The Effect of Financial Liberalization on Economic Growth: The Case of Egypt and Saudi Arabia*

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Abstract

Theoretically, economic growth necessitates financial liberalization. Thus, the current research examines the effect of financial liberalization on economic growth in emerging nations, with a particular focus on Egypt and Saudi Arabia. To determine this effect, the study employs a model that uses Gross Domestic Product growth as the dependent variable and the following macroeconomic variables as financial liberalization indices: Broad money as a percentage of GDP, Domestic bank credit to the private sector as a percentage of GDP, Monetary sector credit to the private sector as a percentage of GDP, Net inflows of foreign direct investment as a percentage of GDP. All data is annual data of Egypt and the Kingdom of Saudi Arabia for the period 1970–2018 obtained from the World Bank open data website. The empirical investigation employs the Autoregressive Distributed Lag (ARDL) approach. The findings indicate that, after more than three decades of implementation, both countries' financial and external liberalization policies do not have a favorable effect on their economies' growth rates. Additionally, this study has led us to conclude that any financial liberalization policy in both countries must be preceded by the strengthening of these countries' financial development and institutional frameworks, as well as the achievement of macroeconomic stability.

1. Introduction

The relationship between countries' economic growth and financial liberalization is the subject of a spirited debate between proponents of the latter, who view it as a necessary condition for economic growth, and detractors, who view it as a constraint on economic growth by escalating banking and stock market crises. In this regard, the World Bank, and the International Monetary Fund (IMF) have called for the implementation of financial liberalization policies to promote increased savings, investment, and rapid economic growth in developing countries. Economic reform programs were initiated in the 1980s and 1990s in many African countries following catastrophic economic disasters. Reform of the financial sector was a critical pillar of these changes. Additionally, a corpus on which certain authors rely demonstrates the critical importance of financial deregulation in relation to economic growth. Many studies have been conducted to evaluate the relationship between financial liberalization and economic growth.

Over the last two decades, the financial scene in North Africa and the Middle East (MENA) has seen remarkable transformations. These changes are the result of policies of progressive financial deregulation that began in the 1980s. Indeed, financial market reforms are intended to strengthen a country's financial system. These reforms should include policies that promote economic growth. Most of the pertinent literature has argued that financial liberalization improves financial market efficiency, resulting in increased savings, investment, and growth. Numerous additional

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scholars have opposed financial liberalization policies, claiming that they were directly responsible for previous financial disasters. What are the financial liberalization's consequences? Are financial liberalization policies being rushed through without regard for a stable macroeconomic policy or financial deepening? The countries of the MENA region's financial reform attempts have been motivated by the notion that financial liberalization will permit more sustained economic growth by increasing the efficiency of financial intermediation. The previous comments address a fundamental question: How does financial liberalization affect Egypt's and Saudi Arabia's economic growth?

The purpose of this paper is to analyze the influence of financial liberalization by estimating an empirical model for Egypt and Saudi Arabia between 1970 and 2018. The research contributes to the literature in that it conducts a rigorous examination of the impact of financial deregulation in financial deepening and economic growth—without sacrificing financial stability. Additionally, the study will examine if income disparities across countries in both countries influence the relative effects of financial liberalization.

2. Literature Review

McKinnon (1989) had demonstrated that financial liberalization can boost growth rates by bringing interest rates closer to their competitive market equilibrium while resources are efficiently allocated. Other studies have been conducted on the relationship between financial liberalization and economic growth, both for developed countries with market economies and developing countries, but still, the number of studies empirically examining this relationship for developing countries remains low. Atje and Jovanovic (1993) demonstrated a positive effect of financial markets liberalization on economic growth in a sample of 47 countries throughout the 1980s. They asserted that the depth and growth of financial markets have a considerable impact on growth in the developing countries. Additionally, Berthélemy and Varoudakis (1995) demonstrated that the depth of financial markets (as measured by the availability of liquid funds and the brute demand in the private sector) and the proportion of credit directed through commercial banks (rather than central banks) are positively correlated with investment, productivity, and real growth. Reforms in the financial sector aided in the development of the sector, which in turn stimulated growth.

Quinn and Inclan (1997) were one of the first to establish a positive link between free capital flow and growth. They created their own proxy to determine the degree of capital restriction imposed on capital account. This indicator is mostly based on the data published by the IMF in its annual report on exchange rates and exchange restrictions. The advantage of such an indicator is that it considers the severity of constraints rather than their occurrence or absence. The empirical study established a strong and significant positive effect of capital account liberalization on real GDP growth per capita for the entire 58-country sample throughout the 1975–1989 period.

Demirgüç-Kunt and Detragiache (2005) examined the impact of financial liberalization on financial fragility using a multivariate logit model. The study is based on a sample of 53 countries that had banking crises between 1980 and 1995 because of their financial system's liberalization. The findings indicate that there is a strong correlation between financial liberalization policies and the banking crises. This means that in a deregulated environment, banks are more willing to take risks to generate significant profits.

Dhingra (2004) conducted an analysis to determine the effect of capital flows on the economic growth on a sample of 58 developing countries, and over the period 1975–2000, he estimated a model using the generalized moments method. When calculating financial liberalization indicators, he used the dummy variable BHL proposed by Bekaert et al. (2003) to measure financial market liberalization and the dummy variable proposed by Wyplosz (2002) to calculate the degree of financial liberalization. Dhingra (2004) concluded that liberalizing the stock market promotes economic growth and results in an annual increase of 3.8 percent in the PIB. Consequently, capital account liberalization has no discernible effect on economic growth.

Klein (2005), demonstrated that capital account liberalization has a variable impact on growth depending on the overall economic climate. An inverted-U relationship between growth responsiveness to capital account liberalization and institutional quality can be demonstrated using a theoretical model. A panel of 71 countries was used to estimate three model-based empirical specifications. Each specification's estimate confirms that growth responsiveness to capital account liberalization and institutional quality has a non-monotonic interaction, with about a quarter of countries showing a statistically significant and economically significant effect of capital account openness on economic growth. These countries have better (but not the best) institutions.

Guillaumont Jeanneney and Kpodar (2005) explored how financial development promotes poverty reduction by encouraging growth and by directly affecting poverty reduction through the McKinnon channel. As a result, the poor suffer, and the positive impact of financial development on poverty reduction is dampened. Financial development causes financial instability. From 1966 to 2000, these theories were effectively tested on a sample of emerging countries, with clear policy consequences.

Oladipo (2011) examined the long-term impact of trade liberalization (opening) on economic growth in

Mexico (1980–2008). The empirical evidence suggested that the economic growth in the long run in Mexico is mostly explained by the liberalization of trade (opening) and the level of capital (investment). Additionally, the contribution of labor and human capital has been deemed insignificant.

Hye and Wizarat (2013) examined the influence of financial liberalization on the economic growth in Pakistan over five years (1971–2007). The results were obtained by the application of the Auto-Regressive Distributed Lag (ARDL) technique and a financial liberalization index (FLI). The authors concluded that while there is a positive correlation between (FLI) and economic growth in the short run, (FLI) is statistically insignificant in the long run. Additionally, they concluded that the long-term impact of real interest rates on economic growth is significantly negative.

Precious et al. (2014) analyzed the influence of financial liberalization on macroeconomic performance in sub-Saharan Africa. The empirical study is based on an economic analysis of chronological series over the period 1990–2011. They used the GDP as a dependent variable to measure economic growth, as well as the macroeconomic variables inflation, exchange rate, loan rate, and financial expansion (M2/PIB). The study's findings indicated that inflation, lending rates, and financial expansion all have a positive effect on the economic growth, however, the exchange rate has a negative effect on the economic growth.

Additionally, Dinar et al. (2015) examined the relationship between economic growth and financial liberalization in Turkey from 1998 to 2012 and used the Toda-Yamamoto causality method to examine the causal relationship. They concluded that: (I) there is a long-term interaction between financial liberalization and economic growth; and (ii) there is evidence of causality linking economic growth to financial liberalization.

Kumar and Paramanik (2020) used time-series data on real GDP and broad money to measure economic and financial development. Empirical findings suggested that, unlike in the short run, in the long run, financial development does impact economic growth positively. Further, a symmetric effect of positive and negative components of financial development is found for the Indian economy, whereas the effect of control variables like exchange rate and trade openness is in consonance with common economic intuition. The exchange rate is in consonance with intuitive economic logic that a fall in the exchange rate makes exports cheaper and increases the quantity of export, which improves the balance of payment and leads to a rise in aggregate demand, hence improves economic growth.

Yakubu et al. (2020) used time-series data from 1970–2016 and examined financial liberalization, political stability, and economic growth in Kenya. The authors specified quantile regression to estimate quadratic and interaction models. The stationarity issue was tested using the unit root test. Less capital account openness and financial development hampered real economic growth, while political stability influenced real economic growth in Kenya. The nonlinear U-shape link between financial development and real economic growth first hindered real economic growth, but as it advanced, it boosted the country's long-term growth. Policymakers should continue to liberalize the capital account to support financial development. Similarly, the domestic financial market should be liberalized to completely remove the detrimental impacts of financial repression while preserving a stable political context.

Gupta (2021) examined the mechanisms of policies to improve access to finance and encourage productivity growth, among other things, through more effective matching of capital and labor, as well as the use of global best practices. The potential gains for the Indonesian economy are shown using an extension of the Global Trade Analysis Project (GTAP) model that covers possible changes in the cost of capital. The results indicated that the Indonesian economy could benefit substantially if the government allows a short-term trade deficit.

Ho et al. (2021) examined the link between financial development and economic growth in ASEAN countries (Indonesia, the Philippines, Malaysia, Singapore, Thailand, and Vietnam). The study used a 25-year panel of data from 1995 to 2015 from six countries, yielding a balanced panel of 150 observations. The panel data were modeled using FEM and REM, with the Hausman test used to select the models. The Granger causality test also checked for possible relationships. Regarding growth, the results of the Hausman test suggested that trade openness is positively associated with growth, while financial development is positively but insignificantly associated. The reason is that financial and economic growth may be linked. The causality test then confirmed the results. That is, trade openness promotes both financial and economic growth. This implies that ignoring trade openness, which positively impacts the relationship between finance and growth, has drawbacks.

Ruankham and Pongpruttikul (2021) used the conditional Autoregressive Distributed Lag (ARDL) model to examine the long-run relationship between national savings and investments in Thailand and China. The integration level of the selected time series was investigated using the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests. The empirical results confirmed the cumulative sum (CUSUM) and cumulative sum square (CUSUMSQ) results. This study concluded that the Feldstein-Horioka puzzle did not exist in Thailand. A classic economic idea, financial liberalization, or perfect capital mobility, allows national savings and investments to flow freely to countries with better interest rates. A correlation was found between

China's switch from a fixed exchange rate regime in 1994 and its post-WTO participation from 2001 to 2019.

In conclusion, the information we have gathered is contentious. We have demonstrated that money is critical for economic growth and development. Financial liberalization measures, on the other hand, should be implemented cautiously, considering the sequencing and timing of policies to prevent jeopardizing financial stability. Indeed, there are still unresolved difficulties regarding the financial liberalization–growth connection.

3. Methodology and Data

The study uses an Autoregressive Distributed Lag (ARDL) developed by Pesaran and Shin (1995). It is thought to be one of the most acceptable methods for testing the co-integration of variables when they are not needed to be integrated at the same rank as in the Johansen test. To conduct the test and determine the extent of the presence of a long-term relationship between the independent and dependent variables, it is sufficient for the variables to be stable at different levels that do not approach the degree of their stability to the limits of the second difference $I(2)$. Furthermore, this technique offers several distinguishing features.

It works well with tiny samples and lets you see the various optimal lag degrees for each variable. The ARDL is also a dynamic regression model that investigates the impact of a set of independent variables (X_t) on a dependent variable (Y_t) Taking into consideration the dependent variable's and independent variables' effects at a given lag degree (p), the model's formula is:

$$Y_t = f(X_t, Y_{t-p})$$

The ARDL model is estimated using the lag time (p, q) between the dependent variable (Y) and the vector of independent variables to assess the long- and short-term effects of financial liberalization and development on economic growth. The ARDL makes a clear distinction between dependent and explanatory factors.

Based on theories and hypotheses about financial liberalization and its impact on economic growth, as well as prior research that addressed and used a variety of specific financial liberalization variables and considering data available in Egypt and the Kingdom of Saudi Arabia, the study used four commonly used financial development indicators. These proxies are calculated in the following manner:

Broad money as a percentage of GDP,
Domestic bank credit to the private sector (percentage of GDP),
Monetary sector credit to the private sector (% of GDP),
Net inflows of foreign direct investment (% of GDP).

The formula will be as follows:

$$GDPG = \alpha + \beta_1\ DCPS + \beta_2\ M2GDP + \beta_3\ FDIGDP \\ + \beta_4\ KAOPEN + \beta_5\ INF + \beta_6\ OPEN$$

Where:
GDPG = GDP growth (annual %)
M2GDP = Broad money M2 (% of GDP), it is a variable measuring the level of the domestic financial system.
Dcps = Domestic credit to the private sector by banks (% of GDP)
FDIGDP = Foreign direct investment, (% of GDP)
KAOPEN = An indicator of external financial liberalization
INF = Inflation, (annual %)
OPEN = Indicator of trade openness, the ratio of exports and imports to real GDP; this variable represents the macroeconomic policy of the country.

All data is annual data of Egypt and KSA for the period 1970–2018 obtained from the World Bank open data website https://data.worldbank.org/

KAOPEN is based on a binary dummy variable used in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions to tabulate restrictions on cross-border financial activities (AREAER).

KAOPEN assigned dummy variables for the 4 major categories which are:

- A variable indicating the multiple exchange rates.
- A variable indicating restrictions on the current account transactions.
- A variable indicating restrictions on the capital account transactions.
- A variable indicating the requirement of the surrender of export proceeds.

The first main component of the original variables is KAOPEN, which is concerned with regulatory limits on current or capital account activities, the availability of different exchange rates, and the conditions for relinquishing export proceeds. For additional information, consult Chinn and Ito Index. The Chinn-Ito Index webpage is available at web.pdx. edu/ito/Chinn-Ito website.htm and has data from 1970 to 2018.

4. Empirical Results

4.1. Unit Root Test

The unit root test aims to determine the stationarity of each time series. The Augmented Dicky Fuller test was conducted for the all-time series used for the study.

Table 1 displays the test result for the data in terms of its level and first difference.

Table 1 shows that certain variables are stable in their level, while others are stationary in their first difference. We deduce from these results that all of the variables are integrated of order zero $I(0)$ and order one $I(1)$ (1). Being integrated of orders 0 and 1, we will use the ARDL technique.

4.2. Results of ARDL Test

Table 2 shows the ARDL test results for both Egypt and KSA.

When we examine the significance level of the Fisher's test, we observe that the test probability is 0.00005, showing that the regression is significant despite its low degree of determination. Additionally, the Durban Watson parameter demonstrates that the model is free of autocorrelation. Additionally, the Pound Tests indicate that the equation is co-integrated at all significant levels.

As the test findings indicate, foreign direct investment and broad money supply both have a statistically significant influence at a 5% p-value. All other variables, such as inflation, domestic bank credit, and trade openness, have no discernible effect on Egypt's economic growth in Egypt.

- Foreign direct investment has a positive significant effect on economic growth.
- The money supply variable had a negative significant effect on economic growth rates, which means, the level of the domestic financial system (M2/GDP) did not have the expected positive effect. Rather, the expansion of the money supply had a negative effect on economic growth.
- The variable of external financial liberalization KAOPEN had no significant effect on economic growth due to the constancy of this variable, which continued to take the value zero from 1970 to 1995,

took the value 1 from 1996 to 2012, and then reverted to the value zero until 2018.
- The insignificant effect of domestic credit by banks to the private sector means the internal financial liberalization has no effect on economic growth.

As we see, financial linearization does not have a significant effect on economic growth in the long run whether internally or externally.

As in the case of Egypt, when we look at Fisher's test's significance level, we see that the test probability is 0.00005, indicating that the regression is significant, despite the low degree of determination. The Durban Watson parameter also shows that the model is free of autocorrelation problems. In addition, the Pound Test findings show that the equation is co-integrated at all levels of significance.

As the test results show in Table 3, all the variables have no significant effect on economic growth in KSA in the long run, which indicates that like in the case of Egypt the financial linearization does not have a significant effect on economic growth in the long run whether internally or externally. This might be attributed in part to the Saudi economy's rentier structure.

4.3. Error Correction Model

Table 4 shows the result of the error correction vector for the two economies.

As shown in Table 4, the error correction coefficient is negative and significant, implying that integration occurs quickly in the long run because the error correction value is high and reaches 0.96.and the Pound tests findings point to the existence of long-term cointegration in Egypt.

The only variable that had a significant effect in the short run was the domestic credit to the private sector, which means that internal financial liberalization may have a positive effect on economic growth in Egypt in the short run.

Table 1: Unit Root Test Results

Variables	Egypt		KSA	
	Level (*p*-value)	First-Difference (*p*-value)	Level (*p*-value)	First-Difference (*p*-value)
GDPG	0.0147	–	0.0029	–
M2GDP	0.0761	0.0001	0.7698	0.0000
DCPS	0.5486	0.0500	0.9705	0.0000
FDIGDP	0.0050	–	0.0336	–
KAOPEN	0.6784	0.0000	0.8082	0.0000
INF	0.3049	0.0000	0.0000	–
OPEN	0.0085	–	0.2872	0.0000

Table 2: Egypt ARDL Results

Variables	Coefficient	Std. Error	t-Statistic	Prob.
LFDIGDP	0.21924	0.048084	4.559635	0.0001***
LDCPS	0.15702	0.405395	0.387330	0.7007
LINF	−0.15013	0.126556	−1.186286	0.2431
LKAOPEN	−0.03185	0.037605	−0.847210	0.4023
LM2GDP	−1.42622	0.505666	−2.820493	0.0077***
LOPEN	0.41738	0.286923	1.454704	0.1542
R-squared	0.57424	Mean dependent var	1.5407	
F-statistic	5.54491	Durbin-Watson stat	2.097575	
Prob(F-statistic)	0.00007***			
Null Hypothesis: No Levels Relationship				
Test Statistic	Value	Signif.	I(0)	I(1)
F-Bounds Test				
F-statistic	8.61549	10%	2.12	3.23*
K		5%	2.45	3.61*
		2.5%	2.75	3.99*
		1%	3.15	4.43*
T-Bounds Test				
t-statistic	−7.33331	10%	−2.57	−4.04*
2.5%		5%	−2.86	−4.38*
1%		−3.13	−4.66*	
		−3.43	−4.99*	

As shown in Table 5, the error correction coefficient is negative and significant, implying that integration occurs quickly in the long run because the error correction value is high and reaches 0.74, and the Pound tests findings point to the existence of long-term cointegration in KSA. As the table shows, there is no effect of financial liberalization on economic growth in KSA in the short run.

4.4. Causality Test

The Toda-Yamamoto test was used to evaluate the causal relationship between the economic growth and the variables that have a significant effect on economic growth in the long run for both countries. The Toda-Yamamoto test was used to evaluate the causal relationship between foreign direct investment and money supply as they are the two variables that have a significant effect on economic growth in Egypt in the long run.

The test results in Table 6 show that foreign direct investment has a causal relationship with economic growth while money supply has no causal relationship. As for KSA,

there were no variables that have a significant effect on economic growth in the long run, therefore, we cannot apply the Toda-Yamamoto test to evaluate the causal relationship in the long run.

5. Conclusion and Policy Implications

Given the inconsistency and gap in the research, this study assessed the influence of financial liberalization on economic growth using an ADRL model from 1970 to 2018 in Egypt and KSA.

Our paper adds to the literature by critically examining the role of financial liberalization in financial development and economic growth—all without sacrificing financial stability. Furthermore, the study intends to establish if income gaps between countries influence the relative impact of financial liberalization on economic growth in the sample countries.

As discussed in Section 1 of this study, several writers have claimed that financial liberalization combined with a weak regulatory structure may have a significant negative

Table 3: KSA ARDL Results

Variables	Coefficient	Std. Error	t-statistic	Prob.
LFDIGDP	0.122189	0.210112	0.581543	0.5641
LDCPS	−2.055500	1.353285	−1.518897	0.1367
LINF	0.100816	0.209941	0.480209	0.6337
LKAOPEN	−1.399654	1.212093	−1.154741	0.2550
LM2GDP	1.525379	1.529451	0.997338	0.3246
LOPEN	0.408027	1.769671	0.230567	0.8188
R-squared	0.37058	Mean dependent var	1.544618	
F-statistic	3.36437	Durbin-Watson stat	2.117387	
Prob(*F*-statistic)	0.00647			
Null Hypothesis: No Levels Relationship				
Test Statistic	Value	Signif.	*I*(0)	*I*(1)
***F*-Bounds Test**				
F-statistic	4.37278	10%	2.12	3.23
k		5%	2.45	3.61
		2.5%	2.75	3.99
		1%	3.15	4.43
***T*-Bounds Test**				
t-statistic	−5.00543	10%	−2.57	−4.04
		5%	−2.86	−4.38
		2.5%	−3.13	−4.66
		1%	−3.43	−4.99

Table 4: Egypt ECM Results

ARDL Error Correction Regression Dependent Variable: D(LGDPG) Selected Model: ARDL(1, 0, 2, 0, 0, 0, 0, 0) Sample: 1970 2018 Included observations: 47				
Variable	Coefficient	Std. Error	t-statistic	Prob.
C	1.856429	0.348303	5.329924	0.0000
CointEq(−1)*	−0.744142	0.125424	−5.933033	0.0000
R-squared	0.43350	Mean dependent var		−0.066291
F-statistic	35.2008	Durbin-Watson stat		2.117387
Prob(*F*-statistic)	0.0000			
F-Bounds Test		**Null Hypothesis: No Levels Relationship**		
Test Statistic	Value	Signif.	*I*(0)	*I*(1)
F-statistic	4.37278	10%	2.12	3.23
K		5%	2.45	3.61

Table 4: (Continued)

F-Bounds Test		Null Hypothesis: No levels Relationship		
Test Statistic	**Value**	**Signif.**	***I*(0)**	***I*(1)**
		2.5%	2.75	3.99
		1%	3.15	4.43
T-Bounds Test				
t-statistic	−5.93303	10%	−2.57	−4.04
		5%	−2.86	−4.38
		2.5%	−3.13	−4.66
		1%	−3.43	−4.99

Table 5: KSA ECM Results

ARDL Error Correction Regression Dependent Variable: D(LGDPG) Selected Model: ARDL(1, 0, 2, 0, 0, 0, 0, 0) Sample: 1970 2018 Included observations: 47				
Variables	**Coefficient**	**Std. Error**	***t*-statistic**	**Prob.**
C	1.856429	0.348303	5.329924	0.0000
CointEq(−1)*	−0.744142	0.125424	−5.933033	0.0000
R-squared		0.43350	Mean dependent var	−0.066291
F-statistic		35.2008	Durbin-Watson stat	2.117387
Prob(*F*-statistic)		0.0000		
			Null Hypothesis: No Levels Relationship	
Test Statistic	**Value**		**Signif.**	***I*(0)**	***I*(1)**
F-Bounds Test				
F-statistic	4.37278		10%	2.12	3.23
k			5%	2.45	3.61
			2.5%	2.75	3.99
			1%	3.15	4.43
T-Bounds Test				
t-statistic	−5.93303		10%	−2.57	−4.04
			5%	−2.86	−4.38
			2.5%	−3.13	−4.66
			1%	−3.43	−4.99

influence on growth. Re-estimating growth, savings, and investment models, as well as measurements of the quality of financial regulation, may be a beneficial direction to take in this regard.

McKinnon (1973) concluded that financial liberalization policies in their various manifestations stimulate savings and increase the amount of financial resources, hence increasing the volume and quality of

Table 6: Egypt Toda-Yamamoto Results

VAR Granger Causality/Block Exogeneity Wald Tests Dependent Variable: LGDPG			
Excluded	**Chi-sq**	**Df**	**Prob.**
LFDIGDP	8.461144	3	0.0374***
LM2GDP	0.008518	1	0.9265

investments and thereby achieving economic growth. Thus, several theoretical and empirical studies have established that financial liberalization policies benefit both financial development and economic growth.

Our findings are thought-provoking. The empirical findings are summarized below.

Financial liberalization did not have the expected long-term effect on economic growth in Egypt over the research period. Foreign direct investment was the only variable that had an expected significant effect on economic growth in Egypt during the study period, while all other variables such as domestic credit to the private sector by banks, indicator of trade openness, indicator of external financial liberalization, and inflation did not have a significant effect on econometric growth. Contrary to the expectations, wide money, which measures the level of the domestic financial system (a measure of the amount of money, or money supply, in a national economy), had a negative substantial influence on economic growth. Even broad money, which measures the level of the domestic financial system, had a negative significant effect on economic growth, contrary to what was expected of it. In the short-term, domestic credit to the private sector by banks has a positive significant effect on economic growth with one lagged period. As for the causal relationship, the financial liberalization variables had no causal relationship with economic growth, the only variable that had a causal relationship with economic growth in Egypt was the foreign direct investment.

In Saudi Arabia, there were no significant effects of any of the variables expressing financial liberalization, whether internally or externally, on economic growth during the study period, whether in the long or short term. Also, the causal relationship between any of the internal and external financial liberalization variables with economic growth was not proven.

Based on the passage of this long period from 1970 to 2018, the financial liberalization did not have its expected effect in Egypt and Saudi Arabia. In Egypt, only the internal financial liberalization had its impact in the short term only, while it had no effects in Saudi Arabia.

To reduce the risk of financial crises, governments should establish a solid supervisory and regulatory framework to supplement financial liberalization initiatives. While financial liberalization policies may directly lower the occurrence of financial crises, their indirect impacts, such as the expansion of banking sector lending, may raise the likelihood of banking crises arising. Increased financial development should therefore be complemented by an increase in institutional quality. Financial repression policies that maintain low or negative interest rates should be avoided by policymakers since they enhance the chance of financial crises, presumably because of excessive risk-taking by banks and other financial institutions. Interest rates should thus be determined by market factors. Economic growth should be accelerated to minimize economic uncertainty, while inflation should be kept low to preserve macroeconomic stability.

References

Atje, R., & Jovanovic, B. (1993). Stock markets and development. *European Economic Review, 37*(2–3), 632–640. https://doi.org/10.1016/0014-2921(93)90053-D

Bekaert, G., Harvey, C. R., & Lundbald, C. T. (2003). Equity market liberalization in emerging markets. *Journal of Financial Research 26*(3), 275–299.

Berthélemy, J. C., & Varoudakis, A. (1995). Thresholds in financial development and economic growth. *The Manchester School of Economic & Social Studies, 63,* 70–84. https://doi.org/10.1111/msess.1995.63.70

Demirgüç-Kunt, A., & Detragiache, E. (2005). Cross-country empirical studies of systemic bank distress: A survey. *National Institute Economic Review, 192,* 68–83. https://doi.org/10.1177/002795010519200108

Dhingra, S. (2004). *Equity market vs. capital account liberalization: A comparison of growth effects of liberalization policies in developing countries.* New Brunswick, NJ: Rutgers University.

Dinar, G., Dalgic, B. C., & Iyidogan, P. V. (2015). Financial liberalization and economic growth in Turkey: a reexamination. *Hacettepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 33*(1), 19–43. https://doi.org/10.1.1.883.4320

Guillaumont Jeanneney, S., & Kpodar, K. (2005). *Financial development, financial instability, and poverty.* Oxford: Centre for the Study of African Economies, University of Oxford.

Gupta, K. (2021). The importance of financial liberalization for economic growth: The case of Indonesia. *Bulletin of Indonesian Economic Studies, 57*(2), 175–201. https://doi.org/10.1080/00074918.2020.1747596

Ho, C. H., Pham, N. H. T., & Nguyen, K. T. (2021). Economic growth, financial development, and trade openness of leading countries in ASEAN. *The Journal of Asian Finance, Economics, and Business, 8*(3), 191–199. https://doi.org/10.13106/jafeb.2021.vol8.no3.0191

Hye, Q. M. A., & Wizarat, S. (2013). Impact of financial liberalization on economic growth: A case study of Pakistan.

Asian Economic and Financial Review, 3(2), 270. http://aessweb.com/pdf-files/270-282.pdf

Klein, M. W. (2005). *Capital account liberalization, institutional quality, and economic growth: theory and evidence* (Working Paper No. 11112). Cambridge, MA: National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w11112/w11112.pdf

Kumar, K., & Paramanik, R. N. (2020). Nexus between Indian economic growth and financial development: A non-linear ARDL approach. *The Journal of Asian Finance, Economics, and Business, 7*(6), 109–116. https://doi.org/10.13106/jafeb.2020.vol7.no6.109

McKinnon, R. I. (1973). *Money and capital and economic development*. Washington, DC: Brookings Institution.

McKinnon, R. I. (1989). Financial liberalization and economic development: A reassessment of interest-rate policies in Asia and Latin America. *Oxford Review of Economic Policy, 5*(4), 29–54. https://www.jstor.org/stable/23606231

Oladipo, O. S. (2011). Does trade liberalization cause long-run economic growth in Mexico? An empirical investigation. *International Journal of Economics and Finance, 3*(3), 63–74. https://doi.org/10.5539/ijef.v3n3p63

Pesaran, M. H., & Shin, Y. (1995). *An autoregressive distributed lag modeling approach to cointegration analysis* (Working Paper No. 3-5-1995). Cambridge, UK: Faculty of Economics,

University of Cambridge. https://doi.org/10.1017/CCOL0521633230.011

Precious, C., Bahle, M., & Praise, G. (2014). Impact of financial liberalization on economic growth: A case study of South Africa. *Mediterranean Journal of Social Sciences, 5*(23), 238–238. https://doi.org/ 10.5901/mjss.2014.v5n23p238

Quinn, D. P., & Inclan, C. (1997). The origins of financial openness: A study of current and capital account liberalization. *American Journal of Political Science, 41*(3), 771–813. http://www.dennispquinn.org/profile/wpcontent/uploads/2020/05/The_origins_of_financial_openn.pdf

Ruankham, W., & Pongpruttikul, P. (2021). Feldstein-Horioka puzzle in Thailand and China: Evidence from the ARDL bounds testing. *The Journal of Asian Finance, Economics, and Business, 8*(9), 1–9. https://doi.org/10.13106/jafeb.2021.vol8.no9.0001

Wyplosz, C. (2002). How risky is financial liberalization in developing countries? *Comparative Economic Studies, 44*(2), 1–26. https://unctad.org/system/files/official-document/pogdsmdpbg24d14.en.pdf

Yakubu, Z., Loganathan, N., Mursitama, T. N., Mardani, A., Khan, S. A. R., & Hassan, A. A. G. (2020). Financial liberalization, political stability, and economic determinants of real economic growth in Kenya. *Energies, 13*(13), 3426. https://doi.org/10.3390/en13133426