The Role of Islamic Banks in Promoting Economic Growth and Financial Stability: Evidence from Saudi Arabia

Chiad, Faycal and GHERBI, Abdelhalim

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The Role of Islamic Banks in Promoting Economic Growth and Financial Stability: Evidence from Saudi Arabia

Faycal CHIAD[1], Abdelhalim GHERBI
Department of Finance
College of Business
Imam Mohammad Ibn Saud Islamic University (IMSIU)

ABSTRACT

The aim of this research is to provide a suitable empirical framework for the interaction between Islamic finance, financial stability and economic development. Additionally, it is an attempt to empirically evaluate how the levels of financial system stability and economic growth in an oil-rich nation are affected by the financing provided by the Islamic banks. Employing fully modified ordinary least squares (FMOLS) and quantile regression (QR) based on quarterly data for the years 2013 to 2022. The paper explores strong evidence that Islamic banking finance supports economic growth (coefficients ranging from 0.14 to 0.22) and improves financial system stability, as indicated by the coefficients ranging from 0.25 to 0.32. Moreover, the study highlights that this positive relationship is negatively affected by inflation rates and levels of economic policy uncertainty. Financial inclusion has an important positive impact on both dependent variables, which reinforces this link. Furthermore, oil rents in Saudi Arabia contributed to improving economic development and supporting the financial sector's development to achieve economic diversification aimed by Saudi Vision 2030. These findings confirm the necessity of paying attention to developing Islamic banking and increasing its market share by creating products and services that achieve economic efficiency in accordance with suitable policies for making the financial sector a strategic sector that supports economic development in KSA.

Keywords: Islamic Banks, Financial Stability, Economic Growth, Quantile Regression.

JEL Classification : C21, G21, G32, O47

[1] Correspondent Author: fchiad@imamu.edu.sa

INTRODUCTION

Following the global financial crisis, maintaining rapid economic growth (GR) and stabilizing the financial system have become an important issue not only for emerging market economies but also for developed economies. Fears and doubts about the global banking and financial system increased after the spread of the crisis to the real economy. It is believed that the expansion and excessive granting of bank loans, the lack of transparency, weak governance practices, the interest-based system, and also illegal speculation are among the most important causes of the crisis (Chapra, 2009). It has been shown that Islamic banks (IBs) experience lower levels of risk, due to the shariah principles that govern them, especially the profit and loss sharing system (PLS). In addition to avoiding speculation and financial products with high financial leverage. Also, IBs possess high liquidity compared to conventional banks. All of these factors helped them reduce the effects of the crisis. (Mensi et al., 2020).

IBs are not entitled to engage in financing unethical projects and those prohibited by Sharia law, and has a strong connection to the real economy (Hussien et al., 2019). It has also greater liquidity and capital reserves than its conventional counterparts. (Miniaoui and Gohou ,2013; Bourkhis and Nabi ,2013; Mobarek and Kalonov,2014). IBs play the role of financial intermediation in a different sense than their conventional counterparts. It has emerged and received increased attention following the global financial crisis. It offers a wide range of products and services that adhere to the principles of Islamic Sharia. These products aim to enhance financial inclusion among a wide segment of the public who wish to deal with this type of banks on faith-based grounds. Which increases the customer base and raises levels of savings and investment.

Innovative Islamic finance products allow encouraging entrepreneurship activity and increasing commercial activities, by providing the necessary financing based on mudarabah or musharakah formulas, instead of providing interest-bearing loans. By encouraging financing linked to real assets, IBs support the real economy and productive investments and reduce speculative activities, which contributes to capital formation and promotes more effective risk management. It creates a more stable banking and financial system (Pappas et al.,2017). IBs are committed on the ethical aspects of investment, which creates a socially responsible investment environment. This paper examines how Islamic banks support both economic growth and financial stability in KSA.

1. LITERATURE REVIEW

The relationship between finance and growth is well established in the literature. The findings reached are represented by four well-known theories. However, the theoretical literature does not, provide a clear explanation of the connection between Islamic banking and GR.

Table 1. Theories between finance and economic growth

Hypothesis	Content	Support Studies
The Theory of Supply-Leading (SLH)	There is a causal relationship between financial development and economic expansion. This is because the financial sector is responsible for financing projects and investments and motivating entrepreneurs	Schumpeter ,1911 ;McKinnon, 1973; Beck et al., 2000; Majid and

		Kassim,2010; Levine et al., 2000.
Demand-Following Hypothesis (DFH)	The economic development contributes to the financial industry improvement. This is because the financial sector responds to the expansion of the activities and businesses of economic operators.	Robinson ,1952; Patrick, 1966; Furqani and Mulyany ,2009 ;Carby et al., 2012; Pradhan et al., 2017.
The Feedback	Since their relationship is reciprocal, financial development and economic growth are complementary to one another.	Pradhan et al., 2015
The neutral	There is no connection between the financial and the economic sectors.	Lucas, 1988.

1.1. Links between economic growth and Islamic banks

Studies on the impact of the financial sector on economic growth are evident in empirical research. Some studies show the beneficial impact of banking development on economic growth (Ratsimalahelo & Barry, 2010). In contrast, other studies have shown either a negative impact of banking development on economic growth or a combination of positive and negative impacts (Eggoh, 2010).

Islamic finance offers great potential to promote inclusive growth and finance investment projects. It was determined that the growth of Islamic banking supports macroeconomic effectiveness (Gheeraert & Weill ,2015). Also, Gheeraert (2014) found strong evidence that the development of IBs services leads to the development of the banking sector. Hachicha and Ben Amar (2015) investigated the impact of IBs financing on GR in Malaysia.They found that IBs have a less significant impact in the long term, because IBs' operations were linked to non-participatory activities, which have an impact in the short term, while they avoid the PLS transactions.

In both conventional and Islamic banks, the power of financial intermediation is crucial in fostering GR (Saleem et al.,2021). Islamic finance has been shown to positively influence economic growth in Southeast Asia (Ledhem and Mekidiche ,2021), and it is seen as a crucial component of the endogenous growth model. Zarrouk et al. (2017) attempted to find out the relationship of financial development (by focusing on IBs) with GR in the UAE. The results showed that GR enhanced the development of IBs with no reverse effect. There is a non-linear relationship between the development of IBs (deposits, loans, assets) and macroeconomic variables (Mensi et al.,2020) .Anwar et al.(2020) concluded that there is a bidirectional causal relationship between GR and the development of IBs in the short and long terms. the risk-sharing instruments are positively associated with GR in Bangladesh. And the risk-free instruments are negatively associated with GR (Chowdhury et al.,2018).

Moreover, the findings of Jawad & Christian (2019) showed that the direction of causality follows the SLH hypothesis. Gani & Bahari (2012) concluded that there is substantial proof that GR and IBs indicators have a causal bidirectional link. Kassin et al. (2015) found evidence of short and long-term association between industrial production and IBs. Despite the fact that earlier research has demonstrated that IBs have a substantial impact on GR. However, some studies have reached different results, such as Goaied and Sassi (2010), by using the generalized method of moments (GMM) on selected MENA countries, they concluded that the influence of IBs on GR is statistically insignificant.

1.2. Islamic banks and financial stability nexus:

Researchers have increased their interest in the Islamic banking system and investigated the role of these institutions in promoting financial stability. Rashid et al (2017) examined the

extent to which IBs contribute to financial stability in Pakistan. The findings showed that IBs contribute better to enhancing the stability of the financial sector compared to conventional banks. Also, banks that have a higher profitability rate and a higher degree of diversification have a greater level of financial stability. According to Beck et al. (2013), IBs are less susceptible to market fluctuations and are less vulnerable to risks than conventional banks.

The stability levels of IBs are higher than those of their conventional counterparts (Rajhi and Hassairi ,2013). Additionally, IBs perform better when they are smaller in size because they are more stable than larger IBs, and the 2008 global financial crisis had the least impact on small-scale IBs (Čihák & Hesse ,2010; Alqahtani & Mayes ,2018). This is supported by the fact that IBs with weak assets manage low-risk investments while expanding would expose them to bigger risks that they would find challenging to manage, particularly when it came to financing based on profit-and-loss sharing.

Moreover, Tekdogan & Atasoy (2021) compared two groups in terms of their role in promoting financial stability, they concluded that IBs improve financial stability, because it has more liquidity than conventional banks, which increases their capabilities during shocks and crises. Recently, Shaheen et al (2022) distinguished between debt-based financing and equity-based financing in IBs. It was concluded that financing based on ownership and debt do not affect price instability. The findings demonstrated that the debt and equity-based financing have an inverted U-shaped impact on the economic instability.

Theoretically, IBs support financial stability, based on several factors, including their products based on sharing profits and losses, and asset-backed products, in addition to their principles that aim to preserve depositors' funds and reduce risks. (Chong & Liu, 2009; Rashid et al., 2017; Baber, 2018). Islamic banks' commitment to providing interest-free services and asset-based financing instruments in accordance with ethical principles makes them enhance liquidity and reduce risks because they are linked to assets that can be used as collateral in cases of customers insolvency. This makes IBs more profitable and have high liquid compared to their conventional counterparts (Hassan & Mahlknecht, 2011; Safiullah and Shamsuddin, 2018; Bitar et al., 2020). Other researches have demonstrated that when compared to conventional banks, IBs have higher Z-score levels (Pappas et al. ,2017; Mollah et al. ,2017). While (Lassoued, 2018; Paltrinieri et al., 2021) discovered that conventional banks exhibit higher levels of financial stability than their Islamic counterparts.

Thus, to achieve the aims of this paper and to examine the role of IBs in Economic growth and financial stability in KSA, the following hypotheses was developed:

H1: Islamic banks contribute positively to the Saudi Arabia's economic expansion.
H2: Saudi Islamic banks enhance the stability of the financial system.

2. METHOD

2.1. Data and variables

Using the QR regression, the current study investigates how Islamic financing affects Saudi Arabia's financial stability and economic growth, including a set of control variables: inflation rate (INF), oil revenues (OILR), economic uncertainty index (EPU), and financial inclusion (FI). The study period included quarterly data from 2013Q1-2022Q4, according to the availability of study data.

Table 2. Description and Measurement of the Variables

Variable Name	Symbol	Measurement	Source	
Dependent variables				
Economic Growth	GR	Gross Domestic Product	SAMA	Farahani and Dastan (2013) and Yuksel and Canoz (2017).
Financial Stability	STAB	((Equity +ROA) / Assets)) / Std Dev (ROA)	GFDD	(Kim et al.,2020; Beck et al. ,2013; Dwumfour ,2017; Čihák & Hesse, 2010)
Independent variables				
Islamic financing	IBF	Total Islamic Banking Financing	SAMA	Ledhem and Mekidiche (2021) and Al Fathan & Arundina (2019).
Control Variables				
Inflation	INF	Inflation rate	SAMA	Azmi (2013)
Oil rents	OILR	Oil rents to GDP (%)	WDI	Hidayat et al.,(2020)
Economic Policy Uncertainty	EPU	Economic Policy Uncertainty Index	www.policyuncertainty.com	Phan et al. (2021)
Financial Inclusion	FI	Composite Index	Author calculations	Nguyen(2021)

2.2. Econometric model

The capacity of QR regression to depict the dependent variable's conditional distribution is one of its distinguishing features, and it relies on estimating the conditional median and not the mean like the OLS. Assuming we have Y as the dependent variable and Z as the independent variable:

$$Y_q = Z\beta_q \quad (1)$$

Where β_q is the parameter of the quantile q , q changes in the range from 0 to 1. To obtain the value of parameter q, the following equation must be solved by minimizing the sum function:

$$Min_{\beta_q} \sum_{j\in(y_j \geq z_j\beta_q)} q|y_j - z_j\beta_q| + \sum_{j\in(y_j \leq z_j\beta_q)}(1-q)|y_j - z_j\beta_q| \quad (2)$$

Where the B_q is the level of dependence between the independent variable and q^{th} conditional quantile of the dependent variable. The equation (3) can be solved using linear programming, and allows the values of the parameter q to move in the range (0,1), allowing a more in-depth analysis of the relationship between an exogenous variables (Z_j) and endogenous variable (Y_j) (Koenker and D'Orey ,1987) . QR regression is more powerful in explaining the relationship between variables if the errors do not follow a normal distribution, there is heterogeneity in the dependent variable, outliers in the observations, or the graph is skewed.(Koenker & Hallock, 2001)

Based on previous literature (Boukhatem & Ben Moussa, 2018; Chowdhury et al., 2018), The paper review two models, where we consider total Islamic finance as an independent variable, financial stability, and GR as dependent variables, after controlling for inflation, oil rents, financial inclusion, and economic policy uncertainty.

The QR regression is used to evaluate the relationship between our variables. The following econometric models have been developed:

$$GR_t = \gamma + \theta_1 IBF_t + \theta_1 FI_t + \theta_1 STAB_t + \theta_1 OILR_t + \theta_1 EPU_t + \varepsilon_t \quad (3)$$

$$STAB_t = \alpha + \beta_1 IBF_t + \beta_1 FI_t + \beta_1 GR_t + \beta_1 OILR_t + \beta_1 EPU_t + \mu_t \quad (4)$$

Where:

The paper study the impact of Islamic financing on financial stability in Model 6, while The paper investigate the impact of Islamic financing on GR in Model 5.Equation (1) is formulated for our regression as follows:

$$Q_{GR}(q/Z_t) = \gamma'_i + \beta'_{1q} IBF_t + \beta'_{2q} C_t \quad (5)$$

$$Q_{stab}(q/Z_t) = \gamma_i + \beta_{1q} IBF_t + \beta_{2q} C_t \quad (6)$$

Where Q_{GR} , Q_{stab} indicates the quantile of GR and STAB variable, IBF_t represents the Islamic financing, C_t indicates the control variables described previously.

3. RESULTS

Table 3 delineates the descriptive statistics for our variables. The average IBF amounted to 1,247,141 million Saudi riyals, with a standard deviation of 315 thousand million Saudi riyals. The gross domestic product in KSA showed many fluctuations, as its lowest value in 2015-2016 was around $660 billion, but it improved in 2022 to reach more than $1.1 trillion after recovery from the Corona pandemic and the decline in oil prices. The average financial inclusion index reached 0.73 after normalization of the indicator.

Note also that the most variables are asymmetric and do not follow a normal distribution, because the Skewness values differ from zero. In addition, the values of the Kurtosis statistic exceed +3. This makes the use of QR regression appropriate and gives reliable results. Also, QR regression works well with extreme values and skewed distributions.

Table 3. Descriptive statistics

	OILR	GR	IBF	INF	STAB	FI	EPU
Mean	26.64366	27.25161	**1247141**	1.755316	22.36795	0.730666	5.213412
Median	23.82155	27.25243	**1124234**	2.347216	22.31537	0.851819	5.201554
Maximum	44.45650	27.36588	**1976498**	3.532525	24.70000	1.000000	5.913918
Minimum	15.97891	27.14445	**814100**	-2.093333	20.10879	0.000000	4.574996
Std. Dev.	8.921379	0.048485	**315200**	1.853109	1.649223	0.267549	0.372888
Skewness	1.075951	-0.225931	**0.944352**	-1.124124	-0.057935	-1.601137	-0.035028
Kurtosis	2.948107	3.319518	**2.845558**	2.998041	1.726560	4.585150	1.800368
Jarque-Bera	3.284743	0.472169	**5.536213**	2.785694	0.681281	19.68286	2.406707
Probability	0.193521	0.789714	**0.062781**	0.248367	0.711314	0.005348	0.300186

To construct the financial index, the following indicators were used; banking accounts per 1,000 person, Outstanding banks deposits, the number of bank branches per 100,000 person, Outstanding loans from banks and the ATMs per 100,000 person. The previous variables measure penetration of banking services in the demographic and usage dimensions (Beck et al., 2007). To save space, the steps of the PCA are well presented in the literature (Gharbi & Kammoun, 2023).

Table 4. Unit root tests

	ADF		**PP**	
Variables	Level	First difference	Level	First difference
Stab	0.621	-7.027***	-1.009	-2.576***
IBF	-1.470	-3.27***	-2.475	-6.103***
FI	-0.02	-2.98**	-3,291*	-5.263**
GR	2.117	-4.077***	1.544	-5.328**
EPU	0.896	-4.176***	-1.090	-6.619***
OIL	-0.906	-5.714***	-1.749*	-2.089***
INF	-1.356	-2.064***	-2.342	-2.737**

*** P<0.01. ** P<0.05 . * P<0.1 .

After ensuring that the data series is stationary at the first difference for all study variables, we now perform the estimation of our models using the OLS and the QR regression. Tables 5 and 6 displays the results of the model (5) and (6) respectively. The QR regression allows for differences in the effect of covariates across conditional quantiles. That is, the impact of Islamic financing on GR and financial stability at different points in the distribution, in the three cases.

Table 5. Effects of IBF on Economic Growth

Dependent variable (Economic growth)						
Variables	Q10	Q25	Q50	Q75	Q90	OLS
IBF	0.1708***	0.1933***	0.1488***	0.2226***	0.191**	0.216***
FI	0.368**	0.483*	0.424*	0.451*	0.1467	0.405***
EPU	-0.0256	-0.027	-0.0390**	-0.0458**	-0.054**	-0.044***
OILR	0.0577**	0.0817*	0.0465	0.0641*	0.031	0.055***
INF	-0.0001	-0.0006	-0.003	-0.006	-0.0031	-0.001
STAB	0.147*	0.0954	0.1870	0.0551	0.356**	0.087
Pseudo R2	0.8315	0.7544	0.7157	0.7532	0.7912	0.91

Table 5 show the impact of IBF on GR, as the relationship was significant and positive across all quantiles. It is important to note that it appears relatively strong for extreme and lower quantiles. These findings are found to be consistent with (Majid and Kassim,2015; Kassim ,2016; Imam and Kpodar ,2016). Which means that an increase in the market share of IB leads to improved GR. In other words, the greater the volume of Islamic finance, the greater the growth rates of GDP (Figure 1).

Over one-third of the global assets of the Islamic Banking are held by the Islamic Banks sector in the KSA. This makes the Saudi market the largest in the world in terms of total assets, and its share in the banking system represents more than 77% (SAMA,2022). The INF and the EPU showed a negative relationship with GR, but the EPU was significant across all quantiles, in addition to its effect being greater in large quantiles compared to small quantiles. This shows that the Saudi economy is affected by economic uncertainty, as a result of its geographical location in the Middle East, and the connection of its economy to the oil markets and international financial markets. Therefore, this should be considered when preparing economic plans and policies in KSA.

Inflation was not significant. The OILR showed a statistically significant relationship across all quantiles. The financial stability proxy showed a positive relationship across the minimum quantiles(Q10) and maximum quantiles(Q90), while there was no significant effect on GR in the OLS model. Therefore, these results correspond with the first hypothesis, that there is a positive impact of IBs on growth.

Table 6. Effects of IBF on Financial Stability

Dependent variable (financial stability)						
Variables	Q10	Q25	Q50	Q75	Q90	OLS
IBF	0.2508***	0.2783***	0.2747***	0.2793***	0.3201***	0.273***
FI	0.9465***	0.841***	0.606***	0.4208***	0.3594	0.649***
EPU	-0.0352	-0.036	-0.025	0.0032	-0.004	-0.017
OILR	0.0917***	0.081**	0.056	0.0542	0.059	0.072***
INF	-0.0095***	-0.009***	-0.0105***	-0.01507***	-0.014**	-0.009***
GR	1.011	1.170	1.495	1.378*	0.868	0.913*
Pseudo R2	0.852	0.83	0.79	0.78	0.822	0.94

*** P<0.01. ** P<0.05. Pseduo R2 shows the fit of the quantile regression model.

The IBF is statistically significant in the QR model at the upper quantile. Islamic banking enhances the stability of the financial system. The principles of IBs allow all transactions related to real assets, which enhances productive activities and the real economy. In this context, one of the lessons learned from the financial crisis is to consider the principles of Islamic finance to enhance financial stability (Imam & Kpodar, 2016; Boukhatem & Ben Moussa, 2018).

FI has a positive effect on financial stability across all quantiles, but it has a stronger effect at smaller quantiles. When FI improve the stability of the financial system, they thus expand the customer base and total deposits, and this reflects positively on the financing of investment projects and assets in various products, whether PLS or debt-based. (Banna et al., 2022). The financial inclusion index coefficient is significant. Therefore, the financial inclusion promotes greater financial stability. This finding is in line with the studies of Banna et al. (2022) and Vo et al. (2021).

In addition, the effect of EPU was negative but not significant across all quantiles, while the INF negatively affects financial stability across all quantiles, but more clearly at larger quantiles. This demonstrates the negative impact of inflation on the stability. Considering that inflation makes markets more volatile, the probability of higher defaults and a higher rate of non-performing loans (Global Financial Stability Report, 2022). In addition to its impact on the abilities of individuals and companies to obtain bank loans, whether for investment or consumption. Moreover, the continuous increase in prices reduces the well-being of individuals, which reduces the demand for some products and services. OILR also has a positive and a significant relationship with financial stability through small quantiles only. Therefore, these results correspond with the second hypothesis, that there is a positive and significant relationship between IBs financing and the level of financial stability.

The FMOLS method was used to ensure the reliability of the findings, as it has the ability to provide effective estimators in small samples.

Table 7. Robustness check

FMOLS (STAB Model)				FMOLS (GR Model)		
Variables	Coef.	S.E	t-stat	Coef.	S.E	t-stat
IBF	0.289***	0.0427	6.7559	0.245***	0.0192	12.754
GR	0.0228	0.213	0.107	-	-	-
OILR	0.0814***	0.0256	3.1816	0.0423**	0.0167	2.524
FI	0.6441***	0.176	3.643	0.4715***	0.1089	4.329
INF	-0.007***	0.0028	-2.792	-0.0043**	0.002	-2.088
EPU	-0.0382**	0.0147	-2.586	-0.048***	0.0111	-4. 3206
STAB	-	-	-	0.069	0.164	0.42

*** P<0.01. ** P<0.05

The FMOLS show that the IBF was positive and significant in both models, which confirms the positive role of Islamic finance in improving financial stability and supporting GR in KSA, and the sign of both the inflation and the EPU were negative. In addition, FI and OILR improve the growth and the stability. These findings confirm the robustness of the quantile regression findings and give them greater reliability.

4. DISCUSSION:

Islamic financing instruments are divided into debt and equity participation instruments, and both types depend on assets between the parties to the transaction. These tools are designed to manage risks within the lowest levels in order to preserve the funds of depositors and investors. Also, IBs through the Sharia Supervisory Board, do not tend to invest in high-risk projects. This makes it support the financial system's stability (Chong & Liu, 2009; Hassan & Mahlknecht, 2011).

Numerous studies have shown that Islamic banks have greater capabilities to absorb financial shocks compared to conventional banks, based on the features the paper mentioned previously (Baber, 2018; Rashid, Yousaf, & Khalequzzaman, 2017). It has now become known in the literature that IBs are characterized by greater levels of liquidity. Perhaps the reason is due to the huge volume of deposits, and the difficulty of finding Islamic liquidity management products that combine economic efficiency and Sharia compliance, and also the absence of a money market products among Islamic banks, this makes them maintain large cash surpluses (Lahsasna et Chiad, 2014; Dolgun, Ng, & Mirakhor, 2020).

Some authors suggest that IBs with large total assets support financial stability more than small banks (Ibrahim & Rizvi, 2017). This concept is relevant to the Kingdom of Saudi Arabia since Islamic Bank has the most assets globally. The Saudi total Islamic assets reached about 28.5 percent in 2020, followed by Iran with 22 percent and Malaysia with 11.4 percent (ISDB,2021). Moreover, The Islamic banking sector in KSA has a share of more than 77 percent (SAMA, 2022).

Moreover, one of the most important factors that made the IBs enhance the financial stability is the nature of these institutions, the structure of their budgets, and how they manage business and financial risks. Due to the link between customers deposits returns and asset returns, the balance sheet items in IBs permit some consistency between assets side and liabilities side (Iqbal and Mirakhor 2011). In addition, the Islamic financial services are characterized by diversity, which helps to meet the demand of individuals and corporate clients. This explains the positive role of IBs in promoting economic development. Thus, it contributes to converting deposits into investments through various Islamic financing tools (Chowdhury et al., 2018).

In accordance with Islamic finance's core values, IBs provide services and products that support the real economy, in accordance with the foundations of ethical investment and the equity participation mechanism. It is anticipated that Islamic financial services will have a greater influence and facilitate more effective resource allocation. This is because the PLS system makes Islamic banks keen to choose the best investment projects, and thus their financing decisions are more careful than conventional banks Siddiqi (1999).

Furthermore, one of the factors that help the positive role of IBs in financial stability and supporting GR is the PLS principle, which is regarded as one of the characteristics of Islamic banking, as it is linked to assets that make financing more stable, due to the possibility of making the investment project's assets as bank guarantees. The PLS mechanism also contributes to better risk management because it distributes the risks to the shareholders in the investment project (partners).

It is crucial to note that using IBs products will not replace the conventional banking system, but it will undoubtedly create other opportunities to increase financing for small and medium-sized businesses, and will meet the desires of a segment of society. Moreover, this will increase competition with conventional banks, creating better opportunities to enhance economic progress and financial stability in nations that adopt the dual system.

CONCLUSION

This study examined the role of IBs in the financial stability and economic growth in KSA using QR regression. The results reveal that there is a positive effect of IBs on GR and financial stability across various quantiles. This confirms that the expansion of the Islamic banks' activities will reflect positively on improving stability and contribute positively to the gross domestic product. The findings also confirm the SLH supply leading hypothesis, meaning that IBs positively affects Saudi economic growth. In this context, IBs have proven that their performance as financial intermediaries have been effective, by providing their services and products between those with financial surpluses and those with deficits.

It is necessary for the financial authorities in KSA to expand access to banking services to all segments of society and improve financial inclusion indicators. Positive effects can then be expected on economic growth and the financial stability. The results indicate the importance of reducing the detrimental effects of inflation, in addition to the necessity of adopting policies to reduce the negative effects of uncertainty in economic policies on the Saudi banking system.

The paper points out the need for the Saudi financial authorities to pay attention to improving and strengthening Islamic financial services, which have proven their positive role in improving economic growth and financial stability. Therefore, the share of IBs in the market must be increased by opening new IBs, because the current number is only four IBs, which does not encourage competition. Accordingly, the introduction of foreign IBs into the Saudi market will lead to reducing levels of banking concentration and developing a new products and services.

Attention should also be given to human resources specialized in Islamic finance, through training, formation and qualification. Due to the lack of specialized human resources, many countries have opened professional and academic certificates specialized in this field. This will improve the performance of these institutions and make them provide competitive services. Moreover, it is important to improve the financial technology sector FINTECH to modernize the financial services provided.

Our findings are considered useful for Islamic bank managers, officials of the Central Bank and the Ministry of Finance in KSA, and decision-makers interested in developing the financial sector within Saudi Vision 2030. Specifically, these results help enhance our understanding of how the variables of the study interact, and in particular knowing the connection between Islamic finance and the economic growth. And its role in the financial stability of the Saudi banking system.

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AUTHOR CONTRIBUTIONS

Conceptualization: Faycal CHIAD.
Data curation: Faycal CHIAD.

Formal analysis: Abdelhalim GHERBI.
Investigation and Methodology: Faycal CHIAD.
Project administration: Faycal CHIAD.
Resources: Abdelhalim GHERBI.
Software and Supervision: Faycal CHIAD.
Validation and Visualization: Abdelhalim GHERBI.
Writing – original draft: Faycal CHIAD.
Writing – review & editing: Abdelhalim GHERBI.

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Appendix

Figure 1. Quantile Regression Estimates (GR: the dependent variable)

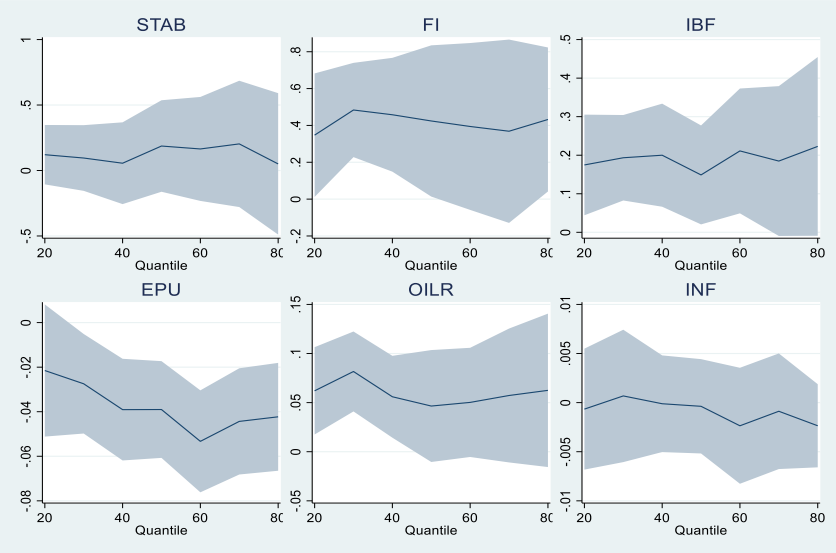

Figure 2. Quantile Regression Estimates (STAB: the dependent variable)