

A Financial Analysis and Performance Evaluation of Warner Music Group, Brown-Forman and Netflix

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Abstract. This paper examines the financial performance of Warner Music Group (WMG), Brown-Forman (BF-B), and Netflix (NFLX), three key players in the consumer discretionary sector. Through an analysis of specific financial ratios—including liquidity, solvency, and profitability metrics such as the current ratio and return on assets (ROA)—this study evaluates the strengths and weaknesses of these companies. Additionally, it provides insights into the types of investors best suited to these stocks based on their financial profiles and market forecasts. The findings shed light on the benefits and limitations of each stock, offering a comprehensive perspective on their financial health and market positioning. The article begins with an overview of each company's background, followed by a detailed assessment of their liquidity, debt management capabilities, and profitability. Furthermore, it includes projections for their future performance in the stock market, providing valuable information for investors seeking to make informed decisions. This evaluation aims to bridge the gap between financial analysis and practical investment strategies in the evolving consumer discretionary landscape.

Keywords: Financial Performance; Consumer Discretionary Sector; Investment Analysis.

1. Introduction

Consumer discretionary sector has wide coverage across people's daily life and society.

Warner Music Group was founded in 1930, formerly known as Warner Bros. Music Publishing Limited. It has offices in over 70 countries worldwide. Having numerous renowned artists. This business covers music production, research and development, artist management, and more. Collecting various data through Yahoo Finance and analyze its liquidity, solubility, probability, showing the company's debt paying ability, profitability, competitiveness, and investors' investment preferences towards the company, etc.

Brown-Forman is one of the top companies in premium beverage alcohol industry in consumer discretionary sector, generating money through global sales of its spirit brands like Jack Daniel. Compared to other industries, the purchasing power for consumers to buy alcohol even during an economic depression is less sensitive [1]. Although data is available to access in financial and investment information service platforms, there are still lack of integrated evidence for different data. Hence, homogeneous groups are important [2]. Liquidity, solvency, profitability, and market ratios for foreseeing are grouped by financial ratio analysis.

Netflix Inc. (NASDAQ: NFLX) is one of the most successful streaming services in the world and has been at the forefront of the entertainment industry's transformation, with the majority of users worldwide. As a constantly innovating company, Netflix is known for actively maintaining the foundation of original content to achieve more product innovation, actively expanding globally, and adopting a data-driven business model. As a growth-oriented company, Netflix is facing rapid stock price fluctuations driven by internal factors such as content release and user growth, as well as external pressures such as competition, regulatory changes, and economic trends [3].

This study will provide solid information regarding 3 typical stocks in consumer discretionary sector by using quantitative analysis to various data about their performances and whether they are recommended for certain investors.

2. Financial Performance

2.1. Liquidity

Table 1. Liquidity ratios of three companies

Ratio / Stock	WMG	BF-B	NFLX
Current ratio	0.69	2.47	0
Quick ratio	0.67	0.74	0.98
Cash ratio	0.15	0.74	N/A

Data source: yahoo finance.

2.1.1 Warner Music Group

Current Ratio: Generally speaking, the current ratio of health enterprises is usually between 1-3. Warner Music's current ratio of 0.69 is much lower than this, as Table 1 shown. The company has high short-term debt repayment risk. If short-term debt matures, relying solely on current assets may be difficult to fully repay, and there is a certain degree of short-term debt repayment risk.

Quick Ratio: Warner Music Group's quick ratio of 0.67 is lower than normal, which means its short-term solvency is relatively weak, with only 0.67 yuan of quick assets as protection for every 1 yuan of current liabilities, and there may be a risk of not being able to repay short-term debts in a timely and full manner. However, the operational characteristics of the music industry may result in differences between its quick ratio and traditional standards.

Cash Ratio: The normal range of cash ratio is generally considered to be above 20%, while Warner Music is only 0.15, indicating that its cash and cash equivalent assets have a low coverage of current liabilities and a high short-term debt risk. Besides, this low ratio means that the company has fewer cash assets available for immediate debt repayment and poor liquidity.

Overall, Warner Music does not have a significant advantage. Its short-term debt repayment risk is high, its debt repayment ability is weak, and its liquidity is poor. Warner Music may allocate funds towards long-term projects, which may promote the company's development but also overlook the risk of short-term debt repayment.

2.1.2 Brown-Forman

Table 1 demonstrates the liquidity ratios of Brown-Forman over the last quarter. As a result of 2.47 current ratio, Brown-Forman has a high liquidity position, reflecting it has more current assets than current liabilities. However, its current ratio is too high to generate revenue efficiently with excess current assets. Brown-Forman's quick ratio is less than 1.0, suggesting that the majority of its current assets are accounted for inventory and less liquid assets. Brown-Forman has cash ratio less than 1.0, so it generally depends on other assets rather than cash and realizable assets, which could lead to the risks of low liquidity in the short run. Based on these 3 ratios, Brown-Forman has overall healthy liquidity position, for current ratio is much higher than other indexes. But it relies heavily on inventory, in doing so offsetting the benefits of high current ratio because inventory is less liquid to react on paying its short-term loans and requires longer time to cash out.

2.1.3 Netflix

Current ratio: Netflix's current ratio is 1.13, indicating that there are sufficient current assets to cover the company's liabilities, demonstrating the financial stability of the company and making it more attractive to conservative and conservative investors. However, this data is slightly lower than industry benchmarks and reflects a cautious balance between growth and cash reserves.

Quick ratio: Netflix's quick ratio is 0.98, indicating that the company has strong short-term debt repayment ability. Furthermore, it indicates that the company's current assets and liabilities are almost balanced, with minimal inventory dependence and high efficiency in cash and accounts receivable management, which can reduce asset utilization. On the other hand, a liquidity ratio of 0.98 means that the company may face certain risks. If a large proportion of current assets cannot be quickly realized, the company may face short-term debt pressure.

Cash ratio: The cash ratio compares cash and cash equivalents with current liabilities. If the ratio is higher than 1, it indicates that the company has more cash than short-term debt, while also ensuring that it can use its current liquidity to repay its debts and maintain a stable position in the market. Netflix's cash ratio is not disclosed in detail on public financial platforms like Yahoo Finance, but based on its annual financial report, it appears that the company maintains a stable cash position, indicating that it has sufficient liquidity to pay for emergency financial crises in the future without the need for additional borrowing from banks or other lending companies.

Overall, Netflix has a significant advantage in terms of liquidity. It has good cash liquidity and can prevent future debt repayments. In terms of speed and efficiency, the company has a significant advantage over other competing companies in the market. It has strong short-term debt capacity, ensuring sufficient cash to cope with debt without worrying about future loans from banks or lending companies.

2.2. Solvency

Table 2. Solvency ratios of three companies

Ratio / Stock	WMG	BF-B	NFLX
D/E ratio	8.81	0.91	0.81
D/A ratio	48.2%	57.77%	0.40
Long-term debt/A ratio	N/A	29%	N/A

Data source: yahoo finance.

2.2.1 Warner Music Group

D/E Ratio: Generally speaking, a high D/E ratio means that a company has weak long-term debt paying ability. Warner Music's ratio (see Table 2) is much higher than the normal range of 0.5-1.5, indicating a heavy debt burden, high debt pressure, and high financial risk. A high D/E ratio means that a company has weak long-term debt paying ability. Warner Music's ratio is much higher than the normal range of 0.5-1.5, indicating a heavy debt burden, high debt pressure, and high financial risk. Compared with peers in the industry, Warner Music has a relatively high D/E ratio, indicating that its debt level is relatively high within the industry.

D/A Ratio: This ratio indicates that nearly half of Warner Music's assets are formed through liabilities, resulting in significant long-term debt pressure. Once poorly managed, it can lead to financial crisis. This ratio indicates that nearly half of Warner Music's assets are formed through liabilities, resulting in significant long-term debt pressure. Once poor management triggers a financial crisis. This ratio indicates that the company relies more on debt financing for financing. Although this approach can raise funds for business expansion in the short term, it will affect profitability.

Overall, Warner Music Company's debt repayment difficulties are indicated by various data, indicating that the company often relies on debt financing, which affects its profitability and increases financial risks.

2.2.2 Brown-Forman

Table 2 illustrates the solvency of Brown-Forman's leverage ratios from last quarter. Based on Debt-to-equity ratio (D/E ratio) of 0.91 and debt-to-asset ratio (D/A ratio), 57.77%, Brown-Forman shows a moderate financial management, which develops a balanced financial proportion between shareholdings and equity financing. Although more than half of its total assets are accounted for debt,

it seems to be normal by considering the nature of premium alcoholic beverages industry. Whisky generally requires long-term storage, making the debt for inventory compulsory. Debt-to-equity ratio is slightly lower 1, indicating it has sufficient shareholdings' equity to offset short-term debt repayment pressure. 29% long-term debt-to-asset ratio (long-term debt/a ratio) indicates Brown-Forman has lower dependence level of long-term debt. This shows it has high solvency in the long run and investors are less likely to uncover the issues of defaulting on debt obligations. These funds guarantee it could expand the firm's scale, further explaining Brown-Forman has a healthy financial statement.

2.2.3 Netflix

D/E ratio: The D/E ratio of Netflix is 0.81, which indicates a decrease in leverage and an increase in shareholder equity for the stock under normal circumstances. On the other hand, this transformation is consistent with the growth rate of balancing debt financing and equity contributions.

D/A ratio: The debt to asset ratio measures the proportion of a company's assets financed by debt. For Netflix, the D/A ratio is approximately 0.40, which also means that 40% of Netflix's assets are funded by debt. Although it appears to be a moderate level based on general market data, it still indicates that Netflix relies on a certain degree of leverage to fund its operations and growth plans. Moreover, a D/A ratio of 0.40 is relatively healthy in the technology and media industries, as it demonstrates Netflix's key ability to easily manage debt while maintaining significant equity.

Long-term debt/a ratio: Netflix's long-term debt to asset ratio has remained relatively flat, which is actually a typical feature of companies in capital intensive industries such as media and entertainment. Under the rapid development of the Internet, it is an inevitable trend. The company is able to refinance its long-term debt on more favorable terms, which also reduces investor risk, attracts more investors to invest, stabilizes its financial market, and helps it maintain an investment grade credit rating.

On the other hand, as media companies like Netflix continue to grow economically, the voices of others are also threatened. Netflix is attempting to establish its own vertically integrated cross-border system by weakening the role of regulatory agencies, national governments, or other content producers in a national context, posing a threat to the development of the media industry, especially in small countries. Therefore, Netflix will face more challenges in its future development [4].

Overall, the conclusion drawn from the analysis of Netflix's solvency ratio is that the company is able to fulfill its long-term obligations and responsibilities without excessive reliance on debt. Its moderate debt level indicates that Netflix is maintaining a balanced capital structure, which is beneficial for its long-term financial health and also attracts growth investors.

2.3. Profitability

Table 3. Profitability ratios of three companies

Ratio / Stock	WMG	BF-B	NFLX
Gross profit margin	47.85%	59.41%	38%
Net profit margin	8.56%	24.15%	8.2%
ROA	7.42%	8.52%	11.84%

Data source: yahoo finance.

2.3.1 Warner Music Group

Gross Profit Margin: This reflects the company's strong profitability, enabling it to develop steadily in market competition and industry environment changes. Warner Music's gross profit margin of 47.85% is in a relatively strong position (see Table 3), which makes it more competitive with peers and able to gain more partners.

Net Profit Margin: A net profit margin of 8.56% indicates that the company can still generate a certain proportion of profits from sales revenue, has a certain level of profitability, and maintain the

normal operation and development of the company. In the music industry, the 8.56% interest rate is at a moderate level. Compared with top companies in the industry, the competitiveness needs to be improved; But compared to some small music companies or poorly managed peers, there are still certain advantages.

ROA: ROA reflects the company's ability to generate profits through asset utilization, with 7.42% indicating that for every 100 yuan invested in assets, the company can earn a net profit of 7.42 yuan. The profitability is at a moderate level and can create value for shareholders to a certain extent. In the music industry, 7.42% of ROA have average competitiveness compared to competitors. Like Universal Music Group N.V. The ROA is 11.3%, while Tencent Music Entertainment Group's is 8.2%, both higher than Warner Music. Based on the value of ROA, it can be determined that Warner Music is suitable for value investors and long-term investors to invest in.

Overall, based on the above data, it can be concluded that Warner Music has a certain level of profitability in the industry and can effectively control costs. Besides, Warner Music has a certain level of competitiveness in the industry.

2.3.2 Brown-Forman

Table 3 demonstrates the profitability ratios of Brown-Forman in last quarter. Gross profit margin of 59.42% shows it has a mature cost of goods sold control, such as raw material industry chain and other business expenses. Based on the difference between this ratio and 24.15% net profit margin, Brown-Forman still has room to improve its marketing planning that can largely reduce the money spend on indirect costs. As the 8.52% return on asset (ROA) is generated by the high net profit margin, it has enough ability to generate income into return. Combined, Brown-Forman has moderate profitability, suitable for balancing profitability and operational efficiency.

2.3.3 Netflix

Gross profit margin: Gross profit margin is a key indicator for measuring the efficiency of a company's production of goods and after-sales service. For Netflix, the gross profit margin for 2023 is about 38%, which has slightly rebounded compared to the previous year's data. The rebound in this aspect indicates that Netflix has tried its best to better control its revenue costs, which may be achieved by expanding the company's operational scale and more effectively utilizing its vast content library, such as launching derivative entertainment products in the market to meet broader market demand or using the accumulated customers on the original basis to launch some activities to retain these customers. Although current data indicates that it has not yet recovered to the level of 2021, this profit margin still puts Netflix in a competitive position relative to other streaming and entertainment companies such as Amazon Prime or Disney+, which is also a stabilizing factor for the company.

Net profit margin: The net profit margin reflects the percentage of revenue remaining after deducting all expenses for a company. In 2023, Netflix's net profit margin is 8.2%, which is an increase compared to previous years' data. At that time, its profitability was under pressure from the increase in creative costs and the expansion of the international situation. But this improvement indicates that Netflix has begun to see a return on investment and is striving to become more efficient in converting revenue into profit and saving unnecessary cost consumption. Although the net profit margin is not as high as some competitors in the popular technology industry, it is still a positive signal for most investors, indicating that Netflix continues to expand its user base while maintaining profitability and will continue to maintain profitability in the future. Therefore, the company can still attract most investors to invest at present.

ROA: Return on Assets (ROA) is a measure of how a company effectively utilizes all of its assets to generate profits. Netflix's ROA is 11.84% (Yahoo Finance 2024), which reflects the company's effective utilization of its assets, particularly in leveraging its technology platform and global membership user base, such as launching holiday promotions and marketing to increase brand awareness. The ROA ratio puts Netflix in a favorable position relative to other entertainment related technology companies, with an 11.84% ratio indicating that the company is effectively utilizing its

assets to generate revenue and profits. This clear data stabilizes its position in the financial market and attracts investors such as growth and steady investors.

Overall, Netflix's profitability has improved compared to before, and it is also inclined to expand the company's market and user base in the future. It is also striving to improve the efficiency of converting revenue into profit and will increase its profitability in the future. However, Netflix relies on Amazon Web Services in specific aspects of its services, and any interruption or interference in its use of Amazon Web Services would have a significant impact on its operations, thereby adversely affecting its overall business.

3. Forecast and Valuation

Table 4. Estimates of three companies

Ratio / Stock	WMG	BF-F	NFLX
PE	30.72	23.66	51.00
PB	36.66	6.07	16.97
Dividend Yield	2.22%	1.2%	N/A
PEG ratio	0.94	4.62	1.84
Valuation Investor: $P_0 = D_1/(R-g)$	\$32.33	\$42.24	N/A

Data source: yahoo finance.

3.1. Warner Music Group

PE ratio: Compared to the market average price to earnings ratio, a market average price to earnings ratio of 14-20 is generally considered a normal level. Warner Music's PE value of 30.72 is significantly higher than the market average, indicating that its stock price is relatively high relative to earnings per share and has a certain degree of overvaluation. In the music industry, Warner Music's valuation is relatively high, and investors have high expectations for its future development and are willing to pay a higher price for its stock. Venture investors will invest in Warner Music Company.

PB: The PB value of 36.66 is much higher than the generally considered reasonable range of 3-10. Once the company's future performance falls short of expectations, investors may suffer losses.

Dividend Yield: Compared with other industries, the dividend yield of the music industry is usually relatively low. Warner Music's 2.22% dividend yield is at a moderate level within the industry. Although not outstanding, it still has a certain competitiveness in the overall dividend performance of the music industry, which is attractive to investors who pursue stable returns and prefer investing in the music industry.

PEG Ratio: Generally speaking, a PEG ratio below 1 is considered a relatively reasonable or undervalued stock valuation. Warner Music's PEG ratio of 0.94 indicates that its current stock price is somewhat attractive relative to its expected profit growth, and the market has good expectations for its future profit growth. Investors may obtain the benefits of the company's future profit growth at a relatively low price. Warner Music's PEG ratio of 0.94 may be at a relatively favorable level in the industry, with greater valuation and growth potential advantages compared to competitors, making it more attractive to value investors and long-term investors.

Overall, based on the above data, it can be concluded that Warner Music has a certain advantage in the industry and its valuation is overvalued. Investors believe that its development is better, but its risks are also too high, so it is suitable for venture capitalists to invest. Secondly, its stable returns can attract more value investors and long-term investors.

3.2. Brown-Forman

Table 4 shows the speculation for various investors to invest. Price-to-earnings ratio (PE ratio) compares Brown-Forman's market price to its earnings per share (diluted), which is larger than 10, high enough for value investors avoid buying it. 6.07 price-to-book ratio (PB ratio) is also an indicator that value investors would consider when buying the stocks. But this stock does not meet the

benchmark of greater than 1. Thus, value investors may not invest in them neither. Brown-Forman has 1.2% per share dividend yield, indicating the percentage return on the investment in terms of dividend income so that income investors may not prefer it. Moreover, Brown-Forman's price/earnings-to-growth ratio (PEG ratio) does not reach the PEG investors investment criteria due to greater-than-one PEG ratio. Furthermore, the intrinsic value of this company is evaluated by using The Gordon Growth Model [5]. Valuation investors would underestimate the current stock price and \$42.24 intrinsic value from $P_0 = D_1/(R-g)$, viewing Brown-Forman as a worthwhile stock to invest because it is now undervalued by the market, which is a good opportunity for them to buy and expecting its dividend will go upwards in the future.

3.3. Netflix

PE ratio: Netflix's price to earnings ratio is currently around 37.6, which is relatively high compared to the industry average. This indicates that investors are willing to pay a premium for Netflix's future profit growth and also reflects investors' confidence in the company's ability to continue expanding and profitability [6]. Although a high P/E ratio means that the financial market overvalues the company's stock and value investors are less likely to choose it, for growth companies like Netflix, growth investors and conservative investors are more likely to choose this company.

Meanwhile, it is expected that they will generate higher returns in the future.

PB ratio: Netflix's PB ratio is about 8.3, indicating that the financial market values the company much higher than its book value. Analyzing this data reveals that investors believe Netflix can generate strong high returns in the future, which also demonstrates that the company is mainly supported by a majority of growth and conservative investors [7]. Its own advantages, especially as one of the world's top entertainment and cultural film companies, have a wide global user base, brand awareness, and advanced resources. These advantages are also a reflection of the company's ability to maintain market stability and its high valuation in the market.

Dividend Yield: As of 2024, Netflix does not offer dividend yields. The company reinvests its profits into content creation, global expansion, and technological innovation to maintain its global leading position. This is a typical feature of high growth companies that prioritize reinvestment to drive future growth rather than paying dividends.

PEG ratio: The estimated PEG ratio for Netflix is around 2.0. A PEG ratio higher than 1 indicates that the company has been overvalued by the market and also suggests that the company's stock is at a premium to its profit growth [8]. However, for companies like Netflix that are leading in their industry, they will continue to expand into broader financial markets in the future, and in order to meet this expansion, they will constantly launch new derivative products and activities to attract more investors and users [9].

Valuation Investor $P_0 = D_1/(R-g)$: To estimate Netflix's fair value, it can use the Dividend Discount Model (DDM), $P_0 = D_1/(R-g)$. D_1 is the expected dividend for next year (not applicable as Netflix currently does not pay dividends), R is the required rate of return (Netflix estimates it to be 8%), and g is the growth rate (considering Netflix's global expansion and content strategy, it is expected to grow by 10% annually for the next 5 years). Because Netflix focuses more on reinvestment, using the traditional DDM model for valuation may not be applicable, but investors can instead use the discounted cash flow (DCF) method to seek a more realistic calculation method to estimate its Valuation Investor.

Overall, currently governments in various European countries are implementing the Audiovisual Media Services Directive (AVMSD) to establish a unified regulatory system for all media content, from wireless live television to streaming video on demand. It is worth noting that the directive requires any European streaming service to include at least 30% of European content on its platform. These potential rules pose challenges for Netflix and may increase its operating costs as a global company [10]. In terms of profitability, Netflix still needs to face many social challenges, but its good data has an advantage.

4. Conclusion

This report analysis Warner Music Group, Brown-Forman and Netflix from quantitative analysis to investment evaluation that cater to different types of investors respectively.

Warner Music's stock has a certain degree of volatility. For example, Warner Music's stock price fluctuates in 2024, and its stock is also affected by the company's performance. When the performance grows, the stock price rises. In addition, factors such as industry competition and market expectations can also affect its stock price trend, and the performance of companies in different business sectors also varies.

The findings suggest that Brown-Forman has high liquidity, healthy solvency, and moderate profitability. It is also favored by valuation investors according to intrinsic value, but less appealing for value and PEG and income investors. On the other hand, the results only based on a quarter, so it is less valuable for a long-term investor who usually eliminate the interference of data noise. In the future, studies can focus more on wide range of factors such as the influence of unforeseen events and changes in global dynamics, offering a comprehensive perspective in analysis.

Netflix received positive reviews from the market in 2024 due to its growth potential and dominant position in the entertainment industry. The company's high P/E ratio and P/E ratio reflect investors' optimism and positive sentiment, but Netflix's ability to maintain a high growth trajectory is crucial for sustaining its premium valuation. For investors, Netflix remains a growth stock with high expectations, but its lack of dividends means it is more suitable for long-term capital gains rather than revenue generation.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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