Determinants of Egyptian Banks Performance (Profitability & Loan Portfolio Quality) under Political Instability: Forward-Looking Analysis of Israel-Gaza War Implications

محددات أداء البنوك المصرية (الربحية وجودة القروض) في ظل عدم الاستقرار السياسي: نظرة مستقبلية على تداعيات الحرب بين إسرائيل وغزة

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Abstract:

The main objective of this paper is to examine the determinants of banking profitability and loan quality under distressed economic conditions caused by political instability, This study scrutinizes the stability of the banking sector in the face of potential regional political unrest, with a specific focus on the economic hardship that followed the Egyptian revolution between 2011 and 2019, on quarterly basis for all banks listed on the Egyptian stock market out of all operating banks in Egypt; as banks listed on a stock exchange (controlled by shareholders) are expected to perform more efficient and more profitable.

The regression incorporated in the thesis is GMM technique to overcome problem of hetroskedasticity and serial correlation with the disturbance term, findings of profitability models in which return on assets and return on equity were the dependent variables suggest that bank specific and industry specific variables were the main determinants of banking profitability and asset management variables is found to have the most explanatory power of the model, indicated by the largest estimated coefficient, while all macroeconomic variables are found to be insignificantly correlated with banks profitability which indicates that macroeconomic conditions after the revolution were not the main determinants of banks profitability, while findings of NPLs model reveal that bank specific variables such as bank profitability, measured by ROA, asset management ratio, market share, loan growth and loan to assets are found to be significant in determining loan quality; while macroeconomic variables are found to be insignificant

determinant of loan quality except for interest rate and exchange rate, interest rate was found to have highest explanatory power in borrowers' ability in repayment of loans.

Keywords: Banking, Profitability, Non-Performing Loans, Political Instability, Distressed Economic Conditions, Israel-Gaza War, Generalized Method of Moments

المستخلص :

الهدف الرئيسي من هذه الورقة هو دراسة محددات الربحية المصرفية وجودة القروض في ظل الظروف الاقتصادية المتعثرة الناجمة عن عدم الاستقرار السياسي، وتدقق هذه الدراسة في استقرار القطاع المصرفي في مواجهة الاضطرابات السياسية الإقليمية المحتملة، مع التركيز بشكل خاص على الصعوبات الاقتصادية التي أعقبت الثورة المصرية بين عامي ٢٠١١ و٢٠١٩، على أساس ربع سنوي لجميع البنوك المدرجة في البورصة المصرية من بين جميع البنوك العاملة في مصر؛ حيث أنه من المتوقع أن يكون أداء البنوك المدرجة في البورصة (التي يسيطر عليها المساهمون) أكثر كفاءة وأكثر ربحية.

تم استخدام طريقة اللحظات المعممة في الانحدار المستخدم في الدراسة للتغلب على مشكلة عدم التجانس والترابط الذاتي مع معامل الخطأ، وتشير نتائج نماذج الربحية التي تم استخدام العائد على الأصول والعائد على حقوق الملكية كمتغير تابع فيها إلى أن المتغيرات على مستوى البنك وعلى مستوى القطاع كانت هي المحددة لربحية البنوك وليست المتغيرات الاقتصادية الكلية، وأشارت النتائج أيضاً أن إدارة الأصول هو المتغير صاحب الأكثر قوة تفسيرية في النموذج، وذلك وفقًا لأكبر معامل ارتباط معنوي، بينما المتغيرات الاقتصادية الكلية وُجدت أنها غير معنوية في التأثير على ربحية البنوك في الفترة محل الدراسة. بينما تشير نتائج نموذج القروض المتعثرة إلى أن المتغيرات المحددة للبنك مثل الربحية المقاسة بمعدل العائد على الأصول ونسبة إدارة الأصول الحصة السوقية ونمو القروض ونسبة القروض إلى الأصول هي محددات معنوية لجودة القروض، بينما المتغيرات الاقتصادية الكلية غير معنوية في التأثير على جودة القروض باستثناء معدل الفائدة وسعر الصرف، حيث تم أوضحت النتائج أن معدل الفائدة لديه أعلى قوة تفسيرية في مدى قدرة المقترضين على سداد القروض.

الكلمات المفتاحية: البنوك، الربحية، القروض المتعثرة، عدم الاستقرار السياسي، الظروف الاقتصادية المتعثرة، الحرب بين إسرائيل وغزة، طريقة اللحظات المعممة

1- Introduction

Heightened political tensions in the region between Israel and Gaza may have adverse effects on Egypt's economic conditions. These implications could potentially impact the Egyptian banking system, similar to the shocks experienced during the aftermath of the January 25th revolution, Similar to the disruptions observed after the January 25th revolution, during which Egypt faced challenges in both its political and economic landsca, those imbalances affected macroeconomic factors resulting in slow economic growth, increasing inflation rates and policies changing day after day on the fiscal and monetary levels. Stability of the economic conditions is a key determinant of the soundness and performance of the banking sector, the period following the revolution has witnessed events that have affected the financial performance of the Egyptian banks such as selling the new Suez Canal investment certificates through banks to finance digging of the new canal; On 3 November 2016, the Central Bank of Egypt announced in a surprise move that it had fully floated the Egyptian pound (EGP) and raised interest rates by 300 basis points on the same day.

Decision makers and managerial levels have been using different financial indicators to determine financial health of Egyptian banks and reduce risks at the macro-level and assess performance of individual banks at the micro-level. Thus, it's imperative for regulators and managers to modify their policies and strategies in response to political instability to ensure that the impact of macroeconomic shocks is minimized. Hence, understanding the determinants of banks' performance under distressed economic conditions could be very valuable for banks' managers and regulators to assess the impact of distressed condition under political instability on banks' performance.

Thus, this paper examines the effect of Macroeconomic variables, bank specific factors and industry specific factors on loan quality and profitability of the Egyptian banking sector to end up with outcome and evidence about the main determinants about financial performance of the banking system to be taken into consideration in formation of monetary policy and banks internal policies under political instability.

Many studies have investigated the determinants of banks performance and the effect of macroeconomic factors on the banking sector in different countries. The results of these studies were mixed, some ended up with empirical evidence indicates that macroeconomic factors are the key drivers of the financial performance of the banking system in terms of profitability and loan quality (Mokhtarifar &Sales, 2015; Janvisloo et al, 2013; Messai and Jouini, 2013), while others found that macroeconomic factors have a negligible effect on performance of the sector and the main determinants are individual

banks specific characteristics and industry specific features (Akani et al, 2016; Nadeem and Kanwal, 2013; Kiganda, 2014).

The unstable economic conditions under political instability in several cases of empirical literature have been the main reasons behind banking crises, so more efforts are needed during these distressed economic conditions to manage possible risks. The Egyptian banking sector showed resilience after the global financial crisis in terms of both solvency and liquidity, the main reason behind that is the reform program launched by the central bank of Egypt in 2004 to strengthen the performance of the banks (Nasr, 2012). In addition, that Some studies checked the immediate impacts under these distressed conditions following the revolution ended up with results that the system reveals its resilience to market shocks with interventions of the central bank.

These mixed results were the motivation behind doing this study, this study checks mainly how Egyptian banks managed their loan portfolio and how these decisions affected banks' overall profitability under uncertainty caused by political instability.

The study contributes to the literature by providing a forward-looking outlook on impact of Israel-Gaza war spillovers on performance of the Egyptian banking system on the back of the expected drop in some macroeconomic conditions, the study investigates the main determinants of two of the most important variables in measuring banks performance (loan portfolio quality and profitability) over a period political instability following the revolution (2011-2019), The study employs the latest data, which reflects political instability situations similar to those triggered by the escalation of regional political conflicts between Israel & Gaza, as well as those between Israel & Iran. The study disregards the data post the onset of 2020, a period marked by the emergence of Covid-19 as dynamics of this pandemic differ significantly from those of political instability in terms of their impact on economic conditions and banking performance.

This study covers the period of distressed economic conditions following the Egyptian revolution from 2011 to 2019 on quarterly basis for 14 banks out of all operating banks in Egypt; this sample includes all banks listed in the Egyptian stock market. Based on theoretical literature, banks listed on a stock exchange (controlled by shareholders) are expected to perform more efficient and more profitable, capital market discipline could strengthen owner's control over management, giving banks' management more incentives to be efficient and profitable (Stefan, 2014). The period of study helps to determine the effect of the macroeconomic factors on of financial performance of the banking system in Egypt in terms of profitability and loan quality. As well as macroeconomic variables, the

study includes individual banks variables and industry specific variables to study to what extent the profitability and loan quality were affected by these variables under changes on the macroeconomic level and distressed economic conditions.

2- Empirical literature on Determinants of Banks Performance

Few studies have concentrated on the performance of banks in politically unstable situations, yet there is a wealth of research on their performance under economic distress due to various factors. This section reviews past literature that has investigated the determinants of bank profitability and loan quality across diverse countries, timeframes, and conditions. The goal is to identify the key drivers of banking performance, whether they are related to the broader macroeconomic environment, specific to the bank itself, or specific to the industry.

First: Literature Review on Determinants of Profitability

Ramadan et al (2011) used a set of balanced panel data of Jordanian banks to investigate the relationship between banks' profitability with both macroeconomic variables and internal bank characteristics, a sample of 10 Jordanian banks over the period 2001-2010 were utilized, return on assets and return on equity were used as proxies for profitability, data was extracted from financial statements published in the Amman Stock Exchange, central bank of Jordan and the department of statistics of Jordan. Based on empirical results, bank specific characteristics are the main determinants of bank profitability in Jordan.

Other empirical studies provide evidence that macroeconomic factors have no significant influence on banks' profitability such as the study of Nadeem and Kanwal (2013) that found that macroeconomic factors (real GDP, inflation rate a real interest rate) have a negligible impact on earnings of commercial banks using data a sample of Pakistani banks consists of 18 out of 23 banks listed on Karachi Stock Exchange and macroeconomic data has been taken from the world bank. The paper used annual balanced panel data of selected banks for the period (2002-2011), also used three models with the same independent macroeconomic variables to study their effect of return on assets, return on equity and equity multiplier as proxies for banks' profitability using pooled OLS regression. The paper found that the selected macroeconomic factors do not contribute noticeably to the profits of sampled banks and explained these opposite results due to reasons such as customer preferences of deposit excess funds and taking loans or lack of information regarding economic changes in the country. The main criticism leveled against the paper is that it used consolidated financial statements of banks so results of the

paper doesn't show the nature of the relationship between macroeconomic variables and standalone commercial banks but it includes macroeconomic effects on financial positions of banks and their subsidiaries as a combined entity.

Also, Kiganda (2014) employed OLS to study the effect of macroeconomic factors on banks profitability in Kenya for the period of 2008-2012. The study focused on the case of Equity Bank Limited in Kenya and concluded the same results as concluded in the above-mentioned paper of Kanwal and Nadeem (2013) on the Pakistani banks, the results indicated that macroeconomic factors (real GDP, inflation and exchange rate) have insignificant effect on bank profitability in Kenya and concluded that internal factors which relate to bank management significantly determine bank profitability in Kenya. Although these results were supported in other studies, the paper focused on one bank over period of five years without considering for biasness of results of the empirical analysis.

Mokhtarifar & Sales (2015) studied the Iranian banks, using data from the central bank of the Islamic Republic of Iran, using univariate linear regression and Pearson correlation test. Data was collected for nine banks listed in Tehran stock market over the period 2009-2013. Results showed that there is a significant relationship between changes in index of overall price and prediction of profit in banking industry while there is no significant relationship between changes in index of overall shares price and prediction of profit in banking industry. Also, the paper found that there is no significant relationship between changes in unemployment rate and prediction of profit while there is a significant relationship between changes in GDP and profits of banking industry.

According to empirical study in Nigeria over the period 1998-2014 to study the effects of macroeconomic shocks on commercial bank performance, Akani et al (2016) used time series data and adopted co-integration, Error Correction Model and Granger causality tests on three separate models using Return on investment, return on assets and Return on equity as proxies for profitability. They found that inflation rate and real GDP have insignificant effect on return on investment, return on assets and return on equity. Also interest rate and exchange rate were found to have insignificant effect on Return on investment while have a positive significant effect on both return on assets and return on equity. While both Broad money supply and unemployment rate were found to have insignificant effect on Return on investment, Return on assets and Return on equity. The paper concluded that expansionary monetary policies should be adopted to increase the profitability of Nigerian banks and macroeconomic policies should be planned to achieve the profitability of the selected sample of the deposit money banks.

Other empirical studies found that bank specific characteristics are the main determinants of banks' profitability, one of those studies is the paper of Ansary and Megahed (2016) which used Generalized Method of Moments (GMM) on a sample of 11 Egyptian banks listed the Egyptian Stock Exchange over the period 2004-2013 in a quarterly basis, return on assets and return on equity were used as proxy for banks' profitability. The paper used bank specific variables to explore the main determinants of banks' profitability, the explanatory variables which effect profitability are deposits to total assets ratio, operating income to asset ratio, credit quality, capital adequacy, loans rate, equity growth minus loan growth rate, asset share ratio and Egyptian banks' total assets to Egyptian gross domestic product (GDP). The results prove that Egyptian banks with higher capital strength, asset share and efficient management exhibit higher profitability level, whilst Egyptian banks with higher credit risk and loans intensity exhibit lower profitability level. Also, the paper concluded that there is no significant difference between banks' profitability in the pre-financial crisis period and post crisis period which showed that the banking system overcome the financial crisis without negative effect.

Abobakr (2018) investigated the factors influencing banks' profitability in the Egyptian banking sector from 2006 to 2015. The study utilized unbalanced panel annual data from 26 working banks in the Egyptian market. Generalized methods of moments (GMM) estimators were employed to identify the most impactful factors. Bank profitability was assessed using the return on assets (ROE) and the return on equity (ROA). The study revealed that high profitability is associated with large bank size, a substantial capital ratio, and significant operating income. Conversely, lower profitability is linked to higher non-interest income. Additionally, macroeconomic variables significantly affect profitability, emphasizing the importance of policies promoting low inflation and sustainable growth rates to enhance loans expansion and boost banks' profitability.

Salman (2022) investigated the determinants of bank performance in emerging markets, focusing on the Egyptian banking industry. Analyzing data from 12 banks between 2000 and 2019 (excluding 2020 due to the COVID-19 pandemic), the study explored various factors. Notably, economic growth rate, interest rate, and dollarization significantly influenced bank performance. Additionally, regulatory variables (such as the required reserve ratio) and operational variables (like the nonperforming loans ratio) played crucial roles. Ownership, maturity, and style were also relevant characteristics. However, other factors, including bank efficiency and governance activity, had negligible

effects on performance. These findings shed light on the complex dynamics within Egypt's banking sector.

Second: Empirical literature on the determinants of loan quality

Espinoza and Prasad (2010) investigated the effect of macroeconomic factor on non-performing loans using a dynamic panel over the period 1995-2008 on 80 banks in the Gulf Cooperation Council region. Results support that both macroeconomic variables and bank specific characteristics affect non-performing loans, also global financial crisis is found to have an effect on loan quality in the region. The study also studied the feedback from non-performing loans on the real economy factors and the results found a strong feedback from non-performing loans on growth on the GCC countries.

One of the studies that determines the determinants of loan quality as external factors is the study of Janvisloo et al (2013) studied the impact of the impact of macroeconomic shocks and stability on Non-Performing Loan changes (NPL) as a credit risk indictor in Malaysian commercial banking system for period of 1997-2012. They employed Structural Vector Autoregressive (SVAR) model that includes variables like Real GDP, Inflation (based on consumer price index), Money market interest rate and study their effect on Non-Performing Loan ratio to total loans. The paper used data extracted from the World Bank and BankScope. According to results the simultaneous effects of monetary (interest rate) and demand (inflation) shocks on NPL ratio are more than supply (GDP) shocks effects but the supply shocks' impact is more persistent, so an increasing in GDP and inflation rate causes decrease in non-performing loans but effect of inflation is larger than effect of GDP.

Also, Messai and Jouini (2013) used panel data of 85 banks in three countries (Italy, Greece and Spain) for the period of 2004-2008 to study both micro and macro determinants of non-performing loans so the variables used were macroeconomic variables and specific variables to the bank, macroeconomic variables were real GDP, rate of unemployment and the real interest rate while bank level variables used are loan losses reserves and loan growth for the bank. The results show that GDP growth and return on assets of credit institutions have a negative impact on non-performing loans while the unemployment rate and the real interest rate affect nonperforming loans positively, on the other hand the paper didn't explore the effect of main macroeconomic variables such as real exchange rate and inflation rate.

Other empirical studies found that both macroeconomic variables and bank specific variables are found to have an effect on the loan quality such as the study of Love and

Ariss (2013) that used firm-level annual financial data on all banks operating in Egypt for a period extending between 1993 and 2010 from the Bankscope database provided by Bureau Van Dijk and classified financial institutions based on their ownership status: state, domestic private, and foreign. The paper adopted multivariate framework and panel vector autoregressive method that controls for bank-level characteristics, the ratio of reserves for impaired loans to total loans is used as a proxy for loan portfolio quality, which banks disclose more frequently across all years. The dependent variables used are a vector of macroeconomic variables including the GDP growth rate, domestic credit to the private sector to GDP, the aggregate lending rate, the nominal effective exchange rate, and capital inflows, also a vector of bank-level variables is included such as loan portfolio composition, the rate of credit growth, and incentives to take riskier loans.

The results reveal that a positive shock to capital inflows and to GDP growth results in favorable changes in all bank-level variables, whereas higher lending rates may lead to adverse selection problems and hence to a drop in portfolio quality. The paper is criticized for using impaired loans instead of non-performing loans as a proxy of loan quality, also all variables are considered as stationary except lending rate and capital inflows that are included in differences although the results of Phillips-Perron test failed to reject the null hypothesis of non- stationarity for four variables.

Abadi et al (2014) employed 6 macroeconomic variables (Interest rate, CPI, Nominal Exchange Rate, Imports, Money supply and Industrial Production Index) on monthly basis from January 2003 to December 2013 to analyze the dynamics of non-performing loans in Indonesian banks. They used Vector Error Correction Model, Impulse Response Function and Variance Decomposition to analyze the relationship among mentioned variables. The results show a positive relationship between non-performing loans with interest rate and money supply, while inflation rate and exchange rate show different effects in different economic sectors, in some sectors are positive and in others are negative. Imports have negative relationship with non-performing loans while industry production index is found to be insignificant to determine non-performing loans. The paper added to the literature by studying the relationship between non-performing loans and macroeconomic variables in both aggregate level and in different economic sectors.

Karahanoğlu et al. (2015) analyzed the relationship between the non-performing loans and related macroeconomic variables in Turkey for the period between 2005 and 2015 is analyzed using data taken from the Central Bank of Turkey, Turkish Statistical Institution and Turkish Banking Supervisory Body. In that study as a non-performing loan measure, the ratio of non-performing loans over total loans was used, other variables used

are the currencies (EUR and USD), the Istanbul stock exchange index over the biggest 100 companies called BIST100 index and the industrial production index called as SUE. The co-integration analysis shows that there is long term relationship between those variables. By means of granger causality test, it was possible to detect the direction of those relationships. There is one-way relationship between the logarithmic change of USD, EUR, SUE and BIST100 with non-performing over total loan ratio with almost %5 significance.

Farag (2019) examined the impact of macroeconomic factors on nonperforming loan (NPL) ratios in Egypt's listed and non-listed commercial banks was investigated for the period 2010-2017. Using multiple linear regression, the research found that the real GDP growth rate, lending interest rate, and unemployment rate significantly influenced NPL ratios in listed banks. For non-listed banks, the lending interest rate and unemployment rate were the sole economic factors impacting NPL ratios, with a negative association. Interestingly, listed banks were more sensitive to macroeconomic factors than non-listed banks. The study recommends credit risk analysts consider these variables when assessing loan applicants' creditworthiness and use them as early indicators for predicting NPL ratio movements in banks.

Alnabulsi (2022) explored the determinants of nonperforming loans (NPLs) in the Middle East and North Africa (MENA) region. They investigated both bank-specific and macroeconomic factors, particularly during the global financial crisis and the COVID-19 pandemic. The study analyzed data from 74 banks across 11 MENA countries from 2005 to 2020, using a two-stage system generalized method of moment estimator. Notably, the empirical findings revealed that NPLs are more influenced by bank-specific factors than macroeconomic ones. While the macroeconomic environment and institutional quality had a significant impact on NPL levels, the COVID-19 pandemic did not show a significant effect.

3- Data and Methodology

Panel data analysis would be used to analyze the determinants of profitability and loan quality. First, Wald test would be used to check the slope heterogeneity, if it's the same for all individual banks in the sample we would use F-test to check if Pooled OLS or fixed effects would be appropriate, and in case the assumption of common effects for all individual banks is rejected, Hausman test would be used to choose between fixed effects and random effects models, or the other scenario of using equation for each cross

section unit by itself and checking if the regressors are identical or not to choose the appropriate model.

The dataset was extracted for 14 Egyptian banks on quarterly basis over the period from January 2011 to December 2018, to explore the determinants of profitability and loan quality, the proposed model used is developed by Athanasoglou et al (2008). Hence, the proposed model would be as follows:

$$y_{it} = \alpha + \sum_{m=1}^{M} \beta_m x_t^m + \sum_{b=1}^{B} \beta_B x_{it}^b + \sum_{s=1}^{S} \beta_s x_t^s + \varepsilon_{it}$$

Where the dependent variable $(y_{i,t})$ measures profitability and loan quality, estimated by return on assets and return on equity in case of profitability and non-performing loans in case of loan quality. The explanatory variables are divided into 3 categories, macroeconomic variables $(\sum_{m=1}^{M} \beta_m x_t^m)$, bank-specific variables $(\sum_{b=1}^{B} \beta_B x_{i,t}^b)$ and industry specific variables $(\sum_{s=1}^{S} \beta_s x_t^s)$. Finally, $(\varepsilon_{i,t})$ represents the error disturbance term. And the details of macroeconomic variables, industry specific and banks specific variables are already mentioned in the proposal.

4- Models

Based on the proposed model and variables specification, two regression equations will be used to investigate the effect of macroeconomic changes, bank specific and industry specific factors on banks' profitability using return on assets and return on equity as proxies for banks' profitability. The relationship is examined using below mentioned models:

(1)

$$
\begin{aligned}
ROA_{it} = \alpha\ &+\ \beta_1 Inf\ Rate_t + \beta_2 GDP_t + \beta_3\ Interest\ rate_t + \beta_4 Exchange\ rate_t \\
&+ \beta_5\ Unemp\ rate_t + \beta_6\ Cap\ Adequacy_{i,t} + \beta_7\ Liq_{it} + \beta_8\ Risk_{it} \\
&+ \beta_9\ Loan/Asset_{it} + \beta_{10}\ Asst\ mange_{it} + \beta_{11}\ Market\ share_{it} + \beta_{12} Assets/GDP_t \\
&+ \beta_{13}\ Concent\ Ratio_t + \varepsilon_{t1}
\end{aligned}
$$

(2)

$$
\begin{aligned}
ROE_{it} = \alpha\ &+\ \gamma_1 Inf\ Rate_t + \gamma_2 GDP_t + \gamma_3\ Interest\ rate_t + \gamma_4 Exchange\ rate_t \\
&+ \gamma_5\ Unemp\ rate_t + \gamma_6\ Cap\ Adequacy_{it} + \gamma_7\ Liqd_{it} + \gamma_8\ Risk_{it} \\
&+ \gamma_9\ Loan/Asset_{it} + \gamma_{10}\ Asst\ mange_{it} + \gamma_{11}\ Market\ share_{it} + \gamma_{12}\ Assets/GDP_t \\
&+ \gamma_{13}\ Concent\ Ratio_t + \varepsilon_{t2}
\end{aligned}
$$

To examine the effect of macrocosmic shocks on loan quality for the selected sample of banks over the study period, non-performing loans is used as an indicator for loan quality. The relationship is examined as per below mentioned econometric model:

(3)

$$NPL_{it} = \delta_0 + \delta_2 Inf\ Rate_t + \delta_3 GDP_t + \delta_4\ Interest\ rate_t + \delta_5 Exchange\ rate_t$$
$$+\ \delta_6\ Unemploy\ rate_t + \delta_7\ ROA_{it} + \delta_8\ Cap\ Adeq_{it} + \delta_9\ Liqd_{it}$$
$$+\ \delta_{10}\ Asst\ mange_{it} + \delta_{11}\ \Delta\ loans_{it} + \delta_{12}\ Market\ share_{it} + \delta_{13}\ Loan\ to\ Asset_{it}$$
$$+\ \delta_{14}\ Assets/GDP_t + \delta_{15}\ Concent\ Ratio_t + \varepsilon_{t3}$$

data was extracted from different sources, detailed description and sources of each variable source will be mentioned in Table 1.

Table (1): Variables Selection & Sources			
Variable	**Symbol**	**Description**	**Data Source**
First: Dependent variables			
Return on Assets	ROA	used to measure banks' profitability, as economic metrics of profitability could not be calculated because of lack of the data.	Financial statements of Banks
Return on equity	ROE		Financial statements of Banks
Non-performing Loans	NPLs	The ratio of non-performing loans to total loans for bank i at time t, used as a proxy of loan quality	Financial statements of Banks
Second: Independent variables			
Capital adequacy	Cap Adequacy	Equity-to-asset ratio is used as a proxy for the capital strength; it measures how much of bank's assets are funded by the owner's funds	Financial statements of Banks
Credit Risk	Risk	ratio of loan loss provision over the net loans is used as a proxy of credit risk; credit risk indicators reflect the quality of loan portfolio quality; which expected to affect the performance of banks	Financial statements of Banks
Liquidity rate	Liq	Measured by the percentage of total deposits over the total assets, holding more liquid assets results in lower profits as these liquid assets do not generate any return	Financial statements of Banks
Asset Management	Asset manage	measured by the ratio of operating income to total assets, it measures the profits earned on interest activities	Financial statements of Banks
Assets Quality	Loan to Asset	Total net loan/Total assets" one of asset quality indicators that measures bank's lending intensity, used as a proxy for asset quality as it measures the income source of banks	Financial statements of Banks
Market Share	Market share	measured as bank assets to total assets of all Egyptian banks.	Financial statements of Banks
Loan Growth	Δ loans	Represents loan growth for bank i at time t	Financial statements of Banks

Macroeconomic Variables			
Real GDP	GDP	the business cycle could affect profitability and loan quality through effect on demand for borrowing and credit risk	Ministry of Planning
Interest Rate	Interest rate	CBE weighted average lending rates of a sample of banks which represent over 80% of the banking system	CBE
Unemployment Rate	Unempl rate	When the number of unemployed is increased, so their income is decreased and they couldn't meet their loans obligations	CAPMAS
Inflation Rate	Inf Rate	inflation has both positive and negative effects on financial performance; negative effects include loss of value of money and uncertainty of investments while positive effects include debt relief	CBE
Exchange Rate		increase of the exchange rate means depreciation of the local currency. the relationship between the exchange rate and profitability and loan quality is expected to be mixed	CBE
Industry Specific Variables			
Concentration Ratio	Concent Ratio	the degree of concentration and competition within the banking sector are expected to affect market power, profitability and efficiency of individual banks	Financial statements of Banks
Assets to GDP	Assets to GDP	the total size of banking sector to the entire economy, calculated through total assets of the Egyptian banking sector	Financial statements of Banks

5- Data preprocessing

This part shows the statistical treatment of data in three parts; first: how the missing values are treated. Second: how extreme values are determined and treated without affecting the basic statistical properties of the data. Third: the reasons why some variables are transformed from their original levels are also presented along with the applied transformation methods.

First: Missing value

In order to obtain a strongly balanced data, missing values percentages were checked for all variables, the following two criteria are used to obtain the final data for analysis.

- Excluding any bank has missing values represent more than 10% of the total observations for any variables, three banks out of 14 were excluded and sample includes other 11 banks.

- The average of non-missing observations for any single variable can replace the missing values for each specific bank, only if, a specific bank has missing values represent less than 10% of the total observations for any variable.

Second: Outliers

Aggarwal (2015) defined outliers as the values of observations which extend further than 1.5*IQR from the third quartile, IQR means "Inter Quartile Range", or are 1.5*IQR below than the first quartile. Before conducting the descriptive analysis for the study variables, winsorization method is applied to limit the effect of outliers on results. Therefore, any extreme value which exceeds the upper limit is replaced by the value of the upper limit. Similarly, any extreme value less than the lower limit is replaced by the value of the lower limit. Hence, the extreme value retains its main characteristics which are being the largest or the smallest value within the sampled data. Figure (1) shows extreme values before the winsorization.

Figure 1. Data Graph box before winsorization
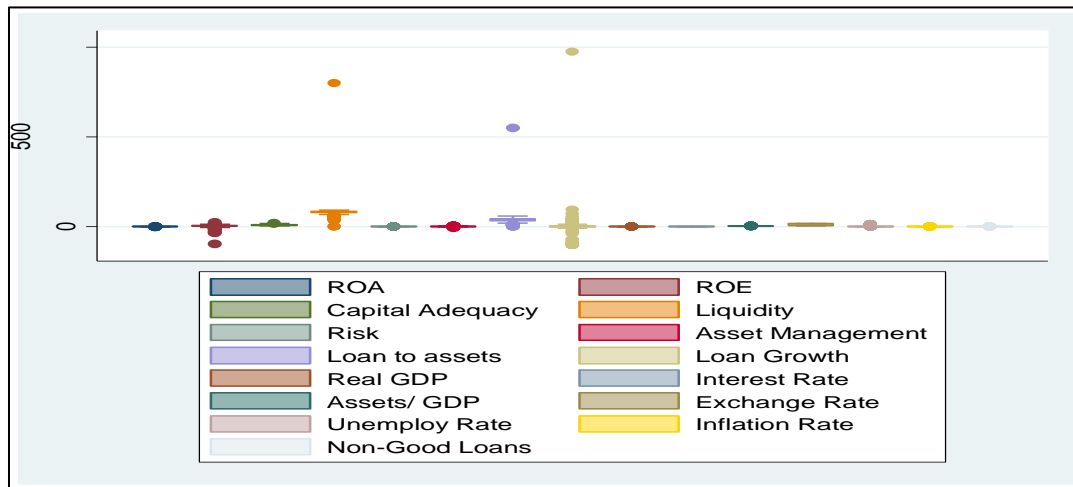
Source: STATA 17 Results

The figure shows the inter quartile range and any point above this range is upper outliers and any point below this range is lower outliers as shown in the figure.

Third: Normality test

Shapiro-Wilk normality test is conducted to determine whether the dependent variables of the current study are following a normal distribution or not as shown below in Table (2)

The results of Shapiro-Wilk normality test indicated that only Return on Equity is following a normal distribution because p-value is more than 5%. Thus, the null hypothesis is accepted which states that the data are following a normal distribution. However, the null hypothesis cannot be accepted for Non-performing loans and Return on assets variables, because the p-values of Non-performing loans and Return on assets variables are less than 5%; Hence, they are not normally distributed. Yet, Elliott and Woodward (2007, p27) state that the parametric statistics based on means can be used without loss of integrity if the sample size is large (greater than 40), and data showing a moderate departure from normality, the used sample here consists of 396 observations which means that the parametric statistics based on means can be used without loss of integrity.

Table (2): Shapiro-Wilk W test for Normality of Dependent Variables					
Variable	Obs	W	V	Z	Prob>z
NPLs	396	0.80673	52.73	9.431	0
ROA	396	0.99134	2.363	2.045	0.02041
ROE	396	0.99336	1.81	1.412	0.07902

Source: STATA 17 Results

6- Empirical results of models

This part empirically investigates which determinants of banks' profitability and loan quality are present using quarterly observations for strongly balanced panel of 13 banks between 2011 and 2019.

First: Empirical results of ROA Model

Regarding the results of ROA model presented in Table (3) which reports fixed effects outcomes using ROA as a measure for banks' profitability; according to Hausman test, the fixed effects model is appropriate. All macroeconomic variables are found to be not correlated with ROA except for unemployment rate which found to be negatively correlated with ROA; Regarding bank specific and industry specific variable, results show

that credit risk ratio is found to be negatively correlated with ROA, Asset Management is found to be positively correlated with ROA, Assets to GDP is found to be positively correlated with ROA; Capital adequacy, liquidity, loan to assets and market share are not correlated with ROA; The multiple regression model results showed the following:

ROA	Coef.	Std. Err.	T	P>|t|	[95% Conf. Interval]	
Table (3): Return on Assets - Fixed Effects Regression						
Inflation Rate	0.3447089	0.2755583	1.25	0.212	-.1969863	.8864041
Real GDP	1.412804	0.9332689	1.51	0.131	-.4218257	3.247433
Interest Rate	-0.630604	1.533838	-0.41	0.681	-3.645839	2.384631
Exchange Rate	-0.0031744	0.0089661	-0.35	0.723	-.0208	.0144511
Unemploy_Rate	-0.0226334	0.0061814	-3.66	0	-0.0452668	
Capital_Adequacy	0.0200757	0.0077286	2.6	0.01	.0048829	.0352686
Liquidity	-0.0000766	0.0003736	-0.2	0.838	-.0008109	.0006578
Risk	-0.7083127	0.1286587	-5.51	0	-1.4166255	
Loan to assets	-0.0002366	0.000533	-0.44	0.657	-.0012844	.0008112
Asset_Management	0.1384928	0.0130911	10.58	0	.1127581	.1642275
Market_share	0.1384928	0.0130911	10.58	0	.1127581	.1642275
Assets/GDP	0.1058654	0.0366396	2.89	0.004	.0338389	.1778919

Source: STATA 17 Results

Second: Empirical results of ROE Model

Regarding the results of ROE model presented in Table (4) which reports fixed effects outcomes using ROE as a measure for banks' profitability; according to Hausman test, the fixed effects model is appropriate. All macroeconomic variables are found to be not correlated with ROE except for unemployment rate which found to be negatively correlated with ROE; regarding bank specific and industry specific variable, result show that Risk ratio is found to be negatively correlated with ROE, Asset Management is found to be positively correlated with ROE, Assets to GDP is found to be positively correlated with ROE, Market share is found to be positively correlated with ROE. Capital adequacy, liquidity and loan to assets are not correlated with ROE.

ROE	Coef.	Std. Err.	T	P>|t|	[95% Conf. Interval]	
Table (4): Return on Equity - Fixed Effects Regression						
Inflation Rate	10.43564	4.831965	2.16	0.031	.9369131	19.93436
Real GDP	22.33414	16.36504	1.36	0.173	-9.836408	54.5047
Interest Rate	11.3826	26.89613	0.42	0.672	-41.49007	64.25528

Exchange Rate	-0.331592	0.157221	-2.11	0.036	-0.6631841
Unemploy_Rate	-0.5065678	0.108391	-4.67	0	-1.0131357
Capital_Adequacy	-0.0437459	0.135522	-0.32	0.747	-.3101554 .2226637
Liquidity	-0.0031378	0.006551	-0.48	0.632	-.0160152 .0097396
Risk	-15.08524	2.256053	-6.69	0	-30.17048
Loan to assets	0.0060064	0.009347	0.64	0.521	-.0123673 .0243802
Asset_Management	2.603517	0.229555	11.34	0	2.152254 3.054779
Market_share	2.04468	1.136786	1.8	0.073	-.1900243 4.279384
Assets/GDP	2.052058	0.642482	3.19	0.002	.7890596 3.315055

Source: STATA 17 Results

Empirical results of NPLs Model

Regarding the results of NPLs model presented in Table (5) which reports fixed effects outcomes using NPLs as a measure for banks' loan quality; according to Hausman test, the fixed effects model is appropriate. All macroeconomic variables are found to be not correlated with NPL except for exchange rate which found to be negatively correlated with NPL; Regarding bank specific and industry specific variable, results show that ROA is found to be negatively correlated with NPL, Loan growth is found to be negatively correlated with ROE, Asset Management is found to be negatively correlated with ROE, Capital adequacy, liquidity, assets to GDP, market share and loan to assets are not correlated with ROE.

Table (5): Non-Performing Loans - Fixed Effects Regression					
NPL	**Coef.**	**Std. Err.**	**T**	**P>|t|**	**[95% Conf. Interval]**
Inflation Rate	0.0902195	0.069578	1.3	0.195	-.0465593 .2269983
Real GDP	-0.0287315	0.236502	-0.12	0.903	-.4936523 .4361892
Interest Rate	0.5760367	0.395952	1.45	0.146	-.2023349 1.354408
Exchange Rate	-0.0084465	0.002326	-3.63	0	-0.0168929
Unemploy_Rate	0.0003224	0.001585	0.2	0.839	-.0027923 .0034372
ROA	-0.0733058	0.012051	-6.08	0	-0.1466115
Capital_Adequacy	0.0048573	0.001968	2.47	0.014	.0009895 .0087251
Liquidity	-0.0000439	9.48E-05	-0.46	0.644	-.0002303 .0001425
Asset_Management	-0.0153418	0.003697	-4.15	0	-0.0306837
Loan_Growth	-0.0004584	0.000164	-2.79	0.006	-0.0009167
Market_share	-0.0052163	0.016313	-0.32	0.749	-.037284 .0268513
Loan to assets	-0.0002625	0.000137	-1.92	0.056	-.0005312 6.26e-06
Assets/GDP	0.0048912	0.009355	0.52	0.601	-.0134985 .0232809

Source: STATA 17 Results

Testing Hetroskedasticity and Autocorrelation

Modified Wald test for groupwise heteroskedasticity in fixed effect regression model is used to check for Hetroskedsticity; when P-value is greater than 0.05, this indicates that heteroskedasticity is not present, and if p-value is less than 0.05, so the heteroskedasticity is present; as per table below p-value is less than 0.05 for all three models which indicates that heteroskedasticity is present.

Table (6): Results of Hetroskedasticity Testing in Fixed Effects Model			
Model	**ROA Model**	**ROE Model**	**NPLs Model**
Wald chi square	275.47	121.75	201.14
Prob>chi2	0.0000	0.0000	0.0000

Source: STATA 2017 Results

In order to check for autocorrelation in our models, Wooldridge test for autocorrelation in panel data is used, with H0 indicates that there are no first order autocorrelation results indicate that p-value is less than 0.05 for all three models, which means that we are unable to reject that we have first order correlation.

Table (7): Wooldridge test for autocorrelation in panel data H0: no first-order autocorrelation			
Model	**ROA Model**	**ROE Model**	**NPLs Model**
F (1, 10)	11.855	5.696	68.499
Prob>chi2	0.0063	0.0382	0.0000

Source: STATA 2017 Results

Recent academic research in their investigation to banking profitability and non-performing loans, to overcome problem of hetroskedasticity and serial correlation with the disturbance term, they used generalized method of moments (GMM).

7- Results of GMM technique

The hypotheses are tested to examine which determinants of banks' profitability and loan quality exist. First, results of each model are reported, and these results are compared to existing studies that are described earlier in this thesis. Finally, several robustness checks are performed in order to validate the results from the System GMM technique.

Empirical Results of ROA Model

Results of ROA model showed that Capital adequacy is found to significantly correlated with ROA at the period employed in the current study, academic research is

mixed regarding the effect of capital adequacy on banks' profitability, according to signaling hypothesis higher capital adequacy increases profitability, the change in capital adequacy ratio due to the Central Bank control by the issuance of the regulations of the minimal threshold for capital adequacy ratio in the context of Basel II implementation by all banks operating in Egypt, so banks are obliged to keep a minimal capital requirement equals to 10% between the capital base (Numerator) and the risk-weighted assets (the denominator) to meet credit, market and operational risks, which increased profitability during period of study. The signficant relationship result between capital adequacy and banks' profitability is not similar to the result of Ansary and Megahed (2016) & Alper and Anbar (2011).

While Credit risk is found to be negatively correlated with ROA at the period employed in the current study, the credit risk indicator is measured by loan provisions over total net loans, after the 2011 revolution the Egyptian bank focused on credit risk importance and increasing loan provisions which affect inversely on profitability; the significant negatively relationship result between capital risk and ROA is similar to the result of Ansary and Megahed (2016) and Sufian (2009). Liquidity ratio is found to be not significantly correlated with ROA at the period employed in the current study, the liquidity ratio is measured by deposits/ total assets, this result is opposed to previous research results which found that increasing liquidity ratio means decreasing investment opportunities for Egyptian banks; the insignificant relationship result between liquidity and ROA is opposed to the result of Ansary and Megahed (2016) & Alper and Anbar (2011).

Asset management ratio has the most explanatory power of the model, indicated by the largest estimated coefficient, asset management is measured by operating income to total assets which is found to be positively correlated with ROA, this result is similar to the results of Ansary and Megahed (2016). Market share of banks is measured by bank assets to total assets of banking system, market share is found to be positively correlated with profitability which is similar to results of Liu and Wilson (2010) and Ansary and Megahed (2016). The relative size of banking sector to the Egyptian economy is measure by total banking assets to GDP, which is found to be positively correlated with profitability, this industry specific indicator shows that the higher the size of banking system the higher the profitability of banks. On the other hand, all macroeconomic variables are found to be insignificantly correlated with banks profitability which indicates that macroeconomic conditions after the revolution were not the main determinants of

banks profitability, while bank-specific and industry specific factors were the main determinants of profitability during the period of study.

Table (8): Results of GMM in ROA Model						
ROA	**Coefficient**	**std. err.**	**Z**	**P>|z|**	**[95% conf. interval]**	
Capital_adequacy	0.0255574	0.0048341	5.29	0.000	0.0160827	0.0350321
Liquidity	0.0030892	0.0022278	1.39	0.166	-0.0012772	0.0074556
Credit Risk	-1.065807	0.2133987	-4.99	0.000	-1.484061	-0.6475534
Asset_Management	0.108663	0.0140228	7.75	0.000	0.0811787	0.1361473
Market_Share	0.0541647	0.0142031	3.81	0.000	0.0263272	0.0820023
Loanto_Assets	-0.0013704	0.0013529	-1.01	0.311	-0.004022	0.0012812
Assets_GDP	0.0529726	0.0230794	2.3	0.022	0.0077378	0.0982073
Real_GDP	-0.0028772	0.4975326	-0.01	0.995	-0.9780232	0.9722688
Interest_Rate	0.4039467	0.8180306	0.49	0.621	-1.199364	2.007257
Exchange_Rate	0.0058099	0.0068062	0.85	0.393	-0.00753	0.0191498
Unemploy_Rate	0.1257918	1.373246	0.09	0.927	-2.565721	2.817305
Inflation_Rate	-0.0566887	0.3022815	-0.19	0.851	-0.6491496	0.5357721
_cons	-0.4813882	0.3146639	-1.53	0.126	-1.098118	0.1353417

Source: STATA Analysis Results

Empirical Results of ROE Model

Results of ROE model is similar to results of ROA model, which indicates that bank-specific and industry-specific factors are the mina determinants of the Egyptian banking sector's profitability, rather than macroeconomic conditions, which were found to be insignificantly correlated with ROE, and that macroeconomic factors were not the main determinants of banking system's profitability after the 25th January revolution.

Table (9): Results of GMM in ROE Model						
Variables	**Coefficient**	**std. err.**	**Z**	**P>|z|**	**[95% conf. interval]**	
Capitaladequacy	-0.1883405	0.0558549	-3.37	0.001	-0.297814	-0.078867
Liquidity	0.0422123	0.0255881	1.65	0.099	-0.0079396	0.0923641
Risk	-13.26476	2.422245	-5.48	0.000	-18.01227	-8.51725
Assetmanagement	1.104341	0.1636285	6.75	0.000	0.7836353	1.425047
Marketshare	0.516384	0.1821025	2.84	0.005	0.1594696	0.8732984
Loantoassets	-0.0122001	0.015435	-0.79	0.429	-0.0424521	0.0180519
Assetsgdp	0.7492336	0.2561458	2.93	0.003	0.247197	1.25127
Realgdp	3.404005	5.53644	0.61	0.539	-7.447219	14.25523
Interestrate	4.576371	9.075254	0.5	0.614	-13.2108	22.36354
Exchangerate	0.035181	0.0761364	0.46	0.644	-0.1140436	0.1844055

Unemployrate	3.024535	15.38091	0.2	0.844	-27.1215	33.17057
Inflationrate	2.513712	3.375683	0.74	0.456	-4.102505	9.129928
_cons	-2.114931	3.515339	-0.6	0.547	-9.004869	4.775007

Source: STATA Analysis Results

Empirical Results of NPLs Model

Results of NPLs model reveal that bank profitability, measure by ROA, is found to be significant negatively correlated with loan quality, which is expected as increasing banking profitability is accompanied by higher credit quality and lower non-performing loans. Asset management ratio, market share, loan growth and loan to assets were also found to be negatively correlated with non-performing loans, as with the increase of bank asset management and market share, it's expected that there will be an improvement in loan quality and decrease in non-performing loans; on the other hand, increasing of loan growth and loan to assets ratio, managers have greater incentives to monitor loan portfolios which leads to improvement in loan quality.

On the other hand, macroeconomic variables are found to be insignificant determinant of loan quality except for interest rate and exchange rate, interest rate was found to have explanatory power in borrowers' ability in repayment of loans, so that higher interest rates resulted in higher non-performing loans, while exchange rate is found to have a significant negative effect on non-performing loans, probably because the Egyptian pound was managed in the early part of the study period (2011-2016) and it was allowed to freely float at a later stage (after November 2016).

Table (10): Results of GMM in NPLs Model						
NPLs	**Coefficient**	**std. err.**	**Z**	**P>|z|**	**[95% conf. interval]**	
Roa	-0.0374672	0.0121076	-3.09	0.002	-0.0611976	-0.0137367
Capitaladequacy	0.0037641	0.0014484	2.6	0.009	0.0009253	0.0066028
Liquidity	0.0001155	0.0005718	0.2	0.840	-0.0010052	0.0012361
Assetmanagement	-0.0142353	0.0043338	-3.28	0.001	-0.0227295	-0.0057412
Loangrowth	-0.0012928	0.0003618	-3.57	0.000	-0.002002	-0.0005836
Marketshare	-0.0104204	0.0044341	-2.35	0.019	-0.0191112	-0.0017297
Loantoassets	-0.0031022	0.0003743	-8.29	0.000	-0.0038358	-0.0023685
Assetsgdp	0.0003447	0.0052612	0.07	0.948	-0.0099669	0.0106564
Realgdp	-0.094961	0.1064286	-0.89	0.372	-0.3035572	0.1136352
Interestrate	0.4101387	0.1740659	2.36	0.018	0.0689758	0.7513017
Exchangerate	-0.003706	0.0015987	-2.32	0.020	-0.0068393	-0.0005727
Unemployrate	0.5666806	0.3198245	1.77	0.076	-0.0601638	1.193525

Inflationrate	-0.026221	0.0683226	-0.38	0.701	-0.1601309	0.1076888
_cons	0.1588898	0.0731498	2.17	0.030	0.0155188	0.3022608

Source: STATA Analysis Results

9- Conclusion and Recommendations

The outbreak of the Israel-Gaza War on October 7, 2023, prompts us to consider the impact of these political strains on Egypt's economic conditions, this leads us to examine the effects on the Egyptian banking system, which is inevitably influenced by the challenging circumstances brought about by political tensions. These conditions are similar to the aftermath of the 25th January revolution, which placed the stability of the banking system at the forefront of discussions among supervisors and central banking authorities.

The aim of this paper is to conduct an empirical analysis of the factors influencing banks' profitability and loan quality during periods of political instability, specifically examining the period following the 25th January revolution until the end of 2019. The paper seeks to discern whether the profitability and loan quality of banks are primarily influenced by bank-specific factors or macroeconomic factors. This leads to the main research question: What are the key determinants of profitability and loan quality during periods of political stability? Are they macroeconomic variables or bank-specific variables.

The sample used includes 14 banks operating in the period following the 25th revolution until the end of 2019, resulting in a total of 468 observations. The paper employs the Generalized Method of Moments (GMM) technique in the regression analysis to address issues of heteroskedasticity and serial correlation with the disturbance term. The findings from the profitability models, where return on assets and return on equity were the dependent variables, suggest that bank-specific and industry-specific variables were the primary drivers of banking profitability. Among these, asset management variables were found to have the greatest explanatory power, as indicated by the largest estimated coefficient. Conversely, all macroeconomic variables were found to have an insignificant correlation with banks' profitability. This suggests that the macroeconomic conditions following the revolution were not the primary determinants of banks' profitability.

The NPLs model's findings indicate that certain bank-specific factors, including profitability (as gauged by ROA), asset management ratio, market share, loan growth, and the ratio of loans to assets, significantly influence loan quality. On the contrary,

macroeconomic variables generally do not significantly affect loan quality, with the exception of interest and exchange rates. Among these, the interest rate has the most substantial impact on a borrower's loan repayment capacity, with higher interest rates leading to an increase in non-performing loans.

Based on the findings, there is a sense of optimism about the financial robustness and resilience of banks during prolonged periods of political instability. This is contingent on banks taking effective measures to manage their assets, which are expected to significantly influence their profitability. Banks are advised to integrate political analysis into their strategic planning for asset management. This can enable them to comprehend the potential risks and opportunities that political changes might bring. It's crucial for banks to acknowledge the effects of geopolitical risks on their business models and revenues, as these risks can trigger unexpected market fluctuations and adversely impact demand.

Political instability can lead to the deterioration of banks' balance sheets and create operational inefficiencies. Hence, maintaining operational efficiency during such times is essential. Political instability can also influence asset and liability allocation, necessitating careful management of assets and liabilities to reduce potential risks. In times of political instability, it's vital for Egypt's banking system to seek various external financing sources, especially considering the significant challenges faced by the Egyptian economy, including high levels of debt. Policymakers should prioritize reforms to alleviate inflation, currency devaluation, and overall economic instability. Enhancing access to finance will aid in economic development and resilience.

During periods of political instability, banks can take several steps to manage their non-performing loans (NPLs) and loan portfolios effectively, Banks should prepare an early warning treatment and loan-workout strategy. This helps in identifying problematic accounts early and taking appropriate action. Implementing automated monitoring of loans can help banks keep track of their loan portfolios and identify potential NPLs. Banks should consider setting up separate dedicated in-house NPL units. These units can focus on identifying, categorizing, and provisioning NPLs more rigorously. Developing additional restructuring products can help banks manage their NPLs. This can be particularly useful in times of political instability when the number of NPLs might increase. For large or complex loans, banks should rely on industry experts. These experts can provide valuable insights and strategies for managing these loans. Banks should have a systematic approach to dealing with NPLs. This includes creating sustainable long-term workout plans for each asset class.

Macroeconomic disturbances have been found to impact the banking sector primarily through the credit channel. Among these disturbances, increases in interest rates have been identified as having the most detrimental effect on the quality of loan portfolios. Therefore, when formulating monetary policy, particularly in the context of an inflation targeting regime, it's crucial to consider the impact on borrowers' repayment capacity. This is particularly important for corporate lending, which is significantly more sensitive to interest rate hikes compared to retail lending.

In general, Egyptian banks have demonstrated strong performance amidst political instability. Future studies could explore the factors influencing the profitability and loan portfolio quality of banking systems in other countries with similar circumstances. It would be particularly interesting to examine one of the countries affected by the Arab Spring, to compare the performance of the banking sector under comparable macroeconomic stress caused by political instability. Additionally, more research is needed to compare the determinants of banking system performance during financially distressed conditions resulting from different crises, such as political instability and health crises like the COVID-19 pandemic.

These are general guidelines and the specific strategies may vary depending on the nature of the political instability and the specific circumstances of the bank, as seen bank specific factors are the most affected in banks performance during periods of economic distress

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