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Stock Market Valuation in Sharia Compliance Lens: An Evaluation of the Intrinsic Value of Sharia-Compliant Stocks

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Abstract

Sharia compliance has become increasingly important in the financial world, especially within the context of stock market valuation. This study aims to evaluate the intrinsic value of Sharia-compliant stocks through a set of variables that reflect Sharia-compliant principles. This study used the panel data regression with Arbitrage Pricing Theory (APT) to understand the findings and analysis. The study also describes its model with full inclusion of tables and all statistics, explaining the study's contribution in that respect. The variables used in this study include the intrinsic value of Sharia stock, Financing to Total Assets Ratio (FTAR), on-sharia compliant income Ratio (NSCR), Cash Participation in Bank Conventional Ratio (CCR), Interest Financing to total Financing Ratio (IFR), Salary costs to operating costs Ratio (SOCR), and Philanthropic Fund Ratio (PFR). The study highlights the importance of evaluating stock market valuation through a Sharia-compliant lens. Sharia compliance principles emphasize ethical and moral values that promote social responsibility and fair practices. The findings of this study can inform investors, policymakers, and financial institutions about investments in Sharia-compliant stocks, as these stocks provide a comprehensive evaluation of intrinsic value. The study's approach can serve as a useful methodology for future research in Sharia-compliant finance.

Keywords: *Economic Activity, Intrinsic Value; Islamic Stocks; Sharia Compliance; Valuation Model.*

Introduction

Stock valuation in the 21st century, known as the era of disruption, is experiencing uncertainty that can harm investors through highly uncertain market sentiment (Jiang et al., 2022). The COVID-19 pandemic caused a big disruption in global economic activity and triggered market volatility through uncertainty about economic recovery, changes in consumer behavior, and the impact of monetary and fiscal policies during the pandemic, adding to the complexity of valuing stocks (Jiang et al., 2022). On the other hand, the high inflation and interest rate policies that affected the United States fell into an economic crisis further exacerbating stock price fluctuations. The combination of global pressures and domestic dynamics often makes stock valuations more influenced by market emotions than fundamental analysis. This poses a challenge for investors in distinguishing the intrinsic value of stocks from market prices that are

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full of sentiment. Therefore, understanding the impact of the pandemic and economic crisis on market sentiment is key to determining the right investment (Fianto et al., 2023).

In the valuation of shares in Islamic stocks, other factors must be considered, such as fixed income and interest payments. This prohibition is intended to protect the interests of all parties involved in the market for sharia or maqashid al-sharia, adding that the advantage of using Islamic law is that it will greatly inhibit information asymmetry. Then, at a later stage, if all interested parties apply the principles of Islamic trade theoretically, it may be possible to prevent the occurrence of information asymmetry (Cheema & Fianto, 2024).

A study conducted by (Saleem & Ahmad-Zaluki, 2021) mentioned that the strong determinant factor of investment intentions is important because investors consider many factors when investing. argue that investors with a long-term orientation tend to choose Islamic stock investments because companies categorized as Sharia stocks on average have a lower risk of bankruptcy compared to companies categorized as non-Islamic stocks. Moreover, simultaneously variable current ratios, total assets changed on top, return on assets, debt to equity ratio, and earnings per share had a significant effect on the stock prices of the trading, services, and investment sectors listed on ISSI. Another important finding is that Malaysia's Islamic stock index proved more stable during the financial crisis (State of the Global Islamic Economy Report, 2023).

However, in the context of Sharia shares, there is a major valuation factor as well as a differentiating factor with stocks, namely the valuation of shares, often referred to as Sharia compliance (Ahmad et al., 2020). This assessment intends to find out how valuable Sharia shares are given their compliance with the principles of Islamic finance. The amount of intrinsic value of shares reviewed in terms of Sharia compliance will be referred to as the intrinsic value of Sharia shares. The intrinsic value of Sharia shares is one form of effort to represent the true value of Sharia shares. Assessment of the level of sharia in ISSI and JII shares is often done in the realm of regulators and investors but is still very rarely discussed in the field of research. Thus, the intrinsic study of Sharia stock value based on Sharia compliance is an important thing to discuss.

In the field of Islamic capital markets, Sharia compliance based on Financial Services Authority Regulations (POJK) 17 POJK04 in 2015 is a sharia-compliance business management starting from business activities, transactions, and financial management of the company. Many studies discuss Islamic capital markets in general, but empirical studies focusing on whether Sharia stocks have met Sharia compliance are still rare. Whereas the enforcement of Sharia compliance on Sharia shares is an important thing to discuss, considering that there are always various inputs for the purification of existing Sharia stocks, Sharia compliance has become one of the most important factors for such investors when making investment decisions (Sukmana et al., 2021).

Paranque & Erragragui (2016) assert that strategies that focus solely on the exclusion of prohibited or illicit activities are not sufficient to ensure adherence to the ethical and social principles prescribed by Islamic sources. The scholars and scientists of Islamic economics agreed on the need to include a positive dimension in the Islamic investment process. In addition, with a better filter against Sharia stock issuers, Sharia capital markets are considered to provide opportunities for Muslim and non-Muslim communities to invest following the principles of Sharia (Shah et al., 2023).

As for the two provisions of the POJK, various studies discuss Sharia compliance variables in stocks. said that sharia compliance sharia shares are affected by risk factors, company size, price-on-earnings ratio, and cash flow. While some argue that internal factors significantly affect excess return variables, sharia stocks are Book Value (BV), debt-to-equity ratio (DER), and Return on Equity (ROE). On the other hand, Net Profit Margin (NPM) and return on assets (ROA) have a non-linear relationship with stock prices. On the other hand, other variables, namely Earnings per Share (EPS) and Price Earnings Ratio (PER), have a significant and linear relationship with stock prices (Cheema & Fianto, 2024).

Sharia compliance variables discussed in this study are obtained from the Decree of the Halal Standards and Certification Board of the Indonesian Ulema Council (FATWA DSN MUI), and Financial Services Authority (FSA) regulations. The six Sharia compliance variables used in this study are 1) Financing ratio to Total Assets (FTAR); 2) Non-Sharia Compliant Income Ratio (NSCR); 3) Ratio of Cash in Conventional Banks to Total Cash (CCR); 4) Interest Financing to total Financing Ratio (IFR); 5) Ratio of Salary costs to Operating costs (SOCR); and 6) Philanthropy Fund Ratio (PFR).

The first and second variables are the Ratio of Financing to Total Assets (FTAR) and The Ratio of Non-sharia-compliant income to Total Income (NSCR) obtained from the written regulation in POJK number 17 of 2015, while other variables are a form of implementation of POJK regulations and fatwas from DSN MUI. The determination of this study to include other variables is based on aspects of disadvantage prevention, emphasizing the fairness and benefit of the company (Napitupulu et al., 2024).

A company is said to be useful in its business activities in Sharia if it can prevent disadvantages in its business related to usury. It was represented by restrictions on cash participation in institutions that have the potential to generate interest income assessed by the Ratio of Cash in Conventional Banks to Total Cash (CCR) and avoid interest-based financing with the Interest Financing to total Financing Ratio (IFR) (SINGH et al., 2021). The level of corporate usefulness that is no less important to be met are two functions of corporate benefits felt by stakeholders from the internal side related to employees, who are assessed by the Ratio of Salary Costs to Operating Costs (SOCR), and the benefits of the external side of the company assessed by the Philanthropic Funds to Total Profit Ratio (PFR).

Literature Review

Sharia Capital Market

Law No. 8 of 1995, Article 1 (paragraph 12) on Capital Markets, explains that capital markets are activities related to public offerings and securities trading, companies related to securities, and institutions and professions related to securities. An Islamic capital market is a capital market that applies Sharia principles and is free from things that prohibited by Islam, such as the practice of usury, maysir/gambling, and gharar/high risk. Sharia principles in the Capital market, according to POJK number 15, are the principles of Islamic law in activities in the capital market based on the fatwa of the National Sharia Council, Indonesian Ulama Council (DSN-MUI), if the fatwa in question does not conflict with the POJK.

Moreover, article 3 of POJK 15 of 2015 describes Sharia shares are certificates of proof of ownership of the company issued by issuers whose business activities and ways of management do not conflict with Sharia principles. Shares represent the inclusion of capital in a company, and Sharia principle-intentioned capital participation activities are carried out on companies that do not violate Sharia principles, such as producers of illegal goods, gambling, usury activities, and so on (Mukhibad, 2019).

Intrinsic Value of Sharia Stock

A study conducted by (Halim, 2020) define stock valuation as intrinsic value estimating activities based on fundamental data. There are three types of value in stock valuation according to (Yunus, 2021), namely book value, market value, and intrinsic value. The book value is calculated based on the issuer's bookkeeping. Market value is the value indicated in the form of the price of the stock in the capital market. Intrinsic value is the actual or supposed value and is commonly referred to as the fair value of a stock. The valuation of a stock that considers the fundamental factors of the company is done to obtain the value of the stock to be compared to the prevailing market price. The stock price should reflect the intrinsic value of the stock or the fundamental value of the stock.

The intrinsic value of a stock is a method of estimating the actual value of the stock based on the company's fundamental data, which in this study is Sharia compliance data. Thus, the intrinsic value of Sharia stock is the value that describes whether the stock meets the Sharia aspect. It indicates that the measurements used in assessing Sharia shares are Sharia stock prices represented in the closing price of each period (Jouini & Khallouli, 2019). The figure used to represent the intrinsic value of Sharia shares is the closing price of Sharia shares. In this study, the closing price of the shares will be validated in terms of Sharia compliance, namely the interest-based debt ratio, interest income ratio, salary expense ratio, and philanthropy fund ratio.

Sharia Compliance on Financing Risks

The financing ratio to total Asset Ratio (FTAR) is a measurement of Sharia compliance based on the ratio of financing taken by the company. The financing ratio describes the extent to which a company's assets are financed. The financing ratio is one of the measurements of a company's financial performance. In this study, we used the debt-to-asset ratio or the ratio between total financing and total assets.

The financial criteria that must be met by companies that issue Sharia shares are the ratio of interest income or non-sharia compliant income, which in this study is referred to as the non-Sharia Compliant Income Ratio (NSCR). NSCR is a ratio that looks at total interest income and other non-sharia-compliant income compared to total business income and miscellaneous income. The implementation of this regulation is still being gradually carried out in Indonesia because there are still new Sharia shares in Indonesia; thus, the FSA decided the standard of interest income to total income in Sharia stock issuers is a maximum of 10%.

In addition, The Ratio of Cash in Conventional Banks to Total Cash (CCR) is one form of Islamic compliance from finance that emphasizes the preventive side of the ratio of cash participation in interest-based banks to minimize interest income. Islam permits non-cash transactions, or in other words, financing. On the other hand, the Salary Cost to Operational Expense Ratio (SOCR) is a ratio to see the fairness of the company's operating costs. In addition to the criteria of business activities, certain jurisdictions use financial ratios as additional criteria in classifying Sharia shares (Upadhaya & Singh, 2023).

Stock Valuation Approach Based on the Sharia Compliance Model

The panel regression with the Arbitrage Pricing Theory (APT) used in this study for evaluating stock market valuation through the Sharia compliance lens is intended to capture the multidimensional nature of the factors influencing the intrinsic value of Sharia-compliant stocks.

Panel regression allows for the inclusion of both firm-specific and global variables, providing a comprehensive understanding of the dynamics of stock valuation (Pesaran & Smith, 2023). By incorporating the APT framework, which considers the systematic risk factors that affect stock prices, the study can effectively analyze the impact of different variables on the intrinsic value of Sharia-compliant stocks. Moreover, the APT provides a theoretical foundation that links existing literature on stock valuation with the study's framework (R. Muhammad et al., 2021).

By employing this theory, the study establishes a robust framework for analyzing the relationship between Sharia compliance and the intrinsic value of stocks, thus enhancing the validity and reliability of its findings. Utilizing panel regression with the APT also allows for the estimation of time and individual-specific effects, accounting for variations across different periods and individual stocks (Carassus & Rásonyi, 2020). This approach further strengthens the study's methodology by controlling for potential confounding factors and providing a more accurate evaluation of the intrinsic value of Sharia-compliant stocks. Furthermore, the combination of panel regression and the APT framework offers a comprehensive and rigorous approach to assessing stock market valuation in the context of Sharia compliance. It provides a holistic understanding of the factors influencing the intrinsic value of Sharia-compliant stocks and contributes to the existing literature.

Research Framework

This analytical model is based on theoretical and empirical studies to explain the relationships between study variables. This study analysis model can be seen in the following figure:

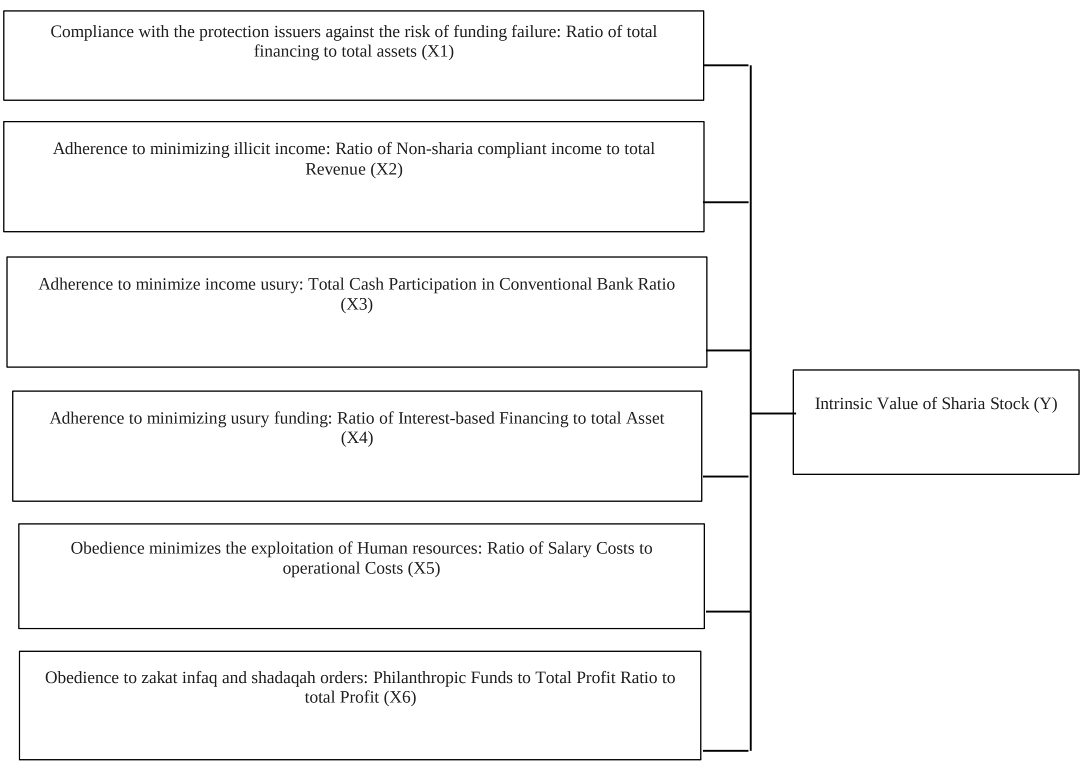

Figure 1. Variable Model

Methods

Data Collection

This study used a multivariable approach to data collection, including secondary fundraising and literature review. The data selection involved meticulous compilation of JII stock price data, financial statements, and corporate social responsibility reports. All resources were retrieved from trustworthy sites including IDX and other corresponding company websites. The methodological approach in this study involved multiple strategic processes, remarkably structured around the usage of secondary panel data and the employment of Multiple Linear Regression for analysis. Each stage of the approach is detailed and clearly defined below. Secondary data, involving both time series and cross-sectional data, was extensively utilized within this investigation. This approach not only allowed the research to be broad in scope (spanning seven years from 2013 to 2019, and involving seven distinctly Sharia-compliant stock issuers) but also increased the overall reliability of the research findings by integrating data from diverse, authentic sources.

The comprehensive dataset, comprising 49 observations (7 samples x 7 years), was meticulously collated from various sources such as the IDX website, financial statements, and sustainability reports. The IDX website provided crucial closing price data, financial statements offered necessary data on Sharia compliance variables, and sustainability reports conveyed vital information related to social funds variables.

Table 1. Operational Variables

Variable	Measurement	Unit	Data Source
Intrinsic Value of Sharia Stock	**Closing price of shares**	**Indonesia Rupiah**	**Indonesia Stock Exchange 2013-2019**
Financing to Total Assets Ratio (FTAR)	**Total interest-based financing divided by Total Assets**	**Percentage**	**Issuer's Financial Statements 2013-2019**
Non-sharia compliant income Ratio (NSCR)	**Total Non-Halal Revenue divided by Total Revenue**	**Percentage**	**Issuer's Financial Statements 2013-2019**
Cash Participation in Conventional Bank Ratio (CCR)	**The company's cash in the convention bank is divided by total assets**	**Percentage**	**Issuer's Financial Statements 2013-2019**
Interest Financing to Total Financing Ratio (IFR)	**Total interest financing divided by total financing**	**Percentage**	**Issuer's Financial Statements 2013-2019**
Salary Cost to operating Costs Ratio (SOCR)	**Percentage of Total Salary Cost divided by Total**	**Percentage**	**Issuer's Financial Statements**

	Operating Costs		**2013-2019**
Philanthropic Fund Ratio (PFR)	**Percentage of CSR funds divided by profit**	**Percentage**	**Issuer Sustainability Report 2013-2019**

The sampling was designed to accommodate those companies that diligently maintained their position in the JII from 2013 to 2019. The methodology of purposive sampling was adopted, ensuring the selection of appropriate samples grounded upon three fundamental criteria:

1. Sharia stock issuers with a consistent presence in the Jakarta Islamic Index (JII) from 2013 to 2019.
2. Issuers with comprehensive financial statements from 2013 to 2019.
3. Issuers reporting philanthropic fund contributions from 2013 to 2019.
4. Any deviations from these criteria would exclude the potential candidates from the study sample.

Data Analysis Techniques

This study used the Ordinal Least Square technique to analyze collected data. This study complied with the theoretical arbitrage pricing theory (APT) for the theory of analysis. However, APT possesses intrinsic limitations in accurately identifying and quantifying variables. Therefore, to compensate for such deficiencies and enrich the multifactor assessment of Sharia compliance, six extra variables, namely FTAR, NSCR, CCR, IFR, SOCR, and PFR, were incorporated based on legal and precedent deposit considerations.

This nuanced methodological approach, with clearly specified types of data, judicious sampling, multifaceted data collection method, and an analytical technique complemented by thoughtful inclusion of additional variables, underscores the study's rigor and depth. The subsequent sections provide detailed insights into the interpretative discussions, revealing the complexities and richness of the resulting observational data in the realm of Sharia-compliant stocks in Indonesia. The equation model in this study is as follows:

$$Y = \alpha + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + \beta 4\ X4 + \beta 5\ X5 + \beta 6\ X6 + \varepsilon$$

Information:

Y= Intrinsic Value of Sharia Shares

α= Constant

$\beta_1 - \beta_6$= Co-efficient value of each variable

X1 = Financing to Total Assets Ratio (FTAR)

X2 = Non-Sharia Compliant Income Ratio (NSCR)

X3 = Conventional Bank Cash Participation Ratio (CCR)

X4 = Interest Financing to total Financing Ratio (IFR)

X5 = Salary costs to Total Operating Costs Ratio (SOCR)

X6 = Philanthropic Funds to Total Profit Ratio (PFR)

ε = Error Standard

Result and Discussion

The results of hypothesis tests with SPSS software showed the probability value of each variable independently against the independent variable in the study. If the probability value is 0.05, then HA is accepted. The discussion of the influence of each variable in the analysis is as follows:

Table 2. Proceeds of Financing Ratio to Total Assets

Year	AKRA	ICBP	INDF	PGAS	SMGR	TLKM	WIKA
2013	63.35	37.62	51.18	38.14	29.19	39.49	74.38
2014	59.70	39.62	52.03	52.49	27.14	38.87	68.72
2015	51.97	38.25	53.05	52.70	28.08	43.74	72.27
2016	48.73	35.99	44.04	54.28	30.87	41.26	59.86
2017	46.43	35.74	46.76	61.75	38.77	43.53	67.95
2018	50.75	33.90	48.29	59.73	36.01	43.11	70.97
2019	52.80	31.11	43.66	56.13	55.03	47.02	69.07
Flat average value	53.39	36.03	48.43	53.60	35.01	42.43	69.03

Table 3. Non-sharia compliant income to Revenue Ratio Results

	AKRA	ICBP	INDF	PGAS	SMGR	TLKM	WIKA
2013	**0.32**	**1.14**	**0.92**	**0.87**	**0.67**	**1.00**	**0.20**
2014	**0.23**	**1.33**	**1.36**	**0.80**	**1.06**	**1.38**	**0.59**
2015	**0.35**	**1.70**	**1.15**	**0.50**	**0.89**	**1.35**	**0.47**
2016	**0.33**	**1.48**	**1.01**	**0.70**	**0.70**	**1.49**	**0.36**
2017	**0.23**	**1.13**	**0.88**	**0.39**	**0.61**	**1.12**	**1.54**
2018	**0.19**	**0.82**	**0.70**	**0.74**	**0.59**	**0.79**	**1.02**
2019	**0.16**	**0.65**	**0.72**	**0.78**	**0.53**	**0.81**	**0.85**
Flat average value	**0.26**	**1.18**	**0.96**	**0.68**	**0.72**	**1.13**	**0.72**

Table 4. *Conventional Bank Cash Participation Ratio*

	AKRA	ICBP	INDF	PGAS	SMGR	TLKM	WIKA
2013	99.95	99.26	92.80	99.98	93.93	96.47	95.10
2014	99.90	99.38	95.21	99.98	95.60	97.06	98.71
2015	99.67	99.17	94.15	99.97	98.30	98.43	96.07
2016	99.69	99.19	95.99	99.99	95.51	98.57	99.59
2017	99.76	98.84	94.26	92.84	89.63	97.90	98.09
2018	99.78	99.62	93.38	93.90	85.85	98.15	97.65
2019	99.69	99.57	96.35	99.11	99.17	97.28	99.07
Flat average value	99.78	99.29	94.59	97.97	94.00	97.69	97.75

Table 5. Proceeds of Interest Financing Ratio to Total Financing

	AKRA	ICBP	INDF	PGAS	SMGR	TLKM	WIKA
2013	**23.22**	**29.07**	**55.45**	**58.87**	**39.64**	**31.34**	**16.65**
2014	**14.03**	**31.53**	**48.80**	**59.24**	**36.48**	**34.97**	**25.13**
2015	**26.93**	**22.50**	**72.08**	**74.51**	**30.75**	**36.76**	**13.44**
2016	**22.05**	**13.80**	**85.85**	**71.82**	**38.59**	**31.20**	**19.04**
2017	**27.34**	**18.63**	**65.74**	**62.81**	**57.89**	**30.10**	**20.16**
2018	**30.84**	**15.72**	**55.34**	**52.32**	**53.54**	**36.81**	**10.64**
2019	**36.74**	**17.97**	**69.54**	**56.53**	**63.85**	**35.89**	**8.35**
Flat average value	**25.88**	**21.32**	**64.69**	**62.30**	**45.82**	**33.87**	**16.20**

Table 6. Salary Cost to Operating Expense Ratio

	AKRA	ICBP	INDF	PGAS	SMGR	TLKM	WIKA
2013	1.17	9.27	9.37	2.54	11.78	21.39	2.12
2014	1.50	9.63	10.06	2.51	11.74	18.23	2.50
2015	1.62	10.45	9.94	3.43	12.37	20.13	2.29
2016	2.17	11.62	10.46	3.30	10.73	19.15	4.61
2017	1.79	10.98	10.63	3.98	11.95	17.29	6.21
2018	1.57	11.33	10.77	4.08	10.20	15.36	5.62
2019	1.83	11.87	12.52	4.43	10.85	13.84	6.56
Flat average value	1.66	10.74	10.53	3.47	11.37	17.91	4.27

Table 7. Philanthropic Fund Ratio

	AKRA	ICBP	INDF	PGAS	SMGR	TLKM	WIKA
2013	0.16	5.63	9.26	0.96	5.02	1.08	0.54
2014	0.50	5.93	10.29	1.56	5.18	2.41	0.56
2015	1.05	11.23	7.85	2.71	4.55	1.88	0.70
2016	0.53	7.38	6.02	2.77	5.86	1.58	0.53
2017	0.48	5.11	5.94	1.73	13.24	1.27	1.10
2018	0.38	6.64	10.23	1.18	4.25	1.58	0.87
2019	1.16	5.78	8.99	2.24	4.80	1.52	1.03
Flat average value	4.26	47.70	58.57	13.16	42.90	11.31	5.33

The Impact of Financing to Asset Ratio on the Intrinsic Value of Sharia Shares

In examining the effects of the financing-to-asset ratio (FTAR)—a measure of the risk associated with financing—on the Intrinsic Value of Sharia Shares. The primary findings suggest a significant negative effect. Based on a significance level of less than 0.05 (achieving a value of 0.00), the statistical analysis supports the acceptance of the primary hypothesis, drawing attention to the inverse relationship between financing risk and the intrinsic value of Islamic stocks.

The elevated financing to total assets values seems to interact negatively with the innate value of Islamic stocks. This complements the findings by (Saleem & Ahmad-Zaluki, 2021) that demonstrated that long-term investors tend to prefer companies—particularly those dealing with

Sharia stocks—with lower bankruptcy risks compared to their conventional counterparts. The company's financing risk is a significant consideration for investors.

Notably, (Yunus, 2021) have accentuated the positive signals associated with a higher liquidity ratio, suggesting that these companies would be more equipped to handle short-term financial obligations. The decision to emphasize risk variables, particularly those associated with financing, stems from the Fatwa/Islamic Amendment by DSN MUI number 20/DSN-MUI/IV/2001. The Article 9 clause of this Fatwa highlights that the selection and implementation of investment transactions should uphold prudential management principles.

Table 2 sheds light on the value of the Financing to Total Assets (FTAR) ratio. This table illustrates that JII companies under consideration in this study remain within the safe limits stipulated by the DSN MUI. These limits dictate an interest financing to a total asset ratio of under 82%. Among the studied issuers, SMGR exhibits the lowest average FTAR value of 35.01%, trailed by ICBP at 36.03%, TLKM at 42.43%, INDF at 48.43%, and followed by companies with an FTAR higher than 50%, namely AKRA at 53.39%, PGAS at 53.60%, and WIKA at 69.03%. Islamic finance principles favor a lower debt ratio that generally renders a positive investment signal. Thus, striving to regulate the FTAR can be viewed as strategic compliance with prudential principles to mitigate the company's risk.

The Effect of Non-Sharia Compliant Income Ratio on the Intrinsic Value of Sharia Shares

The second hypothesis test focuses on the Ratio of Non-sharia-compliant Income to Total Income (NSCR) and its effect on the Intrinsic Value of Sharia Shares. The results indicate that the NSCR does not significantly impact the intrinsic value of Sharia shares, as its significance value exceeds 0.05 (reaching 0.558 or $\alpha > 0.05$), leading to the rejection of the primary hypothesis. Consequently, it is suggested that a low value of non-sharia-compliant income has no bearing on the intrinsic value of Sharia shares. These findings align with (Jouini & Khallouli, 2019), which similarly determined that interest income has no significant effect on the price-to-book value (PBV) of JII companies.

However, these results contrast with other studies that stress the importance of interest income in differentiating Islamic and conventional investments (Carpenter et al., 2021). also notes that companies included in the Dow Jones Islamic Market Index (DJIM) tend to be devoid of interest income and interest rate risk, resulting in superior returns and risk of returns compared to other indices. The discrepancy in results may be attributed to the relatively small contribution of interest income to the overall revenue generated by the company's primary business activities in the present study. Consequently, interest tends to become a peripheral concern for the company or shareholders in Sharia issuers.

Table 3 highlights that the development of non-sharia-compliant income ratios does not affect stock price ratios. This is illustrated by the minuscule non-sharia-compliant income of each company, ranging between 0.16% and 1.54%. The table below displays that the smallest average NSCR is held by AKRA issuers at 0.26%, followed by PGAS at 0.68%, SMGR at 0.72%, WIKA at 0.72%, INDF at 0.96%, TLKM at 1.13%, and ICBP at 1.18%. The negligible percentage of non-sharia-compliant income values likely contributes to the limited influence of this ratio on a company's share value. Moreover, fluctuations in NSCR growth per year for each company may diverge from changes in share value growth. The varying impact of the non-sharia-compliant income ratio growth on each issuer's average share value demonstrates the relatively weak effect of non-sharia-compliant income (NSCR) on share value.

The data presented signify that each Sharia share issuer endeavors to comply with regulations set forth by both the Financial Services Authority (FSA) and DSN MUI, about restrictions on interest income in company finances. Accordingly, interest income is restricted to below 10%. While the findings of interest income studies have not unequivocally proven that lower interest income yields better share values, the data reveal that interest income values ranging from 0.16% to 1.54% are relatively small, remaining within a 1% range. Thus, income from non-halal sectors does not surpass the main income sources. The non-sharia compliant income threshold stipulated by FSA and DSN MUI considers income from various sources such as bank deposits and non-sharia compliant income sources such as bond yields, income from sales or services in non-halal sectors, or investment activities.

Furthermore, the significant interest income bearing on share value may be attributable to multiple variables influencing the stock prices and the fresh consideration of Sharia principles by investors. Most companies still engage in transactions with conventional banks or maintain conventional deposits. As an input and solution, future Islamic products and services should include Sharia boards and adhere to Sharia law in their operations, thereby becoming interest-free to better align with these principles.

The Effect of the Conventional Bank Cash Participation Ratio on the Intrinsic Value of Sharia Shares

The third hypothesis test examines the impact of the Ratio of Cash Placement in Conventional Banks to Total Cash on the Intrinsic Value of Sharia Stocks. The results indicate that this ratio significantly influences the intrinsic value of Islamic shares, as the significance figure amounts to 0.001 or $\alpha < 0.05$. Consequently, the hypothesis is accepted with a negative coefficient relationship, suggesting that the value of the company's cash placement ratio in conventional banks contributes negatively to the intrinsic value of Islamic shares.

Additionally, Table 4 demonstrates that the development of the ratio of company cash placement in conventional banks negatively affects share values. The ratio of corporate cash placements in conventional banks divided by total cash reaches values between 99.0% and 99.8%. This figure appears relatively high when juxtaposed with the regulations set forth by both the FSA and DSN MUI regarding restrictions on interest income in company finances, which posit that lower interest income yields better share values. According to Fatwa DSN-MUI number 20/DSN-MUI/IV/2001 concerning Sharia Investment Types and Instruments, Article 7, investments should only be made in financial instruments that comply with Islamic Sharia, including stock instruments placing funds in deposits at Islamic Commercial Banks rather than conventional banks. Therefore, this study proposes that the minimal level of placement of JII issuer funds in conventional banks could serve as a benchmark for Sharia compliance.

Furthermore, Table 4 exhibits that cash issuers' placement levels in conventional banks, in the form of cash and deposits, surpass the reasonable limit of > 50%, ranging from 94.0% to 99.8%. Among the issuers in the study sample, the lowest average CCR belongs to SMGR at 94%, followed by INDF at 94.6%, TLKM at 97.7%, WIKA at 97.75%, and PGAS at 97.79%, with ICBP at 99.3% and the highest average CCR in AKRA at 99.8%. Notably, the lowest CCR value occurred in SMGR in 2018 at 85.85%, while the highest value emerged in AKRA in 2013 at 99.95%. The data indicate that the study sample's issuers remain far from fulfilling the provisions of cash ratio in conventional banks compared to total cash (CCR).

The variable cash ratio in conventional institutions CCR (X3) with a non-sharia-compliant income ratio NSCR (X2) shares the purpose of examining the proportion of interest income issued, although their relationship is nonlinear. The ratio of interest income to total revenue from business activities (X2) remains relatively small compared to the company's cash placed in banks or other conventional financial institutions. Moreover, the placement of cash and deposits in conventional banks, when aggregated in value, is considerably larger than the relatively small interest income generated. Consequently, the data results propose that NSCR does not affect share value while CCR does.

Though no prior studies have specifically investigated the placement of cash in conventional banks compared to total cash in relation to share value, several related studies have conducted similar analyses, such as comparing cash placement in conventional banks to total assets concerning share value. Abdul Rahman (2010) posited that cash placement in conventional banks (compared to total assets) constitutes one of the quantitative measures in Islamic stock valuation, as practiced in SAC Malaysia. The terms of placing funds in conventional banks, in addition to being applied in SAC Malaysia, are also implemented in the Dow Jones Islamic Market Indices of America and the Hong Kong Islamic Index, which stipulate a maximum limit of cash placement in conventional banks at 33% of total assets. On the other hand, this study diverges from Abdullah et al. (2007), who maintained that there is no significant impact between cash restrictions on conventional banks and share values, as both Islamic and conventional stocks have periods of fluctuations.

The Impact of Interest Financing Ratio to Total Financing on the Intrinsic Value of Sharia Shares

The fourth hypothesis test investigates the role of the Interest Financing to Total Financing Ratio (IFR) on the Intrinsic Value of Sharia Shares. Based on the results, the influence of the IFR on the intrinsic value of Islamic shares yields a significance figure of 0.016, exceeding the standard 0.05 value ($\alpha > 0.05$). Accordingly, the hypothesis is accepted, and the negative coefficient suggests a negative relationship, indicating that an increase in the IFR detrimentally influences the intrinsic value of Sharia shares.

The present study provides evidence that the proportion of interest financing in total company financing can influence the value of Sharia shares. Lower company interest financing rates (IFR) would yield higher share values. The study data suggests that the majority of JII issuers have attempted to adhere to stipulations submitted by the FSA and DSN MUI related to restrictions on interest financing. The reasoning behind this is that, per Bursa's assertion, excessive debt is not Sharia-compliant. Islamic finance conforms to the principle of risk and profit sharing, thereby deeming loans and interest payments on debt as non-compliant with sharia (Firmansyah, 2017). Fatwa DSN MUI number 20/DSN-MUI/IV/2001 implores investors to avoid interest financing in investment activities. Article 10 issued by DNS-MUI stated that an issuer of stock that relied highly on interest was not a worthwhile investment for a Sharia Mutual Fund.

The findings from this study diverge from the study conducted by Adlan and Mawardi (2018), which also concluded that interest financing was not significant to the price-to-book value (PBV) of JII companies. Conversely, these findings align with Narayan's (2019) research, which posits that Islamic Dow Jones Index issuers compliant with Sharia provisions related to interest financing yield higher returns; in essence, interest financing impacts the company's return. Field conditions suggest that interest financing constitutes a consideration in determining share prices as well as trading behavior.

Table 5 reveals the interest financing ratio to the total financing for most study sample issuers as staying within the acceptable limit of < 50%. The lowest value of interest financing divided by total financing is achieved by WIKA companies at 16.20%, followed by ICBP at 21.32%, AKRA at 25.88%, TLKM at 33.87%, and SMGR at 45.82%. However, two companies have an average IFR of >50%, namely PGAS companies with an IFR of 62.30% and INDF at 64.69%. This figure suggests that the latter companies incur relatively high-interest costs on their financing. As issuers of Sharia shares, companies should endeavor to limit interest transactions, including interest financing, as they can lead to usury.

It can be concluded that the result above illustrated that JII-incorporated Sharia share issuers and their investors have recognized that Islamic law prohibits any interest-based financial activities, whether lending or borrowing. In Indonesia, the consensus is that interest, encompassing usury, is forbidden in Islam, both for the lender and the loan recipient. Interest-rate financing encompasses not merely individuals but also sizable corporations. Therefore, the proportion of interest financing could be a crucial consideration for issuers and investors when distributing their funds. Although the majority of issuers have relatively low-interest financing rates, some issuers possess rates exceeding 50%. These findings may encourage the government to devise regulations that standardize corporate interest financing proportions. By doing so, they could potentially enhance the compliance of Sharia share issuers with their interest financing, thereby advancing the realm of Sharia stocks in Indonesia.

The Influence of the Salary Cost Ratio to Total Operating Costs on the Intrinsic Value of Sharia Shares

The fifth hypothesis test focuses on the impact of the Salary Cost to Total Operating Ratio (SOCR) on the Intrinsic Value of Sharia Shares. The outcome illustrates that the effect of the SOCR on the intrinsic value of Sharia shares exhibits a significance figure lower than 0.05, specifically 0.004 ($\alpha < 0.05$). Therefore, the hypothesis is accepted, and given the negative coefficient, we infer a negative relationship—indicating that the intrinsic value of Sharia shares declines as the SOCR increases.

In general, Sharia stock issuers—like other firms—seek cost-efficiency to maximize profits and reward investors appropriately. Investors, in the same vein, advocate that the more efficient operational, including salary costs, the company has, the better (Barnett et al., 2022; Wiersema et al., 2023). This perspective elucidates why studies, like this one, find that a high salary-to-equity ratio negatively impacts share values. This study aligns with Hanif's (2019) findings, which propose that employee salary costs burden operational expenses, thereby reducing efficiency and profitability in Islamic banking. In the context of Sharia stock issuers, they seem to perceive salary costs as an aspect of operating costs that must be minimized to uphold the principle of efficiency explaining why the salary cost ratio negatively influences the intrinsic value of Sharia shares.

However, employee welfare should also be considered as a measure of the company's performance higher employee welfare should lead to higher share values. The salary cost ratio serves as an indicator of an organization's commitment to fulfilling employee rights—a lower ratio may suggest exploitation (Muda & Erlina, 2021). Contrary to the results of our study, a study conducted by (Nabila & Yandri, 2022) stated that higher-performing Islamic financial institutions would considerably improve employee and associated community welfare. Conversely, lower-performing institutions resulted in poorer welfare for connected communities.

Furthermore, according to Table 6, the SOCR differs markedly among companies based on the nature of their businesses. While some companies maintain low average salary costs, such as with the lowest average of 1.66%, others report high amounts, reaching up to 17.91% in the case of TLKM. It crucially indicates that variations in the salary cost ratio are profoundly influenced by the nature, scale, and employee scope of a company's operations.

Table 6 reiterates that the Sharia stock issuers continue to prioritize operational efficiency while accommodating employee welfare by allotting over 10% of total operating costs to employee salaries. This balance between operational efficiency and employee welfare is vital for the company, as it encourages job satisfaction and extensive work ethic, leading to higher productivity. Islam enforces clear rules regarding fair salaries for employees, and these principles should guide companies in formulating policies that respect employee rights and uphold the principle of Ihsan.

The Impact of the Philanthropic Fund Ratio on the Intrinsic Value of Sharia Shares: An Examination

The sixth research hypothesis set out to explore the repercussions of the Philanthropic Funds to Total Profit Ratio (PFR) on the Intrinsic Value of Sharia Shares. Our analysis determined that the effect of the PFR on the intrinsic value of Islamic shares is significant, as evidenced by a significance figure above 0.05 (specifically, 0.006; hence, $\alpha < 0.05$), which signifies acceptance of the hypothesis. It is noteworthy that the coefficient relationship is positive. This implies that the value of the philanthropic type of fund that affects the total profit ratio was manifested by an elevation in the intrinsic value of Sharia shares.

Our findings corroborate past research indicating a significantly positive correlation between the disclosure of zakat funds (Mawardi et al., 2022) and other philanthropic activities, such as Corporate Social Responsibility (CSR), and a company's financial performance. One key discovery is that the disclosure of social responsibility within the context of zakat funds elicits a positive impact on the company's value. This significant correlation can be attributed to the fact that ZISWAF (zakat, infaq, and sadaqat) and other philanthropic funds are a measure of Sharia compliance for a Sharia stock issuer company (Widiastuti et al., 2024).

However, our findings challenge certain studies that propose that superior social performance diminishes stock prices, particularly in the Italian Stock Exchange Market (Duterme, 2023). The backdrop of this lies in the Italian business environment; investment stakeholders in Italy perceive such funds as costs, which can lead to a decrease in shareholder earnings and, invariably, the share price. A study conducted by (H. Muhammad, 2020) further substantiates this notion, contending that CSR activities increase operational costs of environmental or social activities at the expense of financial gains. Moreover, different studies present divergent results, citing the non-influence of philanthropic funds on company performance. Limitations such as a small sample size and constrained reporting periods are likely reasons for this discrepancy. The influence-less role of social funds is reinforced by (Pitchay, 2022) who argued that CSR disclosures in LQ 45 issuers did not result in share price increases.

Variation in a company’s Philanthropic Fund Ratio (PFR) as shown in Table 7 diverges across companies, with rates as low as 0.61% for AKRA, and as high as 8.37% for INDF. Most Islamic issuers—four out of seven—have a PFR value of less than 2.5%. As per the counting of Zakat provision, the benchmark philanthropic fund value should be at least 2.5% of the profit. However, most JII Sharia stock issuers have yet to fully implement this stipulation. ZISWAF and other philanthropic funds, as cues for the compliance of Sharia stock issuers, can stimulate corporate and community prosperity (Razak, 2020).

Hence, the collection, distribution, and recording of philanthropic fund reports ought to be buttressed by a clearly defined system (Widiastuti et al., 2022). Regrettably, the sustainability reports of Sharia stock issuers in this study reveal a lack of detailed zakat fund reports. Most issuers still incorporate zakat, infaq, shadaqah, waqf, and other philanthropic funds, including CSR funds, within a broader sustainability report.

Theoretical Implications of the Study

This study fills a gap in the existing literature by offering a comprehensive valuation model, incorporating six key Sharia stock compliance variables, providing new insight into the factors that significantly affect the intrinsic value of Sharia shares. The research challenges and supports existing theories on several factors, including those demonstrating the impact of philanthropic funds and the role of cost efficiency in the context of Islamic finance. Future research can draw upon these discrepancies to expand and refine our understanding of the relationships between these variables and Sharia shares' intrinsic value. This study stands as an empirical example of panel data regression analysis within Islamic finance, providing a methodological foundation for future studies that may explore similar research questions or expand upon the variables used in developing the valuation model.

Practical Implications

Investors, asset managers, and financial institutions can utilize the valuation model and its insights to make more informed decisions while assessing the intrinsic value of Sharia shares. This will help them to better understand the potential opportunities and risks associated with investing in various Sharia-compliant instruments. On the other hand, Sharia stock issuers can draw upon the findings to improve their compliance with Islamic financial principles and enhance their performances. The study's emphasis on factors such as cost efficiency, philanthropic funds, and decreasing the dependence on interest financing can guide these companies in adopting strategies that maximize shareholder value while adhering to Sharia principles. The valuation model and its implications can act as a valuable benchmark for policymakers, regulatory bodies, and standard-setting organizations in the Islamic finance sector. It can serve as the foundation for future guidelines and regulations aimed at enhancing Sharia-compliant capital markets' efficiency, stability, and overall growth.

The study promotes greater transparency and disclosure for Sharia-compliant businesses, encouraging them to report their philanthropic activities and financial ratios with clarity. This increased transparency will benefit investors and stakeholders by providing a more accurate representation of a company's Sharia compliance status and performance. By examining the practical and theoretical implications of this research, we strive to expand our understanding of the Islamic finance landscape and its dynamics while offering valuable tools and guidance to investors, companies, regulators, and scholars alike.

Limitations of the Study

The study criteria used in this study are devoted to issuers who are consistently in the Jakarta Islamic Index during the period 2013–2019. The study criteria become a filter for various existing JII issuers until they can only be filtered through seven issuers after being reduced by outliers. The existence of sustainability report requirements as the fulfillment of philanthropic fund data also causes the range of study data to be shorter because the data is only published once a year by the company.

Conclusion

Our exploration has yielded an insightful valuation model concerning Sharia shares' intrinsic value evaluated based on Sharia stock compliance variables. In the context of this panel data regression model, we establish that five variables have a significant bearing on the Intrinsic Value of Sharia Shares in JII. These five factors include FTAR, CCR, IFR, SOCR (which negatively impact the Sharia share value), and PFR. Interestingly, the NSCR variable did not significantly affect the intrinsic value of Sharia Shares for the period 2013-2019.

The significant influence of FTAR indeed corroborates the execution of the provisions enshrined in the fatwa issued by the Halal Standards and Certification Board of the Indonesian Ulema Council (DSN MUI) number 20/DSN-MUI/IV/2001 Article 9 paragraph 1. Additionally, the NSCR ratio has negligible impact due to the minimal proportion of interest income in the total revenue, which ranges between 0.2% and 1.5% of total revenue. The model also reflects conformity with Fatwa DSN-MUI provisions given the dependency of the intrinsic share value upon both CCR and IFR ratios. Finally, the negative impact of SOCR on share values underscores the necessity of cost-efficiency measures to ensure satisfactory profit margins and suitable investor compensation.

Subsequent researchers have a valuable opportunity to build upon this study by addressing its limitations and potential areas of the study that could be developed more by further research. They may consider augmenting the sample size, extending the study period, specifying the variables that need to be retained, and broadening the assessment scope concerning the compliance of Sharia stock issuers. This more expansive and nuanced approach will no doubt provide even richer insights into the intricate dynamics and principles governing the valuation of Sharia shares, consequently enhancing our collective understanding of Islamic finance operations.

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