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SIGA Financial Summary

This report presents the financial analysis of SIGA for the past 9 years (Between 2013 to 2021). All of the calculations of the ratios in this report are based on data from the SIGA Technologies Inc. 10-k form for the given years, which are available from The U.S. Securities and Exchange Commission.

We have analyzed financial ratios including liquidity ratios, activity ratios, debt ratio, and profitability ratios. Our profitability ratios suggested that the company has had its tough years between 2013 to 2017. Then in 2018, it started make big net income which led to good positive net profit margin. In 2019, the company experienced big declining of profits, but still yielded positive net income. In recent two years, its net income increased slightly, but still were much lower than that of 2018. Our activities ratios suggested that SIGA Technology had a long time of average collection period (73 days) but relatively short time of average payment period. This indicates that the company was incurring liabilities or did not have enough cash on time to pay its liabilities. Its low asset turnover ratio indicates that the company was not using its assets effectively. Overall, we concluded that the company was performing bad financially, but it started to improving after 2017. SIGA’s financial performance is comparatively better than the rest, and it has a major influence in manufacturing and developing antivirus for smallpox in United States. With a market cap of $622.165 Million and average EPS around 1.35 and a 52 week range of $5.84-$26.99, generated a return of 113% for investors who purchased the stock three years back. Being a Pharmasutical corporation it has more of its cost based on its R&D and supply chain and thus has its current assets generally more than that of its liabilities.

STOCK REPORTING:

SIGA Technologies is a New York based American Pharmaceutical Company which was founded on 28th December 1995. It researches develops and sells vaccinations on diseases like Smallpox, Monkeypox, Cowpox and vaccinia. The US government has awarded over 1 Billion in contract value to SIGA. Recently in September 2018, to maintain the stockpile of smallpox antiviral solution Biomedical Development Authority (BARDA) awarded SIGA its most recent contract worth excess of $600 Million. SIGA Technologies is publicly traded on NASDAQ and is a component of RUSSELL 2000 index. It is currently managed by it’s CEO Phillip L. Gomez. SIGA reported $133.7 Million as its most recent revenue collection by sales in year 2021. SIGA doesn’t have a manufacturing infrastructure for its TPOXX vaccine and does not intend to develop one. For production of its raw materials, suppliers and manufacturing of TPOXX, SIGA uses Contract Manufacturing Organisations (CMO’s). SIGA is currently trading at a market price with a previous close of $8.65 as on December 2, 2022.

Liquidity Analysis

Current Ratio:

It is the best-known measure to calculate liquidity of any firm. This ratio measures a company’s ability to repay its current or short-term debt. An increase in current ratio means that the company is more likely to pay its short-term bills quicker. Current Assets and current ratio have an inverse relationship, meaning that when a company’s current assets are less than its current liabilities it has a negative effect on the current ratio. the Average Current Ratio for SIGA from 2013 to 2021 is 9.8795% with a standard deviation of 5.5600%. SIGA’s ratio was at its peak for over 2 periods based on a decrease in its current liabilities which increased the current assets side over current liabilities. With standard deviation being low it indicates that SIGA is being consistent in paying off its short-term liabilities. A commercial stage pharmaceutical company such as SIGA can use its assets efficiently.

Quick Ratio:

Quick ratio is more stringent measure of liquidity of a firm. It is a ratio of sum of Cash and Cash Equivalents, Marketable Securities, Receivables by its current liabilities. Cash is the most important metric to calculate Quick Ratio of any firm. Quick ratio provides more of an accurate approach to how a firm can liquidate its assets to pay of its short-term debt. It is the best short term liquidity measure. SIGA even though being a commercial stage pharmaceutical company has a volatile quick ratio, due to frequent changes in its current liabilities and slow asset turnover. The Average Quick Ratio for SIGA from 2013 to 2021 is 7.9593% with a standard deviation of 4.9403%. SIGA’s quick ratio was at its peak for over 2 periods based on a decrease in its current liabilities which increased the current assets side over current liabilities.

Activity Ratios

Inventory Turnover Ratio:

Inventory turnover is a financial ratio that shows how many times a company’s inventory was turned over in relation to its cost of goods sold (COGS) during a given period. It can assist businesses in making better pricing, manufacturing, marketing and buying decisions. In the year 2018, the company signed a contract with the United States Biomedical Advanced Research and Development Authority (BARDA) to deliver TPOXX® oral courses. This had a significant impact on the company’s cost of goods sold for the year 2018, as well as the inventory turnover ratio. The inventory turnover ratio in 2018 is 37.5058. After removing the outlier year, the average inventory turnover ratio is 1.59 times. It can also be interpreted that the company had good sales in 2017.

Average Collection Period:

The average collection period is the time it takes for a company to receive payments owed by its customers in terms of accounts receivable (AR). The average collection period is used by organisations to ensure that they have enough cash on hand to meet their financial obligations. The average collection period is an indicator of the effectiveness of a company's AR management practices, and it is a critical metric for businesses that rely heavily on receivables for cash flow. The 14-year average is 73 days, which is high and indicates that the company does not collect payments quickly. We can see that the average collection period in 2021 is the highest at 228 days, while it is the lowest in 2018 at 2 days.

Average Payment Period:

The Average Payment Period is the average time it takes a company to pay off its debts for credit purchases made from a supplier. The average payment period informs key stakeholders and decision makers about how quickly the company can repay their credit purchases and liabilities. If the number is good, the company can also take advantage of supplier discounts for a specified duration. Calculating the average payment period helps acquire a lot about the company, such as its cash flow position, creditworthiness, and much more. The 14-year average is 68 days, which is shorter than the average 90 days period which is been given to every company to pay their dues. It also shows that the company has good credit score.

Total Asset Turnover:

The asset turnover ratio measures the value of a company's sales or revenues to its assets. The asset turnover ratio can be used to determine how efficiently a company uses its assets to generate revenue. The greater a company's asset turnover ratio, the more efficient it is at generating revenue from its assets. In contrast, a low asset turnover ratio indicates that a company is not efficiently using its assets to generate sales. SIGA Technologies' total asset turnover ratio has been stable at 0.48 for 14 years, indicating that the company is not using its assets effectively to generate more revenue. Furthermore, it can be seen that the company had a slightly higher total asset turnover ratio in 2018, indicating that the company used its assets effectively in 2018.

Debt Ratios

A debt ratio calculates a company's leverage by comparing its total debt to its total assets.

Since this ratio varies greatly between industries, capital-intensive enterprises typically have significantly larger debt ratios than other types of businesses.

A ratio higher than 1 indicates that a significant portion of a company's assets are financed by debt, indicating that the organization has more liabilities than assets. A company with a high ratio may be at risk of loan default.

Debt to Equity Ratio:

D/E ratios under 1 are typically seen as quite safe, however levels of 2 or more may be viewed as risky. The debt-to-equity ratio, also known as the D/E ratio, is a measurement of a company's ability to pay down its debt. It is computed by dividing the total debt of an organization by the sum of its shareholders' equity. The greater the D/E ratio, which indicates that a firm's debt is considerable compared to its assets, the more challenging it may be for the corporation to pay off all of its responsibilities.

SIGA Technologies averages -1.59 D/E ratio in the past 9 years which means the company is not taking advantage of its tax and debt financing, because SIGA's D/E ratio is negative, its shareholder equity is also negative. The company's liabilities are more than its assets, in other words. In most circumstances, this would be regarded as an indication of significant risk and the possibility that the business would go bankrupt. However, the last 4 years D/E ratio averages to 0.5984 which means that SIGA is performing better since the recent years and a ratio lower than 1 indicates that equity funds a larger proportion of a company assets.

Market Ratio

Price to Earnings Ratio:

A stock's P/E is calculated by dividing the stock price by the company's annual EPS.

A company's share price and earnings per share are compared using the price-to-earnings (P/E) ratio.

A high P/E ratio may indicate that a company's stock is overpriced or that investors anticipate rapid future growth rates.

Because there is nothing to put in the denominator, businesses with no earnings or losses do not have a P/E ratio.

In the past 9 years the company averaged P/E ratio of 1.461. The industry in which the company operates will inevitably determine whether the price-to-earnings ratio is good or negative. Average price-to-earnings ratios will vary by industry, with some having greater ratios and others having lower ratios.

Profitability Ratios

Gross Profit Margin:

Gross profit margin is the percentage of the gross profits to total sales. Gross profit refers to the left over after subtracting cost of goods sold (COGS) from total sales:

A company’s gross profit reflects its products’ profitability. For SIGA Technologies Inc., we adopted the past 9 years (2013 to 2021) data and calculated corresponding gross profit margin for each year.

The detailed value for each year’s in presented in Appendix A. Since there were no product sold between year 2013 to 2017, the gross profit margin for these years is 1. The gross profit margin staring from 2018 is above 0.8. Its value for last year is 0.876.

Operating Profit Margin:

Operating profit margin is the profit of 1 dollar can make after paying operating expenses, it is calculated as below:

Operating expenses include expenses such as cost of goods sold, wage, administration fees, etc. it doesn’t include interest and tax expenses. The main operating expenses in SIGA Technologies Inc., are cost of sales and supportive services, selling, general and administrative fees, research and development expenses, patent expenses, patent expenses, litigation accrual expense, and restructuring charges. The operating profit margin of SIGA for years between 2013 to 2021 are presented in appendix B.

Figure 1: The operating profit margin of SIGA

Figure 1 shows that the operating profit margin before 2018 are negative. In 2014, it has a very big negative value due to huge litigation accrual expense in that year while the revenue is very small.

Net Profit Margin:

Net profit margin measures the percentage of net income obtained per dollar revenue. It is calculated as:

Net income is the remaining value all of expenses subtracted from revenue. SIGA’s net profit margin in shown in appendix C. Corresponding to the operating profit margin, net profit margin in 2014 is a big negative value for the same reason. The net profit the company generated in 2018 is positive, but in 2019 in turned to be negative again. The product sales revenue decreased significantly comparing to that in 2018. In 2020 and 2021, the product sales increased to more than 100 million, then net profit margin then turned to be positive, but it is still lower than that in 2018.

Earning per Share:

Earning per share (EPS) indicates the profit per outstanding common share could make for a company. It is calculated as dividing the net income by number of total outstanding shares. SIGA Technology Inc,. include the concept of diluted shares outstanding in its financial report. We calculated its EPS for both basic shares outstanding and diluted shares outstanding. Appendix D shows the detailed EPS for SIGA for years between 2013 to 2021, it has the largest EPS in 2018. Last year, its basic EPS is 0.92.

Return on Asset:

Return on Asset (ROA) measures the value each dollar of asset can make. It is calculated as below:

The detailed value of return on assets for SIGA is presented in Appendix E.

Figure 2: Return on assets of SIGA

As shown in figure 2, the return on assets in 2018 is the biggest among the past 9 years. In 2019, ROA greatly reduced from 2.073 to -0.0336 due to a dramatic reduction of its product sales.

Return on Equity:

Return on equity (ROE) signifies the profitability of each dollar investment it gained from its shareholder. It is calculated as the total net income divided by the total equity of a company:

SIGA’s ROE is presented in Appendix F. Sometimes, this value can be misleading. For example, the ROE of SIGA in 2014 is 1.077, we may interpret it as that SIGA generated 1.077 each dollar invested in it. However, if we read the consolidated balance sheet and income statement, we will find out that both the net income and total equities in that year is negative. The company generated a negative income, so a positive ROE do not mean anything.

Dupont analysis:

The Dupont framework break the ROE into a few parts: net profit margin, equity multiplier, and total asset turn over.

This framework enables us to see the factors that lead the changes in the ROE.

Figure 3. DuPont components

From Figure 3, net profit margin in 2014 is a big negative value, but the corresponding ROE is a positive value, from the other two components plot, we can tell that the big negative value of net profit margin is offset by multiply it to the negative equity multiplier in 2014. Then we multiply the result by the small positive total asset turnover to get a positive ROE.

Appendix

Appendix A: Gross Profit Margin

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| SIGA GPM | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.800 | 0.933 | 0.882 | 0.876 |

Appendix B: Operating Profit Margin

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| SIGA OPM | -4.261 | -66.776 | -3.786 | -2.069 | -1.536 | 0.744 | -0.087 | 0.676 | 0.667 |

Appendix C: Net Profit Margin

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| SIGA NPM | -3.112 | -84.547 | -4.825 | -2.649 | -2.953 | 0.884 | -0.271 | 0.451 | 0.520 |

Appendix D: EPS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Basic EPS | -0.330 | -4.970 | -0.730 | -0.690 | -0.460 | 5.280 | -0.090 | 0.710 | 0.920 |
| Diluted EPS | -0.330 | -4.970 | -0.730 | -0.690 | -0.460 | 5.180 | -0.150 | 0.710 | 0.910 |

Appendix E: ROA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| ROA | -0.089 | -1.595 | -0.212 | -0.247 | -0.250 | 2.073 | -0.036 | 0.376 | 0.323 |

Appendix F: ROE

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| ROE | -1.012 | 1.077 | 0.139 | 0.138 | 0.112 | 4.099 | -0.074 | 0.434 | 0.398 |

Appendix G: DuPont Analysis

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Total asset turnover | 0.028 | 0.019 | 0.044 | 0.093 | 0.085 | 2.345 | 0.135 | 0.834 | 0.623 |
| Equity Multiplier | 11.418 | -0.675 | -0.653 | -0.560 | -0.448 | 1.977 | 2.031 | 1.154 | 1.232 |
| Net Profit Margin | -3.112 | -84.547 | -4.825 | -2.649 | -2.953 | 0.884 | -0.271 | 0.451 | 0.520 |
| DuPont | -1.012 | 1.077 | 0.139 | 0.138 | 0.112 | 4.099 | -0.074 | 0.434 | 0.398 |