**THE SIZE EFFECT AND VALUE EFFECT ANOMALIES**

**ON INDONESIAN CAPITAL MARKET**

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ABSTRACT: The size effect of the anomaly was first discovered by Banz, (1981). Banz found a relationship between company size and returns stock. The size effect of anomaly has been studied in various world capital markets. There are two streams of research; the first is a stream of research that sees a premium return from the Size Effect and stream of research, which views that anomaly size effect is not found in research on global capital markets. Until now, still limited research on the capital market that examines the existence of anomalies size effect persistently. There has not been much research in Indonesia, which explains the source of the anomaly of the size effect by using business risk and financial distress. The results of this study are expected to confirm the flow of anomalous research size effect to clarify the premise that says whether or not anomalous size effect exists in Indonesia's capital market.

# Introduction

Anomaly *Size* research has been successfully proven in the US capital market Banz, (1981), Sanger, (1989), Reinganum, (1992); in the Indian capital market (Tripathi, 2005), Indonesian capital markets (Pratomo, 2007), and RE, (2012). The finding is that there is an inverse (*negative*)Use the "Insert Citation" button to add citations to this document.

 Relationship between the size of a company with *returns* stock, which means that small company shares will provide *return* a higher than large companies, small company shares tend earnings (*earnings*), which is lower than the shares of large companies. Size *Effect* illustrates the phenomenon that small companies provide *returns* higher than large companies, so the strategy of portfolio selection based on *size* effect will give *returns* that outperform.

Arguments *size effect* and Three Factors Model French (1992) contradicts the theory of the Capital Asset Pricing Model. French (1992) state that the CAPM beta (market risk) is not the only explaining factor variation *return* stock. In addition to beta, *size* has significant power in explaining variations in *returns* stock. French, (1992) found that in the period 1963-1990, the role of beta as a factor explaining *returns* stock disappeared. On the other hand, stocks of group *value* that have a high *book to market equity* ratio outperformed the *returns* of stocks from the group *growth* with a *low book to market equity* ratio. This phenomenon is known as the *value effect*. Research conducted by Barbee (1996) also shows results that firm size has a negative effect on *returns* stock and measures the size of the company through market value of equity (*Market Value Equity*-MUE).

The problem in this study is that until now there is still little research in developing capital markets that to the existence of anomaly *Size Effect* persistently, including (Pandey, 2015) researching in India, Brazil and South Korea and Pandey and (Pandey, 2015) researching in India Therefore, researchers are interested in reexamining the anomaly *Size Effect* which is still a question in the Indonesian capital market. Also, there has not been much research in developing capital markets, especially in Indonesia, which explains the source of the anomaly of the *Size Effect* by using business risk explanations and *financial distress*. Small companies are estimated to operate more at risk than large companies (Pandey, 2016) because they have a low level of diversification, less efficient labor, lower bargaining position, lower technology, lower consumer loyalty, and less committed employees. The risk of operating small companies higher because of the financial risk due to high debt costs more expensive. The other explanation is that the small firm is relatively more experienced financial difficulties, as reflected in the ratio *Price to Book value (P / B).* French (1992) used 3-factor models for determining asset prices that added Size and Value variables other than Beta, both measuring risk (both business risk and financial risk) and measuring financial difficulties.The

The results of this study are expected to confirm the flow of anomaly research *Size Effect,* so clarify the premise that says there is or ti the anomalous *size effect* in the Indonesian capital market. Also, the results of this study can be implemented for investors who will invest their funds in the capital market, especially the formation of portfolios in the group. *Small firm.*

# LITERATURE REVIEW

Jones, (1996) defines market anomalies as a form of strategy or technique because the results generated by this market anomaly allows investors to get a chance abnormal return *of* by relying on a variety of events *(event)* that occurs capital markets. According to (Alteza, 2007), "market anomalies are*an exception of rule or model,"*meaning that anomalies are deviations from the model or concept of an efficient market. Some things that support the concept of efficient market anomalies are the existence of specific patterns on stock trading days, the opportunity for investors to obtain profits *abnormal*, the existence of *insider trading* in the capital market, the existence of information asymmetry.

Levy, (1996) in Alteza, (2007) classifies the market anomaly into four types based on the characteristics of *the event* or events are anomaly companies *(firm anomaly), of* the anomaly seasonal *(seasonal anomaly),* anomalous events *(event anomaly)* and accounting anomalies *(accounting anomaly).* According to Levy (1996), there are various kinds of anomalies that have been found on the stock market, one of which is anomaly of the company.

*Size Effect* is the result of testing the *abnormal return* associated with company characteristics. Anomaly *Size Effect* was first discovered by Banz (1981) in the American capital market. There was an inverse (*negative*) relationship between company size and *returns* stock. That is, small company shares will provide a *return* higher than large companies. This phenomenon is contrary to the concept of an efficient market, where there is no single information that can be used by market participants to get *return* piece of a higher (Tandelilin, 2001). With this anomaly *Size Effect*, market participants can use portfolio selection strategies consisting of small-company shares to get *return* a higher (*outperform*). Conclusion Anomaly *Size Effect is* also found by (Fama, 1970); Fama, (2012); French, (1992); French, (2008) and Berk, (1996) and occurs in 15 European countries, China (Xu, 2002) and other countries universally.

Company size is one of the factors considered in determining how large a funding decision policy (capital structure) is in meeting the size or size of a company's assets. Companies with high growth will always need more significant capital and vice versa companies on low sales growth; the need for capital is also getting smaller. The concept of sales growth rate has a positive relationship, but the implications will have different effects on capital structure namely in determining the type of capital used. In large companies where shares will be widespread, any expansion of share capital will have little effect on the loss or displacement of control from the dominant party to the parties concerned.

In general, large companies that have investment opportunities should set a lower payment ratio, which means retaining more profit than large companies that have weak investment opportunities. If there is a large degree of uncertainty in *free cash flow*, which is defined as the company's operating cash flow minus the required equity investment, then it is best for the company to be conservative and set a low current cash dividend (Brigham, 2001). Conversely, a small company where the shares are in a small company environment, increasing the number of shares will have a significant influence on the possibility of dominant party control over the company concerned.

1. Company size effects on *returns* of companies listed on the Indonesia Stock Exchange
2. Market to book ratio effects on *returns* of companies listed on the Indonesia Stock Exchange
3. Beta company shares effect on *returns* companies listed on the Indonesia Stock Exchange
4. R*eturn* of small companies is higher than the return of large companies listed on the Indonesia Stock Exchange
5. *Market-to-book* stocks of small companies are lower than the ratio of market to book shares the large companies listed in Indonesia Stock Exchange
6. Return of small companies with low market to book ratios (small value stocks) outperformed return of small companies with high market to book ratios (*small growth stock*).

# RESEARCH METHODOLOGY

* 1. Population and Research Samples

The population in this study are all companies listed on the Indonesia Stock Exchange from the period 2010 to 2018. The samples in this study are the first and second quartile companies that have *listed* on the Indonesia Stock Exchange period 2010 to 2018. Companies that conduct *stock split, rights issues, mergers,* and acquisitions will be issued in the sample.

Data was collected and obtained from the Indonesia Stock Exchange website and other sources that support this research. Data collected includes the names of issuers, stock prices, total asset values, market capitalization values, and others by recording and quoting data (documentation).

* 1. Variable Operational Research and Definitions

The dependent variable is *Return* Stock, and Independent Variable is company size as measured by total assets and market capitalization, Market to Book ratio, Stock Beta.

* 1. Data Analysis Method

Method analysis to test hyphotheses 1, 2, and 3:

$RET= α +b\_{1}DSIZE + b\_{2}BETA +b\_{3}MTB$ + e (3.1)

Method analysis to test hyphotheses 4, 5, and 6:

$t= \frac{\left(\overbar{RET}\_{small}-\overbar{RET}\_{large}\right)-(μ\_{small}-μ\_{large})}{\sqrt{\frac{S\_{p}^{2}}{n\_{small}}+ S\_{p}^{2}/n\_{large}}}$ (3.2)

$t= \frac{\left(\overbar{BETA}\_{small}-\overbar{BETA}\_{large}\right)-(μ\_{small}-μ\_{large})}{\sqrt{\frac{S\_{p}^{2}}{n\_{small}}+ S\_{p}^{2}/n\_{large}}}$ (3.3)

$t= \frac{\left(\overbar{MTB}\_{small value stock}-\overbar{MTB}\_{small growth stock}\right)-(μ\_{small value stock}-μ\_{small growth stock})}{\sqrt{\frac{S\_{p}^{2}}{n\_{small value stock}}+ S\_{p}^{2}/n\_{small growth stock}}}$ (3.4)

Note:

α = Constant.

b1-3 = Coefficient of the Independent Variable.

DSIZE = Company size.

BETA = systematic risk of a stock or portfolio.

MTB = ratio of market value and book value

Small Value Stocks = Small Size stock with Low MTB

Small Growth Stocks = Small Stocks with High MTB

1. DISCUSSION

This study reexamined previous classical research on the role of size and in determining stock returns that experienced an inverse relationship (*negative*) between company size *returns* and stock and reexamined (French, 1992) research stating that the beta factor (market risk) CAPM is not the only factor that explains variations in *returns* stock. In addition to beta, *size, as measured by Market Value of Equity (ME) andratio Book to Market Equity (BE / ME),* have significant strength in explaining the variation in *returns* stock.

Companies with large market capitalization have *returns* smaller than small market capitalization companies or called *Size Anomaly*. Shares in the *equity market* the(small firm)outperformed the *returns* stocks of large groups*(large firm),*which is known as the phenomenon of *size effect.On* the other hand, stocks of group *value* that have a high *book to market equity* ratio outperformed the *returns* of stocks from the group *growth* with a *low book to market equity* ratio. This phenomenon is known as the *value effect*.

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