Investment Research on Individual Stocks in Large Research Industry Enterprises

Xuan Zhang *

School of Capital University of Economics and Business, Beijing, China

* Corresponding Author Email: 32023030153@cueb.edu.cn

Abstract. As technology continues to develop, the influence of the technology industry on the market cannot be ignored. This study aims to explore the trends and fluctuations of key representative technology stocks, specifically focusing on Advanced Micro Devices (AMD), Oracle Corporation (ORCL), and Qualcomm Incorporated (QCOM). By meticulously analyzing the publicly available balance sheets and income statements of these companies, we will extract pertinent financial indices and conduct a comprehensive financial analysis. The analysis will include key financial metrics such as revenue growth, profit margins, return on equity (ROE), and debt-to-equity ratios, among others. These metrics will be used to evaluate the financial health and performance trends of each company over a specified period. Additionally, we will compare these metrics across the three companies to provide insights into their relative market positions and competitive advantages. The objective of this analysis is to furnish investors with a reliable and data-driven market analysis that can inform their investment decisions. By understanding the financial underpinnings of these technology giants, investors can better assess the potential risks and returns associated with investing in these stocks. This study aims to bridge the gap between financial theory and practical investment strategies, offering a valuable resource for both individual and institutional investors interested in the technology sector.

Keywords: Technology, Individual Stocks, Analysis.

1. Introduction

1.1. Background and Rationale

1.1.1 Overview of the Research Industry

Technology has always been a very important industry in the market. There are technology-related products in every aspect of human daily life. Because of its wide range, the technology industry has a broad market, many leading companies, and many different performances in the financial market. Share market is unpredictable, but an estimate can be drawn from the regular study of the share market [1]. Due to its complexity, analyzing the changes in the financial market from different angles and using different indicators is the key to making the conclusion predictable.

1.1.2 Importance of investment in large enterprises within the sector

Large enterprises in the industry are large and relatively strong in risk resistance, which is reflected in the fact that the fluctuation of stocks is small in the financial market, which can bring stable returns or small losses to investors. At the same time, the financial statements, balance sheets, income statements, and cash flows of large enterprises are clear and transparent, and the possibility of fraud is small. The data that investors can access to analyze whether stocks are worth investing in are relatively real and highly analyzable.

1.1.3 Objectives of the study

The purpose of the research is to find small development trends in the technology industry by analyzing individual stocks, and at the same time to find stocks that have the potential to bring returns to different types of investors, so that investors can have an expectation in mind.

1.2. Scope and Limitations

The selected companies are well-known and leading enterprises in the technology industry, which are differentiated in their core businesses. Try not to select companies with high similarity in products and technologies. Choose companies listed on the U.S. stock market.

1.3. Limitations of the research.

The research is only a prediction and may not reflect the real situation in the future. It is just an accurate judgment based on the accurate data currently available. At the same time, the technology industry is innovative, and any technology and product will be replaced at some point in the future, so the leading industry may be replaced (but many leading companies have some monopoly technology, such as Nvidia)

2. Industry Overview

2.1. Current Market Trends

2.1.1 Key trends shaping the research industry

Although the market may make some mistakes, it gradually matures in the process of making mistakes. The market is the best testing ground and the best information distribution center. The more complete the market is, the richer and more accurate the information we can obtain [2]. After decades of development, the market of the technology industry has become mature. The rapid development of science and technology has brought convenience to people. The current prospects of the technology industry are good, which is also reflected in the financial market. This is related to the fact that more and more people are beginning to use technology products and technology products account for an increasing proportion of people's lives.

2.1.2 Technological advancements and their impact

Technological progress has broadened the market for the technology industry. For example, the recent boom in open AI has brought about a whole new track. Technological progress is also the core competitiveness of the industry. Mastering advanced concepts and product technologies means occupying a place in the technology industry.

2.2. Competitive Landscape

The technology industry encompasses a diverse array of segments, each with its own significant players and market shares. The semiconductor sector leads with a substantial 29.17% market share, followed closely by software infrastructures at 27.78%. Consumer electronics hold an 18.29% share, while software applications account for 10.46%. Information technology services contribute 4.19%, and semiconductor equipment and materials make up 3.03%. Other notable segments include computer hardware (2.29%), communication equipment (2.00%), electronic components (1.33%), scientific and technical instruments (0.96%), solar technology (0.33%), and electronics and computer distribution (0.17%). This distribution highlights the varied and dynamic nature of the technology market, with each segment playing a crucial role in the industry's overall growth and innovation.

3. Methodology

3.1. Data Collection

Sources of data (financial reports, market analysis, etc.) data from yahoo finance. The market value exceeds 20 billion, and all data are clear and without abnormalities, analogies. Investment analysis tools and techniques used:financial ratio. Find the corresponding data from the financial statements and use various financial indexes to analyse whether the investment is acceptable to certain investors.

4. Company Profiles

4.1. Company 1

AMD (Advanced Micro Devices, Inc.) is an American multinational company whose main business is semiconductor research and development. They develop computer processors and related technologies for commercial and consumer markets. In the first quarter of 2024, the revenue of AMD was $5.5 billion, the gross margin was 47%, operating income was $36 million, net income was $123 million, and diluted earnings per share was $0.07 [3]. AMD's stock rose from mid-January to early March and fell back to its original level from mid-March to May. Since then, AMD's stock has experienced a small increase and then fluctuated within the range.

4.2. Company 2

Oracle Corporation is an American computer technology company. They are known for their main business of selling their own Oracle database and cloud computing. Fourth quarter GAAP EPS was $1.11 and non-GAAP EPS was $1.63. Short-term deferred revenue was $9.3 billion. FY 2024 operating cash flow was $18.7 billion, up 9% in U.S. dollars. FY 2024 total revenue increased 6% in U.S. dollars and constant currency to $53.0 billion [4]. Oracle's stock continued to rise from late February to early April, fell slightly from April to May, and has continued to rise since then.

4.3. Company 3

Qualcomm is an American multinational corporation. Its main business is the production of software, services and semiconductors related to wireless technology. GAAP revenue: $9.4B; non-GAAP revenue: $9.4B; GAAP EPS: $2.06; Non-GAAP EPS: $2.44 [5]. Qualcomm's stock continued to rise from late February to early April, fell slightly from April to May, and has continued to rise since then.

5. Financial Analysis

5.1. Key Financial Metrics

Table 1. Profitability ratio of 3 companies

	Companies' name	AMD	ORCL	QCOM
Profitability ratio	Total Asset Turnover	0.336	0.391	0,713
	ROA	1.644%	7.919%	16.430%
	ROE	1.997%	683.933%	38.858%
	Profit Margin	4.895%	20.267%	23.034%

As shown in Table 1, return on Equity (ROE), Return on Assets (ROA). ROA has a significant positive effect on Stock Price [6, 7]. ROA: QCOM>ORCL>AMD, as same as profit margin. So QCOM have the highest profitability and AMD have the lowest. The ROE of ORCL is extremely high. The revenue generated by the company through operations and management is very high. QCOM has high ROE and AMD has low ROE. All 3 companies' total asset turnover are not above 1, it means the sales capacity of the three companies is not strong.

5.2. Stock Performance Indicators

Table 2. Market ratio of 3 companies

		AMD	ORCL	QCOM
Market Ratio	PE ratio(ttm)	242.15	32.88	26.39
	PB ratio(mrq)	4.78	60,87	9.02
	Dividend Yield	--	1.28%	1.72%
	PEG ratio (5yr expected)	0.65	1.38	1.83

As shown in Table 2, all 3 stock's PE ratios are >10 so all these stocks are not value stock. All PB ratio are >2 so value investor won't buy these stocks. All dividend yield is<3% so the income investor will not invest in these stocks. AMD's PEG ratio is <1 so the conservative growth investors maybe invest in this stock; ORCL and QCOM's PEG ratio is>1 so the conservative growth investors will not buy it.

6. Investment Analysis

6.1. Risk Assessment

6.1.1 Industry-specific risks

Generative AI is ushering in a new era of digital transformation, which is both an opportunity and a challenge for technology companies. Advances in AI technologies, such as multimodal agents and the use of AI in humanoid robots, will drive the development of the technology industry. Advances in AI technologies, such as multimodal agents and the use of AI in humanoid robots, will drive the development of the technology industry. Changes in data protection rules, digital taxation, and antitrust regulations may rapidly change the competitive landscape. Technology-based companies often provide investors with insufficient information about their innovative production activities. The only innovation-related financial data that needs to be disclosed in a company's financial reports is the company's recurring research and development expenditures. There is a lack of information on the nature of the company's innovative activities and their results [8].

6.1.2 Company-specific risks

Table 3. risk ratio of 3 companies

	Stock 1	Stock 2	Stock 3
Name of the Companies	Advanced Micro Devices	Oracle	Qualcomm
Ticker Symbol	AMD	ORCL	QCOM
Market Cap	266.142B	342.547B	224,149B
Beta	1.66	1.02	1.33
Debt ratio	17.8%	98.8%	57.7%
Current ratio	2.51	0.91	2.33

As shown in Table 3, all companies' market cap is above 200B, they are all big companies.

β: AMD>QCOM>ORCL, and all of them above 1. So, the risk of these 3 stocks is above the market average, and the risk of AMD is bigger than QCOM, the risk of QCOM is bigger than ORCL.

The debt-to-equity ratio has a significant negative impact on the company's automotive earnings growth [9]. Total Debt Ratio: ORCL>QCOM>AMD. So, the ORCL have the highest risk in the perspective of leverage, and the AMD have the lowest. Current Ratio: All 3 stock's current ratio is above or around 1 so they don't have the liquidity problem. Multiple regression analysis shows that the current ratio has a significant negative impact on the company's profitability (ROA), and the company will lose the opportunity to make more profits because these funds are not used to invest to make more profits, but to supplement the company's liquidity [10].

6.2. Growth Potential

Innovation and R&D capabilities. AMD is the world's leading microprocessor design company, which is widely used in various electronic devices, especially computers. Oracle mainly provides services such as enterprise financial management database archiving, such as sales point intelligence system, supply chain management, human resource performance analysis, etc. Qualcomm is a radio communication technology research and development company with a large user base. Market expansion opportunities. The more users who have these three needs, the more market expansion opportunities it has, and it has a great advantage over its peers. companies have advantages.

7. Strategic Recommendations

7.1. Diversification and Portfolio Considerations

Table 4. Momentum index

	AMD	ORCL	QCOM
PE ratio	242.15	32.88	26.39
PB ratio	4.78	60,87	9.02
Dividend Yield	--	1.28%	1.72%
PEG ratio	0.65	1.38	1.83
Intrinsic Value	17.73	97.86	108.93
Current Stock Market	166.75	117.09	204.80
MA (200)	166.99	121.25	172.78
MA (50)	140.31	113.81	139.96

As shown in Table 4, Qualcomm and Oracle's stocks have been rising for a long time, while AMD's stock is not stable, rising and falling from time to time.

Table 5. recommend for investor

Value Investor	--
Income Investor	--
PEG Investor	QCOM
Index Investor	--
Momentum Investor	QCOM

In the table 5, the conclusions in the table are drawn from the previous analysis. In general, these three technology stocks have no obvious shortcomings. All indicators are within a reasonable range. Therefore, a relatively accurate conclusion can be drawn that the trends of AMD, ORCL and QCOM will remain stable and QCOM is the most likely to bring more profits. The most abnormal data is ORCL's ROE index, which means that if you are an insider or manager of the company, you will get a lot of profits from it.

8. Conclusion

The company's balance sheet and income statement are key data sources and require more attention. Overall investment advice based on the research, all three companies have investment merits, and they also reflect the stable and improving development environment of the technology industry, allowing more investors to enter the market. Suggestions for further study and analysis: Investment advice can be improved by understanding channels such as well-known investors and insider information to form a more convincing recommendation. Investment advice for the three companies studied in the research highlights their individual merits, reflecting the stable and improving development environment within the technology industry. This positive trend indicates a conducive

environment for investment, attracting more investors to the market. However, to enhance the reliability and depth of investment recommendations, it is advisable to consider additional factors such as insights from well-known investors and insider information. These channels can provide nuanced perspectives and detailed analyses that strengthen the overall investment thesis.

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