THE IMPACT OF FINANCIAL DEVELOPMENT ON ECONOMIC STABILITY: EVIDENCE FROM ASIAN COUNTRIES

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Abstract: In recent years, most empirical studies have explored the critical role of financial sector development in economic growth. However, the study of the relationship between the progress of the financial sector and the volatility of economic development has received very little attention. This study is the first attempt at assessing the impact of financial development on the economic stability of Asian countries. In this study, economic stability is assessed through several proxies, such as growth stability, inflation stability and exchange rate stability. Employing panel data of 22 Asian economies covering the period 2011-2019 and Bayesian analysis, the findings show that financial development significantly impacts the economic stability of Asian countries. Additionally, depending on different indicators of financial development, the impact on economic stability of countries will be different. Given these research results, policy implications for economic stability in Asian countries are proposed. Besides, to stabilize growth, the study also suggests that Asian countries need better control of the ratio of non-performing loans to the total credit of the economy.

Key words: Financial development, economic stability, Bayesian analysis

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Introduction

Research on the nexus between volatility in economic growth and the development of the financial sector is limited (Arcand et al., 2012). Some researchers examine the progress of financial sector's role in the volatility of economic development and find that the progress of financial sector could help promote investing sources, consumption behaviors, portfolio diversification, risk production-related management, information-related sources on the investment risk-return tradeoff and thereby help reduce growth volatility in the economy (Acemoglu and Zilibotti, 1997; Greenwood and Jovanovic, 1990; King and Levine, 1993; Levine, 1997; Obstfeld,

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1992; Hung et al., 2018; Nguyen et al., 2022; Nguyen et al., 2018). Aghion et al. (1999), Caballero and Krishnamurthy (2001) and Denizer et al. (2000) argue that the financial sector progress could eliminate economic impulses. To support this finding, Bernanke and Gertler (1990) and Kiyotaki and Moore (1997) suggest imperfections of the financial market and limitations could lead to a considerable increase in macroeconomic volatilities. In addition, Kunieda (2008), Beck et al. (2014), Wang et al. (2018) and Ibrahim and Alagidede (2017) show that the financial sector progress-growth volatility nexus could follow a U-shaped form because the non-monotonic effect of financial investment leverage. Bacchetta and Caminal (2000) and Aghion et al. (2004) indicate that the influences of financial sector progress (in both negative and positive directions) on economic growth can arise from currency impulses and the level of countries' financial development.

Although there have been empirical studies related to this topic; however, there are still research gaps that need to be addressed. Specifically, previous studies have explored the relationship between financial development and economic stability (interpreted as two aspects, including economic growth and growth volatility) since the financial crisis of 2008. However, a body of related literature shows many different findings on the relationship between financial development and economic stability. Specifically, from the perspective of economic growth, financial development can promote growth (Mckinnon, 1973), hamper economic growth (Ayadi et al., 2015), show no significant effect (Narayan and Narayan, 2013) or there exists a threshold at which the impact of financial development on economic growth reverses (Soedarmono et al., 2017). From the perspective of growth volatility, the development of financial sectors can help control growth volatility (Cecchetti and Krause, 2001; Denizer et al., 2000; Levine, 1997) or exert a differential effect on growth volatility when a certain threshold point is reached (Arcand et al., 2015; Dabla-Norris and Srivisal, 2013; Xue, 2020). Therefore, models with different financing mechanisms are built, including indirect finance, such as banking and insurance (Bongini et al., 2017; Diamond and Dybvig, 1983; Ehrlich and Becker, 1992) and direct finance, such as FDI, stock market, and the bond market (Levine, 2005; Mallick and Moore, 2008; Saint-Paul, 1992). However, some studies have found that financial overdevelopment negatively impacts growth due to non-performing loans (Arcand et al., 2012). In addition to theoretical debates, several empirical studies have shown whether and to what extent financial development affects economic stability varies across countries and observed periods. Demetriades and Hussein (1996) show that financial development does not affect economic growth in countries with poor institutions. Rousseau and Wachtel (1998) find similar conclusions for countries with extremely high inflation. Levine (2001) found a nonlinear relationship between financial development and growth: when financial development exceeds a certain threshold, its effect on economic growth will decrease.

Literature Review

Economic stability

According to Nela et al. (2019), economic stability is generally considered as a state of the economy maintaining a stable growth rate, low inflation, public debt under control, a balance of payments without excessive deficit, and stable interest rates. In essence, macroeconomic stability is an equilibrium maintained for a certain period and within a consistent limit. The main parameter is prices in the economy and other relevant indicators. According to Krueger (2005), stability is measured by five variables with the following corresponding characteristics: (i) Regarding the real productive sector in the economy, stability is measured by economic growth and the standard deviation of economic growth. Economic growth measures the economy's ability to create wealth and the potential risk of overheating, while the standard deviation of growth measures the degree of stabilization in income growth; (ii) Regarding the trade area, stability is represented by the purchasing power parity exchange rate and the standard deviation of the purchasing power parity exchange rate. An exchange rate that is too high or too low affects the capital flows in and out of the country, as well as the competitiveness of the export sector; (iii) Stability is also measured by low inflation in the economy. A high level of inflation can lead to problems with structural changes in the economy (trade and non-trade areas, economic sectors and other structural problems) and social and political insecurity; (iv) Economic stability is also scaled by the employment level of the economy. The ability to create jobs in the economy is strongly influenced by the business cycle; and (v) Regarding the financial sector, stabilization is gauged by the real interest rate of the economy. Real interest rates directly affect the cost of credit or the cost of capital, the ability to attract deposits, and the sustainability of debt. The real interest rate and economic growth are also examined, as well as the debt-to-GDP ratio, to calculate the level of economic stability.

Maintaining the stability of macro parameters, such as the actual interest rate of the economy, employment level, inflation level and exchange rate, will eventually create growth for the economy or appropriate measures for possible fluctuations in the economy. Therefore, in this study, economic stability will also be analyzed in terms of growth volatility expressed through the standard deviation of the gross domestic product of countries.

Financial development – stability nexus

As mentioned above, most empirical studies have explored the critical role of financial sector development in economic growth. However, the study of the relationship between the progress of the financial sector and the volatility of economic development has received very little attention. In this regard, Levine (1997) found that the progress of the financial sector could reduce the volatility of economic development by stimulating investment portfolios, efficient management for production activities with risks, provision of information on the risk and return of different investment types, which is useful when distributing capital-based sources more efficiently. Greenwood and Jovanovic (1990), King and Levine

(1993), Obstfeld (1992), and Acemoglu and Zilibotti (1997) suggest diversification benefits, including the development of economies and uncertainty reduction because diversification of the portfolio investments can reduce overall risk. Furthermore, the development of the financial sector would help economic volatility by providing a stable foundation for monetary executions (Cecchetti and Krause, 2001), or stimulate consumption demand by reducing ease constraints on the liquidity of households (Jappelli and Pistaferri, 2011). Denizer et al. (2000) show that the progress of financial markets causes a decrease in investment activities, consumption behaviours, and the volatility of the economy's output.

Easterly et al. (2001) found that the enhancement of the financial sector allows for better risk management and determines the economy's stability. Da Silva (2002) holds a plausible view that somewhat developed financial markets in several economies are less sensitive to economic instability. Braun and Larrain (2005) employ industry-based datasets from many countries. They indicate that the progress of the financial sectors could reduce the volatility of economic products, especially in sensible sectors with financial weaknesses. Dynan et al. (2006) suggested that the progress of financial markets could have to stabilize the impact on economic activity, consisting of spending of consumers, funding investment in housing, and fixed investment in business operations. Using the sample of OECD countries, Manganelli and Popov (2015) suggest that the enhancement of the financial sector could control overall volatility. Fernández et al. (2016) show that the instability of the banking system can increase volatility in value-added using the industry-related dataset for 110 economies.

Bacchetta and Caminal (2000) and Aghion et al. (2004) show that the progress of the financial market can have effects (in both adverse or positive directions) on variations in the economy's growth depending on natural or currency shocks and the level of financial development of a particular country. The increasing collective leverage of the banking sector, according to Ferrante (2018), would magnify adverse external shocks via a process like a financial accelerator (Bernanke et al., 1999; Gertler and Karadi, 2011). Ibrahim and Alagidede (2017) demonstrate that currency shocks have a substantially exaggerated impact on volatility in the long-run business cycle, whereas natural wonders have the reverse effect.

Recent research by Xue (2020) on the effect of financial sector development on growth volatility utilizing data from 50 countries from 1997 to 2014 demonstrates a decline in aggregate growth volatility, with industrialized nations exhibiting significantly less volatility than emerging nations. Using a dynamic panel threshold model, the author argues that expanding the financial sector dramatically decreases growth volatility, particularly in regions below the economic development threshold. In addition, the development of the financial sector increases the shock of inflation fluctuations to growth fluctuations in areas higher than the threshold point of financial development.

Based on the results of related studies, in this study, the researchers propose the following research hypothesis:

Hypothesis H: Financial development increases economic stability in Asian countries.
More specific:
Hypothesis H1: Financial development demonstrated through financial depth reduces the volatility of economic growth.
Hypothesis H2: Financial development demonstrated through financial efficiency reduces the volatility of economic growth.
Hypothesis H3: Financial development demonstrated through financial stability reduces the volatility of economic growth.

Research Methodology

Research procedure

To assess the impact of financial development on economic stability in Asian countries, the study is based on the research models of Xue (2020), Ahmed et al. (2022), Chaiechi (2012) and Mitra (2013) and performed through the following steps:

• Step 1: Based on a theoretical review and an overview of related studies, the study identifies and proposes a comprehensive technique to measure financial development and economic stability and provide a model to assess the impact of financial development on economic stability in Asian countries.
• Step 2: Collect and process valid data
• Step 3: Analyze and estimate a model for the impact of financial development on economic stability in Asian countries
• Step 4: Discuss and conclude the impact of financial development on economic stability in Asian countries

Data

This study is conducted in 22 Asian countries, which are chosen based on the data availability of the study model's variables. The selected countries include 3 high-income countries and 14 middle-income countries, and 5 low-income countries according to the World Bank income classification. The study covers the period of 2011-2019 since available data on the countries is provided in this period. This study period also excludes the 2008-2009 crisis period and the COVID-19 epidemic period to ensure that the research results are not affected by extreme events.

Research model

To examine the impact of financial development on economic stability in Asian countries, the study employs the specification of Xue (2020), Nasir et al. (2015), Ahmed et al. (2022), Chaiechi (2012), Mitra (2013) and Raja et al. (2015) as follows:

$$MS_{it} = b_0 + b_1 FD_{it} + b_2 Z_{it} + e_{it} \quad (1)$$

Where, *i* and *t* represent the *i*th country and year *t*, respectively. MS represents the economic stability variable while FD represents the financial development variable, and the variable Z represents control factors according to previous studies, such as employment rate (EMPLOYMENT), government capital reserve

(GOV_CAPITAL), private capital reserve (PRI_CAPITAL), and trade openness (TRADE). Table 1 reports the symbol and detailed descriptions of variables.

Table 1. Variable descriptions

Symbols	Variables	Descriptions	Measurements
MS	Macroeconomic stability	Growth stability (SD_LNGDP)	Standard deviation of annual economic growth
FD	Financial development	Financial depth (M2_GDP)	Money supply (M2) (% GDP)
		Financial efficiency (PRIVATE)	Domestic credit to private sector (% GDP)
		Financial stability (NPL_LOAN)	Ratio of non-performing loan to total credit of the economy
Z	Control factors	Employment rate (EMPLOYMENT)	Employment rate/total number of people of working age
		Government capital reserve (GOV_CAPITAL)	Government capital reserve (% GDP)
		Private capital reserve (PRI_CAPITAL)	Private capital reserve (% GDP)
		Trade openness (TRADE)	(Export-import) (% GDP)

Sources: Authors' summary from previous studies

Estimation method

To explore the impact of financial development on economic stability in Asian countries, the fixed-effect regression estimation technique is used. Then, instead of inferring the results based on the p-value, we use Bayesian analysis to infer the results. Bayesian analysis can overcome the disadvantages of p-value, which were mentioned in Wasserstein and Lazar (2016). Besides, a problem for the estimation methods is the robustness of the model. This stems from the fact that the regression coefficients of the variables in the model change when the number of observations changes. Moreover, there is a potentially objective limitation of sample data for estimation by GMM estimation. In this regard, the conclusions drawn from the estimation results may be affected. To overcome this shortcoming and strengthen the conclusions drawn, the current study uses the Bayesian estimation method to test the model's robustness. The data simulation is executed through the Metropolis-Hastings (MH) sampling algorithm. The Bayesian analysis is developed from the conditional probability shown below:

$$p(A \mid B) = \frac{p(B \mid A)p(A)}{p(B)} \qquad (2)$$

Where $p(A \mid B)$ stands for posterior probability in which the objective is to find probability for true hypothesis A with data collection while $p(B \mid A)$ is the likelihood of the data, meaning that the probability of collected dataset based on true hypothesis A. $p(A)$ is prior probability in which hypothesis A is believed to be true before collecting data, $p(B)$ denotes constant (the probability of data), A and B are random vectors.

In Bayesian approach, the coefficients of b_i are random vectors. Bayesian analysis determines the posterior distribution of these parameters based on the combination of the given data and the a priori distribution. Each posterior distribution describes the probability distribution of a parameter in the model. Therefore, the inference results about the parameters b_i in the estimation models based on posterior distributions will be more general. In Bayesian estimation approach, two critical issues to be addressed are the prior distribution and the sampling algorithm.

Prior distribution

The generation of posterior distributions can be done using a variety of a priori informative and non-formative distributions. In Bayesian inference, the parameters' previous information is a key component. There will be information regarding previously observed parameters in a prior distribution. The prior distribution would not impact the posterior distribution much if the data set is substantial enough. The a priori distribution, on the other hand, is crucial to the posterior distribution when the data are too tiny.

In this study, the prior distributions of the regression parameters b_i will be determined by a normal distribution with the mean and standard deviation taken from the findings of the specification estimation through the fixed-effect regression as follows:

$$b_i : \ N(\hat{b}, \hat{s}_b^2) \qquad (3)$$

Where $\hat{b}$ is the estimation coefficient obtained from the fixed-effect regression model, while $\hat{s}_b^2$ is the respective standard deviation of coefficients based on the fixed-effect regression model.

Empirical Findings

Descriptive statistics

Descriptive statistics capturing the observed variables in the model are presented in Table 2. For the economic stability indicator, the standard deviation of the economic growth rate (SD_GDP) is, on average, 1.234%, fluctuating between 0.026% and 8.336%.

For the financial development indicator, the ratio of money supply M2 to GDP (M2_GDP), which reflects the financial depth, is, on average, 73.812%, fluctuating between 26.695% and 207.674%. Private sector domestic credit (PRIVATE), which reflects financial performance, averaged 58,942% relative to GDP, fluctuating between 3,230% and 165.390%. The ratio of non-performing loans to total credit in the economy (NPL_LOAN), which reflects financial stability, is on average at 5.057%, fluctuating between 0.757% and 20.925%.

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Economic stability					
SD_GDP	189	1.234	1.272	0.026	8.336
LNGDP	189	29.027	3.589	23.621	36.932
Financial development					
NPL_LOAN	189	5.057	4.210	0.757	20.925
M2_GDP	189	73.812	41.393	26.695	207.674
PRIVATE	189	58.942	42.434	3.230	165.390
Control variables					
GOV_CAPITAL	189	11.958	1.967	8.655	17.223
PRI_CAPITAL	189	12.813	2.005	8.967	17.355
TRADE	189	25.019	24.947	4.210	112.191
EMPLOYMENT	189	60.485	8.869	43.084	84.944

Sources: Authors' calculation

Figure 1 displays the analysis results of the correlation coefficients between the model's variables. The results indicate that the explanatory variables are not highly correlated, implying that there is no serious concern about multicollinearity among the independent variables.

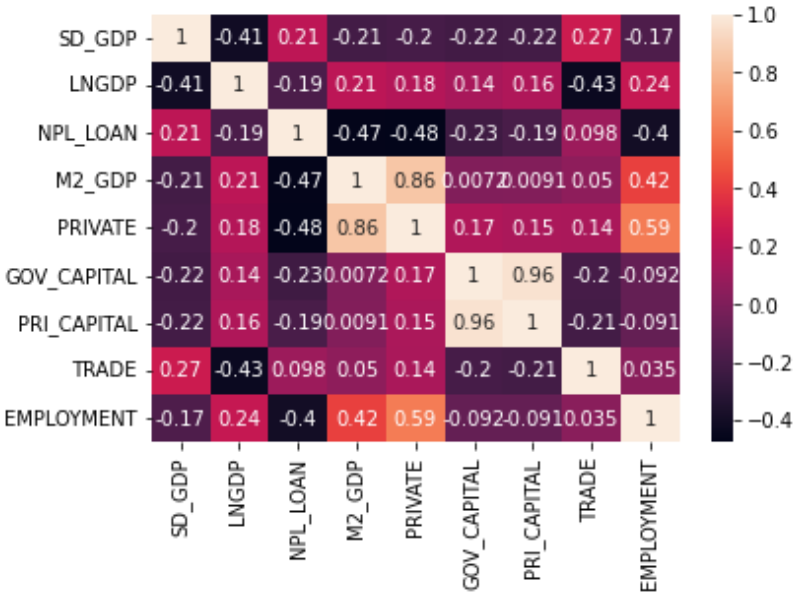

Figure 1: Correlation matrix among variables
Sources: Authors' calculation

Results of the impact of financial development on economic stability in Asian countries

Estimated results using the fixed-effects method

From the economic growth perspective, the model estimation results in Table 3 show that the regression coefficients of the variables M2_GDP and PRIVATE have values of -0.003 and 0.004, respectively. These regression coefficients are all statistically significant at the 1% level. Thus, financial development expressed through financial depth (M2_GDP) hurts the growth of Asian countries. Meanwhile, financial development through financial efficiency (PRIVATE) positively impacts economic growth. However, financial development demonstrated through financial stability (NPL_LOAN) has no impact on the economic growth of Asian countries.

For economic stability, Table 3 reports that the estimation coefficients corresponding to the variables NPL_LOAN, M2_GDP and PRIVATE have values of 0.013, -0.012, and -0.014, respectively (at the 1% significance level). Thus, financial development expressed through financial depth (M2_GDP) reduces the growth volatility (SD_LNGDP) and increases growth stability. Similarly, financial development through financial efficiency (PRIVATE) reduces growth volatility (SD_LNGDP) and increases growth stability. However, financial development demonstrated through financial stability (NPL_LOAN) increases the growth volatility (SD_LNGDP) and reduces growth stability.

Table 3. Impact of financial development on economic stability expressed through growth stability

Variables	LNGDP		SD_LNGDP	
	Coefficient	Std. err.	Coefficient	Std. err.
NPL_LOAN	0.0001	0.002	0.013***	0.04
M2_GDP	-0.003***	0.001	-0.012***	0.015
PRIVATE	0.004***	0.001	-0.014***	0.015
TRADE	-0.005***	0.001	-0.03	0.024
GOV_CAPITAL	0.162***	0.054	-1.034	0.882
EMPLOYMENT	-0.011***	0.004	-0.014	0.067
PRI_CAPITAL	0.476***	0.051	-1.715**	0.838
CONS	21.749***	0.449	37.073	7.311

***, **, and * are statistically significant at the level of 1%, 5%, and 10%, respectively.
Source: Authors' calculation

Estimated results using Bayesian analysis

Determining a prior distribution

Based on the model estimation results in Table 3, prior distributions of the coefficients in the models are determined to assess the impact of financial development on economic stability in Asian countries according to the following normal distribution:

The model using the growth stability (SD_GDP) as a dependent variable can display prior distributions of the parameters: b_{NPL_LOAN} : $Normal(0.013, 0.040' 0.040)$, b_{M2_GDP} : $Normal(-0.012, 0.015' 0.015)$, and $b_{PRIVATE}$: $Normal(-0.014, 0.015' 0.015)$.

Model estimation results by Bayesian analysis with growth stability (SD_GDP) as a dependent variable. Estimation results of the impact of financial development on economic stability expressed through growth stability are presented in Table 4.

Table 4. Results of model estimation by Bayesian analysis with growth stability (SD_GDP)

SD_GDP	Mean	Std. dev.	Median	Equal-tailed [95% cred. interval]	
NPL_LOAN	0.016	0.033	0.016	-0.048	0.082
M2_GDP	-0.007	0.007	-0.007	-0.021	0.008
PRIVATE	-0.0004	0.008	-0.00005	-0.017	0.015
TRADE	0.009	0.006	0.009	-0.006	0.02
GOV_CAPITAL	-0.048	0.288	-0.06	-0.601	0.536
EMPLOYMENT	-0.013	0.021	-0.014	-0.051	0.032
PRI_CAPITAL	-0.108	0.28	-0.089	-0.701	0.391
CONS	4.144	1.937	4.126	0.362	8.01

Note: Mean, Std. Dev. and Median display the mean, standard deviation, and median of the posterior distribution captured in estimated parameters in the specification, respectively. Equal-tailed [95% cred. interval] denotes a 95% confidence interval of estimated parameters in the specification. For brevity, this note is also used for the following tables reporting the main specification results with different proxies of stability.
Source: Calculation results from STATA 17.0 software

In the current research, posterior distributions are created employing the Metropolis-Hastings sampling approach. The size of the MCMC chain is 12500, in which the burn-in period is 2500. Table 4 displays the posterior mean value of the coefficients captured for NPL_LOAN, M2_GDP, and PRIVATE are 0.016, -0.007, and -0.0004, respectively. Different from the frequency analysis employing a confidence interval of 95%, Bayesian technique employs a credible interval of 95%.
Table 4 shows the 95% credible intervals of the coefficients corresponding to NPL_LOAN, M2_GDP and PRIVATE running from the negative domain to the positive one, suggesting that the variables NPL_LOAN, M2_GDP, PRIVATE have an ambiguous influence on SD_GDP. To effectively identify the probability of a positive or negative effect of these variables on SD_GDP, it is vital to calculate the probability of each parameter. The findings are reported in Table 5.

Table 5. Probability of regression coefficients

Hypothesis	Mean	Std. dev.	MCSE
PROB1 : (SD_GDP:NPL_LOAN) > 0	68.58%	46.42%	0.90%
PROB2 : (SD_GDP:M2_GDP) < 0	82.73%	37.80%	1.08%
PROB3 : (SD_GDP:PRIVATE) < 0	50.24%	50.00%	1.44%

Note: The Mean column shows the probability of a positive or negative regression coefficient. (SD_GDP:NPL_LOAN), (SD_GDP:M2_GDP), (SD_GDP:PRIVATE) are the regression coefficients corresponding to the variables NPL_LOAN, M2_GDP, and PRIVATE in the model with the dependent variable SD_GDP, respectively.
Source: Calculation results from STATA 17.0 software

Table 5 indicates that the regression coefficient's likelihood captured for the positive variable NPL_LOAN is 68.58%, so financial development through financial stability (NPL_LOAN) increases the growth volatility (reduces growth stability) of Asian countries. This result is consistent with the fact that a decrease in financial stability corresponding to an increase in the ratio of non-performing loans to the total credit of the economy will lead to growing instability in that country. Conversely, increased financial stability will help increase growth stability. This result is consistent with the studies of Levine (1997), Easterly et al. (2001), Dynan et al. (2006), Barajas et al. (2013), and Manganelli and Popov (2015). Thus, hypothesis H3 is confirmed.

Besides, Table 5 reveals that the probability of the regression coefficient captured for the negative variable M2_GDP is 82.73%; thus, financial development expressed through financial depth (M2_GDP) reduces growth volatility (increases growth stability) of Asian countries. This result is consistent with increasing financial depth (reflecting financial development) to increase growth stability. This result is also in line with the studies of Levine (1997), Easterly et al. (2001), Dynan et al. (2006), Barajas et al. (2013), and Manganelli and Popov (2015). Thus, hypothesis H1 is confirmed.

Finally, Table 5 also indicates that the likelihood of the regression coefficient captured for the negative PRIVATE variable is 50.24%, so that financial development demonstrated through financial efficiency (PRIVATE) reduces growth volatility (increases growth stability) of Asian countries. This result is also consistent with the fact that increased financial efficiency reflects financial development, which will increase growth stability. This result agrees with the studies of Levine (1997), Easterly et al. (2001), Dynan et al. (2006), Barajas et al. (2013), and Manganelli and Popov (2015). Thus, hypothesis H2 is confirmed.

Convergence test of MCMC

For each regression coefficient in the model with the dependent variable, such as SD GDP, the results of testing the convergence of the MCMC are determined. Figure 2 demonstrates that the MCMC corresponding to the regression coefficients in the models converges. Specifically, the trace plots reveal that the MCMCs are trendless, with estimates of values densely distributed as a horizontal line bouncing around the mean regression coefficient values. The plot of autocorrelation indicates that the correlation is nearing zero. The histogram of the MCMC distribution follows a normal distribution. One-half, two-half, and MCMC density plots have the same form. Consequently, the estimated findings of Bayesian analysis are trustworthy.

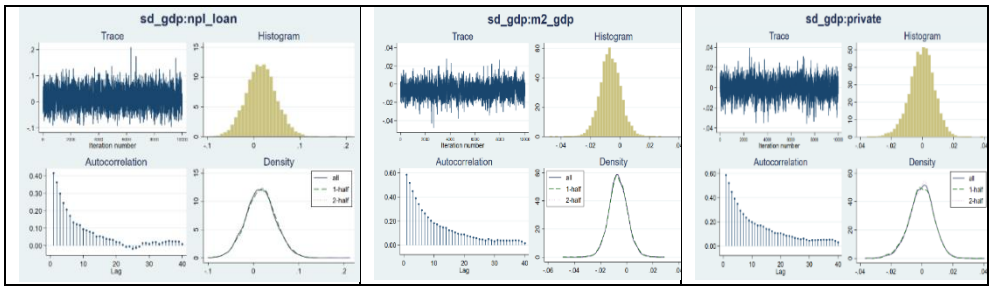

Figure 2: Results of testing the convergence of MCMCs in the models

Conclusion

This research investigates the influence of financial development on the economic stability of selected Asian countries covering the period of 2011-2019. Several key findings are provided as follows. For economic stability represented through growth stability, the research results show that financial development demonstrated through financial stability (NPL_LOAN) increases GDP volatility (reduces growth stability) in Asian countries. Meanwhile, financial development demonstrated through financial depth (M2_GDP) and financial efficiency (PRIVATE) reduce GDP volatility (increases growth stability) of Asian countries.

Based on the research results, the present research provides some policy implications for economic stability in Asian countries through financial development. Specifically, it suggests that Asian countries need to control better the ratio of non-performing loans to the total credit of the economy. At the same time, the increase or decrease in the M2 money supply should closely follow the economic growth. To do so, central banks must determine the expected inflation rate in the short and long term and effectively manage foreign capital flows, especially capital flows into the securities and real estate markets. In addition, central banks also need to have a policy of sustainable development of private sector credit, maintaining a reasonable ratio of private sector credit to GDP.

Although the study has achieved its research objectives by testing the research hypotheses, it still acknowledges some limitations of this study. Firstly, the data from Asian countries are incomplete and have not been updated to the current period. Therefore, further studies should update the data to ensure more reliable results. Secondly, from a theoretical perspective, in addition to the independent variables in the model, economic stability is also affected by other variables. Therefore, future studies must include additional variables to draw new conclusions.

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WPŁYW ROZWOJU FINANSOWEGO NA STABILNOŚĆ GOSPODARCZĄ: DOWODY Z KRAJÓW AZJATYCKICH

Streszczenie: W ostatnich latach większość badań empirycznych dotyczyła kluczowej roli rozwoju sektora finansowego we wzroście gospodarczym. Jednak badaniu związku między postępem sektora finansowego a zmiennością rozwoju gospodarczego poświęcono bardzo mało uwagi. Niniejsze opracowanie jest pierwszą próbą oceny wpływu rozwoju finansowego na stabilność gospodarczą krajów azjatyckich. W tym opracowaniu stabilność gospodarcza jest oceniana za pomocą kilku wskaźników, takich jak stabilność wzrostu, stabilność inflacji i stabilność kursu walutowego. Wykorzystując dane panelowe 22 gospodarek azjatyckich obejmujące lata 2011-2019 i analizę bayesowską, wyniki pokazują, że rozwój finansowy znacząco wpływa na stabilność gospodarczą krajów azjatyckich. Ponadto, w zależności od

różnych wskaźników rozwoju finansowego, wpływ na stabilność gospodarczą krajów będzie różny. Biorąc pod uwagę te wyniki badań, zaproponowano wnioski dotyczące polityki stabilności gospodarczej w krajach azjatyckich. Poza tym, aby ustabilizować wzrost, zasugerowano również, że kraje azjatyckie potrzebują lepszej kontroli stosunku kredytów zagrożonych do całkowitego kredytu w gospodarce.

Słowa kluczowe: Rozwój finansowy, stabilność gospodarcza, analiza Bayesowska

金融发展的影响 关于经济稳定性：来自亚洲国家的证据

摘要： 近年来，大多数实证研究都在探讨金融部门发展对经济增长的关键作用。 然而，关于金融部门进步与经济发展波动性之间关系的研究却很少受到关注。 本研究首次尝试评估金融发展对亚洲国家经济稳定的影响。 在这项研究中，经济稳定性是通过几个指标来评估的，例如增长稳定性、通胀稳定性和汇率稳定性。 利用2011-2019年亚洲22个经济体的面板数据和贝叶斯分析，研究结果表明，金融发展对亚洲国家的经济稳定有显着影响。 此外，金融发展指标不同，对各国经济稳定的影响也不同。 鉴于这些研究结果，提出了对亚洲国家经济稳定的政策启示。 此外，为了稳定增长，该研究还表明，亚洲国家需要更好地控制不良贷款占经济总量的比率。

关键词: 金融发展, 经济稳定, 贝叶斯分析