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QUALIFYING MASTER'S THESIS

on the topic:

**STOCK INDICES AND RATINGS IN THE SECURITIES
MARKET**

higher education student **Wan Qin**

The qualifying master's thesis was accepted for
defense by the decision of the Department of
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Kharkiv - 2024

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APPROVED

Head of the Department
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TASK
FOR THE QUALIFYING MASTER'S THESIS

of **Wan Qin**

1. Topic of the work «STOCK INDICES AND RATINGS IN THE SECURITIES MARKET»

Scientific adviser PhD in Economics, Associate Professor Kateryna Oriekhova
(surname, first name, patronymic, academic degree, academic title)

Approved by order of the university dated September 17, 2024 No. 4601-5/1025

2. Deadline for the student to submit the work November 18th 2024

3. List of issues to be developed:

In chapter 1: study the definition of stock index and stock rating». The following achievements have been made: understanding the definition and influencing factors of stock index and stock rating, introducing several major stock indexes in the world, and popularizing the common sense of stock index market.

In chapter 2: Focuses on the relationship in the stock market. First of all, it combs out the reasons why people pay attention to stock indexes and ratings, and analyzes the relationship between investors and non-investors, regulators and rating agencies. This virtuous circle relationship can promote the benign development of the securities market, investors and rating agencies.

In chapter 3: Lists some country stock index, industry stock index, individual

enterprise stock index and rating cases, and provides some index charts in the past 20 years. Through the index movement, we can see the major events behind the stock index, which is a barometer of the economy. It can be seen from the case of a single enterprise stock that the stock index market, enterprises, investors and rating agencies can achieve multi-win in a virtuous circle.

4. Work plan

No.	Name of work stages
1	The choice of the topic of the qualifying master's thesis
2	Approval of the plan and tasks of the qualifying master's thesis
3	Completion of a qualifying master's thesis
4	Submission of the qualifying master's thesis to the scientific adviser
5	Signature of the qualified master's thesis by the scientific adviser
6	Submission of a qualifying master's thesis to the department to check for borrowings from other documents
7	Admission by the head of the department to the defense of a qualifying master's thesis
8	Defense of a qualifying master's thesis

5. Date of the task issue September 25th, 2024

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ABSTRACT
ON QUALIFICATION MASTER'S WORK "STOCK INDICES AND RATINGS
IN THE SECURITIES MARKET" by Wan Qin

Qualification master's thesis contains 67 pages, 10 tables, 21 figures, 84 references.

The object of the research is the stock market, focusing on the mechanisms and frameworks underlying the functioning of stock indices and the assignment of stock ratings.

The subject of the research is the interrelation and impact of stock indices and stock ratings on market dynamics, investment behavior, and financial risk management strategies.

The purpose of the master's thesis is to analyze the role of stock indices and stock ratings in modern financial markets, evaluate their influence on investment decision-making, and develop methodological approaches for using these tools to enhance portfolio management and risk assessment.

The tasks of qualification master's work are:

Explore the definition, purpose, and practical importance of stock indices in financial markets.

Investigate various types of stock indices, including national and industry-specific indices, with a focus on their applications and distinctions.

Define stock ratings and their methodologies, emphasizing their influence on investment decisions.

Discuss why individuals and institutions should consider stock indices and stock ratings in their investment strategies.

Analyze the relationship and mutual dependencies between investors and rating agencies, focusing on trust and accountability.

Assess the interplay between regulators, investors, and rating agencies in ensuring transparency and fairness in stock markets.

Conduct a comparative analysis of national and industry-specific stock indices, focusing on their composition and economic significance.

Based on the results of the research, the author shows that investment stock index can achieve wealth appreciation, but the choice is different, the gains and losses are also different. When you chase high returns, you take on high risk.

The obtained results can be used in everyone who invests globally. It helps investors and financial institutions make better decisions by providing a clear way to evaluate stocks and manage risks. It improves how portfolios are managed and makes it easier to spot potential problems in the market. The research also increases trust in the stock market by creating a reliable method for rating stocks and helps regulators develop rules to keep the market stable and fair. This makes it useful for both advanced and growing markets.

KEYWORDS: STOCK INDEX, STOCK RATING, EVALUATION, PERFORMANCE, INVESTMENT, RISK, TRANSPARENCY, STABILITY, REGULATION

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INTRODUCTION

Since the early 20th century, science and technology have advanced by leaps and bounds. In the short term, the global economy is undergoing a difficult transition due to multiple factors such as macro-control and geopolitics. The four indicators show that the state and the national economy have common characteristics: the dual indicators of inflation and unemployment are difficult to guarantee, and the dual indicators of deflation and consumption are difficult to rise. The performance of the world's major stock indexes has been mixed, and the old investment-led consumption model has changed. From the perspective of the great disasters experienced by mankind, it is bound to be accompanied by the reshuffling of wealth and the realignment of social structure, such as the Black Death period in Europe in the 14th century. At the same time, nearly four years after the outbreak of the epidemic, are the national economy and people's lives better than before the epidemic? People are only willing to spend money when they have it. In addition to labor income, investment income is also an important component of household wealth. In the face of the development of the new era, the stock market is an important channel for capital inflows, and getting rid of poverty is a common goal of the world.

The purpose of the master's thesis is to analyze the role of stock indices and stock ratings in modern financial markets, evaluate their influence on investment decision-making, and develop methodological approaches for using these tools to enhance portfolio management and risk assessment.

The tasks of qualification master's work are:

- Explore the definition, purpose, and practical importance of stock indices in financial markets.
- Investigate various types of stock indices, including national and industry-specific indices, with a focus on their applications and distinctions.
- Define stock ratings and their methodologies, emphasizing their influence on investment decisions.

- Discuss why individuals and institutions should consider stock indices and stock ratings in their investment strategies.
- Analyze the relationship and mutual dependencies between investors and rating agencies, focusing on trust and accountability.
- Assess the interplay between regulators, investors, and rating agencies in ensuring transparency and fairness in stock markets.
- Conduct a comparative analysis of national and industry-specific stock indices, focusing on their composition and economic significance.
- Provide a detailed case study on Nvidia's stock index and its agency ratings, examining how these reflect the company's market performance and investor perception.

The object of the research is the stock market, focusing on the mechanisms and frameworks underlying the functioning of stock indices and the assignment of stock ratings.

The subject of the research is the interrelation and impact of stock indices and stock ratings on market dynamics, investment behavior, and financial risk management strategies.

The information base of the research is represented by publications in publications, reports at investment conferences, analytical and statistical materials of companies, data of quantitative and qualitative research, assessments, data of Internet resources, as well as legislative acts, regulatory documents of China.

When achieving the goal and solving the tasks, the following methods were used: correlation analysis, comparison and generalization, marketing research, logical and systematic methods, hypothetical method, classification, complex method.

The theoretical significance of the research results lies in the conclusion that:

- Investment in the stock index can achieve wealth increase, but the choice is different, the profit and loss is different. When you go for high returns, you take on high risks.
- The rating of professional institutions can be used as a reference, rather than blindly following the investment. While looking at the results of rating agencies,

we should consult the logic of their assessment as much as possible, and the underlying logic is also the fundamental logic in investment.

- In the face of the emerging industry environment recognized by the market, follow the law of «strong constant strength», win-win cooperation between the best will bring about changes in the world, such a law is not easy to be broken, can become a source of confidence for investors.

- Correctly understand the impact of geopolitics on normal market economy. Even if the product is on top of the world, it is useless without a market. This is another rule of any industry, and it is also the basic logical source of the current «sinking market».

- Correctly understand that the industry is cyclical, and overcapacity is real. Even in «high-tech» industries like semiconductors, there will be a sector surplus, the market size will shrink, prices will be lower, corporate profits will be reduced, and when a company is not profitable for a long time, the stock price will fall, and investors will naturally withdraw their funds.

- The commercial housing on the market can be used as an important real estate collateral, has certain financial attributes, and involves the «housing» in the «food, clothing, housing and transportation» of the people's livelihood, and needs stability. 2024 could see a clear bottoming out. Combined with China's intensive real estate policy introduced in 2024, to promote the steady and healthy development of the real estate market, through the simultaneous rental and purchase, financing reform, down payment interest rate adjustment, affordable housing construction and other measures to meet the housing needs of different groups, while through the adjustment of land and financial policies, optimize the market environment and enhance market confidence.

- Know yourself, know the investment varieties, know the investment market, and make understandable investments.

The practical value of this research is that some of the methods and rules in this paper are applicable to anyone who participates in market investment.

CHAPTER 1

STOCK INDEX AND STOCK RATING

1.1. Stock Index

A stock price index, commonly referred to as the stock index, serves as a critical tool in the financial market to gauge the overall performance of the stock market. It reflects the overall level and fluctuations of various stock prices within the market. Compiled by stock exchanges or financial services institutions, the stock index acts as a benchmark to track stock price movements and provides valuable insights for investors, analysts, and policymakers [56].

The stock index is influenced by numerous factors, making it a dynamic and comprehensive indicator. The table 1.1 below outlines key factors that impact stock indices [28].

Table 1.1

Factors Influencing Stock Indices

Factor	Description
Industry Distribution	Ensures representation of diverse sectors within the stock market.
Market Influence	Reflects the weight of companies with significant market capitalization.
Stock Grade	Includes both blue-chip stocks and smaller companies for comprehensive coverage.
Sample Size	Determines the number of companies included to balance accuracy and relevance.

The factors outlined in the table are integral to constructing a reliable and representative stock index, as they collectively ensure the index reflects the overall market dynamics. Here's an analysis of these factors [32]:

1. **Industry Distribution.** A well-diversified industry representation is crucial to avoid over-reliance on specific sectors. For instance, an index heavily weighted toward technology stocks may exhibit high volatility during periods of technological disruption. Balancing industries ensures the index provides a holistic view of the market's performance, making it more reliable for investors and analysts. This approach also mitigates the risk of sector-specific downturns skewing the index [48].

2. **Market Influence.** Including companies with significant market capitalization ensures the index reflects the broader market's direction. Larger companies often act as economic indicators because their performance impacts entire sectors and, in some cases, the national economy. However, over-reliance on such companies may overlook the performance of smaller firms, necessitating a balance between market influence and comprehensive representation [22].

3. **Stock Grade.** Incorporating a mix of blue-chip stocks (established, stable companies) and smaller, high-growth firms provides a balanced perspective. Blue-chip stocks add stability to the index, while smaller companies introduce elements of growth and dynamism. This mix ensures the index caters to both conservative and risk-seeking investors, reflecting diverse investment strategies [33].

4. **Sample Size.** The number of companies included in the index directly affects its accuracy and manageability. A larger sample size enhances the index's representativeness but may dilute the influence of significant market movements. Conversely, a smaller sample size simplifies analysis but risks missing critical market trends. Striking the right balance is essential for maintaining the index's relevance and precision [51].

These factors collectively shape the effectiveness of a stock index as a market indicator. Proper consideration ensures the index remains robust against market volatility, provides accurate insights, and accommodates the needs of various stakeholders, from institutional investors to policymakers. Ignoring these factors could lead to an index that is either too volatile or too narrow, diminishing its utility as a benchmark for market performance [21].

The calculation of a stock index is a meticulous process that requires scientific rigor and adaptability. The table 1.2 below summarizes the steps in calculating a stock index [18].

Table 1.2

Calculation Process

Step	Description
Select Sample Stocks	Choose representative stocks based on market significance and diversity.
Define Base Period	Establish a baseline period for comparison of future performance.
Collect Market Data	Gather stock prices or market values for selected stocks.
Apply Calculation Formula	Use relative, comprehensive, or weighted methods to compute the index.

The calculation of stock indices can be performed using three primary methods: relative, comprehensive, and weighted [39]. The table 1.3 below compares these methods.

Table 1.3

Calculation Methods

Method	Description	Example
Relative	Compares average stock prices of different periods.	Ratio of current prices to base period prices.
Comprehensive	Uses total market value of sample stocks for a holistic view.	Aggregate market values across all stocks.
Weighted	Assigns weights to stocks based on market capitalization or other criteria.	S&P 500 uses market-cap weighting.

Stock indices are used extensively in the financial market for various applications. The table 1.4 below highlights their practical uses [42].

The steps outlined in the table highlight the structured approach required to create a stock index. Each step is critical to ensuring the index accurately reflects the market and remains a reliable benchmark for stakeholders. Here's an analysis of each step [47]:

1. **Select Sample Stocks.** The selection of sample stocks is foundational to the creation of a stock index. By choosing representative stocks that capture market diversity and significance, the index ensures inclusivity and relevance. This step demands a balance between including influential large-cap companies and smaller, growth-oriented firms to provide a comprehensive market view. Poor stock selection can lead to biased indices that misrepresent market conditions [19].

Table 1.4

Real-World Applications of Stock Indices

Application	Purpose
Portfolio Benchmarking	Evaluate the performance of investment portfolios.
Economic Indicator	Assess the overall health of the economy and investor sentiment.
Investment Strategy	Guide fund managers in constructing and balancing portfolios.
Policy Assessment	Monitor market response to monetary and fiscal policies.

2. **Define Base Period.** The base period serves as the benchmark for all future comparisons, making its selection crucial. A well-chosen base period should reflect stable market conditions, as it sets the foundation for the index's performance tracking. If the base period coincides with volatile or atypical market conditions, it can distort comparisons, leading to inaccurate conclusions about market trends [45].

3. **Collect Market Data.** Accurate and timely data collection is essential for the reliability of the index. This step involves gathering stock prices or market values for the selected sample stocks. Inaccurate or incomplete data can result in misleading index values, affecting investor confidence. Additionally, the frequency of data

collection (daily, hourly, etc.) influences the index's sensitivity to market changes and its relevance for different users [6].

4. Apply Calculation Formula. The choice of calculation method—relative, comprehensive, or weighted - determines how the index represents market movements. Relative methods provide straightforward comparisons, while comprehensive methods give a broader market overview. Weighted methods are particularly effective in emphasizing the role of larger companies in market dynamics. The appropriateness of the calculation formula depends on the purpose of the index and the preferences of its intended users [9].

The outlined steps ensure a systematic approach to stock index construction, balancing representativeness, accuracy, and utility. Each step must be executed carefully to prevent biases or inaccuracies that could undermine the index's credibility. By adhering to these steps, the resulting index can serve as a dependable tool for tracking market performance, informing investment decisions, and supporting economic analysis. Missteps in any of these stages, however, could compromise the index's effectiveness as a market indicator [21].

Despite their significance, maintaining an accurate and reliable stock index poses challenges. The table 1.5 below summarizes these challenges [78]:

Table 1.5

Challenges in Maintaining Stock Indices

Challenge	Description
Market Volatility	Frequent fluctuations can impact index stability.
Sample Composition	Changes in sample stocks affect index continuity.
Economic Factors	Global events and policies influence market trends.
Technological Advances	Increasing trade frequency necessitates recalibration of index methods.

Stock price index is used to reflect the overall level and change of various stock market prices in the whole stock market, referred to as stock index. It is a reference indicator compiled by a stock exchange or financial services institution to

indicate the movement of stock prices [31].

The influencing factors of stock index are diverse, and the sample stocks must be typical and universal, and factors such as industry distribution, market influence, stock grade and appropriate number should be considered. The calculation method should have a high degree of adaptability and be able to adjust or correct the changing stock market situation accordingly, so that the stock index or average index has a good sensitivity [41].

To have a scientific basis for calculation and calculation means, the caliber of the calculation basis must be unified, generally based on the closing price, but with the increase in the frequency of calculation, some are calculated at an hour price or even a shorter time price. The base period should be well balanced and representative [49].

The average stock price is a general level that reflects the change in the price of various stocks and is usually expressed as an arithmetic average. By comparing the average price of stocks over different periods, one can know the level of change in the price of various stocks. A stock index is a relative index that reflects the change of stock prices in different periods, that is, the percentage of the average stock price in the first period as the benchmark of the average stock price in the other period [77]. Through the stock index, one can know the percentage of the stock price increase or decrease in the calculation period compared to the base period. Since a stock index is a relative indicator, it is a more accurate measure of how stock prices have moved over a longer period of time than the average share price.

1.2. Stock Index Categories

The Dow Jones Index is the oldest stock index in the world and represents the average price of stocks. The index was first compiled in 1884 by Charles Dow, founder of Dow Jones. The original Dow Jones Stock average, based on the stock

values of eleven representative railroad companies, was calculated using the arithmetic average method and published in the Daily Newsletter, which was edited by Charles Dow himself. Since 1897, the Dow Jones Stock average has been divided into two major sectors, industrials and transports, and published in the Wall Street Journal, which is published by Dow Jones. In 1929, utility stocks were added to the Dow Jones Stock Average, bringing the total number of stocks to 65, where they remain today. The Dow Jones Stock Average is based on October 1, 1928, because the average price of Dow Jones stocks at the end of that day happened to be around \$100. The percentage calculated by the stock price compared with the base period becomes the stock price index of each period, so the stock index is generally measured in points, and the rise and fall of each point of the stock index is the rise and fall percentage relative to the base period. After 1928, the Dow Jones Stock price Average adopted a new calculation method, that is, the connection technology was adopted in the calculation of points in the stock ex-rights or ex-dividend to ensure the continuity of the stock index, so that the stock index has been improved, and gradually promoted to the world [11].

The Dow Jones Stock Average is divided into four categories: the Industrial Stock Average. It is composed of 30 representative stocks of large industrial and commercial companies, which increase with the development of the economy, and can roughly reflect the price level of the entire industrial and commercial stock in the United States, often cited as the average price of Dow Jones industrial stock. 2. Transport stock average price. It includes shares of 20 representative transportation companies, namely eight rail carriers, eight airlines and four road freight companies. 3. The Utility Stock Price Average is made up of the stocks of 15 natural gas and electric companies, which represent utilities in the United States. Average price composite index. It is a composite index consisting of 65 stocks with the top 3 average stock prices. While this composite index provides direct stock market conditions for the top ranked stocks, it usually refers to the first category, the average price of industrial stocks [21].

The stock price index compiled by Standard & Poor's Company, the largest

securities research institution in the United States, began to be compiled and published in 1923. First, 230 stocks were selected and two stock price indexes were compiled. By 1957, the stock price index had expanded to 500 stocks, divided into 95 portfolios. The four most important groups are the industrial Group, the railway Group, the utilities Group, and the 500-share group. By July 1, 1976, it was changed to 400 industrial stocks, 20 transportation stocks, 40 utility stocks, and 40 financial stocks. The Standard & Poor's Corporate Stock Price Index is based on the average market price of a sample of stocks from 1941 to 1943, weighted by the number of listed stocks and weighted by base period, with a base point of 10. Take the current stock market price multiplied by the number of shares issued on the stock market as the numerator, multiply the base stock market price by the number of base stocks as the denominator, and multiply the difference by 10 to form the stock price index [43].

The UK's most authoritative share price index, currently compiled by the Financial Times and the FTSE Group, part of the London Stock Exchange. The share price index is made up of 30 publicly listed ordinary shares representing UK companies. The base period is July 1, 1935 and the base point is 100 points. There are three types: the Financial Times Industrials Index, also known as the «30-share index»; The second is the 100-share index, also known as the FT-100 index. The third is the comprehensive actuarial stock index [14].

Since September 1950, Nihon Keizai Shimbun has compiled and published an average share price index reflecting price changes in the Japanese stock market. The revised average price was originally calculated based on the stocks of 225 companies listed on the First Market of the Tokyo Stock Exchange, at the time known as the «Topix Revised Average». On May 1, 1975, Nikkei purchased the trademark from Dow Jones and adopted the revised method of Dow Jones in the United States to calculate the stock index and changed its name to «Nikkei Jones Average». On May 1, 1985, ten years after the expiration of the contract, the two companies agreed to change their name to «Nikkei Average». According to the number of samples calculated, the index is divided into two, one is the Nikkei 225 average stock price. The selected samples are all stocks listed on the first market of the Tokyo Stock

Exchange, and there is no change in principle after the selection of samples. In 1981, there were 150 manufacturing companies, 10 construction companies, 3 aquaculture companies, 3 mining companies, 12 commercial companies, 14 road transportation and Marine transportation companies, 15 financial insurance companies, 3 real estate companies, 4 warehousing companies, 4 electricity and natural gas companies, and 5 service companies. Since the Nikkei 225 average stock price has been continuous since 1950, its continuity and comparability are good, and it has become the most commonly used and reliable indicator to investigate and analyze the long-term evolution and dynamics of the Japanese stock market. Another version of the index is the Nikkei 500. This has been compiled since 4 January 1982. The sample contains 500 stocks, so its representation is relatively wide, but the sample is not fixed, and the sample needs to be changed in April every year according to the operating conditions of listed companies, turnover, total market value and other factors [47].

The oldest and most influential share price index of the Hong Kong stock market was launched by Hang Seng Bank of Hong Kong, China on November 24, 1969. The Hang Seng Stock Index consists of 33 representative and economically strong companies selected from over 500 listed companies in Hong Kong, divided into four categories - four financial stocks, six utilities stocks, nine land stocks and 14 other industrial and commercial stocks (including airlines and hotels). As the stock index covers many industries in Hong Kong, it is highly representative. The Hang Seng Share Price Index is based on July 31, 1964, because on this day, the Hong Kong stock market operates normally, the turnover is even, and can reflect the basic situation of the entire Hong Kong stock market, so the base point is determined to be 100 points. The calculation method is to calculate the market value of the calculation date by multiplying the closing price of 33 stocks by the number of shares issued, and then compare with the market value of the base period, multiplied by 100, to get the stock price index of the day. The Hang Seng Stock Index has been adjusted many times since its launch in 1969. Since the Hong Kong authorities passed legislation in August 1980 to merge the Hong Kong Stock Exchange, the Far East Exchange, the Gold and Silver Exchange and the Kowloon Stock Exchange into the Hong Kong

Stock Exchange, only the Hang Seng Share Price Index co-exists with the newly created Hong Kong Index on the current Hong Kong stock market, and other share price indexes in Hong Kong no longer exist [74].

The sample of the SSE Index is all the stocks listed on the Shanghai Stock Exchange, including A shares and B shares, reflecting the price changes of the stocks listed on the Shanghai Stock Exchange. It has been published in real time since July 15, 1991, with the base date set at December 19, 1990, and the base day index set at 100 points. It is one of the most important stock indexes in the Chinese stock market. The calculation of the Shanghai Index consists of several steps. Select stocks with certain liquidity and average daily market value on the A-stock market of the Shanghai Stock Exchange as sample stocks, calculate the circulating market value and weight of each sample stock, calculate index points, and multiply the weighted average price of all sample stocks by A basic index (usually 1000 points). Get the index point. The SSE index is calculated using the opening price, closing price, highest price, lowest price, trading volume and other data of the SSE index [25]. The movement of the Shanghai Composite Index is influenced by a variety of factors, including macroeconomic, policy environment, market sentiment and so on. The SSE index is not only used to measure the overall performance of the Shanghai stock market, but also widely used in investment funds, stock index futures and other financial products tracking indicators, as well as academic research, market analysis and other fields.

1.3. Stock Rating

Stock rating involves evaluating a stock's potential to appreciate in value by analyzing the issuing company's financial performance, management capabilities, and other qualitative and quantitative factors. The process uses systematic criteria to provide investors with actionable insights and is widely applied by financial

institutions and research organizations [2].

The criteria for stock rating encompass multiple analytical perspectives to ensure a comprehensive assessment of a company's stock. These include [74]:

1. **Fundamental Analysis:** Evaluating profitability, solvency, and growth using financial data.
2. **Industry Position Analysis:** Considering market share, competitive advantages, and industry trends.
3. **Management and Corporate Governance Analysis:** Reviewing management's expertise and governance structures.
4. **Macroeconomic and Policy Environment Analysis:** Assessing the impact of economic conditions and policies.
5. **Valuation Level Analysis:** Comparing financial metrics like PE and PB ratios to identify undervaluation or overvaluation.

The following table 1.6 summarizes these key criteria and their focus areas [65].

Table 1.6

Stock Rating Criteria

Criteria	Focus Areas
Fundamental Analysis	Profitability, solvency, growth
Industry Position	Market share, competitiveness, industry trends
Management & Governance,»	Experience, governance structure, corporate soundness»
Macroeconomic Analysis	Economic conditions, policy changes»
Valuation Level	PE ratio, PB ratio, undervaluation or overvaluation»

Stock rating relies on a structured evaluation process that incorporates several key criteria to comprehensively assess a company's stock potential.

Fundamental Analysis focuses on core financial metrics such as profitability,

solvency, and growth to gauge the company's financial health and performance. Industry Position Analysis examines the company's market share, competitiveness, and its response to prevailing industry trends, providing insights into its standing within the sector. Management and Governance Analysis evaluates the experience and competence of the management team, the effectiveness of governance structures, and their impact on the overall soundness of the company. Macroeconomic Analysis considers external factors such as economic conditions and policy changes, assessing how these broader influences might affect the company's performance and stock value. Finally, Valuation Level Analysis compares key financial ratios, such as the price-to-earnings (PE) ratio and price-to-book (PB) ratio, to determine whether the stock is undervalued or overvalued relative to its peers or the broader market. These criteria collectively ensure a balanced and comprehensive approach to stock rating [55].

Figure 1.1 illustrates the relative complexity of these criteria by showing the number of focus areas associated with each.

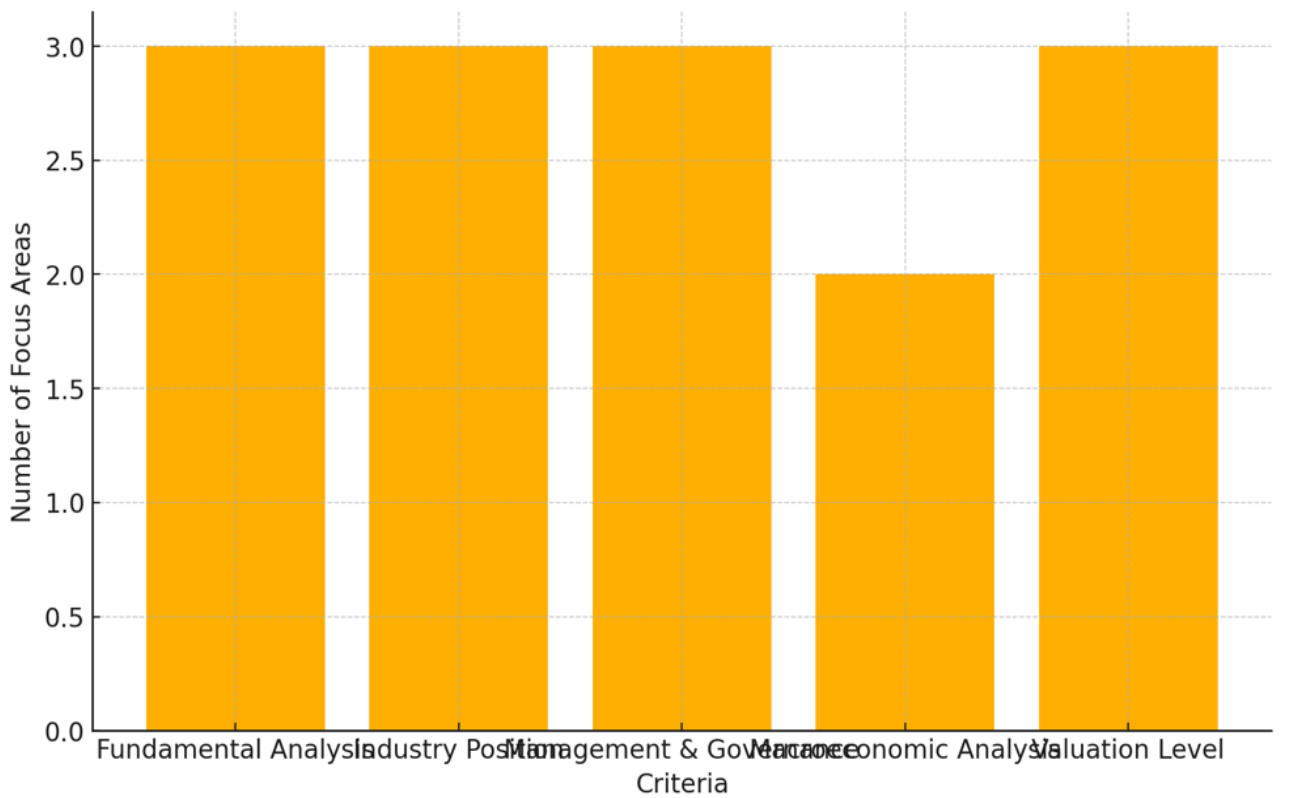


Figure 1.1. Focus Areas per Stock Rating Criterion

Stock ratings are often provided by specialized institutions, including securities companies, fund management firms, and independent research organizations. To ensure credibility, these agencies must meet stringent regulatory and professional standards [18].

The China Securities Regulatory Commission (CSRC), for example, mandates several conditions for agencies wishing to conduct securities rating, including [27]:

1. Sufficient paid-in capital and net assets.
2. A qualified team of practitioners and managers.
3. A clean legal and administrative record.
4. Compliance with all investor protection regulations.

The table 1.7 details these conditions [56]:

Table 1.7

Conditions for Stock Rating Agencies

Condition	Requirement
Paid-in capital and net assets	> 20 million yuan
Qualified practitioners	> 20 practitioners (10 with 3+ years experience)
Experienced senior managers	> 3 managers with relevant qualifications
Clean legal record (5 years)	No criminal/administrative penalties
Honest administrative record (3 years)	No record of major dishonesty

To visualize the distribution of these requirements, figure 1.2 illustrates the emphasis placed on each condition [22].

By systematically addressing these criteria and maintaining stringent agency qualifications, the stock rating process ensures transparency, investor protection, and market efficiency. These tools empower investors to make informed decisions and support the sustainable growth of financial markets.

The analysis of stock rating criteria and agency qualifications provides

valuable insights into the framework that governs stock evaluations and the integrity of the process. The following conclusions can be drawn [32]:

1. **Comprehensive Evaluation Framework.** Stock rating relies on a multi-faceted approach that combines fundamental, industry, management, macroeconomic, and valuation analyses. This ensures a thorough assessment of a stock's potential, considering both quantitative metrics and qualitative factors.

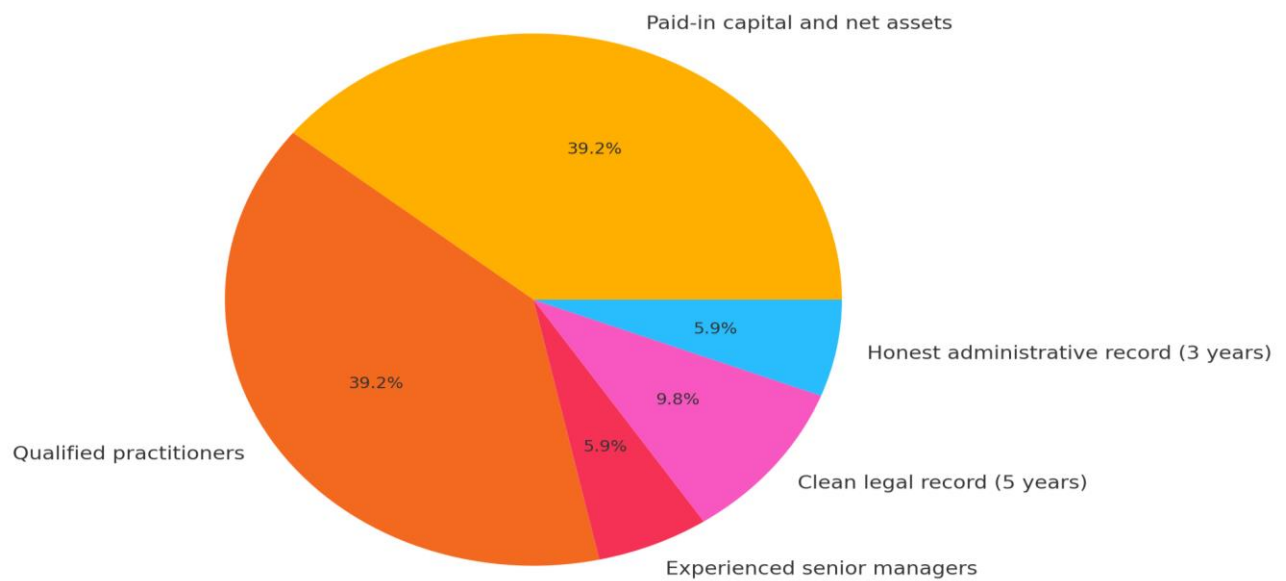


Figure 1.2. Distribution of Rating Agency Requirements

2. **Role of Stock Rating Agencies.** Specialized agencies play a pivotal role in providing reliable stock ratings. Their expertise, backed by regulatory compliance, ensures that ratings are credible and align with market standards.

3. **Stringent Regulatory Standards.** The qualifications required for rating agencies, as outlined by entities like the CSRC, emphasize financial strength, professional competence, and ethical conduct. These measures protect investors and maintain market confidence [47].

4. **Importance of Transparency and Methodology.** The detailed criteria and standardized processes used in stock rating promote transparency, enabling investors to make informed decisions. Comparisons across valuation indicators, industry

positions, and macroeconomic factors provide a clear picture of stock potential.

5. Visual Representation of Data. The use of tables and figures to summarize criteria and agency requirements highlights the structured nature of stock ratings. These visual tools aid in understanding the complexity and interrelations within the stock rating process [53].

In conclusion, stock rating is a critical mechanism in financial markets, offering investors essential insights while ensuring market transparency and integrity. By adhering to robust criteria and regulatory standards, the process supports informed investment decisions and fosters sustainable economic growth.

CHAPTER 2

RELATIONSHIPS IN THE STOCK MARKET

2.1. Reasons, why people should care about stock indexes and stock ratings

Stock indexes and stock ratings are essential tools in the financial ecosystem, serving as benchmarks and evaluative mechanisms for investment decision-making. They are cornerstones of modern financial markets, offering a structured way to interpret vast amounts of market data and translate it into actionable insights. Understanding their significance provides investors, policymakers, and businesses with valuable insights into market dynamics, risk assessment, and strategic planning [77].

Stock indexes, such as the S&P 500, NASDAQ Composite, and Dow Jones Industrial Average, offer a snapshot of market performance, reflecting the collective movements of a selected group of stocks. These indexes are widely used as indicators of economic health, guiding both individual and institutional investors in portfolio management. They help in tracking sectoral performance, identifying trends, and benchmarking the returns of funds or investment strategies against broader market averages [62].

Similarly, stock ratings, typically issued by financial analysts or rating agencies, offer in-depth assessments of individual companies' financial health and growth potential. These ratings, categorized as «buy,» «hold,» or «sell,» provide investors with guidance on stock selection while also influencing market perceptions and pricing. Stock ratings are vital for risk management, allowing investors to avoid underperforming stocks or to capitalize on undervalued opportunities [17].

The importance of stock indexes and stock ratings extends beyond individual investors. Policymakers rely on stock indexes as indicators of macroeconomic conditions, enabling timely adjustments to monetary or fiscal policies. For businesses,

stock ratings influence capital-raising abilities, corporate reputations, and strategic decision-making. Together, stock indexes and ratings form a comprehensive framework for navigating the complexities of financial markets, making them indispensable tools in achieving financial objectives, prom [27].

Stock indexes and stock ratings are essential tools in the financial ecosystem, serving as benchmarks and evaluative mechanisms for investment decision-making. Understanding their significance provides investors, policymakers, and businesses with valuable insights into market dynamics, risk assessment, and strategic planning (table 2.1).

Table 2.1

Comparative Role of Major Stock Indexes

Stock Index	Region Represented	Number of Companies	Sector Diversity	Purpose
S&P 500	USA	500	Broad (11 sectors)	Benchmark for U.S. large-cap companies
FTSE 100	UK	100	Mixed	Indicator of UK economic performance
MSCI Emerging Markets	Global	800+	Focused on emerging markets	Gauge for global emerging market trends

1. Importance of Stock Indexes. A stock index represents the performance of a group of stocks, usually chosen to reflect a specific market, sector, or economy. Examples include the S&P 500, Dow Jones Industrial Average (DJIA), and NASDAQ Composite [66].

Key Reasons to Care About Stock Indexes:

- **Market Benchmarking:** Stock indexes serve as references for evaluating the performance of individual portfolios or mutual funds.
- **Economic Indicator:** Index movements often reflect broader economic trends, signaling growth or recession.

- **Diversification:** Investing in index-based funds allows for instant diversification, reducing the risk associated with single-stock investments.

2. **Importance of Stock Ratings.** Stock ratings, issued by financial analysts, provide a recommendation on whether to buy, hold, or sell a stock. These ratings are typically based on a combination of qualitative and quantitative analyses.

Key Reasons to Care About Stock Ratings (figure 2.1):

- **Informed Decision-Making:** Ratings help investors make decisions based on expert assessments of a company's financial health, industry standing, and future potential [15].
- **Risk Management:** They identify underperforming stocks and highlight growth opportunities, aiding in the mitigation of investment risks.
- **Market Sentiment:** Ratings influence stock prices, reflecting broader market perceptions and investor confidence.

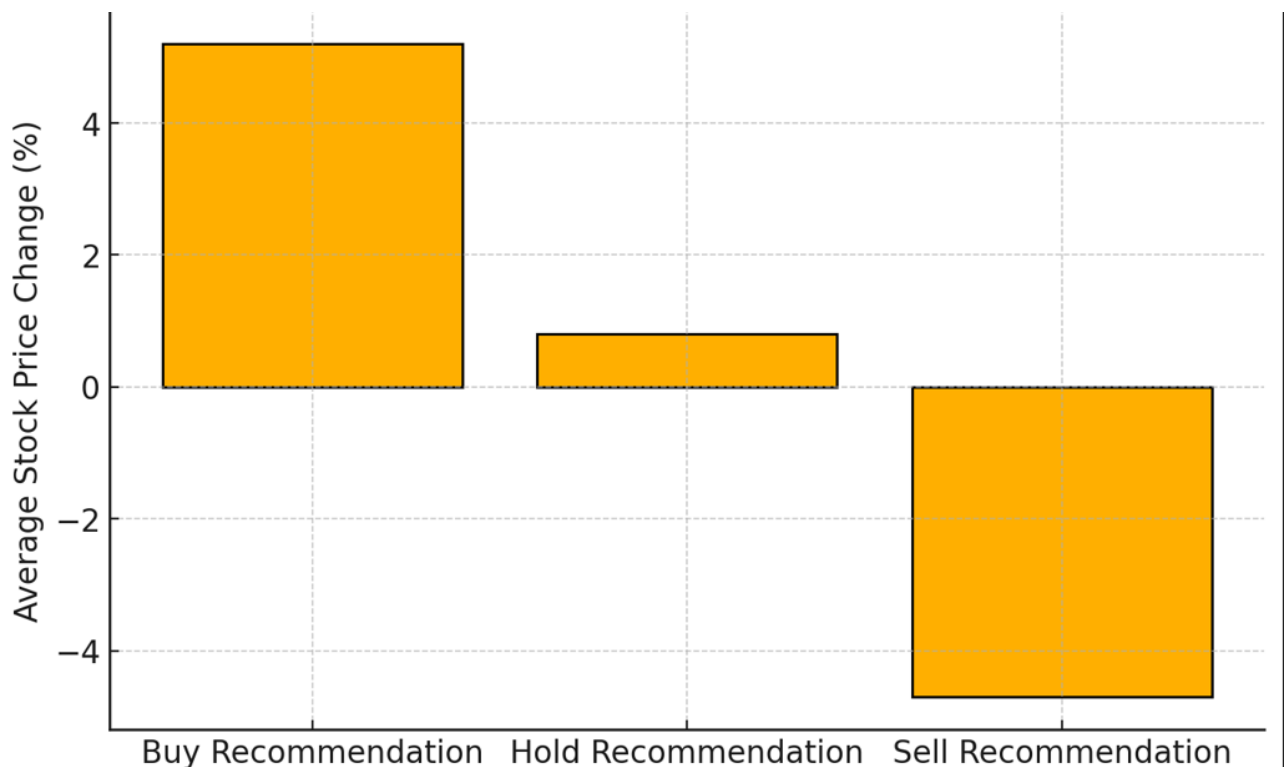


Figure 2.1: Stock Ratings and Their Influence on Market Trends

3. **Interplay Between Stock Indexes and Ratings.** The combined analysis of stock indexes and ratings amplifies their utility:

- Indexes as Macro Guides: Help investors identify promising sectors or regions.
- Ratings as Micro Guides: Provide specific stock recommendations within those sectors or regions.

4. Case Studies. Case 1: The Impact of Downgrades on a Stock Index In 2023, the downgrading of several technology stocks by leading rating agencies caused the NASDAQ Composite to drop by 2%, demonstrating how ratings influence broader market indexes.

Case 2: Positive Ratings Boost S&P 500 Performance During Q2 2024, upgrades in energy and healthcare stocks drove a 5% rise in the S&P 500, showcasing the intersection of ratings and index movements [18].

Stock indexes and stock ratings are indispensable elements of the financial market that serve a broad spectrum of users, from individual investors to institutional entities and policymakers. Their significance lies in their ability to condense complex market information into digestible formats, enabling stakeholders to make informed decisions. For investors, stock indexes provide a macro-level view of market trends and economic health, helping to benchmark performance and guide asset allocation strategies. At the same time, stock ratings offer micro-level insights, delivering specific guidance on individual stocks based on professional evaluations of financial performance, industry conditions, and growth potential [15].

Ignoring these tools can lead to suboptimal decision-making, including the mismanagement of risks and the potential loss of profitable opportunities. On the other hand, incorporating index trends and rating analyses into investment strategies enhances one's ability to navigate the uncertainties of the financial markets effectively.

Moreover, the interplay between stock indexes and ratings creates a synergistic effect. Index movements reflect the aggregated confidence or concerns within a market or sector, while stock ratings drill deeper into individual company prospects. Together, they form a comprehensive framework for assessing both market-wide trends and granular investment opportunities [23].

For governments and businesses, these tools are equally critical. Stock indexes serve as economic indicators, guiding policy adjustments and signaling shifts in economic performance. Similarly, stock ratings impact corporate reputations, influence capital-raising abilities, and shape the strategic decisions of publicly traded companies [29].

Ultimately, stock indexes and ratings are not just tools for seasoned investors; they are gateways to financial literacy and empowerment. By understanding and utilizing these instruments, individuals and organizations can achieve their financial objectives, mitigate risks, and contribute to a more robust and transparent financial ecosystem [41].

Let me know if you'd like to expand this further or add supplementary materials like visual aids or detailed case studies.

2.2. Relationship between investors and rating agencies

Stock investors refer to institutions and individuals who purchase stocks for the purpose of obtaining dividends and capital gains, mainly including individual investors and institutional investors, and institutional investors are mainly introduced by large funds in the society, such as family wealth funds. The world's three major credit rating agencies are Standard & Poor's (S&P), Moody's (Moody's) and Fitch (Fitch). Standard & Poor's was formed by the merger of Poole Publishing Company and Standard Statistical Company in 1941 and is headquartered in New York City. Standard & Poor's has a total of 10 ratings for long-term bonds and six ratings for short-term bonds. Moody's was founded by John Moody in 1900 and is headquartered in Manhattan, New York. Moody's has a total of nine grades for long-term debt ratings and four grades for short-term debt investment ratings. Fitch International (Fitch) was founded in 1913 by John Fitch and is headquartered in New York and London. Fitch has a total of 11 levels of long-term debt investment ratings

and 6 levels of international short-term ratings. China's mainstream authoritative credit rating agencies include Zhongxin International Credit Rating Co., LTD., Dagong International Credit Rating Co., LTD., Shanghai New Century Credit Rating Investment Service Co., LTD., United Credit Rating Co., LTD., China Securities Pengyuan Credit Rating Co., LTD., Orient Jincheng International Credit Rating Co., LTD., and China Bond Credit Rating Co., LTD. Established in 1992, Zhongxin International Credit Evaluation Co., Ltd. is the first national non-bank financial service institution engaged in credit rating, financial securities consulting and information services in China. Established in 1994, Dagong International Credit Rating Co., Ltd. is a national credit rating agency jointly approved by the People's Bank of China and the former State Economic and Trade Commission. Founded in 1992, Shanghai New Century Credit Rating Investment Service Co., Ltd. is the first credit rating agency in China to be recognized by all regulatory agencies. Established in 1993, SinoCredit Pengyuan Credit Evaluation Co., Ltd. is one of the earliest rating agencies in China, with a variety of credit rating business qualifications. Established in 2005, Orient Jincheng International Credit Assessment Co., Ltd. is a state-owned credit service agency under China Orient Asset Management Co., LTD [57].

Individual investors have a common characteristic:

Their cognition of company stocks is mostly «hierarchical cognition», they do not directly study the market, and may not understand the investment enterprise or stock index. They are greatly affected by the conclusions of rating agencies, and have a certain tendency to drift and blindness [51].

Small and medium-sized individual investors are vulnerable individuals in the market, while rating agencies are institutions with extensive information resources. In a virtuous circle market environment, an important value of rating agencies is to provide objective market analysis and professional ratings. Senior professionals guide non-senior investors to make better investment decisions, but they are only the judgment of rating agencies and are not responsible for investors' profits and losses. It is through reading the rating reports and market analysis of some of the professional investment banks and securities institutions in the world ,which is the way for me to

grow up step by step. I have experienced first-hand the changes that cognitive changes bring to investment decisions [16].

This process of exploring this change makes me be more humbling and grateful which i believe be an excellent quality of investment needs as many investors believe in the world. However, there is a good environment while could be a bad environment. When rating agencies violate their conscience and professionalism by tying their interests to the market, especially when market conditions are extreme or volatile, individual investors will be as blind and confused as headless chickens. Rating agencies can be knives, individual investors are dishes, and institutional investors can eat the dishes harvested by rating agencies and share them [23].

If it is difficult for non-professional investors to control market risks, then «I» will not choose to enter this market, become a «non-stock investor», cherish property safety, and stay away from market risks. But will «I» be affected if I don't get involved? If you look closely, you will find that people's labor income has been flowing across the ocean into the stock market [17].

For example, social security funds, enterprise annuity, bank deposits, trust funds, etc., when labor income is converted into assets, when labor income is converted into consumption, social capital circulation, all the paths will pass through the stock market, because the market is like the blood in the human body, it is interconnected. Blood flows out of the brain, through the heart into the liver, spleen, stomach, hands, feet, and back to the brain over and over again.

Stock index is a barometer of the national economy, if a person chooses not to know the stock market, then in the future time, it is inevitable to miss the opportunity. Looking at the global economic operation mode, the input of family labor income needs the output of asset income, and any family can not be separated from this environment, and whether the family has professional investors, the existence is the impact [23].

The relationship between investors and rating agencies is a complex and critical dynamic in the financial ecosystem. Rating agencies, with their access to extensive information and analytical capabilities, play a pivotal role in guiding

individual and institutional investors in their decision-making processes. However, their influence also comes with significant responsibility, as their ratings and market analyses can profoundly impact investor behavior, especially among less experienced individual investors who may lack direct market knowledge [79].

While rating agencies provide valuable insights and foster market transparency in a virtuous environment, their objectivity and professionalism are paramount. Any deviation from ethical practices, particularly in volatile market conditions, can lead to confusion and adverse outcomes for investors, undermining trust in the system. The analogy of rating agencies as «knives» and investors as «dishes» underscores the power imbalance and the potential risks when such institutions prioritize self-interest over their fiduciary duty [56].

For individual investors, understanding the stock market and the broader economic environment is essential, as the interconnectedness of financial systems means that market dynamics inevitably affect all individuals, directly or indirectly. Even those who choose to avoid stock investments are impacted through mechanisms like social security funds and other forms of capital circulation, emphasizing the inescapable influence of the stock market on labor income and asset growth [33].

In conclusion, fostering a balanced relationship between investors and rating agencies requires maintaining the latter's professionalism and ethical standards while equipping investors with better financial literacy. This approach ensures a healthier, more inclusive financial environment where all participants can navigate the complexities of the market with greater confidence and security.

2.3. Relationship between regulators, investors and rating agencies

There are problems with information opacity and asymmetry in the market, as well as conflicts of interest and deteriorating moral bottom lines, but to fundamentally solve these problems, it is still a question of whether investors

themselves «understand» [22].

First, «get» the market exchange (table 2.2).

Stocks are traded on exchanges. Different exchanges have different history, access conditions and trading volume, and listed companies and products are different. The following are the cases of Chinese and American exchanges [21].

Table 2.2

American stock exchange

Name	Peculiarity	Major listed companies
NYSE	Founded in 1792, it is the oldest stock exchange in the United States. Listing conditions for the company's financial requirements and listing standards are more strict, the existing listed enterprises more than 3,000, mainly large blue chip stocks. Daily trading volume of more than 100 billion US dollars, the total market value of listed companies, the number of ipos and market value ranked first in the world, the trading volume of the world's second.	Coca-Cola, Apple, Nvidia, Alibaba, etc
NASDAQ	The world's largest intangible trading market, fully electronic trading greatly improves market efficiency and liquidity, making NASDAQ a leader in the global technology stocks and high-growth stock markets. Listing costs are low and listing standards are relaxed.	Microsoft, Amazon, Google, META, etc
CBOE	Founded in 1973, it is one of the world's largest options exchanges. It offers a wide range of options products, including stock options, index options, ETF options, etc. Featured are innovative options products, such as Volatility Index (VIX) options, which provide investors with direct trading tools on market volatility.	-

Second, «get» the regulator (table 2.3).

1. United States Securities and Exchange Commission. The Securities and Exchange Commission (SEC), established in 1934 under the Securities Exchange Act, is an independent agency of the federal government of the United States, responsible

for the supervision and management of securities in the United States, and is the highest institution of the securities industry in the United States. The committee is headquartered in Washington, D.C., and has five chairmen. In order to ensure the independence and political integrity of the Commission, no more than three directors may be from the same political party. In general, the SEC has fully independent executive authority and has administrative enforcement and investigative powers [44].

Table 2.3

China stock exchange

Name	Peculiarity	Major listed companies
SCGM	Founded in 1990, it is the earliest stock exchange in China, located in Shanghai, the economic center of China, and currently owns 2,310 stocks, making it one of the largest stock exchanges in the world. The SSE's market structure is dominated by blue-chip stocks, including large state-owned enterprises and well-known listed companies.	Minsheng Bank, Tongrentang, Kweichow Moutai, Fuyao Glass, etc
SZSE	The Shenzhen Stock Exchange has built a market system featuring complete basic functions, distinctive sector features, transparent regulatory norms, safe and reliable operation, and comprehensive and efficient services. It has formed a market structure of «main board + Growth Enterprise Board» and currently owns 2879 stocks, supporting both relatively mature blue-chip enterprises and growth-oriented innovative entrepreneurial enterprises.	Ping An Bank, BYD, Gree Electric Appliances, etc
HKEX	With a long history of trading, it has attracted companies from all over the world to list and investors from all over the world, and the relative freedom of capital entry and exit has attracted a large number of international capital, making Hong Kong one of the world's important international financial centers. In addition to ordinary stocks, HKEX also offers a variety of financial derivatives, such as warrants, futures, options, etc., providing investors with diversified investment options.	China Railway Construction, Nongfu Spring, Baiyun Mountain, Alibaba, etc

All securities offerings in the United States, in whatever form, must be registered with the Commission; All stock exchanges are under the supervision of the Commission; All investment firms, investment advisers, over-the-counter brokers, market makers, and all institutions and individuals engaged in the investment field are subject to the supervision and regulation of the Commission, which is also committed to enhancing the full disclosure of securities and trading information and protecting the interests of market investment from negligence and false information.

The basic contents include [7]:

- Securities investors have the right to obtain all financial information and other important information of the company that publicly offers securities in the market.
- Securities brokers, securities traders, securities trading institutions, etc. are prohibited from cheating investors, providing false information and other deceptive acts in the sale of securities.

China Securities Regulatory Commission. The organs directly under The State Council of the People's Republic of China shall, in accordance with laws, regulations and the authorization of The State Council, uniformly supervise and administer the securities and futures markets across the country, maintain the order of the securities and futures markets and ensure their lawful operation [24].

The China Securities Regulatory Commission (CSRC) is based in Beijing, with a chairman, four vice-chairmen and one head of the discipline inspection team at the CSRC. There is a stock issue review committee, the members of which are professional personnel of the CSRC and relevant experts outside the committee. The CSRC has set up 36 securities regulatory bureaus in provinces, autonomous regions, municipalities directly under the central government and planned cities, as well as the offices of the Shanghai and Shenzhen securities Regulatory Commissioners [51].

The CSRC is responsible for implementing the guidelines, policies, decisions and arrangements of the Party Central Committee on financial work, and implementing the centralized and unified leadership of the Party Central Committee on financial work into the process of performing its duties. The main responsibilities

are as follows [63]:

Implement unified supervision and management of the securities industry according to law, and strengthen the supervision responsibilities of the capital market.

To study and formulate policies and development plans for the securities and futures fund market. To draft relevant laws and regulations on securities and futures fund market, and put forward proposals for enactment and amendment. To formulate relevant regulatory rules and regulations for securities and futures fund markets [78].

Supervise the issuance, listing, trading, custody and settlement of stocks, convertible bonds, depositary receipts and other equity securities determined by The State Council to be the responsibility of the China Securities Regulatory Commission, and supervise the activities of investment funds such as real estate investment trusts in the fields of securities, equity, private placement and infrastructure [33].

Supervise the issuance, listing, listing, trading, custody and settlement of corporate (enterprise) bonds, asset-backed securities and other fixed income securities determined by The State Council to be the responsibility of the China Securities Regulatory Commission on the stock exchange market, supervise the listing and trading activities of government bonds on the stock exchange market, and be responsible for unified law enforcement work in the bond market [22].

Supervise the securities market behaviors of listed companies, unlisted public companies, bond issuers and their shareholders, actual controllers, and concerted actors who must fulfill relevant obligations according to laws and regulations.

Supervise the listing, trading, settlement and delivery of domestic futures contracts and standardized option contracts according to the division of labor, and supervise and administer the derivatives business carried out by securities and futures fund operating institutions according to law [41].

To supervise the securities and futures exchanges and other national securities trading venues designated by The State Council to be the responsibility of the China Securities Regulatory Commission, and to administer the senior management personnel of the securities and futures exchanges and relevant national securities trading venues in accordance with regulations [75].

Supervise securities and futures fund operating institutions, securities registration and settlement companies, futures settlement institutions, securities finance companies, securities and futures investment consulting institutions, securities credit rating agencies, fund custody institutions, fund service institutions, formulate and implement administrative measures for the employment and practice of directors, supervisors, senior managers and practitioners of relevant institutions [13].

Supervise domestic enterprises to issue stocks, depositary receipts, convertible bonds and other securities and listing activities overseas, supervise companies listed overseas to issue convertible bonds and domestic securities and futures fund operating institutions to set up branches overseas. Supervise overseas institutions to set up securities and futures fund institutions and engage in related businesses in China, overseas enterprises to issue securities and go public in domestic exchange markets, and qualified foreign investors to invest in domestic securities and futures.

Supervise the information dissemination activities of the securities and futures fund market, responsible for the statistics and information resource management of the securities and futures fund market [29].

Jointly with relevant departments to implement filing management and continuous supervision of accounting firms, law firms and institutions engaged in asset evaluation, credit rating, financial consulting and information technology system services engaged in securities service business according to law [26].

Responsible for the science and technology supervision of the securities and futures fund industry, establish a science and technology supervision system, formulate science and technology supervision policies, build a regulatory big data platform, and carry out science and technology application and safety risk monitoring, analysis, evaluation, early warning, inspection and disposal [47].

Investigate violations of laws and regulations in the securities and futures fund market according to law, and take relevant measures or penalties. Crack down on illegal securities and futures fund financial activities according to law, organize risk monitoring and analysis, and dispose of or coordinate to promote the disposal of securities and futures fund market risks according to law. Organize and coordinate

the cleaning up and rectification of various trading venues, and guide the relevant work of risk disposal [41].

To guide and supervise local financial supervision related to securities and futures funds in accordance with the requirements of establishing a local financial supervision system dominated by local agencies of the central financial management department, and to guide and coordinate local governments to fulfill their territorial responsibilities for dealing with relevant financial risks [13].

To carry out foreign exchanges and international cooperation in the securities and futures fund industry [22].

Third, «get»the relationships [48].

China's A-share market is characterized by A large number of retail investors, the advantage lies in the strong market vitality, and things always have two sides, vitality is also accompanied by freshness, leap, blindness, just like the United States New York, London, Hong Kong, Shenzhen and other world-renowned immigrant cities, absorbability, inclusiveness, vitality, high efficiency. But it is also accompanied by some common problems of immigrant cities. In April 2024, The State Council issued Several Opinions on Strengthening Supervision to Prevent Risks and Promote High-quality Development of the Capital Market, requiring the establishment of rational investment, value investment and long-term investment concepts. The new rules emphasize the «two strong and two strict», focus on improving the issue pricing, trading system and delisting system, strengthen the supervision of listed companies and securities operating institutions, emphasize the «public», prevent retail interests from being infringed, and take measures to regulate and limit quantitative trading and refinancing [21].

The Shanghai and Shenzhen stock exchanges have also strengthened their information disclosure mechanisms. To the extent that regulators make the rules of the game and the judiciary deals with the trouble at the bottom of the rules, they cannot be held accountable for investors' decisions, let alone bear the consequences of bad decisions. Therefore, the correct handling of the relationship with the rating agencies is essentially that investors correctly understand their own investment

professional level, and there is a galaxy between professional and unprofessional. Professional rating agencies have their own qualifications and performance, even if the rating agencies give professional and appropriate advice, the market has also verified the correct judgment in time, investors may also cause «investment failure» or «missed opportunities» because of «their own factors», from people and not «understand themselves», which is also a common problem in investment: human nature is complex, involving investment psychology and investment behavior. The underlying logic of investing revolves around «time» and «value» The fluctuation of price around value is the embodiment of the law of value. The price of a commodity is determined by value, but is influenced by supply and demand, resulting in prices fluctuating above and below value [58].

There is a time difference in the transmission of commodity prices to stock prices, and this «time difference» is as mysterious as the magic lamp in Aladdin's hand. Knowing when the light will be on, knowing when the light will be on but not knowing when it will be on, not knowing that the light will be on but accidentally hitting the light, not knowing that it is a light, investment in the field of kung fu [48].

- There are two iron laws of the investment market. Don't step into two rivers at once [14].

- Time is the sole test of investment practice. When the prehistoric forces of the market erupt, the impact of the extreme unilateral trend market will not be a bit different depending on who is who. Because the global stock market is so large, individuals are not even a speck of dust in the market [19].

In 2024, the SFC of Hong Kong, China and the SEC of the United States approved the listing of a Bitcoin ETF. Among them, the US SEC approved 11 ETF spot Bitcoin ETF listing trading. Approved issuers of spot Bitcoin ETFs include: Grayscale, Bitwise, Hashdex, iShares, Valkyrie, Ark 21Shares, Invesco Galaxy, Van Eck, WisdomTree, Fidelity and Franklin. An option is a derivative financial instrument that gives investors the right, but not the obligation, to buy or sell an asset at a predetermined price on a future date. For investors, options offer more flexibility and risk management tools to speculate on market movements or hedge risk without

buying or selling assets directly [29].

Bitcoin is originally based on computer algorithms on the «mining», commonly known as «mining», the underlying technology is blockchain decentralization. According to incomplete estimates, in 2140 Bitcoin will hit the upper limit of production, and like other assets in human history, it is a finite resource. In 2015, the CFTC granted Bitcoin the function of trading options contracts on the platform (figure 2.2).



Figure 2.2. Annual line chart of Bitcoin for 2012-2024

According to the definition of the five functions of money by Marx's economic theory, Bitcoin, as a scientific and technological product, seems to have the function of value measure, circulation means, payment means, storage means in some areas, giving science and technology unlimited imagination space, but it is far from the function of world money. In 2023, the International Monetary Fund explicitly strengthened the monetary policy framework to maintain currency sovereignty and stability, and did not grant cryptocurrencies such as Bitcoin official or legal tender status. This line draws a clear line between bitcoin and gold, but several countries have determined that it is far from enough, and there are many blind spots between this decentralized technology and the current regulatory controllability, and Bitcoin is still far from the financial field [77].

From the figure 2.2, we can clear see the price highly ups and downs. It

reached a small peak (\$15,000) in 2018, skyrocketed from \$15,000 to around \$60,000 in 2021-2022, plummeted to around \$15,000 in 2023, and shook up to around \$100,000 in the following year. Fully intuitive reflects the speculative nature of Bitcoin [66].

Figure 2.3 shows a strong appetite for Bitcoin. Can prices be equated with financial money? The answer needs to be given in the future. In a situation of uncertainty, we as investors need to be sober and cautious.

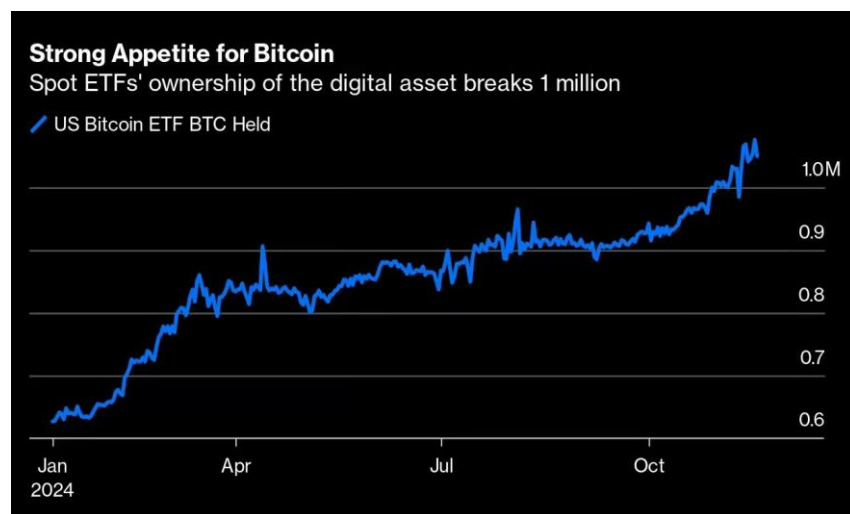


Figure 2.3. Strong Appetite for Bitcoin in 2024

Moreover, from the point of view of digital assets, is Bitcoin a digital asset? Assets have several characteristics [18]:

1. The result of past transactions or events.
2. Owned or controlled by the enterprise.
3. Can bring future economic benefits.
4. Cost or value can be measured reliably.

There is a well-known story in human history that reveals a simple common sense. Tulip is a kind of flower, met a magical force, generated a bubble all over the sky, and then the bubble flew away with the magical force, tulip is still a flower. As an investor, what is Bitcoin? Before I went to press, I had a big question mark in my mind.

CHAPTER 3

STOCK INDEX AND RATING CASES

3.1. National stock index

In this chapter, the author selected some national stock indexes, enterprise stock indexes, industrial stock indexes and rating cases, and observed their index charts in the past five years. Like appreciating the paintings of Van Gogh, Monet, Chang Yu, Xu Beihong, Zhang Daqian and other famous artists, I can feel the magnificent, ups and downs, rise and rise step by step, meander and dull as water. We find that the market and events are related, just as we look at a painting in which there is not only a painting, but also a variety of other than poetic words. Try to find some «commonalities» behind these index charts, and these commonalities may hide «value» and «inclusive benefits». In short, investment is risky, and you should take your own risk [29].

In the global national stock index, the author selected DJI, N225, FT100, Hang Seng Index of Hong Kong and Shanghai Index of China from 2006 to 2024 according to the first chapter of the index introduction. Through intuitive analogical observation, we can clearly see that a stock market with a mature trend is attractive, and the 20-year trend is stable and rising. For example, DJI experienced nearly 140 years of wind and rain to have this beautiful 20-year chart, from the lowest point of 6440 to the highest point of 43277, an increase of about 570%. The major background behind the green column and the lower shadow line in the chart are the subprime mortgage crisis in 2008, the post-2015 economic crisis, the interest rate hike and balance sheet contraction in 2018, the COVID-19 epidemic in 2020, and the inflation pressure in 2022. During the same period, we look at the FT100 and N225, which have almost the same trend as the DJI, rising by about 145% and 507% respectively [14].

Figure 3.1 illustrates the long-term performance of the Dow Jones Industrial

Average (DJIA), showcasing a steady upward trajectory over the years. From approximately 13,347 in the early 2000s to over 42,740 in the latest period, the index reflects sustained economic growth and investor confidence in the U.S. stock market. The presence of upward spikes, particularly during periods like 2020-2021, likely corresponds to market optimism and recovery phases, such as the post-COVID economic rebound. The moving averages (MA20 and MA250) further emphasize the bullish trend, with both steadily rising and acting as support levels, signaling resilience over time [19].



Figure 3.1. Annual line chart of DJI for 2006-2024

However, recent performance shows a slight pullback, with the index declining marginally from the previous year's high of 43,277.78, suggesting a phase of consolidation or market caution. This correction could be influenced by factors like interest rate adjustments or global economic uncertainties. Despite short-term volatility, the chart underscores the DJIA's reliability as a long-term growth indicator, encouraging investors to focus on enduring market potential while remaining mindful of periodic risks [18].

Figure 3.2 represents the long-term performance of the Nikkei 225 (N225) index, showcasing its annual trend from 2006 to 2024. The index demonstrates a significant recovery and growth after hitting a low point around 6,994.90 during the global financial crisis in 2009. Over the years, the Nikkei 225 has shown a steady

upward trajectory, indicating a recovery in the Japanese economy and growing investor confidence [22].



Figure. 3.2. Annual line chart of N225 for 2006-2024

In recent years, the index reached a high of approximately 42,426.77, reflecting strong market performance and economic growth momentum. However, the current year shows a slight decline, with the index closing at 39,180.30, which is lower than the previous year's close. The moving averages (MA20 and MA250) indicate a long-term bullish trend, despite short-term volatility. This performance reflects both the resilience of the Japanese stock market and the occasional corrections driven by global and domestic economic factors [33].

Figure 3.3 represents the long-term performance of the FTSE 100 index, illustrating its annual trend from 2006 to 2024. The index shows a gradual recovery from a significant low of approximately 3,460.71 during the global financial crisis in 2009. Over time, the FTSE 100 has demonstrated consistent growth, reaching recent highs near 8,474.41, reflecting the resilience of the UK market and improving investor sentiment [47].

The moving averages (MA20 and MA250) show an upward trend, indicating sustained positive momentum. Despite occasional periods of correction or consolidation, as shown by the mixed green and red candlesticks, the index continues to maintain its long-term bullish trajectory. The current level of 8,302.81 suggests a

strong market position, though short-term fluctuations highlight ongoing market challenges influenced by global and domestic factors [55].



Figure 3.3. Annual line chart of FT100 for 2006-2024

Looking at China's Hang Seng Index (figure 3.4) and Shanghai Composite Index (figure 3.5), also with a correlation, especially the long green column in 2008, indicating that financial globalization is a real and long-term existence, even in recent years under the influence of geopolitics, the general trend of globalization is irreversible. Writing here, we can be clear one thing is: investing in long-term stock indexes can achieve wealth increase, but the choice is different, the profit and loss is different. The pursuit of high returns will bear high risks, from this point of view, investment and other undertakings are no different, over a long period of time, and speculation, speculation to distinguish [21].

Figure 3.4 represents the long-term performance of the Hang Seng Index (HSI), reflecting its annual trends from 2006 to 2024. The index shows significant volatility over the years, with a low of approximately 10,676.29 during the 2008 global financial crisis, followed by a recovery phase leading to a peak of 33,484.08 around 2018. However, subsequent years indicate a decline in market performance, suggesting economic or geopolitical challenges affecting investor sentiment.



Figure 3.4. Annual line chart of HSI for 2006-2024

The moving averages (MA20 and MA250) depict a relatively stable long-term trend, with the MA250 acting as a support level, though the current level of 20,286.85 remains below earlier highs. This indicates ongoing consolidation or a possible downtrend in recent years. The fluctuations in the candlesticks highlight the impact of global and domestic economic factors, emphasizing the need for cautious optimism in navigating the Hang Seng Index's market dynamics [59].

Figure 3.5 represents the long-term performance of the Shanghai Composite Index (000001), showcasing annual trends over the years.



Figure 3.5. Annual line chart of SSE for 2006-2024

The index peaked at approximately 6,124.04 in 2007, driven by rapid market expansion during a bullish economic phase. However, it experienced a significant correction in the following years, falling to a low of 998.23, reflecting the impact of the global financial crisis and market volatility [41].

Since then, the index has shown a relatively stable but slower recovery, with minor fluctuations and a range-bound performance over the past decade. The moving averages (MA20 and MA250) illustrate a gradual upward trend, indicating underlying resilience in the Chinese market. Despite the consistent long-term support provided by the MA250, the index's current level of 3,202.95 reflects a cautious market sentiment, likely influenced by global economic challenges and domestic factors.

3.2 Industry stock index

Understanding the behavior of industry stock indexes is critical for analyzing market trends, assessing economic health, and making informed investment decisions. This chapter delves into key industry stock indexes, exploring their historical trends, drivers of performance, and the broader economic contexts influencing them. By examining specific sectors such as precious metals, crude oil, real estate, and semiconductors, this chapter provides a comprehensive overview of how global and regional factors interact to shape these markets [29].

The analysis begins with an exploration of related macroeconomic indexes, including the US Dollar Index, Gold Index, and Crude Oil Index, to establish their impact on sector-specific trends. It then transitions to an in-depth look at key industry indexes, such as the Real Estate Industry Index, Precious Metals Industry Index, and Semiconductor Index (SOX), each reflecting unique dynamics (figure 3.6). Through charts and detailed descriptions, this chapter highlights the influence of technological advancements, policy interventions, geopolitical factors, and market demand cycles on these sectors, offering valuable insights into their evolution and future prospects.



Figure 3.6. Annual Line Chart of US Dollar Index (UDI) for 2006-2024

The chart depicts the performance of the US Dollar Index (UDI) over 18 years, illustrating its role as a global currency benchmark. The fluctuations in the index are influenced by macroeconomic factors such as interest rates, inflation, and geopolitical events. These movements impact industries that rely heavily on global trade and commodity pricing, as the dollar's strength directly affects the cost and profitability of transactions conducted in USD. As a key indicator of the dollar's purchasing power, the UDI indirectly influences the pricing of commodities like gold and oil, which are often inversely correlated. This relationship highlights the interplay between currency markets and the broader economy, particularly in sectors dependent on imports and exports (figure 3.7).



Figure 3.7. Annual Line Chart of COMEX Gold for 2006-2024

Gold prices have shown a significant increase of 284% over the past two decades, despite considerable volatility. The chart highlights dramatic fluctuations, such as in 2024, when prices surged by 40%, driven by economic instability and inflationary pressures in major markets. This makes gold a popular asset during economic uncertainties, reflecting its role as a «safe haven» for investors (figure 3.8).



Figure 3.8. Annual Line Chart of BK0732 for 2015-2024

These fluctuations are further amplified by leverage in the financial markets, where one-day movements of over 400 points can result in substantial gains or losses. The trend in the gold market also correlates with broader macroeconomic conditions, such as inflation spikes in Europe and the United States (2021-2022), emphasizing its reactive nature to global financial instability (figure 3.9).



Figure 3.9. Annual line chart of NYMEX OIL for 2006-2024

The Precious Metals Industry Index (BK0732) follows a trajectory that closely aligns with the price of gold. The chart demonstrates how the sector has experienced steady upward momentum, supported by rising demand for gold and other precious metals. The trend reflects the resilience of the industry, which thrives during inflationary periods and economic downturns [51].

This index serves as a barometer for the performance of mining and metal extraction companies. Despite market volatility, the upward trend indicates strong investor confidence in the sector’s long-term profitability, driven by its role in hedging against economic uncertainty (figure 3.10).

The NYMEX Crude Oil Index reveals the complexity of the oil market, with significant price swings influenced by supply and demand factors, geopolitical tensions, and advancements in energy technology. The chart shows periods of high volatility, reflecting the sector's sensitivity to external shocks such as OPEC decisions, shale oil production changes, and political conflicts [21].



Figure 3.10. Annual line chart of BK0464 for 2000-2024

Interestingly, while the oil price typically shows an inverse relationship with the US Dollar Index, this correlation is not always consistent. The unpredictability in oil prices underscores the challenges faced by the energy sector, where strategic decision-making is often influenced by macroeconomic uncertainties and technological breakthroughs [19].

The Oil Industry Index (BK0464) illustrates a less direct correlation with the crude oil price index, highlighting the impact of additional factors like production costs, inventory levels, and market competition. While the index generally trends upward during oil price surges, its volatility indicates that other market dynamics,

such as supply chain issues and regulatory changes, play a significant role (figure 3.11).

The chart also reflects how companies within the oil industry adapt to external pressures. Diversification into renewable energy and technological innovation, for instance, can mitigate the adverse effects of falling crude oil prices, allowing for a more stable performance compared to the commodity itself.



Figure 3.11. Annual Line Chart of Financial Index for 2013-2024

The Financial Index highlights a turbulent period in 2015, marked by a sharp 129% decline due to banking sector instability and overdue loans. The chart captures the cascading effects of financial distress, particularly on industries dependent on credit availability, such as real estate. This year represents a critical turning point, reflecting systemic weaknesses in financial institutions (figure 3.12).

Despite these challenges, the index shows a recovery in subsequent years,

driven by reforms and policy measures aimed at stabilizing the financial system. This demonstrates the sector's resilience and its ability to rebound in response to government interventions and improved macroeconomic conditions [48].

The Real Estate Industry Index (BK0451) reveals the cyclical nature of the real estate market, with significant highs and lows over the past two decades. The index shows steady growth leading up to 2015, followed by a sharp decline of over 114%. This decline was exacerbated by financial sector vulnerabilities and reduced consumer confidence in the housing market [56].



Figure 3.12. Annual Line Chart of BK0451 for 2000-2024

By 2024, the chart reflects a recovery, supported by comprehensive policy reforms in China. Measures such as affordable housing programs, down payment adjustments, and financing reforms have played a pivotal role in stabilizing the sector. The recovery highlights the importance of coordinated policy efforts in restoring confidence and driving growth in critical industries [41].

This chapter has provided a detailed exploration of various industry stock indexes, emphasizing their trends, influencing factors, and interconnections with broader macroeconomic conditions. By analyzing key indexes such as the US Dollar Index, Gold Index, Crude Oil Index, and sector-specific indexes like the Real Estate Industry Index, Precious Metals Industry Index, and Semiconductor Index (SOX), we have demonstrated the dynamic interplay of global and industry-specific drivers [13].

The analysis reveals that macroeconomic variables, including inflation, geopolitical events, and technological advancements, play a significant role in shaping industry performance [14].

For instance, the precious metals and crude oil sectors exhibit sensitivity to currency fluctuations and geopolitical tensions, while the real estate and semiconductor industries are profoundly impacted by policy reforms and innovation cycles. Notably, the semiconductor sector underscores the transformative power of AI and technological innovation, showcasing its resilience and potential for long-term growth despite geopolitical headwinds. These insights highlight the importance of a holistic approach in evaluating industry indexes, where understanding both macroeconomic and microeconomic factors is essential for navigating market complexities and making informed investment decisions.

3.3. Nvidia Stock Index and agency rating

In 2024, the AI industry is emerging, and Nvidia remains a major supplier of chips for global enterprises. The enterprise strategy continues to undergo in-depth adjustments, extending its business territory while achieving breakthroughs in research and development. As the AI market demand surges, rating agencies express optimism, and Nvidia's stock price continues to hit new highs with a strong unilateral rise and minimal pullbacks. From the low price at the beginning of the year to the current high price, Nvidia's stock has risen approximately 290% (figure 3.13).



Figure 3.13. Annual line chart of NVDA for 2006-2024

The annual line chart demonstrates the remarkable growth of Nvidia’s stock price (NVDA) over an 18-year period, particularly focusing on the explosive rise in 2024. This growth aligns with Nvidia's position as a leading supplier in the AI-driven market, showing how the company's stock value is closely tied to technological advancements and increasing demand for AI chips [11].

The figure 3.14 underscores a long-term upward trend, showcasing Nvidia’s resilience and ability to capitalize on emerging market opportunities. The stock price saw its sharpest growth in 2024, reflecting investor confidence and industry enthusiasm for AI-driven innovation [3].



Figure 3.14. Comprehensive Rating of Nvidia

Due to the continuous rating adjustments by professional institutions, the stock chart of Nvidia was analyzed, alongside ratings from JP Morgan Chase, Morgan Stanley, UBS, and HSBC [7].

This figure 3.14 compiles ratings from major financial institutions, illustrating their increasingly optimistic stance toward Nvidia's market potential. The figure highlights how these agencies have continuously adjusted their target prices upward as Nvidia maintained a strong trajectory in the AI sector [9].

The consistent revisions show the dynamic nature of stock evaluations and emphasize how professional institutions play a critical role in guiding investor expectations. The comprehensive view also reflects the confidence in Nvidia's growth, which has been supported by both technological advancements and favorable market conditions [59].



Figure 3.15. Ratings by Morgan Stanley and JP Morgan

This figure 3.15 presents ratings provided by Morgan Stanley and JP Morgan, detailing their projections and upward adjustments to Nvidia's price targets. These agencies demonstrate a bullish sentiment, with target prices consistently raised as Nvidia achieved new market milestones [78].

The figure 3.15 highlights the responsiveness of these institutions to Nvidia's

rapid progress in AI-related markets. The figure also reflects the credibility and influence of these agencies in shaping investor sentiment, as they align their forecasts with Nvidia's strong performance [66].



Figure 3.16. Ratings by UBS and Goldman Sachs

This figure 3.16 showcases Nvidia's ratings issued by UBS and Goldman Sachs, both of which reflect an optimistic outlook on the company's potential. The agencies have aligned their evaluations with Nvidia's consistent growth in stock price and its ability to dominate the AI chip market [24].

The upward revisions in price targets reflect the agencies' confidence in Nvidia's strategies and its positioning as a leader in AI. The chart further illustrates how professional institutions adapt their recommendations based on real-time market performance, ensuring their forecasts remain relevant [9].

The analysis of Nvidia's stock performance and agency ratings in 2024 provides several critical insights into the dynamics of the AI-driven market and the role of professional institutions in shaping investor behavior [13]:

1. **Significant Stock Price Growth Reflecting Market Trends.** Nvidia's stock price has experienced remarkable growth, rising approximately 290% within the year. This growth is driven by the company's strategic positioning in the rapidly expanding AI industry and its ability to capitalize on increased demand for cutting-edge chip technology. The significant rise reflects both investor confidence and the

transformative impact of AI advancements on market dynamics [30].

2. **Dynamic and Adaptive Rating Strategies.** Professional rating agencies, including JP Morgan Chase, Morgan Stanley, UBS, and Goldman Sachs, have played a pivotal role in evaluating Nvidia's market potential. Their continuous upward revisions of price targets illustrate their ability to adapt to rapidly changing market conditions and highlight the importance of dynamic evaluation in the investment ecosystem [28].

3. **Mutual Benefit Between Nvidia and Rating Agencies.** Nvidia and professional institutions have formed a mutually beneficial relationship. Rating agencies' bullish outlook has bolstered investor confidence, contributing to the company's stock price growth. In return, investors who aligned their decisions with these ratings have achieved notable financial gains, reinforcing the credibility of these agencies [13].

4. **Consistency Between Analysis and Market Actions.** The charts reveal that many rating agencies actively participate in the market, demonstrating consistency between their evaluations and actions. This alignment enhances their reputation and underscores the importance of credibility in investment decision-making [2].

5. **Importance of Underlying Logic in Ratings.** While rating agencies provide critical insights, investors are advised to analyze the logic behind these evaluations. Understanding the fundamental rationale behind target price adjustments and ratings is essential for making informed investment decisions [3].

In conclusion, Nvidia's stock performance and the evaluations by rating agencies highlight the interconnectedness of technological innovation, market dynamics, and professional assessments. This relationship not only reinforces the pivotal role of institutional analysis but also demonstrates how strategic alignment with emerging trends can drive financial success for enterprises and investors alike.

CONCLUSIONS

As qualified masters work, we will consider the degree solve the tasks set at the beginning of the job. According to the first task «study the definition of stock index and stock rating».

The following achievements have been achieved: Understand the definition of stock index, influencing factors, stock average price and calculation method of stock index. The sample stocks must be typical and universal, and factors such as industry distribution, market influence, stock grade and appropriate quantity should also be considered. This paper introduces several major stock index categories in the world, and reviews their organization, history, structure and industry categories. Familiar with the definition of stock rating, rating standards and stock rating agencies.

In the second part, the research object is the relationship in the stock market. First of all, it combs the reasons why people pay attention to stock indexes and ratings, introduces some global rating agencies, and points out some common characteristics of global individual investors, which constitute the source of weakness of ordinary investors. Secondly, it introduces the world's major stock exchanges, regulatory agencies and relevant legislation, analyzes the relationship between investors and non-investors, regulatory agencies and rating agencies, popularize common sense to help investors solve the problem of «don't understand» to «understand», and enumerates the case of Bitcoin to show that people must remain sober and cautious in the face of «don't understand». A case of China Securities Regulatory Commission protecting the rights and interests of small and medium-sized investors illustrates the importance of a benign environment. A benign cycle can promote the benign development of the securities market, investors and rating agencies.

In the third part, I list some country stock index, industry stock index, individual enterprise stock index and rating cases, and provides some index charts in the past 20 years. Through the index movement, we can see the major events behind

the stock index, which is a barometer of the economy. The pursuit of high returns will bear high risks, and investing in long-term stock indexes can realize wealth appreciation, but the choice is different, the profit and loss is different. Analysis of the world's three important indicators: the US dollar index, oil index, gold index, these three indicators directly or indirectly affect all walks of life, but also intuitively feel the different characteristics of different index varieties, investors are selected. Then, it analyzes the real estate industry and the financial industry index, and intuitively sees the important correlation between the two, and more mature understanding of the current national policy wind adjustment, helping investors to think about investment opportunities in related fields at a higher level. The global semiconductor industry index is introduced, and the future trend of the world economy is intuitively seen. AI is a new industrial revolution in human history. With each round of the industrial revolution, finance, technology, energy, etc. are important driving forces to promote the economy, and we clearly found that the chip has been diverted. «Doing the opposite» as an excellent basic quality of investors, to help investors find the «margin of safety», shape the «bottom line thinking network». At the same time, we also found some natural laws of jungle survival, which also form part of the source of investment laws. Finally, it introduces how Nvidia stock, investors and rating agencies realize multi-win under the virtuous circle relationship. The evaluation of enterprise value by rating agencies is dynamically adjusted and changes rapidly. When investors look at the results of rating agencies, they should refer to their evaluation logic as much as possible, and the underlying logic is also the fundamental logic of investment.

To sum up, we used the following methods to achieve the goals and solve the tasks: correlation analysis, comparative generalization, market research, logic and system methods to find the way to solve the problems in the introduction.

1. How ordinary investors correctly understand the stock market and all participants.
2. How do ordinary investors objectively understand the rating structure of financial institutions for stocks.

3. How ordinary investors establish their own investment principles and methods.

The practical value of this research is that some of the methods and rules in this paper are applicable to anyone involved in market investing. Here we concluded:

- Investment in the stock index can achieve wealth increase, but the choice is different, the profit and loss is different. When you go for high returns, you take on high risks.

- The rating of professional institutions can be used as a reference, rather than blindly following the investment. While looking at the results of rating agencies, we should consult the logic of their assessment as much as possible, and the underlying logic is also the fundamental logic in investment.

- In the face of the emerging industry environment recognized by the market, follow the law of «strong constant strength», win-win cooperation between the best will bring about changes in the world, such a law is not easy to be broken, can become a source of confidence for investors.

- Correctly understand the impact of geopolitics on normal market economy. Even if the product is on top of the world, it is useless without a market. This is another rule of any industry, and it is also the basic logical source of the current «sinking market».

- Correctly understand that the industry is cyclical, and overcapacity is real. Even in «high-tech» industries like semiconductors, there will be a sector surplus, the market size will shrink, prices will be lower, corporate profits will be reduced, and when a company is not profitable for a long time, the stock price will fall, and investors will naturally withdraw their funds.

- The commercial housing on the market can be used as an important real estate collateral, has certain financial attributes, and involves the «housing» in the «food, clothing, housing and transportation» of the people's livelihood, and needs stability. 2024 could see a clear bottoming out. Combined with China's intensive real estate policy introduced in 2024, to promote the steady and healthy development of the real estate market, through the simultaneous rental and purchase, financing reform,

down payment interest rate adjustment, affordable housing construction and other measures to meet the housing needs of different groups, while through the adjustment of land and financial policies, optimize the market environment and enhance market confidence.

- Know yourself, know the investment varieties, know the investment market, and make understandable investments.

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ПРОТОКОЛ

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Серійний номер: 5E984D526F82F38F0400000062272F019936AB05

Тип носія особистого ключа: Незахищений

Алгоритм підпису: ДСТУ 4145

Тип підпису: Удосконалений

Тип контейнера: Підпис та дані в одному файлі (CAAdES enveloped)

Формат підпису: З повними даними ЦСК для перевірки (CAAdES-X Long)

Сертифікат: Кваліфікований

Підписувач - 2: АЗАРЕНКОВА ГАЛИНА МИХАЙЛІВНА

П.І.Б.: АЗАРЕНКОВА ГАЛИНА МИХАЙЛІВНА

Країна: Україна

РНОКПП: 2571514226

Організація (установа): ФІЗИЧНА ОСОБА

Час підпису (підтверджено кваліфікованою позначкою часу для підпису від Надавача): 21:20:04 30.11.2024

Сертифікат виданий: КНЕДП АЦСК АТ КБ "ПРИВАТБАНК"

Серійний номер: 5E984D526F82F38F04000000E4DA710112DF3D05

Тип носія особистого ключа: Незахищений

Алгоритм підпису: ДСТУ 4145

Тип підпису: Удосконалений

Тип контейнера: Підпис та дані в одному файлі (CAAdES enveloped)

Формат підпису: З повними даними ЦСК для перевірки (CAAdES-X Long)

Сертифікат: Кваліфікований

Підписувач - 3: Омеляненко Денис Олегович

П.І.Б.: Омеляненко Денис Олегович

Країна: Україна

РНОКПП: 3634714115

Час підпису (підтверджено кваліфікованою позначкою часу для підпису від Надавача): 11:47:04 16.12.2024

Сертифікат виданий: "Дія". Кваліфікований надавач електронних довірчих послуг

Серійний номер: 382367105294AF9704000000EF5A070009B10B03

Тип носія особистого ключа: ЗНКІ криптомодуль ІІТ Гряда-301

Серійний номер носія особистого ключа: Не визначено

Алгоритм підпису: ДСТУ 4145

Тип підпису: Кваліфікований

Тип контейнера: Підпис та дані в одному файлі (CAAdES enveloped)

Формат підпису: З повними даними ЦСК для перевірки (CAAdES-X Long)

Сертифікат: Кваліфікований