

# Relationship between Islamic bank consumptive financing and gross regional domestic product in Indonesia, 2016-2020

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## ABSTRACT

### Introduction

Previous literature discussed financing's impact on performance without separating the financing model.

### Objectives

This study uses the consumptive financing data of Islamic commercial banks, inflation rate, and population as independent variables, and the GRDP of 33 provinces in Indonesia as the dependent variable.

### Method

The study used Indonesia and Malaysia banks for its pioneering efforts in establishing Islamic banking in Southeast Asia. The study collects data from five Indonesian and four Malaysian Islamic banks, with an observation period of 2011-2020. The data analysis used in this study was the Generalized Method of Moment (GMM).

### Results

The results of this study explain that the consumptive financing of Islamic commercial banks has a negative insignificant effect on GRDP in Indonesia, the inflation rate has a negative insignificant effect on GRDP in Indonesia, and the population has a positive and significant impact on GRDP in Indonesia. Consumptive credit in conventional banks and consumptive financing in Islamic banks account for more than 45% of total financing.

### Implications

The Indonesian Financial Services Authority should adopt policies to maintain the growth of Islamic Bank productive financing, that is, working capital and investment financing, because Islamic bank consumptive financing has a negative effect on GRDP in Indonesia

### Originality/Novelty

This study has a unique feature compared with previous studies that use consumptive financing at Islamic banks with inflation and population variables to analyze the contribution of the local economy to gross regional domestic product.

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## INTRODUCTION

Indonesia has great potential in the Islamic banking sector, with abundant resources awaiting development. According to the United Nations (2021), 87.2 percent (229 million) of Indonesia's total population embraces Islam, which is equivalent to 13 percent of the global Muslim population. This sizable Muslim population provides a conducive environment for the growth of Islamic finance in Indonesia (Wahyuningsih & Nurzaman, 2020). Furthermore, Indonesia has a significant potential to leverage the growth of the Islamic financial sector to contribute to the overall Indonesian economy (Wasiaturrahma et al., 2020; Hasan, 2023). The Islamic finance industry also plays a crucial role in supporting the achievement of Sustainable Development Goals (Alawode et al., 2018; Laldin & Djafri, 2021; Araminta et al., 2022; Harahap et al., 2023) and the halal industry (Rachman & Syamsuddin, 2019; Mas'ad & Wakil, 2020; Hassan et al., 2021; Fariana et al., 2023).

The presence of Islamic banks in Indonesia aims to encourage the Muslim community to base all aspects of their economic lives on the principles of the Qur'an and Al-Hadith. Operating in accordance with Islamic religious rules, such as avoiding riba/usury, gharar/uncertainty, and maysir/gambling, Islamic banks strive to fulfill the needs of the Muslim community (Ascarya et al., 2022). This aligns with the guidance of the Quran in Surah An-Nisa, verse 29, which instructs Muslims to acquire wealth through fair means and engage in mutually beneficial trade agreements.

The banking sector has the potential to drive economic growth by channelling financial resources into the real sector (Herianingrum et al., 2019). The development of the financial sector plays a vital role in stimulating economic growth by allocating more financial resources to the productive sector (Timur et al., 2022; Timur & Herianingrum, 2022). This leads to the formation of additional physical capital, which positively contributes to economic growth (Wahyuningsih & Nurzaman, 2020). Sharia financing, along with the global development of the Islamic economy, is one of the fastest-growing segments of Islamic banking.

Financing can be categorized into household/consumptive and business/productive loans offered by both Islamic and non-Islamic banks. Many researchers have focused on household credit in their studies (Debelle, 2004; Abid et al., 2012; Charpe & Flaschel, 2013). Loans for property purchases and other consumption motives drive loan applications (Debelle, 2004; Kim et al., 2014). Research suggests that the share of household credit is higher in urban societies and in countries with smaller manufacturing sectors and more market-based financial systems. However, the market structure and regulatory policies do not significantly influence credit composition (T. Beck et al., 2012). However, these studies did not differentiate between household/consumptive credit from Islamic or non-Islamic banks.

In Indonesia, household credit (consumptive financing) accounts for 47.6% of Islamic bank financing, whereas non-Islamic banks provide only 28.28% (Otoritas Jasa Keuangan, 2021). Islamic banks have directed more financing towards consumptive needs rather than productive financing (working capital and/or investment financing)



between 2016 and 2020, representing 40–50% of their total financing. According to data from The Indonesian Financial Services Authority or Otoritas Jasa Keuangan abbreviated OJK (2021), consumptive financing from Islamic banks experienced significant growth during this period. The most substantial increase occurred from 2016 to 2017, from IDR 100 billion to IDR 119 billion (18% increase), and subsequently rose to IDR 139 billion in 2018, IDR 157 billion in 2019, and IDR 181 billion in 2020 (15% increase). This upward trend has implications for economic growth.

Indonesia consists of numerous provinces, each contributing to the Gross Domestic Product (GDP) through their respective Gross Regional Domestic Product (GRDP). Provinces located on Java and Sumatra are the highest contributors to GDP, with their GRDP accounting for 59% and 21% of Indonesia's total, respectively (Badan Pusat Statistik, 2021). Consequently, Islamic bank activities are concentrated in these provinces. Provinces on Java alone account for 55% of the total consumptive financing provided by Islamic banks in Indonesia, with Sumatra following in second place at 28% (Otoritas Jasa Keuangan, 2021). Islamic bank financing shows a negative but insignificant relationship with the GRDP of 33 provinces in Indonesia, whereas financing from non-Islamic banks exhibits a significantly positive relationship (Ramadhanty & Auwalin, 2021).

Previous studies relevant to this research have addressed several aspects. For instance, Damayanti (2022) analyzed the impact of foreign investment, domestic investment, exports, and inflation on Indonesia's GRDP. Another study by Beck et al. (2012) compared the effects of credit extended to companies (productive credit) with the credit used by households for consumptive purposes on economic growth. Wahyuningsih & Nurzaman (2020) examined the impact of Islamic financial instruments such as Sukuk on GRDP. While many studies still employ conventional financial instruments as variables, this study aims to offer a new perspective by focusing on consumptive financing from Islamic banks as the independent variable.

Hayet (2016) revealed that Islamic banks' consumptive finance, compared with investment and working capital financing (productive financing), has the most significant relationship with GRDP. Building on this insight, this study raises the question of whether consumptive financing from Islamic banks influences the economic growth (GRDP) of Indonesia's 33 provinces, given that Islamic banks have prioritized consumptive financing over productive financing in recent years (2016–2020). In addition, this study examines the role of inflation and population numbers as comparative factors.

## LITERATURE REVIEW

### Economic Growth

Economic growth is a quantitative measure that describes the development of an economy in a specific area and period. It serves as an indicator of ongoing or ongoing economic development in a country (Alatan, 2015). Through economic growth, governments can assess the progress of economic development within their jurisdictions (Supartoyo et al., 2018). The Gross Domestic Product (GDP) is an

appropriate tool for measuring economic activity on a national scale. On a regional scale, we commonly use Gross Regional Domestic Product, which represents the value of goods and services produced by an economy at the regional level within a year and is expressed in market prices (Supartoyo et al., 2018).

### **Islamic Perspective on Economic Growth**

There is a significant difference between economic growth from the Islamic perspective and conventional economic growth. The disparity lies in the viewpoints of each concept. The fundamental concept of conventional economic growth is the satisfaction of unlimited needs, resulting in unlimited efforts to fulfill those needs. In Islam, all economic activities aim to achieve social and economic welfare for participants (Jan et al., 2015; Ilmy & Setiawan, 2019). The fulfillment of material needs is permissible in the Islamic-based economic concept, as long as it considers spiritual morality. According to Chapra (1993), achieving an equitable distribution of economic welfare requires fulfilling five aspects: (1) providing training and employment opportunities for job seekers; (2) establishing a fair wage system for employees; (3) offering insurance coverage for work accidents, old-age benefits, and other welfare provisions; (4) ensuring equal opportunities for individuals with disabilities to obtain decent work; and (5) collecting and utilizing Zakat, Infaq, Sadaqah, and Waqf (ZISWAF) in accordance with Islamic principles (Ahmad, 1979; Iqbal & Mirakhor, 2010; Askari et al., 2014; Muttaqin, 2018).

### **Gross Regional Domestic Product**

According to Statistics Indonesia or Badan Pusat Statistik abbreviated BPS (2021), the Gross Regional Domestic Product (GRDP) measures all goods and services produced within a domestic area, regardless of the factors of production owned by the residents of that area. Domestic territory refers to a province or district/city area. The GRDP provides an interpretation of economic growth within a province and offers insights into the regional or provincial economic structure based on sectors and sub-sectors. The GRDP data can also reflect the inflation rate in each province or domestic region.

### **Islamic Banking**

According to Otoritas Jasa Keuangan (2021), Islamic banking has unique characteristics that differentiate it from conventional banking. One of the key principles of Islamic banking is the emphasis on partnerships and fair benefits to both banking actors and the community. This system prioritizes justice in ethical transactions and investments by promoting togetherness and partnership. Islamic banking avoids speculative activities in financial transactions and provides various banking products and services that are supported by different financial schemes (Hussain et al., 2015; Kammer et al., 2015).

The extensive use of various Islamic financial products and instruments in macroeconomic management helps integrate the financial and real sectors and fosters harmonization between the two. In addition to supporting finance and business, the widespread use of Sharia products and instruments reduces speculative



transactions, contributing to the overall financial system stability. Islamic banking contributes significantly to a country's economy and facilitates long-term price stability. The prohibition of usury in Islamic banking is based on the Qur'an, specifically Surah Ali Imran verse 130, which was the first verse to reveal the prohibition of usury. The verse refers to usury nasiah or usury jahiliyyah, which were prevalent during that time (Yulianti, 2002; Kafabih & Manzilati, 2018).

Islamic banks in Indonesia have been established since the 1980s following the issuance of the October 1988 Policy Package (Pakto 88). PT. Bank Muamalat Tbk. was the first Islamic bank in Indonesia, established in 1992 with full support from the Indonesian government. Islamic banks in Indonesia function as intermediary institutions, collecting funds from the public and channeling them to those in need (Hayet, 2016). They operate in accordance with Islamic law and offer various products aligned with Islamic banking principles, contributing to currency stability and avoiding the creation of a bubbling economy (Sari et al., 2016; Utama, 2018; Sholihin et al., 2022).

### **Conventional Bank Financing/Credit**

Credit provided by conventional banks is an intermediary activity in which banks collect funds from the public with surplus funds and distribute them to individuals or companies in need of financing (Rokhim & Yanti, 2014). Banks play a crucial role in facilitating credit and supporting economic growth (Hartarska et al., 2015). In conventional banking, the interest system is used for credit activities. Interest rates represent the payments made for borrowing money from banks (Edwards & Mishkin, 1995; Angbazo, 1997). The bank's profit is obtained from the spread between the lending interest rate and deposit interest rate provided by third-party funds. Therefore, credit activities in conventional banking significantly affect bank performance (Panuntun & Sutrisno, 2019; Lutfi et al., 2023). Commercial credit refers to credit extended by banks to companies or individuals for commercial activities, such as consumer, working capital, and investment credit (Alatan, 2015).

### **Inflation**

Inflation is a critical aspect of an economy in which governments focus within a region. It serves as a vital indicator of macroeconomic control and has a broad impact on various economic sectors (Susanto & Rachmawati, 2013). Inflation is defined as a general and persistent increase in prices that results in a decrease in people's purchasing power and real income. Although inflation can be a positive economic driver when it occurs on an ideal scale, continuous price increases can have detrimental effects on the economy (Ghalayini, 2011; De Gregorio, 2012). Inflation can be classified into four types: (1) creeping inflation, with an annual ratio of less than 10% (Holzman, 1959; Schultze, 1960); (2) galloping inflation, with a ratio of 10%–30% per year (Geda & Tafere, 2008; Kračun, 1988); (3) heavy inflation or high inflation, with a magnitude of 30%–100% per year (Faria & Carneiro, 2001; Taylor, 2019); and (4) hyperinflation, with a magnitude exceeding 100%, which is generally avoided by countries because of its severe consequences (Sargent & Wallace, 1973; Bomberger & Makinen, 1983). The causes of inflation include demand pull, cost pressure, import

activities, and economic issues within a country. Inflation can also be triggered by contagion from other countries that experience inflation. Excessive and sustained inflation can lead to reduced efficiency and productivity, weakened investments, increased capital costs, and uncertainty regarding future costs and income (Johnson, 1963; Parakassi, 2017).

### Inflation in Islamic Perspective

From an Islamic perspective, inflation is not considered an urgent economic problem. In an Islamic-based economy, currencies are expected to remain stable (Wulan & Nurfaiza, 2014; Parakassi, 2017; Umar et al., 2020; Nugraha et al., 2023). While a decline in value is still possible, the value of gold that supports the Islamic economic currency, namely dinar and dirham, is not expected to decrease significantly according to Islamic economists (Parakassi, 2017). Inflation can be classified into two types: natural inflation, caused by natural factors beyond societal or governmental control, and human error inflation, resulting from human actions deviating from the rules and Sharia principles in the economy (Parakassi, 2017). Islamic principles emphasize the prohibition of oppression and wrongdoing, including in the economy. Acts of destruction by individuals have wide-ranging impacts on both the perpetrator and broader community.

### Population

The economic growth of a region is closely tied to its population, which acts as a driving force for its economy. Population serves a dual function in the economy. On the demand side, residents are consumers who create demand for goods and services, whereas on the supply side, they are producers who generate goods or services (Herlina, 2014). Population growth plays a crucial role in economic development and benefits both developed and developing countries. High population growth coupled with technological advancements stimulates production and expands domestic and international markets (Herlina, 2014).

Based on previous research in Table 1, this study contributes to the literature by introducing consumptive financing variables for Islamic banks in Indonesia as a point of differentiation. The study compares these variables with inflation and population variables using a panel data regression analysis technique.

**Table 1.** Previous studies on relevant topics

Study	Variables	Method	Findings
Damayanti (2022)	Foreign investment, domestic investment, exports and inflation on the gross regional domestic	Quantitative method, descriptive multiple linear regression approach	FDI, PMDN, exports and inflation simultaneously affected the GRDP of North Sumatra Province.
Wahyuningsih & Nurzaman (2020)	Sovereign sukuk, Islamic bank financing, zakat, and GDP	Quantitative method, using descriptive and multiple linear regression approach	Sovereign sukuk, Islamic bank financing and zakat had significant effect on the GDP in Indonesia

Study	Variables	Method	Findings
Nofrianto et al. (2021)	Islamic bank financing, investment, government spending, and economic growth	Quantitative descriptive method using the Vector Error Correction Model (VECM) analysis	Islamic bank financing and investment respectively have a significant, negative effect on economic growth, while government spending has a positive and significant effect on economic growth in Indonesia.
Sassi & Gasmi (2014)	Initial income per capita, government consumption, inflation rate, household credit, enterprise credit, economic growth	Quantitative method using Ordinary Least Square (OLS) approach	Enterprise credit market affects positively economic growth whereas household credit market has a negative effect.
Caporale & Helmi (2018)	Credit and gross domestic product (GDP)	Quantitative method using Vector Error Correction Model (VECM)	The time series analysis provides evidence of long-run causality running from credit to GDP in countries with Islamic banks

Source: Authors' collection.

## METHOD

The research employed in this study is a quantitative explanatory approach that utilizes multiple regression analysis techniques, specifically panel data regression (Wooldridge, 2010). Panel data regression is a method that considers the unique characteristics of panel data, allowing for the analysis of cross-sectional variation. The data used in this study are secondary data obtained from statistical reports on Islamic banking by Otoritas Jasa Keuangan and Badan Pusat Statistik. The dataset includes Islamic banking consumptive financing and nominal GDP at constant prices for the period–2016–2020. The sample consists of 33 provinces in Indonesia (excluding the 34th province, North Borneo, due to limited data on Islamic banking consumptive financing for the years 2016–2020). The empirical model used in this study was based on the equation provided above.

$$I\_PDRB_{it} = \alpha + \beta_1 I\_PK_{it} + \beta_2 I\_Population_{it} + \beta_3 Inflation_{it} + \varepsilon$$

Description:

$I\_PDRB_{it}$ : log natural PDRB province  $i$  in years  $t$

$\alpha$  : constant

$\beta_1$  : coefficient

$I\_PK$  : log natural consumtive financing Islamic bank province  $i$  in years  $t$

$\beta_2$  : coefficient

$I\_Population$  : log natural population province  $i$  in years  $t$

$\beta_4$  : coefficient

$Inflation$ : inflation province in years  $t$

$\varepsilon$  : error

## RESULTS

This study uses the GRET application (Cottrell & Lucchetti, 2023) to perform a regression on the panel data. The best model was selected using Chow and Hausman tests. From the results of the Chow test and the Hausman test, the use of the fixed effects model (FEM) or random effects model (REM) will be determined.

**Table 2.** Fixed-Effects, Dependent Variable: 1\_GRDP

	Coefficient	Std. Error	t-Ratio	P-Values	Notes
Constanta	0.00859030	0.113333	0.07580	0.9407	
1_PK	-0.0909317	0.0732265	-1.242	0.2363	
1_Populasi	1.10762	0.0746950	14.83	<0.0001	***
Inflation	-5.17888e-06	4.29238e-06	-1.207	0.2491	
Within R-Square					0.998476
p-values (F)					1.92e-16
Chow Test					0.579744

Source: Primary data, authors' estimation.

Notes: \*\*\*  $p$ -values < 0.05, significant

Identification was performed using the Chow test probability value. If the probability value has a significant value for alpha ( $\alpha$ ), which is 0.05, it can be concluded that the fixed effects model has better results when choosing from. The Chow test probability value results were 0.579744; therefore, this study used the Fixed Effect Model (FEM).

**Table 3.** Random-Effects (GLS), Dependent Variable: 1\_GRDP

	Coefficient	Std. Error	Z	P-Values	Notes
Constanta	0.00685301	0.0833381	0.08223	0.9345	
1_PK	-0.0929115	0.0528171	-1.759	0.0786	
1_Populasi	1.10955	0.0511932	21.67	<0.0001	***
Inflation	-4.77608e-06	3.00520e-06	-1.589	0.1120	

Source: Primary data, authors' estimation.

Notes: \*\*\*  $p$ -values < 0.05, significant

After regressing panel data using either the fixed effect model or random effect model, the next step is to use the Hausman test to determine which model to use.

**Table 4.** Hausman Test

Null hypothesis: GLS estimates are consistent
Asymptotic test statistic: Chi-square (3) = 0.0733752
with P-value = 0.994829

Source: Primary data, authors' estimation.

The Hausman test contained in Table 4 states that the fixed effect model is less consistent. The selection of a suitable model for this study was a random-effects model. This is because the P-value is more significant than the significance level ( $0.994829 > 0.05$ ); therefore,  $H_0$  that the estimation of the Random Effect Model (GLS) is consistently accepted, which means that the random effect model is more consistent. Based on the above description, the model in this study can be written as follows:

$$I\_PDRB_{it} = 0.00685301 + -0.0929115 I\_PK_{it} + 1.10955 I\_Population_{it} + -0.00000477608 Inflation_{it} + \varepsilon$$

Based on the regression equation, the constant value of 0,00685301 shows that when all independent variables consisting of consumptive financing of Islamic banks (PK), inflation, and population are zero, then the value of GRDP in provinces in Indonesia is 0,00685301 or anti  $I\_$  from 0,00685301 is 1.0159048 billion rupiah.

The coefficient value of  $I\_PK_{it}$  of -0.09291151 means that every 1% increase in consumptive financing Islamic banks will reduce GRDP by 0.0929%, *ceteris paribus* (not significant because  $p$ -values > 0.05). The coefficient value of the  $I\_Population_{it}$  variable of 1.109551 indicates that every 1% increase in the population will increase GRDP by 1.1095%, *ceteris paribus* (significant because  $p$ -values < 0.05). An inflation coefficient value of -0.00000477608 means that every 1% increase in inflation occurs, and it will reduce GRDP by 0.0000047%, *ceteris paribus* (not significant because  $p$ -values > 0,05).

## DISCUSSION

The data analysis above reveals that Islamic consumptive financing by Islamic banks has a detrimental impact on GRDP, as indicated by a coefficient value of -0.0929115. This suggests that at the provincial level, consumptive financing by Islamic banks does not play an optimal role. Theoretical predictions indicate that household/consumer and enterprise/productive credit affect the economy. However, the level of household/consumptive credit may influence overall macroeconomic outcomes, including economic growth (R. Beck et al., 2014; Bahadir & Valev, 2015; Mandel & Seydl, 2016).

Moreover, the financing provided by Islamic commercial banks tends to be directed toward consumptive purposes. While this type of financing does not impact GRDP, it tends to make people more oriented toward consumption rather than productivity. This study aligns with the theory that enterprise credit is positively associated with economic growth, while household credit is not, and enterprise credit is significantly linked to faster reductions in income inequality. However, household credit cannot significantly reduce income inequality (T. Beck et al., 2012). A similar empirical assessment (Sassi & Gasmii, 2014) on the effects of business and household credit on economic growth in European countries also found that business credit boosts economic growth, while household credit hampers economic growth.

Likewise, Caporale & Helmi (2018) suggest in their research that the government should develop policies aimed at increasing the proportion of investment and productive credit, while limiting speculative credit. This stimulates economic growth and helps to avoid a global financial crisis (Cuestas et al., 2023). Allocating credit directly related to actual economic activities can foster long-term economic growth (Caporale & Helmi, 2018; Fatmawati, 2022). This conclusion is also supported by Taujiharrahan et al. (2021) who stated that financing provided to productive sectors, such as MSMEs, has a positive and significant impact on GRDP. Financing directed toward the MSME sector can reduce poverty rates by increasing the demand for labor and raising per capita income from workers' wages (Taujiharrahan et al., 2021).

However, it should be noted that although consumptive financing in Islamic banking has a negative impact on GRDP, the effect is not significant. Nofrianto et al. (2021) stated that the market share of Islamic banks is still relatively small compared to pre-existing conventional banks. Data from Otoritas Jasa Keuangan (2021) reveal that consumer financing for Islamic banks in Indonesia is only approximately IDR 181 billion. This value is relatively small compared to the value of consumer financing in commercial banks, thus having a minimal effect on Indonesia's GRDP.

Furthermore, this study contradicts the findings of Hayet (2016) who empirically assessed the effect of Islamic banks' consumptive finance on GRDP in West Borneo and found a positive effect compared to investment and working capital financing (productive financing). Since this study demonstrates the negative effect of consumptive financing by Islamic banks across all Indonesian provinces, regulators are obligated to establish regulations that promote the expansion of Islamic bank financing, particularly in the areas of productivity and investment. Islamic banks serve as a medium to help communities achieve prosperity through righteous business practices. The misuse of resources can be seen as excessive production/consumption, which leads to increased inflation.

On the other hand, the results of this study also indicate that inflation affects GRDP, but not significantly. These findings confirm the results of other studies (Antoni et al., 2019; Ramadhanty & Auwalin, 2021; Damayanti, 2022) that inflation has an effect on GRDP, but the effect is not significant. A high inflation leads to increased product prices, reducing people's purchasing power and making it difficult for them to meet ends (Ramadhanty & Auwalin, 2021). Inflation influences the prices of goods in certain sectors. High inflation raises a company's production costs and hinders its growth (Antoni et al., 2019). Therefore, investors are motivated to shift to other sectors aligned with national productivity growth.

Although the effect of inflation on GDRP was not significant in this study, regional governments still need to consider inflation when formulating policies. Government intervention through legislation and regulations related to trade, import quotas, and determination of the upper and lower limits of production costs is necessary to stabilize prices and minimize inflation (Damayanti, 2022). High inflation can cause economic instability, reduce investment, hinder exports, and contribute to an increase in the unemployment rate.

Likewise, an increase in population will also lead to increased economic activity in a region. When the population increases, consumption also increases, which in turn stimulates production (Ramadhanty & Auwalin, 2021). Several sectors, such as agriculture and manufacturing, often require a large number of workers, and having a higher population in an area is advantageous in meeting these labor needs and contributing to the region's economy through GRDP (Andayani & Miftahuddin, 2018). However, this holds true only if the population is good and decent. An insufficient population quality can lead to increased unemployment (Ramadhanty & Auwalin, 2021).

## CONCLUSION

Based on the background chapter, problem formulation, discussion, and result analysis presented above, it can be concluded that the variables of consumptive financing by Islamic banks, inflation, and population statistically affect the GRDP in Indonesian provinces from 2016 to 2020. The consumptive financing variable by Islamic banks exhibits a negative relationship with GRDP in Indonesian provinces during the specified period. The inflation variable demonstrates a negative relationship with GRDP in Indonesian provinces from 2016 to 2020. Additionally, the population variable exhibited a significant positive relationship in the Indonesian provinces during the same period.

The results of this study have several implications for the Islamic banking sector, government, and Bank Indonesia as regulators. First, Islamic banks and the government should actively promote an increase in productive financing by Islamic banks, particularly in the areas of investment and working capital financing. This encouragement can take the form of soft loan programs targeting debtors seeking productive funding. Second, Bank Indonesia can provide macroprudential incentives by easing the requirement for rupiah demand deposits at Bank Indonesia, which would be granted to Islamic banks extending credit/financing to priority productive sectors such as MSMEs. Such a policy can be implemented concurrently to achieve *Rasio Pembiayaan Inklusif Makroprudensial* (RPIM) in Bahasa Indonesia or Macroprudential Inclusive Financing Ratio targets. These incentives are likely to stimulate banking intermediation, especially for priority sectors that are still recovering from the Covid-19 pandemic.

## Author Contributions

Conceptualization	C.S.P. & Y.P.T.	Resources	C.S.P. & Y.P.T.
Data curation	C.S.P. & Y.P.T.	Software	C.S.P. & Y.P.T.
Formal analysis	C.S.P., S.H., R.P.R., N.L.Z., & Y.P.T.	Supervision	C.S.P.
Funding acquisition	C.S.P. & Y.P.T.	Validation	C.S.P. & Y.P.T.
Investigation	C.S.P. & Y.P.T.	Visualization	C.S.P. & Y.P.T.
Methodology	C.S.P. Y.P.T.	Writing – original draft	C.S.P., S.H., R.P.R., N.L.Z., & Y.P.T.
Project administration	C.S.P. & Y.P.T.	Writing – review & editing	C.S.P., S.H., R.P.R., N.L.Z., & Y.P.T.

All authors have read and agreed to the published version of the manuscript.

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## Informed Consent Statement

Informed consent was not required for this study.

## Data Availability Statement

The data presented in this study are available at <https://doi.org/10.6084/m9.figshare.23590053>.

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## Conflicts of Interest

The authors declare no conflicts of interest.

## REFERENCES

- Abid, L., Dorra, Z., & Sonia, Z. G. (2012). Household indebtedness in Tunisia. *E3 Journal of Business Management and Economics*, 3(10), 341–350. <https://www.e3journals.org/abstracts.php?artID=226&jid=1>
- Ahmad, K. (1979). *Economic development in an Islamic framework*. Islamic Foundation.
- Alatan, T. S. D. (2015). Pengaruh pemberian kredit terhadap ekonomi regional Jawa Timur [The effect of granting credit to the regional economy of East Java]. *Finesta*, 3(1), 63–67. <https://publication.petra.ac.id/index.php/manajemen-keuangan/article/view/2967>
- Alawode, A., Aziz, A. H. A., & Aviles, A. M. (2018, February 15). *Sustainable Development Goals and the role of Islamic finance*. World Bank Blogs. <https://blogs.worldbank.org/eastasiapacific/sustainable-development-goals-and-role-islamic-finance>
- Andayani, K. & Miftahuddin. (2018). Economic base determination and influence of several variables against contributions percentage of the GDRP in Aceh Besar district. *IOP Conference Series: Materials Science and Engineering*, 352, 012053. <https://doi.org/10.1088/1757-899X/352/1/012053>
- Angbazo, L. (1997). Commercial bank net interest margins, default risk, interest-rate risk, and off-balance sheet banking. *Journal of Banking & Finance*, 21(1), 55–87. [https://doi.org/10.1016/S0378-4266\(96\)00025-8](https://doi.org/10.1016/S0378-4266(96)00025-8)
- Antoni, Aimon, H., Nasfi, Ramadonna, Y., & Subhan, M. (2019). The effect of internal and external factors on bank investment credit's demands. *Jurnal Ekonomi Malaysia*, 53(2), 1–12. <http://www.ukm.my/fep/jem/content/2019-2.html>
- Araminta, D. V., Qudziyah, Q., & Timur, Y. P. (2022). The role of green sukuk in realizing the Sustainable Development Goals 2030 agenda. *Jurnal Ekonomi Dan Bisnis Islam*, 8(2), 251–266. <https://doi.org/10.20473/jebis.v8i2.37531>
- Ascarya, A., Suharto, U., & Husman, J. A. (2022). Proposed model of integrated Islamic commercial and social finance for Islamic bank in Indonesia. *Eurasian Economic Review*, 12(1), 115–138. <https://doi.org/10.1007/s40822-022-00201-z>
- Askari, H., Iqbal, Z., Krichene, N., & Mirakhor, A. (2014). Understanding development in an islamic framework. *Islamic Economic Studies*, 22(1), 1–36. <https://doi.org/10.12816/0004129>
- Badan Pusat Statistik. (2021). *Produk domestik regional bruto provinsi-provinsi di Indonesia menurut pengeluaran, 2016-2020 [Gross regional domestic product of Indonesian provinces by expenditure, 2016-2020]*. Badan Pusat Statistik. <https://www.bps.go.id/publication/2021/04/29/3b07d2da8d2cc85f281f80b5/produk-domestik-regional-bruto-provinsi-provinsi-di-indonesia-menurut-pengeluaran--2016-2020.html>

- Bahadir, B., & Valev, N. (2015). Financial development convergence. *Journal of Banking & Finance*, 56, 61–71. <https://doi.org/10.1016/j.jbankfin.2015.03.001>
- Beck, R., Georgiadis, G., & Straub, R. (2014). The finance and growth nexus revisited. *Economics Letters*, 124(3), 382–385. <https://doi.org/10.1016/j.econlet.2014.06.024>
- Beck, T., Büyükkarabacak, B., Rioja, F. K., & Valev, N. T. (2012). Who gets the credit? And does it matter? Household vs. firm lending across countries. *The B.E. Journal of Macroeconomics*, 12(1). <https://doi.org/10.1515/1935-1690.2262>
- Bomberger, W. A., & Makinen, G. E. (1983). The Hungarian hyperinflation and stabilization of 1945–1946. *Journal of Political Economy*, 91(5), 801–824. <https://doi.org/10.1086/261182>
- Caporale, G. M., & Helmi, M. H. (2018). Islamic banking, credit, and economic growth: Some empirical evidence. *International Journal of Finance & Economics*, 23(4), 456–477. <https://doi.org/10.1002/ijfe.1632>
- Chapra, M. U. (1993). *Islam and economic development: A strategy for development with justice and stability*. International Institute of Islamic Thought and Islamic Research Institute.
- Charpe, M., & Flaschel, P. (2013). Workers' debt, default and the diversity of financial fragilities. *Structural Change and Economic Dynamics*, 27, 48–65. <https://doi.org/10.1016/j.strueco.2013.07.001>
- Cottrell, A., & Lucchetti, R. (2023). *Gret!* (Version 2023a). <https://gret.sourceforge.net/index.html>
- Cuestas, J. C., Gil-Alana, L. A., & Malmierca, M. (2023). Credit-to-GDP ratios – Non-linear trends and persistence: Evidence from 44 OECD economies. *Journal of Economic Studies*, 50(3), 448–463. <https://doi.org/10.1108/JES-12-2021-0637>
- Damayanti, D. R. (2022). Analysis of the influence of FDI, PMDN, exports and inflation on North Sumatra's GRDP in 2001–2020. *Asian Journal of Applied Business and Management*, 1(2), 53–68. <https://doi.org/10.55927/ajabm.v1i2.1964>
- De Gregorio, J. (2012). Commodity prices, monetary policy, and inflation. *IMF Economic Review*, 60(4), 600–633. <https://doi.org/10.1057/imfer.2012.15>
- Debelle, G. (2004). *Household debt and the macroeconomy* [BIS Quarterly Review]. Bank for International Settlements. [https://www.bis.org/publ/qtrpdf/r\\_qt0403e.htm](https://www.bis.org/publ/qtrpdf/r_qt0403e.htm)
- Edwards, F. R., & Mishkin, F. S. (1995). The decline of traditional banking: Implications for financial stability and regulatory policy. *Economic Policy Review*, 1(2), 27–47. <https://www.newyorkfed.org/research/epr/95v01n2/9507edwa.html>
- Faria, J. R., & Carneiro, F. G. (2001). Does high inflation affect growth in the long and short run? *Journal of Applied Economics*, 4(1), 89–105. <https://doi.org/10.1080/15140326.2001.12040559>
- Fariana, A., Sariipudin, S., Rukmana, O., & Al. (2023). Religious humanism synergy to develop creative industry-based halal tourism in Indonesia. *Al-Iqtishad Journal of Islamic Economics*, 14(2), 381–398. <https://doi.org/10.15408/aiq.v14i2.28354>
- Fatmawati, K. (2022). Gross domestic product: Financing & investment activities and state expenditures. *Kinerja: Jurnal Manajemen Organisasi Dan Industri*, 1(1), 11–18. <https://jurnalpustek.org/index.php/kjmb/article/view/3>
- Geda, A., & Tafere, K. (2008, October 10). *The galloping inflation in Ethiopia: A cautionary tale for aspiring 'developmental states' in Africa*. [https://www.researchgate.net/publication/283053539\\_The\\_Galloping\\_Inflation\\_in\\_Ethiopia\\_A\\_Cautionary\\_Tale\\_for\\_Aspiring\\_Developmental\\_States\\_in\\_Africa](https://www.researchgate.net/publication/283053539_The_Galloping_Inflation_in_Ethiopia_A_Cautionary_Tale_for_Aspiring_Developmental_States_in_Africa)

- Ghalayini, L. (2011). The interaction between oil price and economic growth. *Middle Eastern Finance and Economics*, 13, 127–141. [https://www.researchgate.net/publication/235939209\\_The\\_Interaction\\_between\\_Oil\\_Price\\_and\\_Economic\\_Growth](https://www.researchgate.net/publication/235939209_The_Interaction_between_Oil_Price_and_Economic_Growth)
- Harahap, B., Risfandy, T., & Futri, I. N. (2023). Islamic law, Islamic finance, and Sustainable Development Goals: A systematic literature review. *Sustainability*, 15(8), 6626. <https://doi.org/10.3390/su15086626>
- Hartarska, V., Nadolnyak, D., & Shen, X. (2015). Agricultural credit and economic growth in rural areas. *Agricultural Finance Review*, 75(3), 302–312. <https://doi.org/10.1108/AFR-04-2015-0018>
- Hasan, Z. (2023). The value and performance of Islamic banking in Indonesia. *Iqtishadia*, 15(2), 191–214. <https://doi.org/10.21043/iqtishadia.v15i2.16508>
- Hassan, M. K., Rabbani, M. R., & Chebab, D. (2021). Integrating Islamic finance and halal industry: Current landscape and future forward. *International Journal of Islamic Marketing and Branding*, 6(1), 60–78. <https://doi.org/10.1504/IJIMB.2021.117594>
- Hayet, H. (2016). Analisis pengaruh pertumbuhan pembiayaan modal kerja, investasi dan konsumsi pada perbankan umum syariah terhadap pertumbuhan produk domestik regional bruto (PDRB) Kalimantan Barat periode 2009–2013 [Analysis of the effect of growth in working capital financing, investment and consumption in Islamic banking on the growth of West Kalimantan's gross regional domestic product (GRDP) in the period 2009–2013]. *Jurnal Ekonomi Bisnis Dan Kewirausahaan*, 5(1), 54–72. <https://doi.org/10.26418/jebik.v5i1.16183>
- Herianingrum, S., Ratnasari, R. T., Widiastuti, T., Mawardi, I., Amalia, R. C., & Fadhlillah, H. (2019). The impact of Islamic bank financing on business. *Entrepreneurship and Sustainability Issues*, 7(1), 133–145. [https://doi.org/10.9770/jesi.2019.7.1\(11\)](https://doi.org/10.9770/jesi.2019.7.1(11))
- Herlina, E. (2014). Faktor-faktor yang mempengaruhi belanja daerah serta dampaknya terhadap produk domestik regional bruto Kabupaten Berau [Factors affecting regional spending and their impact on the regional gross domestic product of Berau Regency]. *Journal of Innovation in Business and Economics*, 4(1), 25. <https://doi.org/10.22219/JIBE.Vol4.No1.25-44>
- Holzman, F. D. (1959). Creeping inflation. *The Review of Economics and Statistics*, 41(3), 324–329. <https://doi.org/10.2307/1927465>
- Hussain, M., Shahmoradi, A., & Turk, R. (2015). *An overview of Islamic finance* (IMF Working Papers WP/15/120; pp. 1–35). The International Monetary Fund. <https://www.imf.org/external/pubs/ft/wp/2015/wp15120.pdf>
- Ilmy, R. M., & Setiawan, I. (2019). The concept of production, distribution, and consumption in Islamic economics. *Review of Islamic Economics and Finance*, 2(1), 41–46. <https://doi.org/10.17509/rief.v2i1.17637>
- Iqbal, Z., & Mirakhor, A. (2010). An Islamic perspective on economic development. In W. El-Ansary & D. K. Linnan (Eds.), *Muslim and christian understanding: Theory and application of "a common word"* (pp. 221–233). Palgrave Macmillan US. [https://doi.org/10.1057/9780230114401\\_17](https://doi.org/10.1057/9780230114401_17)
- Jan, S., Ullah, K., & Asutay, M. (2015). *Knowledge, work, and social welfare as Islamic socioeconomic development goals* (SSRN Scholarly Paper No. 2836305). <https://papers.ssrn.com/abstract=2836305>
- Johnson, H. G. (1963). A survey of theories of inflation. *Indian Economic Review*, 6(3), 29–69. <https://www.jstor.org/stable/42657300>



- Kafabih, A., & Manzilati, A. (2018). A hadith about riba and the relationship with occupation: Which one is preferable between merchant and Islamic bank clerk? *Journal of Islamic Economics Lariba*, 4(1), 37–45. <https://doi.org/10.20885/jielariba.vol4.iss1.art4>
- Kammer, A., Norat, M., Piñón-Farah, M. A., Prasad, A., Towe, Christopher M., Zeidane, Z., & an IMF Staff Team. (2015). *Islamic finance: Opportunities, challenges, and policy options* [IMF Staff Discussion Notes No. 2015/005]. The International Monetary Fund. <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2016/12/31/Islamic-Finance-Opportunities-Challenges-and-Policy-Options-42816>
- Kim, H. J., Lee, D., Son, J. C., & Son, M. K. (2014). Household indebtedness in Korea: Its causes and sustainability. *Japan and the World Economy*, 29, 59–76. <https://doi.org/10.1016/j.japwor.2013.12.001>
- Kračun, D. (1988). A cost-push model of galloping inflation: The case of Yugoslavia. In H. Motamen (Ed.), *Economic modelling in the OECD countries* (pp. 507–538). Springer Netherlands. [https://doi.org/10.1007/978-94-009-1213-7\\_24](https://doi.org/10.1007/978-94-009-1213-7_24)
- Laldin, M. A., & Djafri, F. (2021). The role of Islamic Finance in achieving Sustainable Development Goals (SDGs). In M. K. Hassan, M. Saraç, & A. Khan (Eds.), *Islamic finance and sustainable development* (pp. 107–126). Springer. [https://doi.org/10.1007/978-3-030-76016-8\\_6](https://doi.org/10.1007/978-3-030-76016-8_6)
- Lutfi, B. A., Prasetyo, A., Timur, Y. P., & Rifqi, M. (2023). Exploring gender differences in determinants of Bank Aladin Sharia adoption: A multi-group analysis approach. *Jurnal Ekonomi Dan Bisnis Airlangga*, 33(1), 40–52. <https://doi.org/10.20473/jeba.V33I12023.40-52>
- Mandel, B. R., & Seydl, J. (2016). Credit conditions and economic growth: Recent evidence from US banks. *Economics Letters*, 147, 63–67. <https://doi.org/10.1016/j.econlet.2016.08.017>
- Mas'ad, M. A., & Wakil, N. A. A. (2020). Halal industry and Islamic finance institution's role: Issues and challenges. *INSLA E-Proceedings*, 3(1), 643–659. <https://insla.usim.edu.my/index.php/eproceeding/article/view/76>
- Muttaqin, R. (2018). Pertumbuhan ekonomi dalam perspektif Islam [Economic growth in an Islamic perspective]. *Maro: Jurnal Ekonomi Syariah Dan Bisnis*, 1(2), 117–122. <https://doi.org/10.31949/mr.v1i2.1134>
- Nofrianto, N., Muliana, Y., & Cahyadi, A. (2021). The impact of Islamic bank financing, government spending, and investment on economic growth in Indonesia. *Signifikan: Jurnal Ilmu Ekonomi*, 10(2), 299–310. <https://doi.org/10.15408/sjie.v10i2.20469>
- Nugraha, A. L., Janwari, Y., Athoillah, M. A., & Mulyawan, S. (2023). Inflation and monetary policy: Bank Indonesia's role in suppressing the inflation rate of Islamic economic objectives. *Islamic Economics and Business Review*, 2(1), 96–111. <https://ejournal.upnvj.ac.id/iesbir/article/view/5697>
- Otoritas Jasa Keuangan. (2021). *Sharia banking statistic—December 2020*. Otoritas Jasa Keuangan. <https://ojk.go.id/en/kanal/perbankan/data-dan-statistik/statistik-perbankan-syariah/Pages/Sharia-Banking-Statistic---December-2020.aspx>
- Panuntun, B., & Sutrisno, S. (2019). Faktor penentu penyaluran kredit perbankan: Studi kasus pada bank konvensional di Indonesia [Determinants of bank lending: Case studies on conventional banks in Indonesia]. *JAD: Jurnal Riset Akuntansi & Keuangan Dewantara*, 1(2), 57–66. <https://doi.org/10.26533/jad.v1i2.235>
- Parakassi, I. (2017). Inflasi dalam perspektif Islam [Inflation in an Islamic perspective]. *Laa Maisyir: Jurnal Ekonomi Islam*, 4(2), 41–58. <https://doi.org/10.24252/lamaisyir.v4i2.4420>

- Rachman, M. A., & Syamsuddin. (2019). Halal industry in Indonesia: Role of sharia financial institutions in driving industrial and halal ecosystem. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah*, 11(1), 35–58. <https://doi.org/10.15408/aiq.v11i1.10221>
- Ramadhanty, R. P., & Auwalin, I. (2021). Pengaruh pembiayaan perbankan bank umum syariah terhadap PDRB provinsi di Indonesia tahun 2010–2019 [The influence of Islamic commercial bank banking financing on provincial GRDP in Indonesia in 2010–2019]. *Jurnal Ekonomi Syariah Teori Dan Terapan*, 8(1), 8–17. <https://doi.org/10.20473/vol8iss2021pp8-17>
- Rokhim, R., & Yanti, M. I. S. M. (2014). Risiko NPL kredit bank pembangunan daerah sebagai regional champion [Non-performing loan risk of regional development bank loans as regional champions]. *Jurnal Keuangan Dan Perbankan*, 18(1), 120–129. <https://doi.org/10.26905/jkdp.v18i1.783>
- Sargent, T. J., & Wallace, N. (1973). Rational expectations and the dynamics of hyperinflation. *International Economic Review*, 14(2), 328–350. <https://doi.org/10.2307/2525924>
- Sari, M. D., Bahari, Z., & Hamat, Z. (2016). History of Islamic bank in Indonesia: Issues behind its establishment. *International Journal of Finance and Banking Research*, 2(5), 178–184. <https://doi.org/10.11648/j.ijfbr.20160205.13>
- Sassi, S., & Gasmi, A. (2014). The effect of enterprise and household credit on economic growth: New evidence from European Union countries. *Journal of Macroeconomics*, 39, 226–231. <https://doi.org/10.1016/j.jmacro.2013.12.001>
- Schultze, C. L. (1960). Creeping inflation Causes and consequences. *Business Horizons*, 3(2), 65–77. [https://doi.org/10.1016/S0007-6813\(60\)80046-8](https://doi.org/10.1016/S0007-6813(60)80046-8)
- Sholihin, M., Andari, D., Sholihin, M., & Andari, D. (2022). Islamic banking and Islamic accounting in Indonesia: History and recent development. In N. M. Alsharari (Ed.), *Banking and accounting issues* (pp. 1–15). IntechOpen. <https://doi.org/10.5772/intechopen.103654>
- Supartoyo, Y. H., Juanda, B., Firdaus, M., & Effendi, J. (2018). Pengaruh sektor keuangan bank perkreditan rakyat terhadap perekonomian regional wilayah Sulawesi [The influence of the people's credit bank financial sector on the regional economy of the Sulawesi region]. *Kajian Ekonomi Dan Keuangan*, 2(1), 15–38. <https://doi.org/10.31685/kek.v2i1.207>
- Susanto, A. B., & Rachmawati, L. (2013). Pengaruh indeks pembangunan manusia (IPM) dan inflasi terhadap pertumbuhan ekonomi di Kabupaten Lamongan [The effect of the human development index (IPM) and inflation on economic growth in Lamongan Regency]. *Jurnal Pendidikan Ekonomi (JUPE)*, 1(3). <https://doi.org/10.26740/jupe.v1n3.p%p>
- Taujiharrahman, D., El-Junusi, R., & Fataron, Z. A. (2021). Financing relations of MSME and non-MSMEs, number of syariah bank offices to gross regional domestic product. *Al-Arbah: Journal of Islamic Finance and Banking*, 3(1), 1–20. <https://doi.org/10.21580/al-arbah.2021.3.1.7424>
- Taylor, J. B. (2019). Inflation targeting in high inflation emerging economies: Lessons about rules and instruments. *Journal of Applied Economics*, 22(1), 103–116. <https://doi.org/10.1080/15140326.2019.1565396>
- Timur, Y. P., & Herianingrum, S. (2022). The influence of entrepreneurship education on entrepreneurial intentions in Generation Z Muslim. *Jurnal Ekonomi Dan Bisnis Airlangga*, 32(1), 81–92. <https://doi.org/10.20473/jeba.v32i12022.81-92>
- Timur, Y. P., Ratnasari, R. T., & Author, N. (2022). Celebrity endorsers vs expert endorsers: Who can affect consumer purchase intention for halal fashion product? *Jurnal Ekonomi Dan Bisnis Islam*, 8(2), 220–236. <https://doi.org/10.20473/jebis.v8i2.37529>



- Umar, Z., Kenourgios, D., Naeem, M., Abdulrahman, K., & Al Hazaa, S. (2020). The inflation hedging capacity of Islamic and conventional equities. *Journal of Economic Studies*, 47(6), 1377–1399. <https://doi.org/10.1108/JES-04-2019-0183>
- United Nations in Indonesia. (2021). *United Nations in Indonesia country results report 2020*. United Nations in Indonesia. <https://indonesia.un.org/en/126105-united-nations-indonesia-country-results-report-2020>,
- Utama, A. S. (2018). History and development of Islamic banking regulations in the national legal system of Indonesia. *Al-Adalah*, 15(1), 37–50. <https://doi.org/10.24042/adalah.v15i1.2446>
- Wahyuningsih, I., & Nurzaman, M. S. (2020). Islamic financial instruments and economic growth; An evidence from Indonesia. *2020 6th International Conference on Information Management (ICIM)*, 46–50. <https://doi.org/10.1109/ICIM49319.2020.244668>
- Wasiaturrahma, Sukmana, R., Ajija, S. R., Salama, S. C. U., & Hudaifah, A. (2020). Financial performance of rural banks in Indonesia: A two-stage DEA approach. *Heliyon*, 6(7), e04390. <https://doi.org/10.1016/j.heliyon.2020.e04390>
- Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data* (Second edition). The MIT Press.
- Wulan, E. R., & Nurfaiza, S. (2014). Analysis of factors affecting inflation in Indonesia: An Islamic perspective. *International Journal of Nusantara Islam*, 2(2), 67–80. <https://doi.org/10.15575/ijni.v2i2.149>
- Yulianti, R. T. (2002). Riba dalam perspektif ekonomi Islam [Riba in the perspective of Islamic economics]. *Millah*, 1(2), 51–70. <https://doi.org/10.20885/millah.voll.iss2.art5>



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