Multi – Dimensional Analysis for Financial Development

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Abstract:

The main objective of this paper is to examine the impact of four dimensions of financial development access, depth, efficiency and stability on poverty, inequality and growth triangle simultaneously in the 7 developing countries, according to availability of data, over the period 2004 - 2019. study includes 8 variables from Global Financial Development Database (GFDD), each dimension is measured by two variables, one related to banking sector and the other one for financial market, in addition to other variables that used as determinants for poverty, inequality and growth. For an empirical study, we used simultaneous equation analysis through applying 3SLS. Results reveal that the importance of depth dimension, specially banking sector, for ameliorating poverty and inequality. Whereas indicators of financial stability were the most effective dimension in enhancing economic growth and reducing poverty in study sample, followed by indicators of financial efficiency, compared to the other dimensions of financial development.

Key Words: Financial development; Growth; poverty; inequality; simultaneous equation.

الملخص:

إستهدفت هذه الدراسة بصورة اساسية إختبار تأثير الابعاد المختلفة للتنمية المالية ممثلة في إمكانية الوصول – العمق – الكفاءة – الاستقرار على مثلث الفقر والنمو وعدم العدالة في ٧ دول نامية حسب إتاحة البيانات خلال الفترة من ٢٠٠٤ – ٢٠١٩. وقد استخدمت الدراسة ٨ متغيرات لتعبر عن ابعاد التنمية المالية الاربعة سالفة الذكر، وبإستخدام المعادلات الانية من خلال تطبيق المربعات الصغرى على ثلاث مراحل **3SLS**. وقد أظهرت النتائج أهمية بعد العمق المالي خاصة في القطاع البنكي في تخفيف حدة الفقر وعدم المساواة، كما أظهر بعد الاستقرار المالي تأثير ملحوظ على تخفيض الفقر وتشجيع النمو يليه في ذلك متغيرات الكفاءة المالية.

1. Introduction

Inequality, poverty and growth are the most controversial issues in different countries globally, especially after adopting the policies of reducing poverty and inequality as a primary goal of sustainable development by the United Nations since 2000. Recently empirical literature tried to connect these critical issues with financial development as a substantial tool for mobilizing savings and improve its allocation to achieve economic growth. Thus we will explore the impact of development in financial tools, either in banking easing or securities market on poverty, inequality and growth, especially in developing countries which considered as the most regions suffering from inequality compared to advanced economics (Galor & Zaira,1993, P.48). According to the World Bank, financial development can be considered as a good tool to mitigate poverty rates in developing countries directly by improving the accessibility for the poor to financial services and strengthening their productive ability, and indirectly by influencing on the living standards of the poor through supporting economic growth (Jalilian & Kirkpatrick,2002, P.100).

The remainder of this paper is organized as follows, literature review was presented in section 2 followed by methodology in section 3, after that the empirical results and discussion are presented in section 4, finally conclusion and policy implications in section 5.

2. Literature review

In this section, we briefly review the relevant studies of the effect of financial development, either financial widening (expansion of financial services) or financial deepening (increase in the per capita share of financial services), in addition to financial efficiency and financial stability on income inequality, poverty and growth.

The literature review was organized to answer the following main questions:

1- Does financial development have favorable effect on income inequality, poverty and growth?
2- Does the effect of financial development differ according to the type of financial sector (banking sector or stock market)?

After thoroughly studying prior studies, we found that previous studies had reached to conflicted results in respect of the impact of financial development on inequality, poverty and growth. Whereas many studies postulated that financial development deepens inequality through benefits the rich more than the poor (Rajan & Zingales,2003; Sehrawat &Giri, 2015; Mansour & Wendel,2015; Seven & Cskun,2016). Others emphasized that financial development can help the poor by facilitating their access to financial services, which enables them earning more income through investment and then reduce inequality (Dollar & Kraay,2002; Johansson & Wang,2014). Consistent with many studies, financial development has a positive impact on poverty reduction either directly or indirectly in developing countries (Donou-Adonsou & Sylwester, 2016)

and inconsistent with (Fowowe & Abidoye 2013) who found that financial development has not contributed in reducing poverty and inequality in African countries. (Nada,2020) find that financial inclusion contributes to sustainable development in Egypt. But, the financial market may be suffering from asymmetric information or excessive fixed cost accompanied with a small amount of credit borrowing which is reflected in the ability of financial intermediaries in alleviating poverty, especially in developing countries consisting with some scholars like (Greenwald & stiglitz,1993, P.77) and (Abdin,2016, P.45), who clarified the adverse effect of financial information imperfection on the output which consequently affects economic growth. In the same context, (Banerjee & Newman,1993) showed that financial market imperfections such as asymmetric information and high transaction costs limit access to finance and exacerbate income inequality. On the other hand, Kuznets work (1955) clarified that the relationship between growth and inequality takes inverted U shaped pattern, the study showed that in the early stage of development, inequality rises. After that, income distribution tends to equality gradually. (Greenwood&Jovanovic,1990, P.25) documented a nonlinear relationship between financial development and inequality, which widens in the early stage of development where the rich only can join costly financial service, but when the economy is a fully developed, the financial development became more mature, thus income heading to more equity. Therefore, the

net effect on the poor depends on the stage of economic development. While (Galor & Zaira,1993, P.36) suggest a linier relationship between financial development and income inequality, through the imperfection of credit market, which led to excluding the poor from access to credit, in the same time individuals whose large initial wealth have a better chance to invest in human capital without needing to borrow, this deepens inequality, especially in the short term. (Levine,2021, PP.12-23) emphasized the importance of the financial system in promoting growth through determining the main functions produced by financial system to enhance economic growth in five points, which are, the accumulation of savings, risk alleviation, monitoring firms, applying governance after providing finance and easing exchange. (Clarke & Xu 2006) confirms inequality narrowing hypotheses through applying panel data for 83 countries. (Zheng, et al,2021) used double threshold model to examine the impact of financial development on Chinese fishermen's poverty reduction, they found that poverty reduced when Chinese fishermen GDP per-capita riches to certain threshold. The panel VAR of (Wan et al, 2021) has been used to analyze the impact of growth and inequality on changes in absolute and relative poverty for 31 Chinese provinces, they concluded that growth has an important impact on reducing absolute poverty while inequality has a small role, whereas both growth and inequality aggravate relative poverty in all Chinese provinces. (Inoue,2018) analyzes the impact of financial

development on poverty by applying GMM model on 120 developing countries, results indicated to the importance of financial development, especially credit as a percentage of GDP in alleviating poverty. (Beck et al,2004) found positive impact of financial development on both income distribution and poverty reduction through applying two models separately, the first concerned with estimate financial development and income distribution nexus for 52 developing countries. Whereas, the second estimate relationship between financial development and poverty alleviation for 58 developing countries. Both models clarify the positive impact of financial development, whether in ameliorate income distribution or poverty reduction through accelerating growth for the poorest quintile faster than growth in GDP per capita. (Abdin,2016) applied OLS and GMM on time series data for Bangladesh, results revealed that the direct effect of financial development has a positive and significant impact in poverty reduction and it's stronger than the indirect effect. (Inoue,2018) analyze the impact of financial development on poverty by applying GMM model on 120 developing countries through employing two variables to measure financial development, the first is domestic credit as a percentage of GDP and the second is money and quasi money as percentage of GDP. Results indicated to importance of financial development especially credit as a percentage of GDP in alleviate poverty. (Uddin et al,2014) confirm the long run relationship among financial

development expressed by comprehensive index includes (M2 as % of GDP, M3 as % GDP, domestic credit by banks, M2/M1, and market capitalization as % of GDP), poverty and growth by applying ARDL test. As well as the causality test, results showed that poverty reduction improves by financial development, whereas economic growth has weakly responses for both financial development and poverty reduction. (Dhrifi,2014) examined the relationship between financial development and (poverty, inequality and growth) triangle by applying simultaneous equations to make comparative study for three samples of countries according to the income criteria for World Bank over the period 1990 – 2010. Through using principal component factor (PCF) the study generated component for financial development from three measures, they are, the ratio of M2 to nominal GDP, domestic credit to private sector to GDP and domestic credit provided by banking sector. Results indicated to positive and significant impact for FD on poverty, inequality and growth in both middle and high income countries, whereas in the low income countries FD had negative and significant impact on both poverty and growth in addition to positive and significant impact on inequality.

Within the framework of what was presented in previous studies, the current study seeks to test the impact of the four dimensions of financial development in both the banking sector and the capital market and separately on the issues of growth, poverty and distributive justice to

highlight the role of each sector in influencing clearly and without resorting to the compilation of financial development indicators in a component

Based on the literature review, the hypotheses proposed in this study are:

H1. Financial development either banking sector or financial market significantly influences inequality.

H2. Financial development either banking sector or financial market significantly influences poverty.

H3. Financial development either banking sector or financial market significantly influences economic growth.

3. Data and methodology

Our sample contains data from 7 developing countries[2] over the period 2004 – 2019. Our dependent variables are Gini coefficient based on household's disposable income (after tax- after transfer) from Standardized World Income Inequality Database (SWIID). Poverty based on poverty headcount ratio at $3.2 from poverty and equity database, real GDP per capita from World Development Indicator database (WDI). To cover all dimensions of financial development (access – depth – efficiency - stability) study includes 8 variables from Global Financial Development Database (GFDD), each dimension is measured by two variables, one related to banking sector and the other one for financial market, they are (ATM- listed company- credit to private sector- stock market capitalization to GDP- bank lending deposit spread- stock market turnover ratio (%) -

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[2] Argentina, Brazil, Colombia, Indonesia, Peru, Thailand and Turkey

bank credit to bank deposits (%)- stock price volatility). Finally, the study employs several other variables that used as determinants for poverty, inequality and real GDP per capita, they are population growth, government expenditure to GDP, mean years of schooling, in addition to internet users, openness, inflation and FDI, as exogenous variables not included in the equations. All explanatory variables are from World Development Indicator except mean years of schooling from Our World in Data database.

To test the impacts of financial development on inequality, poverty and growth, we follow the basic regressions specification from economic literatures especially the work of (Lundberg & Squire,2003). The equations regressions are inequality equation (Eq.1), poverty (Eq.2) and growth (Eq.3).

$$Gini_{i,t} = \alpha + \beta_1\ BFD_{i,t} + \beta_2 SFD_{i,t} + \gamma_1 logGDPc_{i,t} + \gamma_2 logGDP^2_{i,t} + \gamma_3 GOV_{i,t} + \varepsilon_{i,t}$$
$$(1)$$

$$POV_{i,t} = \alpha + \beta_1 BFD_{i,t} + \beta_2 SFD_{i,t} + \gamma_1 Gini_{i,t} + \gamma_2 School_{i,t} + \gamma_3 POPg_{i,t} + \varepsilon_{i,t}$$
$$(2)$$

$$logGDP_{i,t} = \alpha + \beta_1 BFD_{i,t} + \beta_2 SFD_{i,t} + \gamma_1 Gini_{i,t} + \gamma_2 School_{i,t} + \gamma_3 POPg_{i,t} + \gamma_4 GOV_{i,t} + \varepsilon_{i,t}$$
$$(3)$$

The nexus between financial development and "inequality-poverty-growth" triangle might be implying of reverse causation. So, the previous

model shows that the dependent variable in one equation as log GDPc, GINI and POV can be an explanatory variable in other equations in the same time. Therefore, the model may suffer from an endogeneity problem which resulting from correlation between endogenous variables and error term, therefore the study employed 3SLS, because it can solve the endogeneity problem through introducing causes of this problem as instrumental variables. But before applying this method, the identifiability of the model has been checked to know whether the parameters of the model are estimable or not, which showed that the model is over identified

4. Results

This section discusses the empirical results in detail. Following an overview of data and variables (Tables 1) reports the descriptive statistics of all the variables; it clarifies that inequality, poverty and growth, as main variables with a means of about 44.6 percent, 14.24 percent, and 3.81 respectively. The contrast between the minimum and maximum in poverty observations 0.3 versus 62.4 is even more obvious compared to the inequality and growth data. With regard to the number of observations, it is noted that the number of observations is equal for all variables, except for the variables that express financial stability, Thus, the effect of financial stability should be interpreted carefully especially the sample is very small according to the availability of data for key variables such as inequality, poverty and financial development.

Table (2) illustrates the correlation coefficients of the 8 financial variables with the Gini, poverty coefficient and growth. As illustrated in column 1,2,3,4 most of the financial variables are negatively correlated with the Gini coefficient and poverty, reflecting the potentially favorable impact of finance on income distribution and alleviating poverty, however the correlations of the growth coefficient with financial development variables suggest adverse impacts on growth especially for depth dimension. Tables (3,4) documented the effects on the Gini coefficient, poverty and growth from all four dimensions of financial development. Estimation results of different dimensions' impact of financial development on inequality, poverty and growth clarify that financial access represented in the number of ATM didn't impact on inequality, whereas increasing in the number of listed companies had reduced inequality. For poverty equation, poverty affected negatively and significantly by banking access, while it was influenced by a number of listed companies positively and significantly, these results are not surprising, although the poor rarely deal with the securities market, poverty has increased due to the negative impact of the number of listed companies on GDP per capita. Growth equation revealed positive and significant impact of banking access, whereas securities market seems to be negative and has a significant impact. These results consistent with the economic literature on the subject which believes that financial development has positive and significant impact after certain threshold, this hypothesis had been confirmed in depth dimension that

market capitalization reduces GDP per-capita and consequently has worsened poverty, as well as the impact of credit on GDPc in growth equation. Table (3) reveals also positive and significant effect of credit to private sector in reduction of inequality and poverty despite its negative impact on GDP per-capita; although credit constraints in the developing countries have hindered GDP per-capita growth because it considered as costly for most deprived, financial inclusion programs offered, especially to the neediest individuals, have alleviated poverty and reduced inequality, results also showed that the achieving of Kuznets hypothesis. All coefficient of explanatory variable in Table (3) appears to be consistent with prior prediction except two variables, the first is government spending in inequality equation which may be explained by the tendency of most developing countries to implement economic reform programs in this period; accordingly, this procedure harmed the poor, particularly in the short run. The second one is mean years of schooling as proxy of human capital, the estimation indicated positive and significant influence on GDP per-capita while their impact on poverty was negative and statistically significant, these results can occur in developing countries in the first stage of financial development, especially if they conjugate with economic liberty programs, which rise the living cost thus the education become costly, therefore the poverty exacerbates as a result of lack of educational opportunities for the poor.

Table (1) Descriptive analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
ATM	112	58.28301	37.64123	1.871378	126.7073
listedcom	112	296.1071	181.0581	66	725
cr	112	44.71523	28.17919	9.501285	115.8561
Marketcapi~d	112	44.0706	24.19061	6.273966	120.2557
BL	112	10.48125	10.60941	.0673621	39.6542
turnover	112	51.64716	55.00684	1.6101	247.7567
Bankcredit~s	98	98.53822	37.14783	45.2594	211.69
pricevola	98	24.14934	7.683746	11.55149	48.4423
school	112	7.989286	1.221604	6	10.9
GINI	112	44.60536	4.463946	37.5	54.3
GOV	112	14.15785	3.215255	8.109508	20.3793
POPg	112	1.066471	.343681	.2835259	1.718268
logGDP	112	3.808906	.2087548	3.324003	4.152297
POV	112	14.23929	14.11244	.3	62.4

Table (2) Correlation matrix

	ATM	listed~m	cr	Market~d	BL	turnover	Bankcr~s	pricev~a	school	GINI	GOV	POPg
ATM	1.0000											
listedcom	0.4769	1.0000										
cr	0.6261	0.7185	1.0000									
Marketcapi~d	0.4187	0.5899	0.6696	1.0000								
BL	0.4723	-0.0013	-0.0485	0.1418	1.0000							
turnover	0.3360	0.3863	0.4356	-0.0045	-0.1288	1.0000						
Bankcredit~s	0.1222	-0.2297	0.2469	0.1618	-0.0850	-0.0426	1.0000					
pricevola	-0.1650	-0.2465	-0.3474	-0.2885	0.1202	0.1030	-0.3840	1.0000				
school	-0.2462	-0.4392	-0.3463	-0.4212	-0.1806	-0.5641	-0.1695	0.0503	1.0000			
GINI	-0.0815	-0.2497	-0.2358	0.1932	0.5185	-0.4434	0.4530	-0.1879	-0.2770	1.0000		
GOV	0.7135	0.0237	0.3662	0.1591	0.4535	0.1945	0.1373	0.2101	-0.0347	-0.1050	1.0000	
POPg	-0.2075	-0.3714	-0.5430	-0.5880	-0.1293	0.1839	0.1021	0.0334	-0.0523	0.0216	-0.3107	1.0000
logGDP	0.2816	-0.3798	-0.0753	-0.3531	0.0883	0.2093	-0.0933	0.3604	0.3982	-0.4167	0.6565	0.0250
POV	-0.4517	0.0450	-0.4192	-0.0704	0.0460	-0.3330	-0.1038	-0.1081	-0.1862	0.4195	-0.6574	0.3200

	logGDP	POV
logGDP	1.0000	
POV	-0.7900	1.0000

Table (3) Effects of Financial Development (access & depth dimensions)

variable	Access			depth		
	GINI	POV	log GDP	GINI	POV	log GDP
logGDP	246.7598	–	–	502.6454	–	–
	(8.53)***			(9.12)***		
logGDP2	-35.51709	–		-69.21376	–	–
	(9.15)***			(9.41)***		
GINI	–	2.290864	-0.0419999	–	0.6186633	-0.0225729
		(8.08)***	(15.38)***		(1.76)*	(6.88)***
school	–	2. 601278	-0.308069	–	-3.086974	0.207368
		(2.81)***	(4.19)***		(2.92)***	(2.09)**
POPg	–	18.891653	-0.1237995	–	5.083003	0.0094725
		(6.89)***	(5.13)***		(1.26)	(0.25)
GOV	0.5645		0.014302	0.9823187		0.0360324
	(4.27)***	–	(3.26)***	(8.66)***		(13.97)***
cons	-381.8954	-133.0296	6.044183	-869.6579	12.36403	4.260014
	(7.08)***	(6.52)***	(32.38)***	(8.48)***	(0.54)	(19.83)***
R-squared	0.62	0.61	0.65	0.70	0.40	0.73
observation	11Y	112	112	112	112	112
ATM	0.0041908	-.2268302	0.0021042			
	(0.34)	(-9.08)***	(4.54)***			
listedcom	-.0162542	-.0586775	-0.001043			
	(8.58)***	(8.20)***	(11.78)***			
cr				-0.1300745	-0.2917774	-.0017353
				(10.30)***	(4.46)***	(2.75)**
Marketcapitalizationoflisted				-.0279272	0.1490401	-.0011926
				(1.55)	(1.93)**	(1.64)

P*<0.10, p**<0.05, p***<0.01

For efficiency dimension all coefficients were consistent with prior expectation except banking efficiency, the results have revealed that the difference between lending rate and deposits rate benefits the rich more than the poor as so it deepened inequality. For population coefficient results clarify its positive impact on GDP per-capita, which may be occurring when population growth accompanied with the positive role of education, then it can be recognized as a positive factor on growth. Finally, the stability dimension estimation shows that the financial stability aggravates inequality whereas it has a positive impact on poverty and growth.

Table (4) Effects of Financial Development (efficiency & stability dimensions)

Variable	Efficiency			Stability		
	GINI	POV	logGDP	GINI	POV	logGDP
logGDP	320.6028	–	–	-61.99018	–	–
	(6.29)***			(0.98)		
logGDP2	-43.19663			-5.829015		
	(6.48)***			(0.70)		
school		-9.2638	0.1027613	–	0.879009	0.335868
		(4.65)***	(5.67)***		(0.94)	(3.74)***
GINI		-1.333593	-0.0077404	–	3.448964	-0.0381604
		(1.75)*	(1.08)		(8.89)***	(10.18)***
POPg		15.15282	0.0718717	–	17.62679	0.0695605
		(4.26)***	(2.20)**		(5.36)***	(2.14)**
GOV	-0.163389		0.0283909	0.3191975	–	0.0241394
	(1.25)		(7.82)***	(2.31)**		(8.24)***
cons	-546.2661	143.457	2.748694	182.6525	-129.7259	4.473418
	(5.67)***	(3.01)***	(6.03)***	(1.54)	(6.36)***	(21.95)***
R-squared	0.63	0.40	0.76	0.27	0.27	0.48
Obervation	112	112	112	112	112	112
BL	.1797482	0.0848598	0.0026895			
	(6.26)***	(0.56)	(1.67)*			
turnover	-0.0250334	-0.2472675	0.0015043			
	(5.19)***	(4.96)***	(3.35)***			
Bankcredittobankdeposits				0.0556611	-0.2692534	0.0019336
				(5.03)***	(6.81)***	(4.75)***
pricevola				0.1357517	-0.3605136	0.0068747
				(2.63)**	(2.20)**	(4.05)***

P*<0.10, p**<0.05, p***<0.01

5. Conclusion and policy implication

In a panel of seven developing countries, this paper aimed to present robust evidence for the relationship between financial development and inequality, poverty and growth triangle taking into account the role of both banking sector and financial market separately. Results revealed that, in the developing countries impact of various dimensions of financial development may be inconsistent with theoretical prediction due to growth stage and various targets of economic policy applied in these countries. This is evident from the results of the study as follows:

First, the expansion in the provision of financial services in developing countries, especially in the stock market, does not necessarily guarantee a positive impact on growth, poverty and income distribution, which may be due to the asymmetry of information, in those countries which is consistent with (Banerjee & Newman, 1993; Abdin, 2016; Nada, 2020). Second, the financial depth in developing countries may suffer from some obstacles that hinder its positive impact on growth, represented in the average per capita income, such as the high cost of credit, which requires reviewing the costs associated with financial depth programs. Third, Despite the positive impact of indicators of efficiency and financial stability on growth and poverty, they are still in favor of the rich compared to the poor, which requires more government policies to ensure the efficiency and continuity of financial instruments.

The results also indicate a positive impact of human capital in promoting growth and alleviating poverty, which requires more attention to human capital.

Finally, results open the door for more researches to explore the role of institutional qualities in these countries, and examine different dimensions of financial development by other indicators to confirm or reject these results.

appendix

Table (1) Effects of Financial Acess

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
GINI	112	5	2.742077	0.6193	395.65	0.0000
POV	112	5	8.824952	0.6054	189.74	0.0000
logGDP	112	6	.1235253	0.6467	427.31	0.0000

	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
GINI						
ATM	.0041908	.0122191	0.34	0.732	-.0197582	.0281397
listedcom	-.0162542	.001894	-8.58	0.000	-.0199663	-.0125422
logGDP	246.7598	28.94424	8.53	0.000	190.0302	303.4895
logGDP2	-35.51709	3.882645	-9.15	0.000	-43.12694	-27.90725
GOV	.5645	.1321374	4.27	0.000	.3055154	.8234845
_cons	-381.8954	53.96775	-7.08	0.000	-487.6703	-276.1206
POV						
ATM	-.2268302	.0249736	-9.08	0.000	-.2757774	-.1778829
listedcom	.0586775	.0071551	8.20	0.000	.0446538	.0727012
GINI	2.290864	.2836953	8.08	0.000	1.734831	2.846896
school	2.601278	.9248259	2.81	0.005	.788653	4.413904
POPg	18.89153	2.741306	6.89	0.000	13.51866	24.26439
_cons	-133.0296	20.39124	-6.52	0.000	-172.9957	-93.06354
logGDP						
ATM	.0021042	.0004636	4.54	0.000	.0011956	.0030129
listedcom	-.001043	.0000885	-11.78	0.000	-.0012165	-.0008695
GINI	-.0419999	.0027315	-15.38	0.000	-.0473536	-.0366462
school	-.0308069	.0073572	-4.19	0.000	-.0452267	-.0163871
GOV	.014302	.0043877	3.26	0.001	.0057024	.0229017
POPg	-.1237995	.0241436	-5.13	0.000	-.1711201	-.0764789
_cons	6.044183	.1866762	32.38	0.000	5.678304	6.410061

Table (2) Effects of Financial Depth

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
GINI	112	5	2.444525	0.6974	274.15	0.0000
POV	112	5	10.89694	0.3984	77.59	0.0000
logGDP	112	6	.1075777	0.7320	362.26	0.0000

	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
GINI						
cr	-.1300745	.0126281	-10.30	0.000	-.1548251	-.1053238
Marketcapitalizationoflisted	-.0279272	.0180702	-1.55	0.122	-.0633441	.0074897
logGDP	502.6454	55.10564	9.12	0.000	394.6403	610.6505
logGDP2	-69.21376	7.353254	-9.41	0.000	-83.62587	-54.80165
GOV	.9823187	.113411	8.66	0.000	.7600372	1.2046
_cons	-869.6579	102.5398	-8.48	0.000	-1070.632	-668.6836
POV						
cr	-.2917774	.0654837	-4.46	0.000	-.420123	-.1634318
Marketcapitalizationoflisted	.1490401	.0772464	1.93	0.054	-.0023601	.3004402
GINI	.6186633	.3516766	1.76	0.079	-.0706102	1.307937
school	-3.086974	1.057312	-2.92	0.004	-5.159268	-1.014679
POPg	5.083003	4.018249	1.26	0.206	-2.792621	12.95863
_cons	12.36403	22.82787	0.54	0.588	-32.37777	57.10584
logGDP						
cr	-.0017353	.0006304	-2.75	0.006	-.0029709	-.0004997
Marketcapitalizationoflisted	-.0011926	.0007291	-1.64	0.102	-.0026217	.0002365
GINI	-.0225729	.0032828	-6.88	0.000	-.029007	-.0161388
school	.0207368	.0098996	2.09	0.036	.001334	.0401397
GOV	.0360324	.0025802	13.97	0.000	.0309754	.0410894
POPg	.0094725	.0379597	0.25	0.803	-.0649272	.0838722
_cons	4.260014	.2148426	19.83	0.000	3.83893	4.681098

Table (3) Effects of Financial Efficiency

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
GINI	112	5	2.7081	0.6286	210.20	0.0000
POV	112	5	10.86101	0.4024	75.81	0.0000
logGDP	112	6	.1022032	0.7581	370.39	0.0000

	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
GINI						
BL	.1797482	.0287341	6.26	0.000	.1234305	.236066
turnover	-.0250334	.0048274	-5.19	0.000	-.0344949	-.0155719
logGDP	320.6028	50.93459	6.29	0.000	220.7728	420.4327
logGDP2	-43.19663	6.662571	-6.48	0.000	-56.25503	-30.13823
GOV	-.163389	.1305357	-1.25	0.211	-.4192343	.0924564
_cons	-546.2661	96.36679	-5.67	0.000	-735.1416	-357.3907
POV						
BL	.0848598	.1502189	0.56	0.572	-.2095639	.3792835
turnover	-.2472675	.0498337	-4.96	0.000	-.3449396	-.1495953
GINI	-1.333593	.7606165	-1.75	0.080	-2.824374	.1571881
school	-9.2638	1.990567	-4.65	0.000	-13.16524	-5.36236
POPg	15.15282	3.559704	4.26	0.000	8.175932	22.12972
_cons	143.457	47.61353	3.01	0.003	50.13619	236.7778
logGDP						
BL	.0026895	.0016069	1.67	0.094	-.00046	.0058391
turnover	.0015043	.0004496	3.35	0.001	.0006231	.0023855
GINI	-.0077404	.0071349	-1.08	0.278	-.0217245	.0062437
school	.1027613	.0181126	5.67	0.000	.0672614	.1382614
GOV	.0283909	.0036305	7.82	0.000	.0212753	.0355065
POPg	.0718717	.0326883	2.20	0.028	.0078038	.1359395
_cons	2.748694	.4554662	6.03	0.000	1.855997	3.641392

Table (4) Effects of Financial stability

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
GINI	98	5	3.799731	0.2742	132.32	0.0000
POV	98	5	12.50164	0.2677	114.86	0.0000
logGDP	98	6	.1525422	0.4773	287.31	0.0000

	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
GINI						
Bankcredittobankdeposits	.0556611	.0110554	5.03	0.000	.0339929	.0773292
pricevola	.1357517	.051601	2.63	0.009	.0346156	.2368877
logGDP	-61.99018	63.14673	-0.98	0.326	-185.7555	61.77515
logGDP2	5.829015	8.349007	0.70	0.485	-10.53474	22.19277
GOV	.3191975	.1381743	2.31	0.021	.0483808	.5900141
_cons	182.6525	118.3545	1.54	0.123	-49.31794	414.623
POV						
Bankcredittobankdeposits	-.2692534	.0395373	-6.81	0.000	-.3467452	-.1917617
pricevola	-.3605136	.1636114	-2.20	0.028	-.6811861	-.0398411
GINI	3.448964	.3880308	8.89	0.000	2.688438	4.20949
school	.879009	.9362792	0.94	0.348	-.9560646	2.714083
POPg	17.62679	3.286728	5.36	0.000	11.18492	24.06866
_cons	-129.7295	20.41126	-6.36	0.000	-169.7348	-89.72413
logGDP						
Bankcredittobankdeposits	.0019363	.000408	4.75	0.000	.0011366	.002736
pricevola	.0068747	.0016978	4.05	0.000	.0035471	.0102022
GINI	-.0381604	.0037477	-10.18	0.000	-.0455057	-.0308151
school	.0335868	.0089716	3.74	0.000	.0160028	.0511708
GOV	.0241394	.0029279	8.24	0.000	.0184009	.0298779
POPg	.0695605	.0324932	2.14	0.032	.005875	.133246
_cons	4.473418	.2038089	21.95	0.000	4.07396	4.872876

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