



**RESEARCH ON THE CORRESPONDING
RELATIONSHIP BETWEEN DEBT FINANCING AND
CORPORATE PERFORMANCE IN LISTED
COMPANIES — TAKING HAINAN AIRLINES AS AN
EXAMPLE**

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**An Independent Study Submitted in Partial Fulfillment
of The Requirements for**

The Degree of Master of Business Administration

Graduate School of Business

Siam University

2018



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BETWEEN DEBT FINANCING AND CORPORATE
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Thematic Certificate

To

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This independent study has been approved as a partial Fulfillment of the Requirement of International Master of Business Administration in International Business Management

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ABSTRACT

Title: Research On The Relationship Between Listed Companies' Debt
Financing And Corporate Performance: A Case Study Of Hainan
Airlines

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Degree: Master Of Business Administration

Major: Business Administration

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1.1.6.1.2018

listed companies to raise funds to meet the development of the company is a key link of the company's operation,also the focus of research of corporate finance. Listed companies usually to raise funds in equity financing and debt financing. Different financing modes have different effects on the performance of the company, the same financing proportion of different level will have different effects on corporate performance,too. With the China's capital market continue to improve and the development of marketization of interest rate, listed companies will decreasing the ratio of equity financing, gradually increasing the share of debt financing, part of the listed company has formed a high debt ratio. Debt financing will likely become the main way of financing, but the debt financing structure of listing Corporation has many problems and shortcomings,which affect the company's performance. Therefore, it has realistic significance to research on the relationship between debt financing structure and corporate performance of listing Corporation. In this paper, the relationship between debt financing structure and corporate performance of listed companies as the research subject, the Hainan Airlines as the research object, by the case analysis mode to research the relationship between Hainan aviation debt financing and corporate performance.The

overall debt ratio and debt maturity structure match of Hainan airline has something reasonable, and the debt is a single source of features, it has some similarities with majority of listed companies, so Hainan Airlines as the object of study is typical.

In this paper, the review of the related literature and western economics classical capital structure theory as the foundation, which as the research provides reference method and theoretical basis. Reference to related research, the Hainan Airlines debt financial capital structure is divided into: overall debt structure, debt maturity structure and debt source structure. Through comparative method, the Hainan Airlines debt status and performance status respectively compare with three major airlines, and the situation can be summarized as: overall debt ratio is high; debt maturity structure dominated by short-term debt; about the debt source structure, the bank loans is the main sources of debt financing; performance levels in the higher level compare with three major aviation. Next, Hainan aviation debt financing structure and corporate performance empirical research, three econometric model is designed on the basis of overall debt structure, debt maturity structure and debt source structure, the regression results such a conclusion: 1 the asset liability ratio of Hainan Airlines and firm performance significantly negatively correlated; 2 the short debt ratio of Hainan Airlines and corporate performance is negatively correlated, the long-term debt ratio and corporate performance is not slightly negative correlation; 3 the bank loan ratio of Hainan Airlines and the company performance significant negative correlation, the commercial credit ratio and the company performance is slightly negative correlation. Finally, take the current situation of Hainan Airlines as the basis, and combined with the related theory, analyzes the reasons about debt financing and corporate performance empirical results of Hainan Airlines, pointed out the existence of Hainan Airlines debt financing problems and something unreasonable, and put forward relevant suggestions for improvement, hoping to achieve the optimization of the debt financing structure of Hainan Airlines, and then improve the Hainan Airlines Company performance.

Keywords: Listing Corporation; Debt Financing; Corporate Performance; Hainan Airlines

摘 要

题目：上市公司中债务融资与公司绩效的相应关系研究——以海南航空为例

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上市公司筹集资金以满足公司的发展需求是公司运营当中的一个关键的环节，也是公司金融研究的重点，通常上市公司筹集资金的方式有债务融资和股权融资两种方式。不同的融资方式会对公司绩效产生不同的影响，同种融资方式的融资比例高低不同也会对公司绩效产生不同的影响。随着我国资本市场的不断完善和市场化进程的推进，上市公司将改变以往以股权为主的融资方式，债务融资的份额逐步增大，有部分上市公司目前已经形成了高负债率的资本结构。债务融资将有可能成为公司融资的主要方式，但目前上市公司的债务融资存在诸多问题及不合理之处，影响了公司的绩效。因此，对上市公司债务融资与公司绩效的关系研究有一定的现实意义。本文以上市公司债务融资融资与公司绩效的关系为研究主题，把海南航空（全称为海南航空股份有限公司）作为研究对象，以案例分析的形式研究海南航空债务融资与公司绩效的关系。海南航空目前的债务融资结构有负债率高、债务期限结构搭配不是十分合理、债务来源较为单一的特点，这与目前的大多数上市公司的债务融资结构有一定的相似之处，以海南航空为研究对象有一定的典型性。

在本文的研究当中，以相关的文献综述与西方经济学的经典资本结构理论、债务融资与公司绩效关系的理论为基础，这为研究提供了参考方法和理论依据。参考相关的研究，以债务融资的结构为切入点，把海南航空的债务融资结构具体分为：债务整体结构、债务期限结构、债务来源结构。通过对比的方法，把海南航空的债务现状与绩效现状分别和三大航空公司作比较，在对比的基础上来分析海南航空的债务和绩效现状，其现状可概括为：整体上负债率较高；债务期限结构当中，以短期负债为主；债务来源结构当中，以银行借款为主要的债务融资来源；绩效水平与

三大航空相比，处于偏上的水平。接着，进行了海南航空债务融资与公司绩效关系的实证研究，根据债务整体结构、债务期限结构、债务来源结构设计了三个计量经济模型，通过回归结果得出这样的结论：1 海南航空的资产债务整体规模与公司绩效显著负相关；2 海南航空的短期负债率与公司的绩效显著负相关，海南航空的长期负债率与公司绩效呈不显著的负相关；3 海南航空的银行借款率与公司的绩效显著负相关，海南航空的商业信用率与公司绩效呈不显著的负相关。最后，以海南航空的现状为依据，并结合相关的理论，对海南航空债务融资与公司绩效关系实证结果的原因进行分析，指出海南航空债务融资存在的问题和不合理之处，并提出相关的改进建议，希望能达到优化海南航空的债务融资结构，提高海南航空的公司绩效的效果。

关键词：上市公司；债务融资；公司绩效；海南航空



ACKNOWLEDGMENTS

This paper has opened a topic so far, the time has passed for three months, and the writing of this article has come to an end. By this writing, it is also a short-lived graduate study career. When we look back at SIAM, we have a lot of emotion. Along the way, with the care and help of teachers, classmates, and family members, I successfully completed the writing of this article, and also spent a lifetime of graduate student learning career. Hereby express my heartfelt thanks to everyone.

First of all, thanks to my advisor, Professor Wei QiFeng. This article was completed with the careful guidance and assistance of Wei QiFeng. From the selection of the thesis to the grasp of the writing object, the construction of the content structure framework, and finally the first draft was made several times. The amendments have been devoted to the efforts of Wei QiFeng. I have experienced her deep academic knowledge and rigorous academic attitude. It also made me understand that academic writing is not an overnight one. There are many twists and turns in this, and it requires a certain amount of patience. Make a breakthrough. In life, Wei QiFeng also gave me meticulous care and help, shared my own life experiences, and taught me the wisdom of living. Wei QiFeng has benefited me in my studies and in my life. I will always remember it.

Secondly, I would like to thank the teachers and teachers of the SIAM International International College for their words and deeds, enriched my theoretical knowledge of economics, and let me master some research methods and thinking methods of economics. This laid a certain theory for the writing of this article. The foundation and the research methods are provided so that the writing of this article can be smoothly carried out. The knowledge taught by the teachers is a valuable asset in my future work and study. I will use it for life.

In addition, I would like to thank my classmates who have spent the graduate career with me, both in learning and in life have given me great help and concern. With everyone's company, my research life has become more vivid and colorful. I will never forget it.

Finally, I would like to thank my family and my family for being my strong backing and spiritual harbor. Over the years, I have grown up with my family's concern and love. The love and expectation of my family has given me the impetus to continue to move forward. It is also at home. With support and understanding, I successfully completed my studies. Without them, there is no everything for me. The love of my family is what I remember.

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RESEARCH ON THE CORRESPONDING RELATIONSHIP BETWEEN DEBT FINANCING AND CORPORATE PERFORMANCE IN LISTED COMPANIES —TAKING HAINAN AIRLINES AS AN EXAMPLE

CHAPTER 1 INTRODUCTION

1.1 Background of the study

In foreign capital markets, even if the stock market is very active, the financing methods of listed companies are mainly based on debt financing. According to statistics, the total amount of foreign-listed debt financing is 3-10 times that of equity financing, and the financing method of listed companies in China has primarily been dominated by equity financing. Before 2001, the average debt-to-liability ratio of listed companies in China was less than 50% in each year. However, from 2002 to the present, the average average debt-to-liability ratio of listed companies is more than 50% in each year, and it has generally risen. With the development of China's bond market, the debt financing ratio of listed companies will likely increase. As of the end of 2015, the balance of China's bond market reached 46.8 trillion yuan. The balance of 36 trillion yuan in bonds at the end of 2014 increased by 30%, and its growth rate was the highest in nearly six years. The development of the bond market has facilitated the debt financing of listed companies. In addition, as the process of interest rate liberalization progresses, deposit and lending rates will gradually become marketable, which will reduce the cost of borrowings for debt financing of listed companies to banks. Enhance the enthusiasm of listed company debt financing. In 2015, the Central Bank of China reduced its social financing costs, cut its rate of interest for five consecutive times, and cut interest rates. This also prompted listed companies to choose debt financing to a certain extent .

From all aspects, The successful selection and use of capital is one of the key elements of the firms' financial strategy. However, at present, there are many problems in the debt financing of listed companies in China, such as the blindness of debt financing, when the company When there is demand, blindly integrate funds, and do not consider whether the cost of capital is within the scope of the company. When the cost of capital is too large, it will increase the pressure for the company to repay the debt, thereby affecting the company's performance; the debt financing deadline structure is unreasonable From the current practice, listed companies tend to be short-term liquidity debt financing and

less long-term debt financing. Although the financing cost of short-term debt financing is lower than the long-term debt financing cost, short-term debt financing will cause companies to face Repayment of debt pressure may affect the company's daily operations. The debt financing channels are single and the risks are concentrated. How to prevent possible managerial misconduct and improve performance through proper monitoring, auditing and control has been one of the crucial issues since the 1997 Asian financial crisis . Increased vulnerability to external shocks resulting from poor governance in both the corporate and financial sectors was one of the causes of the crisis . The failure of corporate monitoring and control led to managerial problems, whereby excessive levels of inefficient investment and a vulnerable financial structure were perpetuated. The 1997 Asian crisis and the resulting economic crisis clearly demonstrated that the role of the financial market is crucial for corporate governance, which in turn is an essential ingredient for financial stability in emerging markets.

The corporate governance issue has also become one of the most popular research topics among scholars of the South Korean (hereafter the Korean) economy. The major issues covered by this research include: (1) the role of government in reforming chaebol (business group) and corporate governance; (2) reform of bankruptcy procedures and firm exits (Myers, 1977); (3) protection of minority shareholders' rights and the role of outside directors; (4) governance structure of corporate bonds ; and (5) governance and ownership of banks. Having noted that the governance of both the corporate sector and the banking sector was distorted and functioning ineffectively before the crisis, there has been a good deal of discussion as to the required reforms and institutional rearrangements since the crisis occurred.

1.2 The significance and purpose of research

1.2.1 Research significance

In the past research on the relationship between listed companies and company performance in China, scholars have selected a larger range of research: some of the listed companies in the country as the research object, some in the A-share market as the research object, some in an industry For the study. Because the selected research objects are more macroscopic, the samples chosen for the respective research subjects will be different. Under such circumstances, even the same research object will produce different conclusions, which affects the practicality of the research. This article takes Hainan Airlines as an example and studies the relationship between Hainan Airlines's debt financing and corporate performance through case analysis. This can reduce the influence

of sample differentiation to a certain extent, reduce the bias, and make the research more effective. The term capital structure refers to the percentage of capital (money) in the work of a company by type. There are two forms of capital: equity capital and debt capital. Some scholars have pointed out that the company's capital structure means that debt and equity account for the proportion of the company's total capital structure. By recognizing the various means used to raise funds to represent the company's financial structure, the capital structure represents the proportional relationship between long-term debt and equity, and distinguishes the company's capital structure and financial structure. According to the scholars' discussion, the capital structure of a company does not include short-term credit, but refers to the combination of long-term funds the company obtains from various sources. Therefore, the capital structure of a company is described as the capital combination of capital and debt capital in asset financing.

1.2.2 Research purpose

This article is based on the traditional western corporate debt financing theory and Hainan Airlines' debt financing and company performance. The relevant data of Hainan Airlines was selected and the econometric model was established as the main research method. From the empirical perspective, the relationship between Hainan Airlines' overall debt structure, debt maturity structure, debt source structure and corporate performance was obtained. Through empirical research results, the problems and irrationalities of Hainan Airlines's debt financing are identified. Finally, the proposal to optimize the feasibility of debt financing structure is proposed, hoping to achieve the goal of improving the performance of Hainan Airlines.

The chaebols' affiliates had relatively better access than independent firms to the credit market by reason of the superior collateral power generated by mutual debt payment. In theory, the interlocking shareholdings or equity ownerships could encourage efficient action in settings in which firms were concerned with expropriation and hold up problems arising from relationship-specific investments (Fee & Hadlock, 2006). The loan policies and complicated structures of chaebols may have contributed to overcoming the coordination failures in the capital market in the early stages of development (Shin & Park, 1999). Berle–Meansian scholars argue that an owner–manager company can reduce agency costs because corporate governance is more effective .

1.3 Conceptual indicators and theories of debt financing and corporate performance

1.3.1 Concepts and indicators of debt financing

1.3.1.1 Related concepts of debt financing

Debt financing means that companies or enterprises and institutions raise funds or materials for repaying obligations. Compared with other major financing methods, equity financing is the biggest difference in debt financing with the obligation to repay the principal. In addition, debt financing is still limited and compensatory. Term nature means that the company as the debtor must repay the principal and interest within a specified time or time. The near lack of long-term debt financing in these economies, for instance, exposes firms to high risk of liquidation and creates room for opportunistic creditors to use the threat of liquidation to expropriate the profits of even the healthy firms. There are several common ways for companies to raise funds through debt financing:

Bank borrowing: Bank borrowing refers to the method of borrowing money from a commercial bank when the company's daily operations are undercapitalized or when the project investment requires funds. Bank borrowing is also the main method of debt financing for Chinese companies. This is because banks usually provide companies with loans. The huge single amount, bank loans can be separated from the industrial capital cycle, and China's bond market is not yet perfect. Theoretically, before a company applies for a loan from a bank, the bank conducts a due diligence on the company's financial status and development prospects. After the loan has been released, the bank will supervise the company's daily operations for the sake of its own funds and prevent creditors from being harmed. Benefits of business behavior. The supervision of the bank by the company can, in theory, constrain the behavior of the company's managers and make the company managers work harder to improve the company's performance. However, in reality, due to problems such as moral hazard and information asymmetry, it is difficult for banks to supervise the company effectively. Therefore, whether bank loans can improve the company's performance remains to be verified.

Commercial credit: Commercial credit is a liability formed by the company's daily business operations and the commercial transactions with other companies. It is generated during the process of capital circulation. Commercial credit is very common in the company's operations, but its financing amount accounts for a small proportion of the company's total financing, and its debt time span is relatively short, usually within one year. From the point of view of cost of debt, the cost of funds is relatively low. Under normal circumstances, it will not cause too much burden on the company. The specific forms of commercial credit include: accounts payable, advance receipts, and notes

payable. Through commercial credit companies, temporary shortages of funds in daily operations can be solved and the circulation of goods can be smoothly carried out. Therefore, commercial credits have a positive effect on the company's daily operations. From a theoretical point of view, commercial credit can improve the company's performance level to some extent.

The existing literature, however, focuses mainly on the issue of 'internal' governance from an institutional perspective. In contrast, this paper will analyse the issue of 'external' governance in the context of corporate finance.² External corporate governance in this paper refers to the process by which investors monitor and control the actions of corporate management to assure themselves of obtaining a return on their investment. One of the lessons of the 1997 financial crisis has been a renewed recognition of the importance of links between the corporate and financial sectors, both theoretically and empirically (Masulis, 1983). Furthermore, the relationship between chaebols and financial intermediaries has changed since the 1997 crisis because of sweeping reforms and changes to corporate financing.

Financial leasing: Financial leasing belongs to the category of debt financing. It means that the company sells fixed assets to financial leasing companies in order to obtain capital financing. After the sale of fixed assets, the seller still has the right to use fixed assets, but it needs to pay to financial leasing. The company rents at a certain price; or the company and the financial leasing company agree that the financial leasing company will purchase the fixed assets on behalf of the company, and the company that uses the fixed assets must pay a certain rent to the financial leasing company. Financing generally takes place in companies with a large amount of capital occupied by fixed assets, such as airlines and cruise ships. Through financial leasing, the company can use the funds occupied by fixed assets to obtain a large amount of cash flow. If the company's cash flow is tight, financial leasing can ease the pressure of cash flow, which may have a positive impact on the company's performance.

1.3.1.2 Relevant indicators of debt financing

In corporate finance, a variety of financial indicators are commonly used to measure the debt level of a company. Here are some indicators of debt financing:

Asset-liability ratio (DAR): The debt-to-asset ratio refers to the ratio of total liabilities to total assets. Through the asset-liability ratio, one can understand the overall

asset structure of a company and can measure the level of a company's overall debt, when the debt ratio is high. At that time, it shows that the company has fully utilized its financial leverage, but excessively high asset-liability ratios may expose the company to financial risks.

Short-term debt ratio (SD): The short-term debt ratio refers to the ratio of total short-term liabilities to total assets. It is a key indicator for measuring the size of a company's short-term liabilities. When the company's short-term debt ratio is high, the company will face short-term debt payment. The pressure of gold and interest will have a certain impact on daily operations. In the company's finances, the short-term liabilities consist of accounts payable, bills payable, dividends payable, short-term borrowings, and non-current liabilities due within one year.

Long-term debt ratio (LD): Long-term debt ratio refers to the ratio of total long-term liabilities to total assets, which directly measures the size of the company's long-term debt share. When the company's investment project cycle is long, it is generally based on long-term debt financing. In corporate finance, long-term liabilities mainly include long-term borrowings and bonds payable.

Bank Borrowing Rate (BD): The bank borrowing ratio refers to the ratio of total bank borrowings to total assets, and measures the size of bank loans' share of the company's assets. Currently, bank borrowing is the main source of financing for most company debt. In corporate finance, bank loans include short-term borrowings and long-term borrowings.

Commercial Credit Rate (CD): Commercial credit ratio refers to the ratio of total commercial credit to total assets and measures the share of commercial credit in corporate assets. The size of the commercial credit is determined by the size of the company's business. Usually the company with a large business scale has a large amount of commercial credit. In corporate finance, commercial credit includes accounts payable, advance receipts, and notes payable.

1.3.2 Concepts and indicators of corporate performance

1.3.2.1 Related concepts of corporate performance

Corporate performance is a concept to measure the company's operating conditions, used to evaluate the company's operating results and operating efficiency. For a

company's management is complete, whether to create value for the company's owner will be reflected in the company's performance. When the assumption of the absence of taxes is relaxed, the fact that companies can benefit from the so called tax shield can be taken into account. Since corporate performance is an abstract, difficult-to-quantify concept, it is common to use specific indicators to judge company performance. Scholars generally classify the indicators that judge company performance into two categories: First, financial indicators, such as return on net assets, return on total assets, profit rate of main business, and earnings per share, etc.; Such as the value of the stock, the value of the mogul Q, etc.

1.3.2.2 Related indicators of corporate performance

The abstraction of company performance needs to be reflected by various indicators. Now we briefly introduce some indicators of company performance measurement:

Return on Equity (ROE): ROE, also known as equity return, is the ratio of net profit to stockholders' equity. It measures the company's operating results from the perspective of shareholders and can fully reflect the company's ability to create value for shareholders. , is an important indicator of judging the company's performance level, experts and scholars at home and abroad in the study of corporate performance, the net return on assets as an important reference index of company performance. However, this indicator only measures the company's profitability from the perspective of shareholders' equity, and there is room for manipulation.

Return on total assets (ROTA): The return on total assets refers to the ratio of net profit to total assets, which is an indicator that fully reflects the return on investment of the company's total assets. Some scholars use the return on total assets to express the company's performance. However, because the scope of the index is large and targeted, the effect is not very good when studying specific issues. Therefore, less scholars use it to study the company's performance. Performance.

Operating profit rate (TBM): operating profit ratio is the ratio of operating profit to main business income. It can be intuitively understood how the company's profitability is, what competitive position is in the market, and the company's operating ability is used to evaluate the company's operating capabilities. The level of performance. Some scholars also use the company's operating profit rate to analyze the company's performance level, but different types of companies' operating income account for a large share of the

company's revenue. Therefore, the operating profit rate cannot fully reflect the company's performance level.

Earnings per share (EPS): Earnings per share refers to the net profit and the weighted average number of ordinary shares outstanding. It reflects the degree of profitability of shareholders, and also reflects the company's operating results. It is a commonly used measure of company performance. Some scholars use the earnings per share as a reference when studying company performance. However, the earnings per share is only a concept of share. The company's other information, such as the size of the stock's risk and the size of the stock's price, cannot be reflected in the earnings per share. The shareholder's profits are also related to the company's dividend policy, and the earnings per share are high. , shareholders may not be able to obtain corresponding returns. Therefore, using the earnings per share can not fully measure the company's performance.

Stock market value (MC): The stock market value is the price of the stock issued by the company in the capital market. Under the circumstances that the developed capital market and information are effective, the stock market value is usually positively correlated with the company's performance level, and the company's performance level will be reflected. Into the stock market value, the stock market value is a barometer of company performance. In the research of corporate performance in the West, some scholars use the stock market value as a reference, but the stock market in our country is not perfect. The stock market value often deviates from the company's real value, and the price of the stock is also easily manipulated. Therefore, the use of stock market value to study company performance is not practical.

Mog Q (Q): The Mog Q refers to the ratio of the market value of the company's total assets to the entire company's replacement capital. Many foreign scholars use the mogul Q value as a parameter to study company performance. They think that the mogul Q Values overcome the shortcomings of other financial parameters that only consider the historical value. The value of the mogul Q considers the current market value and the time value of the future cash flow. In addition, the value of the mogul Q also takes into account various intangible assets and is a comprehensive one. Measure the performance of the company. However, like the stock market value, because China's capital market is not perfect, the market value of assets is difficult to estimate, and the value of intangible assets is also difficult to assess. Therefore, it is less practical to measure the company's performance with the value of the tonnage Q.

1.4 Theory of relationship between debt financing and corporate performance

The theory of the relationship between debt financing and corporate performance originated from the study of corporate capital structure and corporate value. To a certain extent, the capital structure of a company depends on whether the company conducts debt financing or debt financing, and the value of the company can be considered as Equivalent to the company's performance. Therefore, the theory of the relationship between the company's capital structure and the company's value can be approximated to the theory of the relationship between corporate debt financing and corporate performance. The theory about this is recognized as the earliest in 1958. Some scholars put forward the original MM theory in the article "Cost of Capital, Corporate Finance and Investment Theory" (Jesen, 1986). There have been revised MM theory, bankruptcy theory, trade-off theory, agency theory, and signal transmission theory. Now we briefly introduce each theory:

1. The original MM theory

The original MM theory is based on the perfectionism of the capital market, with very harsh assumptions: no transaction costs, no personal and corporate income taxes, the market is fully effective. Under the above assumptions, MM theory believes that the company's capital structure has nothing to do with the company's value. The company's use of debt financing or equity financing will not change the company's total value, and the relative proportion of debt financing and equity financing will not change the company's The total value affects only the company's shareholders and creditors' control of the company. Therefore, according to the MM theory, it can be concluded that whether the company has undertaken debt financing or whether the ratio of debt financing to the entire fund has nothing to do with the performance of the company. However, the assumption of harsh conditions is not realistic in the real capital market. The original MM theory's conclusion also has some deviation from the actual empirical research results.

2. Modified MM theory

In 1977, some scholars considered the existence of a capital market for corporate income tax and personal income tax, adding the income tax to the original MM theoretical analysis, resulting in the revised MM theory: Due to debt financing companies The interest expense has the advantage of deducting the income tax. If the other risks are the same, the value of the debt financing company is equal to the value of the debt-free company plus the interest deducted from the income tax. Therefore, the company's value will increase as the proportion of debt financing increases. When the company's debt

financing ratio is 100%, the value of the company's tax shield will reach its maximum, and then the value of the company will be the largest. Therefore, according to the modified MM theory, the company's performance will increase with the increase of the company's debt financing ratio. When the company's financing is entirely derived from debt financing, the company's performance will be maximized. Compared to the original MM theory, the modified MM theory takes into account the income tax, which is a big improvement. However, the revised MM theory does not consider the issue of financing costs and corporate financial risk as the size of the debt increases.

3. Bankruptcy theory

The emergence of MM theory has enriched scholars' research on the company's capital structure and debt financing. However, MM theory did not consider the financing costs and financial risks, and then led to corporate bankruptcy. The bankruptcy theory believes that the company's debt financing will increase the company's costs, and it will increase the possibility of financial distress, and in serious cases it will lead to bankruptcy. Specifically, before the company goes bankrupt, debt financing will increase the operating costs, such as paying excessively high interest expenses will affect the company's daily operations, financial constraints will restrict the company's development, and as the scale of debt increases, the company's With the increase of risk, equity holders will require the company to provide additional risk compensation, and the company's comprehensive financing costs will increase, which in turn will affect the company's performance. In addition, when the scale of the company's debt financing is too large, the above introduction will be formed. In addition to the direct costs, there are indirect costs that affect the company's performance, such as negative impact on the company's goodwill and brand value. In short, according to bankruptcy theory, the scale of debt financing of the company should not be too large. When the debt financing of the company reaches a certain percentage, it will have a negative impact on the performance of the company. This is in contrast to the modified MM theory that the greater the scale of the debt, the greater the value of the company.

4. Trade-off theory

Following the theory of MM and bankruptcy theory. The trade-off theory is actually a product of the combined MM theory and bankruptcy theory. The modified MM theory believes that the increase in debt can be used to offset taxes and fees. It can save costs and increase the value of the company. It does not take into account that excessive debt size can cause companies to become financially troubled and lead to bankruptcy. Excessive scale of debt has a series of negative impacts. Excessive debt ratio is likely to cause the

company to go bankrupt, but it ignores the interest generated by debt financing can be used to offset the tax and fee. The trade-off theory not only considers the role of debt financing tax shield, but also considers the financial distress risk arising from debt financing. There is an optimal debt financing ratio between the two, so that the company can obtain the benefits of the tax shield and not As for financial troubles, the value of the company at this time is maximized. Therefore, according to the trade-off theory, when the company's debt financing ratio reaches a balanced value, the company's performance will reach the highest level.

5. Agency Theory

With the development of economy, modern companies have generally formed the separation of ownership and management rights. Although this separation model has improved the company's operating efficiency, it has caused conflicts between the company's managers and owners' interests. Scholars began to study the issue of ownership and management rights. A scholar proposes the famous agency theory in 1976. Agency theory believes that when a company has a lot of cash flow (the cash flow may come from equity financing, debt financing, or other sources) (Tao, 2007). the company's managers will irrationally use cash flow to expand the company's scale, even the net Projects with negative or high-value risks are also invested. They only need to expand the size of the company and do not consider the long-term development of the company. This will seriously affect the interests of the company's owners. On the other hand, if the company has a large amount of cash flow, managers will consider their own interests, pay high salaries and generous benefits for themselves, squander the company's cash flow, and cause unnecessary waste of company resources. Therefore, the company's expansion of the company's cash flow through debt financing will lead to blind investment and cash flow squandering, which in turn will have a negative impact on the company's performance. However, agency theory also analyzes the relationship between corporate debt financing and corporate performance from another angle. The agency theory believes that when a company makes debt financing, the company will have to pay the principal and interest of the debt. If the company cannot repay the principal and interest, the company will Faced with the risk of bankruptcy, the company's ownership will be transferred to creditors, and the company's managers will have the possibility of being fired. Therefore, after the company has undertaken debt financing, the managers will work hard to avoid bankruptcy for their own management positions. Therefore, from the perspective of agency theory, debt financing can also improve company performance. Overall, according to the agency theory, whether debt financing can improve the company's performance depends on the specific circumstances.

6. Information transmission theory

The theory of information transfer holds that the information held by internal managers and external investors of the company is asymmetrical. The internal staff of the company understands the company's operating conditions and development prospects more than external investors, and has more inside information. Based on this premise, a scholar analyzes how the scale of debt financing through the establishment of models conveys information to investors. After investors feedback information, their investment behavior will affect the performance of the company. The company's financing is equity financing and debt, Managers will often choose the financing method that can maximize the company's interests. When the stock price of the company is overvalued, the company will use the equity to raise funds in order to be able to integrate more funds. When such information is passed to investors, investors use the game to believe that the company's stock is overvalued. With equity financing, investors will sell their stocks for their own gains, causing stock prices to fall and negatively affecting company performance. If companies use debt to finance, there will be no such consequences. In addition, the theory of information transfer also illustrates the impact of debt financing on corporate performance from another perspective. If the company uses equity financing, the proceeds from the investment project should be shared with the new shareholders. Therefore, if the company has a high-yield investment project, it will use the debt to finance, so that most of the project's revenue is owned by the company's original shareholders, and there is no need to share the benefits with the new shareholders. In this way, when the company is undertaking debt financing, it will send investors a signal that the company has high-yield projects. The investors will be optimistic about the company's prospects, and various positive signals will have a positive impact on company performance. In short, according to the information transfer theory, the company's debt financing will improve the company's performance.

The summary of the relationship between debt financing and corporate performance is summarized in the following table:

Table 1: Summary of the relationship between debt financing and corporate performance

Theoretical name	Mechanism of action	The effect of debt financing on company performance
Original MM theory	In the perfectly hypothetical capitalist economic market, the company's total value will not change with changes in the financing method and financing ratio.	No effect
Correct MM theory	In the economic market that considers income tax, debt financing has the role of tax shield, and its role increases with the increase of the proportion of debt financing, which in turn improves corporate performance.	positive influence
Bankruptcy theory	After considering the financial costs and bankruptcy risks, the company's debt financing will increase the company's cost burden, and in serious cases it will cause the company to go bankrupt.	Negative impact
Trade-off theory	The core theories of the revised MM theory and bankruptcy theory are integrated, and the optimal debt financing ratio is reached at the equilibrium point.	Depending on the circumstances
Agency Theory	When corporate debt is financed, there is a large amount of cash flow, and management may squander cash flow; management may also strive to operate for its own benefit.	Depending on the circumstances
Information transfer theory	When the company chooses debt financing, it shows that the company has good-quality high-quality investment projects that will send good information to the outside world, and then improve and improve company performance.	positive influence

From the above table, it can be seen that each theory is quite different from the result of the relationship between debt financing and corporate performance. This is due to the difference in premise assumptions and the different focus of research in each theory. Therefore, each theory can be used as a theoretical reference for researching company

debt financing and company performance. However, the relationship between corporate debt financing and corporate performance cannot be generalized based on the results of the theory. It should be analyzed based on specific research situations.

CHAPTER 2

LITERATURE REVIEW

2.1 Literature review

The origins of research on the relationship between corporate debt financing and corporate performance in the West originated earlier. In the 1970s, there were many studies on this aspect, and as China's money market and capital market started relatively late, research on debt financing was relatively late. The monitoring hypothesis states that debt can also reduce the agency conflict by creditor monitoring, especially when companies engage in bank loans. In the following, we introduce foreign and domestic research in this area respectively, and divide the relationship between corporate debt financing and corporate performance into: the relationship between the overall debt structure and corporate performance, the relationship between debt maturity structure and corporate performance, and the structure of debt sources. The relationship between company performance is introduced separately.

Business groups have also led Korean exports through the creation of global brands and competitiveness. The top five export items including shipbuilding and motor vehicles are largely from the heavy and chemical industries (HCIs) produced by chaebols. Samsung has become a world leader in several key manufacturing industries such as memory-chips, flat-panel monitors (the absolute leader), DVD players (the second) and cellular phones (the third). The brand value of Samsung is estimated at \$16.2 billion U.S. . Other chaebols such as Hyundai Motor Co. (global brand value ranking 84th in 2006) and LG Electronics (global brand value ranking 94th in 2006) have also become among the world's best known producers of automobiles, air conditioners, and CD-ROM drives. Business groups have contributed to creating jobs domestically and establishing the brand image of Korea globally.

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2.2 Foreign literature review

2.2.1 Relationship between debt structure and corporate performance

Some scholars proposed, That if the company's debt financing ratio is high, it is easy to cause the bankruptcy of the company due to financial difficulties. In addition, when the company faces greater repayment of principal and interest pressure, it will be forced to give up the net present value is positive. The project will reduce the company's profits, so the overall scale of debt financing is negatively related to corporate performance.

Analyzed the company's capital structure and built an econometric model on the basis of this, assuming that the company's debt financing scale has a positive and related impact on the company's performance. If the company is carrying out debt financing, it will influence managers' day-to-day operations and investment decisions, which will have a restrictive effect on managers and lead managers to become more rational behaviors, which in turn will have positive effects on company performance (Grossman & Hart , 1982).

Some scholars proposed, Concludes through an empirical study that when the company's overall debt level is between 23% and 45% of total assets, the company's performance level is positively related to the overall level of debt, and within this range, the company's average The value of stocks will rise as the level of debt rises.

Some scholars proposed, Believes that if the company uses debt to finance, the company has the obligation to repay the principal and interest, which will impose constraints on the company's managers, reduce the possibility of managers squandering cash, and thus generate positive results on the company's performance. Related effects.

Studied the data of western developed countries and found that although the internal structure of debt financing in different countries is different, the scale of financing is still relatively high relative to the assets, and follows With the expansion of the scale of indebtedness, the trend of negative correlation with corporate performance is increasingly evident.

Some scholars proposed, Believe that the sample range of the past scholars' research on corporate debt financing and performance is too small, which inevitably leads to deviations. Therefore, nearly 200,000 U.S. non-financial companies from 1950 to 2000 were selected as research objects. Samples, through research, have found that the scale of

corporate debt financing is negatively related to the company's market value .

2.2.2 Relationship between the term of claims and company performance

Believe that in the term structure of corporate debt financing, increasing the proportion of short-term debt can help improve the company's performance, because short-term debt will cause the company to face the pressure of debt service and payment in the short term. It will strive to operate, reduce the squandering of cash, and reduce investment in high-risk projects, so companies should increase the proportion of short-term liabilities (Senbet & Barnea, 1980).

Some scholars proposed, Took the privatization company of India as the research object and conducted an empirical analysis of their data. He concluded that the increase in the proportion of long-term liabilities helps to increase profitability indicators such as sales profitability, especially in the proportion of fixed assets. For higher companies, this relationship is even more pronounced.

Some scholars proposed, Selected companies in the United Kingdom and Italy as research objects. Empirical research on the term structure of bonds and company performance factors shows that there is no clear evidence that the increase in short-term liabilities can improve the company's performance.

2.2.3 The relationship between the source of claims and company performance

Some scholars proposed, Has shown through research that when the company's bank loans are large, the pressure on debt repayment will affect the company's growth, constrain the company's long-term planning, and have to give up some visionary and cost-consuming projects. It will have a negative impact on the company's performance to a large extent.

Came to the conclusion by establishing a model and concluded that if the source of the debt is a bank loan, it can effectively reduce the agency cost and solve the agency problem between shareholders, creditors and managers. Because if the company obtains a bank loan, the company's daily business activities will be under the supervision of the bank. The managers will work harder. The shareholders will get a ride and will have the effect of monitoring the management area. Consideration of self-interest will prevent the company from undertaking projects with higher risks (Diamond, 1984).

Some scholars proposed, Believe that the company's debt source is mainly related to the company's credit rating. When the company's credit rating is high and its social reputation is good, the company's debt source will have more room to choose from. The company can raise funds through debt issuance, bank loans, etc., and can choose lower financing costs; the company's credit rating is relatively low. When it is low, the source of debt financing can only be obtained through bank loans, and under the same conditions, it will pay higher interest rates and will bear higher financing costs. Therefore, companies with high credit ratings have low debt financing costs, which can improve company performance.

2.3 Domestic literature review

2.3.1 Relationship between overall debt structure and corporate performance

Some scholars proposed, An empirical analysis of the characteristics of the capital structure of listed companies shows that under similar conditions such as total asset size, dividend distribution system, and shareholdings of major shareholders, the company's overall debt ratio is positively correlated with company performance measured by the value of the trailer's Q (Lu & Han, 2002).

Some scholars proposed, The company in China is divided into two categories, manufacturing and non-manufacturing, and conducts empirical research on them. It is concluded that the asset-liability ratio will have a negative impact on the company's performance, and it will be related to various financial indicators, such as the profit rate of the main business. The total asset yield and sales profit margin are negatively correlated.

Some scholars proposed, On the measurement of corporate performance, selected the main business yield and return on total assets as the research object, conducted a regression analysis of companies in various industries and reached the conclusion: the company's asset-liability ratio and the company The performance is negatively correlated and significant.

Some scholars proposed, Taking China's manufacturing listed companies as the research object, the empirical research shows that the company's total debt financing scale is positively related to the value of the company, but the effect is not very obvious. This shows that the debt financing of listed companies in China has not really promoted the

company's performance.

Taking the A shares of Shanghai and Shenzhen as the research object, the data from 1988 to 1999 were selected. Using a variety of economic models to determine the coefficient relationship between the variables, and through comparative analysis of various models, it was concluded that the company was in debt. Maintaining the rate at a certain level can improve the company's performance (Wang, 2004) .

2.3.2 Relationship between debt maturity structure and corporate performance

Some scholars proposed, Selected 300 listed companies in China as the research object and used 2001 data as sample data. Through empirical research, we concluded that current liabilities have a positive correlation effect on company performance, and long-term liabilities have corporate performance. Positively related effects.

Some scholars proposed, Using the parameters of the debt maturity structure and corporate performance as variables, the relationship between the debt maturity structure of the company and the company's performance is obtained through empirical research methods. With the increase in the ratio of short-term debt, the company's market value and book value will increase accordingly.

Some scholars proposed, Taking China's pharmaceutical listed companies as the research object and empirically analyzing the short-term debt ratio and the company's main business profit rate, we conclude that the short-term debt ratio has little significant correlation with company performance, but when the liabilities are mainly bank loans, the long-term debt ratio is positively related to company performance.

A sample of companies listed on the Shanghai Stock Exchange and the Shenzhen Stock Exchange prior to 2001 was selected as the study sample. From this, 1034 companies were selected, and 4,136 data from the four years from 2001 to 2004 were selected for empirical research. The results of such research were obtained: The longer the debt maturity structure, the higher the company's performance level, but the effect of the total amount of debt financing has no significant effect on company performance (Yuan, 2006) .

Some scholars proposed, When studying the relationship between the company's debt financing term structure and corporate performance, it mainly studies whether the

debt financing term structure will have a certain role in promoting the business operators to improve the company's performance. Through research, it shows that short-term debt financing can improve the business operators' performance. The enthusiasm of the work, improve corporate governance efficiency, and then improve the company's performance.

Some scholars proposed, The listed companies in China's Shanghai and Shenzhen stock markets are selected as the research objects, and the company's liabilities are specifically divided into long-term debt financing and short-term debt financing. They are empirically studied with the company's growth, it is proposed that the positive influence of leverage on firm performance will be more pronounced in both the overinvestment. and the relationship between the company's growth and the company's growth is analyzed. It shows that the company's short-term debt ratio is positively correlated with the growth of the company, and it is negatively correlated with the long-term liabilities. Therefore, the company should increase its short-term debt ratio to enable the company to obtain better growth.

Some scholars proposed, Taking the Shanghai and Shenzhen 300 stock index as the research object, we selected data samples from 2008 to 2009 to represent the company's performance with various financial indicators and company value indicators. We established an econometric model and found out through the linear regression equation: different debt financing terms. The structure has different effects on the performance of the company, but the scale of the long-term debt ratio has a significant positive correlation effect on the company's performance.

2.3.3 Relationship between debt source structure and corporate performance

Taking China's pharmaceuticals and bio-listed companies as research samples, it conducts empirical research on the sources of debt financing and company performance. Through research, it draws the conclusion that the scale and current ratio of bank loans is negatively correlated with earnings per share; commercial credit The scale is negatively correlated with the current ratio and earnings per share (Han & Xiang, 2003) .

Some scholars proposed, Studying the relationship between the source structure of corporate debt financing of listed companies in China and the governance efficiency of the company, the research shows that the scale of corporate bank loans and commercial credits is negatively related to the company's performance, and the company's financial liabilities and the company's There is a positive correlation between performance..

Some scholars proposed, Among the listed companies in China, the listed company that issued the bonds was selected as the research object. Through research, it was proved that for companies that issued bonds, Profitability ratios evaluate a company's performance in generating earning, profits and cash flows relative to the amount of money invested. the scale of the bonds issued by the company to society was positively related to the performance of the company, and the company was private to the company. The scale of bond issuance has a negative correlation effect with the company's performance .

Some scholars proposed, Taking the commodity circulation industry and manufacturing industry from 2003 to 2007 as research samples to conduct empirical research, the study shows that for the commodity circulation industry, the scale of commercial credit has a positive correlation effect with corporate performance, but the effect is not significant. There is a significant positive correlation effect with corporate performance; for manufacturing, the scale of commercial credit has a positive correlation effect with company performance, and its effect is not significant, but bank loans have a significant negative correlation with corporate performance.

Some scholars proposed, Studying the relationship between the source structure of corporate debt financing of listed companies in China and the governance efficiency of the company, empirical research proves that among the company's debt financing sources, when the proportion of bank loans exceeds 5% of the company's debt financing scale, the company's The management efficiency will increase with the bank's loan scale, so the company's bank loan scale has a positive correlation with the company's performance level (Yan & Gao ,2004).

2.4 Summary of literature review

The debt-financing policy, coupled with the rapid growth of the banking system following interest rate reform in 1965, led to the soaring debt–equity ratio of firms in the industrial sector from around 100% in the early 1960s to around 500% in mid 1980s.⁷ Meanwhile, the Government introduced the principal transactions bank (PTB) system in the 1970s as well as fiscal policies to improve corporate financial structure. Despite these regulatory measures, the debt–equity ratios of business groups remained high. The PTB system introduced in the 1970s failed to curb chaebols' rising debt–equity ratios. The PTB system mainly sought to control the thirty largest chaebols' financial structure at the

macro-level. The medium-to-small chaebols (top six-to-thirty) increased their debt–equity ratios significantly. These groups invested in and effectively controlled the money market by owning merchant banks and other non-bank financial institutions (NBFIs) including insurance and securities firms . The leverage (medians) during 1988 and 1996 was three times higher than in the U.S. and Germany, and nearly double that in most Asian countries.

CHAPTER 3 RESEARCH METHOD

3.1 Research methods

The research methods of this paper include literature research method, comparative analysis method, empirical research method, induction summarization method and so on. The literature research method is the theoretical basis of this paper. The comparative analysis method is used to describe and analyze the status quo. The empirical analysis method is the main research method of this paper. Through the empirical analysis method, various financial indicators are selected as the research variables and the empirical model is used. The results of this study lead to the conclusion of the regression. At the end of the article, we use the inductive summary method to analyze the existing problems and make recommendations (Yu, 2003).

3.2 Research content framework

In order to scientifically and reasonably study the relationship between Hainan Airlines’s debt financing and corporate performance, and achieve the purpose of research, this article refers to the research ideas of scholars on related issues, and combines the writing characteristics of case studies to divide this article into five parts:

After the onset of the crisis, the IMF provided bail-out funds subject to reforms and improvement of macroeconomic indicators. The sweeping reforms included the restructuring of chaebols and corporate governance; reforms in bankruptcy procedures and firm exit procedures; protection of minority shareholders’ rights and the role of outside directors; changes in the governance structure of corporate bond markets ; and reforms to the banking sector.

In the second part, the concepts and theories related to debt financing and corporate

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In the second part, the concepts and theories related to debt financing and corporate

performance. This chapter first introduced the concept of debt financing and corporate performance and related financial indicators, and then introduced the theory of corporate debt financing and corporate performance. This chapter is an introductory chapter on concepts and theories, laying the foundation for subsequent research.

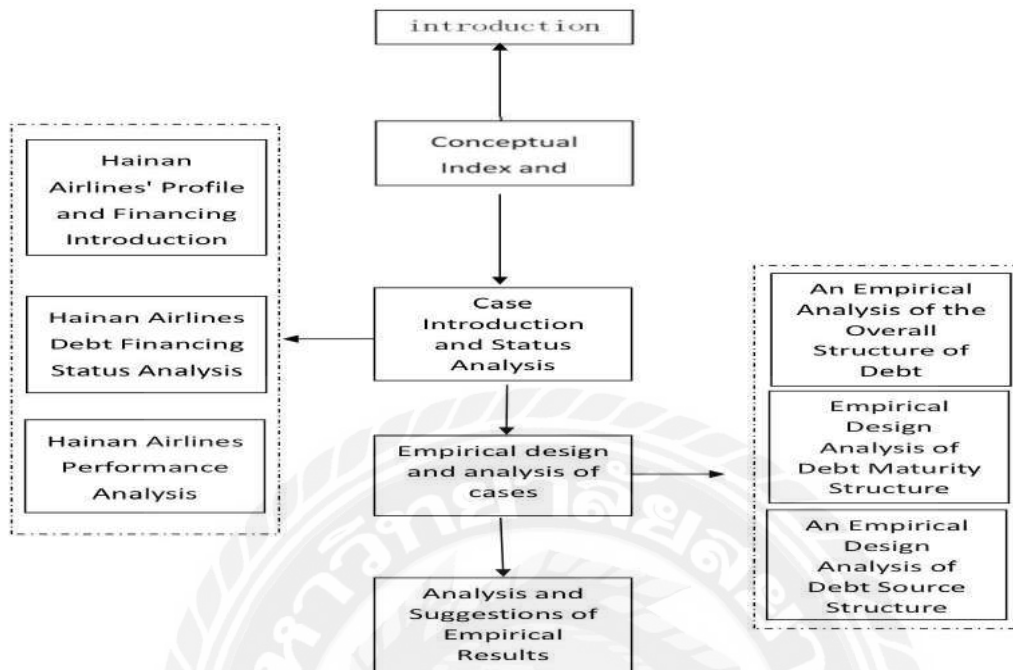
The third part is Hainan Airlines' profile and status quo analysis. This chapter briefly introduces the company's situation in Hainan Airlines, and then introduces Hainan Airlines' shareholding system development process and specific debt financing events. Finally, it analyzes the status of debt financing and corporate performance. This chapter is an introduction and preliminary analysis of the case.

In the fourth part, the empirical analysis of the relationship between Hainan Airlines debt financing and corporate performance. This chapter firstly selects and counts the variables required for research, and designs three regression models to study the relationship between Hainan Airlines' overall debt structure and corporate performance, debt maturity structure and corporate performance, and debt source structure and corporate performance. This chapter is an important part of the case study

The fifth part analyzes and proposes empirical results. This chapter analyses the probable causes of Hainan Airlines' debt financing problem through a combination of theory and practice, and finally puts forward proposals for improving the current status of debt and improving company performance. This chapter is the analysis and recommendation section of the empirical results.

The brief structure of this paper is presented in the form of a frame diagram, as shown below:

Figure 1: Structure of this article



3.3 Essay deficiencies

Due to the limited research level of individuals and the hurriedness of time, inevitably there are deficiencies in the writing of this article. After careful reflection, they are summarized as follows:

1. In the analysis of Hainan Airlines's debt financing and performance status, due to the limited ability of individuals to collect data and information, and the limited space of the article, this article only selected the financial indicators of Air China, China Southern Airlines, China Eastern Airlines and Hainan Airlines for comparison. In order to explain the status quo, it will inevitably lead to persuasive power.

2. In the empirical analysis, there are few data, Hainan Airlines was listed in 1999, and the 2015 annual report has not yet been announced. Therefore, the data from 1999 to 2014 can only be taken as a sample, plus this article only uses Hainan Airlines. The company is the object of study, which results in a low degree of fit to the regression results and has a certain influence on the accuracy of the research.

3. In the selection of the dependent variable, only the return on net assets is used to represent the performance of the company. There is no use of factor analysis to synthesize

multiple indicators that express performance into one comprehensive indicator. Therefore, the accuracy of the research results may be affected. The degree of influence.

CHAPTER 4 RESULTS AND ANALYSIS

4.1 Hainan Airlines' profile and status quo analysis

4.1.1 Profile of Hainan Airlines

Hainan Airlines is fully known as Hainan Airlines Co., Ltd., established in January 1993 and headquartered in Haikou, Hainan Province. After 20 years of rapid development, Hainan Airlines has become one of the four largest airlines in China (after China Southern Airlines, Eastern Airlines, and Air China) and is now the world's top 500 HNA Group's core pillar companies.

According to the 2014 annual report of Hainan Airlines, the company's total assets were RMB 121.9 billion, total operating revenue was RMB 36.043 billion, and the aviation industry was the company's main business. The revenue was RMB 32.415 billion, accounting for 90% of the total revenue. Among the main business, airline passenger transportation is the main business, with revenue of RMB 31.46 billion; and cargo and postal service and excess baggage revenue is RMB 894 million. Hainan Airlines' net profit attributable to shareholders in 2014 was 2.591 billion yuan.

Hainan Airlines has a young and luxurious fleet, mainly Boeing 737, 787 series and Airbus 330 series, of which Boeing 737 passenger aircraft as the main model. As of June 30, 2015, Hainan Airlines operated 182 aircraft, including passenger transportation and freight services. Hainan Airlines has established operating bases in various airports throughout the country. The routes have spread all over the country, covering Asia, and on this basis, radiate the world's continents. At present, Hainan Airlines has nearly 500 domestic and international air routes and nearly 90 navigable cities.

Since its inception, Hainan Airlines has won praise from all walks of life with its excellent safety record and excellent service quality. It has won many honors: In 2014, it won the 2014 World Tourism Awards (WTA) "2014 Asia's Best Business Class". Awards, and won the "World's Best Business Class 2014" award in December; Hainan Airlines has been shortlisted for five consecutive years since 2011 by BRANDZ Top 100 Most

multiple indicators that express performance into one comprehensive indicator. Therefore, the accuracy of the research results may be affected. The degree of influence.

CHAPTER 4

RESULTS AND ANALYSIS

4.1 Hainan Airlines' profile and status quo analysis

4.1.1 Profile of Hainan Airlines

Hainan Airlines is fully known as Hainan Airlines Co., Ltd., established in January 1993 and headquartered in Haikou, Hainan Province. After 20 years of rapid development, Hainan Airlines has become one of the four largest airlines in China (after China Southern Airlines, Eastern Airlines, and Air China) and is now the world's top 500 HNA Group's core pillar companies.

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Valuable Chinese Brands; Since 2011, Hainan Airlines has been awarded SKYTRAX five times in a row. One of the world's seven five-star airlines, which has become the only airline in Greater China to win this honor; at the same time, it has won SKYTRAX's "Best Airline in China" and "Best Employee Service in China" five times in a row. Item awards.

4.1.2 Introduction to Hainan Airlines's shareholding process

Hainan Airlines was established in January 1993. In October of the same year, Hainan Airlines initiated the establishment of a joint-stock company by Hainan Provincial Airlines, China Everbright International Trust and Investment Corporation, and Bank of Communications Hainan Branch. At the time of its establishment, the total number of shares was 250,100 thousand shares, the total share capital was 250 million yuan, and 250 million yuan was raised. After the establishment of the joint-stock company, Hainan Airlines carried out several joint-stock restructurings, private placements, and dividends for its own development:

Table 2: Hainan Airlines' shareholding process

TIME	EVENT
March 1994	Dividends were distributed to shareholders, and 50020 thousand shares were distributed. After the bonus shares were delivered, Hainan Airlines accumulated a total of 300,120 thousand shares.
November 1995	After the sale of 100,040 shares of foreign shares to American Aviation LDC, the total number of shares of Hainan Airlines was 400,160,000 shares. The proceeds from the sale were 207.9 million yuan.
June 1997	Issued 71,000 domestically-listed foreign shares, and the total number of shares issued by Hainan Airlines was 471,160,000 after the issuance. The foreign shares issued this time raised 0.317 billion yuan.
October 1999	The A shares were publicly issued to the society for the first time on the Shanghai Stock Exchange. A total of 20,500,000 shares were issued this time. After the public offering of A shares, the total number of shares of Hainan Airlines was 676,160,000. The public offering raised funds of RMB 921.5 million.
May 2000	Distribution bonus shares were distributed to all shareholders, totaling 54093 thousand shares, and accumulatively totaling 730,253 thousand shares.

June 2006	A total of 2800000 thousand shares were issued, of which 1650000 thousand shares were issued to Daxinhua Airlines. After the issuance of Hainan Airlines, the cumulative total number of shares was 3,530,253, and the private placement raised 5.6 billion yuan.
December 2006	HNA Group injected 8917 thousand shares of Hainan Airlines into Daxinhua Airlines, and Hainan Qixing injected 4370 thousand shares into Daxinhua Airlines. After the share adjustment, Daxinhua and American Aviation LDC shared a 51.6% stake in Hainan Airlines.
February 2010	Hainan Airlines issued 297,619 thousand A shares to Hainan Development Holdings Co., Ltd. and Hainan Airlines. Hainan Airlines accumulated a total of 4,125,491 thousand shares, and the private placement raised nearly 3 billion yuan.
August 2012	Hainan Airlines issued 1,965,600 thousand A-shares in private. At this time, Hainan Airlines accumulated a total of 60,910,091 shares. This non-public offering raised nearly 8 billion yuan.
June 2013	Hainan Airlines increased its capital reserve by 10 shares for every 10 shares, and after adding 6,091,091 shares, the company had 12,182,182 shares in total.

From the above table, it can be seen that since the establishment of Hainan Airlines, Hainan Airlines has conducted several equity capital operations such as private placement, equity transfer, and dividend distribution. Through a series of joint-stock operations, Hainan Airlines has optimized its capital structure and expanded its approach to equity financing. It has become the only domestic airline that can be listed on the A-share and B-share markets at the same time. By financing the stock market, Hainan Airlines can, to a certain extent, reduce the cost of financing and ease the pressure on cash flow, thereby improving the company's operating efficiency.

4.1.3 Introduction to Hainan Airlines debt financing event

Based on the characteristics of the airline industry, the capital requirements of airlines for the purchase of aircraft, financial leasing, and airport maintenance are very large, and the high-speed development of Hainan Airlines has increased the demand for funds. Therefore, Hainan Airlines's demand for funds cannot be met only through equity financing. In order to meet its huge capital requirements for aircraft purchase, airport maintenance, aircraft leasing, and enterprise expansion, Hainan Airlines' financing source is mainly debt financing, which has formed a high level. The capital structure of the debt

ratio. Hainan Airlines's debt financing sources mainly include bank borrowings, commercial credit (because commercial credit financing incidents are relatively trivial, and are not described below), issuance of bonds, and financing leases.

4.1.3.1 Bank borrowing events

Hainan Airlines established a cooperative relationship with the bank from the very beginning of its establishment and obtained strong support from the bank. The source of Boeing aircraft purchase funds at the time of establishment was bank borrowing. After the establishment of Hainan Airlines, Hainan Airlines obtained rapid and good development. Its main business income has increased year by year, and it has been recognized by the society. Hainan Airlines has signed agreements with major banks and obtained a large amount of bank loan facilities and payment. Moreover, Hainan Airlines has also established cooperative relations with foreign banks, and has also obtained financial support from foreign banks. For example, the JPMorgan Chase Bank of the United States has provided loans for Hainan Airlines several times.

This article collated some Hainan Airlines bank loan events, as follows:

Table 3: Hainan Airlines bank borrowing event

TIME	Event (bank loan)
1993	Hainan Airlines Obtains 79.3 Million U.S. Dollars and 155 million U.S. People's Borrowings from Bank of China to Purchase Boeing 737 Aircraft
1998	Bank of China awarded Hainan Airlines with credit line of RMB 6.5 billion, which has provided Hainan Airlines with convenience for borrowing from Chinese banks in the future
2000	Hainan Airlines and the Bank of China signed the "Bank-Enterprise Cooperation Agreement." According to the agreement, the Bank of China provided Hainan Airlines with an intentional loan of 8 billion yuan.
2000	Hainan Airlines borrowed 1.1 billion yuan from Agricultural Bank of China to purchase 10 Dornier aircraft with this fund
2000	Hainan Airlines borrowed US\$80 million from JPMorgan Chase Bank of the United States at a preferential LIBOR interest rate of 0.125 and 0.1 and used the funds to purchase two Boeing 737-800 aircraft.
October 2001	Hainan Airlines and JPMorgan Chase of the United States worked together to raise \$250 million from JPMorgan Chase Bank and used the loan to purchase five Boeing 737-800 aircraft.

May 2002	Hainan Airlines obtained a loan of 28 million U.S. dollars from the Spanish bank and 16 million U.S. dollars from the Industrial and Commercial Bank of China, for a total of 4,400 U.S. dollars. Hainan Airlines used this loan to introduce a plane simulator project to Spain.
September 2006	Hainan Airlines borrowed US\$496 million from Shenzhen Branch of China Exim Bank to purchase 10 Boeing 737-800 aircraft with the funds
October 2009	Hainan Airlines borrowed RMB 1 billion from the Agricultural Bank of China, Shunyi Branch of Beijing, in the form of a loan from an operating property to meet the cash needs of the company's daily operations.

4.1.3.2 Issuing bond events

Hainan Airlines has fully utilized the capital market for its debt financing. While obtaining funds from banks, it also obtains funds through the bond market. Hainan Airlines actively cooperates with international financial institutions and hires Pricewaterhouse Coopers to perform financial audits for them. It has also obtained the B+ credit rating from American Standard & Poor's. As a result, Hainan Airlines has obtained the trust of foreign financial institutions and first issued companies in the United States. Bonds. With the rapid development of China's capital market, Hainan Airlines has issued short-term financing bonds, corporate bonds, etc., with the approval of the China Securities Regulatory Commission.

This article collates some of the incidents of Hainan Airlines's issuance of bonds, as follows:

Table 4: Hainan Airlines issued bonds

TIME	Event (issuance of bonds)
1998	Hainan Airlines has issued corporate bonds in the United States in cooperation with the Bank of China's New York Branch and the US JPMorgan Chase Bank through cooperation with banks. The issuance of bonds has raised US\$350 million in interest and the interest rate is only 3% to 4%.
May 2006	Hainan Airlines issues short-term financing bonds (phase 1) with a nominal price of 96.73 yuan per share for a term of one year and a total issued bond of 560 million yuan.
November 2007	Hainan Airlines issued short-term financing bonds (second period), totaling 1.3 billion yuan, with a coupon rate of 6.4%

July 2008	The audit committee of the China Securities Regulatory Commission approved the approval of Hainan Airlines to issue corporate bonds. The total amount of bonds issued this time is no more than 2.7 billion yuan, the duration of the five-year period, and the coupon rate is a fixed interest rate.
December 2008	In July of the same year, Hainan Airlines issued a corporate bond entitled "08 HNA Bonds" in July of the same year. The amount of this issuance is 1.5 billion yuan and the term is 6 years. It is paid at a fixed interest rate.
December 2009	Hainan Airlines issued a corporate bond named "HNA Airlines Bond". The amount of bonds issued this time was RMB 1.3 billion and the term was 10 years. Interest was paid at a fixed interest rate.
May 2011	With the approval of the China Securities Regulatory Commission, Hainan Airlines issued a large amount of corporate bonds worth 5 billion yuan. The term of the bonds is divided into 5 years and 10 years, and interest is paid at a fixed interest rate.
April 2014	Hainan Airlines issues short-term financing bills with an amount of 400 million yuan and a term of one year, paying interest at a fixed interest rate

4.1.3.3 Financial leasing event

The proportion of fixed assets in the airline's asset structure is high, and the aircraft occupies a large amount of capital from the airlines. Along with the constant development of the finance and leasing industry, Hainan Airlines actively cooperates with the finance leasing companies. In China, Hainan Airlines first participated in the aircraft and engine leasing business. Hainan Airlines eased the pressure on cash flow by selling aircraft to financial leasing companies.

This article collates some of Hainan Airlines's financing lease events, as follows:

Table 5: Hainan Airlines |financial leasing event

TIME	Event (finance lease)
December 2006	Hainan Airlines signed a financing lease agreement with Tianjin Changjiang Leasing Co., Ltd. Hainan Airlines sold four Boeing B737-800 aircraft to Changjiang Leasing for a total amount of US\$220 million, which was leased back at US\$770,000 per month for a six-year lease period.
July 2007	Hainan Airlines and Anji Leasing Co., Ltd. signed a financing leasing agreement to sell aircraft engines to Anji Leasing Co., Ltd. for 177 million yuan. The rent is 7.68% of the contract amount, and the quarterly calculation period is 3 years.
May 2008	Hainan Airlines sold two A319 aircraft and two CFM56 engines to Tianjin Changjiang Leasing Co., Ltd. The aircraft was US\$80 million and the engine was RMB 140 million. After the sale, the aircraft and the engine were leased back.
January 2013	Hainan Airlines signed a financing lease agreement with Shenzhen Financial Leasing Co., Ltd. Hainan Airlines sold a B767-300ER aircraft to Shenzhen Financial Leasing with a price of RMB 700 million and a lease period of 10 years.
September 2014	Hainan Airlines signed a leasing agreement with Tianjin Changjiang Leasing Co., Ltd. The target assets are 12 Boeing B737-800s with a total amount of not more than RMB 1 billion. Interest is calculated at floating rates, and the lease period is 12 years.

4.1.4 Status analysis of Hainan Airlines debt financing

Through the above introduction to Hainan Airlines in all aspects, we have a certain understanding of the financing profile of Hainan Airlines, and we now conduct a detailed analysis of the current status of debt financing.

4.1.4.1 Status analysis of Hainan Airlines' overall debt structure

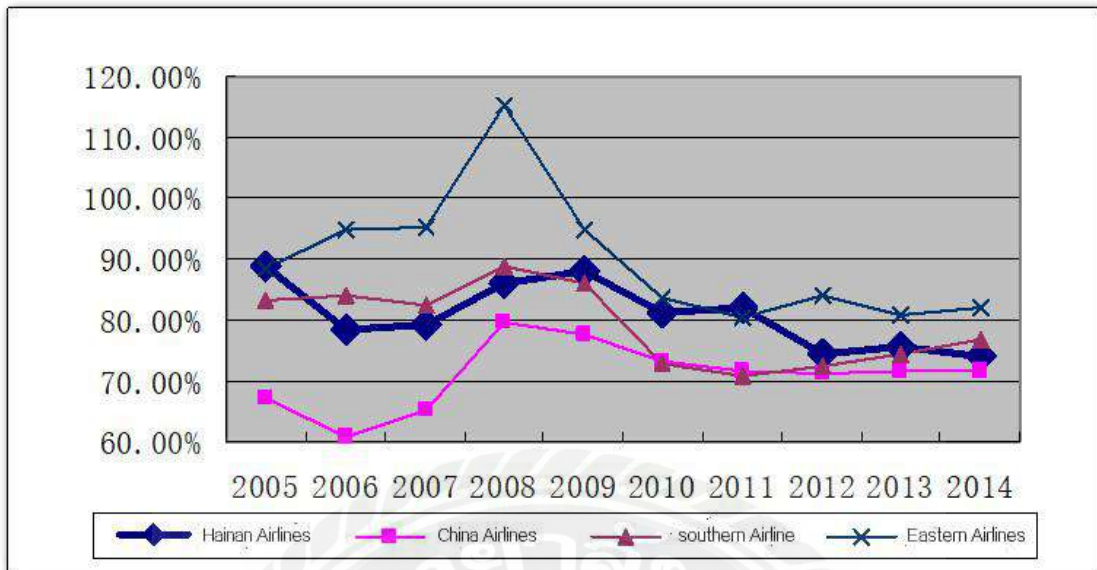
Through the introduction of Hainan Airlines's financing sources through the case, we can know that the financing source of Hainan Airlines is debt financing. The overall debt situation of Hainan Airlines in the past ten years is as follows:

Table 6: Overall structure of Hainan Airlines debt

Years	Total debt period (million)	Total total assets at the end of the period (million)	Assets and liabilities
2005	2722734	3069098	88.71%
2006	2796557	3574742	78.23%
2007	3150942	3983995	79.09%
2008	4164498	4831370	86.20%
2009	5215775	5934343	87.89%
2010	5811345	7155280	81.22%
2011	6672548	8129665	82.08%
2012	6880992	9271914	74.21%
2013	8500529	11261709	75.48%
2014	9025730	12198204	73.99%

From the above table, it can be seen that with the development of the company, Hainan Airlines has increased its total liabilities year by year. In 2005, the total liabilities were 27.227 billion yuan. By 2014, the total liabilities had reached 90.225 billion yuan, and the average growth rate was about 25%. Hainan Airlines' annual asset-liability ratio is above 70%. In 2005, the asset-liability ratio reached 88.71%. Overall, Hainan Airlines's asset-liability ratio has a declining trend. Compared with the debt ratio of 88.7% in 2005, its debt ratio has dropped to 73.99% in 2014. This shows that Hainan Airlines has a certain degree of asset structure. Optimized to control the asset-liability ratio, Hainan Airlines' asset-liability ratio is higher than other industries. Aviation has a large capital requirement due to its own industry characteristics. Throughout China's aviation industry, the asset-liability ratio is high. Through the following four-year airline asset-liability ratio chart of China's four major airlines, we can intuitively understand Hainan Airlines and Comparison of other three major airlines:

Figure 2: Comparison of negative assets of the four major airlines



From the above figure, we can see that the overall debt level of China’s four major aviation companies is relatively high, and the asset-liability ratio is basically above 70%. Hainan Airlines' asset-liability ratio was higher than other airlines in 2005. Hainan Airlines' asset-liability ratio was lower than Eastern Airlines and Southern Airlines from 2006 to 2008. Hainan Airlines' asset-liability ratio was second only to Eastern Airlines since 2009. Look, compared with the other three major airlines, Hainan Airlines's asset-liability ratio is in the upper middle level. In addition, it can be seen from the line chart that the asset-liability ratios of the four major airlines have a certain correlation, and the trend of change is basically the same, especially in the outbreak of the financial crisis in 2008, leading to the asset-liability ratio of major airlines at a high point. It shows that the debt ratio is related to industry characteristics and macroeconomic trends. Therefore, Hainan Airlines' high debt ratio has a certain correlation with industry characteristics and macroeconomic factors.

4.1.4.2 Status analysis of Hainan Airlines' debt maturity structure

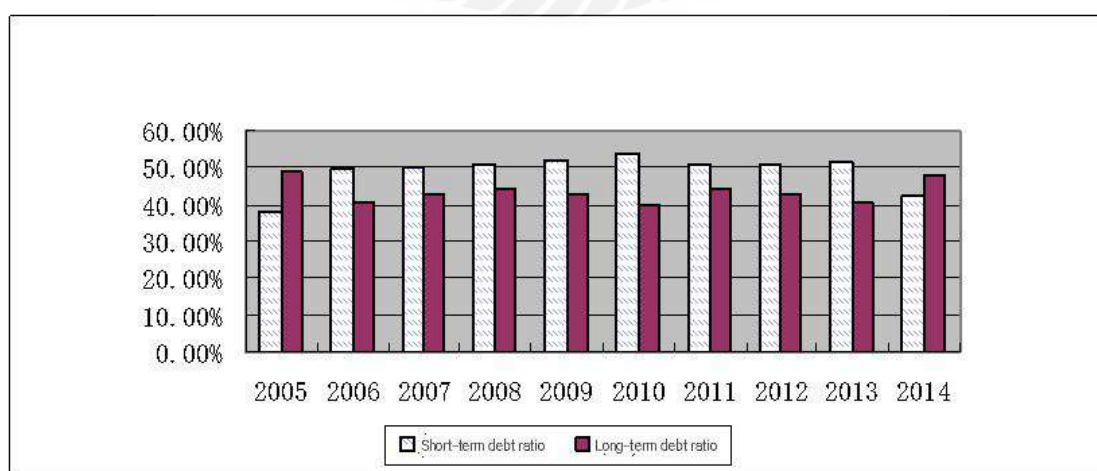
Analyze Hainan Airlines's debt from the debt maturity structure, and divide Hainan Airlines' liabilities into short-term liabilities and long-term liabilities. The following table shows the short-term liabilities and long-term liabilities of Hainan Airlines in the past ten years:

Table 7: Hainan Airlines' liability structure

Years	Total amount of short-term liabilities at the end of the period (million)	Total long-term liabilities at the end of the period (million)	Short-term debt ratio	Long-term debt ratio
2005	1028717	1332624	33.52%	43.42%
2006	1384712	1126588	38.74%	31.52%
2007	1578961	1354053	39.63%	33.99%
2008	2109567	1825071	43.66%	37.78%
2009	2721771	2238545	45.86%	37.72%
2010	3134048	2322309	43.80%	32.46%
2011	3378310	2938160	41.56%	36.14%
2012	3512974	2959977	37.89%	31.92%
2013	4358864	3438762	38.71%	30.53%
2014	3825899	4290889	31.36%	35.18%

As can be seen from the above table, with the exception of individual years, the total short-term liabilities of Hainan Airlines increased year by year, from 10.287 billion yuan in 2005 to 43.588 billion yuan in 2013, and decreased to 38.258 billion yuan in 2014; long-term liabilities in addition to 2006 and Beyond 2010, it has increased year by year, from 13.326 billion in 2005 to 42.908 billion in 2014. From the perspective of debt ratio, the overall short-term debt ratio is about 40%, while the long-term debt ratio is about 30%. The following chart shows the relationship between the short-term debt ratio and the long-term debt ratio:

Figure 3: Hainan Airlines' long-term debt ratio and short-term debt ratio



The effectiveness of the M-mode governance system has yet to be proven, for the following reasons. First, a large proportion of the affiliates of chaebols are still unlisted. The average listed ratio of the top forty-one business groups' affiliates is approximately 50% as of April 2006 (Fair Trade Commission, 2006).¹⁶ This ratio ranged from 32.93% (Lotte) to 92.5% (Hanjin Heavy Industry). The publicly stated ratios of the top business groups (apart from Hyundai's 92.4%) are also relatively low: Samsung (41.1%), LG (84.6%), Hyundai Motor Vehicles (70.0%) and SK (53.1%).

4.1.4.3 Status analysis of Hainan Airlines' debt origin structure

Hainan Airlines makes full use of its own conditions and capital markets to finance its debt according to its own industry characteristics. The main sources of its debt are bank loans, commercial credit, issuance of bonds, and financial leasing. In corporate finances, financial leases are reflected in long-term payables, and therefore long-term payables are used to represent financial leases. Hainan Airlines's main debt sources in the past ten years are as follows:

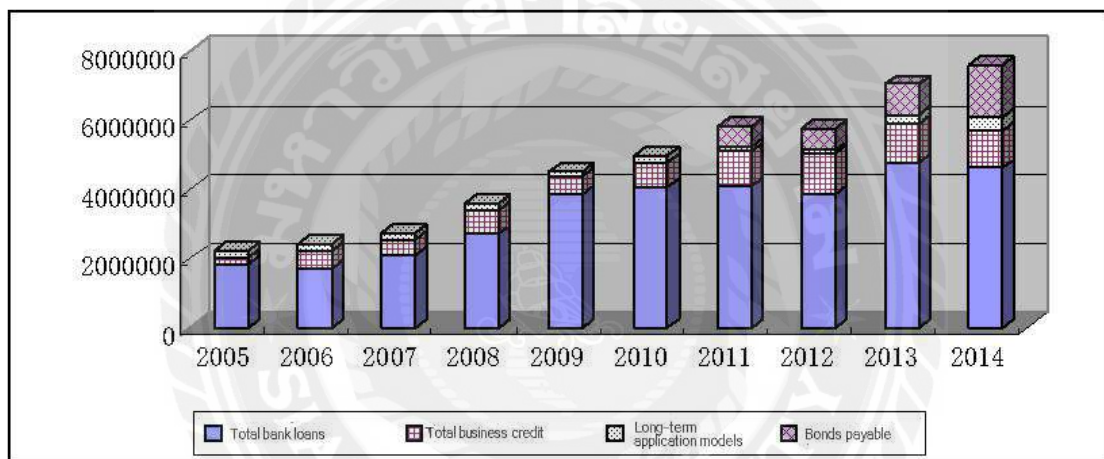
Table 8: Debt source structure of Hainan Airlines

Years	Ending bank borrowings (million)	End of period commercial credit (million)	Long-term payables at the end of the period (million)	Bonds payable at the end of the period (million)
2005	1818063	237824.6	176687.3	
2006	1722460	488831.3	197213.5	
2007	2100607	460290.3	184456.2	
2008	2727102	692058.2	188083.2	
2009	3855098	527887.8	150158.1	
2010	4092714	718736.8	168527	
2011	4099659	994927.6	141254.8	591830.9
2012	3896205	1130788	119506	643006.3
2013	4762832	1145848	265623.6	863795.5
2014	4619031	1085826	384420.7	1524400

As can be seen from the above table, except for 2006 and 2014, bank loans have shown an upward trend, rising from 18.18 billion yuan in 2005 to 47.628 billion yuan in 2013. In 2014, they have dropped to 46.19 billion yuan. In addition to the business

growth and commercial credit, the business credit has been increasing year by year, from 2.278 billion yuan in 2005 to 11.458 billion yuan in 2013, and it has decreased to 10.858 billion yuan in 2014. Long-term payables are based on the needs of daily operations. Increases or decreases the number of rules, from 2005 to 2012, it fluctuates from 1 billion yuan to 2 billion yuan. Since 2013, it has grown rapidly. In 2013, it was 2.656 billion yuan, and in 2014 it was 3.844 billion yuan; according to Hainan Airlines' assets and liabilities In the table, there was no balance of bonds payable from 2005 to 2010. In 2011, there were RMB 5.918 billion bonds due, which then increased year by year. In 2014, it reached 15.244 billion yuan. Hainan Airlines now compares its annual debt sources as follows:

Figure 4: Comparison of the source structure of Hainan Airlines's debt



As can be seen from the above chart, among Hainan Airlines's main debt sources, bank loans have the largest share, which is much higher than the sum of the other three sources. Hainan Airlines has cooperated with banks at home and abroad since Some banks have signed the "bank-enterprise cooperation agreement," and the bank has provided more single funds. Bank loans are the preferred source of Hainan Airlines's debt, but bank borrowings have to pay a certain amount of interest charges, which increases the company's operating costs. Bank loans may affect the company's daily operations, and may appropriately reduce the proportion of bank borrowings; commercial credits are only listed after bank borrowings; commercial credits enable companies to obtain capital flows without burdening them with excessive capital costs. This kind of ideal financing method, Hainan Airlines can properly increase the amount of commercial credit financing, but the commercial credit is determined by the upstream and downstream enterprises and the macroeconomic, the company lacks the initiative of financing rights, can not be determined according to the company's funding needs to determine the financing scale;

Since the beginning of 2011, Hainan Airlines's bonds payable have accounted for a large proportion of total liabilities. Interest expenses are equivalent to bank borrowings, and they also have to bear high issuance costs. From the perspective of cost alone, it is not appropriate to issue bonds excessively. However, the share of Hainan Airlines's issuance bonds is within a reasonable range, and there will be no excessive cost burden. The share of long-term payables is small, and long-term payables are mainly finance leases. The huge capital needs of airline fixed assets are usually financed by financing leases. The capital cost of financing is negotiated by Hainan Airlines and the finance leasing company. The cost is relatively moderate compared to other financing methods, and its financing share can be appropriately expanded.

4.1.5 Analysis of the performance of Hainan Airlines

For the analysis of corporate performance, there are many indicators for measuring performance. Here, a representative representative of the ability to create value for shareholders and profitability is selected to analyze the performance of Hainan Airlines.

4.1.5.1 Analysis of Hainan Airlines' ability to create value for shareholders

The purpose of the company's business is to maximize the shareholders' equity. The size of a company's creation of value for shareholders can more fully describe the level of corporate performance. The core index for evaluating the company's value creation for shareholders is the return on net assets. Therefore, the company's performance can be evaluated by the ROE. Hainan Airlines's ROE is as follows:

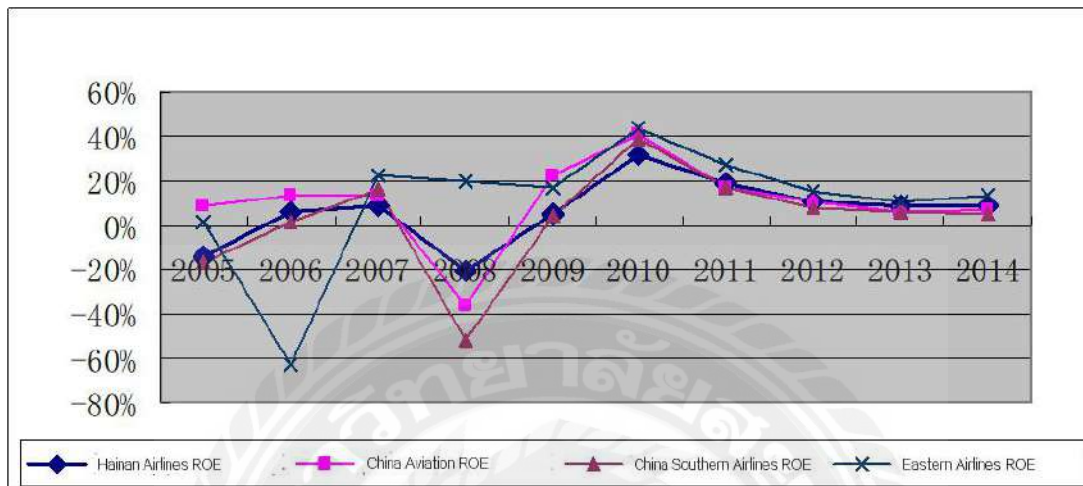
Table 9: Hainan Airlines' ROE

Years	Roe (%)	Years	Roe (%)
2005	-14	2010	32
2006	6	2011	19
2007	8.88	2012	11
2008	-20.78	2013	9
2009	5.27	2014	9

From the above table, it can be seen that Hainan Airlines's volatility in net asset returns is relatively large, with the lowest being -20.78% in 2008, and the highest being 32% in 2010. There is no regularity in the trend between 2005 and 2009. Since 2010, the return on net assets has been declining from 32% in 2010 to 9% in 2013 and 2014. Only from a numerical point of view, the company's performance is measured by ROE in recent years. Showing a downward trend. However, the return on net assets is quite different among different industries. It is impossible to judge the performance of Hainan

Airlines from a single point of view. Therefore, Hainan Airlines's return on net assets should be analyzed by comparison with other airlines. Hainan Airlines and the three major airlines' net assets rate of return are compared as follows:

Figure 5: Comparison of ROE of the big four airlines



As can be seen from the above chart, Hainan Airlines's return on net assets is consistent with that of the other three airlines. In the years of economic downturn, such as the negative impact of the financial crisis in 2008, Hainan Airlines and China Airlines and Southern Airlines The return on net assets was negative. In 2010, Hainan Airlines, like the other three airlines, had a high return on net assets and a convergence in other years. This shows that Hainan Airlines' net return on assets is in line with industry characteristics, and consistent with the trend of the macro economy. Compared with the other three airlines, Hainan Airlines's ROE is at a medium level in most years, and it is still at an upper level in individual years. It can be seen that Hainan Airlines has a stronger ability to create value for shareholders, if only from Shareholders' interests have come to measure the performance of Hainan Airlines. The company's performance level is relatively high.

4.1.5.2 Analysis of profitability of Hainan Airlines

The ability of company managers to earn profits through daily operations is the company's profitability, and companies with strong profitability will be in a dominant position in the market competition. Therefore, the company's profitability is an important reference for a company's performance level. The evaluation of the company's profitability indicators are numerous, more commonly used are total operating profit and operating profit margins. Here, the total operating profit and operating profit rate of Hainan Airlines are selected for analysis. First of all, for the total operating profit, Hainan Airlines will compare the total operating profit of Hainan Airlines with other three major

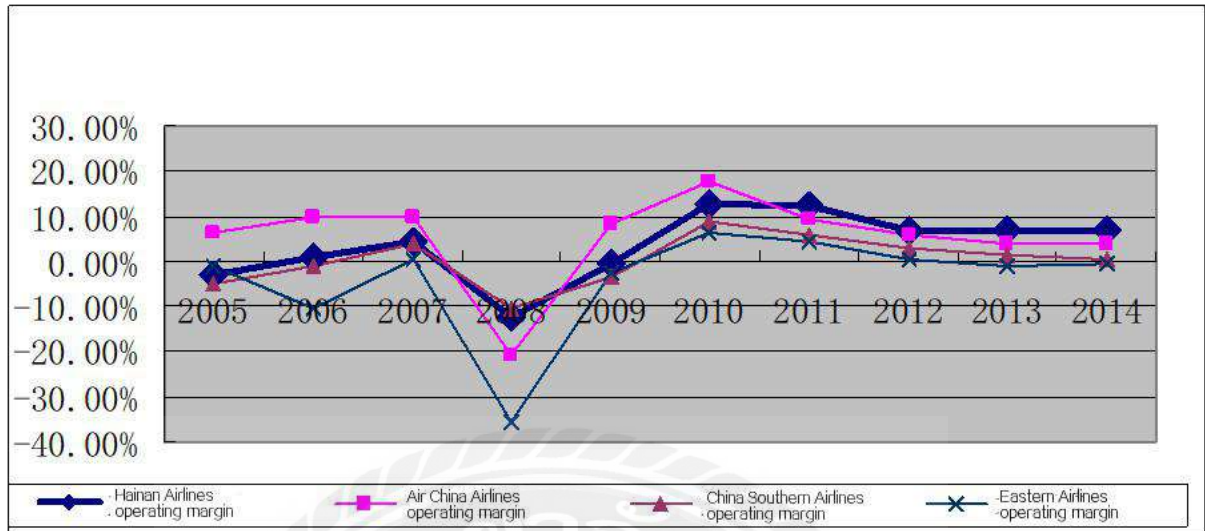
airlines for the past ten years, as shown in the following table:

Table 10: Business profit of big four airlines

Years	Hainan Airlines operating profit Total (million)	China Aviation Operating Profit Total (million)	China Airlines operating profit Total (million)	China Eastern's operating profit Total (million)
2005	-28539.1	246082.7	-189000	-29965.5
2006	10631.1	424395.5	-44600	-390439
2007	55946.7	483500.3	209400	7710.2
2008	-167105	-1107117	-590800	-1484633
2009	-6554	421321.9	-184900	-94979
2010	280237.5	1426432	686900	488220.7
2011	319219.1	915018.4	554600	359768.5
2012	199190.2	565699.9	278500	55028.4
2013	228918.9	395929.8	141500	-105600
2014	249865.1	391729.5	40500	-40000

From the above table, it can be seen that Hainan Airlines' operating profit is significantly lower than the other three airlines in the year when the profit is positive. In the year of operating loss, the amount of loss is also less than other airlines. This is due to the Hainan Airlines company. Less than the other three airlines, their operating income is far smaller than the other three airlines. In addition, it can be seen that, in absolute terms, Hainan Airlines's profit gap in recent years has been narrowed with the other three airlines, which can, to some extent, assume that Hainan Airlines' performance level has improved. However, due to the large gap between the size of Hainan Airlines's company and the other three airlines, it is unreasonable to evaluate the performance of Hainan Airlines only from the absolute value of total operating profits. The operating profit rate is a relative value. Taking into account the difference in the company's total operating income, it is more reasonable and scientific to use the operating profit margin to measure Hainan Airlines's performance. We compare Hainan Airlines's operating profit margins with the three major airlines for the past ten years as follows:

Figure 6: Comparison of operating profit margins of the four major airlines



Second, there is a huge disparity between a chairman's (and family) levels of ownership and managerial control (share of voting rights). This is because of the existence of interlocking shareholdings among affiliates. The disparity in the top fortyone chaebols (which are subject to restrictions on mutual interlocking shareholdings) in April 2006 was 30.6% and the ratio of voting rights to ownership was 6.71:1. These figures showed little change from the previous year. This system of interlocking shareholdings is an effective bar to M&As. Given such circulatory interlocking shareholdings among affiliates, the threat of M&As can worsen corporate governance rather than improving it. The chairperson of a group can strengthen his managerial control by raising circulatory interlocking shareholdings to defend themselves from threat even when corporate performance is poor. (1999) examined twenty-seven developed economies and found evidence of 'tunnelling' whereby controlling shareholders exploited their power at the expense of other shareholders if managerial power exceeded ownership through an interlocking/pyramid ownership structure (Zhang, 2014).

4.2 Empirical analysis of Hainan Airlines' debt financing and corporate performance

4.2.1 Sample selection and data sources

4.2.1.1 Selection of samples

Hainan Airlines was listed on the Shanghai Stock Exchange in 1999. 1999 was selected as the starting year for the sample. Hainan Airlines' financial statements for 2015 have not yet been announced. The selected sample will be available until 2014. Therefore,

Hainan Airlines was selected from 1999 to 2014. The 16 years of financial data are research samples.

4.2.1.2 Sources of data

Data analysis refers to the application of statistical techniques in seeking answers to research questions through evaluation and subsequent interpretation of collected data. The sample data used in this study comes from the listed company data disclosed by CSMAR Guotai Security data service center and the company annual report disclosed by Hainan Airlines official website . data. The use of OFFICE2007's EXCEL software to collate the data and calculate the ratio, and software STATA13 for quantitative analysis.

4.2.2 Selection of variables

4.2.2.1 Selection of performance variables

In the study of corporate performance, there are many variables to measure performance, such as return on net assets, return on total assets, profit rate on main business, earnings per share, and Q value on towing. In conducting empirical research, many scholars have different choices for corporate performance variables: Some scholars select multiple indicators, and use factor analysis to construct multiple variables into a comprehensive indicator to represent corporate performance, such as scholar. The return on equity, return on total assets, operating gross profit, and earnings per share are factored into a single indicator to represent company performance; In the absence of the residuals not having second order serial correlation, the difference-GMM uses the lagged exogenous variables' values as 24 legitimate instruments for the first-differenced lagged dependent variable . The return on net assets represents the interests of shareholders. The maximization of shareholder profits is the goal of the company's operations, and the return on net assets can provide a more comprehensive measure of the company's performance. Based on the research actuality of this article and my research level, after comprehensive consideration, this article selects the return rate of net assets as a single variable of company performance.

4.2.2.2 Selection of independent variables in debt overall structure

The overall structure of the debt is how high the overall debt level of the entire company is, and how much the debt occupies the entire company's assets. The debt-to-asset ratio represents the company's overall debt structure. Therefore, the debt-to-liability ratio is selected as the overall debt structure. The independent variable.

4.2.2.3 Selection of debt maturity structure independent variables

The debt maturity structure studies how the maturity of each debt is within the company's liabilities. Under normal circumstances, the duration of debt is divided into two categories: short-term liabilities and long-term liabilities. The short-term debt ratio represents the share of short-term liabilities and the long-term debt ratio. It represents the share of long-term liabilities, so the short-term debt ratio and long-term debt ratio are selected as independent variables of the debt maturity structure.

4.2.2.4 Selection of debt source structure independent variables

According to the analysis of Hainan Airlines' current status of debt sources in the previous chapter, Hainan Airlines's debt sources mainly include bank borrowings, commercial credits, issuance of bonds, and financial leasing. Among the liabilities, from the perspective of the share of the shares, a relatively large proportion of bank loans and commercial credits; the proportion of bonds issued to carry out debt financing is relatively small, and according to the Hainan Airlines annual report, bonds that are not due in some years, resulting in The interruption of data affects the results of empirical research. Therefore, the issue of bonds is not selected as a research variable; the share of financial leasing in debt financing is also relatively small, which has little impact. After a comprehensive analysis, the bank's borrowing rate and commercial credit ratio were selected as independent variables of the debt source structure.

4.2.2.5 Selection of control variables

In practice, besides the structure of debt will affect the company's performance, there are other factors that will have a certain impact on the company's performance. Therefore, in the empirical study, these factors should be added as control variables into empirical research. . In the literature on the performance and debt relationship of various research companies, the growth of the company and the size of the company are used as control variables. After reference to various kinds of literature, this paper also regards the growth of the company and the size of the company as variables for research.

4.2.2.5.1 The company's growth

The company's good growth will bring many positive effects to the company, and then improve the company's performance. For example, the company's growth is good, it will improve the company's reputation and social recognition, which can reduce the company's funding difficulty and funding costs, can improve the company's performance. The indicators for measuring the company's growth are total asset growth rate, main business growth rate, net profit growth rate, and earnings per share growth rate. The scope of the total asset growth rate involved is relatively wide. This article selected the

total asset growth rate as the company's growth variable.

4.2.2.5.2 The size of the company

The size of the company will affect the performance of the company. For example, companies like airlines need a large number of fixed assets as the precondition for the company's operations. The cost is very large, and it needs to reach a certain scale in order to form economies of scale and improve the performance of the company. The impact of size on company performance should be taken into consideration. Usually the company's scale indicators include total assets, operating income, and total profits. This article selects a broader range of total assets as a variable for company size.

4.2.2.6 Induction of variables

Through the introduction of the above dependent variables, independent variables, and control variables, various variables are summarized in the following table:

Table 11: Summary of variables

Variable type	Variable name	symbol	Variable interpretation
Dependent variable	Roe	ROE	Net profit at the end of the period/Total shareholders' equity at the end of period
Independent variable	Assets and liabilities	DAR	Total ending debt/total ending assets
	Short-term debt ratio	SD	Total short-term liabilities at the end of the period/total assets at the end of the period
	Long-term debt ratio	LD	Total long-term liabilities at the end of the period/total assets at the end of the period
	Bank loan rate	BD	Total bank borrowings at the end of the period/total assets at the end of the period
	Business credit rate	CD	Total commercial credit/total assets at the end of the period
Control variable	Corporate growth	GROW	Asset growth at the end of period/total assets at the beginning of the period
	Company Size	SIZE	Total assets at the end of the period

4.2.2.7 Descriptive statistics of variables

Through the consolidation of Hainan Airlines' financial data, the descriptive statistics of each variable are as follows:

Table 12: Descriptive statistics of variables

variable	Number of samples	Min	Maximum	Mean	Standard deviation
ROE	16	-50.72%	22.43%	1.59%	16.33%
DAR	16	68.33%	91.56%	81.13%	6.42%
SD	16	13.06%	45.86%	34.06%	8.72%
LD	16	30.53%	49.90%	38.58%	5.78%
BD	16	37.87%	64.96%	53.05%	7.67%
CD	16	0.46%	14.32%	8.22%	4.11%
GROW	16	8.61%	77.56%	25.72%	18.44%
SIZE	16	64.72	1219.82	496.09	354.48

The above table gives an overall description of each statistic. It can be seen that the difference between the minimum and maximum values of each variable is larger, and larger fluctuations make the standard deviation larger. The ROE, DAR, SD, LD, BD, and CD are the variables in Hainan Airlines. The status quo of debt and performance has already been introduced and will not be repeated here. The average growth rate of the company (GROW) is 25.72%. It can be seen that the growth is good, but the standard deviation is large, indicating that the growth of the company fluctuates greatly and the growth is unstable. The company's size (SIZE), which is the company's total assets of a minimum of 6.472 billion yuan is the total assets in 1999, while the maximum value of 121.982 billion yuan is the total assets in 2014, although the growth is not stable, but the size of the company has experienced a leapfrog. In order to be accurate in the regression model, SIZE was logarithmically processed.

4.2.3 Empirical design and analysis of overall debt structure

4.2.3.1 Model assumptions and construction

By referring to relevant literature and theoretical analysis and combining with Hainan Airlines' current high debt ratio, the following hypothesis (H1) is proposed: The overall scale of liabilities of Hainan Airlines is negatively related to corporate performance. On the other hand, the system-GMM uses the differencing as in the difference-GMM plus the lagged exogenous variables' first differences as instruments in an equation of the level-variables. This becomes necessary especially when the information provided by the lagged variables is likely to cause substantial loss of

efficiency in models estimated in first differences using instruments in levels. This paper constructs a multivariate regression model for the overall structure of debt by collecting Hainan Airlines' ROE, DAR, GROU, and SIZE data. :

$$ROE_t = C + \beta_1 DAR_t + \beta_2 GROE_t + \beta_3 SIZE_t + \varepsilon_t$$

C is a constant term, intercept β is the coefficient of each variable, ε is the residual item, The t after each variable is the year to which each variable corresponds.

4.2.3.2 Test of stationarity of variables

In the regression of time-series variables, if the variable has an unstable phenomenon, even if each variable has a high degree of fitness, the effect will be very significant, and an irrational regression result, namely pseudo regression, will be generated, which will affect the accuracy of the research. Therefore, before the regression of the model, the initial data of each variable should be tested for stationarity to prevent spurious regression. The usual methods of stationarity testing are PP inspection and ADF inspection. The stability test method of this paper uses ADF test method. Through the software, the test results of the variability of the overall structure of Hainan Airlines's debt are as follows:

Table 13: Test results of the stationarity of the debt structure

index	Inspection type (c,T,d)	ADF statistics	Significant level (critical value)			In conclusion
			1%	5%	10%	
ROE	(c,0,0)	-3.438**	-3.750	-3.000	-2.630	smooth
DAR	(c,T,0)	-2.037	-4.380	-3.600	-3.240	unstable
D(DAR)	(c,T,0)	-3.681**	-4.380	-3.600	-3.240	smooth
GROW	(c,T,0)	-3.577*	-4.380	-3.600	-3.240	smooth
SIZE	(c,T,0)	-5.938***	-4.380	-3.600	-3.240	smooth

As can be seen from the above table, ROE's ADF statistic is -3.438, which is less than the critical value of -3.000 at the 5% significance level, so ROE is stable; the DAR's ADF statistic is -2.037, which is greater than 10% of the significant level. The critical value, so the DAR is not stable, to use the first-order differential processing, after the first-order differential, D (DAR) ADF statistics -3.681, less than the 5% significant level of the critical value -3.600, Therefore, D(DAR) is stationary, that is, it is first-order single integer; GROW's ADF statistic is -3.577, which is less than the critical value of -3.240 at

the significant level of 10%, so the GROW is stationary; the SIZE ADF statistic is - 5.938, a critical value of less than 1% at a significant level of -4.380, so GROW is stable.

4.2.3.3 Multicollinearity test of independent variables

In the multiple regression model, the independent variables are independent assumptions. It is necessary to assume that each independent variable can not be represented by other variables. If an independent variable can be represented by other independent variables, multiple variables exist between the independent variables. Colinearity. If multiple regression models exist, multi-collinearity will make the model produce inaccurate regression results. Therefore, multi-collinearity test should be performed before multivariate regression. In this paper, Variance inflation factor (VIF) discriminant method was used to perform multicollinearity test. The VIF test results for the respective variables of Hainan Airlines's overall debt structure are as follows:

Table 14: Multicollinearity test results of debt overall structure independent variables

Independent variable	D(DAR)	GROW	SIZE
VIF	1.31	2.01	2.03

In general, the VIF value can be used to determine whether there is multicollinearity in the independent variable. When the VIF value is less than 5, there is a slight multicollinearity between the variables. When the VIF value is between 5 and 10, each There is significant multicollinearity between the variables; when the VIF value is greater than 10, there is a heavy multicollinearity between the respective variables. In the above table, the respective variables of the overall structure of Hainan Airlines's debt, the VIF value is less than 5, the multiple collinearity between the respective variables is weak, and the impact on the results is not significant, and can be entered in the next step regression analysis.

4.2.3.4 Model regression analysis

After the stationarity test and multicollinearity test, the regression results for each variable are as follows:

Table 15: Regression results of the debt overall structure model

variable	C	D(DAR)	GROW	SIZE
Coefficients	-1.705 (-1.356)	-1.484* (-1.830)	0.668 (1.541)	0.103 (1.319)
P value	0.202	0.094	0.152	0.214

According to the regression data in the above table, the P-value of the first-order difference of the asset-liability ratio is 0.094, which is less than 0.1. This shows that the first-order difference in the debt ratio has a significant impact on the ROE. The first-order differential regression coefficient of asset-liability ratio is -1.484 (the change in asset-liability ratio varies by 1 unit, and the ROE changes by -1.484 units), which indicates that the asset-liability ratio is in the opposite direction of net asset income. As for the correlation, the company's ROE will decrease as the debt ratio increases. Therefore, through empirical regression, we can see that the overall scale of liabilities of Hainan Airlines is significantly negatively related to corporate performance, which is consistent with the pre-experimental assumption.

4.2.4 Empirical design and analysis of debt maturity structure

4.2.4.1 Model assumptions and construction

For short-term liabilities, the company will face the obligation to pay the principal and interest in the short term. Excessive short-term debt ratio will affect the daily operations of the company. Although long-term liabilities are higher, the company only needs to pay interest in the short term. It will not cause too much impact on the company's daily operations. Therefore, the following assumption (H2) is made: Hainan Airlines' short-term liabilities are negatively correlated with corporate performance, and long-term liabilities have little correlation with corporate performance.

This paper constructs debt maturity structure regression model by compiling Hainan Airlines' ROE, short-term debt ratio (SD), long-term debt ratio (LD) company growth (GROW), and company size (SIZE) data. The model is as follows:

$$ROE_t = C + \beta_1 SD_t + \beta_2 LD_t + \beta_3 GROW_t + \beta_4 SIZE_t + \varepsilon_t$$

C is a constant term that is the intercept, β is the coefficient of each variable, ε is the residual item, and t after each variable is the year corresponding to each variable.

4.2.4.2 Test of stationarity of variables

With the model I, the stability of each variable of the debt maturity structure is tested. The test results are as follows:

Table 16: Stationarity test results of debt maturity structure variables

index	Inspection type (c,T,d)	ADF statistics	Significant level (critical value)			conclusion
			1%	5%	10%	
ROE	(c,0,0)	-3.438**	-3.750	-3.000	-2.630	smooth
SD	(c,T,0)	-0.772	-4.380	-3.600	-3.240	unstable
D(SD)	(c,T,0)	-5.231***	-4.380	-3.600	-3.240	smooth
LD	(c,T,0)	-3.180	-4.380	-3.600	-3.240	unstable
D(LD)	(c,T,0)	-4.011**	-4.380	-3.600	-3.240	smooth
GROW	(c,T,0)	-3.577*	-4.380	-3.600	-3.240	smooth
SIZE	(c,T,0)	-5.938***	-4.380	-3.600	-3.240	smooth

The smoothness of the variables ROE, GROW, and SIZE has already been introduced in Model 1 and will not be described here. The SD ADF statistic is -0.772, which is more than 10% of the critical level of the critical value -2.630, so the SD is not stable. After the first-order difference, the D(SD) ADF statistic is -5.231, which is less than 1% significant level. The lower critical value is -4.380, so D(SD) is stationary; the ADF statistic of LD is -3.180, which is greater than the critical value of -3.240 at a significant level of 10%, so the LD is not smooth, after the first difference, D The ADF statistic for (LD) is -4.011, which is less than the critical value of -3.600 at the 5% significance level, so D(LD) is stable.

4.2.4.3 Multicollinearity test of independent variables

In the same model I, multiple collinearity tests are performed on the respective variables of the debt maturity structure. The results are shown in the following table:

Table 17: Multicollinearity test results of debt term structure independent variables

Independent variable	D(SD)	D(LD)	GROW	SIZE
VIF	1.85	1.05	2.07	2.38

From the above table, it can be seen that the VIF value is small and the multicollinearity is weak, and regression analysis can be performed on each variable.

4.2.4.4 Model regression analysis

After the stationarity test and multicollinearity test, the regression results for each variable are as follows:

Table 18: Regression results of debt maturity structure model

variable	C	D(SD)	D(LD)	GROW	SIZE
Coefficients	-0.967 (-0.761)	-2.506** (-2.240)	-0.609 (-0.746)	0.655 (1.605)	0.056 (0.706)
P value	0.464	0.049	0.473	0.140	0.496

According to the regression data in the above table, the P value of the first-order difference in the short-term debt ratio is 0.049, which is less than 0.05. This shows that the first-order difference in the short-term debt ratio has a significant impact on the ROE. The first-order differential regression coefficient for the short-term debt ratio is -2.506 (the difference in the short-term debt ratio changes by 1 unit and the ROE changes by -2.506 units), which indicates that the short-term debt ratio is in the opposite direction of the net asset return. As for the correlation, the company's ROE will decrease as the short-term debt ratio increases. Therefore, through empirical regression, it can be seen that the short-term debt ratio of Hainan Airlines has a significant negative correlation with corporate performance, which is consistent with the pre-experimental assumption.

The P value of the first-order difference of the long-term debt ratio is 0.437, which is greater than 0.1. This shows that the first-order difference of the long-term debt ratio has no significant effect on the ROE. The regression coefficient is -0.609, which indicates that there is no significant negative correlation between the long-term debt ratio and the ROE. Therefore, through empirical regression, we can see that there is no significant negative correlation between Hainan Airlines' long-term debt ratio and corporate performance, which is basically consistent with the pre-experimental assumption.

4.2.5 Empirical design and analysis of debt source structure

4.2.5.1 Model assumptions and construction

Hainan Airlines has a high debt ratio of banks and faces high financial costs. Moreover, as banks in China as creditors do not have an effective role in supervising

companies with liabilities, the high debt ratio of banks may have a negative impact on Hainan Airlines; commercial credit It can increase the liquidity of funds and lower the financial cost, so commercial credits may have a positive impact on Hainan Airlines. In summary, the following assumption (H3) is made: Hainan Airlines' bank borrowings are negatively correlated with corporate performance, and business credit is positively correlated with corporate performance.

This paper constructs a debt source structure regression model by compiling data on Hainan Airlines' ROE, bank borrowing rate (BD), commercial credit rate (CD) company growth (GROW), and company size (SIZE). The model is as follows:

$$ROE_t = C + \beta_1 BD_t + \beta_2 CD_t + \beta_3 GROW_t + \beta_4 SIZE_t + \varepsilon_t$$

C is a constant term, that is, the intercept, β is the coefficient of each variable, ε is the residual item, and t after each variable is the year corresponding to each variable.

4.2.5.2 Test for stationarity of variables

With the above two models, the stability of the variables of the debt source structure is tested. The results are shown in the following table:

Table 19: Test results for stationarity of debt source structure variables

index	Inspection type (c,T,d)	ADF statistics	Significant level (critical value)			conclusion
			1%	5%	10%	
ROE	(c,0,0)	-3.438**	-3.750	-3.000	-2.630	smooth
BD	(c,0,0)	-1.586	-3.750	-3.000	-2.630	unstable
D(BD)	(c,0,0)	-3.248**	-3.750	-3.000	-2.630	smooth
CD	(c,T,0)	-1.499	-4.380	-3.600	-3.240	unstable
D(CD)	(c,T,0)	-5.287***	-4.380	-3.600	-3.240	smooth
GROW	(c,T,0)	-3.577*	-4.380	-3.600	-3.240	smooth
SIZE	(c,T,0)	-5.938***	-4.380	-3.600	-3.240	smooth

The BD's ADF statistic is -1.586, which is greater than 10% of the critical level of the critical value -2.630, so BD is not stable. After the first-order difference, the ADF statistic of D(BD) is -3.248, which is less than 5% significant level. The critical value is -3.000, so D(BD) is stable; the ADF statistic of CD is -3.180, which is greater than the critical value of -3.240 at the significant level of 10%, so the CD is not smooth, after the

first difference, D The (CD) ADF statistic is -5.287, which is less than the critical value at the 1% significance level of -4.380, so D(CD) is stable.

4.2.5.3 Multivariate colinearity test of independent variables

In the same model as above, a multicollinearity test was performed on the independent variables of the debt source structure. The results are shown in the following table:

Table 20: Multicollinearity test results of debt source structure independent variables

Independent variable	D(BD)	D(CD)	GROW	SIZE
VIF	1.60	1.55	2.00	2.53

From the above table, it can be seen that the VIF value is small and the multicollinearity is weak, and regression analysis can be performed on each variable.

4.2.5.4 Model regression analysis

After the stationarity test and multicollinearity test, the regression results for each variable are as follows:

Table 21: Regression results of the debt source structure model

variable	C	D(BD)	D(CD)	GROW	SIZE
Coefficients	-0.935 (-0.693)	-1.504** (-2.282)	-2.932 (-1.532)	0.584 (1.395)	0.054 (0.641)
P value	0.504	0.046	0.156	0.193	0.536

Third, as a result of deregulation, the foreign share of purchases increased from 6% in 1996 to 18% (40% in market value) at the end of 2003. Around 5% of listed companies had (aggregated) foreigners as the largest shareholders. 18 The increased share of foreign investors contributes to increased market transparency. It may also improve some aspects of corporate governance, as witnessed in the Sovereign–SK conflict in 2003. However, there has been some debate about whether or not the behaviour of foreign investors exhibits ‘herding’. If shared information about the fundamental value of a share affects a

fund manager's behaviour, the probability of 'herding' may increase, along with the development of information technology.

The P-value of the first-order difference in commercial credit ratio is 0.437, which is greater than 0.1, which indicates that the first-order difference in commercial credit ratio has no significant effect on the ROE. The regression coefficient is -2.932, which indicates that there is no significant negative correlation between commercial credit rate and return on net assets. Therefore, empirical regression shows that Hainan Airlines's commercial credit rate has no significant negative correlation with company performance. The previous assumptions are inconsistent.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Empirical research results analysis and recommendations

Through the empirical study on the relationship between Hainan Airlines's debt financing and corporate performance, the following conclusions are drawn: 1) The overall scale of assets and liabilities of Hainan Airlines is significantly negatively correlated with company performance; 2) Hainan Airlines' short-term debt ratio is significantly negatively correlated with company performance. There is no significant negative correlation between the long-term debt ratio and the company's performance. 3) The bank loan rate of Hainan Airlines is significantly negatively correlated with the company's performance, and the business credit ratio is not significantly negatively correlated with the company's performance. The empirical results are now analyzed through a combination of theory and practice:

5.1.1 Analysis of empirical research results

5.1.1.1 Analysis of the results of the relationship between the overall structure of debt and corporate performance

Hainan Airlines' asset-liability ratio has a significant negative correlation with the company's performance. After analysis, the reasons may be as follows:

1. Debt financing is too large

According to the revised MM theory, debt financing has a tax shield and can reduce the income tax that should be paid. The company usually expands its debt ratio, increases

fund manager's behaviour, the probability of 'herding' may increase, along with the development of information technology.

The P-value of the first-order difference in commercial credit ratio is 0.437, which is greater than 0.1, which indicates that the first-order difference in commercial credit ratio has no significant effect on the ROE. The regression coefficient is -2.932, which indicates that there is no significant negative correlation between commercial credit rate and return on net assets. Therefore, empirical regression shows that Hainan Airlines's commercial credit rate has no significant negative correlation with company performance. The previous assumptions are inconsistent.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Empirical research results analysis and recommendations

Through the empirical study on the relationship between Hainan Airlines's debt financing and corporate performance, the following conclusions are drawn: 1) The overall scale of assets and liabilities of Hainan Airlines is significantly negatively correlated with company performance; 2) Hainan Airlines' short-term debt ratio is significantly negatively correlated with company performance. There is no significant negative correlation between the long-term debt ratio and the company's performance. 3) The bank loan rate of Hainan Airlines is significantly negatively correlated with the company's performance, and the business credit ratio is not significantly negatively correlated with the company's performance. The empirical results are now analyzed through a combination of theory and practice:

5.1.1 Analysis of empirical research results

5.1.1.1 Analysis of the results of the relationship between the overall structure of debt and corporate performance

Hainan Airlines' asset-liability ratio has a significant negative correlation with the company's performance. After analysis, the reasons may be as follows:

1. Debt financing is too large

According to the revised MM theory, debt financing has a tax shield and can reduce the income tax that should be paid. The company usually expands its debt ratio, increases

its financial leverage, and increases its ROE. However, empirical evidence shows that Hainan Airlines' debt scale has a negative effect on ROE (Corporate Performance). This shows that Hainan Airlines' debt ratio may have exceeded the debt ratio equilibrium point mentioned in the trade-off theory. Performance has a negative effect. After the listing of Hainan Airlines, the average debt-to-asset ratio in the past 16 years was 81.13%, and the highest was 91.56%. This compares with the debt ratio in the industry. Hainan Airlines' interest expense accounts for more than 50% of the total expenses in most years, and interest expenses generally account for more than 10% of operating revenue in each year. As a result, the high debt costs incurred by large-scale liabilities will burden the company's operations and may have negative effects on company performance.

2. Debt is not binding on management

When a company makes debt financing, the company has the obligation to pay the principal and interest. If it fails to pay back, the company's control will be transferred to the creditor's hands. The management will face the risk of dismissal. According to the agency theory, the company's debt Financing can motivate management to work hard and improve company performance. However, the high debt of Hainan Airlines did not play an incentive role for the management: 1. The actual controller of Hainan Airlines is the Hainan State-owned Assets Management Committee. With local government as a support, it is unlikely that they will be able to repay debts. During the SARS period of 2003 and the financial crisis of 2008, Hainan Airlines made a huge loss and was unable to repay its debts. However, the Hainan government injected large amounts of funds into Hainan Airlines in 2003 and 2008 respectively, which helped Hainan Airlines get out of its predicament; 2. As the fourth largest aviation industry in China, Hainan Airlines has reached an asset scale of more than 100 billion yuan. The statement that large companies in China are "big but not down" has become deeply rooted in people's minds. There are many ways and means for large companies to obtain funds. Hainan Airlines Even Without the government's capital injection, it is also possible to repay huge debts by means of new debts and old debts, and the capital chain is unlikely to break. Based on the above two points, Hainan Airlines's debt is not binding on the management team and does not provide incentives. This may have negative effects on company performance. in perfect market conditions any capital structure should not influence firm's activity and its profitability.

3. The profitability of debt funds is not strong

In addition to meeting the cash flow of its own operations, Hainan Airlines uses its debt to finance its own large-scale expansion with debt funds. In 2002, Civil Aviation

completed the reorganization of three major airlines: China International Airlines, China Southern Airlines, and Eastern Airlines. Most local airlines merged into the three major airlines through restructuring, or the three major airlines took shares. As a local airline, Hainan Airlines will have the possibility to be merged or participate in shares by the three major airlines. The controlling shareholders and management of Hainan Airlines are more inclined to their own independent development. To avoid being merged, Hainan Airlines has embarked on an expansion path. . After years of development, Hainan Airlines now has nearly 200 aircraft, and shares a number of local airlines, ranking fourth in China's airlines. The funds financed by the high debt ratio met the expansion needs of Hainan Airlines, but the profitability of Hainan Airlines did not increase. From the performance analysis of Hainan Airlines, we can know that the profitability of Hainan Airlines is at a relatively high level compared with the Big Three, but the profitability of Hainan Airlines has not increased with the increase in the scale of assets. Through the processing of Hainan Airlines's financial statement data, it can be seen that Hainan Airlines's total assets grow at a rate of 20% in most years, and the growth rate in individual years also reaches more than 50%. Hainan Airlines' net profit growth rate is in most years. Less than the total asset growth rate, negative values also appear in individual years. Therefore, Hainan Airlines' ability to generate profits through debt-financed funds is not strong, which may have negative effects on the company's performance.

5.1.1.2 Analysis of the results of the research on the relationship between debt maturity structure and corporate performance

5.1.1.2.1 The short-term debt ratio of Hainan Airlines has a significant negative correlation with the company's performance. after analysis, the reasons may be as follows:

1. Short-term financial liquidity pressure

From the analysis of Hainan Airlines' debt maturity structure, we can see that the short-term debt ratio of Hainan Airlines is higher than the long-term debt ratio in most years except for certain years. Short-term liabilities require the company to repay principal and interest within a short-term period. If the company has excessive short-term liabilities, the payback period of operating funds should not be too long, in order to provide funds for the payment of short-term liabilities, but the recovery period of Hainan Airlines is relatively low. Chang: On the one hand, Hainan Airlines's capital investment in its operations is mainly fixed assets. The aircraft occupies a large amount of funds, and the payback period is longer. In the short term, the funds recovered have a small share compared with the funds invested, and aviation The cash flow required for the company's

daily operations is also relatively high, such as jet fuel costs and aircraft maintenance costs, which also requires a lot of capital investment; on the other hand, Hainan Airlines's revenue is mainly ticket income, and some tickets are sold by other companies. The company conducts agency sales so that funds cannot be returned in time and the recovery period of funds will be extended. Therefore, the high percentage of Hainan Airlines' short-term debt ratio, combined with the long payback period for operating funds, will exert pressure on short-term liquidity, which may have negative effects on the company's performance.

2. Forced to give up some temporary investment projects

Hainan Airlines has a high short-term debt ratio, which may have the effect of reducing the enthusiasm of temporary project investment in addition to its impact on daily operations. For long-term projects, such as the purchase of aircraft, Hainan Airlines has long-term plans and generally plans debt financing. Hainan Airlines has ample funding sources for these projects. Temporary investment projects, for example, have found that the traffic volume of an airport is large. It is necessary to place direct-to-airline direct sales points at airports with large passenger flow to increase the company's revenue. However, due to the high short-term debt ratio and the heavy cash flow pressure, Hainan Airlines' investment in these projects, which may increase the company's revenue, will be affected and may be abandoned, which will affect the company's profits. This may have negative effects on the company's performance.

5.1.1.2.2 Probable negative correlation between Hainan Airlines' long-term debt ratio and company performance:

Tax exempt bond financing is as simple as it is useful. Suppose that Dire Dawa is ready to borrow at a rate proportional to its credit rating with the added bonus of tax exemption.²⁹ⁱ The city of Dire Dawa would work with a U.S. underwriter to prepare offering documents for their planned water system. If the offering documents are accurate and legal, bond counsel would write an approving opinion stating that the bonds are a valid tax-exempt investment. The underwriter would then sell Dire Dawa's bonds to investors who consider the project investment worthy, and the underwriter would then send the proceeds to the city for construction. After the project is constructed, Dire Dawa would charge the citizens who use the water system a fee for its use and place the proceeds available after operating costs into a debt repayment account, which would then be used to pay off the bonds. If the fees were not enough to service interest payments on the bonds, then Dire Dawa would probably have to dedicate other sources of tax revenue to the project (Song, 2008).

5.1.1.3 Analysis of the results of the relationship between the source structure of debt and company performance

The bank loan rate of Hainan Airlines is significantly negatively related to the performance of the company. After analysis, the reasons may be as follows:

1. The bank's soft binding on the company is not strong

According to the process of commercial bank lending, when the bank intends to provide loans to the company, it should conduct due diligence on the company's financial status, credit record, etc. before lending; then evaluate the projects invested by the borrowing funds to determine whether to provide Loans; If it is determined that a loan has been provided, it will supervise the company's daily operations and regularly assess the financial status to ensure the safety of fund recovery. If commercial banks provide loans to the company to fulfill the above-mentioned pre- and post-event responsibilities, they will play a soft constraint on the borrowing company. This will not only ensure the safety of bank lending funds, but also the management of the company. The layer plays a supervisory role and can improve the company's performance to some extent. However, the banks lending to Hainan Air have basically not played a soft constraint on Hainan Airlines: 1. Hainan Airlines signed a "bank-enterprise cooperation agreement" with a number of banks. As long as Hainan Airlines has the capital needs, and within the credit limit The bank will provide funds to Hainan Airlines at any time. The bank did not investigate Hainan Airlines's recent financial status before lending. Second, the bank has no explicit agreement on the flow of borrowing funds of Hainan Airlines, so that Hainan Airlines may invest the funds in high-risk areas. If losses occur, it is unfavorable for the banks and Hainan Airlines. 3. Under normal circumstances, after the banks in our country have provided loans to the company, they do not supervise the company's daily operations. Only after the company's financial situation has arisen, do banks begin to pay attention. Therefore, banks did not supervise Hainan Airlines after lending and did not have any authority over management. It can be seen from the above several aspects that the bank's binding force on Hainan Airlines is negligible. This way, on the one hand, it has to bear high financial costs to repay the bank's interest. On the other hand, the bank is not binding on Hainan Airlines. Therefore, the bank's soft binding on Hainan Airlines is not strong. This may be the reason why the bank borrowing rate is significantly negatively related to the company's performance.

2. The scale of bank loans is too large

Banks have large credit lines for large-scale enterprises. Each major bank has given

Hainan Airlines a large amount of credit, which is basically several billion yuan each time. Hainan Airlines also used financing for individual performance evaluation of the company's financial personnel. The amount of money is an important reference, and the financing channels of financial personnel are also bank-based, which keeps the amount of bank borrowing high. Among Hainan Airlines's debt sources, bank borrowings account for more than 70% of total debts in various years, and individual years also reach more than 85%. Excessive scale of liabilities may have negative effects on the performance of the company, which is the overall structure of the above debt. The relationship with corporate performance has already been analyzed. Therefore, the excessively large borrowing of Hainan Airlines may be the cause of the significant negative correlation between the bank loan rate and the company's performance.

First of all, the reason why the long-term debt ratio has no significant effect on the company's performance may be due to the fact that the amount of commercial credit in Hainan Airlines's debt source is relatively small, the commercial credit rate is basically around 10%, and the highest commercial credit rate is around 15%. This is far less than the bank borrowing rate. Moreover, commercial credits are generated in the loop of the capital cycle. Hainan Airlines' commercial credit creditors are mostly long-term cooperative companies of Hainan Airlines, and their interest requirements are relatively low, and they can even obtain interest-free commercial credit debt funds. Therefore, these characteristics of Hainan Airlines commercial credit may have no significant effect on company performance. Second, the reason why commercial credit ratio is negatively related to corporate performance may be that commercial credits are short-term liabilities, and short-term liabilities will have a certain impact on daily operations. This has been analyzed in the above relationship between debt maturity structure and corporate performance. Then again, the characteristics of commercial credit with short-term liabilities may be the reason why commercial credit has negative effects on company performance.

5.1.2 Suggestions

Through the analysis of the status quo of Hainan Airlines's debt and performance in the pre-chapter chapter, the empirical study of the relationship between Hainan Airlines's debt financing and corporate performance, and the analysis of the possible causes of the empirical research results in this chapter, combined with the status quo of China's capital market, it is now for Hainan Airlines. Put forward the following suggestions and hope to help Hainan Airlines improve the performance of the company:

1. Strengthen the sense of responsibility of management and improve the efficiency of corporate governance

One of the consequences of operating in an open, competitive market is that governments are free to make either positive or detrimental fiscal decisions. In the discussed example of the Indian municipality that successfully issued a bond to build a water system,^{2^3} efforts to raise the capital began with the implementation of sound internal policy. Taxing and operational spending decisions are outside of the discussion of this Note, and there is already much scholarship on the topic. Once a consistent and principled operational budget is in place, many municipalities may still not be viewed as creditworthy. It is crucial that developing countries take advantage of two U.S. innovations: bond banks and revenue bonds (Rajan & Zingalas, 1995).

2. Change the company's development strategy and achieve simultaneous development of quality and quantity

After years of expansion and expansion, Hainan Airlines has achieved a leap-forward growth in its total assets and company size. Since its listing in 1999, Hainan Airlines has increased its assets from 6.4 billion yuan to 121.9 billion yuan in 2014. Its assets have grown at a rate of more than 20% in each year (He, 2014). The fleet size was only 10 aircraft at the beginning of the listing. As of June 2015, Hainan Airlines had 183 aircraft. Therefore, Hainan Airlines' development is worthy of certainty in terms of quantity alone, but from a qualitative perspective, Hainan Airlines' profit growth rate is lower than most of the years. Growth rate of assets. The capital expansion of Hainan Airlines's assets mainly comes from debt financing, and debt financing needs to bear a heavy financial burden. Under such circumstances, Hainan Airlines meets its own expansion through the premise of huge financial costs, but profits do not follow. The increase in the rate of growth of total assets will affect the long-term development of the company. Therefore, Hainan Airlines should pay attention to the growth of profits while focusing on the development of scale. When investing in the project, it is necessary to fully consider the profitability of the project and cannot blindly purchase aircraft and develop new routes in order to expand the scale. For projects where profitability is not very clear, considerations and trade-offs should be carefully considered, and trade-offs should be made after all the advantages and disadvantages have been combined. Hainan Airlines must shift its development strategy from focusing on weight only and not focusing on quality to a development strategy that emphasizes both weight and quality. Only in this way can the company's scale and use of financing be rationalized and the healthy and stable development of the company can be achieved, thereby improving the

company's performance.

3. Expansion of diversified financing channels to moderately reduce overall debt ratio

The high debt ratio of Hainan Airlines has caused Hainan Airlines to bear huge financial costs and market risks, which has caused certain negative impact on the company. It is undoubted that there is a huge demand for funds in the aviation industry. However, Hainan Airlines should expand other financing channels to achieve the effect of satisfying both the capital demand and the overall debt ratio. Such as stock market financing, the funds obtained through common stock have no obligation to repay the principal and interest. Compared with safety and stability, Hainan Airlines, as an airline listed on the A-share and B-share markets at the same time, can make full use of its own advantages, Under the condition that its shareholding structure has little impact, it expands the share of financing from the stock market to meet the demand for funds; the internal source financing and preferential financing theory believes that inward financing is the first choice, which will neither change the ownership structure nor obtain a low level of equity. With regard to the cost of funds, Hainan Airlines, as a core enterprise under the HNA Group, can use the Group's resources to provide financing to member companies within the Group. In short, Hainan Airlines should pay attention to the problems of high debt ratios in meeting the demand for funds, and moderately reduce the overall debt ratio through diversified financing channels, which not only meets the needs of funds, but also reduces the debt ratio.

4. To moderately reduce the short-term debt ratio and optimize the debt maturity structure

Under the premise of high debt ratio of Hainan Airlines, the short-term debt ratio is obviously higher than the long-term debt ratio. The short-term liabilities have large volatility and the short repayment period will affect the flow of company funds. It is not appropriate to use short-term liabilities to finance excessively. However, short-term liabilities also have the advantages of lower costs and greater flexibility, and can be properly financed with short-term liabilities. Therefore, Hainan Airlines can make appropriate adjustments to the debt maturity structure according to the company's actual operating conditions: For projects with a short payback period and a relatively small amount, such as the input of self-operated ticket sales outlets, and the operating costs of airport operations, Short-term liabilities are financed; For projects with longer payback periods and larger amounts of money, such as the purchase of aircraft, the development of new routes, etc., long-term liabilities should be selected for financing to achieve the

purpose of matching the payback period with the debt repayment period. . Most of Hainan Airlines's capital is invested in fixed assets and the payback period is longer. This part of the project investment can be used to finance long-term liabilities, and there is room for improvement in long-term debt share. Therefore, Hainan Airlines should change the current status of the debt maturity structure, gradually increase the proportion of long-term debt, moderately reduce the short-term debt ratio, in order to optimize the debt maturity structure.

5. Properly reduce the bank borrowing rate and optimize the debt source structure

Hainan Airlines' bank borrowings are the main source of its debts. The interest paid by bank loans is a major part of the financial expenses. It also concentrates the sources of debt financing on bank loans, making the financial risks too concentrated. Hainan Airlines's debt sources should try to obtain debt funds through multiple channels: commercial credits and commercial credits have relatively low cost of capital and do not have excessive financial costs, but they have short-term liabilities and have a certain impact on daily operations. At present, Hainan Airlines has a small share of commercial credit in debt, and can appropriately increase the financing share of commercial credit. Corporate bonds, Hainan Airlines 2008 approved by the China Securities Regulatory Commission received the qualification to issue corporate bonds, interest on corporate bonds and interest on bank loans Not large, but also to pay a certain issuance costs, the total cost is high. However, the current Hainan Airlines's share of financing through corporate bonds is relatively small, and its share can be appropriately increased to achieve the purpose of reducing the bank's borrowing rate. Moreover, in order not to cause too much impact on daily operations, the issue of corporate bonds should be based on medium and long-term terms; Leases: For companies such as airlines that use fixed assets as their main assets, financial leasing is a common financing method. Airlines can obtain the right to use the aircraft by paying rent in installments. At present, Hainan Airlines uses less financial leasing methods to purchase aircraft, mostly through bank loans. Hainan Airlines Group owns a number of financial leasing companies. Hainan Airlines can make full use of the Group's resources to develop financing methods for financing leasing. The aircraft project has reduced its reliance on bank borrowings and moderately reduced bank borrowing rates. To sum up the above points, Hainan Airlines needs to increase the share of other debt financing methods among its debt sources, and appropriately reduce the bank borrowing rate. This can optimize the structure of debt sources and improve company performance.

5.2 Conclusion

The main research object of this paper is Hainan Airlines, a listed company, whose main purpose is to study the relationship between Hainan Airlines' debt financing and company performance. In the preface, starting from the structure of debt financing, the structure of debt financing is divided into the overall debt structure, the debt maturity structure, and the debt source structure. This is the classification of debt financing structure used by most scholars to study debt financing; Corporate performance is represented by return on net assets, which is what most scholars have adopted; the relationship between the two uses empirical analysis methods to reach a conclusion through the multiple regression of econometric model. The empirical results show that the relationship between debt financing and corporate performance is more Consistent with the reality and economic logic, it is basically consistent with the assumptions made by Hainan Airlines before the reunification. This article roughly draws the conclusion of the relationship between Hainan Airlines debt financing and company performance, and based on Hainan Airlines and the actual situation of China's economic market, put forward some suggestions to improve Hainan Airlines's debt financing structure and improve company performance. On the whole, this article basically achieves the research purpose and expected effect. However, due to the complexity in the real economy market, the information obtained on Hainan Airlines is not very comprehensive, there may be some deficiencies in research methods, and the level of individual research is limited. The practicality of this paper is still to be studied in the future. Continue to explore.

The continuous improvement of China's market economic system has provided a convenient environment for the debt financing of listed companies, and has reduced the cost of debt financing to some extent. From the statistical data in recent years, the share of debt financing in the financing structure of listed companies has increased. Gradually increase, but the problems related to debt financing also appear. Under such circumstances, more and more scholars pay attention to the problems related to debt financing, and research in this area is gradually heating up. The study of the relationship between Hainan Airlines's debt financing and performance is drawing to a close, but the research on the debt financing related aspects has not yet ended and can only be said to have just begun. This article only selects microscopic Hainan Airlines as a case to study. The research is practical and pertinent. The research results can be used as a reference for debt financing of other listed companies to a certain extent, but this is not equivalent to macroeconomic. The relationship between debt financing of listed companies and company performance was studied. Therefore, for this kind of macro-research, it remains to be learned and explored in the future work and study.

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