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The Impact of Monetary Policy on The Financial Stability of The Banking Sector (An Applied Study of Egyptian Banks From 2010 To 2021)

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Abstract

The researcher sought to identify the impact resulting from the application of monetary policy in achieving banking stability during the period from 2010 to 2021 and whether these policies led to improving the indicators on which the study relied in measuring banking stability, represented by non-performing debts (NPL) and the Z-Index. In Egyptian banks, where Egyptian banks have worked to develop performance in line with the requirements of the Central Bank of Egypt with regard to setting standards that preserve the assets of these banks, especially assets related to bank credit, the study population consisted of all Egyptian banks, and they counted 38 commercial banks based on the annual report of the Central Bank of Egypt for the year 2021. The results concluded that there is a statistically significant effect of monetary policies on banking stability in Egyptian commercial banks (governmental - joint investment - foreign), where the results showed that monetary policies affect banking stability as measured by the Z-Index by a determination coefficient of (Cox). & Snell) with an explanatory power of 29.51%, and the coefficient of determination of (Nagelkerke) showed an explanatory power of 31.25% in light of the introduction of regulatory variables (inflation - ownership structure - bank size), in addition to the fact that monetary policies affect banking stability as measured by the non-performing loan ratio (NPL) with a coefficient of determination For (Cox & Snell) it is 33.62%, and the coefficient of determination for (Nagelkerke) is 35.99% in light of the introduction of the regulatory variables (inflation - ownership structure - bank size).

Keywords: Monetary policy, financial stability, non-performing debts, banking sector

Introduction

How to manage assets in a manner that ensures stability is the defining characteristic of bank operations. Stability can be achieved by avoiding economic crises as much as possible and thereby attaining growth. Consequently, it is essential to examine the factors affecting the financial stability of the banking system, particularly the economic variables associated with the monetary and financial policies applied by the state, and the extent to which the bank can protect itself against the risks arising from direct or indirect effects following the adoption of decisions affecting the bank's performance. In order to identify the factors that lead to risk and prevent instability, it is necessary to investigate and regulate the factors associated with monetary and financial policies. Knowledge of the components and determinants of stability, especially those associated with monetary policies, will assist in achieving the goals of banking work. (Sahin,2016)

Given the importance of managing the banking sector and its role in supporting and developing the state economy, moving the production wheel and maximising the value of the services provided and facilities granted to all industrial and commercial fields The study of the stability of the banking sector is of paramount importance to these and other institutions in order to enable them to carry out their operations and activities. In view of the high reliance placed on the financing of activities through the banking system, if the system is stalled or unstable, this is reflected in many different investment activities as well as in the ability of the institution to achieve its objectives.

Besides, there's a correlation between the efficiency of the banking sector and the economy in a reciprocal relationship, which makes an investigation possible.

The efficiency levels of banks are critical for decision-makers within or outside the sector, since the banking sector is the most sensitive among different economic sectors, and the more efficient banks perform, the better the asset management process.

Therefore, the process of studying the factors that affect bank stability is of great importance for its preventive action.

In order to avoid banks being exposed to the problem of instability, it is imperative in the banking system to have the ability to increase performance rates, and through the trade-off between the performance of one bank and another within the market, the quality of asset management and the reduction in the proportion of debt defaults can be reached at the level of financial stability, along with many other indicators such as capital adequacy or stabilisation of the rate of return on assets. (Mohammed, 2014)

The main objective of monetary policies is to target inflation and to manage the monetary market in general, by creating a general framework and specific factors to guide monetary

policy officials of the State in making decisions whether to administer interest prices , banking facilities, initiatives, as well as other instruments that help the central bank to control the rhythm of the cash market, such as the return on interbank transactions or the return on the treasury's ears, since the existence of such instruments is a guarantee of the banking system and the economy in general, and their absence leads to a weakening of the bank's power, so the objectives of monetary policy-making have been multiple. (Ibrahim, 2022.)

Egyptian banks are developing performance in line with the requirements of the Central Bank of Egypt with regard to the situation in Egypt.

The study of monetary and financial policies that affect bank stability may reveal the power or vulnerability) those policies in explaining the change in the level of stability in banks. The reasons for the financial instability of the banking system are multiple and different according to the working environment. The Central Bank of Egypt, the Ministry of Finance, and the Ministry of Planning took care to establish a joint committee to monitor the impact.

The result of fiscal policies and proactive decision-making is that if some negative indicators appear, they're not the same. The policy has traditionally been formulated according to each side's vision. However, greater attention to the integration of monetary and financial policies has been given to achieving a high level of coordination, which in turn leads to the prospect of financial stabilization of the banking system, as inflation has been adjusted in the light of the different ownership structures of banks between the two branches of government (joint investment), as well as to the difference in the size of the bank (large, medium, small), followed by a statement that affects banking stability by identifying the ratio of loans to total NPL loans and the ratio of Index-Z, which reflects the total return on both assets and property rights to total assets relative to the standard deviation of proceeds on assets.

Thus, the purpose of the study is to determine the magnitude of the impact of fiscal and monetary policy on the economic, social, and cultural development of developing countries.

The financial stability of Egyptian banks during the period from 2010 to 2021, in light of the preservation of assets and customer deposits, Also, a clear form of policies (cash and finance) affecting bank stability has been established, together with a breakdown of the differences between banks in terms of both the form of ownership and the size of the bank by examining the level of differences in the variables on which the study is based. The current study therefore helps to solve the problem of enhancing banking stability. The management of the bank and the banking sector can identify the impact of monetary and financial policies on stability. The investor's need for a degree of transparency and confidence allows him to identify and assess the risks to which the bank is exposed in the application of those policies. The problem of the study can therefore be summarised in the following question:

Q1: What is the impact of fiscal and monetary policy on the financial stability of the banking system in Egyptian banks in the period from 2021 to 2010?

Q 2: Are there statistically significant differences between the levels of banking stability in both the Egyptian government (Governor of the Government) and banks (Big, Medium, and Small) during the period from 2021 to 2010?

According to what has been reviewed of the problem of the study, the objectives and importance of the study, and based on what has been extrapolated from previous studies related to the subject of the study, the hypotheses have been formulated as follows:

1st main hypothesis: "There is a statistically significant effect of monetary policies on banking stability in Egyptian commercial banks."

The first sub-hypothesis is: “There is a statistically significant effect of monetary policies on banking stability, as measured by the Z-Index in Egyptian commercial banks.”

The second sub-hypothesis is: “There is a statistically significant effect of monetary policies on banking stability, as measured by the non-performing loan ratio (NPL) in Egyptian commercial banks.”

The study variables appear according to the study model as follows:

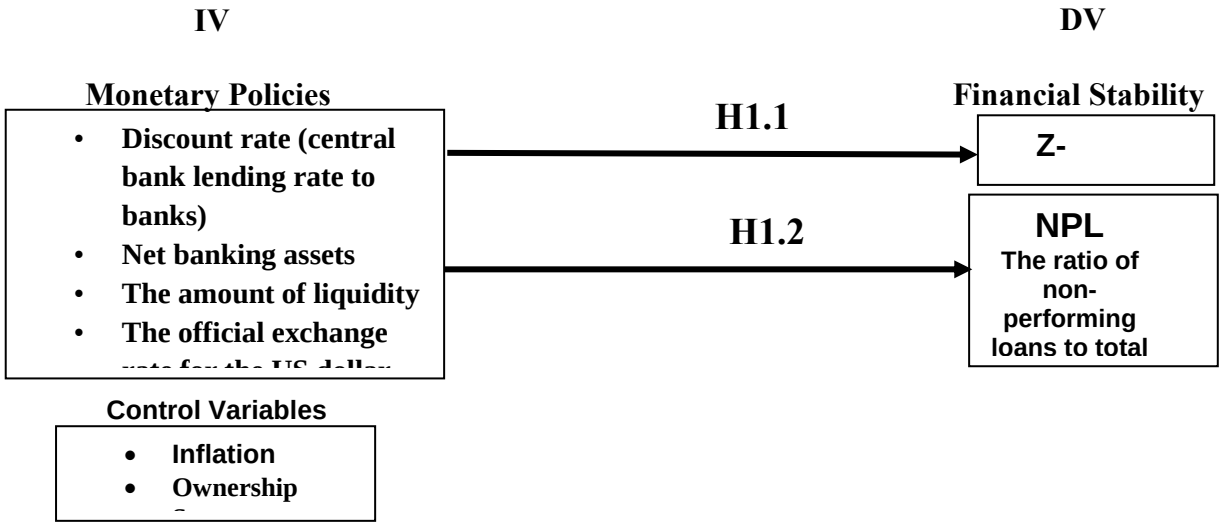

Figure (1): Proposed Research Model

Source: the authors based on previous studies

Methodology:

The analytical descriptive approach was used as the main approach on which the study relied in its general aspects by applying it to the 32 Egyptian banks for the period from 2010 to 2021.

Given that the process of measuring the level of application of the directions of monetary and financial policies depends originally on the disclosures made by the Central Bank of Egypt and the Egyptian Ministry of Finance about whether there is an implementation of the instructions or that there are problems some banks have encountered as a result of the application of these policies and their impact on the financial stability of the banking system The financial statements issued by the Ministry of Finance, the Central Bank, and the Egyptian banks, the study sample, were relied upon to measure monetary policies represented by the interest rate on deposits, the lending interest rate, the interbank lending rate, and the average interest rate on government debt (average bills). Treasury): net foreign assets; net domestic assets; volume of liquidity; official exchange rate of the US dollar; foreign reserves; and fiscal policies represented in government spending income taxes, value-added tax, government support, wages and salaries, deficits and surpluses (the general budget, the public debt of the state), and the financial stability of banks.

In terms of measuring the financial stability of banks, the study relied on actual data issued by commercial banks that was reviewed by the Central Bank. non-performing banks, in addition to the regulatory variables represented by inflation and ownership structure, the size of the bank is measured by the natural logarithm of assets.

Time series analysis is one of the important mathematical and statistical methods that deals with the behaviour of phenomena and their interpretation over extended periods of time, through which the interrelationship between variables can be studied. The objectives of time series analysis can be determined by obtaining an accurate description of the special features of the process, which can be reached by making sure of The stability of the time series in the first or second difference, from which regression models are generated for the relationship between the variables, and then building the model to interpret the behaviour and direction of the relationship and thus using the results to predict its behaviour in the future, as well as controlling the process from which the time series is generated by examining what can happen when changing some parameters of the model To achieve this, a thorough analytical study of time series models is required based on statistical and mathematical methods. According to the procedural steps and after processing the values of the variables, the Eviews statistical package programme will be used to test the relationship. Thus, the reciprocal

relationship between monetary and financial policy directions and banking stability can be analyzed. in Egyptian banks.

The study population consists of all commercial banks in the Arab Republic of Egypt, where the study population was selected using a sufficient method to ensure the representation of all samples.

The study sample was chosen from a large survey to make sure it included the most people from the community. After leaving out Citibank, Faisal Bank, Abu Dhabi Islamic Bank, Al Baraka Bank, Egyptian Agricultural Bank, Development Bank, and Industrial Workers, the final sample is made up of 32 banks whose annual reports were used from 2010 to 2021 AD, according to data from the commercial ban.

The variables of the study are formed into independent main variables, which are the level of application of the directions of monetary and financial policies as an independent variable and the financial stability of banks.

First: Fiscal and monetary policies (the independent variable):

Monetary policy variables are represented by the interest rate on deposits, the interest rate on lending, and the interbank lending rate. average interest rate on government debt (average Treasury bills) net foreign assets; net domestic assets - volume of liquidity; - official exchange rate of the US dollar; - foreign reserves); and financial policies represented in fiscal policies government spending income taxes; value-added tax government support wages and salaries (deficit or surplus) public budget; public debt of the state; and all of these data are announced. Through the official website of the Central Bank and the Egyptian Ministry of Finance, which are official data that the researcher relied on in his study,

Second: the financial stability of the banking sector (the dependent variable):

The financial analysis method was relied upon to reach the level of financial stability for banks during the period from 2010 to 2021, i.e., for a period of 12 years with annual business results. The study relied on financial stability indicators (Z-index and NPL ratio).

The study procedures consisted of the following points:

1) Relying on the reports issued by the Ministry of Finance, the Central Bank of Egypt, and the study sample banks during the period from 2010 to 2021 AD

2) Measure the variables according to the method that was explained during the chapter for each variable separately, converting the data into second values (0) and (1) as shown.

3) studying the relationship between the directions of monetary and fiscal policies and making sure that there is no high linear correlation.

4) Conducting a statistical test based on the method of multiple logistic regression and reaching the influencing ability of each of the directions of monetary and financial policies and the financial stability of banks in light of the introduction of the control variables, the inflation index, the size of the bank, and the form of ownership.

Findings:

First: a logistic regression model to show the impact of monetary policies on banking stability:

The multiple logistic regression equation is formed as follows:

Log(pˆ/(1-pˆ) = a + Bx1.1 + Bx1.2 + Bx1.3 + Bx1.4 + Bx1.5 + BZ1 + BZ2 + BZ3

Log(p)/(1-p) = the dependent variable first (the financial stability of the banking sector on the Z-INDEX scale) and second (the financial stability of the banking sector on the NPL scale). Logistic regression scale

a = constant or intercept value

B1.1 = slope of the y regression on the first independent variable of monetary policies (discount rate).

B1.2 = slope of the y regression on the second independent variable of monetary policies (net banking assets).

B1.3 = slope of the y regression on the third independent variable of monetary policies (liquidity volume).

B1.4 = slope of the y regression on the fourth independent variable of monetary policies (the official exchange rate of the US dollar).

B1.5 = slope of the y regression on the fifth independent variable of monetary policies (foreign reserves).

BZ1 = slope of the y regression on the first control variable (inflation).

BZ2 = slope of y regression on the second control variable (ownership structure)

BZ3 = slope of the y regression on the second control variable (bank size).

X1.1 = the first independent variable of monetary policies (discount rate).

X1.2 = Monetary Policies, Second Independent Variable (Net Banking Assets)

X1.3 = the third independent variable of monetary policies (volume of liquidity).

X1.4 is the fourth independent variable of monetary policies (the official exchange rate of the US dollar).

X1.5 = the fifth independent variable of monetary policies (foreign reserves).

Z1 is the first regulatory variable (inflation).

Z2 is the second regulatory variable (ownership structure).

Z3 is the second regulatory variable (bank size).

The descriptive analysis test was done on the study variables' values to find the highest and lowest points, as well as the standard deviation and arithmetic mean for each variable. The skewness and kurtosis values were also shown to show the level of data moderation.

The first main hypothesis states that "there is a statistically significant effect of monetary policies on banking stability in Egyptian commercial banks."

In order to reach the results of testing the main hypothesis, a sub-hypothesis test was conducted. According to the first sub-hypothesis, "the Z-Index in Egyptian commercial banks shows a statistically significant effect of monetary policies on banking stability." A logistic regression test was conducted to measure the impact of policies. Cash on banking stability in Egyptian commercial banks by conducting a logistic regression test, and in the light of the test results, the impact of monetary policies is clarified in each of the discount rate, net banking assets, volume of liquidity, the official exchange rate of the US dollar, and foreign reserves on banking stability in Egypt. The Egyptian commercial banks are classified into government banks, foreign banks, and joint investment banks. The following table shows the results of the logistic regression test.

Table 1 shows the results of the logistic regression test to show the impact of monetary policy trends on banking stability, according to the Z-Index.

	commercial banks government		banks foreign		banks joint investment		Total commercial banks	
	regression tendency (β)	level of introspection * (.Sig)	regression tendency (β)	level of introspection * (.Sig)	regression tendency (β)	level of introspection * (.Sig)	regression tendency (β)	level of introspection * (.Sig)
C	١.٩٦٥	0	1.089	0	١.٠٠١	٠	١.١٢١	0
x1.1:discount price	٠.٧٢١-	0.002	-0.352	0	٠.٣٢١-	٠.٠٠١	٠.٢٦٥-	0.003
x1.2:net banking assets	٠.٤٢٦	0.002	0.817	0.001	٠.٥١٤	٠.٠٠١	٠.٤٢١	0.004
x1.3:Liquidity volume	٠.٢٥٤	0.001	0.451	0.002	٠.٤٢٥	٠	٠.٣٩	0.003
x1.4 :The official exchange rate for the US dollar	٠.٢٨٤-	0.001	-0.201	0.012	٠.٢٥٧-	٠	٠.٢٠١-	0.016
x1.5:foreign reserves	٠.٦٣٢	0	0.189	0.001	٠.١٢٥-	٠.٠٠١	٠.٢١٤	0.034
The level of significance of the model	٠.٠١٢= P-Value		٠.٠١٤= P-Value		٠.٠٠١= P-Value		٠.٠٠٩= P-Value	
coefficient of determination (R (٢Cox & Snell	%٣١.٦٩		%٢٦.٢٥		%٢٢.٩٨		%٢٤.١٢	
coefficient of determination (R (٢Nagelkerke	%٣٢.٢١		%٢٨.٢١		%٢٤.١٤		%٢٥.٥١	

Through Table No. 1, it is clear from the value of the determination coefficients that there is an explanatory force that has a significant significance that expresses a positive impact with a significant significance of the impact of monetary policy trends on banking stability as measured by the Z-index. The statistical results showed that the model is significant at the level of The P-value is less than 5%, and the coefficient of determination of Cox & Snell showed a rate of 24.12% to explain the impact of the application of monetary policies on banking stability as measured by the Z-index, and the coefficient of determination of

Nagelkerke showed a rate of 25.51% to express the change. The result in the level of banking stability on a z-index scale as a result of applying monetary policy directions The results indicated that monetary policies affected banking stability in government commercial banks by 31.69% according to the coefficient of determination of (Cox & Snell), and by 32.21% according to the coefficient of determination of (Nagelkerke), and that monetary policies affected banking stability in foreign banks by 26.25% according to the coefficient of determination of (Cox & Snell), and by 28.21% according to the coefficient of determination of (Nagelkerke), and that monetary policies affected banking stability in joint investment banks by a percentage 24.12% according to the coefficient of determination of (Cox & Snell), and by 25.51% according to the coefficient of determination of (Nagelkerke), and to increase the validity and quality of the model, the control variables were added, with the addition of the control variables to the model.

Table 2: The results of the logistic regression test to show the effect of monetary policy trends on banking stability according to the Z-Index in light of the introduction of regulatory variables

	commercial banks		banks		banks		Total	
	government		foreign		joint investment		commercial banks	
	regression tendency	level of introspection	regression tendency	level of introspection	regression tendency	level of introspection	regression tendency	level of introspection
	β	Sig*	β	Sig* .	)β(	)Sig* (.	)β(	)Sig* (.
Fixed Cut (α)	2.958	0	1.897	0	١.٩٢٢	٠	1.918	0
x1.1:discount price	-0.69	0	-0.813	0	-0.295	٠.٠٠١	-0.587	0
x1.2:net banking assets	0.816	0.003	1.228	0	0.268	٠	0.801	0
x1.3:Liquidity volume	1.540	0	2.070	0	0.465	٠	1.855	0.001

x1.4:The official exchange rate for the US dollar	-1.018	0	-1.102	0	-0.125	٠	-0.624	0
x1.5:foreign reserves	0.826	0	0.599	0.001	0.14	٠.٠٠١	0.838	0.001
Z1 : inflation	-0.671	0	-0.196	0	-0.025	٠	-0.175	0
Z2 : proprietary structure	3.403	0	1.885	0.001	٠.٣٢١	٠	2.564	0
Z3 :the volume of the bank	3.820	0.001	3.784	0	٠.٢٦٨	٠.٠٠٢	2.409	0
The level of significance of the model	P-Value٠.٠٠١=		P-Value٠.٠٠٠=		P-Value٠.٠٠٢=		P-Value٠.٠٠٣=	
coefficient of determination (R (٢Cox &Snell	%٢٩.٥١		%٣١.٢٢		%٢٩.٣١		%٣١.٥٦	

coefficient of determination (R (٢ Nagelkerke	**%٣١.٢٥**	**%٣٢.٩٨**	**%٣١.١٠**	**%٣٢.٦٩**

And through Table No. (2), it is clear from the value of the determination coefficients in light of the introduction of the control variables that there is an explanatory force that has a significant significance that expresses a positive effect with a significant significance of the impact of monetary policy trends on banking stability as measured by the Z-index, and the results have shown Statistically, the model is significant at a P-value level of less than 5%, and the coefficient of determination of Cox & Snell showed a rate of 31.56% to explain the impact of the application of monetary policies on banking stability as measured by the Z-index, and the coefficient of determination of Nagelkerke showed A rate of 32.69% expresses the change in the level of banking stability on a z-index scale as a result of applying the directions of monetary policies. And by 31.25% according to the coefficient of determination of (Nagelkerke), and that monetary policies affected banking stability in foreign banks by 31.22% according to the coefficient of determination of (Cox & Snell), and by 32.98% according to the coefficient of determination of (Nagelkerke), and that monetary policies affected banking stability in joint investment banks by 29.31% according to the coefficient of determination of (Cox & Snell), and by 31.10% according to the coefficient of determination of (Nagelkerke). With the addition of the regulatory variables to the model, the quality of the model increased, and the validity of the model was confirmed by relying on the independent variables and variable oversight.

In light of these results, it is possible to reach the results of testing the first sub-hypothesis, which stated that "there is a statistically significant effect of monetary policies on banking stability, as measured by the Z-Index in Egyptian commercial banks" in Egyptian commercial banks (governmental, foreign, and joint investment). In light of the presence of a P-value level of less than 5% with a high degree of confidence and that the coefficient of determination of Cox & Snell is 29.51% and the coefficient of determination of Nagelkerke is 31.25% in light of the introduction of control variables, to express the presence of an influential ability To apply the directions of monetary policies to banking stability in light of the inflation rate, the form of ownership, and the size of the bank.

The second sub-hypothesis stated that "there is a statistically significant effect of monetary policies on banking stability, as measured by the non-performing loan ratio (NPL) in Egyptian commercial banks," where a logistic regression test was conducted to measure the effect of monetary policies on banking stability in Egyptian commercial banks according to the non-performing loan scale (NPL), as shown in the following table (4) for the results of the logistic regression test.

Table 4: Results of the logistic regression test to show the impact of monetary policy trends on banking stability according to the NPL scale

	Govenmental commercial banks		Foreign Banks		Investment		total	
	(β)	* (Sig)	(β)	* (Sig)	(β)	* (Sig)	(β)	* (Sig)
Fixed Cut (α)	1.669	0.000	1.791	0.001	1.255	0.001	1.656	0.002
discount price:x1.1	-0.828	0.002	-0.236	0.000	-0.114	0.001	-0.587	0.000
net banking assets:x1.2	0.636	0.001	0.771	0.000	0.457	0.002	0.639	0.006
Liquidity volume:x1.3	0.521	0.000	0.426	0.001	0.639	0.001	0.284	0.001
The official exchange rate for the US dollar :x1.4	-0.514	0.000	-0.451	0.010	-0.145	0.002	-0.547	0.022
foreign reserves:x1.5	0.847	0.000	0.191	0.000	-0.321	0.000	0.214	0.034
level of significance of the The model	P-Value = 0.002		P-Value = 0.005		P-Value = 0.002		P-Value = 0.001	
(٢of determination (R coefficient Snell & Cox	26.98%		28.65%		30.65%		33.36%	
(٢of determination (R coefficient Nagelkerke	27.68%		29.69%		32.36%		35.65%	

Through Table No. 4, it is clear from the value of the determination coefficients that there is an explanatory force that has a significant significance that expresses a positive impact with a significant significance of the impact of monetary policy trends on banking stability as measured by the Z-index. The statistical results showed that the model is significant at the

level of The P-value is less than 5%, and the coefficient of determination of Cox & Snell showed a rate of 33.36% to explain the impact of the application of monetary policies on banking stability as measured by the Z-index, and the coefficient of determination of Nagelkerke showed a rate of 35.65% to express the change. The result in the level of banking stability on a z-index scale as a result of applying monetary policy directions The results indicated that monetary policies affected banking stability in government commercial banks by 26.98% according to the coefficient of determination of (Cox & Snell), and by 27.68% according to the coefficient of determination of (Nagelkerke), and that monetary policies affected banking stability in foreign banks by 28.65% according to the coefficient of determination of (Cox & Snell), and by 29.69% according to the coefficient of determination of (Nagelkerke), and that monetary policies affected banking stability in joint investment banks by a percentage 30.65% according to the coefficient of determination of (Cox & Snell), and 32.36% according to the coefficient of determination of (Nagelkerke), and to increase the validity and quality of the model, the control variables were added, with the addition of the control variables to the model.

Table 5: The results of the logistic regression test to show the effect of monetary policy orientations on banking stability according to the non-performing loans scale (NPL) in light of the introduction of regulatory variables

	commercial banks		**banks**		**banks**		**Total**	
	government		**foreign**		**joint investment**		**commercial banks**	
	regression tendency	**level of introspection**	**regression tendency**	**level of introspection**	**regression tendency**	**level of introspection**	**regression tendency**	**level of introspection**
	)β(	**)Sig* (.**	**)β(**	**)Sig* (.**	**)β(**	**)Sig* (.**	**)β(**	**)Sig* (.**
Fixed Cut (α)	**1.941**	**0**	**1.076**	**0**	**0.989**	**0**	**1.107**	**0**
x1.1:discount price	**-0.703**	**0.002**	**-0.343**	**0**	**-0.313**	**0.001**	**-0.398**	**0.003**

x1.2:net banking assets	0.41	0.002	0.786	0.001	0.495	0.001	0.405	0.004
x1.3:Liquidity volume	0.241	0.001	0.428	0.002	0.404	0	0.37	0.003
x1.4:The official exchange rate for the US dollar	-0.266	0.001	-0.188	0.011	-0.241	0	-0.2587	0.015
x1.5:foreign reserves	0.585	0	0.175	0.001	-0.116	0.001	0.198	0.031
Z1 : inflation	0.658	0.001	0.321	0	0.293	0.001	0.242	0.001
Z2 : proprietary structure	-0.384	0	-0.736	0.001	-0.463	0.001	-0.379	0
Z3 :the volume of the bank	-0.226	0	-0.401	0.002	-0.378	0	-0.347	0.001
The level of significance of the model	P-Value٠.٠٠٠=		P-Value٠.٠٠١=		P-Value٠.٠٠٠=		P-Value٠.٠٠١=	

coefficient of determination (R (٢Cox &Snell	**%٣١.٦٦**	**%٣٠.٥٧**	**%٣٢.٦٢**	**%٣٣.٦٢**
coefficient of determination (R (٢ Nagelkerke	**%٣٢.٩٨**	**%٣١.٦٦**	**%٣٣.٣٦**	**%٣٥.٩٩**

And through Table No. 5, it is clear from the value of the determination coefficients in light of the introduction of the control variables that there is an explanatory force that has a significant significance that expresses a positive effect with a significant significance of the impact of monetary policy trends on banking stability as measured by the Z-index, and the results have shown Statistically, the model is significant at the P-value level of less than 5%, and the coefficient of determination of Cox & Snell showed a rate of 33.62% to explain the impact of the application of monetary policies on banking stability as measured by the Z-index, and the coefficient of determination of Nagelkerke showed A rate of 35.99% is used to express the change in the level of banking stability on a z-index scale as a result of applying the directions of monetary policies. And by 32.98% according to the coefficient of determination of Nagelkerke, and that monetary policies affected banking stability in foreign banks by 30.57% according to the coefficient of determination of Cox & Snell, and by 31.66% according to the coefficient of determination of Nagelkerke, and that monetary policies affected Banking stability in joint investment banks increased by 32.62% according to the coefficient of determination of Cox & Snell and by 33.36% according to the coefficient of determination of Nagelkerke. With the addition of the regulatory variables to the model, the quality of the model increased, and the validity of the model was confirmed by relying on the independent variables and variable oversight.

In light of these results, it is possible to reach the results of testing the second sub-hypothesis, which stated that "there is a statistically significant effect of monetary policies on banking stability, as measured by the non-performing loan ratio (NPL) in Egyptian commercial

banks" (governmental, foreign, and joint investment). In light of the presence of a P-value level of less than 5% with a high degree of confidence and the fact that the coefficient of determination of Cox & Snell is 33.62% and the coefficient of determination of Nagelkerke is 35.99% in light of the introduction of control variables, to express the presence of an influential ability To apply the directions of monetary policies to banking stability in light of the rate of inflation, the form of ownership, and the size of the bank.

And based on the results of testing the sub-hypotheses (the first and second) emanating from the first main hypothesis, the results of the first main hypothesis were reached. It is statistically significant for monetary policies on banking stability in Egyptian commercial banks (governmental, joint investment, and foreign) as follows:

1) The results showed that monetary policies affect banking stability as measured by the Z-Index, with a determination coefficient of (Cox & Snell) with an explanatory power of 29.51% and a determination coefficient of (Nagelkerke) with an explanatory power of 31.25% in light of the introduction of the regulatory variables (inflation, structure, ownership, and size of the bank).

2) The results showed that monetary policies affect banking stability as measured by the non-performing loan ratio (NPL), with a coefficient of determination (Cox & Snell) of 33.62% and a coefficient of determination (Nagelkerke) of 35.99% in light of the introduction of the regulatory variables (inflation, ownership structure, and size of the bank).

Conclusion

1) The findings indicate that during the period spanning from 2010 to 2021 AD, the discount rate, denoting the interest rate at which the Central Bank lends to banks, exhibited an arithmetic mean of 13.06% with a standard deviation of 0.43568. This relatively high percentage suggests an upward trend in the interest rate over the aforementioned period, thereby reflecting a notable scenario of interest rate escalation. The discount rate in Egypt exhibited a range of values, with the lowest recorded at 7.43 percent and the highest at 16.32 percent, a trend that may be attributed to the economic upheaval experienced by the country. The observed trend in banking assets demonstrates a significant appreciation in value, which may be attributed to the depreciation of the domestic currency. The net banking assets reached a minimum value of 2.030 trillion pounds and a maximum value of 8.712 trillion pounds.

The banking sector's liquidity was measured with an arithmetic average of 4.309 trillion pounds, accompanied with a standard deviation of 0.44514. The highest recorded value was 7.562 trillion pounds, while the lowest recorded value was 2.2125 trillion pounds. The

findings indicate that the mean exchange rate between the US dollar and the Egyptian pound during the specified period was 11.08 pounds. The highest recorded exchange rate was 17.78 pounds, while the lowest recorded exchange rate was 5.62 pounds. Additionally, the average value of foreign currency and gold reserves during the period was 28.66 billion dollars. The highest recorded value of reserves was 44.57 billion dollars, whereas the lowest recorded value was 14.93 billion dollars.

The findings of the study indicate a significant relationship between monetary policies and banking stability in Egyptian commercial banks, including governmental, joint investment, and foreign banks. The analysis revealed that monetary policies have an impact on banking stability, as measured by the Z-Index, with a determination coefficient of (Cox) and (Snell) of 29.51%. Additionally, the coefficient of determination (Nagelkerke) demonstrated an explanatory power of 31.25% when considering regulatory variables such as inflation, ownership structure, and bank size. Furthermore, monetary policies were found to influence banking stability as measured by the non-performing loan ratio (NPL), with a coefficient of determination. According to Cox & Snell, the percentage is 33.62%, whereas the coefficient of determination for Nagelkerke is 35.99% when considering the inclusion of regulatory factors such as inflation, ownership structure, and bank size.

2) It is essential to convey to Egyptian banks the need of contemplating the concept of financial stability in relation to its interplay with economic indicators. The interconnectedness of the banking system's stability with the efficacy of monetary and financial policy is a crucial factor in facilitating optimal economic performance.

In order to enhance the notion of financial stability within the banking system, it is suggested that a comprehensive model be developed. This model should encompass various indicators of banking stability, incorporating all the dimensions that have been examined. Furthermore, it is proposed that this model be integrated into the annual report of commercial banks, establishing a connection between the level of financial stability of the state and the aforementioned indicators. This approach woul

In order to enhance the academic rigour of the final report of the Central Bank of Egypt, it is recommended to incorporate a comprehensive summary that presents an analysis of banking stability levels. This can be achieved by categorising banks into distinct classifications, namely governmental, foreign, and joint investment. The purpose of this classification is to establish a correlation between the different types of banks and the overall financial stability of the banking system. Such an inclusion would not only be of great interest to researchers, but also to individuals involved in the banking sector within Egypt.

4) It is essential for banks to prioritise the execution of the directives issued by the Central Bank pertaining to the sustainability of assessing the degree of banking stability. This entails dedicating due attention to comprehensively examining the implications of monetary and financial policies on the level of banking stability.

The study proposes that it is advisable to address the orientations of monetary and financial policies in a manner that incentivizes banks to broaden their customer base and focus on diversification. This is in response to the observed concentration of credit portfolios among a small number of large companies, which poses potential risks of concentration to the banking sector.

The following are six to five suggestions for further research:

The researcher suggests that more investigation should be undertaken in order to supplement the existing findings.

1) Factors Influencing the Stability of Commercial Banks in Egypt

2) The influence of financial stability on the efficacy of the stock market.

3) The Significance of Financial Technology in Attaining Banking Stability within Commercial Banks

4) The correlation between the stability of the banking sector and the monetary policies implemented by the government, and their consequential effects on financial performance.

The researcher experienced six obstacles and problems over the course of their study.

The researcher had challenges in acquiring some data for the study, particularly during the time frame spanning from 2012 to 2015 AD. This was mostly due to the reliance on the complete inventory approach used to the sample of Egyptian commercial banks. The individual had challenges in acquiring some data; nonetheless, these were successfully resolved. By using the databases of the Central Bank and accessing specific websites.

The researcher had challenges in establishing effective communication channels with the competent departments of the Ministry of Finance in order to get data pertaining to policies from the relevant parties and organisations within the banking sector. However, these obstacles were successfully surmounted by using email and other forms of contact.

The researcher observed a scarcity of prior study on Arab studies in comparison to international studies that examined the correlation between monetary and financial policies and their influence on banking stability.

References

Helmut, Ltkepohl. (2007). New Introduction to Multiple Time Series Analysis. doi: 10.1007/978-3-540-27752-1

Graciela, Kaminsky., Carmen, Reinhart. (1996). The Twin Crises: The Causes of Banking and Balance-Of-Payments Problems. The American Economic Review, 89(3):473-500. doi: 10.1257/AER.89.3.473

Mohamed, Bakoush., Tapas, Mishra., Simon, Wolfe. (2020). Securitization, monetary policy and bank stability. Social Science Research Network, doi: 10.2139/SSRN.3630704