

Economic Freedom and Banking Stability in Selected Countries

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Abstract

This paper investigates the role of economic freedom in banking stability by using a panel data set for the period 1998-2013 in 43 selected countries. We turn our investigation to the effects of economic freedom on banking stability. The effects of economic freedom on financial stability are estimated. This paper calculates the z-score measure for banking stability. The findings from this study seem to suggest that overall economic freedom has positive impacts on the banking stability in the selected countries. The positive sign of the coefficient indicates that higher (lower) freedom on the activities that banks can undertake increases (reduces) banks' stability, which is consistent with the view that less regulatory control allows banks to engage in various activities enabling banks to exploit economies of scale and make income from non-traditional sources. Furthermore, higher freedom on entrepreneurs helps to start businesses and job creation and consequently, increases intermediation performance which increases banks' stability.

Keywords: Financial stability, Banking, Dynamic panel data

JEL Classification: G21, C23, G10 .

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1. Introduction

The banking sector is probably the most important financial intermediary in an economy because of the role it plays as a provider of liquidity in monitoring services and as producers of information (Diamond and Dybvig, 1983). In most countries, banks provide essential financial services that facilitate economic growth. They lend money to start businesses, purchase homes, secure credit for the purchase of durable consumer goods, and furnish a safe place in which societies can store their wealth. For developing countries, improvements in the banking sector could have significant impact on the allocation of financial resources since the sector remains still, the most important source of financing private investment of firms, given the underdevelopment of the financial markets.

Because of the vital role banks play in the economy, the banking sector has been singled out for special protection and it is clear why such great emphasis is placed on regulation and supervision of the banking sector (Barth et al., 2006). The regulation and supervision serves two main purposes. First is to safeguard the safety and soundness of the financial system. And second, to ensure that financial services firms meet their basic fiduciary responsibilities. Ultimately, both tasks fall under a government's judiciary to enforce contracts and to protect its citizens against fraud by requiring financial institutions to publish their financial statements verified by an independent audit, so that borrowers, depositors, and other financial actors can make informed choices.

These important insights have spurred further exploration into the various channels in which economic freedom influences economic growth (e.g. Heckelman and Knack, 2009; Altman, 2008; Powell, 2003; Adkins et al., 2002; DeHaan and Sturm, 2000; Heckelman and Stroup, 2000; Heckelman, 2000; DeHaan and Siemann, 1998). Most of these studies conclude that there exists a positive impact of various measures of economic freedom on economic growth. Noticeably absent in the literature is an

examination of the links between economic freedom and bank performance. The limited research in this area is somewhat surprising given the importance of bank lending in promoting economic development (e.g. Chinn and Ito, 2007; Beck et al., 2000; Levine, 2005; Beck and Levine, 2004) and the impact that economic freedom is likely to have on the banking sector. The purpose of the present paper is to extend the earlier works on the performance of the banking sector in a developing economy and establish empirical evidence on the impact of economic freedom for the first time.

The paper also investigates to what extent the performance of banks is influenced by internal factors (i.e. bank specific characteristics) and to what extent by external factors (i.e. macroeconomic and financial market conditions). Although empirical evidence which examines the performance of banking sectors are abundant in the literature, to the best of our knowledge, virtually nothing has been published to address the impact of economic freedom on the banking sector's performance. In light of the knowledge gap, this study provides for the first time empirical evidence of the impact of economic freedom on banking sector's performance. The present study should interest not only the managers of the banks, but numerous stakeholders such as the central banks, bankers associations, governments, and other financial authorities. For example, as in virtually all-emerging markets, banks are the dominant financial institutions in Malaysia. Banks control most of the financial flows and possess more than 70% of the financial system's total assets. Given the close relationship between the well-being of the banking sector and the growth of the economy, the health of the banking sector is therefore crucial. Furthermore, explicit knowledge of the factors that influences the banking sector's performance would be useful for policymaking and research purposes.

A well-developed banking sector often represents major elements of economic development. Theoretical explanations suggest that banking sector

effect by resolving a range of market imperfection problems. Banks provide services as efficient monitoring agent, provider of liquidity, efficient risk smoother, provider of research function and incentive for good governance and corporate control. Studies by King and Levine (1993), Rajan and Zingales (1998), Beck et al. (2000) represent this point and role of banking in economic growth. Many studies on financial development examine the various conditions that influence the pattern of financial development which include legal structure, openness, macroeconomic condition such as La Porta et al. (1998); Levine (2002), Rajan and Zingales 2003, Stultz and Williamson (2003), Beck et al. (2003), Hung (2003).

This empirical study represents that the inefficiency of banking system due to a range of from government interferences to intervention of government and less freedom in banking system creates moral hazard (Mishkin, 1999). Therefore, a key to achieving a sustainable economic growth promotes the sound banking system. Previous studies on banking development have employed various variables without economic freedom index. The present paper extends the banking literature by providing a relationship between the economic freedom in the countries and their banking sector stability. We examine the effect of economic freedom on stability banking system in the selected countries.

This paper is structured as follows. The next section reviews the related studies in the literature, followed by a section that outlines the econometric framework. Section 4 reports the empirical findings. Finally, Section 5 concludes and offers avenues for future research.

2. Related Studies

Economists have long recognized that the less government intervention in economy will lead to economic growth. Torsensson 1994, Knack & Keefer 1995, Barro 1996 show the importance of various institutional and policy variables in promoting economic growth. More specifically, this growth

literature points out that stable law, good enforcement of contracts, protection of individual and property rights, sound money policy are important to achieving economic growth. Gwatney and Lawson (2003) represent that economic freedom of the world index captures many of the institutional and policy related areas of a country. It can be used as a proxy for institutional and policy framework of a country. Dawson (1998), Ayal, Karras (1998), Gwartney et al. (1999), De Hann, Sturm (2000), Calson, Lundstrom (2002), Karabegovic et al. (2003), focus on the relationship between Economic freedom and economic growth. Haan et al. (2006) represents that economic freedom has a strong relationship with economic growth. In their studies economic freedom has positive relationship between economic freedom and economic growth. Studies that focus on economic growth and banking stability include King and Levine (1993), Jayarante and Straham (1996), Rajan and Zingales 1998, Beck et al. 2000. A well-developed financial system normally includes well-functioning banks and equity markets and there has been substantial research on the various determinants of financial development. More generally, empirical literatures have shown that stable macroeconomic policies contribute to well-functioning financial system (Boyd et al. 2001). Beck et al. 2005 indicate that legal system with effective resolutions and contract increase firms access to financing.

Empirical work has also supported the view that country capital account openness and its openness to international trade have positive effects on financial sector development (Soo- Wah Low et al., 2010). Empirical research on the major determinants of banking stability indicate that various institutional and policy variables affect banking stability. This study examines the link between economic freedom and banking stability. The index of economic freedom reflects different policy areas of a country. The index of economic freedom is made up of several sub components. Five

areas of economic freedom are size of government, legal structure and security of property rights, access to sound money, openness to trade internationally and regulation of credit, labor and business. This index provides a clear picture of policy area that helps to understand the role of government in promoting banking stability.

According to King and Levine (1993), the degree of government intervention can have important influences on a country's banking systems. These reasoning forms a basis that calls for a free market which either minimizes government interventions or a market that replaces government interventions with market determined variables as inputs for financial or banking decisions (Soo- Wah Low et al., 2010).

If economic freedom is a key determinant for banking system, then the government should not implement policies that severely limit economic freedom.

The empirical studies on the performance of banking sectors has focused on both the returns on assets, returns on equity and net interest margins. It has traditionally explored the impact of bank specific factors such as risk, market power, size, and capitalization of bank performance. More recently, research has focused on the impact of macroeconomic factors on bank performance.

To date, empirical researches have focused mainly on a specific country mainly the US banking system (Hirtle and Stiroh, 2007; Stiroh and Rumble, 2006; DeYoung and Rice, 2004; Angbazo, 1997, etc.) and the banking systems in the western and developed countries such as Greece (Pasiouras and Kosmidou, 2007; Athanasoglou et al., 2008). Heffernan and Fu (2008) examine the performance of different types of Chinese banks during the period 1999 to 2006. The results suggest economic value added and the net interest margin (NIM) do better than the more conventional measures of profitability, namely return on average assets (ROAE) and return on average equity (ROAA). Some macroeconomic variables and financial ratios are significant with the expected signs. Though the type of

bank is influential, bank size is not. Neither the percentage of foreign ownership nor bank listings has a discernable effect.

Ben Naceur and Goaid (2008) examine the impact of bank characteristics, financial structure, and macroeconomic conditions on Tunisian banks' net-interest margin and profitability during the period of 1980–2000. They suggest that banks which hold a relatively high amount of capital and higher overhead expenses tend to exhibit higher net-interest margin and profitability levels, while size is negatively related to bank profitability. During the period under study, they find that stock market development has positive impact on banks' profitability. The empirical findings suggest that private banks are relatively more profitable than their state owned counterparts. The results suggest that macroeconomic conditions have no significant impact on Tunisian banks' profitability.

Economic freedom is the driving force behind why some societies thrive while others do not. It is widely believed that economic freedom engenders economic prosperity, and a country's economic freedom is associated with the development of capital market and financial stability. For example, La Porta et al. (1997) claim that a country's legal environment is very important for investor protection and it affects market capitalization. Li (2002) confirms that greater economic freedom is always related to stronger shareholder protections and the relative market capitalization. In other words, for investors seeking superior investment returns, countries that are experiencing greater economic freedom improvement should be selected for their investment portfolios.

3. Finance and Economic Performance

Different perspectives on the relationship between finance and economic performance have been underlined and theoretical and empirical controversies on this subject exist since the beginning of the XXth century

(Ang, 2008). The discussion can be summed up as follows: The development of finance induces a better allocation of resources, mobilizes savings, can reduce risks and facilitates transactions. The financial sector acts as grease for the economy, ensuring a smoother allocation of resources and the emergence of innovative firms. Some more distrustful authors believe that the link between finance and economic growth is exaggerated (Stiglitz, 2000; Rodrik and Subramanian, 2009). De Gregorio and Guidotti (1995) argue that the link is tenuous or even non-existent in the developed countries and suggest that once a certain level of economic wealth has been reached, the financial sector makes only a marginal contribution to the efficiency of investment. It abandons its role as a facilitator of economic growth in order to focus on its own growth. This generates banking and financial groups that are finally “too big to fail”; enabling these entities to take excessive risk since they know it will be mutualized via public authorities’ interventions. Their fragility rapidly transmits to other corporations and to the real economy. The subprime crisis is certainly a good example of the power and magnitude of the effects of correlation and contagion on financial markets.

Numerous empirical studies have investigated these questions. However, until recently, the studies highlighted a positive relationship between financial development and economic growth. Bumann et al. (2012) in an attempt to reconcile the divergent views expressed in the literature, has assumed a nonlinear relationship between finance and economic growth. Beck and Levine (2004) by introducing credit to the private sector and the square of this variable in order to take account of potential non-linearity of financial depth have been thus able to show that the relationship between economic growth and private sector credit is positive, but that the relationship between economic growth and the square of private sector credit (that is to say, the effect of credit to the private sector when it is at a high level) is negative. Taken together, these two factors indicate a concave relationship between economic growth and credit to the private

sector: the relationship is positive up to a certain level of financial depth, and beyond a threshold, the effects of financial depth is negative.

Beck et al. (2012) insist on the fact that finance growth affects branches from firms rather than households. However, in developed countries, financial deepening originates from more households' lending. This may explain the weakness of the finance effect in high-income countries. It is worth acknowledging that those show that it do not exclude each other. They might even reinforce themselves and create an excess of finance that degenerates into financial instability.

Beyond questions of non-linearity, finance can also have its own potential negative effects. Indeed, liquidity and maturity transformation from deposit and savings to long-term investments can expand economic performance but can also be harmful. Deregulation and information asymmetries have encouraged banks to take more and more risks in recent years. Combined with financial deepening, it led to excessive lending, and created conditions for financial fragility. The failure of financial institutions can have strong negative externalities. Laeven and Valencia (2012) show that banking crises tend to have larger real effects in advanced economies. Output losses are driven by deeper banking systems that impact deeply on the whole economy.

4. Financial Stability and Banking Stability

Schinasi (2004) proposes to define financial stability from its different characteristics views, such as “enhancing economic processes, manage risks and absorb shocks”. Financial stability represents the ability of a financial system to absorb the shocks the system has to face. On a micro level, it refers to the market structures (a high degree of concentration reinforces the contagion risks from one bank to another) and to financial institutions themselves (depending on the fact that their business model requires high or

low risk). On a macro level, it also relates to the monetary stability and to the functioning of the payment system. These are organized and supervised by central banks, supervisory authorities and private firms that confirm the operation of the payment system between the financial institutions. Failures in the supervision may make possible financial instability.

Financial instability is exogenous to the financial system, and risks should be managed on an individual basis. This is an approach and spillover effects between unrelated institutions. Macro prudential policies focus on the economic system as a whole and are aimed at limiting shocks that may have a macro impact.

The complexity to define conceptually financial stability also involves various ways to measure it. Loayza and Ranciere (2005) measure financial fragility as the standard deviation of the private credit/GDP ratio over non-overlapping 5-year averages or at the micro level. Several authors capture financial stability in the banking sector through the Z-score (Uhde and Heimeshoff, 2009; Fink et al., 2009) that measures the probability of default for a bank or a banking system. Nevertheless, this indicator suffers from several limitations (Cihák et al., 2012). Using the financial stress index developed by the IMF for thirteen industrialized economies, Proaño et al. (2013) analyze how the effect of the sovereign debt-to-GDP ratio on economic growth depends on financial stability and find that the debt-to-GDP ratio impairs economic growth only if financial stress is high. This paper investigates the effects of economic freedom on banking stability.

5. Data and Methodology

We build a dataset that encompasses information on banking and nonbanking sector for 43 countries over the period 1998-2013. These countries are Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Germany, Denmark, Ecuador, Egypt, Spain, Finland, France, Greece, Hungary, Iceland, Ireland, India, Indonesia,

Iran, Italy, Japan Luxembourg, Malaysia, Mexico, Netherlands, New Zealand, Norway, Pakistan, Poland, Portugal, South Africa, Russia, Sweden, Switzerland, Turkey, United Kingdom, United States, and Venezuela. We choose these countries based on the availability of data. All data at bank level variable are composed from Bankscope. This paper employs the economic freedom measure from Fraser Institute. This paper investigates the role of economic freedom on banking stability.

Following Hafer R.W. (2013) and Low S.W. et al. (2010), the paper estimates the relationship between banking stability and economic freedom using the GMM estimator developed by Arellano and Bond (1991). The regression equation can be described in the following form:

$$BS_{it} = \alpha_0 + \alpha_1 * EF + \alpha_2 * BV + \alpha_3 * EV \quad (1)$$

Where the subscripts *i* and *t* indicate country and time period respectively, and *BS* is banking stability, *EB* is economic freedom, *BV* is banking variable and *EV* is economic variable

In this paper, three types of variable exist in equation (1). These are banking variable, economic variable and economic freedom variable. The economic variable such as (money growth, capitalization) indicated the effect of economic on banking stability and the banking variable included return on asset and capital ratio and deposit ratio influence on banking stability. The economic freedom Index represents the impact of freedom on banking stability.

Z-score represents a variable that proxy for banking stability. This paper uses a measure of the Z-score, which represents a universal measure of bank stability according to Boyd et al., (2006) and Laeven and Levine (2009). It is defined as $Z = (ROA + EA) / \sigma(ROA)$, where *ROA* is the rate of return on assets (ratio of pre-tax profit to total assets), *EA* is the ratio of equity to assets, and $\sigma(ROA)$ is an estimate of the standard deviation of the rate of return on assets.

This paper calculated the Z -score for the proxy of banking stability in banks for each country. To calculate $\sigma(ROA)$ at time t , we use data from the two previous years (i.e., $t-1$, $t-2$) and verify that using three or four lags gives very similar results. A higher Z indicates that a bank is farther from insolvency. Since Z is highly skewed, we use its natural logarithm, which is normally distributed. Z -score reflects the number of standard deviation units by which profitability would have to decline before bank capitalization is depleted. This bank stability indicator increases with higher profitability and capitalization levels but declines with unstable earnings reflected by a higher standard deviation of return on assets. A higher z -score implies that a bank is farther from default and hence more stable.

Liquid asset ratio, defined as the ratio of liquid assets over total bank assets, is employed to capture the impact of bank liquidity (*LIQUIDITY*) on bank stability. The usual regulatory view is that more liquid assets enhance bank stability as they are less vulnerable to liquidity shocks as well as reducing the level of risk on bank balance sheets. Nevertheless, it is argued from a theoretical perspective that higher asset liquidity can increase bank instability and is associated with bank failures.

The ratio of equity over total assets is to control for bank capitalization (*CAPITALratio*).

A well-capitalized bank with higher book value of equity to total assets might have fewer incentives to engage in excessive risk taking (Laeven and Levine, 2007). Thus, this variable is expected to display a positive correlation with bank stability.

To assess the role that economic freedom plays in explaining financial development, the paper uses the overall measure of economic freedom and its major subcomponents. Since more detailed definitions for these indexes are available from Gwartney et al. (2010), for present purposes a brief description will suffice. The freedom measure uses a 10 point scale; the higher the value, the greater the degree of economic freedom. The subcomponents of the overall index capture specific aspects of economic

freedom as it relates to the level of government activity, the legal structure, and the regulatory environment within which firms operate. More specifically, the Government component accounts for government size relative to the economy, Legal captures the existing legal structure and property rights, Money is used to measure government policies to protect the purchasing power of the currency, Trade assesses how free international trade is, and Regulation measures the degree of regulatory intervention. Based on previous work, higher levels of economic freedom are expected to promote greater development in financial intermediaries and banking stability. According to the studies, higher levels of economic freedom predict faster economic growth, higher levels of wealth, and healthier and happier populations (Dawson 2003, Welsch 2003, Gwartney et al. 2006, Inglehart et al. 2008, and Gropper et al. 2011). And as noted earlier, Baier et al. (2012) report that greater levels of economic freedom are associated with a lower probability of financial crises, thus suggesting that more freedom begets a more stable financial system.

Bank profitability is typically measured by the return on assets (ROA) and/or the return on equity (ROE) and expressed. Money and quasi money growth (annual %) indicate the macroeconomic effect on banking stability. Capitalization shows the Market capitalization of listed companies (% of GDP) in the selected countries. These variables include the economic variables in this model.

The main problem in empirical work is heteroskedasticity. Although the consistency of the instrumental variables coefficient estimates is not affected by the presence of heteroskedasticity, the standard instrumental variables estimates of the standard errors are inconsistent, preventing valid inference. The usual form of the diagnostic tests for endogeneity and over-identifying restrictions will also be invalid if heteroskedasticity is present. These problems can be partially addressed through the use of heteroskedasticity-

consistent or robust standard errors and statistics. The conventional instrumental variables estimator, although consistent, however, is inefficient in the presence of heteroskedasticity (Hoffmann, 2010).

The usual approach today when facing heteroskedasticity of unknown forms is to use the Generalized Method of Moments (GMM). Due GMM considers the unobserved effect transforming the variables into first differences; we consider this technique as an efficient tool to deal with endogeneity problems.

When the unobserved effect is correlated with independent variables, pooled OLS regression produces estimations that are biased and inconsistent. This problem can be controlled by using the first difference or the fixed effect (with-in) estimators (Hansen, 1982). Nevertheless, whether the strict exogeneity of the independent variables condition fails, either the first difference or the fixed effect estimators are inconsistent and have different probability limits. The general approach in this case is to use a transformation to eliminate the unobservable effects and instruments to deal with endogeneity (Nickell, 1981). Therefore, the econometric method considers the unobserved effect transforming the variables into first differences, and uses the GMM to deal with endogeneity problems. Tests of Hansen/Sargan are estimated to test the model specification validity. This test examines the lack of correlation between the instruments and the error term. This paper uses GMM methodology because the banking stability in countries is related to banking stability in previous time.

6. Results

Before estimating the equation, it is necessary to test unit root of all applied variables in estimations, because unit root variables create quasi regression problem for both time series data and panel data. Therefore, Levin, Lin and Chu test, Im, Pesaran and Shin W-stat test and Fisher and Hadri test are used to study common unit root of variables. Results are presented in table (1).

Table 1: Results

variable	Levin, Lin and Chu test,	Im, Pesaran and Shin w-stat test	PP - Fisher Chi-square	ADF - Fisher Chi-square	Hadri z
Capitalization	-8.72(0.000)	-3.74(0.001)	169.1(0.000)	138.5(0.000)	10.03(0.000)
EF	-18.18(0.000)	-12.39(0.000)	286.5(0.000)	318.5(0.000)	13.43(0.000)
Capital ratio	-16.75(0.000)	-14.03(0.000)	448.5(0.000)	319.5(0.000)	5.97(0.000)
Deposit ratio	-2.196(0.014)	-3.64(0.0001)	258.9(0.000)	141.58(0.00)	11.89(0.000)
Money growth	-17.54(0.000)	-7.68(0.000)	289.5(0.000)	173.7(0.000)	11.2(0.000)
Roe	-6.86(0.000)	-1.77(0.000)	113.8(0.000)	107.25(0.000)	8.78(0.000)
Roa	-6.8(0.000)	-8.94(0.000)	394.4(0.000)	232.9(0.000)	3.89(0.000)
liquidity	-15.66(0.000)	-10.5(0.000)	405.9(0.000)	263.4(0.000)	5.93(0.000)
z-score	-13.96(0.000)	-11.79(0.000)	436.9(0.000)	291.4(0.000)	5.082(0.000)

* The figures in parentheses are p value.

Table 2 presents the results of estimating equation (1), for analysis of the results, this research focused on the factors of determination of banking stability. For estimation, this research used the dynamic panel data. This coefficient and (t-stat) for models are significant and the Sargan test for instrument validity is reported in our estimation. The results of estimations for the model are reported in Table 2. The coefficient of lagged z-score shows that a point estimate of near 0.64 (significant at the 1% level) proves that the dynamic model is a good choice in explaining banking stability.

Table 2: The result of estimation equation1

variable	Model 1	Model 2	Model 3	Model 4	Model 5
z-score(-1)	0.64(23.7)	0.65(25.8)	0.67(24.3)	0.65(22.3)	0.81(23.45)
EF	0.65(7.74)	0.68(10.5)	0.52(6,65)	0.68(11.09)	0.88(7.75)
Capital ratio	3.27(7.18)	3.26(7.7)	3.06(7.14)	3.22(7.5)	3.48(7.63)
Deposit ratio	0.26(9.95)	0.26(6.73)	0.41(7.05)	0.27(6.65)	0.23(6.89)
Money growth	0.0082(1.89)	--	--	--	--
Capitalization	--	0.0072(11.049)	--	--	--
Roe	--	--	0.22(4.5)	--	--
Roa	--	--	--	--	0.16(3.75)
liquidity	--	--	--	-0.016(-2.22)	-0.079(-2.78)
R-Squared	0.78	0.62	0.77	0.88	0.65
J-stat(rank)	43.4(38)	42.4(38)	47.4 (38)	39(38)	39(39)
p-value	0.25	0.28	0.141	0.4	0.46

*The figures in parentheses are t value.

The ROE as profitability banking variable has a positive and significant impact on the banking stability. This would mean that banks in Iran preferred to increase profits for achieving banking stability. The capital ratio has positive impact on z-score when capital ratio increase, the banking stability increases. This coefficient is positive and significant in our estimation. The greater economic freedom leads to more banking stability. In addition, the estimated coefficients on the economic freedom measures are all positive and statistically significant across the financial measures. This suggests that countries with more economic freedom impede the development of financial intermediaries and banking stability. The results using more narrowly defined measures of economic freedom indicate that openness in foreign trade and reductions in regulatory burden are associated with increases in financial intermediary development and banking stability.

The evidence thus indicates that a higher level of economic freedom is an important component to the future development of financial intermediation and banking stability. Deposit ratio has positive impact on banking stability, when deposit increases in balance sheet, banking stability increases.

Liquid asset ratio, defined as the ratio of liquid assets over total bank assets, is employed to capture the impact of bank liquidity on bank stability. The results show that more liquid assets decrease bank stability. It is argued from a theoretical perspective that higher asset liquidity can decrease bank instability. The capitalization and money growth variable have positive effect on banking stability. This coefficient is significant.

7. Conclusion

A number of studies have found that financial development and higher levels of economic freedom are associated with banking stability. This paper examines the relationship between economic freedom and banking stability by using panel data analysis for the period 1998-2013.

The paper found that countries with higher levels of economic freedom, exhibit greater levels of banking stability. The results of this study explain the observed link between economic freedom and banking stability. The estimated coefficients on the economic freedom measures are all positive and statistically significant across the financial measures. This suggests that countries with more economic freedom impede the development of financial intermediaries and banking stability. The results using more narrowly defined measures of economic freedom indicate that openness in foreign trade and reductions in regulatory burden are associated with increases in financial intermediary development and banking stability. The evidence thus indicates that higher levels of economic freedom are an important component to the future development of financial intermediation and banking stability.

Deposit ratio has positive impact on banking stability, when deposit increases in balance sheet, banking stability increases.

This suggests that excessive government interference in the financial institutions' activities may adversely affect the banking stability. Banks operating in countries characterized by a high degree of economic and financial freedom and good governance tend to display relatively higher levels of efficiency and stability. These banks indicate a more effective management in controlling costs while maximizing the profits in contexts described by policies that improve banks' degree of freedom thus resulting in a more efficient resource allocation process. Controlling for these broader, national characteristics, including freedom as captured by the freedom indexes, can explain cross-bank differences in terms of efficiency.

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