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## 序

并购作为资本运作的一种手段正被越来越多的上市公司和非上市公司所采用。1993~2003年的10年间，不论是从参与并购的上市公司数量，还是从并购涉及的金额，都能看出并购在中国证券市场上正发挥着越来越重要的作用。

并购促成了一些公司的飞速发展，实现了靠自身积累难以完成的蜕变。但并非所有的并购都是为了快速成长，一些并购是在降低交易成本，一些并购志在取得协同效应，而另一些并购则可延伸管理能力。并购的动机如此不同，更增添了并购市场的魔力。自詹森和鲁贝克（Jensen 和 Ruback, 1983）的研究结果表明目标公司可从兼并中获得超常收益以来，人们将眼光瞄准了那些有潜力的目标公司，希望从泥土中挖掘金矿，从对目标公司的预测中获得投资收益。

然而，我们对中国证券市场上的并购进行研究后发现，中国的主并公司才能从兼并中获得超常收益。这引起了我们对中国主并公司进行预测研究的兴趣。我们的初衷是试图通过对主并公司的预测获取投资上的超常收益。所幸的是，在严谨的理论基础之上并经过翔实的数据分析之后，我们达成了初衷：通过预测主并公司，最高可以获得16%的超常收益。

本书不仅对交易成本理论在并购中的运用有一定的拓展，并且能够指导投资实践，具有一定的实用价值。书中对最前沿的学术研究成果进行了介绍，验证了许多理论假设；通过对现实投资方案的检验，使投资者能够将这些理论真正运用起来。因此，本书是一本将前沿理论和投资实践成功结合的著作。

本书的特色主要有以下几个方面：

1. 从交易成本的视角来研究并购，提出了显性交易成本和隐性交易成本的划分，对交易成本理论进行了拓展。这是一个全新的分析框架。
2. 对交易成本的两个维度资产专用性和不确定性对并购的影响

作了深入分析。书中运用了杨小凯的超边际分析方法，所得到的分析结论澄清了一些容易引起误解的看法，不仅在交易成本维度的分析上有创新，而且对超边际分析方法的应用也有拓展。

3. 以翔实的数据和层层深入的实证方法验证了书中的理论。该书的实证方法非常具有特色，通过将样本划分为预测样本组、预测能力检验样本组、投资样本组，运用三个步骤分别实现了预测、检验以及投资分析，最终取得了令人满意的研究成果。尽管书中实证方法有些复杂，但书中所设计的投资方案并不复杂，很容易操作。

本书的出版无疑会使读者对中国证券市场上的主并公司有一更深的认识，进而为那些想加入或正在加入并购大军的公司管理层提供新的思考方法，为其寻找未来的并购契机提供新的思路。

李善民

2007年8月



## 前 言

自 1993 年 9 月“宝安延中”事件以来，并购日渐盛行，2003 年已经达到 562 起。而同为重组形式之一的剥离 2003 年也达到了 533 起。由于并购中对目标公司的选择是一个关键环节，加上以往的研究成果大多支持目标公司能获得超常收益的结论，因而学术界将预测研究的重点放在了目标公司上，而对主并公司的预测研究却不足。

对主并公司的研究在国内并未引起足够的重视，这一方面可能是因为詹森和鲁贝克（Jensen 和 Ruback, 1983）的研究结果表明兼并中目标公司可获得超常收益，而收购公司不能，所以对目标公司的关注程度高于对主并公司的关注程度；另一方面也是因为并购过程中对目标公司的选择是一个很重要的环节，目标公司是否具有潜在价值是并购需要考虑的一个关键因素。

我们认为，对并购的预测应该将重点放在主并公司上而不是目标公司上，因为主并公司才是并购的主动方。站在公司战略的角度来看，公司是否要通过并购来扩张还是通过剥离来收缩的决策在大多情况下都先于目标公司的选择。如果出现目标公司寻找主并公司的情况，对主并公司的考察更成为决策的重点。一家目标公司一定会选择更有能力的主并公司，而主并公司也会在有能力有利益的前提下才愿意去并购目标公司。尽管一些实证结果表明主并公司并购后的绩效没能提升，但这并不足以证明主并公司当初实行并购是出于一种“损己利人”的目的。因此，本书对并购与剥离的可预测性研究主要集中于对主并公司和剥离公司的预测。

对主并（剥离）公司的预测要基于并购的目的。那么，主并公司实行并购的目的何在？交易成本理论认为并购是为了节约交易成本，是企业组织形式对市场交易形式的替代；差别效率理论、经营协同效应理论、财务协同效应理论、税盾理论、市场势力理论、价值低估理论从企业运作的各个方面进行了探讨，并认为并购增加了企业的价值；而委托代理理论、过于自信假说和自由现金流量假说

则认为并购未能为企业创造价值。这些理论中对主并公司的预测贡献最大的是交易成本理论。

但是，企业的并购仅仅是为了节约交易成本吗？

本书第二部分首先对交易成本的概念进行了深入的分析，认为交易成本可划分为显性交易成本和隐性交易成本。科斯（1937）指出决定企业边界的是市场交易成本和企业组织成本的相对高低。如果某些商业活动的市场交易成本比企业组织成本高，则在企业内部完成这些活动；反之，则由市场来完成这些活动。威廉姆森（1985）成功地用交易成本理论解释了并购的发生，将并购（尤其是纵向并购）的成因归结为降低市场交易成本。但是，研究交易成本的学者往往将注意力集中在市场交易成本的绝对比较上，而忽略了组织变革可能带来的交易成本的相对变化。利用市场机制的显性成本就是科斯所提的“交易成本”；除显性成本外，运用企业组织所可能获得的“效益”可以看作利用市场机制的隐性成本。这一“效益”是利用企业组织的收益（比如协同效应带来的收益）与组织成本的差额。隐性交易成本可以为正也可以为负。显性交易成本与隐性交易成本之和为正表明利用市场机制是不合理的；隐性交易成本和显性交易成本之和为负则表明利用企业组织是不合理的。因此，在考虑企业并购决策的时候，要考虑的应是显性交易成本与隐性交易成本之和。当显性交易成本和隐性交易成本都为正时，企业并购既可以节约显性交易成本又可以节约隐性交易成本。当负隐性交易成本的绝对值高于显性交易成本时，企业则应该实行资产剥离。有了交易成本的显性和隐性的划分，我们就可以将其他的动因理论纳入交易成本的分析框架中。

第三部分我们利用杨小凯的超边际分析法，并结合哈特和威廉姆森的分析结果构建了并购的均衡分析模型。威廉姆森（1985）指出交易成本是资产专用性、不确定性和交易频率的函数。他的理论中没有区分不同市场的不确定性。哈特（1995）以不完全合同理论来阐释企业的并购行为，并指出资产互补的企业之间的合并要优于不合并。资产互补和资产专用是两个不同的概念，本书对这两个概念进行了区分。通过运用超边际分析法进行分析，我们得到的结论是：在资产互补但不专用的情况下，合并优于分立，但由上游企业合并下游企业还是下游企业合并上游企业取决于互补程度对专业化



水平的影响程度；在资产互补且专用的情况下，专用性增强将促使受专用性胁迫的一方对另一方的并购。

按照张五常（1983）的观点，企业与市场的替代关系可以看作产品市场合约和要素市场合约的替代关系。如果将产品市场分为最终产品市场和中间产品市场，要素市场分为生产最终产品的劳动市场和生产中间产品的劳动市场。结合交易成本的显性和隐性之分，可以看到产品市场的不确定性会影响到显性交易成本，这种成本又区分为最终产品的显性交易成本和中间产品的显性交易成本；而劳动市场的不确定性会影响到隐性交易成本，这种成本又区分为最终产品的隐性交易成本和中间产品的隐性交易成本。通过超边际分析可以表明中间产品市场的不确定性导致的显性交易成本对并购的影响还要受到隐性交易成本的限制。不确定性对并购的影响在没有区分不同市场的情况下也是“不确定的”。不同市场的不确定性对并购的影响是互相制约的。

在有了理论基础之后，我们根据交易成本的显性和隐性之分，将影响并购或剥离决策的因素分成两个主要部分来研究。利用市场进行交易的显性成本与资产专用性、不确定性有关；利用市场进行交易的隐性成本与并购前公司的特征有关。我们收集了2003年70家上市公司资料。资产专用性和不确定性的度量从问卷调查中获得；公司的特征从盈利能力、营运能力、偿债能力、成长能力、股本扩张能力、代理成本等方面来考察，并用相应的财务指标来衡量。采用因子分析法对反映显性和隐性交易成本的这些相关指标进行了因子提取后，以这些因子为自变量建立了logistic回归模型，得出了以下的主要结论：公司的资产专用性越强，中间产品市场的不确定性越高，则显性交易成本将越大，并购的可能性会越大；公司的成长能力越强，并购前的隐性交易成本将越大，并购的可能性越大；公司的盈利能力如果可以支持成长能力，这种平衡使得公司获得协同效应的可能性下降，并购前的隐性交易成本将降低，并购的可能性降低；公司的营运能力越弱，偿债能力越弱，剥离前的隐性交易成本越低，剥离的可能性越高。

本书在实证方法上进行了创新。以前的预测模型采用logistic回归时对模型的预测准确率使用的是原样本的回判结果，我们则将样本一分为二，一个样本用来预测；另一个样本用来检验预测效果。

这一实证方法弥补了过去依赖回判结果判断模型预测效果的不足。

同时，本书还设计了一种投资方法来验证模型的实用性，即检验能否通过模型的预测获得投资上的超常收益。投资方案设计如下：

1. 当并购（剥离）发生时，开始关注该并购（或剥离）公司；
2. 一旦并购（剥离）事件前一季度的财务数据公布，立即运用预测模型进行预测；
3. 如果预测结果证实该公司确实会发生并购（或剥离），则在财务数据公告的第二天投资该公司股票并持有到该年的年末（12月31日）为止；如果预测结果未证实该公司会发生并购（或剥离），则不投资。

上面这一投资方案是针对并购（或剥离）事件发生在前一季度财务数据公布之前。如果并购（或剥离）事件发生在前一季度财务数据公布之后，可以按下面的投资方案进行：

1. 当财务数据公布时，立即运用预测模型进行预测，关注预测出的可能发生并购（或剥离）的公司；
2. 一旦并购（剥离）在财务数据公布的下一个季度确实发生时，在公告并购（或剥离）事件的次日开始投资该并购（或剥离）公司股票并持有到当年的年末（12月31日）为止；如果没发生并购或剥离，则不投资。

这两个方案都是在事件实际情况与预测情况互相印证的条件下进行投资。对这一方案投资获利的预期来源于这样的推断：并购（或剥离）的预测模型是建立在合理的理论基础之上，能够被预测到的公司是符合显性交易成本和隐性交易成本假说的，即其并购的目的是为了节约显性交易成本或隐性交易成本，这样的公司进行并购的目的是获得投资者认可的，投资该公司的股票预期可以获得超常收益。

研究结果表明，尽管剥离预测模型的预测准确度略高于并购模型，但只有利用并购模型预测的结果进行投资才能获得超常的收益。利用并购预测模型进行投资最高可获得16%的超常收益。

本书的读者对象是证券公司的分析师或企业的中高层管理者、商学院的MBA和EMBA学员、投资、财务、会计、企业管理专业的研究生或博士生，对于从事并购重组研究的高校教师和研究人員也有帮助。

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由于对并购和剥离的预测还处于探索过程中，本书的观点、论证和投资操作也难免存在不足之处，作者衷心欢迎读者的批评和建议。

陈玉罡

2007年5月

## Introduction

Since September 1993, when the event “Bao'an Yanzhong” happened, M&A came out to be more and more popular. There were 562 cases of M&A and 533 cases of divestiture in 2003. Choosing a target company is a key step in M&A, and most of the previous studies claimed that target companies could gain abnormal returns. Therefore, scholars put more attentions on the predictability research of target companies in M&A, while not enough studies on the predictability research of acquiring companies.

In domestic, studies on the acquiring companies do not receive much attention. On the one hand, it is probably due to the research result made by Jensen and Ruback (1983), which concluded that in M&A, only the target companies could get abnormal returns and the acquiring companies could not. So, more focus had been put on target companies rather than the acquiring companies. On the other hand, in M&A process, it is a really important part to choose a target company, whether the chosen one has potential value for investment is a key point to the successfulness of M&A.

This thesis argues that predicting M&A should concentrate on the acquiring companies but not the target companies, because the acquiring companies are the initiatives. In view of a company's strategy, the company makes the decision of enlarging by M&A or shrinking by divestiture before choosing a target company in most circumstances. If a target company is looking for an acquiring company, the exploring of the acquiring company will become the core of the M&A. A target company surely tends to choose a competent acquiring company, while an acquiring company prefers to acquire a company that brings profits and is in a scale that the acquiring company affords. Although some empirical results showed that mergers had not improved the acquiring companies' performance, it does not lead to conclusion that the acquiring companies conducted a kind of behavior that favors other and hurts themselves. So, this thesis concentrates on the predictability research of acquiring companies and divesting companies.

Predicting acquiring companies should base on the motivation of M&A. Well, what is the motivation of M&A? Transaction cost theory argued that M&A can save transaction cost and it is a substitute for market. In accordance with efficiency vari-

ance theory, operational synergistic effect theory, financial synergistic effect theory, tax shield theory, market power theory and value underestimation theory, it discusses the motivation of M&A from the various aspects of enterprise, and argues that M&A increases the value of acquiring companies. However, regarding agency cost theory, overconfidence hypothesis and free cash flow hypothesis, it tends to show that M&A could not create value for the acquiring companies. According to these theories, transaction cost theory contributes the most to the research of acquiring companies' predictability.

However, is M&A only for saving transaction cost?

First, this thesis analyzes the conception of transaction cost in depth and argues that it can be divided into explicit transaction cost and implicit transaction cost. Coase (1937) pointed out that it is market transaction cost and enterprise organizational cost that determines the enterprise boundary. Once a business activity's market transaction cost is higher than that of enterprise organizational cost, the activity would be conducted within the enterprise rather than in market; otherwise, it would be done in market. Williamson (1985) succeeded in explaining the M&A behavior through transaction cost theory, and attributed M&A (especially vertical M&A) to the decrease of the market transaction cost. However, those scholars who usually focused on the exact number of the transaction cost neglected the fact that organizational reform may lead to the change of transaction cost indirectly. The explicit transaction cost of applying market mechanism is the transaction cost which Coase referred to; except the explicit transaction cost, the benefit from applying the firm mechanism can be regarded as implicit cost of applying market mechanism. The benefit is the difference between the accruals (such as accruals caused by synergistic effect) and the costs of applying the firm mechanism. Implicit transaction cost can be positive or negative. If the sum of explicit transaction cost and implicit transaction cost is positive, it is unreasonable to apply market mechanism; if the sum of explicit transaction cost and implicit transaction cost is negative, it is not reasonable to apply the firm mechanism. So, when we make a strategic decision of M&A, we should consider explicit transaction cost together with implicit transaction cost. When explicit transaction cost and implicit transaction cost is all positive, M&A can not only save explicit transaction cost but also implicit transaction cost. When the absolute value of negative implicit transaction cost is higher than explicit transaction cost, firm should carry out divestiture. Based on the division of explicit transaction cost and implicit transaction cost, we can bring other motivation theories into the frame of transaction cost analysis.

Second, this thesis applies Yang xiaokai's infra-marginal analysis method and combines the results of Hart and Williamson to build up an equilibrium analysis model

of M&A. Williamson (1985) pointed out that transaction cost is a function of assets specificity, uncertainty and transaction frequency. In his theory he hadn't distinguish the different uncertainties in different markets. Hart (1995) explained enterprises' M&A behavior with his incomplete contract theory, and emphasized that the consolidation of the two complementary firms are better than not. Asset complement and asset specificity are different conceptions, there is a clear distinguish in this thesis. Through infra-marginal analysis, we concluded that if there is complementation but not specificity between assets, M&A is better than split, but whether an upstream company merged by a downstream company or a downstream company merged by an upstream company should depend on the effects of complementation to the specialization. If there are complementation and specificity between assets, increased specificity will induce that the company threatened by specificity merge the other one.

According to Cheung (1983), the substitution relation between enterprise and market can be regarded as that of product market contract and constitute market contract. If the product market was divided into final product market and intermediate product, then the material market can be classified as labor market of final market and intermediate product. In reference to the implicit and explicit transaction cost, it is obvious that the uncertainty of the product market has an impact on the explicit transaction cost, and it can be elaborated into final product's explicit transaction cost and intermediate product explicit transaction cost; and the labor market's uncertainty also influences the implicit transaction cost, and it divided into final product's implicit transaction cost and intermediate product's transaction cost. Through infra-marginal analysis, it shows that the uncertainty of the process product market influences the explicit transaction cost, but limited by the implicit transaction cost of the process market. The impact of uncertainty toward M&A is uncertain unless the different markets have been distinguished. Different markets'uncertainties influence M&A in complementary effects. And the effects to M&A by uncertainty of intermediate goods market are restricted by uncertainty of other markets.

Third, according to the explicit and implicit distinction of transaction cost, this thesis divided the factors that influence M&A or divestiture decision into two groups. One group, about the explicit transaction cost of applying market mechanism, is concerned with asset specificity and uncertainty; the other, dealt with implicit transaction cost of applying market mechanism, is related to the characteristics of the acquiring company before merger. This thesis has collected 70 public company's information. Asset specificity and uncertainty can be derived from surveys; and a firm's characteristics can be derived from its profitability, operating capability, solvency, growing abili-

ty, equity-expanding capability and agency cost, with related financial indexes. Taken factor analysis method, this thesis tends to find out the influential factors of explicit and implicit costs, and based on these factors, a logistic regression model has been built, finally the results go as the following: the stronger specificity of the asset, the higher uncertainty of the process product, therefore, the more explicit transaction cost and the higher possibility of M&A; the stronger growing ability of the firm, the more implicit cost of the acquiring and also the higher possibility of M&A; if a firm's profitability can stand its growing as well, the balance will decline the probability of the company to obtain synergistic effect, the implicit transaction cost will be low, and the possibility of M&A will be low; if the operating capability is weak or the solvency is weak, then the implicit transaction cost is low, and the probability of divestiture will be high.

This thesis has an innovation on the empirical method. The previous prediction model used logistic regression, and tested the accuracy by comparing with the original data. In this thesis, the samples have been separated into two parts: one part is for prediction, the other for testing the prediction accuracy. This method improves the previous prediction model of testing by comparing to the original samples.

Meanwhile, I also design an investment approach to test the practicability of the model, which tests the investment abnormal returns. The investment plan is as following:

- a) Once a M&A (or divestiture) happened, keep a close eye on the acquiring company;
- b) Predict by using prediction model as soon as the seasonal financial data before M&A (or divestiture) be publicized;
- c) If the prediction does predict that M&A (or divestiture) would happen, we should invest the very next day after financial data goes public and hold to the end of the year (December 31); if the prediction predicts that M&A (or divestiture) would not happen, then we don't invest.

The above investment plan is for the M&A (or divestiture) that happened before the announcement of the previous financial information. If M&A (or divestiture) happened after the seasonal financial data publicized, you can invest as the following plan:

- a) Use the prediction model as soon as the financial data comes out, pay attention to the companies that may lead to M&A (or divestiture);
- b) If M&A (or divestiture) really happened after the announcement of the financial data, invest as soon as the announcement of M&A (or divestiture) and hold



the shares of the company to the end of the year; otherwise, no investment at all.

The two plans both suggest an investment under the condition that the prediction meets the real fact. The expectation of earning profit from these plans come from the judgment: the predication model of M&A (or divestiture) is based on the rational theory, and the predicted companies are consistent with the explicit and implicit transaction cost, namely M&A (or divestiture) aims to save the explicit and implicit transaction cost, and this kind of M&A (or divestiture) will be consented by the investors, the investment on the shares of the companies will gain abnormal returns.

The research shows that, although divestiture prediction model's accuracy is a little higher than that of M&A model, the results investment applied by M&A model turn out to be the only one to earn abnormal return in investment. By using M&A prediction model there will be abnormal return up to 16%.

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