Financial risk identification and control of cross-border merger and acquisition enterprises

Yuanyuan SUI,
Ocean University of China,
E-mail: suiyuanyuan1994@163.com

Adelina DUMITRESCU – PECULEA,
National University of Political Studies and Public Administration, Romania,
E-mail: adelina.peculea@snspa.ro

Abstract

Mergers and acquisitions (M&A) are basic channels for modern companies’ growth. With globalization speeding up, multinational companies increasingly take on M&A activities to strengthen global market positions and raise competitiveness. In recent years, M&A activities have played an important role in Chinese companies. Financial risk is inherent to M&A processes in cross-border companies. Also, more than 50% of Chinese companies did not achieve their M&A goals. Therefore, recognizing and controlling financial risk is essential. This paper analyses the financial risk from different perspectives and then provides suggestions by analysing a typical M&A case: Bohai Leasing merger with Seaco Company. Complete due diligence and clear M&A strategies, combination of various financing instrument, strategic paying methods and finance integration are some ways for controlling and decreasing finance risk.

Keywords: Financial risk, cross-border M&A, Dupont method, mechanisms of financial management.

JEL Classification: M14, M16, O16.
Introduction

Until November of 2015, Chinese companies have finished 581 cross-border M&A projects achieving a annual growth of 19.55% (PwC, 2016). The total amount of transactions is approximately $93.7 billion, an increase of 20.9% (PwC, 2016). However, financial risk exists in the whole M&A process involving cross-border companies. China’s mainland companies M&A with overseas firms increased by 40% in 2015 (PwC, 2016). Therefore, the manner in which financial risks such as pricing, financing, paying and integration are recognized and controlled has an essential significance. Complete due diligence and clear M&A strategy contribute to the decrease of pricing risks; combining various financing instruments helps to decrease fund-raising risk; strategic paying method is useful to hedge the risk of payment; financial integration, associated with business and human resources integration is conducive of lower integration risk. Bohai Leasing limited liability company became the largest container leasing company in the world after M&A activities. The merger between Bohai leasing and Seaco company has a significant meaning in itself, being representative for the international leasing market. Therefore, we selected the merger of Bohai Leasing M&A and Seaco Ltd. as an example to illustrate the study.

1. Literature review

Before the financial crisis in 2008, companies sought M&A projects for a variety of purposes such as market position and efficiency (Andrade, Mitchell and Stafford, 2000). However, studies show that the primary motivations for M&A activities have changed after 2009, being replaced by the purchase of advanced technologies and the exploration of new business opportunities outside of the company’s primary business environment, as a response to global competition and technological changes (Lee and Lieberman, 2010; Stettner and Lavie, 2014). Unlike M&As involving companies in the same country, cross-border M&A activities face more uncertainty, including political, economic and cultural uncertainty. All have significant financial impacts. The approach regarding the financial risk is different, depending on various academic traditions; until now, no unified definition of financial risk has been established. Some authors only study M&A risks from an general perspective (Hongyanshi, 2003).

Bruner (2005) puts forward a risk analysis framework and a qualitative analysis method which balances risk levels from six perspectives: complex, connected, the abnormal case, subjective, management choice and team flaws (Calandro, 2008). The intensity of the relationship among these aspects influences the M&A risks. As to the study on the influence of financial risk of M&A, Aloeke and Prem (2000) state that cross-border M&A activities have a negative influence on the acquirer's financial ability and credit capacity. When referring to risk evaluation and control, Perry and Herd (2004) concluded that an efficient expert research conducted before the M&A would lower the risk. Weaver and Weaton (2003) thought that the stock exchange would solve the problem of pricing uncertainty for the target firm. Quantitative and qualitative methods are the basic methods for evaluating the financial risk. Multivariate risk measures have already been introduced by Prékopa (2012), where the concepts of Multivariate-Value-at-Risk(MVaR) and Multivariate-Conditional-Value-at-Risk (MCVaR) are introduced and explored. New methods for numerical calculations of these concepts are presented by Lee and Prékopa (2013).

Chinese scholars also make progresses in studying the risks of M&A activities since the 1980s. Target firm pricing, financing, liquidity and paying of debt, as part of the leverage effect are the basic risks of M&A (Zhiqun Ai, 2001). In terms of identification, Chen and Ai (2002) propose the selection of a suitable model for the pricing of the target firm to lower the pricing risk. Hongyan Shi (2003) believes that increasing future cash flows will lower the paying of debt risk. Shue Yang (2012) pays more attention to the integration after the M&A. As to the method to evaluate the financial risk, Haoshuang et al. (2009) use studies of M&A in the USA to analyze the financial risk from a practical point of view. Other authors analyse the financial risk mainly by using the case study method and the Dupont method (Gao, 2012; Chen Chuanxing, 2014).

From the above it can be noticed that the existing research emphasizes the theoretical study of the financial risks, from the perspectives of pricing, financing, paying and integration. Specific empirical analyses of financial risks associated with cross-border M&A, based on combining quantitative and qualitative methods are relatively rare. Besides, the precautionary measures to control the financial risks are mere
general suggestions, the integrated and operable measures are still not clear. Therefore, this paper analyses the financial risk of cross-border M&A through a case study. Specifically, it analyses the merger of Bohai Leasing Ltd. with Seaco Ltd. on September 27, 2013, it offers suggestions to control the financial risks and provides a learning experience for cross-border acquirers.

2. Research methodology

The research methodology selected for this study is based on the Grounded Theory. Typically, any study will employ both quantitative and qualitative tools to assess scientific issues, social sciences often using case studies (Ye, 2008) to approach these issues. However, some scholars question this method in favour of a more quantitative approach based on statistics and figures. The Grounded Theory by Glaser and Strauss (1967) tries to solve this issue, by using phenomenon observation and then comparing it to basic data in order to get to its core issue; finally, results are obtained by creating relationships between the studied concepts, thus rendering data analysis meaningful to the case research.

Miles and Huberman (1994) demonstrated that the process of original data analysis consists of three steps:

- Data extraction;
- Data explanation and;
- Data extension.

They emphasize that the analysis should be backed up, so that others can repeat the tests.

This paper combines the Grounded Theory with data analysis methods to describe the case of the Bohai Leasing M&A. Further quantitative and qualitative analysis of the financial statements gives a clearer insight into this typical M&A case.

3. Finance risk of cross-border M&A firms

The financial risks of cross-border M&A are generated by improper financing activities that lead to the deterioration of the financial situation, even losses. They mainly relate to pricing, financing, paying of debt and integration processes.

3.1. Pricing Risks

After the acquirer selects the target firm, it is essential to evaluate whether the firm’s value has a significant impact on the M&A cost. The target firm’s value depends on the projected future value. However, there are some uncertain elements associated with the future activities, which lead to pricing risks. Information asymmetry is only one type of risk. Acquirers get the information from the financial statements; however, the target firm could hide some negative information such as pending litigations, guarantees, and natural disasters, in order to raise the price. Also, the price of securities is an important factor during pricing. Furthermore, capital market uncertainty can cause share prices to fluctuate, bringing further obstacles to the pricing process (Sun and Ying, 2010). Another reason for pricing risk is that the price evaluation method and model are sometimes inadequate. In some countries, only few companies provide services for cross-border M&A activities. Many companies engage in M&A by themselves, lacking experience in the field.

3.2. Financing Risks

M&A activities need large amounts of liquidities to support the exchange of equity. Acquirers raise funds from the market (to a small or large extent) to ensure that the transaction is accomplished. Depending on the source of funding, the financing risk includes the risk associated with internal financing, from liabilities (debt) and equity. Internal financing depends on profitability. If, for example, the acquirer focuses too much on internal financing sources, it may not be able to respond adequately and adapt to changes from the outside environment. Additionally, the liquidity risk is also influenced by the normal operations (Sun and Ying, 2010). Therefore, financing by debt is the common funding method for western countries. Compared with internal financing, debt financing not only involves the obligation to pay back the principal (debt) and the interest at regular intervals. Besides, the acquirer has the obligation to pay back the target firm’s debts. If the capital structure has a large debt content, the acquirer may fall into the debt trap. Equity financing is also a usual instrument to finance M&A operations. If the acquirer issues shares to obtain funding, it is burdened by the risk of stock dilution, which may result in losses for the shareholders. Different from
debt financing, equity financing implies greater costs. Using too much equity to finance M&A operations not only cause higher M&A costs, but it also increases the average financing costs for the acquiring firm.

3.3. Payment Risk
Payment risk exists in the paying process. Whether the payment method is suitable or not, it has a close relationship with M&A success (Sun and Ying, 2010). Payment methods affect several aspects of the financial statements. First, various payment methods have different influences on tax avoidance. Second, accounting will be affected. For example, accountants use the purchase method when paying cash; in the financial statements subsequent to the merger there will be found goodwill and a lower profitability. When the payment is based on equity instruments, the accountants will use the equity method to prepare the financial statements, and there is no need to write-off goodwill costs. Leverage paying method relies on the future cash flows of the target firm, but the uncertainty of negative events will inherently increase the payment risk. Third, the fluctuation of interest rates and exchange rates will further add to the payment risk.

3.4. Integration Risk
In order to be able to control the merger and acquisition process, and to finance a unified management, the acquirer must integrate financial management mechanisms, human resources and all other systems of the target firm. However, incompatible finance systems of the target firm will raise the integration risk. The failure of financial integration reflects in the financial statements, and can lead to a decrease of the debt-to-equity ratio (long-term solvency) and the liquidity ratio (short-term solvency).

4. Mergers and acquisitions. Case study of the Bohai Leasing merger with Seaco

4.1. M&A Background
This paper selected the Bohai Financial Investment limited company (Bohai) and Seaco M&A as a research sample case. Bohai Financial Investment limited (Bohai Leasing) is a Chinese company and the world’s largest container leasing operator. The main business of Bohai is financial leasing, aircraft advance financing (official website), mortgage financing and other six related businesses. Its largest shareholder is HNA Capital limited company. According to research, HNA Capital is a subsidiary of HNA Airlines Group. HNA Group Co Ltd., headquartered in the PRC, is a conglomerate with subsidiaries engaged in air transportation, logistics, shipping, hotel investments, financial services, tourism and other related businesses. HNA has more than 100,000 employees and is one of the largest non-government owned companies in the PRC. In fact, HNA Group is the controlling shareholder of Bohai Leasing. Since it was listed at the Shenzen Stock Exchange in 2011, Bohai Leasing’s businesses have grown gradually, company’s assets, revenues, profits grew drastically, and it has become the largest company in the container sector.

Seaco was formed in 1998 as a 50/50 joint venture between General Electric Capital Corporation and Sea Containers Ltd. Seaco is a subsidiary owned by Global Sea Containers Ltd (GSCL), a Bermuda company. Seaco is the sixth biggest container leasing company in the world. It owns and manages more than 1.1 million TEU standard containers. Seaco provides, for lease and sale, a wide variety of standard and specialised intermodal container equipment, located for immediate delivery from strategically placed depots worldwide.

On September 30th, 2013, Bohai Leasing (000415.SZ) announced its intention to merge with Seaco Ltd. The Second Extraordinary General Meeting decided to raise funds in order to buy assets, by issuing shares and cash. The restructuring plan is the following: GSCIII acquires 100% of Bohai Leasing shares. GSCIII is a subsidiary company of GSC. GSC is entirely-owned by Bohai Leasing. GSC, special purpose company, entirely-owned by Bohai Leasing, acquires 100% of Seaco Ltd. through GSCIII, which is a foreign subsidiary of GSC (Bohai Leasing, 2014). According to the qualified evaluation report (Bohai Leasing, 2014) issued by an evaluation institution, the parties involved in the transaction determine the price for the entire Seaco Ltd. takeover to be 1.215billion dollars\(^1\), equals 8.1billion

\(^1\) According to exchange rate in 27th september, 2016. 1dollars=6.6689RMB
RMB (Chinese currency unit), paid in cash; GSCII assumes the Seaco Ltd. debt, where the cash amounts to approximately 1.79 billion dollars (7.2 billion RMB), and debt is 0.13 billion dollars (0.9 billion RMB). Until the end of 2013, Bohai Leasing finalized the merger transaction. The relationship between HNA Group, Bohai Leasing, Seaco, GSC and GSCII is illustrated in Figure 1.

**Figure 1. The relationship between the parties involved in the M&A transaction**

![Diagram showing the relationship between HNA Group, Bohai Leasing, Seaco, GSC and GSCII](image)

Source: Authors' processing based on Bohai leasing stakeholder relationship.

### 4.2. The transaction result

In order to measure the results of the M&A process, we use the Dupont method to analyse the financial changes from the company Bohai Leasing. According to the annual reports from 2011 to 2015, we selected the sales margin, total asset turnover, equity multiplier, ROE and other indicators, for the years before and after the M&A happened, as shown in Table 1. We noticed that ROE has a downward trend. The net profit margin on sales (net profit to turnover ratio) fluctuates: at first, it decreases and then it has an upward trend.

#### Table 1. Indicators before and after the merger with Seaco

<table>
<thead>
<tr>
<th>Year</th>
<th>Net profit margin on sales (PM)</th>
<th>Total assets turnover (AU)</th>
<th>Equity multiplier (EM)</th>
<th>Rate of return on common shareholders’ equity (ROE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>34.36%</td>
<td>10.74%</td>
<td>2.18</td>
<td>5.32</td>
</tr>
<tr>
<td>2012</td>
<td>25.32%</td>
<td>10.25%</td>
<td>3.13</td>
<td>5.69%</td>
</tr>
<tr>
<td>2013</td>
<td>20.92%</td>
<td>14.64%</td>
<td>6.81</td>
<td>7.96%</td>
</tr>
<tr>
<td>2014</td>
<td>17.20%</td>
<td>10.98%</td>
<td>5.38</td>
<td>10.65%</td>
</tr>
<tr>
<td>2015</td>
<td>18.51%</td>
<td>9.68%</td>
<td>4.05</td>
<td>12.28%</td>
</tr>
</tbody>
</table>

Source: Authors’ processing based on Bohai Leasing Annual reports from 2011 to 2015.
Financial risk identification and control of cross-border merger and acquisition enterprises

**Figure 2. Net profit margin on sales**

![Net profit margin on sales chart](chart)

Source: Authors’ processing based on Bohai Leasing Annual reports (from 2011 to 2015).

As it can be seen in Figure 2, the net profit margin (PM) shows a downward trend, reaching its lowest level at 17.20% in 2014. Before 2013, the PM of Bohai Leasing lowered gradually. After the merger with Seaco at the end of 2013, the PM appeared to stabilize in 2014 and started to increase in 2015. The net profit from sales ratio is determined as the ratio of net profit to turnover. Greater PM value indicates better operating results and increased profitability. PM values indicate that Bohai Leasing has good operating results and profitability.

**Figure 3. Total assets turnover**

![Total assets turnover chart](chart)

Source: Authors’ processing based on Bohai Leasing Annual reports from 2011 to 2015.
According to Figure 3, the total assets turnover of Bohai Leasing shows an upward trend from 2011 to 2013, and then it gradually decreases year after year. Since the total assets turnover reflects the companies’ ability to use their own assets in order to increase sales, the larger the ratio, the stronger the company’s business operating capacity. After the M&A, the total asset turnover did not increase. On the one hand, this is caused by the fact that Bohai Leasing used its own assets for the M&A, which shows that the business integration has affected the growth of revenues from sales.

**Figure 4. Rate of return on common shareholders’ equity (ROE)**

The profit to net assets margin is the percentage of net profit corresponding to the average level of shareholders’ equity. This ratio reflects the level of profit over the value of equity, and it is used to measure the efficiency of a company that is using its own capital. The higher the value of the ratio, the higher the income from the investment. The ROE of Bohai Leasing shows an upward trend since 2011, demonstrating that its ability of using its own assets has increased.

After completing the acquisition of Seaco, Bohai Leasing has already increased the efficiency of its activities, with the current container rental rates growing steadily. Until now, Bohai Leasing has set up branches all around the world, in more than 80 countries on 6 continents. In 2015, Bohai Leasing issued 1.5 billion RMB in corporate bonds. Both bonds and debt hold a credit rating of AA+. The entirely-owned subsidiary Seaco Ltd. issued 10-year securities of $500 million, backed by assets, in August of 2014, acquiring an A credit rating from Standard & Poor’s and DBRS rating companies. In 2015, the operating income reached the value of 9.659 billion yuan, an increase of 40.97%; the operating profit of 1.841 billion yuan recorded an increase of 49.21%. In 2014, the company obtained revenues of 6,851,955,000.00 yuan, an increase of 7.46 percent as compared with 2013. Due to the increase recorded by Seaco and the upward trend of its revenues, Bohai Leasing changed the value of its impairment loss related to finance lease receivables from 1.5% to 0.5%. All these show that the merger between Bohai Leasing and Seaco was successful.

### 4.3. Financial risk control and management of Bohai Leasing

#### 4.3.1. Development strategy

Before the Bohai Leasing and Seaco merger, Bohai Leasing’s main customers came from China. With competition of rental business on the home market
becoming more intense, Bohai Leasing needed to strengthen its market position in order to raise competitiveness. However, the costs of expanding to new overseas markets are extremely high. The group of experts from Bohai Leasing adopted a strategy to explore the overseas markets. The experts selected several companies as target firms and performed in-depth research regarding those companies. Seaco is the sixth largest leasing company in the world. It is experienced in operating leases and management. Seaco has good prospects for making profits. In terms of its container occupancy rates and return rates, it is an industry leader. By the end of 2012, Seaco Ltd. held assets of over $2.5 billion, with a total revenue of nearly $500 million, and a net profit of nearly $90 million. According to the audit report, the projected net profit values ranged between 95,995, 92,473 and 101,838 million dollars, respectively, from 2013 to 2015 (Bohai Leasing, 2015). The general conclusion was that the Seaco merger could help achieve complementary goals. The thorough research and correct development strategies contributed to effectively controlling the decision-making risk during the cross-border M&A. At the same time, due to the specialized CFO and group of experts, the audit quality was promoted and the risk of uneven information spread was avoided.

4.3.2. Various funding channels
Cross-border M&A activities require extremely important support in terms of funding for the acquirer. A reasonable capital structure of the sources of funding could provide powerful support. Bohai Leasing used proactive debt instruments to raise funds from the internal and external capital markets, bond market and interbank market, by combining direct and indirect financing methods, actively following the trend of market financing, and gradually establishing long-term stable market, thus securing financing mechanisms. Bohai Leasing issued shares and used its own assets to pay the merger price. On December 27th, 2013 Bohai Leasing issued 216,450,216 shares to HNA Group to pay the price of buying Seaco. Meanwhile, it issued 81,745,000 shares, 134,770,000 shares and 72,085,288 shares to Hua An Fund Management Co., Ltd., Manulife TEDA Fund Management Co., Ltd and Tianhong Fund Management Co., Ltd., respectively, to purchase Seaco’s assets (Bohai Leasing, 2014). The issue price was 6.93 yuan/share, a total of 3.5 billion RMB. Bohai Leasing paid cash indirectly to Seaco through its subsidiary GSCII. In 2014, Bohai leasing replaced its own cash through debt financing to HNA Group, assuring liquidity (Bohai Leasing, 2014). For a firm, if the proportion of debt to capital is too high, it will bring debt service pressure and a significant decrease in financial leverage. If the equity capital ratio is too high, it will dilute shareholder value and damage the interests of shareholders. Bohai Leasing combined internal financing, debt financing and equity financing to merge with Seaco.

4.3.3. Selecting reasonable payment strategies
Interest and exchange rate fluctuations will cause the merger cost to change. Until now, banks were the main financing channels for Bohai Leasing (Bohai Leasing, 2015). Interest rate fluctuations have a greater impact on company costs. Bohai Leasing expands its financing channels, especially to external financing. For example, Seaco issued 10-year asset-backed securities of $500 million (Bohai Leasing, 2014). On the other hand, Bohai Leasing established a financial department to manage the financial asset, such as investments in financial hedging products. So far, Seaco assets are dollar-denominated; the dollar exchange rate fluctuations will directly affect the RMB value of the company, with further impact on the company’s overall performance. Responding to the exchange rate risk, Bohai Leasing held a meeting on December 5th, 2014, announcing that it actively manages the asset-backed securities. When referring to the payments in the M&A activity, Bohai Leasing designed a trading strategy to block the exchange risk. The parties involved in the transaction signed a contract regarding the settlement date. Before that date, the payments will be made using a certain exchange rate; otherwise, the price will be higher.

4.3.4. Integration strategy
The acquirer needs to identify reasonable cost-benefit integration solutions and choose the lowest cost, for the largest income. Meanwhile, financial integration must be finished as soon as possible, in case negative influences occur. Financial integration also needs to be corroborated with other aspects, such as human resources integration. Bohai Leasing set up a system
for the internal control of financial reporting. Fortunately, the number of accounting rules that need to be changed in the integration of the financial statements after the merger with Seaco is not too high. As soon as Bohai Leasing took control of Seaco, it has consolidated its financial statements. At the same time, Bohai Leasing absorbed Seaco’s operating experience and know-how since the M&A was finalized. As a result of the M&A, Seaco opened up domestic container leasing business channels, further expanding its market and influence in China, to achieve the rapid expansion of its assets.

Conclusions

Cross-border merger and acquisition activities are encumbered by financial risks during the entire process. Before M&A, reasonable acquisition strategy and complete due diligence contribute to the decrease of the asymmetric information risk to further reduce pricing risk. Since cross-border M&A activities need large amounts of liquidities, single financing channels have a greater possibility to increase the financial risk. During the implementation phase, scientifically assessing the company’s own financial capability and choosing flexible financing channels and designing reasonable capital structure will reduce the financing risk. Additionally, using various financial instruments in relation to the international capital could hedge the risk of exchange rates fluctuation, thus reducing the payment risk. In order to reduce the risk of financial integration, special attention should be granted to the integration of the business strategy and the financial system, in the integration phase.

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