Chinese enterprise's wealth effect of cross-border M&A

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ABSTRACT: This paper explores the Chinese enterprises' wealth effect of cross-border M&A and the factors which impact it. The results indicate that in the [-10, 10] event window Chinese enterprises' get wealth effect from cross-border M&A, but in the longer event windows this wealth effect doesn't exist. And high R&D density of the acquirer enterprises, acquisitions experience and host country's high level of innovation have positive influence to this cumulative abnormal return, while large asset scale, high growth speed, high equity centralized degrees and horizontal acquisition mode have significant negative effects.

Keywords: Cross-border M & A; wealth effect; Chinese enterprises

1   INTRODUCTION

Over the last decade, due to the in-depth development of globalization and gradual increase of the corporate power, Chinese enterprises are also actively engaged in cross-border M&A boom, the cross-border M&A have become the main form of foreign direct investment of Chinese enterprises. Even in the wake of the global economic slowdown, exacerbated by the crisis in international trade competition era, the pace of cross-border mergers and acquisitions of Chinese enterprises is still gradually rising, and China ranks among the world's top three big deals country in 2011 (Economist, 2011). In 2014, the number of Chinese enterprises overseas M&A reached 272, the amount of overseas M&A reached $ 56.9 billion, second only to the 2012 historic peak of $66.9 billion. Moreover, on the occasion of state vigorously promote "along the way" and an open economic system construction, cross-border M&A business is bound to steadily push forward to a new high.

With the Chinese enterprises' growth of the number of cross-border M&A transactions, the wealth effect of cross-border M&A has become an issue of concern, but the research on wealth effect of transnational M&A are more concentrated on developed countries. Yet few studies for Chinese enterprises, and there are some problems, e.g. fewer number of samples, the time lengths window different, study variables not comprehensive and the findings are lack of consistency. Therefore, this article is intended to take listed companies' cross-border M&A in 2002-2014 years as research subjects to investigate the wealth effect and reveal the factors which affect the wealth effect in hope for providing reference for Chinese enterprises which want to improve cross-border M&A performance.

2   REVIEW OF LITERATURE

Harri & Rravenscraft (1991) [1], Morck & Yeung (1992) [2], Agular & Gopinah (2005) [3] pointed out that American acquirer won the wealth effect acquisition through the cross-border M&A. Ajai et al. (2012) found that Chinese acquirers' rival got the wealth effect from cross-border M&A [4]. Bülent & Aysun (2009) noted that overseas acquisitions in emerging market acquirers' cannot produce wealth effect from cross-border M&A [5]. Gleason et al. (1999) [6] found that intangible assets is an important factor in cross-border M&A value creation, and the growth rate of the previous expansion can led to value losses (David et al, 2004 [7]). Chari et al. (2010) pointed out that from the macro level the developed countries M&A got significant wealth effect when the target is developing countries enterprises [8].

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In short, at present many developed countries wealth effect of cross-border M&A are concerned, the concern of Chinese acquirers' achievement on wealth effect is less, and more people focused on the existence of wealth effect and less researches on factors which influence wealth effect. In view of this, the paper intends to use the event study method, considering the characteristics of the acquiring companies, mode of M&A, the target firm characteristics and host country characteristics, and each factors would be subdivided in order to explore Chinese acquires' the existence of cross-border M&A wealth effect, and which factors impact it and the impact mechanism.

3   RESEARCH DATA AND METHODS

This paper uses event study method and the data is from CSMAR Chinese Listed Company Merger and Reorganization research database in 2002 --2012 years. After screening we take 197 cross-border M&A events of Chinese listed companies as sample. Using market model approach to calculate the Cumulative Abnormal Return on the first day after the announcement before 1, 2, 5, 10, 20, 30 days, and the estimated range of parameters β is between 180 to 30 trading days before the announcement day. The abnormal return gained by Company i during the time window between T1 and

T2 is $CAR_i(T_1, T_2) = \sum_{t=T_1}^{T_2} AR_{it}$; in order to make the

individual sample able to reflect the overall situation the average abnormal return must be calculated in addition to the exclusion of the null hypothesis that the stock market is not affected by the cross-border M&A

event, and the formula is $AAR_t = (\frac{1}{N})\sum_{t=1}^{N} AR_{i,t}$.

According to current research results, this paper are considering four aspects factors to deeply explore the existence of the wealth effect, influencing factors and impact mechanism: the acquirer firm's characteristics, mood of M&A, the target firm's characteristics, and host country's characteristics.

This paper uses the following independent Variables: acquirer firm's R&D intensity(rd), the main business growth(gr), mergers and acquisitions experience (mae), ownership concentration (sharer), ownership (ownership), firm size (as1); mode of M&A(mr mode); industry concentration (ah) ; target firm's industry R&D intensity (trd), industry concentration (tah);host country's economic freedom (ef), innovation and maturity (innovation), government stability(ss) and global competitiveness (gcom). The regression model is as follows:

CAR $= \beta_0 + \beta_1(rd) + \beta_2(gr) + \beta_3(mae) + \beta_4(sharer)$

$+\beta_5(ownership) + \beta_6(as1) + \beta_7(mrmode) + \beta_8(ef)$

$+\beta_9(innovation) + \beta_{10}(ss) + \beta_{11}(gcom) + \beta_{12}(ah)$

$+\beta_{13}(tah) + \beta_{14}(trd) + \varepsilon$

4   THE WEALTH EFFECT'S EXISTENCE OF CHINESE ENTERPRISES' CROSS-BORDER M&A

Accord to the statistical analysis from the samples of 197 companies' cross-border M&A CAR of event window [-30, 30], this paper found that: in the [- 1,1], [-2,2], [-5,5], [-10,10], [-20,20], [- 30,30] event window of company's initial announcement, the mean of acquirer enterprises obtain the cumulative abnormal return (car) respectively was: 0.0062, 0, 0047, 0.0015, 0.0042, -0.0117 and -0.0229.This means that the cross-border mergers and acquisitions of Chinese enterprises in the [-10,10] time window bring a positive wealth effect for the corporate shareholders to; and in a longer time window [-20,20] and [-30,30], this wealth effect does not exist.This result is consistent with Chinese enterprises' cross-border mergers and acquisitions wealth effect research conclusion of Qian Wang et al. (2007) and Lu Yao et al. (2011), and also is consistent with mergers and acquisitions wealth effect research conclusion of Husayn Shahrur (2005) and Qing Yuan Li (2011). Because CAR reflects the excess returns of individual enterprises, to exclude the null hypothesis that the entire stock market were not affected by cross-border , we also calculated the average abnormal return(AAR) of enterprises during time window [-30,30], and found that AAR and CAR situation is basically the same, in the window time of [-10,10], Chinese companies received a positive wealth effect on the whole, and in the longer time window [-20,20] and [-30,30], wealth effect does not exist.This shows that the wealth effect of Chinese enterprises' cross-border M&A indeed exists generally, and also demonstrates that investors have made positive evaluations of Chinese enterprises' cross-border M&A.

5   TEST AND ANALYSIS OF WEALTH EFFECT'S INFLUENCING FACTORS

Respectively take CAR on time window of (-10, 10), CAR (-5, 5), CAR (-2, 2), CAR (-1,1) as the dependent variables, use ordinary least squares regression to get the coefficients of regression. Firstly, adjust all White heteroscedasticity of regression model and standard deviation of company clusters; then examine VIF value for each independent variable in the model, and found that all the independent variables VIF values are less than 5, indicating that the model is no multi-collinearity problem.

This thesis uses the Ordinary Least Square (OLS) method to conduct regression analysis by taking CAR (-10, 10), CAR (-5, 5), CAR (-2, 2) as dependent variables respectively, which found that the acquiring companies' R&D intensity, growth rate, cross-border M&A experience, asset size, ownership concentration, M&A mood, host country innovation significantly

Table 1. Results of OLS Regression

Variable	Model 1 CAR(-10,10)	Model 2 CAR(-5,5)	Model 3 CAR(-2,2)	Model 4 CAR(-1,1)
Intercept	0.374(0.217)	0.315(0.158)	0.024(0.134)	0.033(0.215)
rd	0.386***(0.032)	0.391***(0.034)	0.225***(0.019)	0.288**(0.019)
mae	0.157**(0.022)	0.161**(0.015)	0.164*(0.021)	0.020*(0.014)
gr	-0.081*(0.022)	-0.017*(0.021)	-0.029*(0.012)	-0.059* (0.008)
as1	-0.128*(0.030)	-0.144*(0.017)	-0.127*(0.019)	-0.063*(0.016)
sharer	-0.119*(0.020)	-0.117*(0.006)	-0.137*(0.012)	-0.076*(0.016)
ownership	0.028(0.028)	0.049(0.027)	0.013(0.021)	-0.019(0.009)
ah	-0.053(0.040)	-0.188(0.034)	-0.069(0.020)	-0.198(0.016)
trd	0.012(0.023)	0.018(0.013)	0.142(0.015)	0.187(0.027)
tah	0.001(0.046)	0.047(0.029)	0.116(0.023)	0.038(0.017)
gcom	-0.331(0.153)	-0.428(0.068)	0.029(0.054)	0.051(0.029)
innovation	0.292**(0.057)	0.378*(0.044)	0.071*(0.036)	0.129*(0.025)
ef	0.051(0.029)	0.035(0.013)	0.031(0.018)	0.089(0.015)
ss	0.078(0.019)	0.176(0.012)	0.153(0.028)	0.167*(0.034)
mr mood	-0.168**(0.037)	-0.233**(0.019)	-0.087*(0.021)	-0.039*(0.045)
N	197	197	197	197
R²	0.394	0.365	0.417	0.367
Adjusted R²	0.346	0.412	0.389	0.321
F Value	7.143***	6.283***	6.397***	7.07***

Notes: two-tailed tests; *p<0.10; **p<0.05; *** p<0.01 (standard errors are in parenthesis).

correlated to CAR, and the significant level of at least 10%, indicating that high R&D intensity, low growth rate , cross-border M&A experience, small asset size, low ownership concentration, vertical M&A mood, host country's high level of innovation and maturity can bring the greater the CAR in the in cross-border M&A for Chinese enterprises.

In the shorter time window of [-1,1], the acquiring companies' growth rate was not significant, but the stability of the host government is significant that may be in the short term people are more concerned about the risk of cross-border M&A .The remaining results are same with longer time window of [-10,10], [-5,5], [- 2,2] .

To test the robustness of the results, and avoid affecting of non-normal distribution from the dependent variable and the error term, this thesis use generalized linear regression model to take regression analysis again. The results show that in time window of [-10,10], [-5,5], [2,2], [-1,1], significance of dependent variables are consistent with the preamble, only significance level of individual variables increased, demonstrating that the analysis results are properly robust.

6 RESULTS AND DISCUSSION

This paper takes Chinese listed enterprises' cross-border M&A deals happened during 2002-2014 as the research object, to test the acquiring shareholder's wealth effect and its influencing factors. The results show that during event window [-10,10] , this wealth effect exists, but in a longer time window it doesn't t exist. The results also show that acquirer enterprise's higher R&D density, rich cross-border M&A experience, the higher level of innovation of the host country contribute to greater the wealth effect; faster growth, bigger scale of assets, higher ownership concentration and horizontal M&A will contribute to the loss of wealth effect.

This results support the hypothesis of transaction cost economics and hypothesis of creative assets seeking, and it also shows that the wealth effect of cross-border M&A is more relevant to the acquirer's own characteristics. Chinese enterprises need to improve their own research and development capabilities, do cross-border M&A pre-ground work carefully, carried out cross-border M&A in accordance with prudent business strategy, enhance corporate property use efficiency, optimize the structure of corporate governance, select high level of innovation stable host country's low industrial concentration companies as target, and better select vertical M&A mode to realize cross-border M & A wealth effect.

ACKNOWLEDGEMENT

REFERENCES

[1]   Harris R.S. & D. Rravenscraft. 1991. The role of Foreign Acquisition in Foreign Direct Investment: Evidence from the U.S. stock market. *Journal of Finance*. (46): 825-844.

[2]   Morck R. & Yeung B. 1992. Internalization: An event study test, *Journal of International Economics*, (33): 41-56.

[3]   Agular M. & Gopinah G. 2005. Fire-sale FDI and liquidity crises, *Review of Economics and Statistic*, 87(3): 439-452.

[4]   Ajai S. Gaur, Shavin Malhotra & Pengcheng Zhu. 2012. Acquisition announcements and stock market valuations of acquiring firms' rivals: A test of the growth probability hypothesis in China, *Strategic Management Journal*. (8).

[5]   Bülent Aybar & Aysun Ficici. 2009. Cross-border acquisition and firm value: An analysis of emerging-market multinationals. *Journal of International Business Studies*, 40: 1317-1338.

[6]   Gleason K., Mathur I. & Mathur, L. K. 1999. Shareholders' gains from corporate expansion to republics of the former Soviet Union, *Financial Management*, 28(1): 61-74.

[7]   David R. King, Dan R. Dalton, Catherine M. Daily & Jeffrey G. Covin. 2004. Meta-analyses of post-acquisition performance: Indications of unidentified moderators, *Strategic Management Journal*, 25: 187-200.

[8]   Chari A, Ouimer P.P. & Tesar L.L. 2010. The value of control in emerging markets. *The Review Financial Studies*, 23(4): 1741-1770.

[9]   Jing Chi, Qian Sun & Martin Young. 2011. Performance and characteristics of acquiring firms in the Chinese stock market, *Emerging Markets Review*, (12): 152-170.

[10]   Maria Goranova, Ravi Dharwadkar & Pamela Brandes. 2010. Owners on both sides of the deal: Mergers and acquisition and overlapping institutional ownership, *Strategic Management Journal*, (31): 1114-1135.

[11]   Ole-Kristian Hope, Wayne Thomas & Dushyantkumar Vyas. 2011. The cost of pride: Why do firms from developing countries bid higher? *Journal of International Business Studies*, 42: 128-151.

[12]   Sathyajit R Gubbi, Preet S Aulakh, Sougata Ray, MB Sarkar & Raveendra Chittoor. 2010. Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms, *Journal of International Business Studies*, 41: 397-418.

[13]   Weishen Wang & Ann Marie Whyte. 2010. Managerial rights, use of investment banks, and the wealth effects for acquiring firms' shareholder, *Journal of Banking & Finance*, (34): 44-54.