

**ISSN:** 2617-6548

URL: www.ijirss.com



# Islamic banking financing and inflation: Empirical evidence from dual banking systems



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### **Abstract**

The rapid growth of Islamic finance, especially within the sector of Islamic banking, has attracted significant attention from scholars, policymakers, and financial practitioners alike. This surge has prompted various discussions about how Islamic finance influences the broader economy. This study aims to provide a comprehensive analysis of the impact of Islamic bank financing on inflation rates across twelve countries operating dual banking systems, from 2013 to 2022. The research employs advanced statistical techniques, specifically Fully Modified Ordinary Least Squares (FMOLS), combined with fixed effects methods to ensure a thorough analysis of the data. The FMOLS approach is particularly effective in correcting potential endogeneity and serial correlation, enabling more accurate estimation of long-term relationships between the variables under study. Meanwhile, the fixed effects technique controls for unobserved heterogeneity by accounting for individual-specific effects, thus isolating the impact of the independent variables on the dependent variable. The study's findings reveal that Islamic financing does not significantly affect inflation rates in the countries examined. The research suggests that the expansion of Islamic banking does not contribute to inflationary pressures. Furthermore, it emphasizes that interest-free funding has the potential to serve as a stabilizing force within the economic system.

Keywords: FMOLS, Inflation, Islamic bank financing.

**DOI:** 10.53894/ijirss.v8i4.8519

Funding: This study received no specific financial support.

History: Received: 7 May 2025 / Revised: 10 June 2025 / Accepted: 12 June 2025 / Published: 14 July 2025

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**Competing Interests:** The author declares that there are no conflicts of interests regarding the publication of this paper.

**Transparency:** The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Publisher: Innovative Research Publishing

# 1. Introduction

Low inflation had largely become the standard in many advanced economies during the period known as the Great Moderation, which encompassed the years leading up to the Global Financial Crisis (GFC) [1]. This prolonged period of stability, however, was disrupted by the robust policy measures implemented in response to the COVID-19 pandemic, which consequently led to a noticeable resurgence of inflation [2]. Many countries faced challenges related to rising prices, creating a pressing need for a closer examination of the factors influencing inflation rates in this new economic context.

In recent decades, Islamic banking has experienced remarkable growth, emerging as a significant alternative to traditional, conventional banking systems [3]. This growth has not only changed the financial landscape but has also

attracted considerable attention from scholars, policymakers, and financial experts alike. The rapid expansion of Islamic finance, particularly within the Islamic banking sector, has ignited extensive discourse regarding its effects on the broader economy, with numerous studies investigating its implications for economic performance [4, 5].

One of the key characteristics that sets Islamic banking apart from conventional systems is its inherent ability to promote economic stability. The prohibition of interest (*Riba*) in Islamic finance can lead to enhanced social equity and improved economic effectiveness, as it encourages profit-sharing and ethical investment practices, thereby aligning the interests of various economic actors [6, 7]. Given the vital role that macroeconomic indicators, such as inflation, play in shaping economic policies, understanding the influence of Islamic banking on these indicators has become increasingly important [8]. However, there remains a significant gap in the research regarding how Islamic banking influences inflation levels.

This paper aims to fill this gap by conducting a thorough examination of the impact of Islamic banking on inflation rates. It makes three significant contributions to the existing body of literature. First, the study investigates how the funding mechanisms of Islamic banks affect inflation, a key macroeconomic variable crucial for policymakers seeking effective strategies to manage economic stability. Second, the research explores various countries with dual banking systems, offering insights into different regions and their varying levels of Islamic banking integration. Finally, the study utilizes contemporary data and employs the Fully Modified Ordinary Least Squares (FMOLS) method, a robust econometric technique, to analyze the long-term effects of Islamic bank funding on inflation.

The subsequent sections of this paper are structured as follows: The second section provides an in-depth review of prior empirical studies that have examined the relationship between Islamic bank funding and the aforementioned macroeconomic indicator. The third section outlines the methodology employed in this research, detailing how data were collected and analyzed. The fourth section presents and discusses the findings of the study, offering insights into the potential implications of Islamic banking on inflation. Finally, the fifth section concludes the paper, summarizing the key findings and suggesting avenues for future research in this important area of economic inquiry.

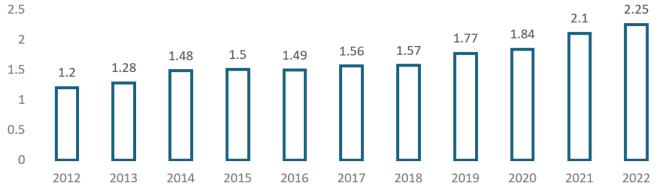


Figure 1.
Evolution of total assets of Islamic banks (2012-2022, USD Trillion).
Source: Islamic Financial Services Industry Stability Reports (2013-2023).

## 2. Literature Review

Islamic finance is increasingly recognized as a viable strategy for alleviating inflationary pressures within the financial system [9]. This viewpoint stems from the unique characteristics inherent in Islamic financial practices, which set them apart from conventional financial systems [10]. One of the defining features of Islamic finance is its emphasis on ensuring that all financial transactions are supported by tangible assets rather than relying on speculative financial instruments. This asset-backed approach minimizes the risk of inflation by promoting stability and accountability in financial dealings.

Bank loans significantly contribute to the overall money supply in an economy. Traditional banks typically engage in money creation through the provision of credit, which can lead to positive outcomes when the borrowed funds are channeled into productive investments. However, this process can also have detrimental effects, particularly when the credit is utilized for speculative purposes that do not contribute to real economic growth, leading to inflationary trends. For instance, in 2014, Kia [11] highlighted that interest-financed debt in the United States was inflating speculative demands for money, resulting in increased unproductive investments that failed to yield tangible economic benefits.

In contrast, Islamic banks employ a distinct approach to money creation that does not exacerbate inflationary pressures on the money supply. Within the framework of Islamic finance, money is considered a production factor that carries risks and thus deserves a share of the outcome, whether that outcome is positive or negative. This principle is anchored in the profit and risk-sharing model, which emphasizes that funds should only be used for productive purposes. The investment thesis mandates that risks must be taken to justify financial returns, thereby fostering a culture of responsible investment. Furthermore, returns generated from investments should be directly linked to actual profits to avoid engaging in usurious practices. This alignment incentivizes funders to place greater scrutiny on the viability and integrity of their investments, as their returns depend directly on the project's success. According to Dar and Akram [12], this responsible investment approach inherently helps limit the excessive creation of money, thus providing a buffer against inflation. The profit and loss sharing (PLS) principle fosters a robust connection with the real economy and contributes to a reduction in the monetary multiplier, helping stabilize the financial system.

Central to Islamic banking is the concept of Amanah, which translates to trustworthiness toward depositors. This ethical foundation enhances the bank's ability to attract diverse investment projects, facilitating more efficient resource management and ultimately leading to higher productivity within the economy.

An important aspect of Islamic finance is its intrinsic connection to real economic activities. Islamic banks provide financing through contracts explicitly backed by tangible assets. As emphasized by Kayhan and Bayat [12] they are strictly prohibited from offering currency loans for profit. Instead, the funds generated by Islamic banks are directed toward the creation of physical assets and means of production, promoting long-term economic growth rather than short-term speculative gains.

In contrast, interest-based financing imposes additional burdens on the production process due to ongoing costs associated with servicing debt. Interest expenses are factored into the overall cost of production, compelling companies to recoup these costs by raising their selling prices. Due to their market power and positioning, these companies can pass the burden of interest costs onto consumers, ultimately leading to higher prices in the marketplace [13].

Moreover, the nature of interest is that it represents a predetermined percentage that projects must repay at regular intervals, regardless of the unpredictable and uncertain returns from the production process. In scenarios where returns fail to cover costs, interest continues to accrue, complicating future production operations and significantly inflating prices. This principle extends to trade finance arrangements involving interest, exacerbating the inflationary pressures on the economy.

In Islamic finance, particularly within the framework of the Profit and Loss Sharing (PLS) model, projects are insulated from financing costs associated with interest, thereby promoting financial stability. Siddiqi [14] posited that substituting debt with equity financing is pivotal in achieving zero or minimal inflation. He also identified four "built-in stabilizers" present in Islamic economic systems that actively prevent or mitigate inflation, one of which includes the emphasis on equity financing over debt financing. Kia [15] further argued that interest-free financing lowers production costs and stimulates greater economic activity. Similarly, Weitzman [16] strongly endorsed the profit and loss sharing principle as a viable remedy for stagflation a condition characterized by stagnant economic growth alongside inflation.

Nonetheless, while the theoretical advantages of Islamic banking in combating inflation are compelling, their effectiveness requires empirical validation. To date, relatively few empirical studies have focused on the impact of Islamic banks on inflation, and the results from these studies have proven to be inconclusive. Further research is essential to comprehensively understand how Islamic finance can effectively address inflationary challenges in diverse economic contexts.

Ayuniyyah, et al. [17] conducted a comprehensive analysis of the Islamic banking system's influence on two pivotal macroeconomic indicators: output and inflation. Utilizing Vector Error Correction Model (VECM) analysis, the researchers assembled a detailed dataset consisting of monthly figures from January 2004 to December 2009. This dataset included critical metrics such as the industrial production index, consumer price index, total Islamic deposits with their respective yields, total Islamic financing along with its yields, currency in circulation, and Islamic certificates issued by the Central Bank. The findings of this study indicated a significant positive impact of Islamic financial variables on real sector growth, underscoring the sector's potential role in enhancing economic output. However, the research concluded that these variables did not exert a statistically significant influence on inflation rates.

In a related study, Al-Fawwaz, et al. [18] explored the impact of Islamic finance on a specific subset of macroeconomic indicators in Jordan from 2000 to 2011. Employing four distinct regression models, the researchers found an inverse and statistically significant correlation between Islamic financing and the inflation rate, suggesting that the expansion of Islamic finance may contribute to alleviating inflationary pressures in the Jordanian economy.

Further addressing the relationship between Islamic finance and inflation, Mahabadi and Kiaee [19] applied a Bayesian regression model to investigate this dynamic in major Islamic financial economies during 2012. The results of the analysis indicated that Islamic finance serves as a significant determinant of inflation in several Islamic countries, and its growth may have the potential to reduce inflation rates, thereby promoting economic stability.

Selim and Hassan [20] conducted a study examining the effects of zero-rate monetary policy on the poverty index across twelve countries. Their results indicated that interest-free financial expansion negatively impacts the poverty index by contributing to a decrease in inflation. This finding highlights the potential benefits of Islamic finance in addressing poverty while managing inflation effectively.

Cham [21] investigated the correlation between the growth of the Islamic banking sector and inflation within the Gulf Cooperation Council (GCC) countries, as well as in Iran and Sudan. This research utilized unbalanced monthly panel data spanning from 2001 to 2015. The empirical findings, derived from both Ordinary Least Squares (OLS) and VECM methodologies, suggested that Islamic financing does not have a statistically significant impact on inflation levels, indicating that other variables may influence this complex relationship.

In their research, Abdellawi, et al. [22] examined the effects of various Islamic financing techniques on inflation in Sudan from 2000 to 2014. Their study concluded that particular financing methods, specifically *Mudarabah* and *Salam*, effectively mitigate inflation levels. Conversely, they found that financing strategies such as *Murabaha* and *Musharakah* could lead to increased consumption and overall demand, reflecting the diverse impacts of different Islamic financing methods on the economy.

Furthermore, Abalhareth, et al. [23] analyzed the influence of Islamic bank financing (IBF) on the Saudi economy between 2001 and 2017. Their investigation focused on the relationships between IBF, total financing (TF), and various macroeconomic indicators, including inflation, unemployment, gross fixed capital formation (GFCF), and GDP growth. The principal findings from their Vector Autoregression (VAR) model indicated that both TF and IBF significantly affect

GFCF, although no substantial impact on inflation was observed. This suggests a complex interplay between these financing sources and macroeconomic indicators.

In Pakistan, Manzoor and Arshed [24] studied the influence of consumer and producer financing provided by both Islamic and conventional banks on inflation. Utilizing the Autoregressive Conditional Heteroskedasticity (ARCH) model, they analyzed data from the second quarter of 2009 to the second quarter of 2019. Their findings showed that Islamic consumer financing effectively contributes to inflation management; however, they noted that Islamic financing for producers was less effective, primarily due to its relatively small market share within the financial system.

Lastly, the recent study conducted by Winarto and Beik [25] evaluated the impact of Islamic bank financing on economic growth and inflation in Indonesia. Analyzing monthly data from January 2017 to December 2022, the VECM model results revealed a statistically significant effect of Islamic bank financing on both long-term economic growth and inflation, emphasizing the critical role of Islamic banking in shaping Indonesia's macroeconomic environment.

# 3. Data, Models, and Methodology

### 3.1. Data

The aim of this study is to evaluate the impact of Islamic banking on inflation through empirical analysis. A group of 13 countries has been selected for this investigation. Among these, ten are identified as systemically important Islamic finance countries: Bahrain, Jordan, Oman, Qatar, Saudi Arabia, Malaysia, Bangladesh, Pakistan, and the United Arab Emirates. The remaining three countries, Turkey, Indonesia, and Nigeria, are categorized as non-systemically significant Islamic finance countries. The data compiled for this panel covers the period from 2013 to 2022. A notable limitation of this study is the scarcity of available data, particularly regarding Islamic banking. All data series are analyzed using the natural logarithm. For additional reference, Table 1 lists the data sources for these variables.

Table 1.

| Acronyms | Variables  | Source                             |
|----------|--|------------------------------------|
| lnIF     | Natural logarithm of Islamic bank financing            | Islamic Financial Services Board & |
|          |  | Central banks                      |
| lnRGDP   | Natural logarithm of Real gross domestic product       |                                    |
| lnCPI    | Natural logarithm of Consumer Price Index              |                                    |
| lnTR     | Natural logarithm of Trade (the sum of exportation and |                                    |
|          | importation)   | IMF, Central banks & Statistics    |
| lnG      | Natural logarithm of Government final consumption      | offices                            |
|          | expenditure  |                                    |
| lnM3     | Natural logarithm of Monetary aggregate M3             |                                    |

# 3.2. Model

After conducting a thorough review of the existing literature on inflation, we have identified several key factors that may significantly impact its dynamics. In our analysis, we have included specific control variables to assess the influence of Islamic banking financing on inflation rates. The variables incorporated into our model are:

- 1. Real Gross Domestic Product (RGDP): This variable measures the total economic output adjusted for inflation, providing insights into the level of economic growth and its potential effects on inflationary pressures.
- 2. Monetary Aggregate M3 (M3): This broad measure of the money supply includes cash, checking deposits, and easily convertible near money. Analyzing M3 enables us to evaluate how changes in the money supply can impact inflation.
- 3. Trade (TR): This variable reflects the total value of exports and imports, highlighting a country's openness to international trade and its potential influence on domestic prices.
- 4. Government Consumption Expenditures (G): This variable encompasses all government spending on goods and services, which can have direct implications for aggregate demand and, consequently, inflation levels.

We propose the following econometric model to analyze these relationships:

CPI = F(IF, TR, RGDP, M3, G). Equation (1)

In this model, CPI represents the Consumer Price Index, a key indicator of inflation.

Additionally, to enhance the robustness of our analysis, all variables have been transformed into logarithmic forms. This transformation not only stabilizes variance but also facilitates easier interpretation of the associated elasticities.

Equation (1) can then be reformulated using panel data methodologies to account for variations across different entities and over time, providing a more comprehensive understanding of the interplay between Islamic banking financing and inflation dynamics.

 $lnCPI_{it} = \delta_{0i} + \delta_{1i} lnIF_{it} + \delta_{2i} lnM3 + \delta_{3i} lnTR + \delta_{4i} lnRGDP_{it} + \delta_{5i} lnG_{it} + \mu_{it}$  Equation (2)

The subscripts i and t denote the individual (country) and temporal (time period) dimensions, respectively. lnIF represents the natural logarithm of financing provided by Islamic banks, while lnRGDP denotes the natural logarithm of the real gross domestic product. lnM3 corresponds to the natural logarithm of the money supply. Additionally, it indicates the

<sup>&</sup>lt;sup>1</sup> The Islamic Financial Stability Board (IFSB) considers the Islamic financial sector to be systemically important when total Islamic banking assets represent more than 15% of the total assets of the domestic banking sector.

natural logarithm of the combined value of exports and imports, which acts as a proxy for trade openness. Furthermore, lnG refers to the natural logarithm of government consumption expenditures on goods and services. The constant term is denoted by  $\delta_0$ , and the coefficients of the explanatory variables are represented by  $\delta_1$  through  $\delta_5$ . Lastly,  $\mu$  represents the error term.

### 3.3. Methodology

This study employs two sophisticated statistical techniques to analyze panel data: Fully Modified Ordinary Least Squares (FMOLS) and Fixed Effects Ordinary Least Squares (FEOLS). The integration of these diverse analytical methods is crucial for producing highly accurate and reliable estimates, as emphasized by Ehigiamusoe and Lean [26].

FEOLS is particularly advantageous for estimating the static form of economic models, as it provides precise insights while effectively controlling for unobserved heterogeneity among individual entities in the dataset, as noted by Muhammad, et al. [27]. This technique allows researchers to account for variations that could influence the results, ensuring that the estimates are more representative of the underlying relationships.

However, it is essential to recognize that neither FMOLS nor FEOLS directly addresses endogeneity issues, which can result in biased estimates, as highlighted by Botev, et al. [28]. Endogeneity occurs when an independent variable is correlated with the error term, potentially arising from omitted variable bias, measurement error, or simultaneous causality.

In contrast, FMOLS offers a significant advantage in this context, as discussed by Hamit-Haggar [29]. FMOLS is specifically designed to mitigate potential endogeneity problems associated with independent variables, thereby enhancing the validity of the estimates. This technique corrects for serial correlation and ensures accurate estimation of long-run relationships between variables.

Additionally, Ali Chandio, et al. [30] indicate that FMOLS can yield robust results, particularly when the sample size is relatively small. In such cases, the ability of this method to provide reliable estimates is especially valuable, allowing researchers to draw meaningful conclusions from the available data. By employing both FEOLS and FMOLS, this study aims to deliver a comprehensive analysis that balances the strengths and limitations of each technique, ultimately resulting in well-rounded and informative findings.

#### 3.3.1. The Cross-Sectional Dependency (CD) test

In their 2022 study, Arouri, et al. [31] noted that when conducting panel data analysis across multiple countries, it is possible to observe shared correlations and shocks among these countries. The presence of cross-sectional dependency can be attributed to factors such as geographical spillover effects and the exclusion of commonly observed factors [32].

According to Tugcu [33] the cross-sectional dependency (CD) test is an essential preliminary step before conducting unit root and cointegration tests. Assessing this diagnostic is crucial for researchers before undertaking panel data analysis [34]. The choice between a first-generation or second-generation panel unit root test can be determined by applying a CD test.

The study utilizes [32] test to assess the likelihood of cross-sectional dependence.

### 3.3.2. Panel Unit Root Tests

Panel unit root tests are employed in the second stage to determine whether the observed variables of the research are stationary or non-stationary. It is crucial to evaluate the unit root tests to avoid false results and spurious regression. There are two distinct generations of panel unit root tests. The first generation of tests assumes that the cross-sectional units are independent. Conversely, the second generation of tests permits cross-sectional dependence.

According to Pesaran [36], the first-generation tests tend to incorrectly reject the null hypothesis when there is high cross-sectional dependence. Recently, new panel unit root tests have been developed to relax the independence assumption. One widely used test, based on the IPS test by Pesaran [35] allows for cross-sectional dependence caused by a single common (unobserved) factor and is applicable to both unbalanced panels and panels where the cross-section and time dimensions are of similar magnitude.

### 3.3.3. Cointegration Test

Once the order of integration of the variables has been determined, the next step is to investigate the cointegration relationship. A cointegration test is used to confirm the existence of a stable relationship between two or more economic variables. It is possible that a linear combination of individual non-stationary time series variables may demonstrate a long-run equilibrium connection, even if the individual variables themselves are not stationary. Various cointegration tests have been proposed in the existing literature, including those by Barbieri [36].

#### 4. Empirical Results and Discussion

## 4.1. Descriptive Statistics and Correlation

The statistics and correlation matrix of all variables are presented in Table 2. Descriptive statistics provide a summary of measures that give an overview of a given dataset. There are two main categories: central tendency and variability. Measures of central tendency include the mean, median, and mode, while measures of variability include the standard deviation, minimum, and maximum. The correlation matrix shows that the correlation between Islamic banks' financing and the consumer price index is weak.

**Table 2.** Descriptive statistics & Correlation matrix

|                   | lnCPI | lnIF   | lnRGDP | lnG    | lnM3   | lnTR   |
|-------------------|-------|--------|--------|--------|--------|--------|
| Mean              | 4.926 | 26.400 | 28.234 | 26.366 | 27.936 | 28.011 |
| Median            | 4.805 | 26.539 | 28.040 | 26.004 | 28.077 | 28.252 |
| Maximum           | 6.296 | 35.35  | 36.999 | 34.989 | 36.682 | 36.723 |
| Minimum           | 4.631 | 17.444 | 23.101 | 21.366 | 22.938 | 23.551 |
| Std. Dev.         | 0.297 | 3.370  | 3.689  | 3.501  | 3.553  | 3.416  |
| Correlation matri | X     |        |        |        |        |        |
| LNCPI             | 1     |        |        |        |        |        |
| LNIF              | 0.006 | 1      |        |        |        |        |
| LNRGDP            | 0.441 | 0.372  | 1      |        |        |        |
| LNG               | 0.465 | 0.391  | 0.994  | 1      |        |        |
| LNM3              | 0.024 | 0.928  | 0.566  | 0.584  | 1      |        |
| LNTR              | 0.442 | 0.399  | 0.989  | 0.991  | 0.575  | 1      |

#### 4.2. Cross-Section Dependence and Unit Root Tests

In Table 3, the results of the cross-section dependence test (CD test) are presented. The estimated p-values indicate that the null hypothesis of non-cross-sectional dependence is rejected for all observed variables. This implies that the models exhibit cross-sectional dependence among the panel variables.

To assess the degree of stationarity of the variables due to cross-sectional dependence between them, second-generation panel unit root tests are preferable. In this study, the CIPS test, one of the second-generation unit root tests developed by Pesaran [35] was utilized. According to Table 3, the results of the CIPS test indicate that all series are integrated of order 1, or I(1), satisfying the necessary condition for cointegration within the multivariate context [37, 38].

With the necessary condition for cointegration in the multivariate context being fulfilled, the next step is to determine whether these series exhibit a long-run cointegration relationship.

Table 3.

Cross-section dependence & Unit roots tests.

|        | Pesarai  | Pesaran CD test |            | CIPS test        |  |  |
|--------|----------|-----------------|------------|------------------|--|--|
|        |          |                 | Level      | First difference |  |  |
|        | CD-test  | p-value         | T-stat     | T-stat           |  |  |
| lnCPI  | 25.17912 | 0.0000***       | -0,20120   | -1,70315*        |  |  |
| lnIF   | 23.79748 | 0.0000***       | -2, 16471  | -2, 37936***     |  |  |
| lnRGDP | 23.26503 | 0.0000***       | -1,58736   | -1,83141**       |  |  |
| lnG    | 17.06429 | 0.0000***       | -0, 143102 | -3,45186**       |  |  |
| lnM3   | 26.40219 | 0.0000***       | -1,79745   | -2,75741**       |  |  |
| lnTR   | 16.23037 | 0.0000***       | -1, 75624  | -2,88580*        |  |  |

Note: \*\*\*, \*\*,\* denote significant at 1%, 5% and 10%.

### 4.3. Cointegration Tests

Panel cointegration tests, specifically the Pedroni test and the Kao residual test, were conducted to determine whether cointegration exists. The outcomes of these tests can be found in Table 4. The results confirm the presence of a cointegration relationship among the variables in both models. Therefore, employing a panel cointegration estimation method is appropriate for evaluating the coefficients of the independent variables. The fully modified ordinary least squares (FMOLS) estimation technique was employed to calculate the coefficients, and the findings are presented in Table 5.

**Table 4.**Cointegration tests.

|               | Kao test    | Kao test |             | Pedroni test             |             |                           |  |
|---------------|-------------|----------|-------------|--------------------------|-------------|---------------------------|--|
|               |             |          |             | Within-dimension (panel) |             | Between-dimension (group) |  |
|               | t-Statistic | Prob.    | t-Statistic | Prob.                    | t-Statistic | Prob.                     |  |
| PP            |             |          | -2.99047*** | 0.0014                   | -2.92067*** | 0.0017                    |  |
| ADF           | -3.388***   | 0.0004   | 1.295576*   | 0.0976                   | -4.62794*** | 0.0000                    |  |
| v-Statistic   |             |          | -0.391475   | 0.6523                   |             |                           |  |
| rho-Statistic |             |          | 3.566652    | 0.9998                   | 4.928175    | 1.0000                    |  |

Note: \*\*\*, \*\*,\* denote significant at 1%, 5% and 10%.

## 4.4. Estimation Results

In Table 5, the results from the Fully Modified Ordinary Least Squares (FMOLS) analysis indicate that financing provided by Islamic banks has a positive effect on inflation; however, this effect is statistically insignificant across the entire panel of data examined. Furthermore, the findings from the fixed effects model reinforce this conclusion.

To gain a deeper understanding of the impact of Islamic bank financing on inflation, we conducted additional analyses specifically focusing on countries where Islamic banking is deemed to be of systemic importance, as shown in Table 6. The results obtained from both the fixed effects models and FMOLS align with the overall findings, further confirming that the influence of Islamic bank financing on inflation remains insignificant. Our research supports the notion that Islamic finance is inherently non-inflationary, consistent with the conclusions reached by other studies, including those by Ayuniyyah, et al. [17], Cham [21] and Abalhareth, et al. [23].

Additionally, our study examined various macroeconomic factors that influence inflation. We discovered that government expenditure positively affects inflation, suggesting that increased government spending may contribute to rising price levels. Similarly, the degree of trade openness also shows a positive relationship with inflation. In contrast, real gross domestic product (GDP) exhibits a negative correlation with inflation, indicating that higher economic output tends to exert downward pressure on price levels. Notably, our analysis demonstrates that the money supply does not have a significant impact on the consumer price index, challenging some traditional assumptions regarding the relationship between money supply and inflation.

**Table 5.** FMOLS & Fixed effect estimations.

|                    | Entire panel |          |             |        |  |  |
|--------------------|--------------|----------|-------------|--------|--|--|
|                    | FMOL         | FMOLS    |             |        |  |  |
| Variable           | Coefficient  | Prob.    | Coefficient | Prob.  |  |  |
| lnIF               | 0.030490     | 0.3030   | 0.022144    | 0.2620 |  |  |
| lnTR               | 0.274603***  | 0.0000   | 0.228010*** | 0.0000 |  |  |
| lnM3               | -0.022677    | 0.6748   | 0.020322    | 0.6185 |  |  |
| lnRGDP             | -0.386259**  | 0.0209   | -0.237100*  | 0.0632 |  |  |
| lnG                | 0.492172***  | 0.0000   | 0.476722*** | 0.0000 |  |  |
| С                  |              |          | -8.483737   | 0.0021 |  |  |
| R-squared          | 0.95196      | 0.951960 |             | 9      |  |  |
| Adjusted R-squared | 0.94354      | 40       | 0.92892     | 5      |  |  |

**Note:** \*\*\*, \*\*,\* denote significant at 1%, 5% and 10%.

**Table 6.** FMOLS & Fixed effect estimations (Systemically important Islamic banking countries panel).

| Systemically important Islamic banking countries |  |   |  |  |  |  |
|--|--|---|--|--|--|--|
| FMO  | LS   | Fixed effect  |  |  |  |  |
| Coefficient                                      | Prob.  | Coefficient   | Prob.  |  |  |  |
| 0.066082   | 0.2376   | 0.031559  | 0.2726   |  |  |  |
| 0.359231***                                      | 0.0000   | 0.305592***   | 0.0000   |  |  |  |
| 0.099005   | 0.4040   | 0.137892  | 0.1123   |  |  |  |
| -0.650230***                                     | 0.0043   | -0.422939**   | 0.0143   |  |  |  |
| 0.399989***                                      | 0.0000   | 0.398843***   | 0.0000   |  |  |  |
|  |  | -6.621052   | 0.0452   |  |  |  |
| 0.9563   | 0.956390   |   | 0.942505   |  |  |  |
| 0.9480   | 026  | 0.932807  |  |  |  |  |
|  | Coefficient 0.066082 0.359231*** 0.099005 -0.650230*** 0.399989*** | FMOLS  Coefficient Prob.  0.066082 0.2376  0.359231*** 0.0000  0.099005 0.4040  -0.650230*** 0.0043  0.399989*** 0.0000 | FMOLS         Fixed ef           Coefficient         Prob.         Coefficient           0.066082         0.2376         0.031559           0.359231***         0.0000         0.305592***           0.099005         0.4040         0.137892           -0.650230***         0.0043         -0.422939**           0.399989***         0.0000         0.398843***           -6.621052         0.956390         0.9425 |  |  |  |

Note: \*\*\*, \*\*,\* denote significant at 1%, 5% and 10%.

#### 5. Conclusion

The growing importance of examining the impact of Islamic banking on macroeconomic performance is becoming increasingly clear as more countries adopt this alternative financial model. This study aims to investigate the relationship between Islamic banking funding and inflation rates, focusing on a diverse sample of thirteen distinct countries from 2013 to 2022.

To analyze this complex relationship, the research employs a dual methodological approach, utilizing Fully Modified Ordinary Least Squares (FMOLS) and fixed effects models. The results obtained from both analytical methods indicate that there is no significant correlation between the funding provided by Islamic banks and the levels of inflation in the studied countries. These findings contribute to the expanding body of academic and empirical evidence suggesting that Islamic finance can have a stabilizing effect on economic conditions, potentially fostering greater economic resilience.

However, it is important to recognize the limitations of this study. The conclusions drawn are influenced by factors such as a relatively small sample size and a limited time frame, which may impact the overall strength and generalizability of the findings. Future research could benefit from a more expansive and longitudinal approach, incorporating additional moderators like financing structures, particularly the distinction between Profit and Loss Sharing (PLS) and non-PLS models, as well as considering the level of development of Islamic finance.

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