Value Investment Analysis Based on the U.S. Market - Taking Four Major Industries as Examples

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ABSTRACT

Value investment requires investors to hold the suitable company stock at the right price to achieve a certain profit purpose. Scholars all over the world are enthusiastic about studying it. In this study, linear regression was used as the primary method and use P/E, P/B, ROE, ROA, EPS, debt-to-asset ratio, B/M, P/CF, the Net interest rate on total asset index analysis and comparison. The paper tries to divide sectors to analyze financial indicators and their impacts on stocks' regression respectively. Results could be found that the B/M ratio and net interest rate of total assets become more effective and useful than the P/E ratio in four sectors. The paper combines the concept of the sector into the analysis of the impacts of financial indicators. It provides results through statistics to give some suggestions for investors to consider during the process of value investing.

Keywords: Value investing, US stock market, Financial indicator, Linear regression

1. INTRODUCTION

Since Columbia Business School by finance adjunct Benjamin Graham and finance professor David Dodd developed Value Investing [1], the stock market ushered in tremendous changes. In an era of intuitive investing, Value Investing was the most effective investment strategy. Value Investing uses analysis and buys stocks below their intrinsic value to obtain excess returns. This strategy has allowed many people to get enormous benefits, including some famous investors, Warren Buffett, Mario Gabelli, Glenn Greenberg, Charles Royce, etc. [2]. To this day, Value Investing is still an investment strategy that investors often use to optimize returns.

The idea of value investing has a long developing history. The originator of the basic analytical method is Graham, who created the theoretical system of the basic analytical method. In Graham's opinion, the stock price is the external expression of the intrinsic investment value of public companies. Therefore, the analysis of the investment value of public companies is the main method for stock selection [3]. Graham also believes that investors can analyse the investment value of public

companies by looking at the balance sheet and income statement. Investors should evaluate the stock's intrinsic value according to the assets and performance of the company to judge its stock price [4]. The core of value investing is selecting a business with potential growth, finding and investing in undervalued and safe stocks, buying it at a price below the value, and holding it for a long time until it is sold at a price above the value. Investors can find whether the enterprise has space for development and whether it meets the market requirements by looking at the company's research report and determining the company's value by studying the production chain and suppliers. This is where people begin to define value investing. The world economy has entered a new period of development since the 1950s. A man named Fisher proposed a dynamic view of public companies' development, noting that the best investment is to invest in growth companies so that the growth of listed companies has become one of the important criteria for our stock selection today [5]. After the 1960s, global integration appeared in the world economy. An investor named Temberton keenly saw that this would be the main trend in the future. He put forward the idea of international investment and

gradually laid out his fund in major markets worldwide [6]. In the 1970s, Lynch wrote about not every investment made money for investors, introducing the concept of a 60 per cent successful investment rate. He thought invest based on the value of the stock, but not like Buffett's strict stock selection, and do not emphasize long-term holding, but to sell high and buy low, to make an investment portfolio. It should be said that this investment method is adopted by most contemporary investment managers [7]. Andre Kostolani, a German investor at the end of the 20th century, had his own unique operating techniques. He was mainly engaged in the medium-term operation, participating in investment according to the market trend and selecting stocks according to the fundamentals of public companies [8]. Mr Kostolani's approach is more applicable to emerging markets, which tend to be less stable in the long term and more volatile in the short term. Domestic researchers have published their own research on value investment in recent years. Chen selected companies from various aspects, divides them into three dimensions, including valuation, financial quality and financial growth, and comprehensively analyzes the market position, business performance and development space of listed companies [9]. Sun & Liu differentiated different industries to analyze the applicability of value investment in China, distinguish between cyclical and weak cyclical industries to study the applicability [10].

To sum up, many studies are mainly about analyzing the impact of indicators as a whole. During their studies, they did not distinguish industries to analyze impacts on each industry. Some documents only design and optimize stock selection models based on value investment theory. If investors use a single method to analyze stocks, they may fail to find the optimal portfolio and value investment. We divided the data into different industries and compared them, and we also attempt to find out the general rule/pattern behind the investment.

2. DATA AND METHOD

2.1.Data

The main research of this article is an empirical study of value investment in the US market. The data used in this article comes from the Wind database. Through research on market data for the past ten years from 2011 to 2020, we have identified four sectors that meet our requirements. They are Industrials, Consumer Cyclical, Technology, and Financial Services. In the financial field, market data is related data released by trading venues to notify traders and investors of the prices and transactions of financial instruments. We analyse the entire market by studying financial data and stock data in the market data of these four sectors.

Among them, for stock data, we use Daily Closing Price, Market Value Per Share, Market Cap, etc.; for financial data, we use Net Income, Long or Short-Term Debt, Total Assets, etc.

2.2.Method

Linear regression is a statistical analysis method that uses regression analysis in mathematical statistics to determine the quantitative relationship between two or more variables. Linear regression can be used to determine the strength of the independent variable's influence on the dependent variable, predict the effect or impact of changes, and analyse the forecast trend and future value [11]. In general, linear regression can be solved by OLS. Ordinary least squares, or OLS, is a mathematical optimization technique. It finds the best function match of the data by minimizing the sum of squares of the error. OLS can obtain anonymous data and reduce squared errors between the obtained and actual data [12]. OLS is widely used in many data processing disciplines, such as error estimation, uncertainty, system identification and prediction, and forecasting.

In this study, linear regression was used as the primary method and use P/E, P/B, ROE, ROA, EPS, debt-to-asset ratio, B/M, P/CF, the Net interest rate on total asset index analysis and comparison.

(1) Price-to-earnings Ratio, or PER or P/E, refers to the relationship between its stock Price and its Earnings PER share. It is usually used to measure the valuation ratio of a company's current stock price relative to earnings per share. Below is the formula for the price-to-earnings ratio:

P/E Ratio = Market value per share / Earnings per share

(2) Price-to-book, or P/B, is the market's valuation of a company relative to its book value. It is calculated by dividing the company's share price per share by its book value per share. Price-To-Book is usually used to determine potential investment targets. Below is the formula for the Price-to-book:

P/B Ratio = Market Price per Share / Book Value per Share

(3) Return on Equity, referred to as ROE, is a measure of financial performance. Because shareholders' equity is equal to the company's assets minus debt, ROE is considered a measure of the company's profitability relative to shareholder's equity. Below is the formula for the Return on Equity:

Return on Equity = Net Income / Average Shareholders' Equity

(4) Return on Assets, referred to as ROA, is an indicator that measures the profitability of a company

and its total assets. Through ROA, people can understand how efficiently a company's management uses its assets to generate revenue. Below is the formula for the Return on Assets:

Return on Assets = Net Income / Total Assets

(5) Earnings Per Share, or EPS for short, is an indicator for evaluating the value of a company. Since the higher the company's earnings per share, the stronger its profitability. Many companies report earnings per share adjusted for special items and potential equity dilution. Below is the formula for the Earnings Per Share:

Earnings per Share = Net Income − Preferred Dividends / End-of-Period Common Shares Outstanding

(6) Total-Debt-to-Total-Assets Ratio, TD/TA for short, indicates a company to use debt to finance its assets. Usually, the leverage ratio of a company is compared with the leverage ratio of other companies in the same industry. The higher the ratio, the higher the degree of leverage, and therefore, the higher the risk of investing in the company. Below is the formula for the Total-Debt-to-Total-Assets Ratio:

TD/TA = (Short Term Debt + Long Term Debt) / Total Assets

(7) Book-to-Market Ratio, referred to as B/M, is one indicator to measure a company's value. By comparing the company's book value and market value, people can discover the company's market value. Below is the formula for the Book-to-Market Ratio:

Book-to-Market = Common Shareholders' Equity / Market Cap

(8) Price to Cash Flow Ratio, P/CF for short, is a stock valuation indicator. P/CF can measure the value of stock price relative to operating cash flow per share. Below is the formula for the Price to Cash Flow Ratio:

Price to Cash Flow Ratio = Share Price / Operating Cash Flow per Share

(9) Net Interest Margin, or NIM for short, is a profit indicator. This indicator can help people decide whether to invest in a financial services company. Through the profitability of interest income and interest expenses of this financial services company, investors can better measure the company's investment value. Below is the formula for the Net Interest Margin:

Net Interest Margin = (Investment returns - Interest expenses) / Average Earning Assets.

3. RESULT AND DISCUSSION

Four sectors, including consumer cyclical, industrials, technology, and financial services, will be separately discussed. Results by calculating linear regression among eight financial indicators and stocks' annualized returns between 2011 and 2020, which includes significance and coefficient for each financial indicator, will be demonstrated.

3.1. Consumer cyclical

From Table 1, in consumer cyclical, general patterns could be found. On one side, as the ratio has higher frequencies, it could have more usefulness to be considered for value investing. Thus, by calculating the frequency of significant financial indicators in this sector, financial indicators used as tools for investment strategies can be divided into three categories. The first group is B/M and P/E, two financial indicators. The second group contains the debt-to-asset ratio and net interest rate on total assets. The third group contains ROA, ROE, and P/B.

On the other side, the impacts of significant financial indicators can be reflected through linear regression correlation. As the correlation with stocks' returns is stronger, it is more useful and obvious to use the indicator and see trends to support value investment. When the B/M ratio is significant for the first group, it always has a strong correlation with stocks' reruns from 2011 to 2020 compared with the P/E ratio, so the B/M ratio could be more critical. It should be considered as a priority for value investment. In other words, while using first group financial indicators, the B/M ratio is better and could replace the P/E ratio in the cyclical consumer sector. For the second group, compared with debt-to-asset, the net interest rate on total assets shows relatively stronger regression correlations with stocks' returns when it is significant. Therefore, it could be regarded as a more effective financial tool for value investing. For the third group, since their significance frequency is limited, it is uncertain to determine.

Therefore, in the consumer cyclical, the ranking of the usefulness of financial indicators as strategies for value investing is B/M ratio, P/E ratio, the net interest rate on the total asset, debt-to-asset, and three ratios in the third group.

Table 1. Parameter estimation results for the cyclical consumer sector

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
β_0	12.74	53.92	40.62	17.05	-28.58	67.30	18.49	-2.95	16.21	9.91
	(-17.19)	(-19.79)	(-16.61)	(-12.78)	(-10.30)	(-14.96)	(-19.27)	(-9.27)	(-14.41)	(-54.29)
DTA	-0.39*	-0.02	0.12	0.02	0.13	-0.58**	-0.01	-0.33***	0.21	0.53
	(-0.23)	(-0.26)	(-0.24)	(-0.20)	(-0.14)	(-0.26)	(-0.24)	(-0.12)	(-0.22)	(-0.69)
NIROA	-1.25	4.06***	0.32	-0.24	0.75	2.93***	-2.43	-1.01	6.22*	18.78*
	(-1.26)	(-1.18)	(-0.49)	(-1.07)	(-1.61)	(-1.02)	(-1.91)	(-1.50)	(-3.16)	(-9.49)
ROA	1.45	-3.26***	-0.35	0.02	0.32	-3.64***	0.72	1.65	-3.73	-9.57
	(-1.11)	(-1.01)	(-0.69)	(-0.95)	(-1.23)	(-0.97)	(-1.63)	(-1.33)	(-2.68)	(-7.72)
ROE	0.03	-0.02	0.17*	0.01	0.00	-0.01	0.07	-0.02	0.11	-0.11
	(-0.20)	(-0.09)	(-0.09)	(-0.06)	(-0.07)	(-0.02)	(-0.10)	(-0.03)	(-0.12)	(-0.11)
EPS	1.81	-0.09	-0.09	-0.10	0.10	-0.04	0.02	0.05	-0.01	-0.14
	(-1.30)	(-0.23)	(-0.14)	(-0.13)	(-0.13)	(-0.12)	(-0.08)	(-0.07)	(-0.14)	(-0.32)
PE	0.47*	0.28**	0.26*	0.05	0.12**	-0.04	0.41***	0.12	0.02	0.03
	(-0.28)	(-0.13)	(-0.13)	(-0.04)	(-0.05)	(-0.06)	(-0.11)	(-0.19)	(-0.11)	(-0.07)
PB	0.43	-0.16	0.00	-0.67	0.03	3.16**	0.12	0.09	-0.32	-1.91
	(-0.63)	(-0.22)	(-0.29)	(-0.54)	(-0.08)	(-1.27)	(-1.42)	(-0.15)	(-0.55)	(-1.69)
BM	-14.07***	-16.50	-18.59**	-11.47**	3.77	-16.72**	-8.90	-11.35**	-10.64	-23.99
	(-4.82)	(-10.75)	(-9.04)	(-4.83)	(-5.11)	(-6.48)	(-12.97)	(-4.43)	(-7.65)	(-38.78)
Adj-R^2	0.37	0.13	0.12	0.00	0.08	0.16	0.15	0.21	0.16	0.11

Note: standard error in parentheses. *p<0.1, **p<0.05, ***p<0.01

3.2. Industrials sector

From Table 2, some general patterns for this industrials sector could be found. On the one hand, the first group (most frequencies) is the B/M ratio by calculating significance frequency. The second one is EPS. The third group (appears twice) includes debt-to-asset ratio, ROE, P/B, the net interest rate on the total asset, and the P/E ratio. The last one is the ROA ratio.

On the other hand, by looking at correlations of financial indicators, B/M always reflects a strong correlation with stocks' returns, and B/M has the most significant frequencies, which therefore is the best one to be used as strategies for value investing in the industrials sector. EPS also shows a relatively strong correlation, which could also be a useful tool after the B/M ratio for value investing in this sector. Among the third group, the net interest rate on total assets and the P/B ratio reflects a relatively higher and stronger correlation with stocks' returns than other indicators, which could be considered better tools for value investing strategies.

Therefore, in industrials, the ranking of the usefulness of financial indicators as strategies for value investing is B/M, EPS, the net interest rate on total asset and P/B, and the other indicators.

Table 2. Parameter estimation results for the industrials sector

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
β_0	94.96	4.38	97.74	1.67	-17.98	28.62	-18.66	-15.05	-14.91	-8.99
	(-42.55)	(-15.89)	(-25.54)	(-13.62)	(-16.95)	(-13.99)	(-20.78)	(-11.26)	(-21.25)	(-17.76)
DTA	-0.98**	0.34	-0.25	-0.01	-0.25	0.07	0.36	-0.22	0.80**	0.39
	(-0.35)	(-0.22)	(-0.34)	(-0.18)	(-0.25)	(-0.21)	(-0.30)	(-0.19)	(-0.35)	(-0.30)
NIROA	-4.78	-0.46	-0.87	-0.18	4.69**	0.95	3.60	0.00	1.95	4.71**
	(-3.58)	(-1.48)	(-2.45)	(-1.21)	(-1.83)	(-2.60)	(-2.86)	(-1.12)	(-2.29)	(-1.90)
ROA	-0.21	1.25	-0.26	0.28	-0.54	-0.96	-0.80	1.64**	1.61	-1.05
	(-2.44)	(-0.98)	(-1.55)	(-0.86)	(-1.20)	(-1.91)	(-1.41)	(-0.79)	(-2.04)	(-1.27)
ROE	-2.09***	-0.18	0.62	0.36	-1.24***	0.34	-0.51	0.11	0.18	-0.01
	(-0.50)	(-0.28)	(-0.43)	(-0.37)	(-0.44)	(-0.22)	(-0.91)	(-0.27)	(-0.40)	(-0.44)
EPS	6.27***	-1.47	-4.47*	0.37	0.65	-0.75	-0.21	-1.03	-3.12**	-0.29
	(-1.83)	(-1.75)	(-2.41)	(-1.25)	(-1.43)	(-1.37)	(-0.95)	(-0.92)	(-1.49)	(-1.09)
PE	-0.09	0.10	-0.17	0.00	0.14	0.02***	0.33***	-0.01	0.01	0.04
	(-0.11)	(-0.20)	(-0.14)	(-0.01)	(-0.13)	(-0.01)	(-0.05)	(-0.02)	(-0.03)	(-0.07)
PB	16.28***	1.02	0.25	-0.25	7.94***	-0.48	1.22	0.92	-2.59	-0.86
	(-3.98)	(-2.63)	(-0.32)	(-1.73)	(-2.57)	(-0.33)	(-2.25)	(-2.23)	(-4.58)	(-2.20)
BM	-60.69*	-11.62**	-30.48*	-11.36	-4.29	-9.20**	3.00	-4.33**	-13.08	-5.34
	(-31.60)	(-5.30)	(-16.48)	(-7.05)	(-3.60)	(-3.61)	(-5.90)	(-2.17)	(-9.65)	(-7.26)
Adj-R^2	0.78	0.13	0.04	0.05	0.29	0.17	0.27	0.29	0.10	0.22

Note: standard error in parentheses. *p<0.1, **p<0.05, ***p<0.01

3.3. Technology sector

From Table 3, we get ten regression results from ten continuous regression years of the technology sector. The general rules in this sector could be found by looking at the outcomes above. Calculating the significance's frequency can be helpful to determine which financial indicator is useful for value investing. The category is still divided into three parts, as the following shows. The first group is B/M, followed by the second group, NIROA and ROE. The third group has ROA, DTA, P/B, and P/E. Additionally, EPS didn't show any significance in this sector.

To make the criteria more persuasive, ranging the intensity of correlation in each group is vitally important. For the first group, B/M has high frequency and has a strong correlation with stock's returns, so B/M should

be considered the priority for value investment due to its multiple significance. For the second group, compared with ROE, NIROA has a relatively stronger regression correlation with stocks' returns, which should be regarded as a more useful financial indicator to forecast the valuable investment. For the last group, this article can't give priority because the frequencies are too rare to analyse. EPS in this sector may be a useless indicator by using our analysing method.

Thus, for the technology sector, the useful indicators for technology sectors can be decided by comprehensively considering the results of the two sides-the frequency and the intensity. The ranking of the usefulness of financial indicators as strategies for value

investing is B/M, the net interest rate on the total asset, ROA, and the remaining 5 indicators.

Table 3. Parameter estimation results for the technology sector

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
β_0	8.72	31.83	60.28	22.37	12.98	38.48	35.53	-17.16	36.56	74.65
	(16.42)	(17.05)	(32.50)	(10.87)	(10.36)	(9.26)	(10.62)	(17.34)	(21.44)	(22.43)
DTA	-0.01	0.00	0.13	0.05	-0.23	-0.02	-0.42**	-0.34	0.26	-0.49*
	(-0.28)	(0.16)	(0.37)	(0.15)	(0.16)	(0.12)	(0.17)	(0.27)	(0.32)	(0.29)
NIROA	-0.61	0.80	7.97**	1.53	0.58	5.07***	0.89	-10.56***	1.35	0.19
	(2.73)	(1.54)	(3.15)	(0.94)	(0.87)	(1.38)	(0.73)	(2.72)	(1.63)	(0.82)
ROA	0.40	-0.32	-3.57	-0.42	0.16	-4.08***	0.64	10.46***	-0.64	-0.14
	(2.18)	(1.23)	(2.63)	(0.80)	(0.82)	(1.32)	(0.75)	(2.45)	(1.68)	(0.89)
ROE	0.19	0.28	-2.35**	0.01	-0.10	-0.07**	-0.09	0.43***	0.12	0.05
	(0.58)	(0.21)	(1.01)	(0.09)	(0.14)	(0.04)	(0.12)	(0.07)	(0.16)	(0.06)
EPS	1.78	-0.54	-0.21	-0.20	0.29	-0.35	0.14	0.04	-0.02	0.03
	(3.21)	(0.79)	(0.58)	（0.27）	(0.32)	(0.53)	(0.10)	(0.09)	(0.13)	(0.07)
PE	-0.40	0.04	-0.01	0.03	0.09	-0.02	0.04	-0.02	0.00	-0.02*
	(0.27)	(0.04)	(0.04)	(0.04)	(0.09)	(1.27)	(0.13)	(0.21)	(0.01)	(0.02)
PB	-0.03	-6.19	9.05*	-1.31	0.56	-17.10	1.97	2.84*	-2.69	2.03
	(7.87)	(5.09)	(4.75)	(1.27)	(0.43)	(6.94)	(1.77)	(1.47)	(2.73)	(1.27)
BM	-30.87***	-19.66*	-40.31	-29.89***	-17.52***	-17.10**	-12.99*	-6.12	-20.03	-53.94**
	(7.87)	(11.53)	(29.52)	(9.21)	(6.41)	(6.94)	(7.22)	(11.52)	(15.04)	(22.59)
Adj-R^2	0.53	0.09	0.12	0.25	0.19	0.23	0.30	0.42	-0.01	0.10

Note: standard error in parentheses. *p<0.1, **p<0.05, ***p<0.01

3.4. Financial services sector

From Table 4, a general rule could be found in the financial services sector by sorting results. The financial indicators are divided into three groups by order of the frequencies of significance. The first group is B/M, ROE, and DTA. The second group is NIROA and PE. The third group contains ROA, PB, and EPS.

We not only calculate the frequencies but also rank the degree of the correlation. For the first group，both B/M and ROE have the same degree of correlation with stock's return, which is stronger than that of DTA. So,

B/M and ROE are tied for first place in this sector. For the second group, compared with NIROA, PE shows a relatively stronger regression correlation with stock's return, which therefore could be regarded as a more useful and effective financial tool to invest undervalued stock. For the third group, the remaining three indicators can't be ordered with limited frequencies.

Therefore, we got the final order of indicators in the financial services sector. The ranking of the usefulness of indicators as strategies for value investing is B/M, tied with ROE, PE, net interest rate on the total asset, and the remaining other indicators.

Table 4. Parameter estimation results for the technology sector

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
β_0	1.33	69.24	112.21	2.77	1.78	37.88	32.04	7.06	35.82	-35.08
	(-16.74)	(44.53)	(35.13)	(10.24)	(6.07)	(10.93)	(9.95)	(12.78)	(16.70)	(30.39)
DTA	0.28	-0.08	-0.19**	0.08	-0.19***	0.03	-0.33***	-0.25	-0.17	0.67*
	(0.19)	(0.43)	(0.33)	(0.12)	(0.07)	(0.12)	(0.12)	(0.16)	(0.20)	(0.35)
NIROA	-1.36	-1.92	-4.80	1.03	-2.17***	-1.24	1.84***	0.17	-2.72*	-1.00
	(2.17)	(2.89)	(2.14)	(0.63)	(0.73)	(0.85)	(0.57)	(0.75)	(1.42)	(3.30)
ROA	0.99	-0.62	0.75	-0.62	-0.25	0.29	-1.04***	-0.39	-0.80	1.79**
	(1.58)	(1.18)	(0.96)	(0.34)	(0.33)	(0.55)	(0.31)	(0.46)	(1.12)	(2.16)
ROE	0.35	1.43***	0.43	-0.07*	1.47***	-0.10	0.11	0.02	0.78***	0.61
	(0.43)	(0.42)	(0.29)	(0.13)	(0.19)	(0.19)	(0.07)	(0.09)	(0.20)	(0.25)
EPS	0.07	-0.10	-0.22	-0.12	0.14**	0.02	-0.10	0.01	0.02	-0.11
	(0.95)	(0.58)	(0.34)	(0.11)	(0.11)	(0.11)	(0.10)	(0.11)	(0.09)	(0.21)
PE	-0.23	-0.02	-0.34	0.04	0.16***	0.00	0.01	0.10	0.36***	-0.03**
	(0.15)	(0.04)	(0.24)	(0.07)	(0.08)	(0.01)	(0.01)	(0.07)	(0.07)	(0.04)
PB	-2.91	-5.94	-0.02	-0.12	-3.98	-1.68	4.38	0.35	0.97***	-4.95
	(3.65)	(6.94)	(3.01)	(0.68)	(1.18)	(1.50)	(0.49)	(1.77)	(0.24)	(1.91)
BM	-24.33***	-222.63	-36.87*	-4.74	0.29	-21.99***	-0.27	-1.40	-5.72***	-2.43
	(6.25)	(16.07)	(20.84)	(7.52)	(0.84)	(5.87)	(1.23)	(1.58)	(1.59)	(10.97)
Adj-R^2	0.45	0.25	0.02	-0.01	0.40	0.16	0.64	0.00	0.35	0.06

Note: standard error in parentheses. *p<0.1, **p<0.05, ***p<0.01

3.5. Summary of the result

By summarizing the order of four sectors, this article gets a general rule of financial indicators, which will be helpful for investors to choose the undervalued stock. Firstly, the B/M ratio plays a vital role with stick's return in all four sectors, so we can forecast this indicator will still have a great impression on future investment. Additionally, following the B/M ratio, the net interest rate on total assets is also an important index to find out a valuable stock. Moreover, besides the traditional indicator P/E ratio, the other five indicators can be helpful when choosing the stock, EPS, ROA, ROE, Debt-to-asset ratio, and P/B. Thus, this article proves a fact, B/M ratio and the net interest rate of total assets are the more effective indicators to predict the stock's return than the P/E ratio in the four sectors.

4. CONCLUSION

The paper looks at four sectors in the United Stated market and eight financial indicators to find a general pattern. From the results, a general conclusion of pattern could be found by looking at four different sectors. B/M ratio is a crucial financial indicator that supports value investment due to its significant high frequency and strong correlation. Meanwhile, the net interest rate on total assets also becomes an effective strategic tool for value investing. These two indicators are proved to be better and more effective to help with choosing value stocks for investment than the P/E ratio.

The paper made a contribution to provide some suggestions about financial indicator could be helpful

during value investment. The B/M ratio and net interest rate on total assets could be useful indicators that allow investors, individuals, or businesses to use and consider value investment strategies. Practically, this paper provides some statistical results to demonstrate that the B/M ratio and net interest rate of total assets are two useful indicators in value investment. The results of the paper could be a recommendation for a value investing strategy.

This conclusion could be a suggestion for investors to consider during their choices on value investing. B/M ratio and net interest rate of total assets are useful and effective financial indicators. They can provide some ideas and trends of value investing stocks' markets, which investors could take as advice.

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