Does country governance matter to financial development and economic growth? A panel quantile regression analysis on EU countries

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Abstract

The European Union (EU) is a unique partnership in which member states have pooled sovereignty in not only certain policy areas, but a wide range of economic and political issues (EveryCRSReport, 2018). European Union has been at the forefront of efforts in building a sophisticated financial system to promote substantial growth. The European Commission is established to unlock funding for Europe's businesses and boost economy growth in EU countries by creating a converged financial market. On the other hand, Belt and Road Initiative (BRI) as a reconstitution of the ancient "Silk Road" by Chinese government into a contemporary mode is aimed to improve economic integration of China with Asia, Europe and Africa; has given rise to opportunities for financial services among EU members. However, EU efforts in supporting sustainable finance are facing considerable difficulties, especially encountering the pending departure of the United Kingdom from EU. Besides, USA under President Trump, has decided to take a step back from globalisation and his noticeable scepticism towards EU has formed noteworthy uncertainties for future economic growth for EU. Very little research has been focused on the guidelines on economic measures to be taken by EU in abating current international situation. Thus, the objective of this study is to investigate the impact of financial services and country governance on the economic growth of the EU countries. How do financial services affect economic growth? Does country governance play an intermediate role in financial development that affects growth? This paper employs the panel quantile regression on 27 EU members' countries to study the interacting role of country governance and financial development on economic growth. The findings indicate that at the upper quantile, a good rule of law and voice and accountability are significant and show positive coefficient in interacting with financial development in affecting economic growth. A good rule of law is vital to make quality decision and greatly reduces cost for transactions in financial sector. Voice and accountability form the key driver for people to participate actively in the market and businesses. Control of corruption is a vital determinant for less-developed country but not for the developed country. Control of corruption and regulatory quality exerts strong impact to influence people confidence in approaching external finance. The paper also concludes that overall quality country governance and higher financial development is beneficial to economic growth. From these observations, it is recommended that high-income countries in the EU should focus on country governance to accomplish growth, while less-developed countries could focus on the financial development and the diffusion of government policies to drive their economies.

1. Introduction

The initial efforts of the European Monetary Union was marked by a substantial increase in trade and financial integration. Financial integration is a key objective of the European Union (EU) to achieve a sustainable development based on balanced economic growth. After a substantial deepening of financial integration before the global financial crisis, the process started to reverse with the onset of the crisis. More recently, the recent vote by Britain to quit the EU and the political pressures in some member countries to exit the EU also backfired EU efforts to support an integrated sustainable finance and economic integration among member countries. Consequently, the European financial sector is more fragmented today than it had been before the crisis. However, the degradation is not simply a one way process. The Belt and Road Initiative (BRI) as a reconstitution of the ancient "Silk Road" by Chinese government into a contemporary mode presented an alternative by EU members and China government to promote financial and economic integration. According to European Commission Vice President Maros Sefcovic, European banks and companies may be interested in participating in China's major globe-spanning investment initiative (CNBC, 2019). Whether the EU should further promote financial integration strategy or take a step back from this strategy? This poses a serious question whether enhancing the financial development in EU could improve its economic growth to achieve a sustainable development.

When assessing the role of the financial sector in an economy, it can be stated that this sector plays a key role in the implementation of the sustainable development goals. Effective financial markets operations could ensure efficient capital transfer in economy, reduce financial risk and finance the real economy consistently. It is known that economists often hold startlingly different opinions regarding the importance of the financial system for economic growth. Bagehot (1873) and Hicks (1969) argue that it played a critical role in igniting industrialization in England by facilitating the mobilization of capital for "immense works." Schumpeter (1912) contends that well-functioning banks spur technological innovation by identifying and funding those entrepreneurs with the best chances of successfully implementing innovative products and production processes. In contrast, Robinson (1952) declares that "where enterprise leads finance follows." According to this view, economic development creates demands for particular types of financial arrangements, and the financial system responds automatically to these demands.

As the greatest financial crisis since the Depression of 2007-2008 morphed into the Great Recession of 2009-2014, there appeared to be a consensus that the market was not capable of governing finance without a more rigorous set of regulations and supervision. This general agreement led to a series of reports and measures proposing increased governance of financial institutions serving as means of better economic growth (Kregel, 2015). Weaknesses in governance of traditional financial institutions and industry regulations have been regularly cited as one of the main reasons of financial crises. Countries with strong and good governance are better able to respond to the needs of households and businesses during uncertain times. Therefore, financial development in countries with stronger governance should be more resilient to the impact of a crisis, thus they could

achieve better economic growth. However, although the literature is extensively vast so far, to the best of our knowledge, there is little study has attempted to compare the financial development conventional measures that led to economic growth across the EU countries, especially the issues related to country governance.

Consequently, the objectives of this study are twofold: (i) to investigate how financial services affect economic growth among EU members (ii) to study the effects of country governance which play an intermediate role in financial development that affects growth. The debate concerning the role of economic and financial integration on economic growth has intensified in recent years, as different empirical studies have focused on whether the economic integrations or unions have long-run economic benefits for member countries. This paper represents an attempt to employ the panel quantile regression on 27 EU members' countries to study the interacting role of country governance and financial development on economic growth. Practically, the novelty of this paper is that it will be useful to several regions or countries in Europe, Asia, Africa and Latin America that practice or intend to practice economic integration or adopt common currency.

2. Literature Review

The theories and empirical works suggest that there are two views on the finance-growth relationship: the demand-following phenomenon and the supply-leading phenomenon. In the demand-following argument, discussions on economic growth stimulating the development of the financial sector were documented by Law, Azman-Saini and Tan, (2014), Levine, Loayza and Beck (2000) and Shahbaz et al (2018). Generally, they depicted that when the real economy grows, there will be a demand for financial services, which will induce an expansion in the financial sector. On the other hand, the supply-leading theory explains that financial services can promote economic development (Beck & Levine, 2004; Hou & Cheng, 2017; Law & Singh, 2014). The current momentum of studies is leaning towards the supply side argument, which emphasises the significance of the liquidity, financial diversification and risk-sharing functions provided by financial services to economic growth. Beck and Levine (2004) strongly supported the notion that overall financial development is important for economic growth. They found that banks and stock market developments consistently provided a positive impact on growth in a panel of 40 countries for the period 1976–1998. Interestingly, Law and Singh (2014) contended that financial development is advantageous to growth only up to a definite threshold; but "too much of finance" or the further development of finance beyond the threshold level is inclined to unfavourably influence growth. Their findings, based on banking sector development indicators, namely private sector credit, liquid liabilities and domestic credit, revealed that more finance is not essentially beneficial for economic development. A more comprehensive analysis of the impact of financial services on economic growth was performed by Hou and Cheng (2017), who employed the variables of banking, the stock market and life insurance as the proxies for financial development. Their results suggested that banking development impedes growth but life insurance and stock market development accelerate growth. Their study also recommended that countries at diverse

levels of expansion should employ different financial activities to warrant sustainable development.

Asteriou and Spanos (2019) examined the relationship between financial development and economic growth on the face of the recent financial crisis. They adopted multiplicative dummies to compare two distinct sub-periods before and after crisis, over 26 EU countries from 1990-2016. The result revealed that before crisis, financial development promoted economic growth, but after crisis it hindered economic activity. This suggested that the effect of financial development on economic growth can vary with certain conditions of the economy. Ehigiamusoe and Lean (2019) aimed at study the stimulation of economic and financial integration on economic growth. They examined empirical literature on integration-growth nexus and they discovered that the overall survey showed overwhelming support that economic integration promote economic growth, albeit a common currency (Euro) has an insignificant effect. Besides, the channels through which economic and financial integration exerts its influence on economic growth are deemed significant.

A study by Schnabel and Seckinger (2019) used data from Eurostat and applied the Rajan-Zingales methodology to investigate the short-run real growth effects of foreign bank presence in the 24 EU countries from 2000 to 2012. They found evidences that foreign bank presence had a more than four times stronger growth effect during the crisis than in normal times and growth effects are also stronger in times of domestic bank deleveraging. This signifies that besides domestic financial development, banking sector integration of EU members poses significant influence on fostering future growth. Shahbaz et al. (2015) who examined the financial development and economic growth nexus in a developing country found findings suggest that the development of financial sector facilitates economic growth, trade openness stimulates the economic activity, but for real capital, this may not be the case. The results also show that both, financial development and trade openness are significant driving forces for growth in the long run (Shahbaz, 2012). Furthermore, in a more recent study, Shahbaz et al. (2017) investigated the drivers of economic growth in China and India using annual data over the period 1970-2013, and the results indicate that financial development increases economic activity in those two countries.

Demetriades and Law (2006) comment that the difference in causality between finance and growth detected in time-series studies recommended that there are important differences in the way in which finance influences economic growth across countries. Thus, the differences in institutions across countries may reflect how financial development influence economic growth. This is because varying causal patterns may reflect differences in the quality of finance, which are, in turn, determined by the quality of financial regulation and the rule of law. For example, an increase in financial deepening, as captured by standard indicators of financial development, may not result in increased growth because of corruption in the banking system. Country governance is also a classification of quality of institution. It is set of traditions and institutions by which authority in a country is exercised or in the simple word classify as country’s rules. Country governance

indicators include voice and accountability (VA), political stability and absence of violence (PV), government effectiveness (GE), regulatory quality (RQ), rule of law (RL) and control of corruption (CC). Furthermore, Demetriades and Law (2006) find that financial development is most important in middle-income countries, where its effects are particularly large when institutional quality is high. In addition, they also find that in low-income countries the effect of financial development is at its weakest; more finance without sound institutions may not thrive in bringing long-run economic benefits. While this is a plausible conjecture, there is as yet little, if any, direct evidence to confirm that country governance make a difference to the way in which finance affects economic growth.

Recent literature also points out that governance make a difference in the way financial development affects economic growth. It is argued that financial development-growth nexus is contingent on the level of quality of an institution, hence supporting the idea that better finance is crucial in promoting long-run economic growth (Law, Kutan, & Naseem, 2018). An increase in financial development, as captured by standard financial development indicators, may not result in increased growth due to political interference that may divert credit to unproductive activities, corruption in the banking system or fragile rule enforcement. Thus, the success of financial development in promoting growth depends on the governance effectiveness in implementing such development, which reduces the level of uncertainty and in turn encourages productive economic activities. Therefore, it is believed that country governance in different aspects can interact with financial services to affect growth. Although the issues on institutions or governance, financial development and growth have been gaining popularity in recent years, only limited evidence traces the interacting effect of institutions on the finance-growth nexus, particularly using EU data.

As a summary of literature gap, this study explores how country governance could interact financial development to influence economic growth based on the quantile of the economic growth status.

3. Data and Methodology

This study was an attempt to investigate the impact of financial development and country governance in EU countries. 27 countries (Austria, Belgium, Bulgaria, Cyprus, Germany, Denmark, Spain, Estonia, Finland, France, Greece, Croatia Hungary, Ireland, Italy, Lithuania, Luxembourg, Latvia, Malta, Netherlands,Poland, Portugal, Romania, Slovak Republic, Slovenia, Sweden and United Kingdom) were chosen from among the EU countries and the sample period of this study was from 1996 to 2017. The period begins with 1996 as to in line with the availability of country governance data that is provided by the Worldwide Governance Indicators (WGI) database and up to the latest macroeconomic variables data that is supplied by The World Bank.

The present study was an attempt to examine the impact of financial development and country governance on economic growth in EU countries. A panel regression model that was analogous to a typical growth model was employed (Andini & Andini, 2014; Uyar & Uyar, 2018), as follows.

$$lnY_{it} = f(lnFD_{it}, CG_{it}, lnX_{it}) \quad (1)$$

where Y is the growth rate of the real GDP per capita for country, i, for the period, t; FD represents the financial development which is proxied by domestic credit by deposit money banks to GDP (DOM), this data sets were obtained from the Financial Development and Structure Dataset provided by The World Bank. The CG is a set of country governance indicators, which consists of six aspects, namely, the Country governance indicators include voice and accountability (VA), political stability and absence of violence (PV), government effectiveness (GE), regulatory quality (RQ), rule of law (RL) and control of corruption (CC). The variables were developed by the Worldwide Governance Indicators (WGI) database. X represents a vector of other control variables, such as LE, which indicates the life expectancy at birth; PG, which refers to population growth; GEEXP, which represents the General government final consumption expenditure and FDI which refers to foreign direct investment inflow extracted from the World Development Indicator provided by the World Bank.

Subsequently, similar to the study by Andini and Andini (2014) who proposed to consider the interaction effects of certain variables on financial development on economic growth. This article specifies the conditional quantiles function for quantile τ as follows:

$$lnY_{it}(\tau|X_{it}) = f(lnFD_{it}, CG_{it}, \ln (FD * CG)_{it}, lnX_{it}) \quad (2)$$

4. Results and Discussions

Table 1 represents the panel ordinary least square regression models of the impacts of financial development and country governance on economic growth. Model 1, 3, 5, 7, 9 and 11 are the direct impacts of financial development and country governance indicators on economic growth. On the other hand, Model 2, 4, 6, 8, 10 and 12 are the interaction effect between financial development and country governance indicators on economic growth. 8 out of the 12 models suggest that financial development has positive and significant impact on economic growth. This results imply that through the financial system, a large amounts of credit to the private sector by the banking sector could deliver real economic benefits to the countries in EU. On the control variables, life expectancy is positively influencing economic growth of the EU countries. It suggests that, the people in these countries live longer could provide human capital and contribute their labour force to the countries. On the other hand, foreign direct investment is negative and significant to influence the economic growth of EU countries. This might be due to when the foreign companies invest in EU countries, they might have exploited the resources in EU and bring back the benefits to their own countries. Furthermore, population growth and government expenditure do not show significant effects to economic growth. Out of the six county governance indicators, government effectiveness has direct impact on the economic growth of EU countries. This could be due to in EU countries, the quality of policy formulation, implementation, and the credibility of the government's commitment to the policies are high, thus the they are able to enhance the efficiency and effectiveness of output production to stimulate economic growth. Interestingly, for the interaction effect of financial

development and rule of law, the result shows positive and significant on economic growth. This implies that with a better rule of law in EU countries, the benefits of financial development on economic growth could be further enhanced. This implies that people have confidence in and abide by the rules of society in EU, and in particular the quality of contract enforcement, hence, the financial sector is stable, they have confidence on the quality service of the financial services to help them in their financial needs to achieve their goals. These findings consistent with Law, Azman-saini and Ibrahim (2013) that suggest the financial development-growth connection is dependent on institutions, where financial development encourages growth after institutions surpass a certain threshold level.

Next, Table 2 to Table 7 present the direct impacts and interactions effects of country governance with financial development on economic growth by quantile regression analysis based on the sub-components of country governance indicators namely voice and accountability (VA), political stability and absence of violence (PV), government effectiveness (GE), regulatory quality (RQ), rule of law (RL) and control of corruption (CC). From Table 2, Model 3 and Model 4 show that the financial development is helpful to the economic growth when the growth of the EU countries is above quantile 60^{th}. This shows that financial development could promote growth in the high-growth countries. For the interaction effect of control of corruption with financial development on economic growth, the coefficients of DOM*CC are significant at quantile 20^{th} and 80^{th} (Model 5 and Model 8), it suggests that low-growth countries require better country governance environment in order to reap the benefits of financial service to stimulate growth. This finding further supports the evidence by Adams, Kwame and Klobodu (2016) that demonstrate a better control of corruption environment in low-growth economies could enhance financial development to reduce income inequality in order to achieve a better economic development.

Model 4 in Table 3 demonstrates that high-growth countries could be benefitted from better government effectiveness to enhance growth. However, in low-growth countries, better government effectiveness could diminish the effect of financial development on growth as seen in Model 5, the coefficient of DOM*GE is negative and significant. It indicates that in low-growth country, less stringent government policies are preferred to the financial sector. This could be due to low-growth countries have limited facilities and amenities for the communities to access financial services. Hence, less control on financial sector by the government is preferred for the low-growth countries. Kamran, Arshad and Omran (2019) explain that in low income countries, good government effectiveness does not have relationship with bank stability because market power in these economies is more important to drive the bank stability compared to government effectiveness.

Table 4 and Table 5 suggest that political stability and absence of violence and regulatory law quality do not have direct effect on economic growth nor interaction effect with financial development on growth. It seems that political stability and absence of violence and regulatory law quality may not be appropriate to enhance financial development and economic growth for EU countries.

The quality of rule of law has interaction effect with financial development to improve growth in high-growth economies as observed from Model 8 in Table 6. Since the interaction effect of financial development with rule of law on growth kick in for high-growth economies, policy makers should enhance the level of rule of law in these

economies to explore the benefits of financial sector reforms in promoting economic growth.

Similar to quality of rule of law, voice and accountability has interaction effect with financial development to enhance growth in high-growth economies as observed from Model 8 in Table 7. This means that, for high-growth economies in EU, their citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media, thus, the banking sectors have freedom to advertise their products to reach their potential customers. Hence, the people are aware of the products and services offered by the financial sector that make them easier to choose the financial services that are suitable for them. The industries also have freedom to choose borrowing service from the banks to expand their productions. This will indirectly help these economies to grow further.

Overall, the results estimated by quantile regression (Table 2 to 7) and panel ordinary least square methods (Table 1) are different because quantile regression estimators provide one solution for each quantile; it is presume that it is more appropriate to use quantile regression in the research on the impacts of financial development and country governance on growth.

5. Conclusion

This study explores the impacts of financial development and country governance on economic growth in EU countries from year 1996 to year 2017. The results show that financial development and government effectiveness have positive and direct impact to drive the economic growth in EU countries. Since the impacts of financial development varies across countries with over time and along the conditional growth distribution, this study employs quantile panel regression to examine the effect of finance on growth and the interaction effect of finance with country governance on growth at different quantiles of the conditional growth distribution. The impacts of financial development indicators on economic growth are heterogeneous. For instance, low-growth countries require a good control of corruption environment in order to take advantage of the financial service to stimulate growth, and good government effectiveness does not have relationship with bank stability because market power could drive the financial development. On the other hand, in high-growth economies, a good rule of law and voice and accountability in these economies could enhance their ability to explore the benefits of financial sector reforms in promoting economic growth.

The outcomes of this study shows that if the same financial development policy and governance policy are implemented for all countries by overlooking their different growth rates, the consequences of these policies might be effective for one country but ineffective for another. Hence, various financial development and governance policies should be developed by policy makers for countries having different growth rates. The main empirical result from this paper is that countries at the upper tail of the conditional growth distribution and at the lower tail act differently to the same financial and governance stimulus but the results for the middle tail of the conditional growth are insignificant.

References

Adams, S., Kwame, E., & Klobodu, M. (2016). *International Review of Applied Economics Financial development , control of corruption and income inequality*. *2171*(July).

https://doi.org/10.1080/02692171.2016.1208740

Andini, M., & Andini, C. (2014). Finance, growth and quantile parameter heterogeneity. *Journal of Macroeconomics*, *40*, 308–322. https://doi.org/10.1016/j.jmacro.2014.01.008

Asteriou, D., & Spanos, K. (2019). The relationship between financial development and economic growth during the recent crisis: Evidence from the EU. *Finance Research Letters*, *28*(April 2018), 238–245. https://doi.org/10.1016/j.frl.2018.05.011

Bagehot, W. (1873). Lombard Street: A Description of the Money Market. Retrieved from https://books.google.com.my/books/about/Lombard_Street.html?id=xl8-AAAAIAAJ&redir_esc=y

Beck, R., Georgiadis, G., & Straub, R. (2014). The finance and growth nexus revisited. *Economics Letters*, *124*(3), 382–385. https://doi.org/10.1016/j.econlet.2014.06.024

Beck, T., & Levine, R. (2004). Stock markets, banks, and growth: Panel evidence. *Journal of Banking and Finance*, *28*(3), 423–442. https://doi.org/10.1016/S0378-4266(02)00408-9

CNBC. (2019). EU official: China needs to reform Belt and Road for many to sign up. Retrieved September 23, 2019, from https://www.cnbc.com/2019/04/25/eu-official-china-needs-to-reform-belt-and-road-for-many-to-sign-up.html

Demetriades, P., & Law, S. H. (2006). Finance, institutions and economic development. *International Journal of Finance and Economics*, *11*(3), 245–260. https://doi.org/10.1002/ijfe.296

Hicks, J. (1969). A Theory of Economic History. Retrieved from https://books.google.com.my/books/about/A_Theory_of_Economic_History.html?id=u5A6AAAAIAAJ&redir_esc=y

Hou, H., & Cheng, S. Y. S. Y. (2017). The dynamic effects of banking, life insurance, and stock markets on economic growth. *Japan and the World Economy*, *41*, 87–98. https://doi.org/10.1016/j.japwor.2017.02.001

Kamran, H. W., Arshad, S. B. bin M., & Omran, A. (2019). Country Governance, Market Concentration and Financial Market Dynamics for Banks Stability in Pakistan. *Research in World Economy*, *10*(2), 136. https://doi.org/10.5430/rwe.v10n2p136

Kregel, J. (2015). Financial Governance After the Great Recession : What Changed and What Didn ' t ? *Revista Do Serviço Público Brasília*, *66*, 9–28.

Law, S. H., Azman-saini, W. N. W., & Ibrahim, M. H. (2013). Institutional quality thresholds and the finance – Growth nexus. *Journal of Banking and Finance*, *37*(12), 5373–5381. https://doi.org/10.1016/j.jbankfin.2013.03.011

Law, S. H., Azman-Saini, W. N. W., & Tan, H. B. (2014). Economic Globalization and Financial Development in East Asia: A Panel Cointegration and Causality Analysis. *Emerging Markets Finance and Trade*, *50*(1), 210–225. https://doi.org/10.2753/REE1540-496X500112

Law, S. H., Kutan, A. M., & Naseem, N. A. M. (2018). The role of institutions in finance curse: Evidence from international data. *Journal of Comparative Economics*, *46*(1), 174–191. https://doi.org/10.1016/j.jce.2017.04.001

Law, S. H., & Singh, N. (2014). Does too much finance harm economic growth? *Journal of Banking and Finance*, *41*(1), 36–44. https://doi.org/10.1016/j.jbankfin.2013.12.020

Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth:causality and causes. *Journal of Monetary Economic*, *46*(2000), 31–77.

Robinson, J. (1952). The Rate of Interest: and other essays. Retrieved from https://books.google.com.my/books/about/The_rate_of_interest.html?id=NFAPAQAAIAAJ&redir_esc=y

Schnabel, I., & Seckinger, C. (2019). Foreign banks, financial crises and economic growth in Europe. *Journal of International Money and Finance*, *95*, 70–94. https://doi.org/10.1016/j.jimonfin.2019.02.004

Schumpeter, J. (1912). The Theory of Economic Development. Retrieved from https://books.google.com.my/books/about/The_Theory_of_Economic_Development.html?id=SyvsLQEACAAJ&redir_esc=y

Shahbaz, M., Mallick, H., Mahalik, M. K., & Hammoudeh, S. (2018). Is globalization detrimental to financial development? Further evidence from a very large emerging economy with significant orientation towards policies. *Applied Economics*, *50*(6), 574–595. https://doi.org/10.1080/00036846.2017.1324615

Shahbaz, M. (2012). Does trade openness affect long run growth? cointegration, causality and forecast error variance decomposition tests for Pakistan, *Economic Modelling, 29(6)*: 2325–2339.

Shahbaz, M., Kandil, M., Kumar, M. and Nguyen, D. K. (2017). The drivers of economic growth in China and India: Globalization or financial development? *International Journal of Development Issues*, 16(1), pp. 54-84.

Shahbaz, M., Rehman, I. U. and Muzaffar, A. T. (2015). Re-visiting financial development and economic growth nexus: The role of capitalization in Bangladesh, *South African Journal of Economics*, 83(3): 452–471.

Uyar, S. G. K., & Uyar, U. (2018). Quantile parameter heterogeneity in the finance-growth relation: The case of OECD countries. *Prague Economic Papers*, *27*(1), 92–112. https://doi.org/10.18267/j.pep.646

Table 1. Panel ordinary least square regression models of the impacts of financial development and country governance on economic growth

Dependent	(1) lnGDPC	(2) lnGDPC	(3) lnGDPC	(4) lnGDPC	(5) lnGDPC	(6) lnGDPC	(7) lnGDPC	(8) lnGDPC	(9) lnGDPC	(10) lnGDPC	(11) lnGDPC	(12) lnGDPC
lnLE	0.819***	0.932***	0.614***	0.626***	0.776***	0.822***	0.769***	0.819***	0.715***	0.958***	0.757***	0.831***
	(0.202)	(0.211)	(0.198)	(0.200)	(0.195)	(0.200)	(0.191)	(0.197)	(0.208)	(0.216)	(0.195)	(0.210)
lnPG	-0.0958	-0.100	-0.0978	-0.0928	-0.0884	-0.0777	-0.0974	-0.0883	-0.0953	-0.0931	-0.0900	-0.0838
	(0.0695)	(0.0729)	(0.0667)	(0.0683)	(0.0693)	(0.0716)	(0.0681)	(0.0704)	(0.0681)	(0.0674)	(0.0687)	(0.0709)
lnGEEXP	-0.456	-1.105*	-0.576	-0.540	-0.463	-0.533	-0.560	-0.841	-0.626	-3.784***	-0.618	-0.818
	(0.476)	(0.634)	(0.462)	(0.466)	(0.469)	(0.477)	(0.480)	(0.624)	(0.491)	(1.010)	(0.491)	(0.539)
lnFDI	-2.516***	-2.441***	-2.536***	-2.558***	-2.554***	-2.545***	-2.560***	-2.533***	-2.476***	-2.250***	-2.503***	-2.477***
	(0.185)	(0.194)	(0.181)	(0.182)	(0.187)	(0.191)	(0.186)	(0.197)	(0.185)	(0.191)	(0.184)	(0.190)
lnDOM	0.536***	-0.0177	0.533***	0.657***	0.598***	0.0292	0.556***	0.0967	0.570***	0.138	0.575***	-1.361
	(0.172)	(0.448)	(0.167)	(0.243)	(0.180)	(0.762)	(0.172)	(0.733)	(0.173)	(0.351)	(0.174)	(2.088)
CC	0.150	-0.538										
	(0.187)	(0.479)										
ln(DOM*CC)		0.565										
		(0.433)										
GE			0.618**	0.807**								
			(0.241)	(0.315)								
ln(DOM*GE)				-0.141								
				(0.171)								
PV					0.331	-0.342						
					(0.255)	(0.923)						
ln(DOM*PV)						0.552						
						(0.739)						
RQ							0.373	-0.110				
							(0.255)	(0.758)				
ln(DOM*RQ)								0.459				
								(0.734)				
RL									0.374	-0.555		
									(0.245)	(0.503)		
ln(DOM*RL)										0.677**		
										(0.321)		
VA											0.588	-1.329
											(0.399)	(2.106)
ln(DOM*VA)												1.910
												(2.071)
Constant	27.35***	27.75***	29.09***	28.83***	27.51***	27.90***	27.86***	28.21***	28.08***	29.92***	27.47***	29.03***
	(1.708)	(1.821)	(1.674)	(1.698)	(1.564)	(1.694)	(1.639)	(1.855)	(1.699)	(1.758)	(1.507)	(2.401)
Observations	126	118	126	125	126	124	126	123	126	121	126	124
R-squared	0.741	0.725	0.753	0.753	0.743	0.742	0.744	0.741	0.744	0.763	0.744	0.743

Note: ***, ** and *indicate that significant at p-value at 0.01, 0.05 and 0.1 respectively. The value in the parenthesis is t-statistics.

Table 2: Panel quantile regression of the impacts of financial development and country governance on economic growth (control of corruption)

Model	1	2	3	4	5	6	7	8
Quantile	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8
Dependent	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC
lnDOM	0.285	0.565	0.607*	0.597**	-0.5	0.43	0.171	-0.000392
	(1.68)	(1.78)	(2.19)	(2.7)	(-1.33)	(0.48)	(0.26)	(-0.00)
lnLE	1.242***	0.815*	0.613	0.837**	1.270***	0.851*	0.564	0.741***
	(6.23)	(2.18)	(1.89)	(3.22)	(7.18)	(2.01)	(1.79)	(3.72)
lnPG	-0.157*	-0.226	0.00465	-0.0665	-0.148*	-0.18	-0.0527	-0.146*
	(-2.29)	(-1.76)	(0.04)	(-0.74)	(-2.43)	(-1.23)	(-0.48)	(-2.13)
lnGEEXP	-0.674	0.221	0.672	-1.047	-1.472**	0.0929	-1.385	-3.400***
	(-1.43)	(0.25)	(0.88)	(-1.71)	(-2.77)	(0.07)	(-1.46)	(-5.69)
lnFDI	-2.778***	-2.769***	-2.754***	-2.080***	-2.732***	-2.933***	-2.309***	-1.803***
	(-15.21)	(-8.10)	(-9.25)	(-8.74)	(-16.79)	(-7.52)	(-7.94)	(-9.85)
CC	0.0121	-0.0948	0.0456	0.282	-0.539	-0.381	-0.976	-1.171*
	(0.07)	(-0.27)	(0.15)	(1.17)	(-1.34)	(-0.40)	(-1.36)	(-2.59)
ln(DOM*CC)					0.839*	0.216	0.787	1.010*
					(2.31)	(0.25)	(1.21)	(2.47)
constant	25.06***	27.67***	28.58***	26.62***	26.21***	28.21***	30.54***	30.45***
	-14.85	-8.76	-10.38	-12.1	-17.19	-7.72	-11.21	-17.75
N	126	126	126	126	118	118	118	118

Note: ***, ** and *indicate that significant at p-value at 0.01, 0.05 and 0.1 respectively. The value in the parenthesis is t-statistics.

Table 3: Panel quantile regression of the impacts of financial development and country governance on economic growth (government effectiveness)

Model	1	2	3	4	5	6	7	8
Quantile	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8
Dependent	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC
lnDOM	0.283	0.531	0.698*	0.454*	0.564*	0.784	0.742	0.445
	(1.80)	(1.71)	(2.36)	(2.42)	(2.59)	(1.73)	(1.74)	(1.64)
lnLE	1.065***	0.53	0.41	0.828***	0.955***	0.515	0.348	0.833***
	(5.71)	(1.44)	(1.17)	(3.72)	(5.33)	(1.38)	(0.99)	(3.74)
lnPG	-0.141*	-0.111	-0.00399	-0.0518	-0.143*	-0.0932	0.0019	-0.0617
	(-2.25)	(-0.90)	(-0.03)	(-0.69)	(-2.35)	(-0.73)	(0.02)	(-0.81)
lnGEEXP	-0.755	-0.0661	0.552	-1.376**	-0.357	-0.0868	0.579	-1.142*
	(-1.74)	(-0.08)	(0.68)	(-2.66)	(-0.86)	(-0.10)	(0.71)	(-2.20)
lnFDI	-2.816***	-2.860***	-2.647***	-2.215***	-2.852***	-2.775***	-2.608***	-2.226***
	(-16.59)	(-8.54)	(-8.30)	(-10.95)	(-17.47)	(-8.15)	(-8.15)	(-10.96)
GE	0.319	0.644	0.314	0.623*	0.764**	0.998	0.295	0.729*
	(1.40)	(1.44)	(0.74)	(2.30)	(2.71)	(1.70)	(0.53)	(2.08)
ln(DOM*GE)					-0.334*	-0.239	0.011	-0.0224
					(-2.19)	(-0.75)	(0.04)	(-0.12)
constant	26.69***	30.24***	29.61***	27.85***	26.99***	29.52***	29.82***	27.49***
	-16.97	-9.75	-10.02	-14.86	-17.77	-9.32	-10.01	-14.55
N	126	126	126	126	125	125	125	125

Note: ***, ** and *indicate that significant at p-value at 0.01, 0.05 and 0.1 respectively. The value in the parenthesis is t-statistics.

Table 4: Panel quantile regression of the impacts of financial development and country governance on economic growth (political stability and absence of violence)

Model	1	2	3	4	5	6	7	8
Quantile	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8
Dependent	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC
lnDOM	0.346*	0.519	0.911**	0.886***	0.223	-0.477	0.283	0.398
	(1.98)	(1.49)	(3.32)	(4.27)	(0.33)	(-0.33)	(0.24)	(0.47)
lnLE	1.200***	0.840*	0.29	0.585*	1.212***	0.775*	0.446	0.626**
	(6.34)	(2.23)	(0.97)	(2.60)	(6.92)	(2.03)	(1.43)	(2.81)
lnPG	-0.155*	-0.211	-0.0269	-0.088	-0.156*	-0.0873	0.0193	-0.0812
	(-2.30)	(-1.57)	(-0.25)	(-1.10)	(-2.48)	(-0.64)	(0.17)	(-1.02)
lnGEEXP	-0.938*	0.215	0.537	-0.725	-0.879*	0.156	0.627	-1.125*
	(-2.06)	-0.24	(0.75)	(-1.34)	(-2.10)	(0.17)	(0.84)	(-2.12)
lnFDI	-2.710***	-2.762***	-2.667***	-2.074***	-2.730***	-3.144***	-2.663***	-1.960***
	(-14.95)	(-7.64)	(-9.35)	(-9.61)	(-16.32)	(-8.61)	(-8.92)	(-9.22)
PV	0.124	-0.171	0.559	0.29	-0.0385	-1.367	-0.384	-0.297
	(0.50)	(-0.35)	(1.43)	(0.98)	(-0.05)	(-0.77)	(-0.27)	(-0.29)
ln(DOM*PV)					0.127	1.158	0.528	0.473
					(0.20)	(0.82)	(0.46)	(0.58)
constant	25.23***	27.58***	30.00***	27.48***	25.27***	30.36***	29.58***	27.95***
	-16.6	-9.1	-12.54	-15.19	-17.02	-9.37	-11.16	-14.82
N	126	126	126	126	124	124	124	124

Note: ***, ** and *indicate that significant at p-value at 0.01, 0.05 and 0.1 respectively. The value in the parenthesis is t-statistics.

Table 5: Panel quantile regression of the impacts of financial development and country governance on economic growth (rule of law)

Model	1	2	3	4	5	6	7	8
Quantile	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8
Dependent	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC
lnDOM	0.321*	0.769*	0.713*	0.704***	-0.697	0.332	0.37	0.233
	-2.18	-2.4	-2.52	-3.61	(-1.16)	-0.23	-0.32	-0.26
lnLE	1.186***	0.615	0.479	0.704**	1.167***	0.67	0.539	0.642**
	-7.27	-1.73	-1.53	-3.26	-7.26	-1.73	-1.73	-2.7
lnPG	-0.157**	-0.0626	-0.00727	-0.0589	-0.147*	-0.0712	-0.0161	-0.067
	(-2.69)	(-0.49)	(-0.06)	(-0.76)	(-2.55)	(-0.51)	(-0.14)	(-0.79)
lnGEEXP	-1.029*	-0.0253	0.562	-1.424*	-1.331*	-0.329	0.384	-0.819
	(-2.50)	(-0.03)	-0.71	(-2.62)	(-2.61)	(-0.27)	-0.39	(-1.09)
lnFDI	-2.772***	-2.907***	-2.661***	-2.105***	-2.711***	-2.982***	-2.626***	-1.943***
	(-17.37)	(-8.35)	(-8.68)	(-9.96)	(-16.83)	(-7.66)	(-8.40)	(-8.17)
RL	0.204	0.415	0.207	0.413	-0.455	-0.0394	-0.331	-0.617
	-0.93	-0.87	-0.49	-1.43	(-0.74)	(-0.03)	(-0.28)	(-0.67)
ln(DOM*RL)					1.038	0.445	0.346	0.627
					-1.73	-0.31	-0.3	-0.71
constant	25.78***	28.83***	29.07***	28.05***	26.71***	29.56***	29.32***	27.60***
	-18.36	-9.42	-10.77	-15.08	-17.64	-8.08	-9.98	-12.35
N	126	126	126	126	123	123	123	123

Note: ***, ** and *indicate that significant at p-value at 0.01, 0.05 and 0.1 respectively. The value in the parenthesis is t-statistics.

Table 6: Panel quantile regression of the impacts of financial development and country governance on economic growth (rule of law)

Model	1	2	3	4	5	6	7	8
Quantile	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8
Dependent	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC
lnDOM	0.324*	0.658*	0.751*	0.700**	0.476	0.345	0.257	0.0275
	-2.22	-2.03	-2.57	-3.34	-1.38	-0.53	-0.44	-0.08
lnLE	1.205***	0.639	0.459	0.718**	1.379***	1.314**	0.683	0.674**
	-6.85	-1.64	-1.3	-2.84	-6.49	-3.31	-1.92	-3.31
lnPG	-0.159**	-0.135	0.00264	-0.0803	-0.134*	-0.0826	0.0146	-0.106
	(-2.76)	(-1.06)	-0.02	(-0.97)	(-2.01)	(-0.67)	-0.13	(-1.66)
lnGEEXP	-1.043*	-0.0296	0.56	-1.484*	-2.959**	-6.648***	-4.983**	-2.952**
	(-2.52)	(-0.03)	-0.68	(-2.49)	(-2.97)	(-3.58)	(-2.99)	(-3.09)
lnFDI	-2.709***	-2.838***	-2.663***	-2.017***	-2.601***	-2.470***	-2.144***	-1.804***
	(-17.30)	(-8.17)	(-8.50)	(-8.96)	(-13.77)	(-7.01)	(-6.78)	(-9.97)
RL	0.113	0.359	0.195	0.483	-0.305	-1.135	-0.807	-1.086*
	-0.54	-0.78	-0.47	-1.62	(-0.61)	(-1.23)	(-0.97)	(-2.29)
ln(DOM*RL)					0.155	0.81	0.894	0.970**
					-0.49	-1.37	-1.69	-3.2
constant	25.46***	29.00***	29.13***	27.62***	25.63***	30.99***	33.15***	30.21***
	-17.74	-9.1	-10.15	-13.38	-14.79	-9.58	-11.41	-18.19
N	126	126	126	126	121	121	121	121

Note: ***, ** and *indicate that significant at p-value at 0.01, 0.05 and 0.1 respectively. The value in the parenthesis is t-statistics.

Table 7: Panel quantile regression of the impacts of financial development and country governance on economic growth (Government Effectiveness)

Model	1	2	3	4	5	6	7	8
Quantile	0.2	0.4	0.6	0.8	0.2	0.4	0.6	0.8
Dependent	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC	lnGDPC
lnDOM	0.324*	0.658*	0.751*	0.700**	0.476	0.345	0.257	0.0275
	-2.22	-2.03	-2.57	-3.34	-1.38	-0.53	-0.44	-0.08
lnLE	1.205***	0.639	0.459	0.718**	1.379***	1.314**	0.683	0.674**
	-6.85	-1.64	-1.3	-2.84	-6.49	-3.31	-1.92	-3.31
lnPG	-0.159**	-0.135	0.00264	-0.0803	-0.134*	-0.0826	0.0146	-0.106
	(-2.76)	(-1.06)	-0.02	(-0.97)	(-2.01)	(-0.67)	-0.13	(-1.66)
lnGEEXP	-1.043*	-0.0296	0.56	-1.484*	-2.959**	-6.648***	-4.983**	-2.952**
	(-2.52)	(-0.03)	-0.68	(-2.49)	(-2.97)	(-3.58)	(-2.99)	(-3.09)
lnFDI	-2.709***	-2.838***	-2.663***	-2.017***	-2.601***	-2.470***	-2.144***	-1.804***
	(-17.30)	(-8.17)	(-8.50)	(-8.96)	(-13.77)	(-7.01)	(-6.78)	(-9.97)
VA	0.113	0.359	0.195	0.483	-0.305	-1.135	-0.807	-1.086*
	-0.54	-0.78	-0.47	-1.62	(-0.61)	(-1.23)	(-0.97)	(-2.29)
ln(DOM*VA)					0.155	0.81	0.894	0.970**
					-0.49	-1.37	-1.69	-3.2
constant	25.46***	29.00***	29.13***	27.62***	25.63***	30.99***	33.15***	30.21***
	-17.74	-9.1	-10.15	-13.38	-14.79	-9.58	-11.41	-18.19
N	126	126	126	126	121	121	121	121

Note: ***, ** and *indicate that significant at p-value at 0.01, 0.05 and 0.1 respectively. The value in the parenthesis is t-statistics.