

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

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**

<b>TIME</b>	<b>Event (bank loan)</b>
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**

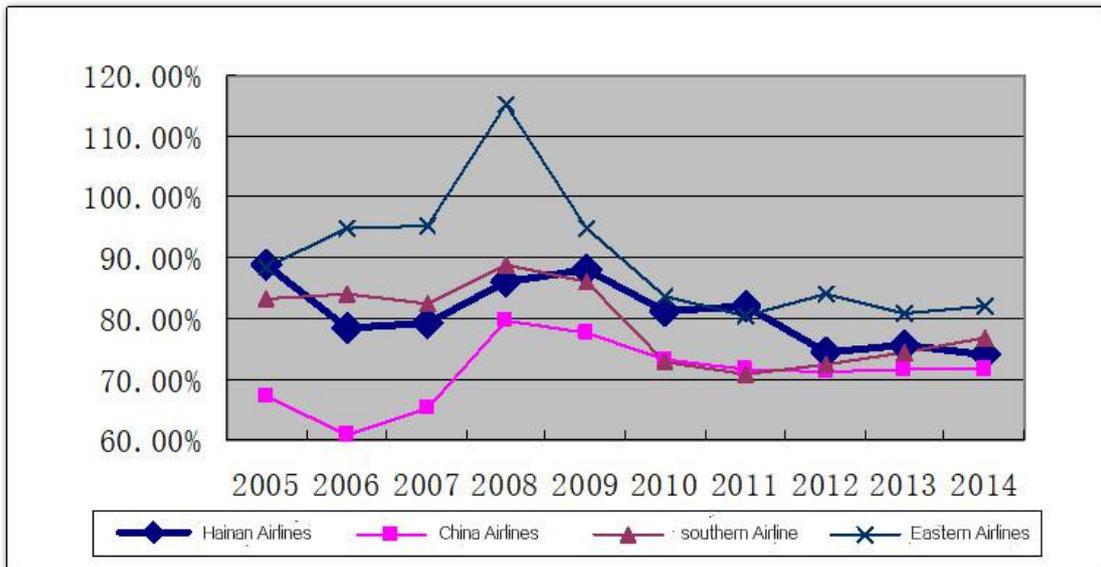
Through the introduction of Hainan Airlines's financing sources through the case, we can know that the financing source of Hainan Airlines is debt financing. The overall debt situation of Hainan Airlines in the past ten years is as follows:

**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.

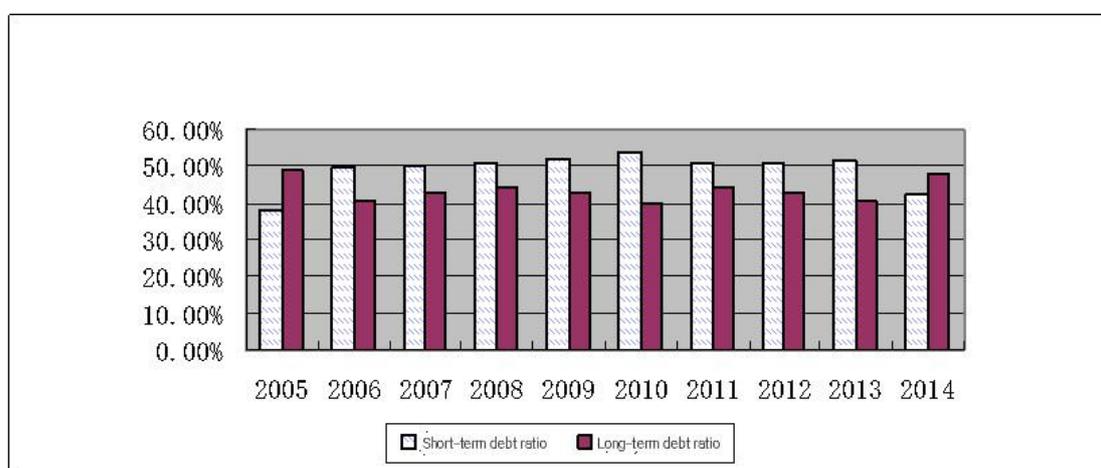
**4.1.4.2 Status analysis of Hainan Airlines' debt maturity structure**

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).<sup>16</sup> 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:

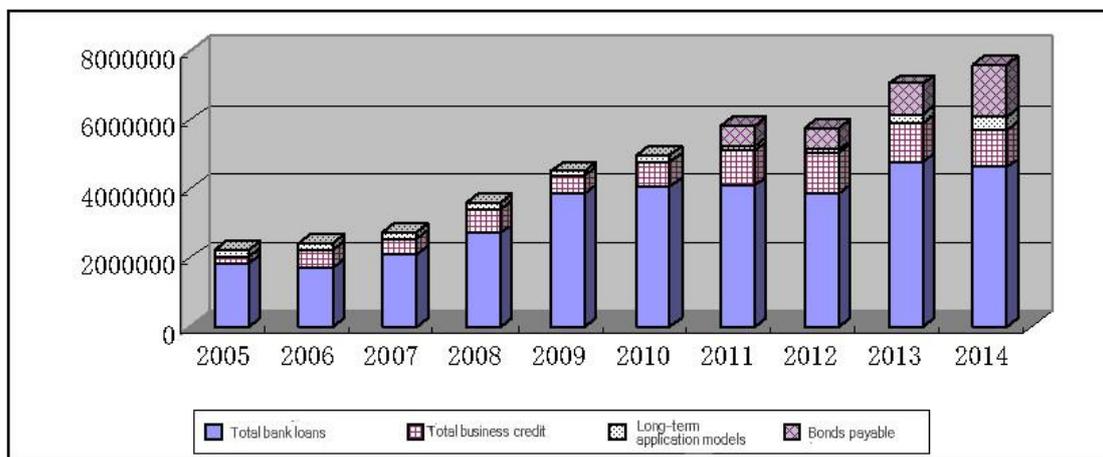
**Table 8: Debt source structure of Hainan Airlines**

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:

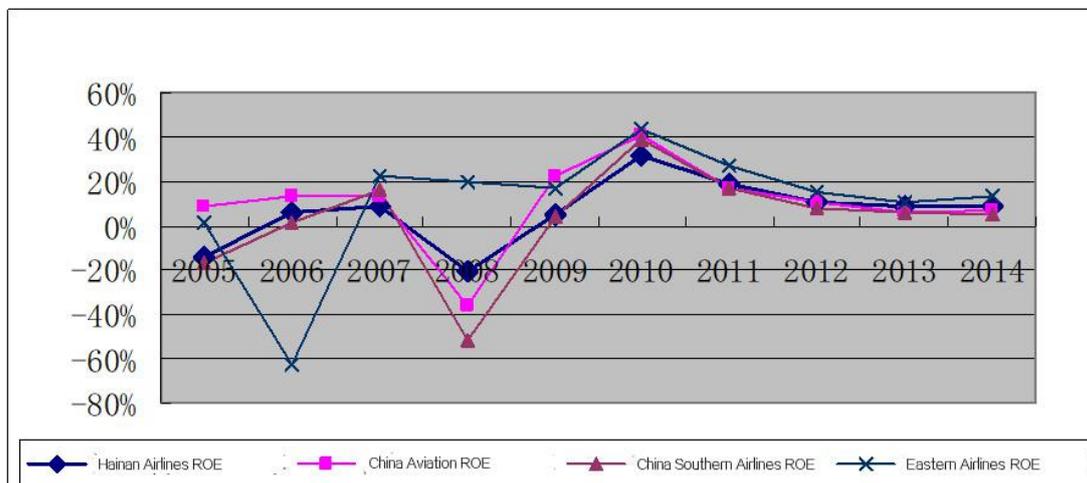
**Table 9: Hainan Airlines' ROE**

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

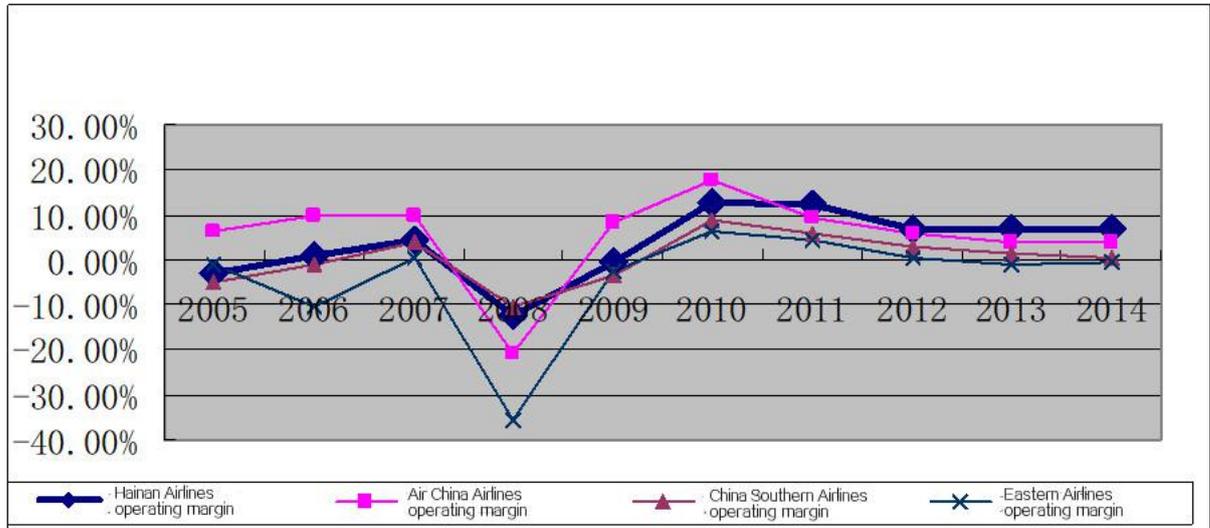
airlines for the past ten years, as shown in the following table:

**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 secondorder 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
Control variable	Business credit rate	CD	Total commercial credit/total assets at the end of the period
	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  $\beta$  is the coefficient of each variable,  $\varepsilon$  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,  $\beta$  is the coefficient of each variable,  $\varepsilon$  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
Coefficient s	-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,  $\beta$  is the coefficient of each variable,  $\varepsilon$  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