

# The Research on Debt Paying Capacity of Sun Paper Company Limited

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**Abstract.** Based on the financial statements of Shandong Sun Paper Industry Joint Stock Co., Ltd. from 2014 to 2018, this Paper analyzes the solvency of Shandong Sun Paper Industry Joint Stock Co., Ltd. and gives corresponding Suggestions based on the problems existing in its solvency. The solvency analysis refers to the ability of an enterprise to repay various maturity debts, including the analysis of short-term debt solvency and the analysis of long-term solvency. Debt paying ability analysis is an important part of the financial capability analysis of enterprises. The strength of debt repayment is one of the main criteria to judge whether a company's financial condition is good or bad. Whether it is the internal management of the enterprise or the external investors and creditors of the enterprise, it is very concerned about the solvency of the enterprise. Therefore, the analysis of the solvency of the enterprise is of great significance to the sustainable and healthy development of the enterprise.

## Introduction

With the establishment and development of the socialist market economic system in China, the study of solvency has become the core content of modern enterprise financial management. As debt management has become the basic business strategy of modern enterprises, many enterprises have problems such as high asset-liability ratio and large financing demand [1]. Therefore, the analysis of debt paying ability of enterprises can not only help internal managers to confirm the financial situation, make correct lending decisions and better manage the production and operation of enterprises. It also helps investors and creditors outside the enterprise to confirm the enterprise's asset preservation, appreciation ability and solvency, and make investment decisions.

On the study of solvency, this paper adopts the index ratio analysis method [2]. For short-term solvency indicators; this paper selects four main indicators, namely working capital, current ratio, quick ratio and cash ratio. However, in order to more accurately evaluate the short-term solvency of enterprises, it is necessary to use inventory turnover rate, accounts receivable turnover rate and other indicators to assist [3,4]. For the indicators of long-term solvency, this paper selects four indicators: asset-liability ratio, shareholders' equity ratio, equity ratio and multiple of earned interest. Since the indicators are calculated by using the number of assets and liabilities, ignoring the structure of assets and liabilities, this paper further analyzes the impact of the structure of assets and liabilities on the solvency of enterprises on the basis of the analysis of indicators.

## The Analysis on Debt Paying of SUNPAPER Company Limited

### The Analysis long Short-term Debt Paying Capability

#### *The Analysis of Working Capital.*

Working capital is the difference between current assets and current liabilities. The calculation formula is:

$$\text{Working capital} = \text{current capital} - \text{current liabilities.} \quad (1)$$

The higher the working capital is, the more sufficient the repaying fund is, and the stronger short-term debt paying capacity is.

Table 1. Working capital situation of SUNPAPER unit: ten thousand Yuan

Year	2014	2015	2016	2017	2018
Working capital	-290 388	-211 267	-118 102	-121 713	-318 068

Data source: Financial statements of sun paper co., LTD

As can be seen from table 1, the working capital of the company in the past five years has been negative, and the current assets of the company have been unable to repay a current liability, which indicates that the financial situation of the company is very unstable. Although working capital increased gradually from 2014 to 2016, it decreased sharply in 2018. Therefore, from the working capital indicators; the enterprise's short-term solvency is very weak.

**The Analysis of Current Ratio.**

The current ratio is the ratio between current assets and current liabilities during the calculation period. The calculation formula is:

$$\text{Current ratio} = \text{current assets} / \text{current liabilities.} \tag{2}$$

As a reflection of short-term solvency, current ratio indicates how many available assets an enterprise has to pay off its short-term liabilities that are about to mature. Generally speaking, the higher a company's current ratio is, the stronger its short-term solvency is. However, if the current ratio is too high, it means that the enterprise has retained too many current assets, and the utilization rate of funds cannot be guaranteed, so that the enterprise's profitability cannot reach the expected target. Therefore, the optimal current ratio is 2.

Table 2. Current ratio situation of SUNPAPER

Year	2014	2015	2016	2017	2018
Current ratio	0.62	0.77	0.86	0.9	0.77

Data source: Financial statements of sun paper co., LTD

As can be seen from table 2, the current ratio of the company in recent five years is far lower than the accepted standard 2, and the company cannot repay the short-term debts that are about to mature, and the rights and interests of creditors cannot be guaranteed. Although the current ratio increased from 2014 to 2017, the enterprise's current ratio decreased relatively in 2018. Therefore, from the current ratio index, the short-term solvency of enterprises is very weak.

**The Analysis of Quick Ratio.**

Quick ratio refers to the ratio between quick assets and current liabilities. The calculation formula is:

$$\text{Quick ratio} = \text{quick assets} / \text{current liabilities.} \tag{3}$$

Quick ratio can be used in combination with current ratio as an auxiliary indicator, which can more accurately show the company's short-term solvency, because quick assets can be immediately realized. Generally speaking, a reasonable quick ratio should be 1. The quick ratio is lower than the

general value, which indicates that the enterprise has great debt service risk. If the quick ratio is too high, it indicates that the enterprise has too many quick assets and fails to make good use of these funds, thus losing some good profit and investment opportunities.

Table 3. Quick ratio situation of SUNPAPER

Year	2014	2015	2016	2017	2018
Quick ratio	0.48	0.62	0.73	0.76	0.62

Data source: Financial statements of sun paper co., LTD

As can be seen from table 3, the quick ratio of the company in the past five years is lower than the general standard 1, indicating that the company's short-term solvency is poor. The quick ratio increased year by year from 2014 to 2017, indicating that the company's short-term solvency increased year by year, but the company's short-term solvency weakened in 2018. Based on the analysis of current ratio, it is found that the short-term solvency of this company is not so weak as indicated by the current ratio index, which is due to the large proportion of quick assets in the company's current assets.

**The Analysis of Cash Ratio.**

Cash ratio refers to the ratio between cash assets and current liabilities. The calculation formula is:

$$\text{Cash ratio} = (\text{currency cash} + \text{securities}) / \text{current liabilities.} \tag{4}$$

Cash assets are the most liquid and fastest to be realized, so the cash ratio is the most direct indicator of a company's solvency. The higher the cash ratio is, the more funds an enterprise can use to repay debts immediately and the stronger its short-term solvency is. However, if this ratio is too high, the capital utilization rate is low, so the enterprise should not retain too much cash assets. Generally speaking, the reasonable value of the cash ratio should be around 20%.

Table 4. Cash ratio situation of SUNPAPER

Year	2014	2015	2016	2017	2018
Cash ratio[%]	19	17	12	21.25	14.31

Data source: Financial statements of sun paper co., LTD

As can be seen from table 4, the cash ratio of this enterprise in 2014 and 2017 is within the range of reasonable value. In these two years, the enterprise has strong direct solvency, but the cash ratio of the other three years is low, and the enterprise's short-term solvency is weak. According to the cash ratio index, the short-term solvency of the enterprise in 2014 and 2017 is relatively strong, while the short-term solvency of the other three years is relatively poor.

**The Analysis of Long-Term Debt Paying Capability**

**The Analysis of Asset-Liability Ratio.**

Asset-liability ratio refers to the ratio of total liabilities to total assets. The calculation formula is:

$$\text{Asset-liability ratio} = \text{total liability} / \text{total asset.} \tag{5}$$

The asset-liability ratio can show the proportion of debt funds in the assets owned by the enterprise. Generally speaking, the lower the asset-liability ratio is, the less debts the enterprise

bears, the stronger its long-term solvency is, and the better the rights and interests of creditors can be guaranteed. On the contrary, the enterprise's long-term solvency is weaker, but at this time, the enterprise's capital utilization rate is high, and the enterprise can use the financial leverage principle to obtain more profits. Generally speaking, the reasonable range of this ratio is 40%~60%.

Table 5. Asset-liability ratio situation of SUNPAPER

Year	2014	2015	2016	2017	2018
Asset-liability ratio[%]	64.25	62.50	58.70	58.46	57.23

Data source: Financial statements of sun paper co., LTD

As can be seen from table 5, the asset-liability ratio of the enterprise in 2014 and 2015 exceeded the reasonable range by 40% to 60%, with poor long-term solvency and high financial risk. However, the asset-liability ratio of the enterprise in the past five years has been decreasing year by year, indicating that the long-term solvency of the enterprise has been enhanced year by year, and more financial leverage benefits can be obtained at the same time.

### ***The Analysis of Equity Ratio.***

Equity ratio refers to the ratio between total liabilities and owner's equity. The calculation formula is:

$$\text{Equity ratio} = \text{total liabilities} / \text{owner's equity} \quad (6)$$

The equity ratio reflects the protection of the equity of enterprise creditors by the owner's equity. Generally speaking, the lower the equity ratio is, the stronger the long-term solvency of the enterprise will be, the more the rights and interests of creditors will be guaranteed, then the more loans the enterprise can obtain. But if the ratio is too low, it will be difficult for companies to leverage to make more profits. Therefore, we should consider the reasonable range of equity ratio by combining the enhancement of solvency and profitability.

Table 6. Equity ratio situation of SUNPAPER

Year	2014	2015	2016	2017	2018
Equity ratio[%]	179.72	166.69	142.14	121.20	124.78

Data source: Financial statements of sun paper co., LTD

As can be seen from table 7, the equity ratio of the company in the past five years has been decreasing year by year, but the equity ratio in all the five years is more than 100%, indicating that the capital of the company mainly comes from creditors, the company's overall solvency is weak, and the creditors' equity protection degree is low.

### ***The Analysis of Interest Cover Ratio.***

The interest cover ratio refers to the ratio between the enterprise's profit before interest and tax and the interest expense. The calculation formula is:

$$\text{Interest cover ratio} = (\text{total profit} + \text{interest cost}) / \text{interest cost} \quad (7)$$

The interest cover ratio reflects the relationship between the operating profit and interest expense of an enterprise, which is used to judge whether an enterprise can repay the interest on its debts. Generally speaking, a high interest cover ratio will promote the long-term solvency of an enterprise.

Under international standards, the reasonable value of this index is 3. In the long run, at least make sure it is greater than 1.

**Table 7. Interest cover ratio situation of SUNPAPER**

Year	2014	2015	2016	2017	2018
Interest cover ratio	2.27	2.76	3.67	5.42	3.22

Data source: Financial statements of sun paper co., LTD

It can be seen from table 8 that the interest cover ratio of this enterprise from 2016 to 2018 is higher than the reasonable value, indicating that this enterprise has a strong long-term solvency. The company's interest cover ratio in recent five years are all higher than the general standard 1, indicating that the company's normal production and operation income can not only meet the need to pay the loan interest, but also has a large surplus, and there is no problem with subsequent financing.

**Some Solving Measures Analysis**

**To Formulate Scientific Financing Plan**

Through a series of analysis on the solvency of sun paper, we know that the most important reason for the company's poor short-term solvency is excessive short-term borrowing. The amount of debt that the company needs to repay in the short term exceeds its current assets, leading to the company's inability to repay. Therefore, enterprises should make scientific financing plans according to their operating conditions, and make reasonable repayment plans according to financing, debt cycle and interest rate.

**To Boost Quality of Enterprise Assets**

The asset quality of an enterprise is an important factor affecting its solvency, so the key to improving its solvency is to improve its asset quality. First of all, enterprises should strengthen the management and supervision of accounts receivable, pay attention to the collection of accounts receivable at any time, and formulate reasonable collection policies. In addition, enterprises should also pay attention to the management of inventory and other assets, so as to avoid excessive capital occupied by some assets affecting the solvency of enterprises, and to avoid too little capital occupied by some assets affecting the daily operation of enterprises.

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