Hometown is partly due to higher premiums paid by listed companies and higher impairment losses of goodwill following M&As. The integration effect is also found to be one of the mechanisms that affect performance. The results imply that the degree of excess employees is significantly higher after listed companies acquire enterprises in the hometowns of executives. In addition, the home bias of executives is found to not be limited to executives' city of birth but is also reflected in entire provinces. Furthermore, the cross-sectional analysis indicates that the under-performance of M&As-in-Hometown is only evident in the sample group in which the province where the target is located has a low level of marketisation, the listed company is a non-state-owned enterprise or senior executives are older. Finally, fund holding, analyst following and media coverage are found to alleviate the negative impact of executives' home bias on M&As' performance.

The contributions of this paper are threefold. First, existing literature mostly examines M&As' performance from the institutional background perspective. After an extensive review, it is apparent that no paper has investigated this issue from the perspective of home bias. This paper clarifies the mechanism of this influence. (1) Listed firms pay higher and unreasonable premiums for M&As-in-Hometown, leading to listed firms reporting higher goodwill impairment losses in the year following the merger. (2) Home bias affects the efficiency of post-merger integration; that is, the degree of excess employees following M&As-in-Hometown is significantly higher. This paper supplements the literature in the field by identifying factors that affect M&A performance.

Second, western scholars generally find that home bias brings information advantages to capital market participants. Chinese scholars have investigated home bias from the perspective of credit or investment (Cao et al., 2018). In contrast to research confirming that home bias brings information advantage and mutual trust, the informal system embedded in individual consciousness demonstrates a stronger hometown identity in the context of M&As in China. This paper is a useful supplement to investigations of the relationship between the informal system of home bias and the operational efficiency of China's capital market.

Finally, this paper offers policy implications for regulators. Under the increasing trend of M&As, listed companies can gain advantages in production capacity or technology through merging with other enterprises and have a role in improving the capital market to serve the development of the real economy. In this context, theoretical and practical researchers should clarify the influences of various formal and informal systems on the performance of

M&As, in addition to clarifying how to manage or improve such factors. This paper suggests that internal and external governance mechanisms can mitigate the negative impact of home bias on M&As and provides a practical, evidence-based reference.

## 2. Literature review

### 2.1. Literature on M&As' performance

Western scholars mainly focus on the degree of information asymmetry between enterprises participating in M&As (Megginson et al., 2004; Portes & Rey, 2005) and post-merger synergy (Bradley et al., 1988). China's unique institutional factors can affect the performance of Chinese enterprises following M&As (Fang, 2008; Pan & Yu, 2011; Qiao, 2012). The degree of development of factors in the market can also have an impact on M&A behaviour. For example, Fang (2009) found that marketisation improvement effectively alleviated the barriers to cross-provincial M&As. In addition to formal institutional factors, senior executives' motivation for personal political promotion, personal social capital and abilities in information communication are also key factors affecting M&As. For example, when executives of state-owned enterprises are faced with greater opportunities for political promotion, enterprises will choose the growth mode of M&As more (Chen et al., 2015). Li et al. (2019) find that CEO's cultural background has a significant impact on M&A performance. CEOs with northern cultural backgrounds have better short- and long-term M&A performance.

In summary, Chinese scholars have studied the performance of M&As from perspectives of institutional factors (local protection, government intervention, factor marketisation and other considerations) and executives' personal characteristics. At present, minimal research has investigated M&As' long-term performance from the perspective of home bias. To better understand the influence of informal systems on China's M&A market, the following describes the literature in the field of home bias.

### 2.2. Literature on home bias

Early research sought to explain the reasons for the existence of home bias from the perspective of information advantage; that is, local investors' information advantages over local enterprises or assets (Nieuwerburgh & Veldkamp, 2009). Previous research demonstrated the phenomenon of home bias in terms of equity investment, bond investment and venture capital markets (Dong & Xiao, 2011; Hau & Rey, 2008; Hochberg & Rauh, 2013). Nevertheless, information advantage cannot fully explain the reasons why home bias exists in capital markets. For example, Pool et al.'s (2012) study found that fund managers held more shares of companies in their hometowns. However, the return is not higher. The reason for this phenomenon is found in another theory to explain home bias; that is, capital market participants may make decisions based on identification with their hometown. Akerlof and Kranton (2000, 2002) proposed the concept of identity economics, defining identity as the self-perception associated with a specific social category. After introducing identity factors, individual utility depends on three factors, which are one's own behaviour, the behaviour of others in the group and self-identity. This means that to maximise individual utility, in addition to one's own self-behaviour, other people influence individuals and their self-identity in the group.

Subsequently, a large number of articles have confirmed that this theory can explain many economic phenomena. For example, Li and Xu (2016) found that identity is one of the deep-seated factors affecting regional economic development. Specifically, the political resources of Central Committee members owned by the provinces help local governments achieve more expedient economic growth and achieve higher investment in fixed assets and bank loans (Shih, 2004). More financial transfer payments are received in hometowns of minister-level officials in China, and economic growth is also more rapid (Fan et al., 2016). In addition to regional economic growth, micro-enterprise behaviour is also influenced by executives' hometown preferences. For example, Cao et al. (2018) found that listed companies will set up more subsidiaries in CEOs' hometowns. Lai et al. (2020) revealed that local CEOs are unlikely to cut R&D spending by exceeding analysts' forecasts or avoiding revenue decline.

In summary, the above research presents a theoretical basis of the influence of home bias on economic behaviour that includes characteristics of information advantage and identity. However, in China, home bias is manifested as hometown identity when it also affects regional economic development and corporate behaviour. For example, the home bias of government officials and enterprise executives is reflected in giving back to their hometowns more, and information advantage is less apparent. This paper conducts a theoretical analysis from perspectives of information advantage and hometown identity and proposes research hypotheses.

### 3. Research hypotheses

As noted, the two effects of home bias on executives can affect M&As' performance from two different directions. From the perspective of executives' access to information, there is a natural barrier to information acquisition in inter-regional M&As, and the information asymmetry between listed companies and acquired companies is relatively high. Whether the purchaser is able to accurately assess the true value of the acquisition target depends on the degree of mutual information asymmetry. Compared with other regions, executives are more familiar with the economic, cultural and social environment of their hometowns and can also obtain relevant information on M&As' subject matter through a variety of private channels. For example, they can easily speak with friends in their hometown, local media and distributors and suppliers in the industry, and these actors trust them more and will deliver more authentic information to the executives (Coval & Moskowitz, 1999). In other words, the executives of listed companies can more accurately access word-of-mouth of targets, the financial status of distributors and suppliers and other useful information for valuation. Therefore, from the perspective of information acquisition, compared with other M&As, the degree of information asymmetry between listed companies and executives' hometown enterprises is lower.

The information advantage can affect long-term performance following M&As by influencing the valuation of listed companies to the purchasers. From the perspective of valuation, compared with other M&As, purchasers can make full use of established social networks to help listed companies obtain incremental information that is useful for valuation. This can help purchasers assess the true value of the acquired enterprise more accurately (Fuller et al., 2002) and merge the executives' hometown enterprise at a more reasonable cost. Accurate pricing can save cash or other assets for listed companies while

also reducing the risk of goodwill impairment following high-premium M&As, both of which can have a significant impact on post-merger performance. In addition, following M&A, the enterprises of both sides are faced with adjustments of employment policies and other considerations, and the effect of these adjustments directly influences post-merger performance. Schweiger & Goulet (2000) reviewed the problems of post-merger integration, asserting that if both parties fail to smoothly integrate and form a common corporate culture, this may lead to estrangement and opposition between employees, and even integration failure, which will ultimately affect performance. Executives are more familiar with the economy and informal system, including customs, culture and other relevant knowledge, of their hometowns, which can alleviate challenges of integration following the merger with positive effects for both parties' enterprises. In summary, if the acquired enterprise is located in the hometown of the executives of the listed company, post-merger performance is expected to be superior.

However, from the perspective of home bias identity, such mergers may also have a negative impact on long-term performance. In China, hometown identity is a highly representative traditional culture and an important informal system. Chinese people generally love their hometowns. For example, in ancient times, people always returned home in their twilight years. Existing literature also demonstrates that entrepreneurs have a strong sense of identification with their hometowns, which has an important explanatory power with regard to economic phenomena (Li & Wu, 2016).

According to identity economics, individual utility function includes three aspects of individual behaviour, the behaviour of other individuals in the group and self-identity (Akerlof & Kranton, 2000). From this perspective, the executives of listed companies choose hometown enterprises as targets, not based on the maximisation of the interests of listed companies but on maximising their own utility. This is because executives' identity has the binding effect of public opinion, and executives' choice of M&As of enterprises in their hometown can help relatives and friends in their hometown solve employment problems and earnestly safeguard the interests of the hometown itself. Senior executives' personal deeds will be widely publicised and discussed in their hometowns, and they can establish a good personal reputation. In contrast, if executives do not seek benefits for their hometown and contribute to their hometown, they will appear impersonal, and they will not have a good reputation in their hometown; that is, other people in their hometown will not give a high evaluation to executives, and their self-worth identity will not be satisfied. For example, Lai et al. (2020) found that when executives work in enterprises near their hometown, they will not exhibit short-sighted investment behaviours. Specific to M&As, to obtain higher individual utility, executives will more strongly consider hometown enterprises when choosing targets to support their hometowns' economic development. Moreover, they may be more generous in terms of the M&A price, paying a higher premium in exchange for positive comments regarding the executives from the hometown group. In other words, executives' acquisition of hometown enterprises is not only to maximise the interests of listed companies. Compared with M&As based on maximising listed companies' interests, the performance of M&As-in-Hometown may be worse.

A third perspective suggests that when a hometown enterprise is the best choice among many alternative M&A targets, it can maximise both executives' personal utility and the interests of listed companies, achieving a win-win situation. However, if the

integration effect following an M&A is considered, even if the hometown enterprise is the best target, the executives' identity in hometown may still have a negative impact on performance. The logic of this view is that to improve management and operation efficiency, listed companies may need to adjust employment policies, and the executives' hometown identity can restrict the listed companies' integration decisions. For example, listed companies may not over-reduce employees or may even over-hire local employees to prevent hometown people's criticism of executives' personal reputations. Therefore, it may be difficult for the executives of listed companies to effectively integrate the enterprises of both sides after returning to their hometowns for M&As to achieve synergy, ultimately reducing the long-term performance following M&As.

Based on the above analysis, the following competitive research hypotheses are proposed:

**Hypothesis 1a:** Compared with other M&As, the long-term performance of M&As-in-Hometown is better.

**Hypothesis 1b:** Compared with other M&As, the long-term performance of M&As-in-Hometown is worse.

#### 4. Data and model

Inter-regional M&As initiated by listed companies from 2005 to 2016 are selected as samples. M&As in the sample are defined as inter-regional when the registered provinces of listed companies are inconsistent with those of the acquired parties. To make the samples more accurately meet the research needs, the samples were cleaned according to the following standards: (1) Eliminate unsuccessful M&As; (2) Eliminate related M&As within enterprise groups; (3) Excluding listed companies in the financial and insurance industries; (4) To avoid the interference of the same repeated observation on the research, only the first merger event will be reserved when the same purchaser conducts multiple M&As with the same target; (5) Eliminate M&As for which the province where the target company is located cannot be accurately identified. Finally, 1460 samples were obtained, among which, the number of samples of M&As-in-Hometown was 141. M&A data, financial statement data and stock price data of listed companies is retrieved from the China Stock Market & Accounting Research Database (CSMAR). As for executives' birthplace data, a combination of data from the Chinese Research Data Services Platform (CNRDS) and CSMAR is used. Goodwill impairment data comes from the Wind database. To reduce the influence of potential outliers, winsorising was conducted on all continuous variables at the level of 1% and 99% annually. To verify the hypotheses, the regression model used in this paper is as follows. Table 1 presents the variables' definitions.

$$\begin{aligned}
 \text{Performance}_{i,t} = & \alpha_0 + \beta_1 \text{Home}_{i,t} + \beta_2 \text{Size}_{i,t} + \beta_3 \text{Lev}_{i,t} + \beta_4 \text{Roa}_{i,t} + \beta_5 \text{Growth}_{i,t} + \beta_6 \text{Soe}_{i,t} \\
 & + \beta_7 \text{Top1}_{i,t} + \beta_8 \text{Sep}_{i,t} + \beta_9 \text{CashPay}_{i,t} + \beta_{10} \text{ComIND}_{i,t} + \beta_{11} \text{Dual}_{i,t} \\
 & + \beta_{12} \text{Idir}_{i,t} + \sum \text{Province} + \sum \text{Year} + \sum \text{Industry} + \varepsilon
 \end{aligned} \tag{1}$$

**Table 1.** Variable introduction.

Type of Variable	Name of Variable	Introduction of Variable
Dependent Variables	$BHAR_{i,t}$	Long-term performance, measured by buy-and-hold abnormal return for 12 months, 24 months and 36 months on the M&A announcement date.
	$\Delta ROS_{i,t}$	Change value of operating margin, measured by total profit divided by operating income minus $ROS$ of the year before the merger is completed.
Independent Variables	$Home_{i,t}$	Dummy variable; if the acquired enterprise is located in the province where the executives of listed companies were born, the $Home$ variable takes 1; otherwise, it is 0.
	$Home\_cc_{i,t}$	Dummy variable; if the acquired enterprise is located in the province where the Chairman or CEO of listed companies was born, the value is 1; otherwise, it is 0.
	$Home\_other_{i,t}$	Dummy variable, if the acquired enterprise is located in the province where executives other than the Chairman or CEO of listed companies were born, the value is 1; otherwise, the value is 0.
Control Variables	$Size_{i,t}$	Natural logarithm of total assets of listed companies at the end of the year of M&A.
	$Lev_{i,t}$	Total liabilities divided by total assets at the end of the year of M&A.
	$Roa_{i,t}$	Total profit/total assets of listed companies at the end of the year of M&A.
	$Growth_{i,t}$	The sales at the end of the year of M&A minus the sales of the previous year and divided by the sales of the previous year.
	$Soe_{i,t}$	Dummy variable; if the purchaser is a state-owned enterprise, the value is 1; otherwise, the value is 0.
	$Top1_{i,t}$	Proportion of the largest shareholder of listed companies in the year of M&A.
	$Sep_{i,t}$	The degree of separation of the two rights of listed companies in the year of M&A.
	$CashPay_{i,t}$	Dummy variable; If all payments are made in cash, the value is 1; otherwise, it is 0.
	$ComIND_{i,t}$	Dummy variable; if the buyer and the acquired party belong to the same industry, the value is 1; otherwise, it is 0. <sup>3</sup>
	$Dual_{i,t}$	Dummy variable; if the chairman and CEO of a listed company are the same people, the value is 1; otherwise, it is 0.
	$Indir_{i,t}$	Proportion of the number of independent directors of listed companies to the total number of board members.
	$Province$	Fixed effect of the province where the acquired company is located.
	$Industry$	Fixed effects of listed companies' industries.
$Year$	Fixed effect of the year to which the sample belongs.	

#### 4.1. Dependent variables

Market performance is measured by buy-and-hold abnormal return ( $BHAR$ ) for 12 months, 24 months and 36 months on the announcement date of merger and acquisition. Accounting performance ( $\Delta ROS$ ) is the change value of operating margin, measured by total profit divided by operating income ( $ROS$ ) minus the  $ROS$  of the year before the merger is completed.

#### 4.2. Independent variables

The independent variables of this research are dummy variables. If the acquired enterprise is located in the province where the executives of listed companies were born, the  $Home$  variable takes 1; otherwise, it is 0.

Different positions of executives have different influences on M&As. It is expected that executives with lower positions have less influence on important investment decisions than those at the level of Chairman or CEO; therefore, two explanatory variables are established.  $Home\_cc$  is a dummy variable; if the acquired enterprise is located in the

<sup>3</sup>The industry of the acquired company is obtained through 'QCC.COM' or the company's website, and manually match it with the industry classification of the listed company. If there is business overlap between the purchaser and the acquired company, it is defined as merger in the same industry.

province where the Chairman or CEO of listed companies was born, the value is 1; otherwise, it is 0. If the acquired enterprise is located in the province where executives other than the Chairman or CEO were born, then *Home\_other* takes the value 1; otherwise, it is 0.

### 4.3. Control variables

Previous literature is referenced (Pan & Yu, 2011; Tang & Chen, 2010; Xiao et al., 2018) to select the control variables of *Size*, *Lev*, *Roa*, *Growth*, *Soe*, *Top1*, *Sep*, *CashPay*, *ComIND*, *Dual*, *Indir*, *Province Fixed effect*, *Industry Fixed effect*, *Year Fixed effect*. (See Table 1 for variable definitions.)

## 5. Results

### 5.1. Descriptive statistics

Table 2 presents the number of samples each year. The number of inter-regional M&As initiated by listed companies is rising year by year. In 2005, the number of inter-regional M&As was 18, with the largest number in 2015, reaching 309. The number of M&As-in-Hometown accounted for 9.7% of the total number of M&As, totalling 141 cases. For *Home\_cc* = 1, the sample size is 76 and for *Home\_other* = 1, the sample size is 65. On the whole, the proportion of the number of M&As-in-Hometown to the total number is evenly distributed and not concentrated in certain years.

Table 3 presents the descriptive statistics of main regression variables. The mean value of *BHAR*<sup>12</sup> is 0.064, and the mean values of *BHAR*<sup>24</sup> and *BHAR*<sup>36</sup> are also positive, indicating that inter-regional M&As have generally elicited positive benefits for shareholders. Compared with the year prior to mergers, accounting performance in the year following mergers demonstrates an increasing trend, but accounting performance in the following two years was weak. The average value of *Home* is 0.097, indicating that the number of M&As-in-Hometown accounts for 9.7% of the total number of M&As. The mean value of *Home\_cc* is 0.052. The mean value of *Size* is 21.914, the mean value of *Lev* is 0.426, the mean value of *Roa* is 0.044, and the mean value of *Growth* is 2.138. The number of inter-regional M&As

Table 2. Descriptive statistics by year.

Year	Number	M&As-in-Hometown			other M&As
		<i>Home</i> = 1	<i>Home_cc</i> = 1	<i>Home_other</i> = 1	
2005	18	4	3	1	14
2006	31	7	5	2	24
2007	46	6	2	4	40
2008	61	4	2	2	57
2009	37	4	0	4	33
2010	76	8	6	2	68
2011	108	9	5	4	99
2012	105	12	7	5	93
2013	154	14	7	7	140
2014	218	23	8	15	195
2015	309	28	18	10	281
2016	297	22	13	9	275
Total	1460	141	76	65	1319

**Table 3.** Descriptive statistics of main variables.

Variables	N.	Mean	STD.	Q1	Median	Q3
$BHAR^{12}$	1460	0.064	0.544	-0.224	-0.017	0.274
$BHAR^{24}$	1460	0.103	0.882	-0.328	-0.039	0.372
$BHAR^{36}$	1460	0.070	1.015	-0.431	-0.114	0.359
$\Delta ROS^T$	1459	0.008	0.220	-0.030	-0.004	0.019
$\Delta ROS^{T+1}$	1459	-0.003	0.238	-0.048	-0.005	0.025
$\Delta ROS^{T+2}$	1458	-0.022	0.268	-0.064	-0.012	0.025
<i>Home</i>	1460	0.097	0.295	0.000	0.000	0.000
<i>Home_cc</i>	1460	0.052	0.222	0.000	0.000	0.000
<i>Home_other</i>	1460	0.045	0.208	0.000	0.000	0.000
<i>Size</i>	1460	21.914	1.068	21.187	21.847	22.583
<i>Lev</i>	1460	0.426	0.228	0.267	0.414	0.569
<i>Roa</i>	1460	0.044	0.062	0.020	0.043	0.070
<i>Growth</i>	1460	2.138	34.793	0.036	0.207	0.441
<i>Soe</i>	1460	0.208	0.406	0.000	0.000	0.000
<i>Top1</i>	1460	0.329	0.139	0.215	0.311	0.424
<i>Sep</i>	1460	4.253	6.982	0.000	0.000	6.151
<i>CashPay</i>	1460	0.795	0.404	1.000	1.000	1.000
<i>ComIND</i>	1460	0.492	0.500	0.000	0.000	1.000
<i>Dual</i>	1460	0.295	0.456	0.000	0.000	1.000
<i>Idir</i>	1460	0.371	0.051	0.333	0.333	0.429

initiated by state-owned enterprises accounted for 20.8%. The average shareholding ratio of the largest shareholder (*Top1*) is 32.9%. The mean value of *Sep* is 4.253. The proportion of M&As using cash payment is 79.5%, indicating that inter-regional M&As in China mainly uses cash payment rather than shares or other assets. The average value of *ComIND* is 0.492.

## 5.2. Regression results

Table 4 presents the regression results using market performance as the dependent variable. Specifically, the dependent variables are  $BHAR^{12}$ ,  $BHAR^{24}$  and  $BHAR^{36}$ . The independent variable in Column (1) is *Home*, with a coefficient of  $-0.119$ , which is significantly negative at the level of 5% ( $t = -2.47$ ). The result demonstrates that, compared with other M&As, the long-term market performance of M&As-in-Hometown is poor. The result in Column (2) shows a regression coefficient of *Home\_cc* of  $-0.184$ , which is significantly negative at the level of 1% ( $t = -2.90$ ). The result in Column (3) shows that the regression coefficient of *Home\_other* is not statistically significant. The result in Column (5) indicates that when  $BHAR^{24}$  is taken as an independent variable, the coefficient of *Home\_cc* is  $-0.230$ , which is significantly negative at the 5% level. The result in Column (6) shows that when  $BHAR^{36}$  is taken as an independent variable, the coefficient of *Home\_cc* is  $-0.289$ , which is significantly negative at the 5% level. On the whole, the results in Table 4 demonstrate that compared with other M&As, the long-term performance of M&As-in-Hometown is poorer, supporting H1b.

The dependent variable in Table 5 is the change in sales profit margin ( $\Delta ROS$ ). The dependent variable in Column (1) is  $\Delta ROS^T$  ( $\Delta ROS^T = ROS^T - ROS^{T-1}$ ), and the coefficient of *Home\_cc* is  $-0.060$ , which is significantly negative at the 5% level. The dependent variable in Column (2) is  $\Delta ROS^{T+1}$  ( $\Delta ROS^{T+1} = ROS^{T+1} - ROS^{T-1}$ ), and the coefficient of *Home\_cc* is  $-0.048$ , which is significantly negative at 10%. The dependent variable in Column (3) is  $\Delta ROS^{T+2}$  ( $\Delta ROS^{T+2} = ROS^{T+2} - ROS^{T-1}$ ), and the coefficient of *Home\_cc* is  $-0.055$ , which is significantly negative at 10%. In Column (4), accounting performance for

Table 4. Regression results.

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>BHAR</i> <sup>12</sup>	<i>BHAR</i> <sup>12</sup>	<i>BHAR</i> <sup>12</sup>	<i>BHAR</i> <sup>12</sup>	<i>BHAR</i> <sup>24</sup>	<i>BHAR</i> <sup>36</sup>
<i>Home</i>	-0.119** (-2.47)	/	/	/	/	/
<i>Home_cc</i>	/	-0.184*** (-2.90)	/	-0.186*** (-2.93)	-0.230** (-2.21)	-0.289** (-2.42)
<i>Home_other</i>	/	/	-0.029 (-0.42)	-0.042 (-0.61)	-0.051 (-0.45)	0.051 (0.40)
<i>Size</i>	-0.011 (-0.65)	-0.011 (-0.67)	-0.013 (-0.79)	-0.011 (-0.64)	-0.057** (-2.10)	-0.088** (-2.82)
<i>Lev</i>	0.128* (1.74)	0.129* (1.75)	0.134* (1.81)	0.128* (1.74)	0.213* (1.77)	0.308** (2.23)
<i>Roa</i>	0.219 (0.89)	0.218 (0.89)	0.231 (0.94)	0.216 (0.88)	0.204 (0.51)	0.760* (1.65)
<i>Growth</i>	0.001 (1.57)	0.001 (1.60)	0.001 (1.62)	0.001 (1.58)	-0.000 (-0.52)	-0.002** (-2.41)
<i>Soe</i>	0.022 (0.52)	0.018 (0.44)	0.021 (0.51)	0.019 (0.46)	-0.073 (-1.09)	-0.023 (-0.29)
<i>Top1</i>	0.060 (0.55)	0.067 (0.61)	0.073 (0.66)	0.063 (0.57)	0.519*** (2.87)	0.479** (2.31)
<i>Sep</i>	0.002 (0.76)	0.002 (0.86)	0.002 (0.75)	0.002 (0.84)	-0.005 (-1.48)	-0.001 (-0.31)
<i>CashPay</i>	-0.122*** (-3.22)	-0.118*** (-3.13)	-0.122*** (-3.23)	-0.119*** (-3.14)	0.002 (0.04)	0.001 (0.01)
<i>ComIND</i>	0.022 (0.73)	0.022 (0.73)	0.022 (0.71)	0.022 (0.73)	0.019 (0.39)	0.087 (1.52)
<i>Dual</i>	0.051 (1.58)	0.047 (1.46)	0.051 (1.59)	0.048 (1.48)	0.031 (0.58)	-0.104* (-1.71)
<i>Idir</i>	-0.218 (-0.74)	-0.191 (-0.65)	-0.220 (-0.74)	-0.197 (-0.67)	0.474 (0.98)	0.013 (0.02)
<i>Constant</i>	-0.075 (-0.19)	-0.087 (-0.22)	-0.047 (-0.12)	-0.089 (-0.22)	0.356 (0.55)	1.184 (1.59)
<i>Province</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	1460	1460	1460	1460	1460	1460
<i>adj. R</i> <sup>2</sup>	0.08	0.08	0.08	0.08	0.06	0.07

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

three years is combined to investigate the overall difference in the performance. The coefficient of *Home\_cc* is -0.058, which is significantly negative at the level of 1%. The regression result using accounting performance as a dependent variable also supports H1b.

Considering that market performance includes all the information in the market (for example, accounting performance, competitive position, and other relevant considerations), it can more comprehensively reflect M&As' performance. Therefore, robustness tests and further analyses take market performance (*BHAR*<sup>12</sup>) as the dependent variable.

### 5.3. Short-term performance

The dependent variable in Column (1) of Table 6 is *CAR*, and the window period is [0, 1]. The estimated period of normal stock return is three days to three months before the announcement date. The coefficient of *Home\_cc* is -0.025, which is significantly negative at the 5% level ( $t = -1.97$ ). The sample size is less than 1460 because if the stock returns are missing on the day of the merger announcement and the day after the merger

**Table 5.** Regression results.

	(1)	(2)	(3)	(4)
	$\Delta ROS^T$	$\Delta ROS^{T+1}$	$\Delta ROS^{T+2}$	$\Delta ROS^{T \text{ to } T+2}$
<i>Home_cc</i>	-0.060** (-2.49)	-0.048* (-1.72)	-0.055* (-1.77)	-0.058*** (-3.60)
<i>Home_other</i>	-0.008 (-0.31)	0.003 (0.10)	-0.051 (-1.54)	-0.017 (-0.99)
<i>Size</i>	-0.011* (-1.68)	-0.012* (1.72)	0.025*** (3.36)	0.011*** (2.66)
<i>Lev</i>	0.058* (1.96)	-0.010 (-0.28)	-0.076** (-2.25)	-0.019 (-1.01)
<i>Growth</i>	0.002*** (15.25)	0.010*** (2.87)	0.005*** (6.84)	0.002*** (14.12)
<i>Soe</i>	-0.019 (-1.24)	0.007 (0.41)	-0.001 (-0.08)	-0.001 (-0.07)
<i>Top1</i>	0.013 (0.31)	-0.033 (-0.65)	0.092* (1.67)	0.029 (1.02)
<i>Sep</i>	0.002* (1.95)	0.003*** (3.53)	0.003*** (3.24)	0.003*** (5.12)
<i>CashPay</i>	0.010 (0.72)	-0.057*** (-3.41)	-0.039** (-2.16)	-0.038*** (-4.08)
<i>ComIND</i>	-0.008 (-0.73)	-0.010 (-0.74)	0.013 (0.88)	-0.001 (-0.14)
<i>Dual</i>	-0.020 (-1.64)	0.013 (0.86)	-0.009 (-0.56)	-0.006 (-0.67)
<i>Idir</i>	0.018 (0.16)	-0.201 (-1.59)	-0.173 (-1.29)	-0.128* (-1.80)
<i>Constant</i>	-0.020 (-0.13)	-0.079 (-0.46)	-0.392** (-2.13)	-0.330*** (-3.07)
<i>Province</i>	Yes	Yes	Yes	Yes
<i>Industry</i>	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes
<i>N</i>	1459	1459	1458	4376
<i>adj. R<sup>2</sup></i>	0.19	0.07	0.12	0.11

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

announcement, such samples were deleted. The latter two columns adopt similar sample screening methods. The dependent variable in Column (2) is *CAR* [0, 2]. The coefficient of *Home\_cc* is -0.030, which is significantly negative at the 5% level ( $t = -2.18$ ). The dependent variable in Column (3) is *CAR* [0, 3]. The coefficient of *Home\_cc* is -0.047, which is significantly negative at the level of 5% ( $t = -2.26$ ). These results indicate that the short-term performance of M&As-in-Hometown is significantly lower than other M&As, also supporting H1b.

## 5.4. Alternative explanation

### 5.4.1. False information from hometown

Theoretically, the results of this paper may have an alternative explanation that people in executives' hometowns misled executives. Specifically, to attract external funds, the stakeholders in a hometown send false information to the executives of listed companies, which lead to worse long-term performance. However, this alternative explanation cannot be in an equilibrium state; that is, listed companies cannot be misled many times.

**Table 6.** Short-term performance.

	CAR [0, 1]	CAR [0, 2]	CAR [0, 3]
<i>Home_cc</i>	-0.025** (-1.97)	-0.030** (-2.18)	-0.047** (-2.26)
<i>Home_other</i>	-0.016 (-1.30)	-0.015 (-1.01)	-0.031 (-1.54)
<i>Size</i>	-0.001 (-0.17)	-0.001 (-0.37)	-0.007 (-1.41)
<i>Lev</i>	0.024* (1.78)	0.027* (1.65)	0.050** (2.26)
<i>Roa</i>	0.034 (0.75)	0.057 (1.05)	0.122* (1.67)
<i>Growth</i>	-0.001 (-0.37)	0.000* (1.66)	0.000** (2.02)
<i>Soe</i>	0.006 (0.75)	0.004 (0.42)	0.020 (1.59)
<i>Top1</i>	-0.003 (-0.14)	-0.015 (-0.59)	-0.050 (-1.49)
<i>Sep</i>	0.000 (0.65)	0.000 (0.57)	0.002** (2.46)
<i>CashPay</i>	-0.065*** (-9.26)	-0.064*** (-7.43)	-0.070*** (-6.09)
<i>ComIND</i>	0.007 (1.25)	0.009 (1.25)	0.028*** (3.06)
<i>Dual</i>	0.012** (2.03)	0.010 (1.35)	0.020** (2.02)
<i>ldir</i>	-0.048 (-0.88)	-0.065 (-0.97)	-0.072 (-0.80)
<i>Constant</i>	0.038 (0.51)	0.053 (0.58)	0.126 (1.04)
<i>Province</i>	Yes	Yes	Yes
<i>Industry</i>	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes
<i>N</i>	1349	1366	1385
<i>adj. R<sup>2</sup></i>	0.10	0.08	0.10

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

To assess the influence of this alternative explanation, the first acquired sample from each province is deleted, and the remaining sample is called sample A. The listed companies in each province as buyers for the first time were deleted, and the remaining sample is called sample B. Secondly, the trust scores of each province are measured using the questionnaire survey data of the 'China Entrepreneur Survey System' from 2000. The higher the score, the more trustworthy the enterprises in the region are; that is, it is less likely to mislead the executives. Specifically, according to the score of the province where the acquired enterprise is located, the sample group with a high trust level is higher than the median, and the sample group with a low trust level is lower than or equal to the median.

The regression results in Columns (1) and (2) of Table 7 demonstrate that the long-term performance of M&As-in-Hometown remains lower. The regression results in Columns (3) and (4) indicate that the degree of trust in the province where the merged enterprise is located has no effect on the results. The results in Table 7 can, to a certain extent, exclude the alternative explanation that executives are misled.

**Table 7.** Exclusion of alternative explanation: false information from hometown.

	(1)	(2)	(3)	(4)
	Sample A	Sample B	Provinces with a high degree of trust	Provinces with a low degree of trust
<i>Home_cc</i>	-0.178*** (-2.75)	-0.133* (-1.89)	-0.166** (-2.23)	-0.232* (-1.77)
<i>Home_other</i>	-0.056 (-0.81)	-0.054 (-0.74)	-0.058 (-0.71)	-0.064 (-0.47)
<i>Control Variables</i>	Yes	Yes	Yes	Yes
<i>Constant</i>	0.012 (0.03)	0.277 (0.68)	-0.616 (-1.24)	1.076 (1.52)
<i>N</i>	1427	1434	1010	431
<i>adj. R<sup>2</sup></i>	0.08	0.07	0.05	0.15

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

#### 5.4.2. Benefit exchange

The results may also have alternative explanations in terms of benefit exchange; that is, executives are more likely to have interests in their birthplace. For example, listed companies acquire enterprises in the hometown of executives at a high premium, which is actually a political contribution in exchange for the subsequent benefit of the company or executives in the province. For example, listed companies may get more government subsidies and tax incentives, or executives may get personal honours given by their hometown after M&As (such as NPC deputies or CPPCC members). To assess the influence of this alternative explanation, variables are constructed referencing the articles of Dai et al. (2014) and Li & Wang (2019).  $\Delta Subs$  is the ratio of government subsidies to operating income of listed companies following M&As minus the value in the year prior to M&As<sup>4</sup> and  $\Delta Taxr$  refers to the actual tax rate of listed companies following merger minus the actual tax rate of the previous year.<sup>5</sup> Table 8 presents the regression results with  $\Delta Subs$  and  $\Delta Taxr$  as dependent variables. The coefficient of *Home\_cc* is not statistically significant, indicating that compared with other M&As, after returning home, the listed companies have neither received more government subsidies nor more tax benefits.

In addition, the personal benefits of executives following M&As have been analysed from the perspective that executives serve as NPC deputies or CPPCC members in their hometowns. A manual review of executives' resumes provided by CSMAR revealed no executives at the level of Chairman or CEO who did not serve prior to mergers but served as deputies to the National People's Congress or CPPCC members in their hometown following mergers. Therefore, no evidence is found that the behaviour of exchanging interests can explain the results of this paper.

#### 5.4.3. Historical connections

Executives choosing to acquire enterprises in their hometowns may be due to historical contacts between listed companies and executives' hometowns and not because of executives' home bias. For example, the company has more business in the region or has better personal relationships with local officials. Such existing historical contacts may

<sup>4</sup>It should be noted that the starting year of the government subsidy data obtained from the WIND database is 2007, so when the dependent variable is  $\Delta Subs$ , the sample only includes M&As with transaction completion from 2008 to 2016.

<sup>5</sup>Actual tax rate = income tax expense/total profit before tax. Cases where the effective tax rate was less than zero are excluded.

**Table 8.** Alternative explanation: benefit exchange.

	(1)	(2)	(3)	(4)	(5)	(6)
	$\Delta Subs^T$	$\Delta Subs^T$ to $T+1$	$\Delta Subs^T$ to $T+2$	$\Delta Taxr^T$	$\Delta Taxr^T$ to $T+1$	$\Delta Taxr^T$ to $T+2$
<i>Home_cc</i>	-0.002 (-1.01)	0.001 (0.84)	0.001 (1.14)	0.001 (0.11)	0.002 (0.16)	-0.003 (-0.40)
<i>Home_other</i>	0.000 (0.27)	0.001 (0.95)	0.001 (1.13)	-0.016 (-1.09)	0.006 (0.54)	0.010 (1.01)
<i>Control Variables</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Constant</i>	-0.005 (-0.52)	-0.014* (-1.89)	-0.017*** (-2.61)	0.131 (1.43)	0.101 (1.41)	0.038 (0.60)
<i>N</i>	1365	2730	4095	1282	2559	3794
<i>Pseudo R<sup>2</sup></i>	0.03	0.08	0.12	0.06	0.04	0.05

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

be the origin of more executives coming from the province. Moreover, when listed companies are looking for targets, the stakeholders in executives' hometowns can actively advocate their intention through historical contacts and promote the completion of M&As. However, the hometown enterprise may not be the best target for listed companies' M&As, but listed companies choose the hometown enterprise as the target of M&A based on historical relationships, eventually leading to poor performance.

The method of Cao et al. (2018) is used to rule out this alternative explanation, to control whether the birthplace of the former executive of the company is consistent with the province where the acquired enterprise is located. If so, the value of *Havehome* is 1; otherwise, it is 0. If *Havehome* is not significantly related to performance, the alternative explanation of historical relationships can be excluded. Column (1) of Table 9 presents the results of adding *Havehome* as the control variable. The coefficient of *Havehome* is not statistically significant.

#### 5.4.4. Strategic aggressiveness

The acquisition of enterprises in executives' hometowns may not be an exogenous event but could be largely determined by the listed companies' strategy. Aggressive companies may be more inclined to merge and expand; thus, a higher probability of M&As in

**Table 9.** Exclusion of alternative explanations.

	(1)	(2)	(3)	(4)	(5)
	<i>Havehome</i> as control variable	High strategic aggressiveness	Low strategic aggressiveness	Sample C	Sample D
<i>Home_cc</i>	-0.192*** (-2.98)	-0.195* (-1.92)	-0.152* (-1.88)	-0.154* (-1.68)	-0.194** (-2.14)
<i>Home_other</i>	-0.043 (-0.63)	-0.200* (-1.69)	0.065 (0.79)	-0.070 (-0.71)	0.008 (0.09)
<i>Havehome</i>	0.089 (0.51)	/	/	/	/
<i>Control variables</i>	Yes	Yes	Yes	Yes	Yes
<i>Constant</i>	-0.073 (-0.18)	0.304 (0.39)	-0.038 (-0.08)	0.409 (0.73)	-0.750 (-0.95)
<i>Chi-square(p value)</i>			0.16 (0.69)		0.13 (0.71)
<i>N</i>	1460	624	836	724	736
<i>adj. R<sup>2</sup></i>	0.08	0.20	0.05	0.22	0.08

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

executives' hometowns. Moreover, other M&A enterprises of the company in that year may also affect the company's performance. In short, strategic aggressiveness may simultaneously affect the long-term performance of the company and the probability of acquiring hometown enterprises. Enterprises' strategic aggressiveness is examined according to the number of M&As to assess its influence. Listed companies are grouped according to the total number of M&As from one year before the merger to one year after the merger (a total of three years). If the number is higher than the median sample, it is defined as a sample with high strategic aggressiveness; otherwise, it is defined as a sample with low strategic aggressiveness. If this alternative explanation is valid, the sample group should only exhibit high strategic aggressiveness. The results in Columns (2) and (3) of Table 9 support the conclusions of this paper for both groups of samples. This test eliminates the influence of strategic aggressiveness.

#### 5.4.5. Degree of economic development

There may also be alternative explanations for differences in economic development. Listed companies in economically developed regions merge with companies in underdeveloped regions, which will naturally incur some negative cost factors. To assess this alternative explanation, the Real GDP per capita of the company's registered location is assumed as the standard to measure whether the regional economy is developed. If the per capita GDP of the registered locale of a listed company is higher than the per capita GDP of the region where the acquired company is located, then this sample is called Sample C. If the per capita GDP is lower, the sample is called sample D. If this alternative explanation holds, then samples of companies in economically developed regions would only be shown to merge with companies in underdeveloped regions.

Columns (4) and (5) of Table 9 present the results of the regression by grouping according to the degree of economic development. No significant difference in the coefficient of *Home\_cc* between the two groups is evident. The result excludes the alternative explanation of the degree of economic development.

### 5.5. Robustness analysis

#### 5.5.1. Regression analysis with paired samples

Samples of *Home\_cc* = 1 accounted for 5.2% of the total samples. From the perspective of econometrics, the proportion of two types of samples does not need a fixed threshold for regression analysis, but when the proportion of a certain type of samples is low, the problem of large standard error may occur. The method of propensity score matching (PSM) is adopted to conduct sample matching of 1 with 1.<sup>6</sup> The sample size in Column (1) of Table 10 is 152 observations. The sample size of M&As-in-Hometown and other M&As each account for 50%. The coefficient of *Home\_cc* remains significantly negative, which also supports H1b.

<sup>6</sup>The first step in PSM pairing is calculating the propensity value (using logit regression). The dependent variable of regression in the first step is *Home\_cc*, and the independent variables include *Size*, *Lev*, *RoA*, *Growth*, *Soe*, *Top1*, *Sep*, *CashPay*, *ComIND*, *Dual*, *Idir*, *Province*, *Industry* and *Year*. In addition, Chen et al. (2015) are referenced to add the fixed effect variable of firms into the model, and the regression results of adding the variable show that *Home\_cc* is still significantly negative at the 1% level. Due to space, this is not included here, but the results are available upon request.

**Table 10.** Regression results of PSM samples and replacement performance benchmarks.

	PSM (1 VS. 1)	Sample E & Sample G		Sample F & Sample G	
	(1)	(2)	(3)		(4)
<i>Home</i>	/	-0.093*	/	/	/
	/	(-1.95)	/	/	/
<i>Home_cc</i>	-0.271***	/	-0.138**	/	/
	(-3.35)	/	(-2.25)	/	/
<i>Home_other</i>	-0.311	/	-0.038	<i>Treat</i>	-0.000
	(-1.17)	/	(-0.58)		(-0.00)
<i>Control Variables</i>	Yes	Yes	Yes	<i>Control Variables</i>	Yes
<i>Constant</i>	2.372*	1.168***	1.167***	<i>Constant</i>	0.732**
	(1.91)	(3.08)	(3.07)		(2.58)
<i>N</i>	152	1228	1228	<i>N</i>	2406
<i>adj. R</i> <sup>2</sup>	0.24	0.08	0.08	<i>adj. R</i> <sup>2</sup>	0.07

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

### 5.5.2. Change performance benchmark

In this section, the samples are divided into three categories: Sample E (M&As-in-Hometown, the sample size is 141), Sample F (other M&As, the sample size is 1319) and Sample G (M&As in the same province, the sample size is 1087). Among them, samples E and F constitute the total sample of the main test (1460). The variable *Treat* is designated to represent the type of M&As. When the value of *Treat* is 1, it indicates that the acquisition is in the same province; otherwise, it is 0. Samples E and G are selected as regression samples in Columns (2) and (3) of Table 10. Compared with M&As in the same province, the long-term performance of M&As-in-Hometown is worse. In Column (4), samples F and G were selected as regression samples, and the *Treat* coefficient was -0.000, which was not statistically significant.

### 5.5.3. Analysis after excluding samples with smaller M&A amounts

If the amount of a merger is minimal, the merger may not have a significant impact on the long-term performance of listed companies; therefore, samples with a small amount of M&A are eliminated to re-examine the research hypothesis. Specifically, the sample is sorted according to the purchaser's expenditure amount (Rank1) and the proportion of the purchaser's expenditure amount to total assets at the end of the period (Rank2). The samples ranked below 10% and 20% are defined as M&As with a small amount. Finally, the hypothesis is tested after eliminating mergers with smaller amounts. The results in Table 11 once again validate H1b after.

## 6. Further analyses

### 6.1. Mechanism analysis

#### 6.1.1. M&A premium

One of the main factors affecting post-merger performance in China is the substantial goodwill impairment that occurs following unreasonable premium acquisitions. The next analysis examines whether a high-premium mechanism might exist for home bias to affect post-merger performance. Premium refers to M&A premium, which is equal to the buyer's

**Table 11.** Analysis after excluding samples with smaller M&A amounts.

	(1)	(2)	(3)	(4)
	Rank1 > 10%	Rank1 > 20%	Rank2 > 10%	Rank2 > 20%
<i>Home_cc</i>	-0.212*** (-3.08)	-0.213*** (-2.78)	-0.222*** (-3.15)	-0.261*** (-3.34)
<i>Home_other</i>	-0.061 (-0.79)	-0.054 (-0.62)	-0.084 (-1.06)	-0.106 (-1.19)
<i>Control Variables</i>	Yes	Yes	Yes	Yes
<i>Constant</i>	-0.246 (-0.54)	-0.223 (-0.44)	-0.082 (-0.18)	-0.283 (-0.55)
<i>N</i>	1225	1090	1226	1090
<i>adj. R<sup>2</sup></i>	0.09	0.08	0.08	0.08

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

expenditure value (the value of cash or assets or stocks paid by the buyer) minus the assessed value of the transaction target, and then divided by the assessed value of the transaction target.

The dependent variable in Column (1) of Table 12 is Premium. The coefficient of *Home\_cc* is 0.644, which is significantly positive at the level of 1% ( $t = 2.90$ ). The dependent variables in Columns (2)–(4) are goodwill impairment loss divided by year-end net assets. Notably, China's Accounting Standards for Business Enterprises stipulated the independent presentation of goodwill on balance sheets in 2007. Therefore, this part assesses only the M&As from 2008 to 2016 as samples. The results in Columns (2)–(4) reveal that listed companies reported more goodwill impairment losses following M&As-in-Hometown.

### 6.1.2. Post-merger integration effect: Excess employees

Referencing Zeng & Chen (2006), the model below is used to measure excess employees.

$$\text{Employee} = a_0 + \beta_1 \text{Size} + \beta_2 \text{Capital} + \beta_3 \text{Growth} + \sum \text{Year} + \sum \text{Industry} \quad (2)$$

where *Employee* is the number of employees corresponding to every million yuan of total assets; *Size* is the natural logarithm of total assets; *Capital* is capital intensive, which is equal to the ratio of fixed assets to total assets; *Growth* is the sales growth rate; and *Industry* and *Year* are dummy variables. The residual value of the model regression reflects

**Table 12.** Mechanism analysis: M&A premium.

	(1)	(2)	(3)	(4)
	<i>Premium</i>	<i>GoWiLoss<sup>T</sup></i>	<i>GoWiLoss<sup>T to T+1</sup></i>	<i>GoWiLoss<sup>T to T+2</sup></i>
<i>Home_cc</i>	0.644*** (2.90)	0.169*** (3.35)	0.093** (2.57)	0.023 (0.29)
<i>Home_other</i>	-0.213 (-0.81)	-0.003 (-0.06)	0.003 (0.07)	0.080 (0.95)
<i>Control Variables</i>	Yes	Yes	Yes	Yes
<i>Constant</i>	1.113 (0.79)	0.055 (0.18)	0.176 (0.80)	-0.431 (-0.89)
<i>N</i>	937	1365	2730	4095
<i>adj. R<sup>2</sup></i>	0.05	0.02	0.03	0.21

The numbers in the parentheses are t-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

the degree of excess employees. If the degree of excess employees in the year of and year following the merger is greater than the year prior to the merger, the *ExsEme* value is 1; otherwise, it is 0.

Table 13 presents the results with *ExsEme* as the dependent variable. The result in Column (1) shows that the coefficient of *Home\_cc* is 0.502, which is significantly positive at the 10% level. The result in Column (2) shows that when the time window is extended to the year when the merger is completed and the following year, the coefficient of *Home\_cc* is significantly positive at the 5% level. The result in Column (3) shows that when the time window extends to the second year following the completion of the merger, the coefficient of *Home\_cc* is 0.385, which is also significantly positive at the 5% level.

## 6.2. Further analysis

### 6.2.1. Further subdivision of hometown: Province or city

One of the objects of this research is to determine whether effects occur in all cities in a hometown province or only in cities where the executives were born, which deserves further discussion. The result of poor performance following a merger is found to exist in the same city as well as different cities in the same province. Due to limited space, these results are not shown; however, they are available upon request.

### 6.2.2. Chairman or CEO

In examining whether there is any difference between Chairmen and the CEOs, the home bias of Chairmen and CEOs are both found to have an impact on M&A performance. Due to limited space, these results are not shown; however, they are available upon request.

### 6.2.3. Cross section analysis

Areas that are economically underdeveloped generally require external capital to support the growth of local economies. It is assumed in this study that in the samples with low market levels when listed companies acquire enterprises in executives' hometowns, the hometown personnel will benefit more, and listed company executives will acquire more praise, driving their personal utility higher. The empirical results show that poor performance following M&As-in-Hometown is only found in hometowns with low economic development levels.

**Table 13.** Mechanism analysis: Excess employees.

	(1)	(2)	(3)
	<i>ExsEme<sup>T</sup></i>	<i>ExsEme<sup>T to T+1</sup></i>	<i>ExsEme<sup>T to T+2</sup></i>
<i>Home_cc</i>	0.502* (1.74)	0.476** (2.39)	0.385** (2.42)
<i>Home_other</i>	0.297 (1.01)	0.333 (1.59)	0.276 (1.63)
<i>Control Variables</i>	Yes	Yes	Yes
<i>Constant</i>	-1.264 (-0.75)	-1.696 (-1.38)	-1.709* (-1.67)
<i>N</i>	1460	2920	4380
<i>Pseudo R<sup>2</sup></i>	0.10	0.07	0.07

The numbers in the parentheses are z-values. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% level, respectively.

Second, if executives give back to their hometown to satisfy their personal utility at the expense of damaging the interests of state-owned shareholders, this will affect their political promotion and reputation considerably. The empirical results show that listed companies' poor performance following the acquisition of executives' hometown enterprises is evident in only non-state-owned listed companies.

Third, executives' motivations to give back to their hometown may vary with age. Younger executives face greater pressure for career development, and it is more likely that M&As are conducted based on listed companies' interests. The results find that only older executives follow this motivation. Due to limited space, these results are not shown; however, they are available upon request.

#### *6.2.4. Moderating effect analysis*

Our findings represent an agency problem within the scope of corporate governance. It has been demonstrated that Public Offering of Fund, analysts and media all have positive corporate governance effects. It is found that the higher the shareholding ratio of Public Offering of Fund, the more analysts following and the more media coverage, the smaller the negative impact of the home bias on M&A performance. Due to limited space, these results are not shown; however, they are available upon request.

## **7. Conclusions**

In recent years, the M&A market has exponentially developed, but with the expansion of the scale, M&A under-performance has aroused heated discussion in professional, policy and academic circles. This paper investigates the long-term performance of M&As based on the informal system of home bias. Specifically, 1460 inter-regional M&As from 2005 to 2016 are used as samples, and the results indicate that the long-term performance of M&As-in-Hometown is poor compared with other M&As. Part of the reason is that when the acquiree is located in executives' hometowns, the listed company pays a higher premium and in the following years, more impairment losses of goodwill are revealed. The integration efficiency following hometown M&As is low and is reflected in the higher degree of excess employees.

An important driving force of China's economic growth is derived from enterprises' production, investment and reproduction processes. As an important link, investment directly affects enterprises' future performance. M&As are an essential investment approach for Chinese enterprises at present and of substantial significance to China's continuous economic transformation. Based on the conclusions of this study, the influence of home bias on the efficiency of resource allocation in capital markets cannot be ignored, and this phenomenon becomes more obvious in areas with lower degrees of marketisation, so investors should be cautious regarding such M&As. In addition, proactive internal and external governance mechanisms can also alleviate the negative impact of home bias on M&A performance. Vigorously developing Public Offering of Fund and analyst industries, enhancing the media's coverage and broadening news dissemination to the capital market could also provide effective mitigation mechanisms.

Although this study found that the performance of M&As-in-Hometown is weaker compared with other M&As, from the descriptive statistics in [Table 3](#), the long-term market performance following M&A remains positive. In other words, M&As back home still elicit positive market returns to investors. No simple, direct, positive or negative value

judgment can be made regarding the effects of executives' home bias on M&As in their hometowns. In addition, the indicators of M&A performance and excess employees in this paper are measured using the data of the whole or consolidated statements of listed companies. Due to the availability of data, the performance and other indicators of the purchased enterprises alone cannot be assessed, which may be a limitation of this study. Readers are reminded to pay particular attention to the above two considerations.

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## References

- Akerlof, G.A., & Kranton, R.E. (2000). Economics and Identity. *The Quarterly Journal of Economics*, 115 (3), 715–753. <https://doi.org/10.1162/003355300554881>
- Akerlof, G.A., & Kranton, R.E. (2002). Identity and schooling: Some lessons for the economics of education. *Journal of Economic Literature*, 40(4), 116–1201. <https://doi.org/10.1257/40.4.1167>
- Bradley, M., Desai, A., & Kim, E.H. (1988). Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *Journal of Financial Economics*, 21(1), 3. [https://doi.org/10.1016/0304-405X\(88\)90030-X](https://doi.org/10.1016/0304-405X(88)90030-X)
- Cao, C.F., Liu, X.M., & Jia, F.S. 2018. Invest to the hometown: Information, familiarity or agency problem. *Management World*, 34(5), 107–119. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2018.05.009>
- Chen, S.H., Lu, C.C., Jiang, G.X., & Wang, Y.R. 2015. Influence of political promotion of top managers in state-owned enterprises on the mergers and acquisitions: An empirical study based on the theory of pressure for corporate growth. *Management World*, (9), 125–136. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2015.09.010>
- Coval, J., & Moskowitz, T. (1999). Home bias at home: Local equity preference in domestic portfolios. *The Journal of Finance*, 54(6), 2045–2073. <https://doi.org/10.1111/0022-1082.00181>
- Dai, Y.Y., Pan, Y., & Feng, S. 2014. Are Chinese enterprises' charitable donations "political contributions": Evidence from the replacements of the municipal party secretaries. *Economic Research Journal*, 49(2), 74–86. In Chinese. <http://kns.cnki.net Q14>
- Dong, D.Y., & Xiao, Z.P. 2011. The home bias in the exchange of the stock information and its impact on stock prices: Evidences from the stock forum. *Management World*, (1), 52–61. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2011.01.008>
- Fan, Z.Y., Peng, F., & Liu, C. A. 2016. Political connections and economic growth: Evidence from the DMSP /OLS Satellite data. *Economic Research Journal*, 51(1), 114–126. In Chinese. <http://kns.cnki.net>
- Fang, J.X. 2008. The government intervention, the nature of ownership and enterprises' mergers & acquisitions. *Management World*, (9), 118–123. In Chinese. <https://doi.org/10.19744/j.cnki.111235/f.2008.09.012>

- Fang, J.X. 2009. Market segmentation and the efficiency loss of resource allocation: Evidence from mergers & acquisitions of enterprises. *Journal of Finance and Economics*, 35(9), 36–47. In Chinese. <https://doi.org/10.16538/j.cnki.jfe.2009.09.013> Q22
- Fuller, K., Netter, J., & Stegemoller, M. (2002). What do returns to acquiring firms tell us? Evidence from firms that make many acquisitions. *The Journal of Finance*, 57(4), 1763–1793. <https://doi.org/10.1111/1540-6261.00477>
- Grinblatt, M., & Keloharju, M. (2001). How distance, language, and culture influence stockholdings and trades. *The Journal of Finance*, 56(3), 1053–1073. <https://doi.org/10.1111/0022-1082.00355>
- Hau, H., & Rey, H. (2008). Home bias at the fund level. *American Economic Review*, 98(2), 333–338. <https://doi.org/10.1257/aer.98.2.333>
- Hochberg, Y., & Rauh, J.D. (2013). Local overweighting and underperformance: Evidence from limited partner private equity investments. *Review of Financial Studies*, 26(2), 403–451. <https://doi.org/10.1093/rfs/hhs128>
- Lai, S.F., Li, Z.Q., & Yang, Y.G. (2020). East, west, home's best: Do local CEOs behave less myopically? *The Accounting Review*, 95(2), 227–255. <https://doi.org/10.2308/accr-52555>
- Li, Q.Y., & Wang, L.M. 2019. Financial statement comparability and corporate tax avoidance. *Accounting Research*, (9), 35–42. In Chinese. <http://kns.cnki.net>
- Li, S.J., & Xu, X.X. 2016. Identity and growth. *China Economic Quarterly*, 15(3), 941–962. In Chinese. <https://doi.org/10.13821/j.cnki.ceq.2016.02.05>
- Li, S.M., Gong, S.Y., & Yang, J.B. 2019. The influence of CEO cultural background on the performance of M&A: A study based on the cultural differences between south and North China. *Journal of Sun Yat-Sen University (Social Science Edition)*, 59(5), 195–207. In Chinese. <https://doi.org/10.13471/j.cnki.jsysusse.2019.05.019>
- Li, Y.J., & Wu, D. 2016. The influence of affective factors on enterprise migration behavior. *Management World*, (6), 184–185. In Chinese. <http://kns.cnki.net>
- Meggingson, W.L., Nash, R.C., Netter, J.M., & Poulsen, A.B. (2004). The choice of private versus public capital markets: Evidence from privatizations. *The Journal of Finance*, 59(6), 2835–2870. <https://doi.org/10.1111/j.1540-6261.2004.00718.x>
- Nieuwerburgh, S.V., & Veldkamp, L. (2009). Information immobility and the home bias puzzle. *The Journal of Finance*, 64(3), 1187–1215. <https://doi.org/10.1111/j.1540-6261.2009.01462.x>
- Pan, H.B., & Yu, M.G. 2011. Helping hand, grabbing hand and inter-province mergers. *Economic Research Journal*, 46(9), 108–120. In Chinese. <http://kns.cnki.net>
- Pool, V.K., Stoffman, N., & Yonker, S.E. (2012). No place like home: Familiarity in mutual fund manager portfolio choice. *Review of Financial Studies*, 25(8), 2563–2599. <https://doi.org/10.1093/rfs/hhs075>
- Portes, R., & Rey, H. (2005). The determinants of cross-border equity flows. *Journal of International Economics*, 65(2), 269–296. <https://doi.org/10.1016/j.jinteco.2004.05.002>
- Qiao, W. 2012. Regional protectionism, ways of share transfer and private benefits of control: The evidence from block negotiated share transfer. *Nankai Business Review*, 15(3), 72–81. In Chinese. <http://kns.cnki.net>
- Schweiger, D.M., & Goulet, P.K. (2000). Integrating mergers and acquisitions: An international research review. *Advances in Mergers & Acquisitions*, 1(1), 61–91. [https://doi.org/10.1016/S1479-361X\(00\)01004-8](https://doi.org/10.1016/S1479-361X(00)01004-8)
- Shih, V. (2004). "Factions matter: Personal networks and the distribution of bank loans in China. *Journal of Contemporary China*, 13(38), 3–19. <https://doi.org/10.1080/1067056032000151319>
- Tang, J.X., & Chen, D. 2010. The protection of local investors, the nature of companies, and the synergistic effect of the cross-province M&A. *Management World*, (8), 102–116. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2010.08.012>
- Wang, F.R., & Miao, M. 2015. Tax competition, regional environment and inter-regional capital flow: An empirical research based on the perspective of inter-province M&A. *Economic Research Journal*, 50(2), 16–30. In Chinese. <http://kns.cnki.net>
- Xiao, T.S., Li, D., & Yuan, C. 2018. Matching between the style of enterprise and the government environment: Evidence from the Inter-province M&As. *Management World*, 34(3), 124–138. In Chinese. <https://doi.org/10.19744/j.cnki.11-1235/f.2018.03.011>

- Yao, Y.L., Liu, J.S., & Liu, D.Y. 2014. Factor market development difference, company properties and M&A performance. *Nankai Business Review*, 17(5), 102–111. In Chinese. <http://kns.cnki.net>
- Zeng, Q.S., & Chen, X.Y. 2006. State stockholder, excessive employment and labor cost. *Economic Research Journal*, (5), 74–86. In Chinese. <http://kns.cnki.net>
- Zhang, J.Z. 2012. Study on integration mechanism for cross region mergers and acquisitions: From the perspective of incomplete contracts. *East China Economic Management*, 26(1), 51–54. In Chinese. <http://kns.cnki.net>