

# PROSIDING

## 8<sup>th</sup> MANAGEMENT DYNAMIC CONFERENCE

# 2023

# 16-17 MARET

| Makassar  
| Indonesia



# TAS EKONOMI DAN



**Prosiding**  
**MADIC 8, 2023**

**Makassar, 16 -17 Maret 2023**

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Departemen Manajemen  
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## About Madic 8 2023

Management Dynamics Conference (MADIC) ke-8 adalah seminar nasional yang diselenggarakan oleh Fakultas Ekonomi dan Bisnis Universitas Hasanuddin bekerja sama dengan Forum Pengelola Jurnal Manajemen (FPJM). Tema seminar “*Penguatan Manajemen UMKM sebagai Motor Penggerak Pemulihan Ekonomi Nasional*”. Konferensi ini bertujuan untuk menghimpun berbagai pandangan dan pengalaman empiris dari para praktisi dan akademisi ekonomi mengenai penguatan UMKM sebagai pilar ekonomi utama serta memberikan solusi untuk tujuan ketahanan keberlanjutan (SDGs) Indonesia. Para akademisi, praktisi, peneliti telah berkontribusi dalam pengembangan penelitian manajemen dengan berpartisipasi dalam MADIC 8.

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## **Sambutan Dekan Fakultas Ekonomi dan Bisnis Universitas Hasanuddin**

Selamat datang di Management Dynamics Conference (MADIC) ke-8 diadakan pada tanggal 16 – 17 maret 20223 di Makassar, Indonesia. Konferensi ini diselenggarakan untuk mempromosikan diskusi antara berbagai pemangku kepentingan tentang, manajemen dan bidang ekonomi. Kali ini, Fakultas Ekonomi dan Bisnis, Universitas Hasanuddin menjadi tuan rumah bekerja sama dengan Forum Pengelola Jurnal Manajemen (FPJM). Melanjutkan tradisi menyatukan penelitian, pembuat kebijakan, akademisi dan berbagai pemangku kepentingan untuk mempresentasikan dan mendiskusikan isu terkini terkait perkembangan ekonomi nasional. Untuk memperkuat pembahasan tentang manajemen, ekonomi dan bidang akuntansi, kami sepakat mengangkat topik konferensi tahun ini berjudul “*Penguatan Manajemen UMKM sebagai Motor Penggerak Pemulihan Ekonomi Nasional*”. Untuk memberikan informasi terbaru mengenai topik kepada pembaca dan peserta, kami ingin menyampaikan apresiasi dan terima kasih kepada 3 narasumber dihadirkan dalam acara ini yaitu M. Fankar Umran CEO BRI Insurane, Causa Iman Karana Kepala Perwakilan Bank Indonesia Provinsi Sulawesi Selatan, dan Darwisman Kepala OJK Regional Sulampapua atas wawasan dan dukungan mereka selama konferensi. Kami berharap acara ini sangat mendorong diskusi tentang peningkatan kualitas UMKM di Indonesia. Selain itu kami ingin menyampaikan terima kasih dan dukungan kami kepada

Terakhir, kami ingin mengucapkan terima kasih sekali lagi atas kontribusi dan kerja sama yang sangat baik di antara kami para peserta konferensi. Selain itu, kami mengucapkan terima kasih atas kerjasama semua pihak panitia dalam menyelenggarakan konferensi. Kami berharap dapat bekerja sama dengan semua pemangku kepentingan yang terlibat dalam acara ini. Kami berharap proses ini akan menyediakan berbagai manuskrip unggulan yang dapat memberikan kontribusi besar dalam bidang ekonomi, manajemen dan akuntansi.

**Prof.Dr.Abd. Rahman Kadir, M.Si., CIPM**  
Dekan Fakultas Ekonomi dan Bisnis  
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## **Sambutan Ketua panitia Management Dynamic Conference ke - 8**

Saya sangat senang bahwa acara Management Dynamic Conference ke-8 dengan tema "Penguatan Manajemen UMKM sebagai Motor Penggerak Pemulihan Ekonomi Nasional" telah terlaksana dengan sukses. Semoga acara ini memberikan banyak manfaat dan inspirasi bagi semua peserta yang hadir.

Saya ingin mengucapkan selamat dan mengapresiasi seluruh panitia yang telah bekerja keras dan dedikasi tinggi dalam menyelenggarakan acara ini. Tanpa upaya mereka, acara ini tidak akan mungkin terwujud. Terima kasih atas kerja keras dan komitmen yang telah diberikan.

Selain itu, saya juga ingin mengucapkan terima kasih kepada narasumber yang telah berbagi pengetahuan dan pengalaman mereka dalam mendukung penguatan manajemen UMKM. Kontribusi mereka sangat berharga dan saya berharap peserta dapat mengambil manfaat yang besar dari presentasi dan diskusi yang telah dilakukan.

Saya berharap bahwa acara ini menjadi awal dari langkah-langkah konkret dalam memperkuat sektor UMKM sebagai motor penggerak pemulihan ekonomi nasional. Mari kita terus bekerja sama, berinovasi, dan berkolaborasi dalam mendukung pertumbuhan UMKM dan memajukan ekonomi kita.

Terima kasih kepada semua yang telah berpartisipasi dalam acara ini, termasuk peserta, narasumber, dan semua pihak yang telah memberikan dukungan. Semoga kita dapat melanjutkan semangat dan energi positif ini untuk memperkuat sektor UMKM dan membangun ekonomi yang lebih kuat.

Sekali lagi, selamat atas kesuksesan acara Management Dynamic Conference ke-8. Semoga langkah-langkah yang dihasilkan dari acara ini dapat memberikan dampak yang positif bagi penguatan manajemen UMKM dan pemulihan ekonomi nasional.

**Insany Fitri Nurqamar, S.E.,M.M.**

Ketua panitia Management Dynamic Conference ke - 8  
Universitas Hasanudin

portfolio that has been analyzed has a greater rate of return than the risk.

## 5. Recommendation

For further research, it is recommended to conduct a similar study with a longer time period to obtain a more comprehensive understanding of optimal portfolio formation using a single index model. Additionally, involving more independent variables or exploring different industry sectors can broaden the understanding of optimal portfolio formation in the stock market.

As for managers, the recommendation is to consider implementing the optimal portfolio formation based on the findings of this study. By allocating the mentioned proportions of stocks in the optimal portfolio (e.g., BMRI 35%, BBRI 30%, BBTN 18%, BBKA 12%, and BBNI 5%), managers can maximize the return and control the portfolio risk. However, it is important to consider other factors such as changing market conditions and investment policies that align with the company's objectives.

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**ID25679**

## **Optimal Portfolio Formation Analysis Using Single Index Model based on Cigarette company image listed on the IDX**

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### **Abstract**

*The purpose of this study was to find out whether the company's image affects the stock price forming the optimal portfolio. The sample of this research is the sample in the research. there*

*are 4 cigarette companies listed on the Indonesia Stock Exchange, namely (GGRM, WIIM, HMSP and ITIC), in the period June 2021-2022 Data analysis uses steps to form an optimal portfolio with the Single Index Model. The results of the study show that the company's image in the optimal portfolio on stock prices has a significant impact on the decline in stock prices of cigarette companies in Indonesia.*

Keywords: *optimal portfolio, cigarette companies, single index model.*

## **1. Introduction**

Stock investment is being highly encouraged by the Indonesian government. There are more than 400 issuers whose shares are traded on the Indonesia Stock Exchange and whose transactions are supervised by the Authority Financial Services. Among the investments mentioned above, stocks are the investment with the highest risk but it is also undeniable that stocks can provide the highest returns if we can analyze information that can affect changes in stock prices.

Shares are a sign of equity participation in a limited liability company with the benefits obtained. According to Nor Hadi (2018: 117), stocks are one of the most popular financial commodities traded on the capital market. Based on this theory, it can be understood that stock investment is in great demand by investors because it is hoped that stocks will be able to provide an attractive level of profit. For banking companies that have gone public, the goal to be achieved by financial management is to maximize the market value of the prices of shares traded, because stock prices are a very important factor and must be considered by investors in making investments because stock prices show achievement. issuers (Gerald et al. 2017: 107).

The purpose of forming a portfolio is to minimize risk without sacrificing the returns generated through diversification. Portfolio diversification is spreading risk across selected securities. Deposits, stocks, property, bonds and mutual funds are the contents of the portfolio. This portfolio is a mix or combination of various investment instruments and assets that are structured to achieve the investor's investment objectives. Portfolio can also be interpreted as how an investor generates optimal profits by allocating a certain amount of funds to various types of investments in the capital market. However, the assets that are most prioritized in a portfolio are liquid assets such as stocks, because stock prices change very often it is complicated to predict what will happen in the future, and speculation is often carried out

The government plans to increase excise duty for Tobacco Product Industry (IHT) products again in 2022. Entrepreneurs see the potential for classic problems to recur in the cigarette industry. Chairman of the Association of Indonesian Cigarette Manufacturers Association (GAPPRI) Henry Najoan said the tobacco products industry was contracting due to the pandemic. Creating business continuity and the livelihoods of the wider community that cannot be overcome. At the same time, if the Tobacco Products Excise (CHT) rises again next year, it could be a signal for unscrupulous cigarette producers to make a profit. In a study by GAPPRI, the distribution of illegal cigarettes has grown to 15% of the total legal production.

In early August, for example, Semarang Customs officers thwarted the circulation of 384 thousand illegal cigarettes. Central Customs and Excise data throughout 2020

stated that the government had taken action on 8,155 cases of illegal cigarettes with a total of around 384 million sticks, that number was 41.23% more than in 2019. Researcher at the Center for Economic Policy Studies (PPKE) Faculty of Economics and Business (FEB) Brawijaya University, Imaniar, also agrees that the consequence of increasing cigarette excise duty every year will not only have a negative impact on the sustainability of IHT, but trigger the widespread circulation of illegal cigarettes. boomerang for the government," he explained.

Minister of Finance Sri Mulyani Indrawati revealed that next year's increase in tobacco excise duty will take into account several things. First, it is related to the health aspect, namely the prevalence of smoking, especially among children. Second, laborers who work directly in the cigarette industry and tobacco farmers. As well as in terms of state revenue and the factor of illegal cigarettes. Cigarette excise, which has a planned increase in rates, is recorded to be smaller compared to previous years, which has an excise rate with an increase of 23% in 2020, 12.5% in 2021, 12% in 2022. "These are the four things that be a factor in determining the increase in the tobacco excise level next year," explained Sri Mulyani.

## **2. Research Methods**

In this study, the location of this research was in cigarette companies (2021-2022). The following is a table of research time allocations. The time of this research was conducted at state-owned commercial bank companies listed on the Indonesia Stock Exchange (IDX), which can be accessed via the website [www.idx.com](http://www.idx.com) for the 2021-2022 period.

The population is the whole (universum) of research objects that can be in the form of humans, animals, plants, air, symptoms, event values, attitudes and so on, so that these objects can be sources of research data, while the sample is part of the reachable population that can be used as research subjects through sampling (Burhan, 2017: 109). The population used in this study is the closing price of shares in tobacco companies. The sample used is closing price stock price data on cigarette companies listed on the Indonesia Stock Exchange (IDX) taken on yahoo.finance on historical data.

This type of research is quantitative using secondary data and using a comparative approach.

### **Data analysis technique**

#### **1. Data tabulation**

To create a portfolio, the first thing to do is to collect the data needed in the portfolio, including the closing price of the stock to be analyzed, the closing price of the market index, in this case, the composite stock price index (IHSG) and the Risk Free (Rf) value. namely BI-7 days Repo Rate data. The range of data taken is in the period June 2021-June 2022 The closing price is the last price that appears on a company's shares before the closing of the stock exchange. JCI is a reflection of the price of all shares on the Indonesian stock exchange. Rf (Risk free) is the minimum expected return.

#### **2. Calculating Actual Return Individual, Market and Risk Free**

Actual return is data analysis from calculating the difference between individual



stock prices in the current period and individual prices in the previous period. The actual return formula is  $(R - (R_{t-1})) / (R_{t-1})$

Rf (Risk free) is the minimum expected return. Investors will not accept additional risk if the investment instrument does not provide a return higher than the asset's risk free rate.  $R_f = R_f / 12$

Rf is divided by 12 because the interest rate is for 1 year or 12 months.

### 3. Calculating Excess Returns

Excess return is excess return over normal return or return after deducting interest rate risk. The formula is  $R - R_f$ .

### 4. Calculating Expected Return for Individual, Market, Risk Free and Excess Return

Expected return is the expected return. Calculating Individual Variance Variance or risk measurement is the deviation from the average return on stock and is the difference between the expected return and stock return. Variance. used to measure the level of expected return risk.

### 5. Calculating Individual Variance

Variance or risk measurement is the deviation from the average return on stock and is the difference between the expected return and stock return. Variance. used to measure the level of expected return risk.

$$\sigma^2 = \Sigma(R - E(R))^2$$

### 6. Calculating Alpha and Beta

Alpha reflects stock performance, while Beta is an indicator measuring systematic risk.

### 7. Calculating the individual Residual Variance (Unsystematic Risk).

Residual variance is a risk that can be eliminated by diversification.

$$e_i = \beta^2 \times \sigma_m^2 + \sigma_i^2$$

$\sigma_m^2$ : varians market

$\sigma_i^2$  : varians individual

### 8. Calculates $A_i$ , $B_i$ and $C_i$

$$A_i = \frac{E(ER)_i \times \beta_i \times i}{e_i}$$

$$B_i = \frac{\beta_i^2}{e_i}$$

$$C_i = \frac{\sigma_m^2 \times A_i}{(1 + \sigma_m^2 \times B_i)}$$

$E(ER)_i$  : expected excess return emiten i

$e_i$  : unsystematic risk

$\sigma_m^2$ : varians market

9. Calculating ERB (Excess Return to Beta)

ERB is the excess of return over return on risk-free asset returns.

$$ERB_i = \frac{E(ER)_i}{\beta_i}$$

10. Sorting Shares Based on ERB

Stocks are sorted from largest to smallest ERB

11. Determine Cut of Point ( $C^*$ )

Cut of point is the largest value of  $C_i$

12. Determining the Stocks Included in the Optimal Portfolio

The optimal stock can be determined in a way that if  $ERB > C^*$  then the stock is optimal.

13. Determining  $Z_i$ ,  $W_i$ , Portfolio Alpha, Portfolio Beta and Stock Portfolio Residual Variance in Optimal Portfolio

$$Z_i = \frac{\beta}{e_i} \times (ERB_i - C^*)$$

$$W_i = \frac{Z_i}{\sum Z_i}$$

$$\alpha_p = W_i \times \alpha_i$$

$$\beta_p = W_i \times \beta_i$$

$$\sigma_{ep}^2 = W_i \times e_i$$

$W_i$  : bobot emiten

$\alpha_i$  : alpha individu

$\beta_i$ : beta individu

$e_i$ : Unsystematic risk

14. Calculating Expected Return and Optimal Portfolio Variance

Expected Return = Alpha Portofolio + Beta Portofolio x Expected Return Market

Varian Portofolio = Beta Portofolio<sup>2</sup> x Varians Market + Unsystematic Risk Portofolio

### 3. Result and Discussion

Table 1. Data on closing prices for cigarette companies for the period June 2021-june 2022

CLOSING PRICE					IHSB	B17DRR
date	GGRIM	WIIM	HMSP	ITIC		
6/1/2021	44200	580	1215	486	5985.48877	3.50 %
7/1/2021	32800	560	1045	422	6070.039063	3.50 %
8/1/2021	33075	474	1000	262	6150.298828	3.50 %
9/1/2021	32550	492	1030	312	6286.942871	3.50 %
10/1/2021	33500	496	1035	310	6591.346191	3.50 %
11/1/2021	31400	470	995	290	6533.932129	3.50 %
12/1/2021	30600	428	965	274	6581.481934	3.50 %
1/1/2022	30625	374	945	294	6631.150879	3.50 %
2/1/2022	31400	444	965	290	6888.170898	3.50 %
3/1/2022	31600	454	925	296	7071.441895	3.50 %
4/1/2022	30700	530	970	280	7228.914063	3.50 %
5/1/2022	31500	530	1115	268	7148.970215	3.50 %
6/1/2022	31175	500	975	268	6911.582031	3.50 %

The difference between the expected return and the return on risk free assets is called the excess return. The ERB value is used as the basis for determining which stocks are included in the optimal portfolio. Calculation results of Bank Indonesia's average risk free 7-Day (Reverse) Repo Rate for the period June 2021-June 2022.

Table 2. Calculation results of Excess Return to Beta (ERB) Calculation Results June 2021-2022 period

EMITEN	E ( R )	$\alpha$	$\beta$	UNSYSTEMATIC RISK	ERB
GGRM	-0.033546443	-0.03760247	0.346894617	0.009707646	-0.10511293
WIIM	-0.017271142	-0.04140672	2.064213238	0.011490633	-0.0097799
HMSP	-0.021320534	-0.03246195	0.952877687	0.006148588	-0.02543579
ITIC	-0.063609606	-0.06794948	0.371171224	0.032709322	-0.17923338

Then, ERB is sorted from highest to lowest and determines the value of  $C^*$ . To find out the value of  $C^*$ , it is necessary to calculate the values of  $A_i$ ,  $B_i$  and  $C_i$ . Then, the  $C^*$  value is the last  $C_i$  value that has an ERB value greater than or equal to the  $C_i$  value. The stocks that are candidates for the optimal portfolio are only those stocks that have an ERB value greater than or equal to the ERB value at the point  $C^*$

Table 3. The results of the optimal decision point  $C^*$  and Portfolio June 2021-2022 at the tobacco company

EMITEN	E ( R )	$\alpha$	$\beta$	UNSYSTEMATIC RISK	ERB	$C_i$	$C^*$	KEPUTUSAN
GGRM	-0.033546443	-0.03760247	0.346894617	0.009707646	-0.10511293	-0.0005785	-0.00033642	-
WIIM	-0.017271142	-0.04140672	2.064213238	0.011490633	-0.0097799	-0.0013892	-0.00033642	-
HMSP	-0.021320534	-0.03246195	0.952877687	0.006148588	-0.02543579	-0.0015733	-0.00033642	-
ITIC	-0.063609606	-0.06794948	0.371171224	0.032709322	-0.17923338	-0.0003364	-0.00033642	-

Table 4. Calculation of June 2021-2022 portfolio returns at the tobacco company

Zi	Wi	$\alpha_p$	$\beta_p$	unsystem risk	
-3.744101026	0.329575299	-0.012392845	0.114327897	0.0031994	33%
-1.696457701	0.149331055	-0.006183309	0.30825114	0.001715908	15%
-3.889777174	0.342398474	-0.011114921	0.326263866	0.002105267	34%
-2.030045273	0.178695172	-0.012142245	0.066326506	0.005844998	18%
-11.36038117	1	-0.04183332	0.815169409	0.012865574	100%

#### 4. Conclusion

Based on the results of the research and discussion regarding the Analysis of Optimal Portfolio Formation Using the Single Index Model based on company image at cigarette companies listed on the Indonesia Stock Exchange (IDX) for the 2021-2022 period, the following conclusions can be drawn:

- 1) During the issue of excise tax which continues to rise every year even though there has been a slight decrease from the previous year that occurred during the last 1 year, after I made observations on the single index model it turned out that the stock price of cigarette companies had quite an effect on the results of the calculations obtained during In the last 1 year the results are not optimal. the decline in stock prices has a big enough effect on stock price fluctuations in cigarette companies.

This study uses only one optimal portfolio forming method, namely the Single Index Model. Formation of the optimal portfolio can be done by various methods. For future researchers, they can use other methods to form optimal portfolios such as the stochastic dominance method or compare the performance of optimal portfolio forming models in order to get the best portfolio results. The object of this study is limited to shares registered with cigarette companies and on the Indonesian Stock Exchange (IDX) for the period January 2021-2022.

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