

Analysis of investment strategy in Indonesian consumer goods industry: Benjamin Graham's approach

Aditya Achmad Rakim¹, Mohammad Iqbal¹, and Isra Misra²

¹Department of Sharia Accounting, Faculty of Sharia and Islamic Economic, IAIN Syekh Nurjati Cirebon, Indonesia

²Department of Sharia Economic, Faculty of Islamic Economics and Business, IAIN Palangka Raya, Indonesia

Abstract

Shares price fluctuations cause investors to take irrational actions. An assessment of investment valuation is needed to deal with market fluctuations to reduce investment risk. Benjamin Graham Formula is an investment strategy that compares the fair value of the share's with the shares price to help investors make investment decisions. Benjamin Graham's value investing strategy is valuing shares whose actual value is higher than market value, thereby finding significant returns over the long term. This research is quantitative descriptive. Based on the selection criteria for the Benjamin Graham method, the researcher suggests buying ADES shares. The firms share price is currently undervalued. CEKA shares have an undervalued value. This can be used as an alternative consideration in making investment decisions.

Keywords

shares valuation; market price; Benjamin Graham method; undervalued; overvalued

INTRODUCTION

Indonesia's gross domestic product growth in recent years has been conducive. The Consumer Goods sector recorded fluctuating growth in recent years at 7% to 8% (Badan Pusat Statistik, 2021). The growth of the consumer goods sector is still above the average national gross domestic product level of 5%. The consumer goods sector is one to the contributing sectors of the growth of gross domestic product, which is classified as a defensive sector that tends to be more stable and resistant to economic turmoil (Caesario, 2019).

Indonesia's gross domestic product growth in the consumer goods sector is engaged in the movement of a sectoral index, especially the Consumer Goods sectoral index. In recent years, the consumer goods sectoral indexes decreased an average of -9.20% (Indonesia Stock Exchange, 2022).

Increases and decreases in sectoral indices cause share price fluctuations. Shares price fluctuations that occur in the shares market have an impact on irrational actions for investors. Shares price fluctuations are contrary to investment theory which states that investors and management have information related to the firm's future prospects. This

makes the information symmetrical. However the information in the market tends to be asymmetrical making investors rely more on the information provided by the firms (Rakim, 2018).

Prices can affect the psychology of investing; the information circulating in the market can quickly affect share prices. The trend that investors often do in the market is to buy shares when the index is low and sell shares when the index is high, but the conditions for these movements cannot be predicted with certainty. Husnan (2015) suggests that in the market there is also a mispriced shares condition (the shares price is wrong, too high or too low). Assessment of the feasibility of investing in shares is necessary in the face of fluctuations in movement to reduce the risk of investing. Wira (2014) explains that there are two analytical techniques commonly used to determine whether a shares is worth buying at a certain time or not, namely fundamental analysis and technical analysis.

Fundamental analysis is one of the strategies to gain insight into the firm's performance by reviewing the financial statements published by the firms (Subramanyam, 2012). Fundamental analysis can be used by investors in determining the

✉ Correspondence to :
aditya.achmad@syekh Nurjati.ac.id

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valuation of share prices in the current market, whether they are too overvalued (expensive), or too undervalued (cheap). Comparing the fair value of the shares and the share price in the market can help investors to make investment decisions, namely buying and selling.

Feasibility assessment in investing in shares could be by the value investing method. The value investing concept was initiated by Benjamin Graham. Benjamin Graham's investment strategy is a shares assessment strategy whose actual value is higher than the market value, thus finding significant returns in the long run (Sitorus et al, 2017). The value investing concept assesses simple screening rules as a consideration in conducting assessments it can be adopted by all shareholders, such as: financial ratios, historical trading, business models, and corporate governance (Sareewiwatthana, 2011).

Academic studies have been conducted to determine that the implementation of value investing strategies in developed countries obtain annual returns beat the market yields. Wirawan et al (2021), Rani (2019), Jahan et al (2016) suggest that the investment portfolio strategy model built using the Benjamin Graham method criteria can produce annual returns that outperform market returns. Yulita et al. (2019) stated that the valuation of shares using the Benjamin Graham method in accordance with the valuation criteria, including: PT Arthavest Tbk, PT Bayu Buana Travel Service Tbk, PT Jakarta International Hotels and Development Tbk, PT Setiabudi Internasional Tbk, PT MNC Land Tbk, PT Destinations Tirta Nusantara Tbk, and PT Hotel Sahid Jaya Internasional Tbk. Kartikasari et al. (2018) suggest shares valuation analysis using the Benjamin Graham method on shares of PT Sat Nusapersada, Tbk, including undervalued and recommends "hold" based on the firm shares research has met 4 of the 8 criteria of the Benjamin Graham method.

Shares fluctuations and information circulating in the market very quickly affect share prices, so it has an irrational action for investors. A assessing the feasibility of investing in shares is necessary in dealing with fluctuations in share price movements to reduce the risk of investing. Comparing the fair value of the shares and the shares price in the market can help investors to make investment decisions. Based on this, it is necessary to analyze the fair price of a firm's shares using the Benjamin Graham method to help

investors make the right investment decisions and minimize the potential risk of an investment decision taken by investors.

LITERATURE REVIEW

Signalling theory

Signaling theory assumes investors and managers have information related to the firm's prospects, which makes the information symmetrical. However the information in the market tends to be asymmetrical making investors rely more on the information provided by the firms (Rakim, 2018). Signaling theory arises when a firm gives a signal to investors by disclosing information causing fluctuations in share price changes, thus indicating to investors that the firm has promising prospects in the future or signaling a bad signal for the information provided.

Intrinsic valued

Signaling theory is a theory that assumes investors and managers have information related to the firm's prospects, this makes the information symmetrical, but in fact, the information in the market tends to be asymmetrical making investors rely more on the information provided by the firms (Rakim, 2018). Signalling theory arises when a firms gives a signal to investors in the form of information disclosure, causing fluctuations in share price changes, thus indicating to investors that the firm has promising prospects in the future or signaling a bad signal for the information. Assessment of intrinsic value has several methods (TICMI, 2020), including an earning-based approach, relative valuation models, and assets-based models.

The earning-based approach tests the intrinsic value of the shares to determine the current market value of the shares by discounting all incoming and outgoing cash flows that will be received in the future (Tandelilin, 2010). The method of analyzing the intrinsic value of the earning-based approach include 1) dividend discount model no growth, 2) dividend discount model: Gordon model, 3) dividend discount model: holding periods, 4) discount cash flow: free cash flow to firms, 5) discount cash flow: free cash flow to equity.

The relative valuation models test the intrinsic value of shares to determined if the current market value of shares is proxied by financial performance, and compared with similar industrial sectors. Methods of analyzing

Table 1.
Oppenheimer's development criteria

Criteria	Decription
Criteria 1	earnings-to-price of at least twice the interest rate of bonds with an AAA rating
Criteria 2	current price-to-earnings (P/E) below 40% P/E ratio the highest in the last 5 years
Criteria 3	dividend yield of at least two-thirds of the AAA interest rate
Criteria 4	share price below two-thirds of tangible book value per share
Criteria 5	share price below two-thirds of net current assets per share
Criteria 6	the value of debt is less than the book value of equity
Criteria 7	the total current debt is less than twice the net current asset value
Criteria 8	the current ratio is greater than two
Criteria 9	the profit growth over the previous 10 years is at least 7% per year income growth is stable so that its growth does not decrease more than 2 times the decline which the percentage decline is greater than 5% or more in the last 10 years
Criteria 10	

the intrinsic value of price multiple models, including 1) price-earnings method, 2) price-sales method, 3) price-book valued method, 4) price-cashflow method.

The assets-based models test the intrinsic value of shares to determine if the current market value of shares is proxied by financial performance. The method of analyzing the intrinsic value of the aset-based model include 1) net assets value method, 2) fair market value method, 3) value investing method.

Benjamin Graham's formula models

Benjamin Graham's investment strategy is a shares valuation strategy whose actual value is higher than the market value, thus finding significant returns in the long term (Graham, 2016). Shares valuation analysis by researchers uses shares selection criteria to measure risk and reward, based on the criteria for determining the Benjamin Graham method, which Oppenheimer modified (1984). The selection criteria for Benjamin Graham's method which has been modified by Oppenheimer (1984). shows that the more criteria a firm's shares meet, the more shares can be used as a recommendation to make a purchase.

This paper develops the valuation of a share Oppenheimer (1984). Modification model Oppenheimer (1984) shown in Table 1. Previous studies showed different results in predicting the value of shares valuations. Nurjati (2019) suggests that the investment portfolio strategy model using the Benjamin Graham method criteria is cannot consistently generate annual returns that outperform market returns in predicting share valuations.

However, a study by Wirawan et al. (2021), Rani (2019), Yulita et al. (2019), Jahan et al. (2016) suggests an investment portfolio strategy model using the Benjamin Graham method criteria can achieve annual returns that outperform market returns in predicting shares valuation values. In this paper, we estimate that the Benjamin Graham Formula strategy has no difference in predicting shares valuation.

METHODS

This research is a quantitative descriptive research, which will describe the situation or conditions that occur at present systematically and factually. The population in this study is the shares of a firm that are included in the Consumer Goods sector in Indonesia which are traded on the Indonesia Shares Exchange. The sample used in this study with the following criteria: (1) firm listed on the IDX Composite index and have consistently published financial reports, (2) firm that is sampled in this study are those that included in the Consumer Goods sectoral index, (3) firm the research sample is a firm that meets the criteria based on the Benjamin Graham method, (4) the firms has complete data information including historical firms shares prices, historical EPS (earnings per share), has a relatively high average firms growth positive, corporate bond yield data, government bond yield data, equity, and total assets.

The type of data used in this study is secondary data. The data used are financial statement data taken from the sample firm's

Table 2.
Results of Benjamin Graham method valuation

	Code	Intrinsic Valued	Market Price	Assesment
1.	ADES	1.613,00	1.460,00	<i>undervalued</i>
2.	BUDI	71,00	99,00	overvalued
3.	CEKA	3.656,00	1.785,00	<i>undervalued</i>
4.	DLTA	4.010,00	4.400,00	overvalued
5.	ICBP	4.636,00	9.575,00	overvalued
6.	INDF	6.364,00	6.850,00	overvalued
7.	MLBI	6.500,00	9.700,00	overvalued
8.	MYOR	1.263,00	2.710,00	overvalued
9.	ROTI	311,00	1.360,00	overvalued
10.	SKLT	902,00	1.565,00	overvalued
11.	AISA	1.058,00	390,00	<i>undervalued</i>
12.	TSPC	1.215,00	1.400,00	overvalued
13.	KINO	1.010,00	2.720,00	overvalued
14.	TCID	0	6.475,00	overvalued
15.	UNVR	1.543,00	7.350,00	overvalued
16.	PYFA	555,00	975,00	overvalued
17.	SIDO	215,00	805,00	overvalued
18.	STTP	6.667,00	9.500,00	overvalued
19.	ULTJ	960,00	1.600,00	overvalued
20.	GGRM	30.115,00	41.000,00	overvalued
21.	HMSP	329,00	1.505,00	overvalued
22.	WIIM	673,00	540,00	<i>undervalued</i>
23.	DVLA	915,00	2.240,00	overvalued
24.	KLBF	512,00	1.480,00	overvalued
25.	CINT	0	240,00	overvalued

websites, the Indonesia Shares Exchange, ibpa.co.id and Google Finance websites, as well as other sources that support research obtained through literature review or literature study in the form of journals, books, articles and previous research.

Benjamin Graham's investment strategy is a shares valuation strategy whose actual value is higher than the market value, thus finding significant returns in the long term (Graham, 2016). The data analysis method used in this research is Benjamin Graham's shares valuation method with the development criteria of Oppenheimer's (1984). Oppenheimer (1984) development criteria used are: (1) earnings-to-price of at least twice the interest rate of bonds with an AAA rating, (2) current price-to-earnings (P/E) below 40% P/E ratio the highest in the last 5 years, (3) dividend yield of at least two-thirds of the AAA interest rate, (4) share price below two-thirds of tangible book value per share, (5) share price below two-thirds of net current assets per share, (6) the value of debt is less than the book value of equity, (7) the total current debt is less than twice the net current

asset value, (8) the current ratio is greater than two, (9) the profit growth over the previous 10 years is at least 7% per year, (10) income growth is stable so that its growth does not decrease more than 2 times the decline which the percentage decline is greater than 5% or more in the last 10 years.

RESULTS AND DISCUSSION

Historical data used in this study is EPS sourced from the issuer's financial statements from 2010 to 2020. Using the Benjamin Graham method, this data is used to determine the firm's growth rate in valuing shares.

Firms' growth in this study was calculated using the Compound Annual Growth Rate (CAGR) method. The average growth rate of BUDI, ADES, SKLT, and STTP issuers has the highest average growth rate compared to that of similar sector firms.

Risk-free rate or risk-free yield used in this study is constant 7. The yield data for

Table 3.
Results of Benjamin Graham methods Oppenheimer modification

Criteria	Description	Firms
1	Earnings-To-Price at least twice the Interest of AAA-Rated Bonds	ADES AISA BUDI CEKA INDF WIIM TSPC
2	Price To Earning (P/E) Ratio is currently below 40% Highest P/E ratio over the Last 5 Years	AISA
3	Dividend Yield minimum two-thirds of AAA Bond Yield	BUDI CEKA MLBI GGRM HMSP TSPC
4	Shares Price below two-thirds of tangible book value per shares	BUDI, CINT
5	Share price below two-thirds of net current assets per share	BUDI
6	Debt value less than book value equity	ADES CEKA DLTA MYOR ROTI SKLT MERK SIDO STTP ULTJ GGRM HMSP WIIM DVLA KLBF TSPC TCID CINT
7	Current ratio at least twice	ADES DLTA ICBP MYOR ROTI MERK SIDO STTP ULTJ HMSP WIIM DVLA KLBF TSPC TCID CINT
8	Current assets at least twice the value of debt	ADES DLTA MERK SIDO HMSP WIIM DVLA KLBF TSPC TCID CINT
9	Profit growth during the previous 10 years at least about 7% per year	ADES BUDI ICBP INDF MYOR SKLT STTP ULTJ KLBF KINO
10	Income growth is stable so that its growth does not fall more than 2 times, where the decline in percentage decline is 5% or more in the last 10 years	ICBP INDF MYOR ROTI SKLT STTP ULTJ GGRM KLBF TSPC UNVR

government bonds used in this study is 7.45%, and the yield data for corporate bonds with an AAA rating used in this study is 11.88%.

Based on the processing and analysis of shares valuation data using the Benjamin Graham method, the fair value of a share for each issuer can be explained in Table 2. Shares valuation analysis in the Consumer Goods sector in Indonesia by researchers using shares selection criteria to measure risk and reward, based on the criteria for determining the Benjamin Graham method, which was modified by Oppenheimer (1984). The selection criteria for Benjamin Graham's method which has been modified by Oppenheimer (1984) show that the more criteria a firm's shares meet, the more shares can be used as a recommendation to make a purchase.

Based on the results of processing and analyzing shares valuation data using the Benjamin Graham method which has been modified by Oppenheimer (1984) it can be explained in Table 3. The fair price of a shares can be used as a reference for investors in making investment decisions. The fair price valuation analysis of shares using the

Benjamin Graham method with modifications Oppenheimer (1984) explains that TSPC shares meet 6 out of 10 criteria. ADES, as well as BUDI shares meet 5 out of 10 criteria. The shares of WIIM, HMSP, CINT, MYOR, ULTJ, and KLBF firms have met 4 of the 10 criteria.

Based on the selection criteria of the Benjamin Graham method, TSPC shares met the criteria at most, but the firms shares price was classified as overvalued. Researchers suggest buying ADES issuers. The firm's shares price is also undervalued; this shows that the shares price is far below the fair price of the shares. Shares of WIIM and CEKA issuers also have an undervalued value which can also be used as another alternative to be considered in making investment decisions.

The research findings are in line with Wirawan et al (2021); Rani (2019); Yulita et al. (2019); (Sitorus et al, 2017); Jahan et al (2016). Shares valuation strategies in determining investment decisions or portfolios strategies using the Benjamin Graham Formula investment strategy can help investors make investment decisions, thus finding significant returns in the long run, with minimizing the potential risk of an investment decision.

CONCLUSION

Benjamin Graham Formula is an investment strategy that compares the fair value of the shares with the shares price to help investors make investment decisions. The selection criteria for the Benjamin Graham method show that the more criteria that are met by a firm's shares, the more shares can be used as a recommendation to make a purchase. The fair price valuation analysis of shares using the Benjamin Graham method with modifications of Oppenheimer (1984) obtained the results that TSPC shares met 6 out of 10 criteria. ADES, as well as BUDI shares meet 5 out of 10 criteria. The shares of WIIM, HMSP, CINT, MYOR, ULTJ, and KLBF firms have met 4 of the 10 criteria.

Based on the Benjamin Graham's method selection criteria, the research suggests buying ADES shares. The firm's shares price is currently classified as undervalued. This shows that the share price is far below the fair price of the shares. The shares of CEKA issuers have an undervalued value, this can be used as another alternative to be considered in making investment decisions.

This paper has several limitations. The limitations of this study include the scope of research data. The research data used in this paper covers the companies included in the consumer goods sectoral index. Future studies are expected to develop different research objects so that they are expected to provide a broader description of the implementation of this strategy. Future studies are also expected to develop other valuation methods, such as the dividend discount model, discount cash flow, Altman Z-Score, and Greenblatt formula.

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Appendix

Appendix 1. Distribution of Sampling

Criteria	Total
consumer goods sector on the JCI index	52
Incomplete data firms	(10)
Firms data has negative growth	(18)
Final Firms total	24

Appendix 2. List of research sample

Code	Firms Name
ADES	Akasha Wira Internasional Tbk
BUDI	Budi Starch&Sweetener, Tbk
CEKA	Wilmar Cahaya Indonesia, Tbk
DLTA	Delta Jakarta, Tbk
ICBP	Indofood CBP Sukses Makmur, Tbk
INDF	Indofood Sukses Makmur, Tbk
MLBI	Multi Bintang Indonesia, Tbk
MYOR	Mayora Indah, Tbk
ROTI	Nippon Indosari Corpindo, Tbk
SKLT	Sekar Laut, Tbk
AISA	Tiga Pilar Sejahtera, Tbk
TSPC	Tempo Scan Pacific, Tbk
KINO	Kino Indonesia, Tbk
TCID	Mandom Indonesia, Tbk
UNVR	Unilever Indonesia, Tbk
PYFA	Pyridam Farma, Tbk
SIDO	Industri Jamu&Farmasi Sido Muncul, Tbk
STTP	Siantar Top, Tbk
ULTJ	Ultrajaya Milk Industry&Trading Co, Tbk
GGRM	Gudang Garam, Tbk
HMSP	Hanjaya Mandala Sampoerna, Tbk
WIIM	Wismilak Inti Makmur, Tbk
DVLA	Darya Varia Labolatoria, Tbk
KLBF	Kalbe Farma, Tbk

Appendix 3a. Fundamental ratio ADES

Year	EPS	PER	DER	PBV	CR	Price
2016	95.00	10.53	1.00	1.53	3.93	1,000.00
2017	65.00	13.62	0.99	1.23	3.43	885.00
2018	90.00	10.22	0.83	1.13	1.39	920.00
2019	142.00	7.36	0.45	1.09	2.00	1,045.00
2020	230,00	6,35	0.36	1.22	2.97	1,460.00

Appendix 3b.
Fundamental ratio BUDI

Year	EPS	PER	DER	PBV	CR	Price
2016	7.70	10.30	1.63	0.36	1.00	87.00
2017	9.13	8.99	1.57	0.38	1.01	94.00
2018	10.68	7.57	1.90	0.38	1.00	96.00
2019	14.00	15.71	1.44	0.39	1.00	103.00
2020	6.45	15.35	1.14	0.36	1.15	99.00

Appendix 3c.
Fundamental ratio CEKA

Year	EPS	PER	DER	PBV	CR	Price
2016	420.00	3.21	0.61	0.90	2.19	1350.00
2017	181.00	7.13	0.53	0.83	2.22	1290.00
2018	156.00	8.81	0.2	0.84	5.11	1375.00
2019	362.00	4.61	0.23	0.88	4.80	1670.00
2020	305.50	5.84	0.24	0.84	4.67	1,785.00

Appendix 3d.
Fundamental ratio DLTA

Year	EPS	PER	DER	PBV	CR	Price
2016	317.00	15.77	0.18	3.97	2.85	5,000.00
2017	349.00	13.15	0.17	3.22	2.66	4,590.00
2018	422.00	13.03	0.18	3.44	2.89	5,500.00
2019	397.00	17.12	0.17	4.50	2.91	6,800.00
2020	154.74	28.43	0.20	3.46	7.50	4,400.00

Appendix 3e.
Fundamental ratio ICBP

Year	EPS	PER	DER	PBV	CR	Price
2016	309.00	27.75	0.59	5.69	2.40	8,575.00
2017	326.00	27.30	0.57	5.30	2.43	8,900.00
2018	392.00	26.65	0.53	5.63	1.95	10,450.00
2019	432.00	25.81	0.47	5.13	2.54	11,150.00
2020	570.85	16.77	2.51	3.79	2.25	9,575.00

Appendix 3f.
Fundamental ratio INDF

Year	EPS	PER	DER	PBV	CR	Price
2016	600.00	13.21	0.87	1.58	1.50	7,925.00
2017	586.00	13.01	0.88	1.43	1.50	7,625.00
2018	565.00	13.18	0.93	1.31	1.06	7,450.00
2019	672.00	11.79	0.77	1.28	1.27	7,925.00
2020	732.80	9.34	2.84	1.41	1.37	6,850.00

**Appendix 3g.
Fundamental ratio MLBI**

Year	EPS	PER	DER	PBV	CR	Price
2016	466.00	25.20	1.76	30.16	0.67	11,750.00
2017	627.00	21.79	1.36	27.18	0.83	13,675.00
2018	581.00	27.52	1.47	28.81	0.77	16,000.00
2019	572.00	27.10	1.52	28.40	0.73	15,500.00
2020	135.56	71.56	1.02	14.26	0.88	9,700.00

**Appendix 3h.
Fundamental ratio MYOR**

Year	EPS	PER	DER	PBV	CR	Price
2016	62.11	25.92	1.06	5.74	2.26	1,610.00
2017	72.94	27.69	1.03	6.14	2.38	2,020.00
2018	74.74	33.27	1.05	6.85	2.65	2,620.00
2019	91.21	22.47	0.92	4.62	3.42	2,050.00
2020	92.09	29.42	0.79	5.50	3.69	2,710.00

**Appendix 3i.
Fundamental ratio ROTI**

Year	EPS	PER	DER	PBV	CR	Price
2016	45.00	33.17	1.03	6.44	2.96	1,500.00
2017	22.00	58.27	0.61	2.80	0.22	1,275.00
2018	21.00	58.37	0.50	2.54	3.57	1,200.00
2019	38.00	34.00	0.51	2.60	1.68	1,300.00
2020	38.86	35.00	0.37	2.60	3.83	1,360.00

**Appendix 3j.
Fundamental ratio SKLT**

Year	EPS	PER	DER	PBV	CR	Price
2016	30.00	10.20	0.92	0.71	1.31	305.00
2017	33.00	33.07	1.07	2.47	1.26	1,100.00
2018	46.00	32.42	1.20	3.05	1.22	1,500.00
2019	65.00	24.74	1.07	2.92	1.29	1,610.00
2020	63.39	24.68	0.89	2.38	1.53	1,565.00

**Appendix 3k.
Fundamental ratio AISA**

Year	EPS	PER	DER	PBV	CR	Price
2016	184.00	10.55	1.17	2.18	2.37	1,945.00
2017	(1,626.00)	(0.29)	(1.59)	(0.68)	0.21	476.00
2018	(38.00)	(4.38)	1.52	(0.23)	0.15	168.00
2019	352.00	0.47	(2.12)	(0.48)	0.41	168.00
2020	129.40	3.02	1.42	88.95	0.81	390.00

**Appendix 3l.
Fundamental ratio TSPC**

Year	EPS	PER	DER	PBV	CR	Price
2016	119.00	16.55	0.42	1.91	2.65	1,970.00
2017	121.00	14.87	0.46	1.59	2.52	1,800.00
2018	114.00	12.19	0.45	1.15	2.51	1,390.00
2019	123.00	11.17	0.45	1.06	2.74	1,375.00
2020	180,00	7.77	0.50	10.28	2.95	1,400.00

**Appendix 3m.
Fundamental ratio KINO**

Year	EPS	PER	DER	PBV	CR	Price
2016	126.00	24.05	0.69	2.24	1.53	3,030.00
2017	77.00	27.53	0.58	1.50	1.65	2,120.00
2018	105.00	26.67	0.64	1.83	1.50	2,800.00
2019	364.00	9.42	0.73	1.81	1.35	3,430.00
2020	76.64	35.50	1.09	1.54	1.19	2,720.00

**Appendix 3n.
Fundamental ratio TCID**

Year	EPS	PER	DER	PBV	CR	Price
2016	806.00	15.51	0.23	1.41	5.25	12,500.00
2017	891.00	20.09	0.27	1.94	4.91	17,900.00
2018	861.00	20.03	0.24	1.76	5.76	17,250.00
2019	722.00	15.24	0.26	1.09	5.37	11,000.00
2020	(272.43)	(23.80)	0.24	0.69	10.25	6,475.00

**Appendix 3o.
Fundamental ratio UNVR**

Year	EPS	PER	DER	PBV	CR	Price
2016	166,80	46.52	2.56	62.94	0.53	7,760.00
2017	183,60	60.89	2.65	82.45	0.73	11,180.00
2018	238.00	38.15	1.75	46.91	0.73	9,080.00
2019	193.80	43.34	2.90	60.67	0.65	8,400.00
2020	189.47	38.88	3.15	56.79	0.66	7,350.00

**Appendix 3p.
Fundamental ratio PYFA**

Year	EPS	PER	DER	PBV	CR	Price
2016	9.62	20.79	0.58	1.01	2.19	200.00
2017	13.32	13.74	0.48	0.92	3.52	183.00
2018	15.79	11.96	0.57	0.85	2.76	189.00
2019	17.46	11.34	0.53	0.85	3.53	198.00
2020	40.54	24.07	0.44	3.31	2.93	975,00

**Appendix 3q.
Fundamental ratio SIDO**

Year	EPS	PER	DER	PBV	CR	Price
2016	16.25	16.00	0.08	2.83	8.32	260.00
2017	17.95	15.18	0.09	2.82	7.81	273.00
2018	22.30	18.83	0.15	4.34	4.20	420.00
2019	27.15	23.48	0.15	6.24	4.12	637.00
2020	31.13	25.85	0.19	7.52	3.66	805.00

**Appendix 3r.
Fundamental ratio STTP**

Year	EPS	PER	DER	PBV	CR	Price
2016	133.18	23.95	1.01	3.61	1.65	3,190.00
2017	165.16	26.40	0.70	4.16	2.64	4,360.00
2018	194.81	19.25	0.60	3.01	1.85	3,750.00
2019	368.41	12.21	0.35	2.78	2.85	4,500.00
2020	479.76	19.80	0.30	4.71	2.40	9,500.00

**Appendix 3s.
Fundamental ratio ULTJ**

Year	EPS	PER	DER	PBV	CR	Price
2016	60.75	18.81	0.22	3.88	4.84	1,142.50
2017	61.00	21.23	0.24	3.66	4.19	1,295.00
2018	60.00	22.50	0.17	3.35	4.40	1,350.00
2019	89.00	18.80	0.17	3.50	4.44	1,680.00
2020	24.43	65.49	0.74	3.11	2.40	1,600.00

**Appendix 3t.
Fundamental ratio GGRM**

Year	EPS	PER	DER	PBV	CR	Price
2016	3,470.00	18.41	0.59	3.11	1.94	63,900.00
2017	4,030.00	20.79	0.58	3.82	1.94	83,800.00
2018	4,050.00	20.65	0.54	3.56	2.06	83,625.00
2019	5,655.00	9.37	0.54	2.00	2.06	53,000.00
2020	3,974.00	7.59	0.33	0.99	2.70	30,200.00

**Appendix 3u.
Fundamental ratio HMSP**

Year	EPS	PER	DER	PBV	CR	Price
2016	110.00	34.82	0.59	13.03	5.23	3,830.00
2017	109.00	43.39	0.58	16.12	5.27	4,730.00
2018	116.00	31.98	0.53	12.20	4.30	3,710.00
2019	118.00	17.80	0.54	6.85	0.32	2,100.00
2020	73.76	20.33	0.64	5.76	2.45	1,500.00

Appendix 3v.
Fundamental ratio WIIM

Year	EPS	PER	DER	PBV	CR	Price
2016	50.56	8.70	0.37	0.93	3.39	440.00
2017	19.31	15.01	0.25	0.62	5.35	290.00
2018	24.33	5.79	0.25	0.29	5.92	141.00
2019	12.99	12.93	0.26	0.34	6.02	168.00
2020	82.15	6.57	0.35	0.95	3.67	540,00

Appendix 3w.
Fundamental ratio DVLA

Year	EPS	PER	DER	PBV	CR	Price
2016	136.00	12.90	0.42	1.82	2.85	1,755.00
2017	145.00	13.52	0.47	1.96	2.66	1,960.00
2018	198.00	9.80	0.40	1.81	2.89	1,940.00
2019	202.00	11.14	0.40	1.92	2.91	2,250.00
2020	145.00	16.69	0.50	2.04	2.12	2,420.00

Appendix 3x.
Fundamental ratio KLBF

Year	EPS	PER	DER	PBV	CR	Price
2016	49.06	30.88	0.23	5.96	4.13	1,515.00
2017	51.28	32.96	0.20	5.96	4.51	1,690.00
2018	52.42	29.00	0.20	4.87	4.66	1,520.00
2019	53.48	30.29	0.22	4.78	4.35	1,620.00
2020	62.90	23.52	0.29	3.98	4.11	1,480.00