

# **What Financial Structure will be conducive to Poverty Reduction? The effects of Financial Liberalisation**

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## **Abstract**

Countries differ in the extent to which their financial systems are bank-based or market-based. This paper presents evidence on the impact of financial structure on poverty reduction. Is a bank-based or market-based financial system preferred? If the theoretical literature on the subject does not offer a precise rethink on this issue, the majority of empirical studies argue for a bank oriented financial system. This paper stains to contribute to the debate on the financial structure and poverty. Particular attention is paid to the role of the financial liberalisation and its interaction with the financial system structure. Using panel data on a sample composed of 38 developing countries over the period 1990-2011 and applying the Generalized Method of Moment technique, we investigate the issue that the used financial structure indicators don't favour any financial sector. That is, in the presence of liberalised financial system, a bank-based financial system is better in reducing poverty.

**Keywords:** financial structure, poverty reduction, developed countries, panel data.

## **1. Introduction**

If the issue of financial sector's role in developing the real sector has been an intense theoretical and empirical debate, some works have gone beyond this question, trying to find out which structure of financial system will be conducive to economic development. While the question of financial structure and economic growth has been an appropriate theoretical debate for more than a century (Allen. F and Gale, 2000 and Gerschenkron, 1962), the question connects the financial structure to poverty reduction has not attracted much attention from economists. We think, today, that economic policy must take into account the distinction between financial systems based on banks or markets and their relative importance in reducing poverty.

In recent years, this has been an intense theoretical debate on the benefits and drawbacks of a bank-based financial system compared to a market-based. The question therefore is: what kind of financial system will be conducive to economic development? What are the benefits of a bank-based financial system compared to a market-based financial system? In

most countries, the banking system and financial markets coexist, but what kind should be dominant to allow the establishment of an efficient financial system? How to choose the best source of funding?

Following works of Arestis and Luintel (2004), the relationship between financial structure and economic development can be discussed based on competing theories of financial structure. These competing theories are: bank-based financial system, market-based financial system, the theory of law and finance and the financial services. We now examine them in brief in what follows.

Financial economists have debated the comparative importance of bank-based and market-based financial systems for over a century (Goldsmith, 1969; Boot and Thakor, 1997; Allen and Gale, 2000; Demirguc-Kunt and Levine, 2001). As discussed, proponents of a bank-based financial system highlight the positive role of banks in mobilizing resources, identification of good projects, monitoring managers and risk management. Their main reason advanced would be that the close relationships between banks and companies help to reduce the costs of acquiring information and impose fewer constraints on under takings, this has a beneficial impact on investment and economic development.

Moreover, for supporters of market-based economy, a feature of this economy like the U.S. economy is the availability of a variety of financial products as opposed to financial systems based on banks. This diversity provides opportunities for risk sharing and allows economic agents to have products suited to their needs, K. Kpodar (2006). Moreover, the functioning of stock markets may help exercise control cost on businesses, once they were financed by facilitating changes in direction and linking managers' remuneration to company performance.

The view favouring a market-based financial system highlights the positive role of markets in promoting economic takeoff (Beck and Levine, 2002). In particular, markets can facilitate diversification and personalization of risk management devices. Thus, proponents of market-based view stress that markets can reduce the inherent inefficiencies associated with banks and increase the formation of new businesses, the ease with which business and industry attract capital for expansion and overall economic growth.

The theory of law and finance, initiated by R. La Porta et al. (1998), states that it is the historical and conceptual origins of legal systems that is the source of the differences between financial systems. It is the main determinant of the effectiveness of the financial system to facilitate innovation and development (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 2000). In sum, the theory of law and finance states that countries with different legal traditions are resulting at different levels of financial development, as suggested by this theory.

In addition, LLSV (2000) rejects the whole debate: financial system based on banks and financial system based on markets, he argued that legal systems that effectively protect foreign investors, the equity holders and debt, can promote overall financial development and not the financial structure itself, which is critical for national economic development. This movement insists that the legal and regulatory frameworks play a key role in the development of financial services that promote economic development.

Finally, the perspective of financial services stresses that financial systems provide key financial services. According to this thinking, the question is not to determine which financial markets or banking system have the most development, but rather to create an environment that ensures efficient delivery of financial services in general and this

regardless of the respective contribution of financial markets and banks. Determinants of growth would be the quality and the overall level of development of financial services, not the distinction between bank-based economy and market base. This relationship is of secondary importance. Thus, the approach of the financial services predicts that financial development is a necessary condition for economic development, but financial structure does not add much to our understanding of the economic development process. Overall, despite countervailing views, there is a preponderance of evidence that a developed financial system positively influences real economic activity.

On the empirical studies on the question, we notice that the empirical work in the last century have primarily considered studies of Germany and Japan as bank-based systems and the United States and the United Kingdom as market-based systems. This small sample prevents historians, economists and policy makers to draw conclusions generalized to other countries. The four countries have very similar growth rates in the long run, this is why it is difficult to correlate the differences in financial structure with differences in growth rates of long-term. The absence of data through the samples on the financial structure has prevented researchers to extend the analysis to a larger sample of countries. And even, the few empirical studies on the question (Demirguc-Kunt and Levine, 1996; Levine, 2002 and 2003; Beck and Levine, 2002), find that financial structure is irrelevant to economic development: neither the bank-based nor the market-based financial system can explain economic development. Rather, they opine that it is the overall provision of financial services (banks and financial markets taken together) that are important. As suggested by Levine (2001), it may be better to think not in terms of banks *versus* stock markets but in terms of banks *and* stock markets.

Using the data set constructed by Beck, Demirgüç-Kunt and Levine (2004) we stain, in this paper, to contribute empirically at the debate of the financial structure and its relation to poverty reduction. In particular the paper examines the role of the financial liberalisation in shaping the link between financial structure and poverty trying to extend the analysis in a sample composed of 38 developing countries. It utilises aggregate annual time series data from 1990-2011 to develop a small macro econometric model that captures the interrelationships between financial structure and poverty reduction.

The rest of the paper will be organized as follow: the following section show empirical model specification and describe the data, while section 3 presents the empirical analysis and estimations results. Section 4 concludes.

## **2. Empirical analysis**

### **2.1. Model Specification**

Based on theoretical analysis on poverty and to assess the impact of the financial structure, we adopted a standard poverty model building on previous studies (Dollar and Kraay, 2002; Honohan, 2004; Guillaumont and Kpodar, 2011 and Singh and Huang, 2011). The model explains poverty by a core set of control variables, overall income per capita, to capture the contribution of economic development. It is incorporated in the model to reflect the level of development of the economic system. We therefore expect a positive coefficient of this variable. We add growth of the consumer price index (inflation), to control for the macroeconomic environment; the number of people who accessed the telephone lines per 100 inhabitants to measure the quality of infrastructure (infrastructure) and the sum of exports and imports as a share of GDP, to capture the degree of international openness

(trade openness). However, few empirical studies have also identified some determinants of poverty such as education, inequalities in land distribution and climatic shocks. The baseline model is then augmented with the financial development measured by domestic credit to private sector to GDP and financial structure which is measured by several indicators commonly used in empirical studies. These indicators are presented in details on the following section (see also appendix 1).

We notes that the empirical results suggest, however, that the past poverty rate is suited in the explanation of the current poverty. The following presentation of the structure of the model of regression is based on a dynamic specification.

$$P_{it} = \alpha_0 + \alpha_1 Y_{it} + \alpha_2 X_{it} + \alpha_3 FD_{it} + \alpha_4 FS_{it} + \mu_i + \xi_{it}$$

Where  $P_{it}$  is the indicator of poverty for a country  $i$  at a period  $t$ ;  $Y_{it}$  represents the level of income per capita;  $X_{it}$  is a set of potential Poverty determinants,  $FD$  is an indicator of financial development,  $FS$  is a measure of financial structure and  $\mu_i$  is the country specific effect and  $\xi_{it}$  is the error term.

With  $\mu_i$  and  $\xi_{it}$  are independently distributed,  $E(\mu) = E(\xi_{it}) = 0$ ,  $E(\mu * \xi_{it}) = 0$

To test the importance of financial liberalisation in determining the relationships between financial structure and poverty reduction, we adopted the following model:

$$P_{it} = \alpha_0 + \alpha_1 Y_{it} + \alpha_2 X_{it} + \alpha_3 FD_{it} + \alpha_4 FS_{it} + \alpha_5 FL_{it} + \alpha_6 FS_{it} * FL_{it} + \mu_i + \xi_{it}$$

Where  $FL_{it}$  represent the financial liberalisation.

## 2.2. Definitions of variables

As long as the series we have on stock markets are not sufficiently present in most countries with low and middle income, the regression will be conducted on 38 developing countries over the period 1990-2011. The variables of interest are poverty rates and financial structure.

### Indicators of financial structure

The empirical literature (Levine, 2002 and Luintel et al., 2008) distinguishes three types of indicators of financial structures defined by size, activity and efficiency. The size of the financial structure (structure-size henceforth) is the ratio of the size of the stock markets, captured by market capitalization, to the size of the bank system. It can be measured by three different indicators: the volume of credits granted by commercial banks to the private sector, the total value of bank assets and total value of the bank deposits, the three indicators are reported in appendix.

The activity of the financial structure (structure-activity) measures the activity of the stock market compared to the activity of the banking system. Empirical literature offers tow indicators of structure-activity: the first one is defined as the ratio of the stock market total value traded to private credit. While, the second is measured as stock market total value traded to GDP/ Bank loans to bank deposits.

The last dimension is the structure-efficiency that compares the efficiency of the stock market by supplying banks. Following Demrguich-Kunt and Levine (1996), the efficiency of the stock market is measured by the value of stock transactions to GDP, while the overhead assets and net margins on interest are used to capture efficiency financial intermediation.

The empirical literature states that high levels of structure-size, structure-activity and structure-efficiency suggest that the based-market financial system, while low levels of these ratios reflect a based-bank financial system. Although these financial structure measures do not directly measure all of the channels via which markets and banks influence economic development, they are the most comprehensive set of indicators that have been constructed to date for a broad cross-section of countries. Taken together, these indicators provide a measure of the comparative role of banks and markets in the economy.

Since there is not a single accepted measure of financial structure, we use an assortment of different measures cited above to test the robustness of our results. We present the results on five measures of financial structure. Each of these measures is constructed so that higher values indicate more market-based financial systems.

**Financial Development Index:** While in their analyses of financial development and poverty Beck, Demerguch-Kunt and Levine (2004); Honohan (2004) and K. Kpodar (2006) chose to use only indicators on the banking system, we choose to use both indicators of banking system measured by domestic credit to private sector to GDP and an indicator measuring financial market development measured by market capitalization to GDP.

**Poverty:** In contrast to developed countries, time series data on poverty in many developing countries are very limited, and this, because many developing countries have started recording data on poverty only in the late 90's. Thus, a number of indicators for measuring poverty have been proposed in the literature. Some previous studies have used the database of Deininger and Squire (1996) and Lundberge and Squire (2003) that provide income and headcount data for the poor, as well as the Gini coefficient. Others have used the annual per capita income as a measure of poverty. Others have chosen to use the rate of population living within 1 or 2 \$ per day. Unfortunately, these series do not extend over the entire period from 1990 to 2010 so that they can be used as a proxy for poverty. However, these indicators are not without critics. For example, the annual per capita income that was used in some previous empirical studies does not take into account other dimensions of poverty. In addition, studies have shown that consumption expenditure for the poor is usually more stable than income (see Woolard and Leibbrandt, 1999 and Ravallion, 1992). For this reason, we will use in our study, consumption per capita as a proxy measure of poverty (see also Quartey, 2005; Nicholas M. Odhiambo (2009). This is consistent with the definition proposed by the World Bank which defines poverty as "the inability to reach the subsistence level of life" measured in terms of basic consumption needs (World Bank, 1990).

**Financial liberalisation:** The literature distinguishes three broad categories of measures, namely capital account liberalisation, equity market liberalisation and banking sector liberalisation. In addition, there are multidimensional measures which combine aspects of the above categories. In general, authors rely on capital account measures as proxies for financial liberalisation. So, we use this indicator as a proxy for financial liberalisation because it is more frequently used in empirical literature.

**Trade Openness:** Defined as the sum of exports and imports as a share of GDP, to capture the degree of international openness. The impact of trade openness on poverty may be mixed. While high openness to trade can facilitate access to larger markets for the agricultural sector, in which the poor are often concentrated, trade liberalisation involves

distribution changes, which may not be always beneficial for the poor, at least in the short-run (Winters et al., 2004).

**Inflation:** This is the variable that represents macroeconomic policy. The choice of this variable is legitimized by the importance of adopting appropriate macroeconomic policy in the context of a policy of financial development. It is introduced into the model to capture the impact of macroeconomic stabilization on poverty. Inflation is a factor worsening poverty because it has a negative impact on the real value of assets and the purchasing power of household incomes, K. Kpodar (2006). It is measured by growth of consumer price index available in CD-ROM of World Bank.

**Number of subscribers to telephone lines per 100 inhabitants:** This variable is introduced into the model to capture the role of infrastructure in reducing poverty. It represents the degree of development in the field of information technology and communication, which is a sector that could have a positive influence on the development of the financial sector by encouraging financial innovation and facilitating access to credit by the poor and the finalization of financial transactions.

### **2.3. Estimation method**

To estimate the model, we use the System Generalized Method-of-Moment (GMM) estimator developed by Blundell and Bond (1998). The estimator combines two sets of equations. The first set includes first-differenced equations where the right-hand-side variables are instrumented by the levels of the series lagged one period or more. The second set consists of the equations in levels with the right-hand side variables being instrumented by lagged first of higher-order differences.

The GMM estimator will be used because it has a number of advantages. For instance, Beck et al. (2000) argue that the GMM panel estimator is good in exploiting the time-series variation in the data, accounting for unobserved individual specific effects, and therefore providing better control for endogeneity of all the explanatory variables. Following Kpodar and al. (2011), we use the GMM estimator to investigate the financial structure-poverty nexus in developing countries.

### **2.4. Sample**

We compiled data for a sample of 38 developing economies over the period 1990-2011. Developing countries are defined as countries classified by the World Bank as low- or middle-income countries, while developed economies as high income countries. The sample sizes and the period of study are limited by the availability of data on control variables and financial structure indicators.

## **3. Results and interpretations**

### **3.1. Financial structure and poverty incidence**

The regression results in panel data that we have made over the period 1990-2011 are presented in the table 1 in appendix. All regressions are run with GMM. The coefficients of interest in these sets of estimates are those related to financial structure, as well as financial development. We note that for all the estimated models, the coefficients on banking development indicators enter significantly positive in all the regressions. This confirms and appreciates the crucial role of banking sector in reducing poverty. By contrast, stock market development enters negatively and significantly only in two out of seven regressions proving that it has no impact on poverty levels.



On the importance of financial structure, which interests us most in this study, the empirical literature on the subject (K. Kpodar, 2011 and Beck, T, Levine, R and Loayza, N 2000) emphasizes that a positive and significant coefficient of financial structure, suggests that countries with financial systems based banks tend to have lower poverty rates than market-based. Moreover, and given the indicator of poverty measures used in our model, our results will be interpreted so that a positive and significant coefficient of financial structure reflects the fact that countries with financial systems based on the market-exchange tend to have lower poverty rates than those based on debt.

According to the coefficients of the structure-efficiency<sup>1</sup> and 2 (columns 4 and 5) this appears to be validated. We note that these coefficients appear to be negative and significant, allowing us to validate the supremacy of a based-bank financial system against a based-market financial one. Measures of the financial size and activity do not seem, however, to affect poverty levels. Hence, relatively more vibrant banking systems in term of credit, and assets would be more conducive to lower levels of poverty. In contrast, relatively more dynamic stock markets with high turnover do not seem to make a difference.

On macroeconomic variables of control, the results shows that the per capita income has a positive and significant effect on the poverty rate and that it is consistent with the expected result, which confirms the existence of a strong negative relationship between the per capita income and poverty rates. This suggests that high levels of economic development are associated with lower levels of poverty. As for the coefficient on the infrastructure variable, it also appears to have a positive and significant impact on poverty reduction, confirming the results of previous studies. For the case of the elasticities associated with inflation and trade openness, they are not significant.

### **3.2. The influence of financial liberalisation**

In the same context, and to fully appreciate what financial system structure will be more conducive to poverty reduction in developing countries, we will proceed in the following, to re-estimate the same model as before taking into account the role of financial liberalisation in determining the financial structure-poverty relationships using four composite indicators of financial structure constructed from the seven indicators of financial structure cited above. To do this, we will use the Principal Component Factor method (PCF) to construct these indicators: the first is an indicator constructed from the seven indicators of financial structure advanced by the empirical literature and presented above, the second is constructed from indicators of size (noted size-PCF), the third is composed of two indicators of activity (activity-PCF) and the fourth is constructed of indicators of efficiency (efficiency-PCF). Adding the estimates (8 to 15), where the variable of the financial structure is calculated differently, just serves to test the robustness of results. The estimation results of the model using different composite indicators of financial structure are listed in Table 2 in appendix.

The first observation that emerges in light of the results is their similarity to those found in the previous estimate, namely that large stock markets relative to banks may not favor the poor, while active and efficient stock markets relative to banks seem not have any influence (columns 8 to 10, Table 2). The measure of financial structure, aggregating structure-size and structure-activity does not appear with a significant coefficient, suggesting that overall the structure of the financial system may be irrelevant for poverty (column 11, Table 2).

Hence, structure-efficiency enters with a negative and significant coefficient suggesting the supremacy of a based-bank financial system.

Introducing the financial liberalisation indicator in our model sheds more light on the complexity of the relationship between financial structure and poverty. Both the degree of financial liberalisation and its interaction with the financial structure are examined. The first observation that emerges in light of the results is that a liberalised financial system is strongly associated with lower levels of poverty, as suggested by the positive and significant coefficient on the financial liberalisation variable (column 12 to 15, Table 2).

Moreover, the results indicate that the relationship between financial structure and poverty reduction may hinge on a country's degree of the liberalisation financial system. The coefficients on size and activity become significantly negative, as well as that on the overall measure of the financial structure (columns 12 to 15, Table 2), suggesting that the statistical insignificance of the results in previous regressions actually reflected country heterogeneity with regard to the degree of the financial liberalisation. This would imply that overall given financial liberalised system, bank-based financial systems tend to be strongly associated with lower levels of poverty than market-based financial systems.

The coefficients on the interaction terms of financial structure and financial liberalisation all come out positive and significant excepted of the coefficient of composite indicator of structure-activity\*financial liberalisation. These results suggest that the negative association between a market-based financial system and poverty could diminish as financial sector became more liberalised. These observations are consistent with the views that bank-based systems are more appropriate in liberalised countries.

#### **4. Conclusion**

The aim of the study as part of this paper is what kind of financial system should be favoured in reducing poverty: is a bank-based or market-based financial system? It pays particular attention to the role of financial liberalisation and their interaction with the financial structure. Overall, our findings are consistent with bank-based financial system view proving that a more bank-based financial system is associated with lower levels of poverty. They also indicate that the contribution of more market-based systems increases with a more financial liberalised system. In this regard, the results are consistent with the views that a financial liberalised system is more competitive for banks and by consequence for the real economy then a repressed financial system.

We can explained the supremacy of a bank-based financial system against a market-based financial one in the developing countries by the fact that financial system in these countries are bank-dominated system and the development of the banking system is done at the expense of the development of the stock market in most of these countries. At the time when developed countries gradually developed their financial markets alongside their banking development, many developing countries have failed to develop their stock market.

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## Appendix:

### Financial Structure Indicators

Financial structure	Measure
Structure-Size	Size1 = $\frac{\text{stock market capitalisation}}{\text{Private Credit}}$
	Size2 = $\frac{\text{stock market capitalisation}}{\text{bank assets}}$
	Size3 = $\frac{\text{stock market capitalisation}}{\text{bank deposits}}$

<b>Structure-Activity</b>	$\text{Act1} = \frac{\text{stock market total value traded}}{\text{Private Credit}}$ $\text{Act 2} = \frac{\frac{\text{stock market total value traded}}{\text{GDP}}}{\frac{\text{bank loans}}{\text{bank deposits}}}$
<b>Structure-Efficiency</b>	<p>Eff 1 = (Stock market value traded to GDP ) * (Bank overhead cost to assets)</p> <p>Eff 2 = (Stock market value traded to GDP ) * (Bank net interest margin)</p>

**Table 1: Robustness analysis of the relationship between financial structure and poverty incidence**

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Log (GDP/Capita)</b>	0.13 (3.21)**	0.13 (2.17)**	0.14 (2.94)**	0.13 (5.19)***	0.15 (3.78)***	0.14 (3.29)**	0.13 (2.76)**
<b>Log (1+INF)</b>	-0.025 (-2.81)**	-0.033 (-3.33)**	-0.043 (-1.48)	-0.012 (-2.10)**	-0.011 (-3.04)**	-0.031 (-2.54)**	-0.015 (-1.24)
<b>Trade openness</b>	0.17 (31.87)***	0.19 (31.58)***	0.17 (29.96)***	0.17 (31.02)***	0.21 (31.85)***	0.18 (33.18)***	0.19 (31.22)***
<b>POP</b>	-0.55 (-2.20)**	-0.61 (-4.33)***	-0.87 (-5.86)***	-0.48 (-2.25)**	-0.63 (-2.11)**	-0.56 (-4.66)***	-0.69 (-2.97)***
<b>TEL</b>	0.08 (2.61)**	0.084 (2.43)**	0.07 (2.29)**	0.07 (2.39)**	0.07 (2.16)**	0.10 (3.01)**	0.07 (2.13)**
<b>Domestic credit</b>	0.088 (2.16)***	0.091 (2.2)**	0.083 (2.56)**	0.079 (2.38)***	0.094 (4.66)***	0.081 (1.73)*	0.080 (3.57)***
<b>Stoch Market cap.</b>	1.04 (0.69)	1.02 (1.56)	0.99 (1.41)	2.07 (1.78)*	2.01 (1.49)	0.93 (1.16)	1.082 (1.02)
<b>Structure-Size1</b>	-0.04 (-1.57)	--	--	--	--	--	--
<b>Structure- Size2</b>	--	-0.05 (-1.37)	--	--	--	--	--
<b>Structure- Size3</b>	--	--	-0.07 (-1.28)	--	--	--	--
<b>Structure-Efficiency1</b>	--	--	--	-0.01 (-1.79)*	--	--	--
<b>Structure-Efficiency2</b>	--	--	--	--	-0.02 (-2.14)**	--	--
<b>Structure-Activity 1</b>	--	--	--	--	--	3.32 (0.84)	--
<b>Structure-Activity 2</b>	--	--	--	--	--	--	2.65 (0.74)
<b>Constant</b>	3.57 (13.6)***	3.68 (16.2)***	4.53 (14.71)***	3.91 (18.3)***	4.59 (21.36)***	4.76 (14.3)***	3.99 (16.57)***
<b>Numbers of obs.</b>	836	836	836	836	836	836	836
<b>Number of countries</b>	38	38	38	38	38	38	38
<b>Sergan/Hansen Test</b>	0.66	0.71	0.79	0.68	0.77	0.57	0.81
<b>AR2</b>	0.56	0.56	0.56	0.57	0.62	0.49	0.51

Notes: \* significant at 10% \*\* Significant at 5%; \*\*\* Significant at 1%. GDPG is the growth rate of GDP /t; INF is the inflation rate; OPEN is trade openness measured by the sum of exports plus imports to GDP; POP is the population growth rate ; TEL is an indicator of infrastructure as measured by the number of subscribers to telephone lines per 100 habitants; FD is the indicator of financial development measured by domestic credit to private sector to GDP and Stock Market Capitalisation and finally the financial structure variable measured by seven indicators mentioned above.

Variables	1	2	3	4	5	6	7	8
Log (GDP/Capita)	0.133 (2.04)**	0.11 (2.06)**	0.145 (2.19)**	0.117 (2.09)**	0.166 (1.88)*	0.128 (2.22)**	0.102 (1.95)**	0.151 (2.83)**
Log (1+INF)	-0.017 (-3.48)***	-0.016 (-2.39)**	-0.033 (-2.56)***	-0.012 (-3.19)**	-0.013 (-3.08)***	-0.011 (-2.54)**	-0.015 (-1.44)	-0.019 (-1.92)**
Trade Openess	0.173 (23.53)***	0.174 (21.18)***	0.171 (24.92)***	0.178 (21.58)***	0.175 (26.35)***	0.172 (22.98)***	0.170 (25.65)***	0.174 (23.34)***
POP	-0.722 (-2.60)**	-0.714 (-2.63)**	-0.675 (-2.56)**	-0.696 (-2.65)**	-0.736 (-4.88)***	-0.597 (-2.26)**	-0.622 (-3.77)***	-0.683 (-2.36)**
TEL	0.082 (2.81)***	0.084 (2.73)***	0.078 (2.27)***	0.091 (2.49)***	0.077 (2.46)***	0.10 (3.81)***	0.079 (2.50)***	0.073 (2.50)***
Domestic credit	0.092 (2.16)***	0.097 (2.2)**	0.082 (2.56)***	0.071 (2.38)***	0.096 (2.66)***	0.079 (0.03)	0.076 (3.57)***	0.085 (3.57)***
Stoch Market cap.	0.813 (1.26)	-0.881 (1.61)	0.827 (0.97)	0.956 (0.78)	0.736 (1.39)	0.898 (1.06)**	0.855 (1.74)*	0.771 (1.04)
Structure-Size	-0.041 (-1.47)	--	--	--	-0.053 (-2.66)**	--	--	--
Structure- Efficiency	--	-0.035 (-1.91)**	--	--	--	-0.051 (-1.93)**	--	--
Structure- Activity	--	--	-0.015 (-1.08)	--	--	--	-0.056 (-2.03)**	--
Overall structure	--	--	--	-0.074 (-0.63)	--	--	--	-0.055 (-2.12)**
Financial liberalisation	--	--	--	--	0.264 (1.98)**	0.242 (2.22)**	0.311 (2.97)**	0.238 (1.91)**
Structure-Size*FL	--	--	--	--	0.023 (3.39)***	--	--	--
Structure-Efficiency*FL	--	--	--	--	--	0.031 (4.45)***	--	--
Structure-Activity*FL	--	--	--	--	--	--	0.037 (8.15)***	--
Overall Structure*FL	--	--	--	--	--	--	--	0.028 (1.74)*
Constant	4.74 (17.6)***	4.79 (27.4)***	6.19 (24.7)***	5.52 (18.3)***	4.39 (23.1)***	5.76 (24.3)***	5.41 (21.7)***	6.62 (22.7)***
Numbers of obs.	836	836	836	836	836	836	836	836
Number of countries	38	38	38	38	38	38	38	38
Sergan/Hansen Test	0.87	0.82	0.76	0.91	0.66	0.78	0.89	0.63
AR2	0.47	0.52	0.44	0.57	0.52	0.38	0.55	0.55

Notes: \* significant at 10% \*\* Significant at 5%; \*\*\* Significant at 1%. GDPG is the growth rate of GDP /t; INF is the inflation rate; OPEN is trade openness measured by the sum of exports plus imports to GDP; POP is the population growth rate ; TEL is an indicator of infrastructure as measured by the number of subscribers to telephone lines per 100 habitants; FD is the indicator of financial development measured by domestic credit to private sector to GDP and Stock Market Capitalisation; FL is indicator of financial liberalisation measured by capital account liberalisation and finally the financial structure variable measured by seven indicators mentioned above.

**Table 2: Financial Structure and Poverty Incidence: Accounting for Financial Liberalisation**



### List of the Sample Countries

Argentina	Mongolia
Bolivia	Morocco
Botswana	Nigeria
Brazil	Pakistan
Colombia	Panama
Cote d'ivoire	Paraguay
Ecuador	Peru
Egypt	Philippines
El Salvador	Poland
Ghana	Russian Federation
Honduras	South Africa
Honduras	Sri lanka
India	Tanzania
Indonesia	Thailand
Iran	Tunisia
Jordan	Turkey
Kenya	Uganda
Malaysia	Vietnam
Mexico	Zambia