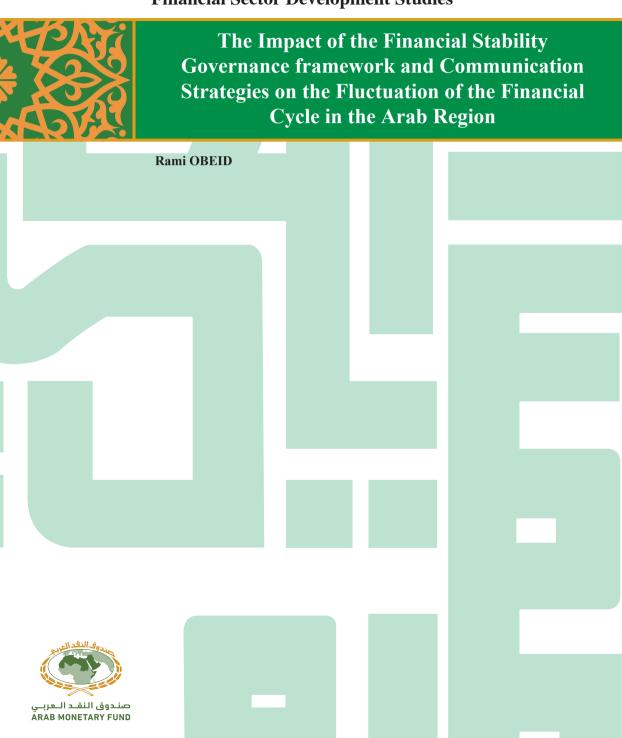
Financial Sector Development Studies





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Abstract

This paper presents an analysis of the relationship between the governance of financial stability and the communication policy of Central Banks in the Arab region, and their effectiveness in reducing the fluctuations of the financial cycle in twelve Arab countries during the period (2005-2020). In this paper, we will provide a theoretical framework for how to assess systemic risks by the Central Banks, and then attempting to measure the role of the existence of specific characteristics for the governance of financial stability in the Central Bank along with the existence of an effective framework for communication in reducing the fluctuations of the financial cycle. The paper reveals that the Central Banks communication policies are effective in reducing the possibility of a crisis especially if they have a financial stability committee with power. The paper recommends the decision makers at the Central Banks to continuing pay attention financial stability governance for the framework and the communication strategies.

JEL Classification: G15, G28.

Keywords: Central Banks, Financial Stability Governance, Financial Stability Report, Central Bank Communications, Financial stability sentiment, Financial Cycle, Arab Region, Panel Data, Probit Models, Credit to GDP.

Introduction

After the global financial crisis in 2008, many Central Banks took steps to enhance the resilience of their financial system, protect it from systemic risks, and enhance its shocks absorption. Perhaps one of the most prominent actions that Central Banks have done within the framework of the lessons learned from the global financial crisis in 2009, is the establishment of a financial stability committee within the Central Bank in order to enhance the effectiveness of the macroprudential policy. Central Banks also added the goal of financial stability among their main objectives, so that this became the most important objective of Central Banks due to its comprehensiveness. To achieve the desired objectives of the macroprudential policy, interest has emerged in the role of the Central Bank and the Financial Stability Committee in ensuring coordination between economic policies to avoid a conflict between them.

In this paper, the impact of differences in financial stability governance frameworks among Arab countries, and the role of the Central Bank in preventing or mitigating the impact of banking crises will be studied. In this context, the paper will discuss the role of the Central Bank (from a financial stability perspective) in providing an assessment of the financial stability situation in the country (Financial stability sentiment), and the extent to which it is affected by the use of macroprudential policy tools, in addition to the role of

communication strategies and their effectiveness in reducing systemic risks and fluctuations of the financial cycle, where the Central Bank uses internal and external information to assess the weaknesses of the banking sector. Then, based on the characteristics of financial stability governance in the country, the Central Bank decides whether the macroprudential policy tools used are sufficient or need to be modified, and whether there is coordination with changes in interest rates on monetary policy tools in order to support the macroprudential policy if necessary.

1. Literature review

There are several studies that have tried to examine the relationship between the governance of financial stability and communication strategies in Central Banks on the one hand, and the impact of systemic risks on the financial sector and the fluctuations of the financial cycle on the other hand. These studies focus on the impact of having a financial stability committee or management crises within the Central Bank, the presence of this committee will help in reducing the occurrence of systemic crises in the financial sector, while communication strategies are measured through an indicator related to the issuance of the financial stability report, where the financial stability report is one of the most important means of communication with the public (this will be explained in detail later).

In the following, the literature will be addressed from two perspectives, the first perspective on the impact of financial stability governance on the fluctuations of the financial cycle, and the second perspective on the impact of communication strategies on the fluctuations of the financial cycle. The fact that there are few studies that reviewed the two perspectives together, the most important of which is the study issued by the US Federal Reserve Board (Londono et al., 2021), which examined the impact of Central Bank governance frameworks and communication strategies for financial stability in reducing the fluctuations of the financial cycle. This study used data that includes the characteristics of financial stability governance in a sample of 24 Central Banks in advanced economies. The study showed that strengthening financial stability governance through the presence of a financial stability committee and communication strategies at the Central Bank, effectively mitigate the deterioration of financial conditions and significantly reduce the chances of a systemic crisis.

In this context, a number of studies focused on the aspects of communication strategies related to monetary policy (such as: Morris and Shin, 2002; Ehrmann and Fratzscher, 2007; and Blinder et al., 2008;), as for examining the relationship between governance and communication strategies on the one hand, and the financial cycle on the other hand, it is still few (Londono et al., 2021). Among these studies is the study of (Osterloo et al. 2011), which examined the

impact of publishing the financial stability report on the financial and economic cycles, while the study (Harris et al., 2019) analyzed the impact of the Bank of England's issuance of the financial stability report on stock returns and certificates of deposit.

As for the study issued by the European Central Bank (Born et al., 2014), it analyzed the sentiment in 37 Central Banks, by creating an indicator related to the number of positive and negative words used in the financial stability report as well as press releases or speeches issued by Central Banks and then measure the impact on the financial cycle. The study showed that this indicator can be relied upon in predicting banking crises, and the study also showed that the publication of the financial stability report has a significant and longterm effect on stock returns and reduces market volatility. It leads to reduce volatility during normal times, but in return led to reduce volatility during the 2008 global financial crisis. The results also showed that there are indications that communication strategies for financial stability are not sufficient alone to avoid a weakness in the financial system. On the other hand, the study (Londono et al., 2021) indicated that communication strategies can have a significant impact in countries that have a prudent financial stability governance system, as the study analyzed the differences in the frameworks of financial stability governance for Central Banks, and the use of monetary policy tools, the study proposed a conceptual framework to understand the interaction between the frameworks of financial stability governance and the communication strategy of the Central

Bank. The study found that financial stability governance frameworks along with financial stability communication strategies contribute to mitigating the fluctuations of the financial cycle.

2. Theoretical framework of the interaction between the financial stability governance and the communications strategies and the impact on the financial cycle

This paper focuses on the role of strengthening the financial stability governance of Central Banks in limiting the accumulation of systemic risks, as the success of the Central Bank's policy depends on avoiding crisis weaknesses in the banking sector, by making decisions regarding the monetary and macroprudential policies and the extent of coordination between them, and then assessing the changes in the financial cycle. To achieve this, three different stages of the crisis are traced as follows:

The first period (t), which is a normal period, the financial stability department evaluates the systemic risks in the financial sector as usual, and expectations are built through econometrics models and early warning systems, and other indicators such as: Financial soundness indicators, the credit to GDP gap, the price indices of real estate assets and stocks, stress tests, etc., and reports are submitted to the Central Bank management on the assessment of systemic risks in the financial sector. For its part, the open market operations department raises its recommendations for monetary policy tools to ensure that the tools are consistent with changes in the economic environment. In light of this, the recommendations of the two

departments are presented to the Crisis Management Committee (or the Financial Stability Committee) to coordinate the decisions taken and support each other.

In the second period, after a short period of time (I) "less than a year", i.e. the time period has become (t+I), the Central Bank (Crisis Management Committee) may decide to make adjustments to the interest rates on the instruments of the Monetary policy and/or the macroprudential policy during the same period of time, or as needed during successive short periods of time, and based on the conditions of the economic and financial cycles. During this stage, a financial stability report supposed to be issued, the report includes an analysis of systemic risks, based on the actual data for the period (t+I), and the predictive data for the subsequent period (t+h). The period (t+I)is important and sensitive as it will give the public a general impression of the financial stability situation from the Central Bank perspective, and here the effectiveness of the Central Bank's communication strategy becomes clear, and its effectiveness appears in the subsequent period. The communication strategies give a transparent and responsible description about the systemic risks in the financial sector and the extent of the banking system's ability to withstand shocks, and it also summarizes the situation of financial stability in the country through analyzing systemic risks by several tools, such as: econometric models, heat map, stress tests, financial stability index and others.

In the third period, after a period of time of no less than a year (h), so that we reach the time period (t + h), the financial statements and or financial soundness indicators begin to appear; the Central Bank may at this stage also issue a financial stability indicator to analyzing the risks level surrounding the financial sector, and weaknesses in the financial sector (if any), in addition to the economic risks by following the growth of GDP and inflation, and to link between financial/banking and economic risks, the Central Bank calculate and analysis the credit gap in this period. It is also possible to support the Central Bank analysis through early warning systems, such as the risk/heat map, econometrics models, stress tests, real estate and stock price indices, and others. In this context, the result of the financial stability index might be analyzed in this stage, this index considers the financial and economic variables that measure the effectiveness of the policies taken by the Central Bank (Crisis Management / Financial Stability Committee) to reduce risks and support the macroprudential policy and monetary policy actions to withstanding risks economy and ensuring the provision of the necessary liquidity to stimulate the economy. At this stage, the Central Bank gives the public clearer signals about the financial stability situation, so that the size of the systemic risks in the financial sector in the country is determined and evaluated, and whether it indicates the imminence of a crisis or not.

Considering the foregoing, the above can be summarized through mathematical models, where the Central Bank builds its expectations in country (i) at the period (t) as follows:

$$E_{i,t}^{CB}(FC_{i,t+h}) = f_i^{CB}(I_{i,t}^{public}, I_{i,t}^{private}, C_{i,t}) \qquad (1)$$

Where FC is the financial cycle data captured by the Central Bank, and $E_{i,t}^{CB}(FC_{i,t+h})$ is the Central Bank's forecast based on current data.

 $I_{i,t}^{public}$ represents public information collected from the Central Bank, specifically the departments concerned with research, financial stability, banking supervision, and monetary policy.

 $I_{i,t}^{private}$ represents private information obtained from the databases and information within the Central Bank (not necessarily published).

 $C_{i,t}$ is the characteristics of the Central Bank in the country, including: the framework for governance of financial stability, and the transparency and independence level.

In the time period (t+I), the Central Bank uses the communication strategy in a responsible and transparent way to assess the current financial conditions, the evolution of the financial cycle, and builds its current and future expectations according to the following equation, bearing in mind that it is assumed that the financial stability sentiment will improve if there is a governance framework effective

at the Central Bank through the presence of a financial stability/crisis management committee:

$$FSS_{i,t+I} = f_i^{current} \left(I_{i,t}^{public}, I_{i,t}^{private}, C_{i,t} \right) \tag{2}$$

$$FSS_{i,t+h} = f_i^{future} \left(I_{i,t}^{public}, I_{i,t}^{private}, C_{i,t} \right) \tag{3}$$

Where *FSS* represents the financial stability sentiment according to the index that was used by (Correa, Garud, Londono, and Mislang, 2021). This index depends on the amount of negative and positive data included in the financial stability reports issued by each country. As for how to define negative and positive data, the study's dictionary (Correa, Garud, Londono, and Mislang, 2017) was used, where the index is calculated according to the following:

$$FSS_{i,t} = \frac{Number\ of\ Negative\ words-Number\ of\ Positive\ words}{Total\ words} \qquad (4)$$

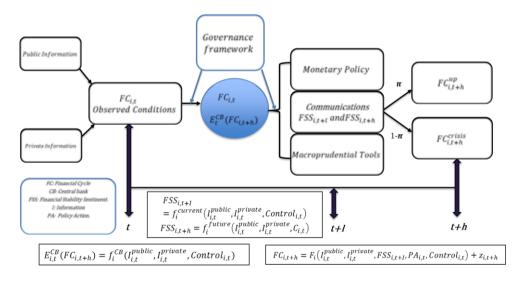
In the period (t+h) the credit to GDP gap will be used as a variable that measures the evolution of the financial cycle. It is known that this ratio links between financial and economic risks and measures the extent to which credit growth is consistent with GDP. This indicator is also one of the main components that the Macroprudential policy is based on when making decisions. If the ratio is low, the systemic risk in the financial system becomes low and vice versa. The conditions of the financial cycle $(FC_{i,t+h})$ will depend on the policy decisions of the Central Bank (PA); in the period (t+I), as well as on the financial stability governance

framework and its characteristics in each country in terms of the presence of a crisis management or financial stability committee, in addition to the size of the potential shocks that may affect the financial stability situation $(z_{i,t+h})$. The following equation can be used to express this:

$$FC_{i,t+h} = F_i \left(I_{i,t}^{public}, I_{i,t}^{private}, FSS_{i,t+1}, PA_{i,t}, C_{i,t} \right) + z_{i,t+h} \tag{5}$$

Where FC is the financial cycle, FSS represents the financial stability sentiment, and PA represents the macroprudential policy action. In this context, the Central Bank's policy will aim to achieve a level (π) of stability, and avoid the occurrence of a crisis, that is, reduce the value of $(1-\pi)$ as much as possible (see figure 1).

Figure 1: Financial Stability Governance and Communication Strategies of Central Banks



Source: (Londono et al., 2021).

3. Data and variables

In order to test the impact of the Central Bank's financial stability governance frameworks and communication strategies on reducing the fluctuations of the financial cycle, in the sense of measuring the effectiveness of the Central Bank's policies in enhancing the resilience of the financial sector, data on banking and economic indicators were collected for twelve Arab countries (Jordan, UAE, Bahrain, Tunisia, Saudi Arabia, Iraq, Oman, Qatar, Kuwait, Lebanon, Egypt and Morocco) for the period (2005-2021). As for the information on the financial stability report, it relied on the websites of the Central Banks, and then the financial stability sentiment index, which we showed below, was calculated. Accordingly, the indicators used in the study will be divided into three groups as follows:

Financial stability sentiment indictor: Whereas equation No. (4) that was referred to previously in detail will be used, the conditions of financial stability will be evaluated through an indicator based on the contents of financial stability reports issued by Central Banks, based on the dictionary used in the study (Correa, Garud, Londono, and Mislang, 2017). The Financial Stability Report is a reference that includes a comprehensive assessment of the financial stability situation in the country (Born, Ehrmann and Fratzscher, 2011), and it measures the market's reaction to developments related to the financial stability situation.

Governance frameworks indicators: This dimension was added to capture the changes that have occurred with regard to the governance of financial stability in the country, and these characteristics measure the following: (1) the presence of a financial stability committee within the Central Bank (2) if the committee exists, the extent to which it has the ability to implement macroprudential policy tools and coordination with monetary policy, (3) the extent to which the supervisory umbrella of the Central Bank is expanded to include non-bank financial institutions.

In this context, dummy variables were used to measure the strength of the powers and independence of the Central Bank in making decisions to enhance financial and economic stability in the country. regarding the first variable, it represents the presence/absence of a financial stability committee within the Central Bank so that a value of 1 is given. In the case of the presence of this committee and zero otherwise. The presence of this committee is a strengthening of the governance system, supports the strength of the decisions taken by the Central Banks, and enhances coordination between the monetary and macroprudential policies in a way that enhances the flexibility of the banking and financial sector.

Regarding the second variable, it will measure the extent to which the Financial Stability Committee is able to use the macroprudential policy tools, as a value of 1 will be given if it has the ability to activate / deactivate the use of these tools, whether they are assets-based,

capital or liquidity-based tools, while a value of zero will be given otherwise

As for the third variable, it represents the extent to which there is coordination between the Central Bank and the supervisory authorities of the non-banking financial sector in maintaining the financial system and supporting coordinated decisions in this regard, whether in the membership of the committee official bodies concerned with the financial sector such as the Ministry of Finance and the Insurance Supervisory Authority, the Deposit Insurance Corporation, the Capital Markets Authority, and others, or/and if the Central Bank's supervision includes the non-bank financial sector, such as insurance companies, microfinance institutions, financial leasing companies, and other specialized lending companies. A value of 1 is given if there are official bodies concerned with the financial sector within the Financial Stability / Crisis Management Committee and/or if non-bank financial institutions are subject to the supervision of the Central Bank, and zero otherwise.

Financial Stability conditions: The credit gap will be used, that is, the difference between the credit-to-GDP ratio and the long-term trend, which is considered as an assessment of the evolution of the financial cycle (Borio, 2014).

Table 1 shows descriptive statistics for some variables of the study, in addition to some information related to the governance of financial stability and fluctuations in the financial cycle (turning points), and

as we mentioned previously, turning point (TP) was calculated if the credit gap decreased for at least four consecutive quarters.

Table 1: Financial stability governance frameworks, financial cycle fluctuations and descriptive statistics for some variables

Country	Existantce of	Number of turning	FSS Index ¹		Credit to GDP gap	
	Financial Stability Committee	points in the financial cycle	Mean	St. dev.	Mean	St. dev.
Jordan	Yes	3	-0.88	0.63	2.14	0.82
UAE	Yes	2	-1.25	1.01	-0.04	0.75
Bahrain	Yes	3	-1.32	0.89	-0.22	0.35
Tunisia	Yes	5	0.08	0.53	1.05	0.85
KSA	Yes	4	-1.12	1.23	3.03	0.75
Iraq	No	4	0.32	0.70	2.13	1.23
Oman	Yes	3	-0.87	0.72	0.16	0.05
Qatar	Yes	2	-1.35	1.22	4.61	0.74
Kuwait	No	2	-1.15	0.95	2.72	0.65
Lebanon	Yes	5	0.12	0.45	5.31	1.31
Egypt	No	5	-0.17	0.62	4.22	0.94
Morocco	Yes	3	-0.83	0.74	1.35	0.51

Source : Author calculations except the data for the financial stability committee, we obtained it from the Central Banks websites.

The results showed that the volatility of the *FSS* index and credit to GDP gap differs across countries, as indicated by the values of standard deviation. Additionally, there is evidence of discrepancy in the averages and volatility of the factors that affect the fluctuations of the financial cycle.

¹ According to Equation No. 4, an increase in the *FSS* index indicates a deterioration in sentiment, and vice versa.

4. Methodology

This paper will use panel-data (panel regressions with country fixed effects) and probit models to estimate the cross-country differences in term of the frameworks of financial stability governance and its interaction with the communication strategies of the Central Banks. We will discuss heterogeneity across the Arab countries, this will help to examine how the financial stability sentiment conveyed by Central Banks' communications affects the development of the financial cycle (the credit to GDP gap). Finally, to avoid the time-invariant, we will omit the costant terms as well as the coefficient of the control variables, this approach has been used by (Londono et. al, 2021).

1.1 The impact of financial stability governance and financial stability communication strategy on the financial cycle

To begin with, we test how the financial stability governance framework affects the relationship between the communication policies and strategies of Central Banks and the development of the financial cycle. In the sense we study how to manage the financial stability situation in the Arab countries through the impact of the financial stability sentiment (*FSS*) on the development of the financial cycle indicators (*FC*) after four quarters through the following model:

$$FC_{i,t+4} = \alpha + (\beta_1 + \beta_2 D_{i,t-1})FSS_{i,t} + \delta C_{i,t-1} + e_{i,t+h}$$
 (6)

Where FC represents one of the elements of the financial cycle represented by the credit to GDP gap, D represents a dummy variable that measures whether the Central Bank has a financial stability committee or a crisis management committee (we take it as a lag to avoid the potential endogeneity between D and FSS), and C represents a vector that measures a number of control variables, which are: GDP growth rate, unemployment rate.

1.2 The impact of the financial stability communication strategy on the financial cycle

After examining how financial stability governance frameworks affect the relationship between the communication policy of Central Banks and the development of the financial cycle, the effectiveness and impact of the communication policy of the Central Bank on the turning points in the financial cycle will be examined, we will use the following equation for this purpose:

$$FC_{i,t+4} = \alpha + (\beta_1 + \beta_2 D_{i,t-1} + \beta_3 T P_{i,t+4} + \beta_4 D_{i,t-1} T P_{i,t+4}) FSS_{i,t} + \delta C_{i,t-1} + e_{i,t+4}$$
 (7)

Where FC financial cycle indicators, TP is a dummy variable that takes the value 1 if there is a turning point of the financial cycle, where the credit gap decreases for four consecutive quarters. In order to further verify the study of the effectiveness of the impact of the communication policy on the turning points in the financial cycle, before estimating Model (7), the Probit analysis methodology will be used according to the following equation:

$$\Pr[TP_{i,t+4} = 1] = \phi[X_{i,t}\beta]$$
 (8)

Where X represents a matrix containing the previously mentioned FSS index. ϕ represents the Cumulative Distribution Function (CDF) of the standard normal distribution. β represents a matrix containing the coefficients of the variables.

In all estimations, we will take fixed effects for each country into consideration for other time-invariant country characteristics in order to avoid using the variables not related to governance. So, we will omitting the constant terms and the coefficients of the control variables in all estimations. This will enable us to focus on the impact of the governance frameworks (Londono et al. 2021).

5. Empirical results

5.1 The impact of financial stability governance and financial stability communication strategy on the financial cycle

Table (2) shows the results of estimating the econometric equation No. (6), where *panel* (1) represents the results of estimating the model on the impact of the communication strategy on the evolution of the financial cycle without taking the issue of financial stability governance into account. While *panel* (2) shows the results of estimating the impact of the communication strategy in the presence of a financial stability committee within the Central Bank. As for *panel* (3) shows the impact of the communication strategy in the

presence of a financial stability committee, with intervention power. Finally, *panel (4)* shows the results of estimating the impact of the communication strategy, in the presence of a financial stability committee within the Central Bank, with intervention power and representatives in the committee on behalf of the supervisory authorities of the non-banking financial sector.

We will focus on the variables that measure the impact of financial stability governance and communication strategies on the fluctuations of the financial cycle. The results reveal that there is a significant negative relationship between the *FSS* index and the credit to GDP gap (*FC*) when the aspect of financial stability governance is considered, and this shows the importance of having a financial stability committee along with a communication strategy within the Central Bank, which leads to reducing systemic risks and fluctuations of the financial cycle. In other words, Central Banks with the financial stability governance characteristics may control effectively the evolution of the financial cycle if they are a deterioration in financial stability sentiment (*FSS*).

Table (2): The impact of financial stability governance and financial stability communication strategy on the financial cycle (the dependent variable, the credit to GDP GAP) using the Fixed Effects method

	,			
	(1)	(2)	(3)	(4)
	Homogenous	Committee	Committee	Committee
			with power	includes
				members of the
				NBFIs
				supervisory
α	<i>2.78</i>	2.86	2.51	2.02
	(1.98)	(2.01)	(1.87)	(1.99)
$\beta_1(FSS)$	2.84	3.92	2.91	4.03*
	(1.52)	(2.01)	(1.77)	(1.55)
β_2 (D*FSS)	-	-3.81*	<i>-5.78**</i>	<i>-5.74**</i>
		(1.01)	(1.15)	(1.25)
$\beta_1 + \beta_2$	-	0.11	-2.87	-1.71
		(1.25)	(1.62)	(1.52)
F test	25.45	27.35	28.43	25.26
R^2	0.26	0.28	0.31	0.29

The Huber-White standard error value is placed in parentheses (Wooldridge, 2002). *, ** and *** are the 10%, 5%, and 1% significance levels, respectively. In all estimates, we consider static country effects that do not change over time and that are not related to governance.

5.2 The impact of the financial stability communication strategy on the fluctuations of the financial cycle

Before analyzing the impact of the communication strategy for financial stability on the fluctuations of the financial cycle, it is useful to analyze the predictive ability of the communication strategy with regard to the turning points of the financial cycle, as the analysis using (Probit analysis) according to equation (7) showed that the communication of Central Banks has a predictive ability in crises and the impact on the turning points of the financial cycle (Table 3), where the results show that the Central Bank, which does not have an effective

governance framework with regard to financial stability, its prudential measures have little impact on the financial cycle, and the probability of a turning point in the financial cycle in its country is higher than Central Banks of other countries. That is, for Central Banks that do not have any of the characteristics of governance, sentiment deteriorates more, and fewer policy actions are implemented compared to Central Banks that have the characteristics of financial stability governance. That is, as a key conclusion, Central Banks without governance characteristics are less likely to prevent fluctuations in the financial cycle.

Table (3): The predictive ability of the Central Bank's communication strategy regarding the fluctuations of the financial cycle

- <u>0 - 0 - </u>							
	(1)	(2)	(3)	(4)	(5)	(6)	
	Comr	Committee		Committee with		Committee includes	
			power		members of the		
					NBFIs su	pervisory	
	Yes	No	Yes	No	Yes	No	
FSS	0.15	0.36**	-0.26***	0.21**	0.02	0.36**	
	(0.26)	(0.15)	(0.02)	(0.07)	(0.18)	(0.11)	
R^2	0.03	0.11	0.09	0.06	0.07	0.09	

The value in parentheses represents the standard error, and the *, **, and *** levels of statistical significance are 10%, 5%, and 1%, respectively

Regarding the impact of the Central Bank's communication strategy on the fluctuations of the financial cycle, Table (4) shows the results of the estimation of Model (7), where the results show several

important aspects, as Central Banks that do not have a financial stability governance framework evaluate the financial stability situation in the country, followed by a higher probability of making fluctuations in the financial cycle, and the results showed the existence of a positive significant relationship between the financial stability sentiment index (FSS) and the credit gap (FC) in the event that there is a financial stability governance framework at Central Banks (β_1 + β_3), i.e. A decrease in the financial stability sentiment index (FSS) without a financial stability governance framework will lead to fluctuations in the financial cycle. Regarding the interaction between the financial stability sentiment index (FSS) and the characteristics of financial stability governance and its impact on the financial cycle, the value of β_2 showed a significant negative relationship between the FSS index and the fluctuations of the financial cycle in the event that the characteristics of governance for financial stability are available at Central Banks, meaning that the presence of a governance framework for financial stability at Central Banks reduces the occurrence of fluctuations in the financial cycle.

Table 4: The impact of the communication strategy for financial stability on the fluctuations of the financial cycle (the dependent variable of the private credit gap) using Fixed Effects method

	(1)	(2)	(3)	(4)
	Homogenous	Committee	Committee	Committee
			with power	includes
				members of
				the NBFIs
				supervisory
α	2.82	2.11	2.51	2.66*
	(<i>1.9</i> 3)	(1.71)	(1.77)	(1.09)
$\beta_1(FSS)$	1.84	2.62**	4.91*	6.03***
	(1.72)	(0.91)	(1.77)	(1.55)
eta_2 (D*FSS)	-	-6.81***	<i>-7.78***</i>	<i>-5.74***</i>
	-	(1.01)	(1.15)	(1.25)
eta_3 (TP*FSS)	6.11***	6.35***	6.52***	6.61***
	(1.23)	(1.11)	(1.52)	(1.49)
eta_4 (D*TP*FSS)	-	-0.25	1.55	1.22
	-	(1.52)	(0.99)	(1.35)
$\beta_1 + \beta_3$	-	8.97***	11.43***	12.64***
		(1.25)	(1.62)	(1.71)
$\beta_1 + \beta_2 + \beta_3 + \beta_4$	-	1.91	5.20	8.12
	-	(1.22)	(3.11)	(5.14)
F test	32.45	33.31	32.28	29.14
R^2	0.27	0.29	0.30	0.25

The Huber-White standard error value is in parentheses. The *, ** and *** levels of statistical significance are 10%, 5%, and 1%, respectively.

6.Conclusion

The paper showed the importance of the role of the characteristics of financial stability governance for Central Banks in the Arab region along with the existence of a communication strategy in reducing the fluctuations of the financial cycle and thus reducing the possibility of

a financial crisis. For this purpose, the Central Bank's communication policy was measured through the Financial Stability sentiment Index, which depends on the content of the Financial Stability Report issued by twelve Arab countries for the period (2005-2020). Financial stability in the Central Bank within certain characteristics, and then the interaction between them and its impact on the fluctuations of the financial cycle was studied. The results of this study support the findings of the study (Londono et. al, 2021) in terms of the importance of strengthening the financial stability governance framework for effective communication strategies in reducing the occurrence of financial crises.

References

Borio, C., 2014. *The financial cycle and macroeconomics: What have we learnt?* Journal of Banking and Finance 45, 182–198.

Born, B., Ehrmann, M., Fratzscher, M., 2014. *Central bank communication on financial stability*. Economic Journal 124, 701–734.

Blinder, A. S., Ehrmann, M., Fratzscher, M., Haan, J. D., Jansen, D.-J., 2008. *Central bank communication and monetary policy: A survey of theory and evidence*. Journal of Economic Literature 46, 910–945.

Correa, R., Garud, K., Londono, J. M., Mislang, N., 2017. *Constructing a Dictionary for Financial Stability IFDP Notes*. Washington: Board of Governors of the Federal Reserve System, June 2017.

Correa, R., Garud, K., Londono, J. M., Mislang, N., 2021. *Sentiment in Central Banks' Financial Stability Reports*. Review of Finance 25, 85–120.

Ehrmann, M., Fratzscher, M., 2007. *The timing of Central Bank communication*. European Journal of political Economy 23, 124–145.

Harris, R., Karadotchev, V., Sowerbutts, R., Stoja, E., 2019. *Have FSRs got news for you? Evidence from the impact of Financial Stability Reports on market activity*. Bank of England working papers 792, Bank of England.

Londono, J., Classens, S., and Correa, R. (2021). *Financial Stability Governance and Central Bank Communications* International. Finance Discussion Papers 1328. Washington: Board of Governors of the Federal Reserve System, https://doi.org/10.17016/IFDP.2021.1328.

Morris, S., Shin, H. S., 2002. *Social value of public information*. The American Economic Review 92, 1521–1534.

Osterloo, S., de Haan, J., Jong-A-Pin, R., 2011. *Financial stability reviews: A first empirical analysis*. Journal of Financial Stability 2, 337–355.

Wooldridge, J., 2002. Econometric Analysis of Cross Section and Panel Data. MIT press.

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