

# Analysis of Compound Annual Growth Rates (CAGR) in Sri Kehati Indexed Companies

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**Abstract.** This research aims to determine the company's financial performance using compound growth rate analysis, where the Compound Annual Growth Rate (CAGR) is the estimated growth in the value of investment returns in a certain period with the assumption that the investment profits are reinvested. The research object is companies included in the Sri Kehati index. The SRI KEHATI index-based stock investment product was founded by the KEHATI Foundation which launched a green index, namely the Sustainable and Responsible Stock Index with company criteria including implementing Sustainable Responsible Investment (SRI) principles, as well as environmental, social and governance principles Environmental, Social and Good Governance(ESG). The aim of this research is to analyze the Compound Annual Growth Rate (CAGR) in Sri Kehati indexed companies, as a consideration for investors in making green investments in Sri Kehati indexed companies. To measure CAGR, 11 shares of companies indexed by SRI-Kehati were obtained. With the highest score occupied by the Customer Goods subsector company, namely PT. Univeler Indonesia (UNVR) and PT. Indoof Sukses Makmur (INDF).

**Keywords:** Green Investment, CAGR, Sri Kehati

## 1. Introduction

The capital market provides a means for the business world to raise funds and for investors to gain profits from the company in the future. In the long term, shares are a tool that can generate significant wealth gains. Shares give their owners the right to receive dividends (part of the company's profits) if the company declares a dividend distribution. Apart from that, share owners also have the potential to gain profits if the share price rises from their purchase price, and conversely, they can experience losses if the share price falls. the existence of this capital market is expected to help allocate funds from investors who have excess liquidity to companies and projects that need capital to develop. So that economic resources can be allocated well and efficiently to economic sectors that have the potential to provide high returns [4].

Shares are an investment instrument that is commonly used to build wealth in the long term or for speculative purposes. It also allows investors to be part of the development and growth of the companies in which they own shares. The market value of a share is based on the supply and demand of investors in the capital market which is determined in the share price. Share prices are influenced by a number of variables, including a company's operational and financial success. As a result, a company's share price will usually rise in response to significant growth or large profits. Current technological developments are also getting better so that many people can easily access information and many people are interested in the potential profits offered in the stock market so that with technological developments investors can easily understand the company's financial status based on financial transparency, including reports of income, expenses, assets, and liabilities, so that investors can determine the performance of the company being purchased. Investors can profit from the difference if the share price rises above the purchase price and can sell it at a higher price. When someone buys shares of a company, they are actually purchasing partial ownership of that company. The share of company profits called dividends is announced to shareholders evenly based on share ownership.

Investment products based on the SRI Kehati index for shares are not the same as conventional investments which aim to generate profits for investors. The Sustainable and Responsible Investment Stock Index (SRI KEHATI) which was introduced on June 8 2009 by the KEHATI Foundation is a green index published on the Indonesia Stock Exchange (BEI) and refers to the UN Principles of Responsible Investment (Principles of Responsible Investment or PRI). Company requirements include the ability to apply environmental, social and governance principles (Environmental, Social and Good Governance or ESG) and (Sustainable Responsible Investment or SRI). The aim of the SRI KEHATI index is to foster mutualism between the business world and the environmental sustainability community in order to achieve sustainable economic growth [2].

Environmental, social, and governance (ESG) refers to non-financial data that is often used in evaluating corporate social responsibility [1]. ESG evaluation is assessed through scores. ESG disclosure explains strategies to increase accountability regarding the success of a company and to communicate with stakeholders such as shareholders or investors, staff, clients and communities [7]. Environmental scores are derived from insight into publicly accessible information about companies, such as annual reports, displacement reports, and internet sources. There are three main environmental assessment metrics, such as resource use score, emissions score, and innovation score [7].

Social scores assess customer behavior and how they respond to products, as well as other social issues such as charitable contributions, company ethics and their efforts to protect human rights. The calculation of social factors also depends on the company in the economic division of the evaluation. There are four main assessment criteria for social aspects, namely labor score, human rights score, community score and product responsibility score [6].

The set of rules, practices, and processes that guide and govern a company is known as corporate governance. This element covers the entire management and supervision framework of a company. Corporate governance and the functions related to it have a direct impact on organizational progress, encourage investors and help optimize company assets, strengthen business foundations, and achieve the expected increase in company performance. In other words, effective corporate governance guarantees future financial problems that drive extraordinary development, and is essential for the growth of business success. Impact of overall corporate governance.

## 2. Literature Review

CAGR stands for Compound Annual Growth Rate, which is a method for calculating the consolidated annual growth rate of an investment or business indicator over a certain period of time. This is an important metric in financial analysis because it provides an idea of the average annual growth rate of a value or investment.

Mathematically, CAGR is calculated using the following formula:

$$CAGR = ((\frac{Ending Value}{Beginning Value})^{\frac{1}{n}} - 1) \times 100\%$$

Ending Value is the final value of an investment or indicator at the end of the period. Beginning Value is the initial value of an investment or indicator at the beginning of the period. Number of Years is the number of years in the observed period.

CAGR takes into account the effect of compound interest, meaning that the calculated annual growth is the result of continuous growth of the investment value. This makes CAGR useful for comparing investments or business performance over different time periods. CAGR is widely used in financial analysis, including in measuring the performance of investments, financial products, companies, or industrial sectors. Thus, CAGR provides a picture of growth over a longer period of time than just the usual average annual growth.

Compound Annual Growth Rate CAGR has several important benefits in financial analysis and evaluating investment or business performance. Here are some of the main benefits of using CAGR: 1). Describes Consolidated Annual Growth: CAGR provides an overview of the average annual growth rate of an investment or business indicator over a certain period of time. It helps to see how the value grows consistently from year to year, taking into account the effects of compound interest. 2). Comparing Investment or Business Performance of Different Periods: Since CAGR calculates the average growth over a given period, it allows a fair comparison between investments or business performance having different observation periods. For example, you can compare 10-year average growth. 3). Provides an Indication of Consistent Growth. 4). CAGR helps identify whether investment or business growth is consistent or has

significant fluctuations from year to year. It is useful to evaluate whether the growth is supported by strong fundamental factors or may be influenced by external factors or market variability. 5). Helps with Financial and Investment Planning: By knowing the CAGR of an investment, investors can make predictions about its future performance. This helps in long-term financial planning, portfolio allocation, and better investment decision making.6). Measuring Business Strategy Efficiency: For companies, CAGR can be used to measure the effectiveness of their growth strategy. It provides an overview of how the company has grown over the years and helps in evaluating the successful implementation of long-term business plans. International Standards in Performance Comparison: CAGR is a standard metric used widely in the financial and business industries to compare performance between different companies or investments, regardless of differences in size or period duration. Overall, CAGR is a powerful tool in financial analysis because it provides a clear picture of the growth of an investment or business over time, helping in making more informed investment decisions and effective strategic planning.

Types of Compound Annual Growth Ratio (CAGR), namely 1. Sales Growth which shows the extent to which the company can increase its sales compared to all sales as a whole. 2). Net Profit Growth can show how a company is able to increase its ability to obtain net profits when compared to the total profits obtained as a whole. 3). Earnings Per Share Growth, this type of growth shows how far the company can increase its ability to earn revenue or share profits when compared to overall earnings per share. 4). Dividend Per Share Growth, namely the growth of dividends per share, shows the extent to which the company can increase its dividends when compared to the total share dividends as a whole.

### **3. Research Method**

The research method used is a quantitative research method which is carried out by collecting numerical data or data that can be measured statistically to answer research questions. The aim of quantitative research is to develop and use mathematical models, theories and/or hypotheses [5]. In the SRI KEHATI index, based on the screening results of the six effective periods, namely 3 periods in 2013 and 3 periods in 2023, 11 companies were obtained that were included in the category of companies that met the SRI KEHATI index in 2013 and 2023. To measure the growth ratio in 11 stocks SRI KEHATI indexed companies use the CAGR ratio. The following is a list of companies that have been screened, shown in table 1.

**Table 1.** SRI-KEHATI Index Stock Screening 2013 and 2023

No	Stock Code	Stock Name	Effective Period						Screening
			2013			2023			
			Nov	May	Nov	Dec	Jun	Dec	
			2012	2013	2013	2022	2023	2023	
			-	-	-	-	-	-	
			Apr	Oct	Apr	May	Nov	May	
			2013	2013	2014	2023	2023	2024	
1	AALI	Astra Agro Lestari Tbk	√	√	√	√		√	
2	ADHI	Adhi Karya (Persero) Tbk	√	√	√				
3	ANTM	Aneka Tambang (Persero) Tbk	√	√	√	√	√	√	√
4	ASII	Astra Internasional Tbk	√	√	√	√	√		
5	BBCA	Bank Central Asia Tbk	√	√	√	√	√	√	√
6	BBNI	Bank Negara Indonesia (Persero) Tbk	√	√	√	√	√	√	√
7	BBRI	Bank Rakyat Indonesia (Persero) Tbk	√	√	√	√	√	√	√
8	BDMN	Bank Danamon Indonesia Tbk	√	√	√		√		
9	BMRI	Bank Mandiri (Persero) Tbk	√	√					
10	INDF	Indofood Sukses Makmur Tbk			√	√	√	√	√
11	INTP	Indocement Tunggal Prakasa Tbk	√	√					
12	ISAT	Indosat Tbk			√	√	√	√	√
13	JSMR	Jasamarga (Persero) Tbk	√						

No	Stock Code	Stock Name	Effective Period						Screening
			2013			2023			
			Nov	May	Nov	Dec	Jun	Dec	
			2012	2013	2013	2022	2023	2023	
			-	-	-	-	-	-	
			Apr	Oct	Apr	May	Nov	May	
			2013	2013	2014	2023	2023	2024	
14	KLBF	Kalbe Farma Tbk	√	√		√	√	√	
15	LPKR	Lipo Karawaci Tbk	√	√	√				
16	LSIP	PEPE London Sumatra Indonesia Tbk			√	√	√	√	√
17	MEDC	Medco Energi Internasional Tbk	√	√					
18	PGAS	Perusahaan Gas Negara (Persero) Tbk	√		√	√	√	√	√
19	PJAA	Pembangunan Jaya Ancol Tbk	√	√					
20	PTBA	Tambang Baru Bukit Asam (Persero) Tbk	√	√	√				
21	SMGR	Semen Gresik (Persero) Tbk			√				
22	TINS	Timah (Persero) Tbk	√	√					
23	TLKM	Telekomunikasi Indonesia (Persero) Tbk	√	√	√	√			
24	UNTR	United Tractors Tbk	√	√	√				
25	UNVR	Unilever Indonesia Tbk	√	√	√				
26	GIAA	Garuda Indonesia Tbk	√	√	√	√	√	√	
27	GGTL	Gajah Tunggal Tbk	√	√	√		√	√	√
28	ASRI	Alam Sutera Realty Tbk	√	√	√	√	√	√	

No	Stock Code	Stock Name	Effective Period						Screening
			2013			2023			
			Nov	May	Nov	Dec	Jun	Dec	
			2012	2013	2013	2022	2023	2023	
			-	-	-	-	-	-	
			Apr	Oct	Apr	May	Nov	May	
			2013	2013	2014	2023	2023	2024	
29	BPTS	Bank BTPN Syariah Tbk			√	√	√		
		Darma Satya				√	√	√	
30	DSNG	Nusantara Tbk							
		Japfa Comfeed				√	√	√	
31	JPFA	Indonesia Tbk							
		PP (Persero)							
32	PTPP	Tbk				√	√		
		Farmasi Sido							
33	SIDO	Muncul Tbk				√			
		Siloam					√	√	
		International							
34	SILO	Hospital Tbk				√			
		Wijaya Karya				√	√	√	
35	WIKA	(Persero) Tbk							
		Astra Otoparts					√	√	
36	AUTO	Tbk							
		Bank Tabungan					√	√	
37	BBTN	Negara Tbk							
		Indofood CBP					√	√	
38	ICBP	Tbk							
39	INCO	Vale Indonesia					√	√	
		PT. Sawit					√	√	
		Sumbermas							
40	SSMS	Sarana Tbk							
		PT. Dharma							
41	DRMA	Polimetal Tbk							√
		Elang Mahkota							
42	EMTK	Teknologi							√
Total			25	26	25	24	26	25	11

Based on the screening results of shares included in the SRI KEHATI index criteria during 2013 and 2023, several issuers were excluded and included in the index criteria. Overall, the number of issuers that were able to remain in the SRI KEHATI index in 2013 and in 2023 was 11 stock issuers. The return performance of the 18 shares was obtained and presented in Table 1. There

were five stock issuers that performed positively and six stock issuers that performed negatively. Researchers want to study five issuers with positive CAGR performance.

**Table 2.** Earning per Share of Compound Annual Growth Ratio

No	Stock Code	Stock Name	Earning Per Share (EPS)		CAGR
			2013	2023	
1	ANTM	Aneka Tambang (Persero) Tbk	42.98	128.07	11.54%
2	BBCA	Bank Central Asia Tbk	578.13	394.56	-3.75%
3	BBNI	Bank Negara Indonesia (Persero) Tbk	485.52	560.62	1.45%
4	BBRI	Bank Rakyat Indonesia (Persero) Tbk	865.22	396.54	-7.51%
5	BMRI	Bank Mandiri (Persero) Tbk	780.16	589.93	-2.76%
6	INDF	Indofood Sukses Makmur Tbk	285.16	927.86	12.52%
7	JSMR	Jasamarga (Persero) Tbk	936.03	196.52	-14.45%
8	KLBF	Kalbe Farma Tbk	59.02	40.95	-3.59%
9	SMGR	Semen Gresik (Persero) Tbk	321.48	905.37	10.91%
10	TLKM	Telekomunikasi Indonesia (Persero) Tbk	247.92	140.92	-5.49%
11	UNVR	Unilever Indonesia Tbk	125.84	701.52	18.75%

The highest ranking in obtaining the highest CAGR is PT. Unilever Indonesia (UNVR) and PT. Indofood Sukses Makmur (INDF) ranked first and second. These two companies produce products that are widely used by the Indonesian people, achieving CAGR values of 18.75% and 12.52% respectively. Ranked third and fourth in the mining sector is PT. Aneka Tambang (ANTM) with a CAGR value of 11.54% and PT. Semen Gresik (SMGR) with a CAGR value of 10.91%. The fifth CAGR ranking is PT. Bank Negara Indonesia (BBNI) at 1.45%. Meanwhile, the lowest negative value is PT. Jasa Marga (JSMR) with a CAGR value of -14.45%. The CAGR value can be shown in table 2.

#### 4. Result and Discussion

Based on the screening results of shares included in the SRI KEHATI index criteria during 2013 and 2023, several issuers were excluded and included in the index criteria. Overall, the number of issuers that were able to remain in the SRI KEHATI index in 2013 and in 2023 was 11 stock issuers. The return performance of the 18 shares was obtained and presented in Table 1. There were five stock issuers that performed positively and six stock issuers that performed negatively. Researchers want to study five issuers with positive CAGR performance.

## 5. Conclusion

The conclusion is to determine the impact of environmental, social and governance disclosures on profitability and company value in companies included in the SRI-KEHATI Index in 2013 and 2023. The results of the research show that company growth over a period of ten years can be a consideration for investors in long-term investments where the highest value is UNVR and INDF which are Customer Goods Sub-Sector Companies, it is clear that in the future the business prospects of these two companies will grow even more rapidly. The recommendation for further research is to increase the variety of research on SRI-Kehati shares by using several variables so that SRI-KEHATI shares become the best choice for investing.

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