

**CAN OFFICIAL DEVELOPMENT ASSISTANCE PROMOTE FINANCIAL
DEVELOPMENT IN DEVELOPING COUNTRIES?**

By

PARK, YUMI

THESIS

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

MASTER OF DEVELOPMENT POLICY

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ABSTRACT

CAN OFFICIAL DEVELOPMENT ASSISTANCE PROMOTE FINANCIAL DEVELOPMENT IN DEVELOPING COUNTRIES?

By

YUMI PARK

The role of foreign aid on economic development has been an inconclusive and tedious debate for decades. In the meantime, most of studies on financial development and economic growth conclude that financial development significantly and positively affects economic development. Only few studies, however, shed light on foreign aid as a determinant of financial development.

Based on the findings of positive role financial development on economic growth, this paper explores the aspect of official development assistance as a determinant of financial development that can lead economic development in developing countries. The empirical result shows that official development assistance significant and negative on both financial depth and breadth than other foreign capital inflows, such as remittances and foreign direct investment in developing countries. The results come up with future policy implications on delivery aid and reporting system of official development assistance.

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I. INTRODUCTION

The effectiveness of foreign aid has been a long and tedious debate for decades. In particular, most of research puts more weight on investigating the role of foreign aid on economic development, such as economic growth and poverty reduction, in aid recipient countries. However, economic growth and poverty reduction are more likely the ultimate goals followed by a country's economic activities. In other words, it takes certain period of time to achieve these goals with foreign aid and there will be other several factors rather than foreign aid. Therefore, it cannot be simply explained that examining the direct association between aid and economic development.

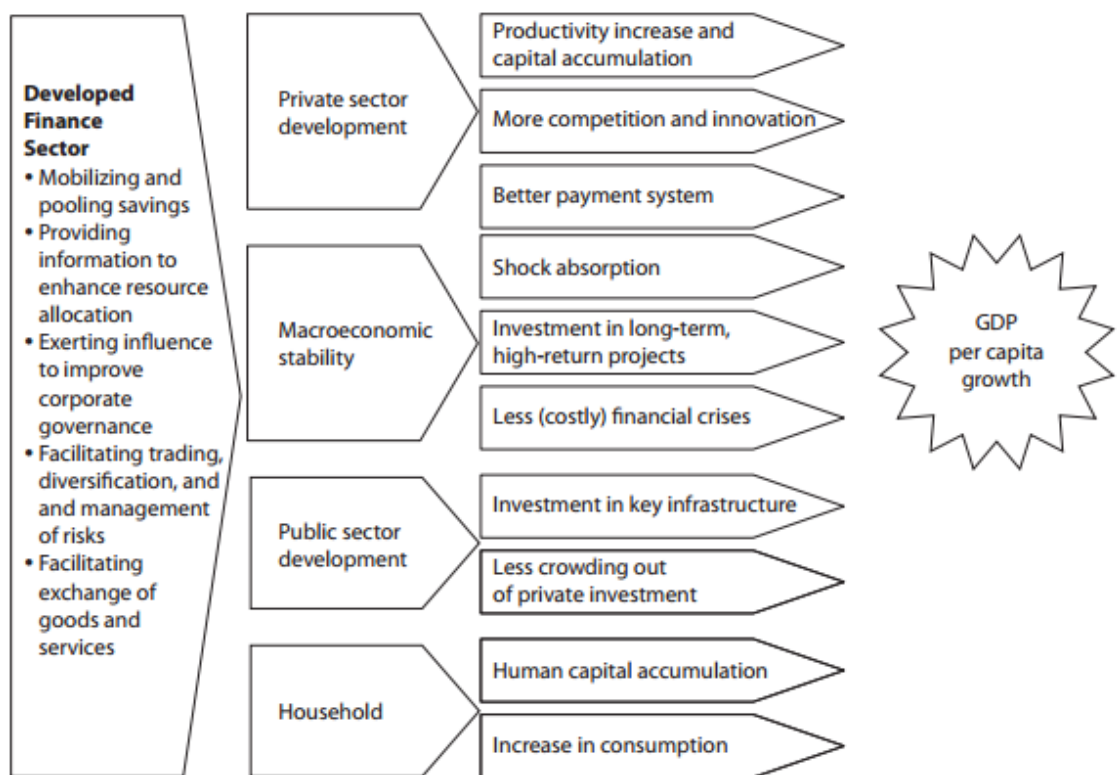
In contrast to the literature on aid and economic development, financial development and economic growth relationship surveys have more converging conclusion. While it was common point of view that financial development only follows economic development in 1950s, since Schumpeter raised the important role of financial sector for the economic development, the causal relationship between financial development and economic growth has been a popular research issue in the economic development study. Since Goldsmith (1969) and McKinnon (1973) came up with positive evidence of financial development and economic growth, several researchers have proved the positive role of financial sector on economic growth.

Therefore, based on the previous findings that financial development is positively associated with economic development, this paper tests the role of foreign aid on financial development that one of the important source of economic growth and finds policy implications by comparing the effects of other foreign capital inflows, remittance and FDI which are major foreign capital inflows in developing countries.

II. LITERATURE REVIEW

As Levine, R. (1997) defined five primary functions of the financial systems as diversifying and mitigating risk, allocating resources and information, monitoring managers and enhancing corporate control, mobilizing and pooling savings, and facilitating the exchange of goods and services from previous studies, Zhuang et al. (2009) precisely presents the role of the financial development as figure 1.

Figure 1 Financial Development and GDP per Capita Growth



GDP = gross domestic product.
Source: Adapted from Claessens and Feijen (2006).

Source: Zhuang et al. (2009)

Additionally, Levine, R. (1997) analysed number of literature that proving financial sector development is not followed by other industries' development but one of the important sources for economic growth.

Compare to the flourishing financial development and economic growth research, the determinants of financial sector study is less popular and focuses on non-economic factors. This paper explores previous studies on the determinants of financial development in order to find appropriate explanatory variables of the paper.

1) Determinants of Financial development

Among a number of financial development literature for decades, only few research comprehensively investigated the source of financial development. While most of researchers concentrated on one or two related determinants of financial development, Detragiache, Gupta, and Tressel (2005) categorize six groups of financial development factors and conduct comprehensive empirical study based on previous literatures. The six determinants categories are ① geography, endowments and legal origin, ② political environment, ③ macroeconomic variables, ④ bank ownership and market structure, ⑤ investment climate indicators, and ⑥ supervisory and regulatory framework. The research empirically examines these determinants in low- and lower middle-income countries using OLS estimation with averaged data of 1999-2001. This paper finds that the inflation, corruption, and settlers' mortality are still significant determinants of financial sector development in low-income countries. However, the legal origin determinant that La Porta et al. (1997, 1998) argued is not statistically significant on the financial development in this study.

Asli Demirgüç-Kunt and Ross Levine (2008) classify the determinants of financial development as historical factors and policy factors based on previous literature. To be specific, the historical factors include legal, political and geographic differences

and the policy factors comprehensively cover from political endowment to regulatory policies.

Besides Detragiache, Gupta, and Tressel (2005) and Demirgüç-Kunt and Levine (2008), most literature investigated specific factor as a determinant of financial sector development.

The one of the most well-known determinants of financial sector development is the difference of legal traditions. La Porta et al. (1997, 1998) finds that the different legal origins facilitate different property right and contract enforcement mechanisms which are key foundation of financial development. In particular, the research proved that the countries with British common law origin which is more focused on investors' right have more development financial system than with French civil law origins that put more weight on states' right.

Similar to the legal origin determinant, endowment becomes popular topic of financial sector development in early 2000s. Among the research, Acemoglu et al. (2001) argues the environmental situation of colonies affects the financial sector growth. This is because the possibility of gaining vital diseases in colonies decides the colonization strategies and settlement of colonizer.

Beck, Demirguc-Kunt and Levine (2003a) point out that both legal origin and endowment theory are converged colonization. The paper tests the legal origin controlling the endowments and other county specific factors at the same time. They found that the property right that based on legal origin is significant despite of the variables control.

A broader perspective has been adopted by Girma and Shortland (2008) who defined

the legal origin and endowment as “deep institutions” and represent “political approach” with stability of regime and democratic level as determinants of financial development. The literature proves that the democracy and political stability are associated with financial development using panel regression and GMM. They show that the growth of financial sector depends on the political stability and democracy rather than the “deep institutions” such as legal origin and endowment in the long run.

Huang (2011) analyses the role of institutional improvement on financial development in 90 countries during 1960-1999 with panel data GMM method. The main finding of the study is that in the short run the improvement of institutions is positively associated with financial development.

Law et al.(2012) examines that financial development is influenced by institution and governance in over 51 both developed and developing countries using world Governance Indicators and International Country Risk Guide dataset. The study concluded that institution and governance are positively and significantly associated with banking sector growth. In contrast with banking sector, the equity market growth is not significantly associated with institutional and governance indicators.

Unlike the institutional determinants research, Boyd, Levine, and Smith (2001) brought the macroeconomic factors into financial development research. They proved that inflation have a significant and negative impact on banking sector and equity market development.

Baltagi et al. (2009) investigated the relationship between trade openness and financial sector growth in 42 developing countries during 1980-2003. The paper proved that trade openness is a statistically significant on banking sector growth with

panel data analysis.

2) Aid and financial development

Jens Kovsted (2000) defined the five roles of financial sector aid. First, financial sector aid can maximize the official development assistance (hereafter ODA) because the total amount of ODA is getting smaller than private sector inflow. Second, financial sector aid plays a role to set the proper regulation during the financial liberalization. Third, financial sector aid protects the national economy from the external and internal financial crisis or failure. Fourth, the financial intermediaries subsidized by financial sector aid decrease the information asymmetries, transaction costs, and other financial costs. Fifth, according to “the two three gap model” insufficient saving hider the growth, the financial sector aid can fill the gap.

Regarding to relationship between the ODA, financial development and economic growth, there are only a few research papers. Nkusu and Sayek (2004) found that ODA can generate positive growth effects indirectly and such growth is larger with deeper financial market through weighted least squares regression. They concluded that development of local financial market enhances aid effectiveness.

3) Remittance and financial development

Aggarwal, Demirgüç-Kunt, and Martinez Peria (2005) prove that remittances and bank deposits and credits to the private sector are positively related with data from 109 countries for the period 1975-2007.

Giuliano and Ruiz-Arranz (2009) find that remittance promotes the financial sector in developing countries with the data for about 100 countries. In particular, the research proved that growth of bank deposits positively and significantly associated with remittances inflows.

More recently, Demirgüç-Kunt, Córdova, Pería, and Woodruff (2011) concluded that the remittances positively affect financial breadth which represented by the number of bank branches and bank accounts per capita. In the meantime, they argued that the financial depth, the bank deposits significantly related to remittances using exploring Mexico case.

4) FDI and financial development

The literature on relationship between FDI and financial development mostly investigate financial sector development as a precondition for increasing FDI.

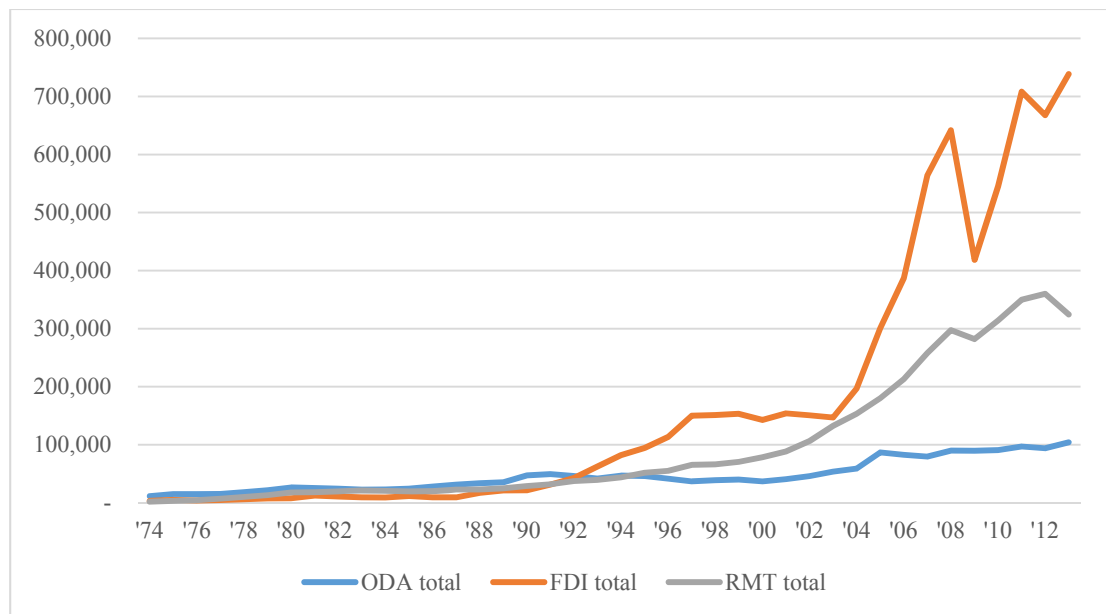
Hermes, Niels, and Robert Lensink (2003) argued that a country with well-developed financial system more efficiently use the FDI than other countries. The research implies the economic growth can be achieved by developing financial system to let FDI contribute to economic growth.

Similarly, Lee, Chien-Chiang, and Chun-Ping Chang (2009) tested the influence of financial development and FDI on economic growth with the data of 37 countries during 1970-2002. The study shows that the financial sector development is more statistically significant to the economic growth rather than the level of FDI.

III. ODA, Remittances and FDI

The trend of foreign capital flows are shown in figure 2. After early 90s the amount of ODA has not be increased. In contrary, amount of FDI to developing countries starts to boost from 2003. However, due to the global financial crisis in 2008 the amount of FDI sharply decreased. Remittances gradually increase from 90s, and late 90s caught up ODA. This paper mainly analyses the period from 1998 to 2011 when the three different foreign capital inflows start to diverse.

Figure 2 Total ODA, FDI, and Remittance (USD millions)

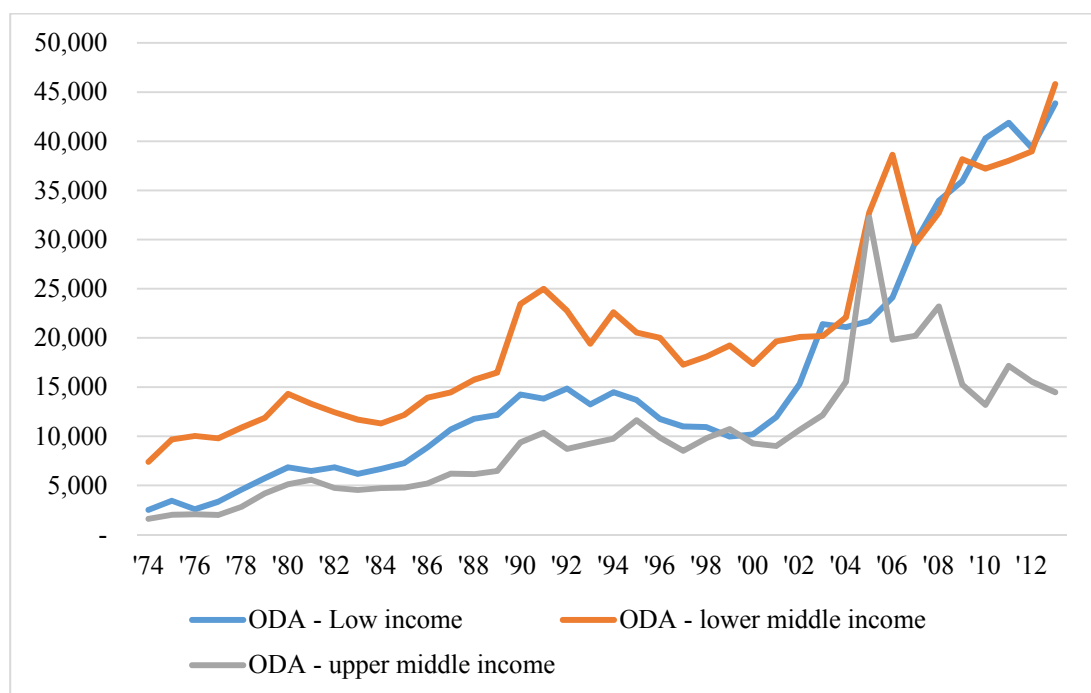


Source: Global Financial Development Database(World Bank), stat OECD(OECD DAC)

1) Official Development Assistance

The ODA inflows to developing countries by income level are drawn in figure 3. Interestingly, the ODA flow to lower middle income countries has been higher than low income countries until early of 2000s. The ODA flows to upper middle income countries also had increased until early of 2000s then rapidly decreases.

Figure 3 ODA by income levels (USD millions)

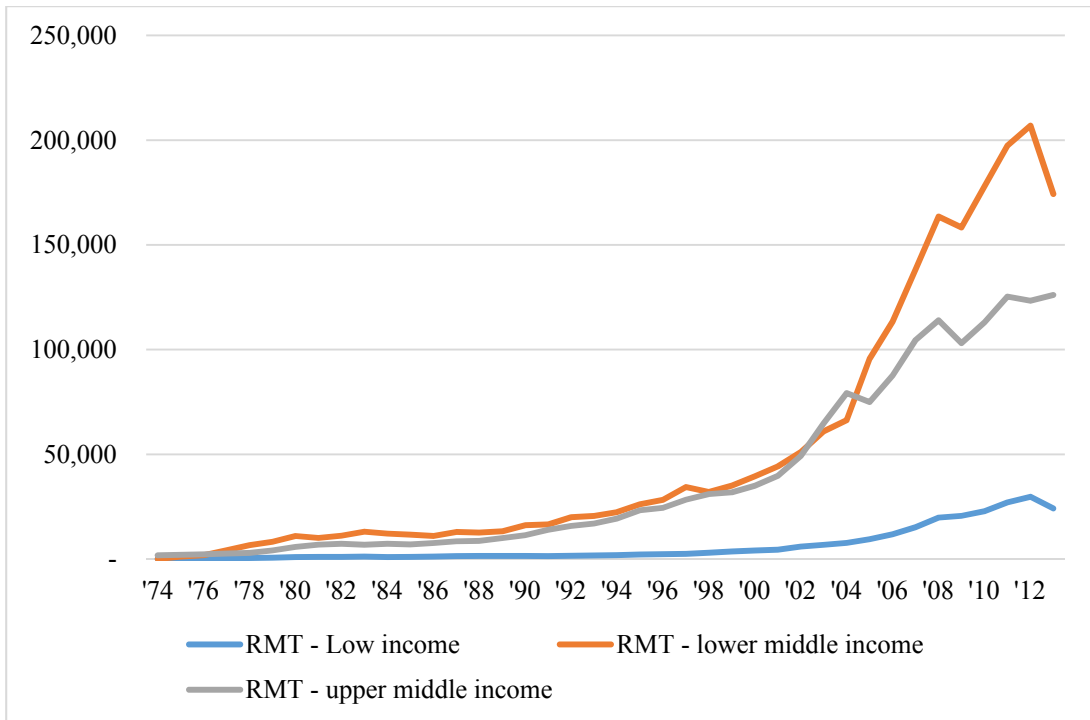


Source: Global Financial Development Database(World Bank), stat OECD(OECD DAC)

2) Remittances

The remittance inflow trend is shown in the figure 4. The total amount of remittances that flows into developing countries are rapidly increased from 2000s. However, the amount flows into low income countries less than one fourth of lower-middle income countries in 2011.

Figure 4 Remittances by income levels (USD millions)

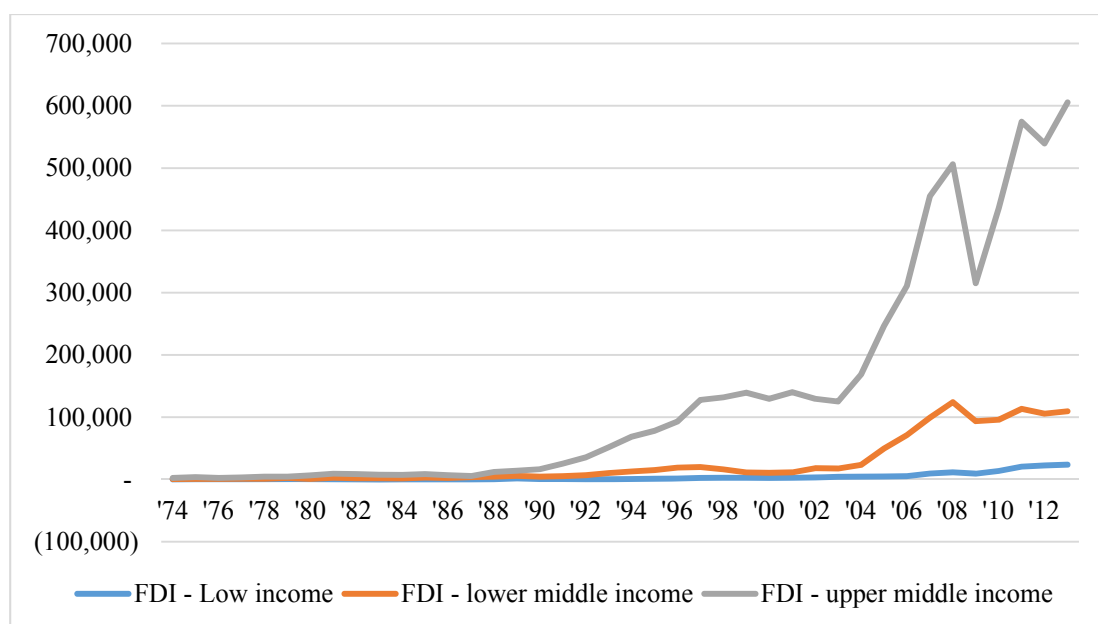


Source: Global Financial Development Database(World Bank), stat OECD(OECD DAC)

3) Foreign Direct Investment

There is a dominant contrast in FDI as shown in figure 5. The FDI inflow to upper middle income countries is about 6-7 times larger than one in lower-middle income and low income countries. Especially, from early 2000s the FDI amount sharply increases.

Figure 5 ODA by income levels (USD millions)



Source: Global Financial Development Database(World Bank), stat OECD(OECD DAC)

IV. METHODOLOGY

Previous research on determinants of financial development tends to hire the OLS estimation with cross-sectional data. However, questions on average cross country data has been raised as Rajan R. G. and Subramanian, A. (2008) pointed that the cross sectional OLS cannot avoid endogeneity problem because of the possibility of omitting variables. They also mentioned that using lagged endogenous variable in cross sectional analysis makes the regression model questionable. In contrast to the cross section analysis, the panel data analysis can correct the endogeneity problem more effectively. In this study, therefore, the panel data analysis is employed both the fixed effect model and GLS random effect model depends on the result of Hausman test.

The main research question of this paper is whether the ODA positively affect

financial development. To examine this question, the basic model stands as follows:

$$FD_{i,t} = \beta_0 + \beta_1 FD_{i,0} + \beta_2 FCI_{i,t} + \beta_3 Controls_{i,t} + FRLAW_i + \varepsilon_{i,t} \quad (1)$$

where $FD_{i,t}$ indicates the percentage change of financial development indicators for country i at period t . $FCI_{i,t}$ the variable of interest, indicates the percentage change of three different foreign capital inflows, specifically ODA, remittances, and FDI, for country i at period t . $Controls_{i,t}$ indicates set of control variables, $FRLAW_i$ stands for country dummies, and $\varepsilon_{i,t}$ for the error term. In order to control for general determinants of financial development during this period, variables such as institutional indicators (ICRG, WGI), change rate of inflation rate and trade to GDP are included. In addition, as La Porta et al. (1998) yield that the individual property right is less protected in the French civil law countries than other law tradition countries. In the third regression, we hired the French law countries as a dummy variable.

Additionally, the 2 years lagged foreign capital flows variables are hired in order to capture the time to transfer from foreign capital flows to financial development. Generally, both 2 years and 5 years lags are considered, however, in the paper only 2 years lag is applied due to the short time span of target periods.

$$FD_{i,t} = \beta_0 + \beta_1 FD_{i,0} + \beta_2 FCI_{i,t-2} + \beta_3 Controls_{i,t} + FRLAW_i + \varepsilon_{i,t} \quad (2)$$

The second research question of the study is that the impact of foreign capital inflows in the financial breadth indicators, in particular percentage change of number of bank branches and number of ATMs per thousand adults. The related models stand for as follows:

$$FB_{i,t} = \beta_0 + \beta_1 FB_{i,0} + \beta_2 FCI_{i,t} + \beta_3 Controls_{i,t} + FRLAW_i + \varepsilon_{i,t} \quad (3)$$

$$FB_{i,t} = \beta_0 + \beta_1 FB_{i,0} + \beta_2 FCI_{i,t-2} + \beta_3 Controls_{i,t} + FRLAW_i + \varepsilon_{i,t} \quad (4)$$

where $FB_{i,t}$ indicates the percentage change of financial breadth indicators for country i at period t . the other variables stands for same as model (1).

In order to find the most efficient estimates, both fixed effect model and random effect model are tested in this paper. After all, depends on the control variables both fixed effect estimation and random effect estimation are chosen as an appropriate methods by Hausman test. Therefore, in case of the fixed effect estimation, the time indifferent variables, dummy and initial level of financial development, are not considered as explanatory variables in the final results.

V. DATA

The data are mainly acquired from OECD DAC statistics, World Bank, and the PRS group. Appendix contains the description and sources of variables and presents summary statistics. The data to assess the research questions are from 1998 to 2011 for financial development and from 2004 to 2011 for financial breadth. This is because that most data of former Union of Soviet Socialist Republics (USSR) is only available from 1998 and the World Bank survey on financial breadth in developing countries launched in 2004. Depends on the availability of variables, the number of observed countries for each test is differ.

1) Dependent variables

The major dependent variables that used in this paper are commonly employed financial development indicators in previous financial development literature. In order to examine various type of financial development, the dependent variables are categorized by financial depth, efficiency and breadth. Especially, the test adopts the concept of financial breadth that indicates accessibility to the financial systems. The main difference with the previous research is that the stock market indicators are not considered as a financial development indicators. This is because the most of the developing countries do not have active stock markets.

① Financial Depth

As Demirgüç-Kunt and Levine (2008) pointed out, the size of financial sector may not fully present the depth of financial system. However, still most of financial literature relies on the various size measurements to capture the depth of financial sector. Instead, researchers hire additional variables such as efficiency, breadth. Thus this paper also hires the common financial depth indicators which used in previous study (e.g., King and Levine, 1993).

(1) Private credit by deposit money banks to GDP (%) measures the amount of channelled savings to investors. In other words, a country with the more actively functioning financial intermediaries shows the higher ratio. It used Levine and Zervos (1998).

(2) Private credit by deposit money banks and other financial institutions to GDP (%) is broader concept of Private credit by deposit money banks to GDP (%). By including other financial institutions, such as insurance, pensions etc.,

this measurement can capture more comprehensive financial intermediaries' activities. This measurement used in Levine, Loayza and Beck (1999) and Beck, Levine, and Loayza (1999).

(3) M2 Money and quasi money (M2) as % of GDP, and

(4) Liquid liabilities to GDP (%) measure size of financial market. As King and Levine (1993a) claims the M2 and liquid liabilities simply shows the demand of financial service in the market. However, World Bank (2005) point out that some country where demand of currency is extraordinary high may have higher ratio of this measurement.

(5) Domestic credit to private sector (% of GDP) measures the amount of credit that provided to the private sector such as loans, non-equity securities, and trade credits etc. In addition, it should be considered that for some countries the domestic credit to the private sectors include credit to public enterprises.

② Efficiency

(1) Credit to government and state owned enterprises to GDP (%) shows the ratio between credit by domestic money banks to the government and state-owned enterprises and GDP. In contrast to the Deposit money bank assets to deposit money bank assets and central bank assets (%), this indicator implies the inefficiency of financial sector. In other words, the higher ratio means worse financial system because the credit allocated to government and state owned enterprises do not need evaluation process and monitoring as well.

(2) Bank Deposit to GDP (%) Detragiache, Gupta, and Tressel (2005) uses

bank deposit to GDP to measure the ability of bank to attract financial savings and provide a liquid store of value. In developing countries, people may not use the financial system because of the trustworthiness and inconvenient. Therefore the measurement can capture the efficiency of banking system in developing countries.

(3) Deposit money bank assets to deposit money bank assets and central bank assets (%) shows the monitoring and risk management efficiency of commercial bank. King and Levine (1993a) explained that commonly the deposit money bank, which means commercial bank works more efficiently in the monitoring projects and managing risks. Therefore, the higher ratio of this indicator means more commercial bank actively work.

③ Financial breadth

(1) Number of bank branches per 100,000 adults, and

(2) Number of ATMs per 100,000 adults shows the accessibility of financial system that has been emphasized in developing countries as a financial inclusion issue. This paper employs the number of bank branches and ATMs per thousand adults as a proxy of financial system breadth. Due to the data availability the model tests the period from 2004 to 2011.

2) Independent variables

The main independent variable is total ODA net amount to GDP in recipient countries. Remittances to GDP and Foreign Direct Investment to GDP are hired as additional

independent variables in order to compare the impact of other foreign inflows.

① **Total ODA net to GDP (%)**

The ODA amount, explanatory variable for the empirical models, is measured as a percentage of ODA total net to GDP in each recipient country. In this study, the amount of ODA aggregated from all donors that include DAC member countries, non-DAC countries, and multilateral donors.

The net amount of ODA is the amount of gross disbursed ODA that deducted “the repayments of the principal on loans made in prior years (but not interest), offsetting entries for forgiven debt and any recoveries made on grants.” (OECD glossary) In some cases the negative amount of net ODA can be interpreted as actual foreign capital inflows by ODA is negative. Here, it should be pointed out that the gross disbursement ODA statistics provided by OECD DAC does not same as the inflow amount of ODA in the recipient countries. It implicates some part of the disbursed amount of ODA may be used in the donor countries or other countries.

② **Remittances to GDP (%)**

The percentage of remittances net to GDP in each recipient country hired as an explanatory variable in order to test the impact of other capital inflows on financial development.

The remittances data is collected from the Global Financial Development Database of World Bank. The total amount of remittances consist of workers' remittances, migrants' transfers, and compensation of employees that defined in the fifth edition of the IMF's Balance of Payments Manual. To be more specific, workers' remittances are

current private transfers from the workers who live more than a year in host country regardless of the immigration status. Migrants' transfers are the net worth of migrants is transferred at the time of migration. Compensation of employees is the income of non-residents who have stayed in the host country for less than a year.

③ Foreign Direct Investment to GDP (%)

Foreign direct investment is hired as the third explanatory variable that is considered as another important foreign capital inflow in developing countries. The amount of foreign direct investment consists of equity capital, reinvestment of earnings, other long-term capital, and short-term capital and data used from the Global Financial Development Database of World Bank.

3) Other control variables

In this paper, the determinants that proved in previous literature, such as legal traditions, Worldwide Governance Indicators, ICRG political risks rating, inflation, and trade, are employed as control variables.

① Legal traditions

La Porta et al. (1998) yielded that the individual property right that is enable the financial contracts is less protected in the French civil law countries than other law tradition countries. However, Detragiache, Gupta, and Tressel (2005) shows that the legal tradition does not have any significant impact on financial development in developing countries. In this paper to examine the contradiction of legal traditions hires the French law countries as a dummy variable and conducted the analysis.

② Worldwide Governance Indicators (WGI)

Worldwide Governance Indicators has been used as the indicator of government quality. (Huang, 2011) The WGI consists of six different indicators which are ‘Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption.’ It has been measures since 1996 for 215 countries by World Bank Group. The range of indicator is -2.5 to 2.5. The indicator covers 32 existing data sources that are collected from four different groups from around the world.¹ Compare to ICRG indicator, WGI includes more developing countries, even though the time series is relatively short. This paper employed each indicator to examine the different role of each institution.

③ International Country Risk Guide(ICRG) - Political Risk Rating

ICRG covers about 146 countries on an annual basis, and the assessment conducted by experts of each category. The International Country Risk Guide rating composed with three different risk ratings in politics, economics, and finance. Political Risk Rating, inter alia, comprehensively measures political risks in twelve different perspectives, such as ‘Government Stability (12 points), Socioeconomic Conditions (12 points), Investment Profile (12 points), Internal Conflict (12 points), External Conflict (12 points), Corruption (6 points), Military in Politics (6 points), Religious Tensions (6 points), Law and Order (6 points), Ethnic Tensions (6 points), Democratic Accountability (6 points), and Bureaucracy Quality (4 points).² The lower point

¹ WGI World Bank, <http://info.worldbank.org/governance/wgi/index.aspx#doc>, accessed May 25, 2015

² The PRS Group, Inc., ICRG Methodology, P.3, THE POLITICAL RISK COMPONENTS – Table 3B

means the riskier situation of the country in indicated area. However, the ICRG indicator more concentrates on developed countries rather than developing countries.

This paper uses log of corruption, democratic accountability, law and order, military in politics, internal conflict, and ethnic tensions ratings as control variables.

④ Inflation

As Boyd, Levine, and Smith (2001) found that the higher inflation brings a negative impact on financial sector development, the inflation rate is used as a control variable of financial development.

⑤ Trade

As shown in the literature review, Baltagi et al. (2009) pointed out the role of trade in financial development is significant. Therefore this paper employs trade to GDP as a general determinant of financial development.

VI. EMPIRICAL RESULTS

The empirical models are tested separately by time periods of 1984-2011, 1998-2011, and 2004-2011. Due to the availability of institutional quality data, both WGI and ICRG political risk rating are applied at each model respectively. Except for WGI variables all models use logged variables which make the distribution of data more closed to normal distribution to get more efficient estimates.

1) 1984 - 2011

Firstly, as a primary test, the model (1) and (2) are tested with ICRG political risk rating indicators for the time period of 1984-2011. Table 1 shows the relationship between foreign financial flows and financial development in 1984-2011. In this estimation, The ODA and FDI empirical model used random effect and the remittances empirical model used fixed effect based on the result of Hausman test.

Most of all, all the financial development variables are significant with negative percentage change of ODA and 2 years lagged ODA inflows. Even though only 51 countries are observed in this estimation, this results shows that the ODA inflows will hinder financial development in developing countries in the long-term.

Table 1 ODA, Remittances, and FDI on financial development (1984-2011)

VARIABLES	LN_ODA	2 YRS LAGGED LN_ODA	LN_REMITTANCES	2 YRS LAGGED LN_REMITTANCES	LN_FDI	2 YRS LAGGED LN_FDI
DEPTH (1)	-0.0730***	-0.0959***	0.00587	-0.0169	-0.00957	0.0148
	(0.0156)	(0.0158)	(0.0157)	(0.0147)	(0.0122)	(0.0120)
DEPTH (2)	-0.0677***	-0.0927***	0.0102	-0.0118	-0.00683	0.0219*
	(0.0157)	(0.0159)	(0.0158)	(0.0148)	(0.0118)	(0.0118)
DEPTH (3)	-0.0778***	-0.0923***	0.0256***	0.0172**	0.0105	0.0142**
	(0.00932)	(0.00893)	(0.00806)	(0.00761)	(0.00710)	(0.00664)
DEPTH (4)	-0.0226**	-0.0371***	0.0146	-0.00416	0.00911	0.0199**
	(0.0111)	(0.0106)	(0.0106)	(0.00955)	(0.00824)	(0.00790)
DEPTH (5)	-0.0792***	-0.0887***	0.0218*	0.0140	-0.00133	0.0177*

	(0.0136)	(0.0136)	(0.0129)	(0.0125)	(0.0112)	(0.0106)
EFFICIENCY (1)	-0.118***	-0.167***	0.106***	0.0951***	0.0225	0.0408**
	(0.0256)	(0.0252)	(0.0237)	(0.0231)	(0.0188)	(0.0176)
EFFICIENCY (2)	-0.0408***	-0.0606***	0.00452	-0.00472	0.0185**	0.0325***
	(0.0117)	(0.0117)	(0.0111)	(0.0105)	(0.00858)	(0.00854)
EFFICIENCY (3)	-0.0554***	-0.0467***	0.0482***	0.0470***	0.0102	0.0134**
	(0.00921)	(0.00926)	(0.00751)	(0.00707)	(0.00641)	(0.00602)
AVG. OBSERVATION	923	881	891	846	902	851
AVG. NO OF COUNTRY	51	51	52	52	52	52

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

2) 1998 - 2011

The main research questions of this paper are comprehensively tested for the period of 1998-2011. Here, all the models are fitted for fixed effect estimation than random effect model by Hausman test. Therefore, all the time invariant variables, legal origin, initial value of each financial development indicators are omitted. As mentioned before, two different institutional indicators, ICRG and WGI are respectively applied both model (1) and (2). Because most of the empirical results of model (2) are similar to the model (1), the results are shown in appendices to avoid redundancies.

① Fixed effect estimation with ICRG indicators

The impact of ODA on financial depth and efficiency are shown in table 2. As expected from primary estimation results, the increasing percentage change of ODA

to GDP decreases financial depth and efficiency indicators, except for efficiency (1) which is credit to government and state owned enterprises to GDP. The macroeconomic explanatory variables, in particular, percentage changes of trade positive on percentage changes of financial development indicators. Despite of the previous study results on institutional variables, no variables are consistently valid on all the financial development indicators.

Table 3 provides the coefficients of remittances on financial sector development indicators. The remittances are significant on financial development that means the increasing percentage change of remittances promotes the increase of percentage changes of financial development indicators, such as private credits, domestic credits and etc. These results are aligned with results of previous studies on remittance and financial development. Similar to the ODA and financial development, the trade indicator is still significant in this estimation.

Lastly, the foreign direct investment and financial sector development is tested as shown in table 4. The estimators of logged FDI to GDP have positive and significant to most of financial depth and efficiency indicators. At the same time logged value of trade to GDP is significant for most of tests.

With the ICRG political risk rating indicators, only logged value of corruption is negatively related to financial development. Because the higher value of this indicator means less corrupted system, the one possible interpretation of this estimation is that in developing countries the improvement of corruption may shrink the financial sectors for a certain time period. However, the interpretation of this indicators should be more careful and further research should be conducted.

Table 2 ODA on Financial development 1998-2011 (ICRG)

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LN_ODA	-0.129*** (0.0232)	-0.126*** (0.0231)	-0.0650*** (0.0137)	-0.0538*** (0.0139)	-0.137*** (0.0210)	-0.00767 (0.0295)	-0.0810*** (0.0159)	-0.0553*** (0.0129)
LN_TRADE	0.382*** (0.0938)	0.392*** (0.0932)	0.406*** (0.0524)	0.252*** (0.0563)	0.498*** (0.0804)	0.157 (0.112)	0.334*** (0.0641)	0.167*** (0.0478)
LN_INFLATION	-0.0370** (0.0173)	-0.0346** (0.0172)	-0.0175* (0.00982)	-0.0115 (0.0104)	-0.0389*** (0.0150)	0.0266 (0.0212)	-0.0178 (0.0118)	-0.000710 (0.00890)
LN_CORRUPTION	-0.0841 (0.0639)	-0.0652 (0.0635)	-0.187*** (0.0356)	-0.0899** (0.0384)	-0.0794 (0.0546)	-0.385*** (0.0763)	-0.140*** (0.0437)	-0.0293 (0.0321)
LN_DEMOCRATIC ACCOUNTABILITY	-0.0662 (0.0811)	-0.0598 (0.0806)	-0.0463 (0.0469)	-0.0131 (0.0487)	-0.115 (0.0719)	0.0372 (0.101)	-0.0579 (0.0555)	0.0426 (0.0427)
LN_LAW & ORDER	-0.0145 (0.107)	-0.0128 (0.106)	-0.209*** (0.0633)	-0.136** (0.0641)	0.00601 (0.0969)	-0.324** (0.136)	-0.131* (0.0731)	-0.0135 (0.0582)
LN_MILITARY IN POLITICS	0.0663 (0.103)	0.0824 (0.102)	-0.244*** (0.0471)	-0.00665 (0.0616)	0.00867 (0.0732)	0.106 (0.101)	0.0236 (0.0702)	-0.0427 (0.0432)
LN_INTERNAL CONFLICT	0.101 (0.118)	0.0935 (0.117)	0.180*** (0.0676)	-0.0679 (0.0705)	0.248** (0.104)	0.153 (0.145)	0.0166 (0.0804)	0.233*** (0.0610)
LN_ETHNIC TENSIONS	-0.174* (0.0988)	-0.186* (0.0981)	-0.106* (0.0573)	-0.206*** (0.0593)	-0.0911 (0.0878)	-0.303** (0.123)	-0.177*** (0.0675)	0.0401 (0.0529)
CONSTANT	1.075** (0.511)	1.074** (0.508)	2.184*** (0.290)	2.917*** (0.307)	0.373 (0.444)	1.495** (0.621)	2.090*** (0.350)	2.901*** (0.266)
OBSERVATIONS	653	653	726	653	725	725	653	690
R-SQUARED	0.100	0.099	0.248	0.123	0.143	0.083	0.149	0.085
NO. OF COUNTRY	63	63	70	63	70	70	63	68

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Table 3 Remittances on Financial development 1998-2011 (ICRG)

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LN_REMITTANCES	0.0937***	0.0946***	0.0664***	0.0530***	0.0815***	0.0372	0.0819***	0.0220**
	(0.0211)	(0.0211)	(0.0108)	(0.0114)	(0.0187)	(0.0228)	(0.0134)	(0.00966)
LN_TRADE	0.442***	0.457***	0.345***	0.235***	0.577***	0.0813	0.306***	0.153***
	(0.106)	(0.106)	(0.0533)	(0.0571)	(0.0923)	(0.112)	(0.0670)	(0.0478)
LN_INFLATION	-0.0408**	-0.0400**	-0.0155*	-0.0111	-0.0443***	0.0201	-0.0188	-0.00243
	(0.0181)	(0.0181)	(0.00938)	(0.00978)	(0.0162)	(0.0198)	(0.0115)	(0.00843)
LN_CORRUPTION	-0.242***	-0.221***	-0.221***	-0.160***	-0.197***	-0.377***	-0.216***	-0.0617**
	(0.0671)	(0.0673)	(0.0343)	(0.0364)	(0.0594)	(0.0723)	(0.0428)	(0.0304)
LN_DEMOCRATIC ACCOUNTABILITY	-0.131	-0.115	-0.0312	-0.0770	-0.0945	-0.0334	-0.107*	0.0696*
	(0.0895)	(0.0897)	(0.0469)	(0.0486)	(0.0811)	(0.0987)	(0.0570)	(0.0418)
LN_LAW & ORDER	0.0417	0.0357	-0.165***	-0.0915	-0.0422	-0.243*	-0.0961	-0.0212
	(0.113)	(0.113)	(0.0602)	(0.0607)	(0.104)	(0.127)	(0.0713)	(0.0548)
LN_MILITARY IN POLITICS	-0.0941	-0.0905	-0.240***	-0.0509	-0.0626	0.119	-0.0419	-0.0522
	(0.110)	(0.110)	(0.0475)	(0.0598)	(0.0831)	(0.1000)	(0.0702)	(0.0427)
LN_INTERNAL CONFLICT	0.249*	0.235	0.221***	0.0272	0.260*	0.0819	0.111	0.0958
	(0.148)	(0.148)	(0.0767)	(0.0803)	(0.133)	(0.162)	(0.0943)	(0.0683)
LN_ETHNIC TENSIONS	-0.0796	-0.108	-0.0461	-0.0885*	-0.0453	-0.126	-0.0714	0.0456
	(0.0986)	(0.0987)	(0.0523)	(0.0534)	(0.0904)	(0.110)	(0.0627)	(0.0477)
CONSTANT	1.275**	1.287**	2.492***	3.000***	0.754	1.748***	2.354***	3.494***
	(0.572)	(0.574)	(0.293)	(0.310)	(0.507)	(0.617)	(0.364)	(0.264)
OBSERVATIONS	706	706	784	712	783	783	712	734
R-SQUARED	0.118	0.117	0.268	0.147	0.143	0.072	0.188	0.056
NO. OF COUNTRY	67	67	74	67	74	74	67	72

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Table 4 FDI on Financial development 1998-2011 (ICRG)

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LN_FDI	0.0940***	0.0867***	0.0343***	0.0254**	0.0717***	-0.00736	0.0391***	0.0481***
	(0.0207)	(0.0208)	(0.0106)	(0.0113)	(0.0180)	(0.0220)	(0.0134)	(0.00922)
LN_TRADE	0.395***	0.419***	0.370***	0.274***	0.526***	0.151	0.354***	0.0824*
	(0.107)	(0.108)	(0.0560)	(0.0585)	(0.0947)	(0.116)	(0.0692)	(0.0486)
LN_INFLATION	-0.0445**	-0.0432**	-0.0186*	-0.0126	-0.0464***	0.0170	-0.0197	-0.00133
	(0.0186)	(0.0187)	(0.00991)	(0.0102)	(0.0168)	(0.0206)	(0.0121)	(0.00858)
LN_CORRUPTION	-0.271***	-0.253***	-0.244***	-0.180***	-0.219***	-0.389***	-0.245***	-0.0530*
	(0.0672)	(0.0675)	(0.0353)	(0.0370)	(0.0597)	(0.0730)	(0.0437)	(0.0302)
LN_DEMOCRATIC ACCOUNTABILITY	-0.123	-0.106	-0.0258	-0.0560	-0.109	-0.0323	-0.0866	0.0497
	(0.0888)	(0.0891)	(0.0480)	(0.0489)	(0.0811)	(0.0991)	(0.0578)	(0.0411)
LN_LAW & ORDER	0.0267	0.0197	-0.177***	-0.0943	-0.0468	-0.274**	-0.104	-0.0258
	(0.115)	(0.116)	(0.0632)	(0.0628)	(0.107)	(0.131)	(0.0743)	(0.0554)
LN_MILITARY IN POLITICS	-0.122	-0.122	-0.254***	-0.0714	-0.0489	0.0793	-0.0632	-0.0245
	(0.112)	(0.112)	(0.0487)	(0.0614)	(0.0834)	(0.101)	(0.0726)	(0.0421)
LN_INTERNAL CONFLICT	0.350***	0.334**	0.209***	0.0203	0.365***	0.223	0.122	0.222***
	(0.133)	(0.134)	(0.0715)	(0.0734)	(0.121)	(0.148)	(0.0868)	(0.0610)
LN_ETHNIC TENSIONS	-0.122	-0.152	-0.0702	-0.113**	-0.0937	-0.134	-0.107*	0.0135
	(0.0985)	(0.0989)	(0.0537)	(0.0541)	(0.0908)	(0.111)	(0.0640)	(0.0471)
CONSTANT	1.335**	1.329**	2.480***	2.896***	0.795	1.269**	2.207***	3.510***
	(0.563)	(0.565)	(0.297)	(0.309)	(0.503)	(0.614)	(0.365)	(0.258)
OBSERVATIONS	709	709	789	715	788	788	715	740
R-SQUARED	0.119	0.114	0.236	0.129	0.136	0.069	0.153	0.092
NO. OF COUNTRY	68	68	75	68	75	75	68	73

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

② Fixed effect estimation with WGI

The most of test results are coherent with previous estimations with ICRG indicators. The main difference is the number of observations and country are more than 1000 and 100 respectively. This provides us more generalized results rather than previous tests. The effect of three different resources of foreign capital inflows on financial sectors are shown in table 5, 6, 7.

The logged ODA is negative and statistically significant at 1% significance level to all the financial depth and efficiency indicators except for credit to government and state owned enterprises. In contrast, the percentage changes of remittances and foreign direct investment positive and statistically significant at 1% significance level to all the financial depth and efficiency indicators.

Different with previous regression results with ICRG, in this regression the rule of law has significant impact on financial sector development. This results proves previous research that emphasized the property right and contract enforcement in financial development.

Based on both estimation results with ICRG and WGI, we can conclude that the increased level of ODA to GDP may harmful to develop financial sector in developing countries. On the other hand, remittances and foreign direct investment promote the financial development in developing countries.

Table 5 ODA on Financial development 1998-2011 (WGI)

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LN_ODA	-0.116*** (0.0193)	-0.0678*** (0.0228)	-0.0550*** (0.0112)	-0.0579*** (0.0128)	-0.113*** (0.0163)	-0.0526* (0.0285)	-0.0575*** (0.0131)	-0.0470*** (0.0101)
LN_TRADE	0.515*** (0.0674)	0.338*** (0.0801)	0.442*** (0.0365)	0.429*** (0.0448)	0.499*** (0.0531)	0.113 (0.0945)	0.470*** (0.0458)	0.232*** (0.0325)
LN_INFLATION	-0.0266** (0.0130)	-0.0256* (0.0154)	-0.0197*** (0.00721)	-0.0213** (0.00864)	-0.0131 (0.0105)	-0.0167 (0.0185)	-0.0267*** (0.00878)	0.00106 (0.00642)
WGI_VOICOUNTABILITY	-0.0168 (0.0622)	-0.0878 (0.0742)	-0.00264 (0.0332)	0.0782* (0.0414)	0.0454 (0.0482)	0.0988 (0.0844)	-0.00347 (0.0424)	0.0897*** (0.0298)
WGI_POLITICALSTABILITY AND ABSENCE	0.0914** (0.0396)	0.0336 (0.0472)	0.0295 (0.0212)	0.0338 (0.0263)	0.0679** (0.0308)	-0.175*** (0.0543)	0.0243 (0.0270)	0.0929*** (0.0188)
WGI_GVERNMENTEFFECTIVENESS	-0.0259 (0.0841)	0.0575 (0.103)	0.177*** (0.0480)	0.0273 (0.0560)	0.0542 (0.0697)	-0.104 (0.122)	0.149** (0.0589)	-0.0247 (0.0439)
WGI_REGULATOR QUALITY	0.0652 (0.0682)	0.237*** (0.0826)	-0.0966*** (0.0373)	-0.0624 (0.0453)	0.0661 (0.0543)	0.0203 (0.0966)	0.0334 (0.0472)	0.0424 (0.0336)
WGI_RULE OF LAW	0.215*** (0.0788)	0.224** (0.0937)	0.0874* (0.0456)	0.133** (0.0525)	0.0944 (0.0664)	0.455*** (0.117)	0.124** (0.0536)	0.0447 (0.0411)
WGI_CONTROL OF CORRUPTION	0.0724 (0.0667)	-0.0949 (0.0797)	-0.0827** (0.0372)	-0.0266 (0.0444)	-0.000886 (0.0541)	-0.230** (0.0949)	-0.102** (0.0456)	-0.0115 (0.0336)
CONSTANT	0.574* (0.303)	1.534*** (0.360)	1.615*** (0.168)	1.573*** (0.201)	0.700*** (0.244)	0.871** (0.434)	1.169*** (0.206)	3.254*** (0.149)
OBSERVATIONS	1,173	1,161	1,402	1,169	1,397	1,371	1,159	1,323
R-SQUARED	0.120	0.059	0.138	0.127	0.123	0.027	0.140	0.117
NO.OF COUNTRY	100	99	119	99	118	116	99	114

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Table 6 Remittances on Financial development 1998-2011 (WGI)

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LN_REMITTANCES	0.0487***	0.0641***	0.0499***	0.0292***	0.0529***	0.0767***	0.0478***	0.0207***
	(0.0132)	(0.0164)	(0.00789)	(0.00810)	(0.0125)	(0.0197)	(0.00930)	(0.00637)
LN_TRADE	0.535***	0.440***	0.372***	0.322***	0.543***	0.0644	0.406***	0.243***
	(0.0715)	(0.0892)	(0.0403)	(0.0440)	(0.0639)	(0.102)	(0.0504)	(0.0329)
LN_INFLATION	-0.0275**	-0.0287*	-0.0228***	-0.0181**	-0.0238**	-0.00554	-0.0234***	-0.000834
	(0.0126)	(0.0158)	(0.00734)	(0.00780)	(0.0116)	(0.0184)	(0.00892)	(0.00602)
WGI_VOICOUNTABILITY	-0.0888	-0.107	-0.0519	-0.0279	-0.00355	0.117	-0.0659	0.0952***
	(0.0605)	(0.0758)	(0.0331)	(0.0373)	(0.0524)	(0.0827)	(0.0429)	(0.0272)
WGI_POLITICALSTABILITY AND ABSENCE	0.0615	0.0465	0.00872	0.00342	0.0432	-0.232***	0.0241	0.0597***
	(0.0388)	(0.0485)	(0.0215)	(0.0239)	(0.0341)	(0.0540)	(0.0275)	(0.0174)
WGI_GVERNMENTEFFECTIVENESS	0.0983	0.0720	0.191***	0.139***	0.145*	-0.0454	0.164***	0.0246
	(0.0808)	(0.102)	(0.0485)	(0.0499)	(0.0769)	(0.121)	(0.0577)	(0.0403)
WGI_REGULATORQUALITY	0.282***	0.270***	-0.0615	0.0288	0.159***	-0.0349	0.0736	0.125***
	(0.0667)	(0.0839)	(0.0384)	(0.0411)	(0.0609)	(0.0969)	(0.0475)	(0.0314)
WGI_RULEOFLAW	0.338***	0.364***	0.152***	0.183***	0.252***	0.450***	0.231***	0.0616
	(0.0765)	(0.0957)	(0.0452)	(0.0472)	(0.0717)	(0.114)	(0.0541)	(0.0375)
WGI_CONTROL OF CORRUPTION	-0.0378	-0.0680	-0.110***	-0.123***	-0.0486	-0.242**	-0.145***	-0.0655**
	(0.0660)	(0.0824)	(0.0381)	(0.0407)	(0.0603)	(0.0951)	(0.0467)	(0.0314)
CONSTANT	1.037***	1.438***	2.133***	2.264***	1.066***	1.253***	1.683***	3.401***
	(0.307)	(0.383)	(0.174)	(0.189)	(0.276)	(0.440)	(0.217)	(0.142)
OBSERVATIONS	1,175	1,171	1,370	1,177	1,365	1,350	1,175	1,285
R-SQUARED	0.149	0.091	0.130	0.104	0.123	0.043	0.139	0.122
NUMBER OF COUNTRYCODE	102	101	119	101	118	118	101	114

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Table 7 FDI on Financial development 1998-2011 (WGI)

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LN_FDI	0.0597*** (0.0133)	0.0467*** (0.0159)	0.0390*** (0.00717)	0.0267*** (0.00835)	0.0468*** (0.0111)	-0.0153 (0.0176)	0.0300*** (0.00907)	0.0343*** (0.00622)
LN_TRADE	0.446*** (0.0737)	0.342*** (0.0877)	0.354*** (0.0388)	0.390*** (0.0459)	0.435*** (0.0602)	0.136 (0.0963)	0.449*** (0.0498)	0.169*** (0.0335)
LN_INFLATION	-0.0298** (0.0132)	-0.0274* (0.0157)	-0.0214*** (0.00725)	-0.0238*** (0.00831)	-0.0139 (0.0113)	-0.00413 (0.0180)	-0.0277*** (0.00895)	-0.000296 (0.00629)
WGI_VOICE AND ACCOUNTABILITY	-0.109* (0.0647)	-0.193** (0.0774)	-0.0437 (0.0337)	0.00983 (0.0406)	-0.0426 (0.0525)	0.112 (0.0833)	-0.0724 (0.0441)	0.0676** (0.0294)
WGI_POLITICAL STABILITY AND ABSSENCE	0.0684* (0.0408)	0.0202 (0.0486)	0.0282 (0.0213)	0.0363 (0.0255)	0.0320 (0.0331)	-0.193*** (0.0528)	0.0392 (0.0277)	0.0837*** (0.0184)
WGI_GVERNMENT EFFECTIVENESS	0.0625 (0.0856)	0.0637 (0.104)	0.202*** (0.0482)	0.117** (0.0537)	0.139* (0.0748)	-0.125 (0.119)	0.168*** (0.0593)	0.000445 (0.0425)
WGI_REGULATORY	0.173** (0.0688)	0.327*** (0.0833)	-0.116*** (0.0365)	-0.0342 (0.0431)	0.109* (0.0578)	-0.0191 (0.0930)	0.0556 (0.0475)	0.0399 (0.0319)
WGI_RULE OF LAW	0.307*** (0.0807)	0.354*** (0.0961)	0.160*** (0.0453)	0.198*** (0.0506)	0.208*** (0.0710)	0.511*** (0.113)	0.230*** (0.0547)	0.0503 (0.0397)
WGI_CONTROL OF CORRUPTION	0.0109 (0.0689)	-0.0734 (0.0819)	-0.0931** (0.0378)	-0.0947** (0.0432)	-0.0220 (0.0587)	-0.217** (0.0932)	-0.120** (0.0467)	-0.0234 (0.0329)
CONSTANT	1.333*** (0.315)	1.811*** (0.374)	2.182*** (0.168)	1.963*** (0.196)	1.429*** (0.261)	0.979** (0.417)	1.485*** (0.213)	3.668*** (0.145)
OBSERVATIONS	1,210	1,201	1,450	1,212	1,439	1,415	1,205	1,366
R-SQUARED	0.128	0.088	0.140	0.137	0.116	0.030	0.158	0.120
NUMBER OF COUNTRYCODE	105	104	124	104	123	121	104	119

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

③ Fixed effect estimation by income levels

In order to explore the role of each foreign capital inflow more specifically, the regression model tests the different income levels and the summarized results are shown on table 8.

For the low income countries, the remittances and FDI positively affect to some of financial sectors, such as liquid liabilities, domestic credits and deposit money bank's asset.

In the lower middle income countries results shows stark differences among ODA, remittances and FDI. The results aligned with trend of remittances inflows in recent years. Therefore, the financial sector development in lower-middle income countries will be promoted by both remittance and FDI.

Despite of relatively high share of FDI in upper-middle income countries, it does not shows any statistically significant results. On the contrary, the ODA inflows in upper middle income countries definitely hamper the financial development.

Table 8 WGI, Fixed effect estimation by income level 1998-2011

	LOW			LOWER-MIDDLE			UPPER-MIDDLE		
	ODA	Remittances	FDI	ODA	Remittances	FDI	ODA	Remittances	FDI
DEPTH (1)	-0.211***	0.0474*	0.0102	-0.136***	0.191***	0.137***	-0.0621***	-0.00679	0.00530
	(0.0663)	(0.0278)	(0.0180)	(0.0355)	(0.0274)	(0.0238)	(0.0219)	(0.0161)	(0.0260)
DEPTH (2)	-0.223***	0.0370	0.0130	-0.0248	0.266***	0.0975***	-0.0609***	-0.00792	-0.00472
	(0.0648)	(0.0270)	(0.0176)	(0.0482)	(0.0418)	(0.0347)	(0.0219)	(0.0164)	(0.0264)
DEPTH (3)	-0.0341	0.0848***	0.0280**	-0.0363**	0.150***	0.0492***	-0.0644***	0.00264	0.0184
	(0.0479)	(0.0190)	(0.0127)	(0.0158)	(0.0140)	(0.0114)	(0.0134)	(0.00999)	(0.0139)
DEPTH (4)	-0.0354	0.0280	0.00121	-0.0699***	0.143***	0.0571***	-0.0342**	-0.0125	-0.00155
	(0.0446)	(0.0176)	(0.0113)	(0.0227)	(0.0149)	(0.0148)	(0.0155)	(0.0104)	(0.0164)
DEPTH (5)	-0.131**	0.0665***	0.0272*	-0.132***	0.198***	0.104***	-0.0933***	-0.00349	-0.00926
	(0.0551)	(0.0242)	(0.0151)	(0.0296)	(0.0275)	(0.0209)	(0.0194)	(0.0160)	(0.0225)
EFFICIENCY (1)	0.0405	0.290***	0.0272	0.0374	0.151***	-0.0863***	-0.0993***	-0.0231	-0.0455
	(0.114)	(0.0517)	(0.0309)	(0.0458)	(0.0420)	(0.0303)	(0.0351)	(0.0216)	(0.0329)
EFFICIENCY (2)	0.0143	0.0395*	0.00345	-0.0663***	0.187***	0.0594***	-0.0464***	-0.00372	-0.00254
	(0.0518)	(0.0205)	(0.0134)	(0.0210)	(0.0184)	(0.0160)	(0.0158)	(0.0111)	(0.0172)
EFFICIENCY (3)	-0.0820*	0.0553***	0.0444***	-0.0658***	0.0731***	0.0398***	-0.0346***	-0.00764	0.0115
	(0.0423)	(0.0193)	(0.0117)	(0.0178)	(0.0137)	(0.0127)	(0.00787)	(0.00464)	(0.00723)
AVG. OBSERVATION	314	253	253	509	502	423	447	503	518
AVG. NO. OF COUNTRY	27	26	26	42	42	42	39	44	44

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

3) 2004 - 2011

Lastly, in order to test the relationship between foreign financial flows and financial breadth, the 3 different independent variables and the 2 years lagged variables are hired as shown in model (3) and (4). The summarized empirical results are shown in table 9.

Even though the most of ODA on financial sectors are focused on increasing financial accessibility, the results show increasing percentage of ODA to GDP hinders widening financial breadth. On the other hand, the remittances and FDI promotes the financial accessibility with statistically significant at 1% significance level.

Table 9 Financial breadth 2004-2011

	LN_NO_OF_BANK BRANCHES PER 100,000 ADULTS	LN_NO_OF_ATMS PER 100,000 ADULTS	AVG. NO. OBSERVATION / COUNTRY
LN_ODA	-0.0842***	-0.248***	596
	(0.0223)	(0.0599)	84
2 YRS LAGGED LN_ODA	-0.0540**	-0.186***	441
	(0.0236)	(0.0603)	83
LN_REMITTANCES	0.0222	0.145***	584
	(0.0173)	(0.0445)	84
2 YRS LAGGED LN_REMITTANCES	0.0136	0.143***	432
	(0.0131)	(0.0399)	82
LN_FDI	0.0483***	0.139***	624
	(0.0157)	(0.0331)	88
2 YRS LAGGED LN_FDI	0.0439***	0.137***	462
	(0.0129)	(0.0300)	86

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

VII. CONCLUSION AND POLICY IMPLICATION

This paper examines that the Official Development Assistance which is not highlighted by financial development literature is associated with financial development using panel data analysis. In addition, in order to have more comprehensive results and policy implication, the other major foreign capital inflows in developing countries, particularly remittances and FDI hired additional explanatory variables. The research questions basically rely on the assumption that financial development is a source of economic growth. In other words, if the ODA promote financial development, we can indirectly prove the role of ODA in economic development.

However, the results of all the ODA regressions are consistent as the percentage changes of ODA to GDP negatively associated with most of financial development indicators. On the other hand, remittances and Foreign Direct Investment positively affect financial depth, efficiency and breadth. The contradictory results can be interpreted with financial depth and efficiency in financial development.

Firstly, because the typical ODA flows from donor government to recipient government, the level of financial depth highly depends on whether the recipient government allocates the ODA money efficiently. In addition, as Aid Watch (2013) claimed, officially released data of disbursed ODA does not mean actual flowed amount to recipient countries. Therefore, the possibility to spend the ODA money in donor countries cannot promote the financial development. On the other hand, the remittances and FDI that are directly transferred to commercial banks in developing countries may contribute deepening financial sectors.

Secondly, as described in data, compare to private sectors the government works less efficiently in financial market by providing credit without evaluations or collaterals. This is aligned with predominant perceptions on public sectors. as the remittances and FDI inflows into commercial banks, the banks will be more efficiently channelling or allocating credits, and monitoring projects.

In conclusion, this paper emphasizes the role private flows and commercial banks in financial development. Most of all, the ODA money should be channelled and allocated more efficiently and using private financial intermediaries will be a way to contributes financial development. Additionally, comprehensive investigation and transparent reporting on flow of ODA are required to maximize effectiveness of ODA for better financial system.

Appendices

Appendix 1 List of countries

(Depends on the availability of variables, the number of observed countries for each test is differ)

Low-income economies	Lower-middle-income economies	Upper-middle-income economies
Afghanistan	Albania	Algeria
Bangladesh	Armenia	Angola
Benin	Belize	Antigua and Barbuda
Burkina Faso	Bhutan	Argentina
Burundi	Bolivia	Azerbaijan
Cambodia	Cameroon	Belarus
Central African Republic	Cape Verde	Bosnia and Herzegovina
Chad	Congo, Rep.	Botswana
Comoros	Cote d'Ivoire	Brazil
Congo, Dem. Rep.	Djibouti	Bulgaria
Eritrea	Egypt, Arab Rep.	Chile
Ethiopia	El Salvador	China
Gambia, The	Fiji	Colombia
Guinea	Georgia	Costa Rica
Guinea-Bissau	Ghana	Cuba
Haiti	Guatemala	Dominica
Kenya	Guyana	Dominican Republic
Korea, Dem. Rep.	Honduras	Ecuador
Kyrgyz Republic	India	Gabon
Liberia	Indonesia	Grenada
Madagascar	Iraq	Iran, Islamic Rep.
Malawi	Kiribati	Jamaica
Mali	Kosovo	Jordan
Mozambique	Lao PDR	Kazakhstan
Myanmar	Lesotho	Latvia
Nepal	Marshall Islands	Lebanon
Niger	Mauritania	Libya
Rwanda	Micronesia, Fed. Sts.	Lithuania
Sierra Leone	Moldova	Macedonia, FYR
Somalia	Mongolia	Malaysia
Tajikistan	Morocco	Maldives
Tanzania	Nicaragua	Mauritius
Togo	Nigeria	Mexico
Uganda	Pakistan	Montenegro
Zimbabwe	Papua New Guinea	Namibia
	Paraguay	Palau
	Philippines	Panama
	Samoa	Peru
	Sao Tome and Principe	Romania
	Senegal	Russian Federation
	Solomon Islands	Serbia
	Sri Lanka	Seychelles
	Sudan	South Africa
	Swaziland	St. Lucia
	Syrian Arab Republic	St. Vincent and the Grenadines
	Timor-Leste	Suriname
	Tonga	Thailand
	Ukraine	Tunisia
	Uzbekistan	Turkey
	Vanuatu	Turkmenistan
	Vietnam	Tuvalu
	West Bank and Gaza	Uruguay
	Yemen, Rep.	Venezuela, RB
	Zambia	

Appendix 2 . Summary Statistics of Variables

VARIABLE	OBS	MEAN	STD. DEV.	MIN	MAX
YEAR	1988	2004.5	4.032143	1998	2011
REMITTANCE~P	1596	5.474405	7.767554	.000029	61.9926
TOTAL_ODA~P	1821	.0856555	.1249875	-.0248398	1.471753
FDIGDP	1873	4.642712	6.531708	-16.58887	91.00733
NO_OF_BANK	904	12.41827	12.83166	.2921958	92.68103
NO_OF_ATMS	791	20.17809	21.27836	0	152.9377
PRIVATE CREDIT 1	1630	27.6078	24.07159	.551347	165.8018
PRIVATE CREDIT 2	1626	29.20497	26.22688	.0107454	165.8018
M2GDP	1988	40.97747	33.5649	0	243.94
LIQUIDLIABILITY	1642	40.80206	27.8957	4.129019	220.7701
DOMESTICCR~P	1782	31.08191	27.24119	.7735366	167.536
CREDITTOGO	1703	8.230619	9.751526	.005	73.537
BANKDEPOSI~P	1634	33.33107	24.79358	1.690645	212.9586
TRADEGDP	1836	82.15657	37.34552	.3088029	223.0641
INFLATION	1988	13.12791	105.7937	-32.81	3789.21
BUREAUCRACY QUALITY	1246	1.601525	.8144809	0	3
CORRUPTION	1246	2.14687	.7898059	0	5
DEMOCRATIC	1246	3.512039	1.585405	0	6
ETHNICTENSION	1246	3.748796	1.34265	0	6
EXTERNALCONFLICT	1246	9.649679	1.59903	1.5	12
GOVERNMENT STABILITY	1246	8.746388	1.650814	3	12
INTERNALCONFLICT	1246	8.634029	1.808529	0	12
INVESTMENT PROFILE	1246	7.553371	2.03537	0	11.5
LAW AND ORDER	1246	3.174157	1.093687	.5	6
MILITARY IN POLITICS	1246	3.079053	1.623983	0	6
RELIGIOUS TENSION	1246	4.405698	1.417099	0	6
SOCIOECONOMIC CONDITIONS	1246	4.220305	1.814993	0	10
ICRGPOLITI~L	1246	60.47191	10.2435	22	82.5
WGI_VOICEA~Y	1984	-.3902637	.84261	-2.284278	1.307063
WGI_POLITI~E	1938	-.4087923	.9328858	-3.323905	1.539997
WGI_GOVERN~S	1957	-.5101798	.6352572	-2.450037	1.261179
WGI_REGULA~Y	1956	-.4888852	.7285212	-2.675439	1.53563
WGI_RULEOF~W	1976	-.5115492	.7021046	-2.668873	1.379328
WGI_CONTRO~N	1962	-.500254	.6108439	-1.924046	1.553228

Appendix 3 ODA and ICRG 1984-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIEN CY (1)	EFFICIEN CY (2)	EFFICIEN CY (3)
LN_ODA	-0.0730*** (0.0156)	-0.0677*** (0.0157)	-0.0778*** (0.00932)	-0.0226** (0.0111)	-0.0792*** (0.0136)	-0.118*** (0.0256)	-0.0408*** (0.0117)	-0.0554*** (0.00921)
LN_TRADE	0.0953 (0.0597)	0.137** (0.0598)	0.299*** (0.0340)	0.264*** (0.0427)	0.147*** (0.0484)	0.203** (0.0931)	0.301*** (0.0443)	0.126*** (0.0314)
LN_INFLATIO N	-0.0650*** (0.0121)	-0.0670*** (0.0120)	-0.0224*** (0.00706)	-0.0710*** (0.00828)	-0.0289*** (0.0103)	0.0228 (0.0192)	-0.0765*** (0.00871)	-0.00492 (0.00665)
LN_CORRUPTI ON	0.00947 (0.0494)	0.0350 (0.0492)	-0.0388 (0.0299)	0.0144 (0.0342)	0.0187 (0.0435)	-0.353*** (0.0802)	-0.0110 (0.0357)	-0.0608** (0.0277)
LN_DEMOCRA TICACCOUNT ABILITY	-0.00698 (0.0528)	0.00338 (0.0527)	-0.0212 (0.0305)	0.0320 (0.0364)	-0.0358 (0.0443)	0.192** (0.0846)	0.0707* (0.0382)	0.172*** (0.0300)
LN_LAW&ORD ER	-0.152** (0.0593)	-0.0776 (0.0578)	-0.106*** (0.0342)	-0.108*** (0.0400)	-0.0549 (0.0509)	-0.189** (0.0936)	-0.136*** (0.0420)	0.0231 (0.0330)
LN_MILITARY INPOLITICS	0.00473 (0.0573)	0.00140 (0.0572)	-0.0546 (0.0350)	-0.00262 (0.0394)	-0.0610 (0.0509)	-0.185* (0.0959)	-0.0369 (0.0416)	-0.0831** (0.0338)
LN_INTERNAL CONFLICT	0.106 (0.0681)	0.0910 (0.0679)	-0.0306 (0.0400)	0.00729 (0.0476)	0.0444 (0.0579)	-0.503*** (0.108)	0.101** (0.0499)	-0.0649* (0.0368)
LN_ETHNIC TENSIONS	0.234*** (0.0684)	0.188*** (0.0684)	0.0777* (0.0416)	0.0612 (0.0479)	0.192*** (0.0600)	-0.141 (0.111)	0.188*** (0.0501)	0.0722* (0.0407)
FRLAW	-0.266* (0.159)	-0.288* (0.167)	-0.0970 (0.0884)	-0.0715 (0.140)	-0.282** (0.121)	-0.222 (0.229)	-0.176 (0.145)	0.0353 (0.0697)
INI_LN_PRIVA TE CREDIT	0.511*** (0.0992)							
INI_LN_PRIVA TE CREDIT2		0.558*** (0.102)						
INI_LN_M2			0.560*** (0.0754)					
INI_LN_LIQU ID LIABILITIES				0.519*** (0.102)				
INI_LN_DOME STIC CREDIT					0.659*** (0.0784)			
INI_LN_CREDI T TO GOV'T&						0.436*** (0.0665)		
INI_LN_BANK DEPOSITS							0.477*** (0.0981)	
INI_LN_PRIVA TEVS CENTRAL								0.420*** (0.0704)
CONSTANT	0.773* (0.408)	0.488 (0.421)	0.460 (0.298)	0.750* (0.404)	0.289 (0.326)	1.453*** (0.506)	0.340 (0.376)	1.758*** (0.317)
OBSERVATIO NS	851	856	1,013	837	988	1,007	855	975
NO.OF COUNTRY	47	47	56	46	55	57	47	56

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.

Appendix 4 2 years lagged ODA and ICRG 1984-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIEN CY (1)	EFFICIEN CY (2)	EFFICIEN CY (3)
LAG2_LN_ODA	-0.0959*** (0.0158)	-0.0927*** (0.0159)	-0.0923*** (0.00893)	-0.0371*** (0.0106)	-0.0887*** (0.0136)	-0.167*** (0.0252)	-0.0606*** (0.0117)	-0.0467*** (0.00926)
LN_TRADE	0.0505 (0.0611)	0.0940 (0.0614)	0.329*** (0.0336)	0.295*** (0.0418)	0.125** (0.0501)	0.272*** (0.0949)	0.321*** (0.0451)	0.127*** (0.0331)
LN_INFLATION	-0.0660*** (0.0124)	-0.0695*** (0.0123)	-0.0207*** (0.00686)	-0.0656*** (0.00812)	-0.0304*** (0.0105)	0.0323* (0.0194)	-0.0736*** (0.00893)	-0.00568 (0.00694)
LN_CORRUPTION	0.000638 (0.0492)	0.0304 (0.0492)	-0.0235 (0.0285)	0.0297 (0.0327)	0.00825 (0.0437)	-0.333*** (0.0796)	0.00352 (0.0356)	-0.0683** (0.0285)
LN_DEMOCRATICACCOUNTABILITY	0.0382 (0.0534)	0.0548 (0.0534)	-0.0221 (0.0295)	0.0489 (0.0354)	-0.0140 (0.0452)	0.187** (0.0853)	0.0775** (0.0387)	0.184*** (0.0313)
LN_LAW&ORDER	-0.129** (0.0599)	-0.0390 (0.0582)	-0.0875*** (0.0332)	-0.0902** (0.0387)	-0.0275 (0.0523)	-0.163* (0.0944)	-0.134*** (0.0421)	0.0335 (0.0344)
LN_MILITARYINPOLITICS	-0.00857 (0.0596)	0.00309 (0.0594)	-0.0613* (0.0345)	-0.0502 (0.0392)	-0.0473 (0.0529)	-0.164* (0.0983)	-0.0569 (0.0432)	-0.0929*** (0.0357)
LN_INTERNALCONFLICT	0.102 (0.0688)	0.106 (0.0688)	-0.0229 (0.0392)	-0.00632 (0.0454)	0.0469 (0.0599)	-0.443*** (0.110)	0.0947* (0.0497)	-0.0514 (0.0388)
LN_ETHNICTEENSIONS	0.229*** (0.0687)	0.188*** (0.0688)	0.0940** (0.0401)	0.0893* (0.0458)	0.193*** (0.0609)	-0.0751 (0.112)	0.193*** (0.0502)	0.0719* (0.0418)
FRLAW	-0.286* (0.163)	-0.308* (0.171)	-0.107 (0.0928)	-0.0851 (0.143)	-0.292** (0.127)	-0.271 (0.234)	-0.189 (0.147)	0.0438 (0.0704)
INI_LN_PRIVATE CREDIT	0.493*** (0.102)							
INI_LN_PRIVATE CREDIT2		0.534*** (0.104)						
INI_LN_M2			0.529*** (0.0794)					
INI_LN_LIQUIDLIAILITIES				0.500*** (0.104)				
INI_LN_DOMESTIC CREDIT					0.642*** (0.0821)			
INI_LN_CREDIT TO GOV'T&						0.413*** (0.0682)		
INI_LN_BANKDEPOSITS							0.457*** (0.0995)	
INI_LN_PRIVATECENTRAL								0.425*** (0.0712)
CONSTANT	0.882** (0.420)	0.509 (0.433)	0.338 (0.311)	0.623 (0.409)	0.333 (0.341)	0.757 (0.520)	0.250 (0.380)	1.734*** (0.324)
OBSERVATIONS	812	817	968	799	943	963	817	932
NO.OF COUNTRY	47	47	56	46	55	57	47	56

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 5 Remittances and ICRG 1984-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LN_REMITTANCE	0.00587 (0.0157)	0.0102 (0.0158)	0.0256*** (0.00806)	0.0146 (0.0106)	0.0218* (0.0129)	0.106*** (0.0237)	0.00452 (0.0111)	0.0482*** (0.00751)
LN_TRADE	0.0538 (0.0676)	0.115* (0.0678)	0.346*** (0.0372)	0.285*** (0.0460)	0.116** (0.0576)	0.294*** (0.107)	0.352*** (0.0476)	0.0767** (0.0338)
LN_INFLATION	-0.0756*** (0.0122)	-0.0771*** (0.0122)	-0.0304*** (0.00708)	-0.0717*** (0.00816)	-0.0343*** (0.0110)	-0.00802 (0.0197)	-0.0778*** (0.00856)	-0.0275*** (0.00655)
LN_CORRUPTION	-0.0938* (0.0483)	-0.0620 (0.0484)	-0.115*** (0.0279)	0.0166 (0.0328)	-0.0610 (0.0432)	-0.491*** (0.0773)	-0.0349 (0.0340)	-0.0857*** (0.0257)
LN_DEMOCRATIC ACCOUNTABILITY	0.0222 (0.0541)	0.0226 (0.0543)	-0.00628 (0.0297)	0.0444 (0.0365)	-0.0391 (0.0462)	0.222*** (0.0851)	0.101*** (0.0381)	0.166*** (0.0288)
LN_LAW&ORDER	-0.128** (0.0612)	-0.0488 (0.0599)	-0.0700** (0.0332)	-0.118*** (0.0402)	-0.0226 (0.0529)	-0.00885 (0.0933)	-0.150*** (0.0421)	0.0854*** (0.0315)
LN_MILITARY INPOLITICS	-0.0829 (0.0627)	-0.0728 (0.0627)	-0.0200 (0.0364)	0.0678 (0.0420)	-0.0953* (0.0565)	-0.256** (0.103)	0.0106 (0.0441)	-0.136*** (0.0343)
LN_INTERNAL CONFLICT	0.200*** (0.0686)	0.191*** (0.0688)	0.0872** (0.0401)	0.0358 (0.0464)	0.0923 (0.0622)	-0.213* (0.112)	0.159*** (0.0484)	0.0274 (0.0354)
LN_ETHNIC ENSIONS	0.365*** (0.0699)	0.307*** (0.0698)	0.0892** (0.0404)	0.0259 (0.0470)	0.291*** (0.0625)	0.0446 (0.113)	0.177*** (0.0493)	0.142*** (0.0395)
CONSTANT	2.440*** (0.325)	2.216*** (0.324)	2.219*** (0.184)	2.353*** (0.220)	2.548*** (0.287)	1.326** (0.520)	1.499*** (0.228)	3.738*** (0.160)
OBSERVATIONS	824	830	991	812	948	956	829	941
R-SQUARED	0.114	0.109	0.220	0.211	0.059	0.140	0.267	0.195
NO.OF COUNTRY	47	47	57	46	55	57	47	57

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 6 2 Years lagged Remittances and ICRG 1984-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIEN CY (1)	EFFICIEN CY (2)	EFFICIEN CY (3)
LAG2_LN_REMIT TANCE	-0.0169 (0.0147)	-0.0118 (0.0148)	0.0172** (0.00761)	-0.00416 (0.00955)	0.0140 (0.0125)	0.0951*** (0.0231)	-0.00472 (0.0105)	0.0470*** (0.00707)
LN_TRADE	0.0602 (0.0688)	0.131* (0.0692)	0.398*** (0.0372)	0.337*** (0.0449)	0.129** (0.0593)	0.409*** (0.111)	0.385*** (0.0490)	0.102*** (0.0344)
LN_INFLATION	-0.0749*** (0.0124)	-0.0791*** (0.0124)	-0.0267*** (0.00696)	-0.0667*** (0.00797)	-0.0304*** (0.0112)	-0.00802 (0.0200)	-0.0763*** (0.00879)	-0.0248*** (0.00639)
LN_CORRUPTION	-0.125** (0.0484)	-0.0869* (0.0486)	-0.101*** (0.0274)	0.00553 (0.0315)	-0.0846* (0.0437)	-0.430*** (0.0784)	-0.0440 (0.0345)	-0.0666*** (0.0250)
LN_DEMOCRATIC ACCOUNTABILIT Y	0.0497 (0.0562)	0.0560 (0.0565)	0.0244 (0.0300)	0.0579 (0.0363)	-0.000287 (0.0481)	0.207** (0.0891)	0.104*** (0.0399)	0.153*** (0.0291)
LN_LAW&ORDER	-0.162*** (0.0627)	-0.0615 (0.0611)	-0.0835** (0.0333)	-0.111*** (0.0393)	-0.0346 (0.0549)	-0.0465 (0.0962)	-0.159*** (0.0432)	0.0617** (0.0314)
LN_MILITARY INPOLITICS	-0.131** (0.0652)	-0.0995 (0.0654)	-0.0564 (0.0368)	0.00521 (0.0418)	-0.134** (0.0591)	-0.177 (0.108)	-0.0250 (0.0463)	-0.113*** (0.0345)
LN_INTERNAL CONFLICT	0.215*** (0.0690)	0.222*** (0.0695)	0.0725* (0.0395)	0.0374 (0.0447)	0.115* (0.0631)	-0.305*** (0.114)	0.164*** (0.0491)	0.0115 (0.0349)
LN_ETHNIC ENSIONS	0.369*** (0.0702)	0.318*** (0.0703)	0.101*** (0.0392)	0.0482 (0.0451)	0.287*** (0.0627)	0.0249 (0.113)	0.179*** (0.0500)	0.129*** (0.0382)
CONSTANT	2.469*** (0.331)	2.105*** (0.330)	2.027*** (0.183)	2.165*** (0.214)	2.485*** (0.294)	0.983* (0.536)	1.412*** (0.234)	3.689*** (0.162)
OBSERVATIONS	781	787	936	771	895	903	786	889
R-SQUARED	0.123	0.122	0.242	0.218	0.064	0.144	0.270	0.192
NO.OF COUNTRY	47	47	57	46	55	57	47	57

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 7 FDI and ICRG 1984-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIEN CY (1)	EFFICIEN CY (2)	EFFICIEN CY (3)
LN_FDI	-0.00957 (0.0122)	-0.00683 (0.0118)	0.0105 (0.00710)	0.00911 (0.00824)	-0.00133 (0.0112)	0.0225 (0.0188)	0.0185** (0.00858)	0.0102 (0.00641)
LN_TRADE	0.120* (0.0625)	0.169*** (0.0625)	0.338*** (0.0379)	0.266*** (0.0434)	0.171*** (0.0541)	0.313*** (0.101)	0.295*** (0.0453)	0.0954*** (0.0339)
LN_INFLATION	-0.0715*** (0.0121)	-0.0729*** (0.0121)	-0.0329*** (0.00722)	-0.0737*** (0.00816)	-0.0284*** (0.0107)	0.0226 (0.0195)	-0.0791*** (0.00861)	-0.00877 (0.00682)
LN_CORRUPTION	-0.0809* (0.0476)	-0.0536 (0.0472)	-0.0934*** (0.0295)	-0.00492 (0.0322)	-0.0569 (0.0432)	-0.433*** (0.0790)	-0.0387 (0.0338)	-0.0898*** (0.0274)
LN_DEMOCRATIC ACCOUNTABILITY	-0.0161 (0.0530)	-0.00892 (0.0528)	-0.0427 (0.0312)	0.00498 (0.0360)	-0.0507 (0.0457)	0.157* (0.0860)	0.0489 (0.0378)	0.175*** (0.0307)
LN_LAW&ORDER	-0.141** (0.0589)	-0.0656 (0.0572)	-0.0998*** (0.0349)	-0.107*** (0.0389)	-0.0336 (0.0520)	-0.213** (0.0935)	-0.137*** (0.0410)	0.0298 (0.0333)
LN_MILITARY INPOLITICS	0.0329 (0.0566)	0.0274 (0.0563)	-0.0488 (0.0354)	0.0311 (0.0381)	-0.0484 (0.0516)	-0.188** (0.0955)	-0.00866 (0.0404)	-0.0938*** (0.0343)
LN_INTERNAL CONFLICT	0.241*** (0.0697)	0.233*** (0.0694)	0.0944** (0.0435)	0.0634 (0.0472)	0.123* (0.0635)	-0.228* (0.117)	0.166*** (0.0496)	-0.0183 (0.0391)
LN_ETHNIC TENSIONS	0.239*** (0.0651)	0.195*** (0.0647)	0.102** (0.0408)	0.0457 (0.0442)	0.211*** (0.0593)	-0.0574 (0.108)	0.172*** (0.0467)	0.0655* (0.0394)
FRLAW	-0.197 (0.165)	-0.223 (0.174)	-0.0162 (0.101)	-0.0453 (0.139)	-0.228* (0.137)	-0.0563 (0.249)	-0.128 (0.146)	0.0498 (0.0742)
INI_LN_PRIVATE CREDIT	0.543*** (0.103)							
INI_LN_PRIVATE CREDIT2		0.588*** (0.106)						
INI_LN_M2			0.579*** (0.0876)					
INI_LN_LIQUID LIABILITIES				0.513*** (0.101)				
INI_LN_DOMEST IC CREDIT					0.746*** (0.0869)			
INI_LN_CREDIT TO GOV'T&						0.447*** (0.0732)		
INI_LN_BANKDE POSITS							0.509*** (0.0983)	
INI_LN_PRIVATE VSCENTRAL								0.496*** (0.0755)
CONSTANT	0.614 (0.426)	0.265 (0.439)	0.281 (0.347)	0.754* (0.402)	0.0703 (0.371)	0.781 (0.562)	0.315 (0.378)	1.726*** (0.343)
OBSERVATIONS	827	833	1,007	815	962	974	832	964
NO.OF COUNTRY	47	47	57	46	55	57	47	57

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 8 2 Years lagged FDI and ICRG 1984-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIEN CY (1)	EFFICIEN CY (2)	EFFICIEN CY (3)
LAG2_LN_FDI	0.0148 (0.0120)	0.0219* (0.0118)	0.0142** (0.00664)	0.0199** (0.00790)	0.0177* (0.0106)	0.0408** (0.0176)	0.0325*** (0.00854)	0.0134** (0.00602)
LN_TRADE	0.0658 (0.0644)	0.110* (0.0645)	0.347*** (0.0369)	0.294*** (0.0433)	0.134** (0.0538)	0.318*** (0.0990)	0.314*** (0.0473)	0.152*** (0.0345)
LN_INFLATION	-0.0706*** (0.0126)	-0.0731*** (0.0126)	-0.0268*** (0.00729)	-0.0644*** (0.00822)	-0.0337*** (0.0109)	0.0177 (0.0198)	-0.0733*** (0.00908)	-0.00535 (0.00704)
LN_CORRUPTION	-0.0869* (0.0489)	-0.0442 (0.0488)	-0.0915*** (0.0294)	0.00305 (0.0322)	-0.0488 (0.0435)	-0.433*** (0.0792)	-0.0308 (0.0353)	-0.0845*** (0.0278)
LN_DEMOCRATI CACCOUNTABI TY	-0.00404 (0.0561)	0.0114 (0.0559)	-0.0339 (0.0318)	0.00858 (0.0368)	-0.0529 (0.0474)	0.103 (0.0882)	0.0390 (0.0405)	0.170*** (0.0318)
LN_LAW&ORDER	-0.175*** (0.0607)	-0.0865 (0.0588)	-0.104*** (0.0349)	-0.104*** (0.0386)	-0.0723 (0.0532)	-0.214** (0.0942)	-0.158*** (0.0426)	0.0369 (0.0338)
LN_MILITARY INPOLITICS	-0.0276 (0.0601)	-0.0149 (0.0599)	-0.0718** (0.0361)	-0.0338 (0.0392)	-0.0633 (0.0535)	-0.159 (0.0980)	-0.0529 (0.0435)	-0.117*** (0.0355)
LN_INTERNAL CONFLICT	0.254*** (0.0717)	0.255*** (0.0715)	0.00145 (0.0421)	0.0365 (0.0470)	0.118* (0.0626)	-0.372*** (0.114)	0.152*** (0.0517)	-0.0394 (0.0397)
LN_ETHNIC ENSIONS	0.252*** (0.0677)	0.205*** (0.0677)	0.121*** (0.0410)	0.0967** (0.0446)	0.205*** (0.0607)	-0.0398 (0.109)	0.208*** (0.0492)	0.0867** (0.0402)
FRLAW	-0.207 (0.172)	-0.234 (0.181)	-0.00736 (0.102)	-0.0431 (0.143)	-0.235* (0.141)	-0.0492 (0.252)	-0.125 (0.149)	0.0401 (0.0751)
INI_LN_PRIVATE CREDIT	0.558*** (0.107)							
INI_LN_PRIVATE CREDIT2		0.604*** (0.110)						
INI_LN_M2			0.573*** (0.0886)					
INI_LN_LIQUID LIABILITIES				0.517*** (0.104)				
INI_LN_DOMESTI C CREDIT					0.737*** (0.0897)			
INI_LN_CREDIT TO GOV'T&						0.448*** (0.0740)		
INI_LN_BANKDE POSITS							0.520*** (0.101)	
INI_LN_PRIVATE VSCENTRAL								0.493*** (0.0763)
CONSTANT	0.835* (0.442)	0.426 (0.456)	0.451 (0.347)	0.658 (0.412)	0.336 (0.374)	1.108** (0.544)	0.254 (0.390)	1.543*** (0.348)
OBSERVATIONS	780	785	950	769	906	921	785	911
NO.OF COUNTRY	47	47	57	46	55	57	47	57

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 9 2 years lagged ODA and ICRG 1998-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LAG2_LN_ODA	-0.140***	-0.135***	-0.0520***	-0.0437***	-0.104***	-0.0425	-0.0763***	-0.0154
	(0.0238)	(0.0235)	(0.0128)	(0.0137)	(0.0219)	(0.0301)	(0.0152)	(0.0138)
LN_TRADE	0.291***	0.301***	0.332***	0.156***	0.426***	-0.117	0.237***	0.109**
	(0.100)	(0.0992)	(0.0504)	(0.0577)	(0.0865)	(0.119)	(0.0640)	(0.0530)
LN_INFLATION	-0.0527**	-0.0482**	-0.0303***	-0.0253**	-0.0431**	0.0222	-0.0362***	0.00110
	(0.0206)	(0.0204)	(0.0104)	(0.0119)	(0.0178)	(0.0246)	(0.0131)	(0.0109)
LN_CORRUPTION	-0.00904	0.00784	-0.101***	0.0143	-0.0413	-0.213***	-0.0218	-0.00521
	(0.0683)	(0.0677)	(0.0349)	(0.0394)	(0.0598)	(0.0821)	(0.0436)	(0.0365)
LN_DEMOCRATIC ACCOUNTABILITY	0.107	0.108	-0.0459	0.0845*	0.0339	-0.00743	0.0504	0.0384
	(0.0866)	(0.0858)	(0.0458)	(0.0499)	(0.0785)	(0.108)	(0.0553)	(0.0477)
LN_LAW & ORDER	0.0112	0.0293	-0.127**	-0.105	0.0403	-0.181	-0.0596	0.0107
	(0.116)	(0.115)	(0.0626)	(0.0666)	(0.107)	(0.147)	(0.0738)	(0.0670)
LN_MILITARY IN POLITICS	0.0582	0.0880	-0.173***	-0.00290	0.0162	0.0433	0.0290	-0.0215
	(0.119)	(0.118)	(0.0478)	(0.0685)	(0.0820)	(0.113)	(0.0758)	(0.0501)
LN_INTERNAL CONFLICT	0.112	0.0858	0.291***	0.0904	0.237*	-0.106	0.140	0.0948
	(0.155)	(0.153)	(0.0796)	(0.0892)	(0.137)	(0.187)	(0.0988)	(0.0830)
LN_ETHNIC TENSIONS	-0.102	-0.102	-0.0487	-0.139**	-0.0258	-0.201	-0.0793	0.136**
	(0.105)	(0.104)	(0.0560)	(0.0607)	(0.0959)	(0.132)	(0.0673)	(0.0590)
CONSTANT	1.044*	1.047*	2.032***	2.735***	0.509	2.816***	1.863***	3.428***
	(0.581)	(0.576)	(0.296)	(0.335)	(0.507)	(0.697)	(0.371)	(0.313)
OBSERVATIONS	570	570	635	570	635	634	570	603
R-SQUARED	0.089	0.087	0.170	0.063	0.087	0.029	0.089	0.027
NUMBER OF COUNTRYCODE	63	63	70	63	70	70	63	68

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Appendix 10 2 years lagged Reimttances and ICRG 1998-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LAG2_LN_REMITTANCES	0.0981***	0.0985***	0.0438***	0.0520***	0.103***	0.0405*	0.0771***	0.0181**
	(0.0187)	(0.0187)	(0.00879)	(0.00963)	(0.0168)	(0.0212)	(0.0111)	(0.00906)
LN_TRADE	0.396***	0.408***	0.322***	0.189***	0.518***	-0.0953	0.259***	0.0605
	(0.110)	(0.110)	(0.0497)	(0.0566)	(0.0949)	(0.120)	(0.0650)	(0.0513)
LN_INFLATION	-0.0394*	-0.0364*	-0.0261***	-0.0216**	-0.0399**	0.00369	-0.0308**	0.00507
	(0.0208)	(0.0209)	(0.00947)	(0.0107)	(0.0181)	(0.0230)	(0.0123)	(0.00989)
LN_CORRUPTION	-0.0270	-0.00353	-0.0725**	-0.00787	-0.00682	-0.198**	-0.0292	0.00370
	(0.0728)	(0.0729)	(0.0334)	(0.0377)	(0.0638)	(0.0805)	(0.0433)	(0.0340)
LN_DEMOCRATICACOUNTABILITY	0.0212	0.0392	0.000769	-0.0148	0.0975	-0.0393	-0.0165	0.0864*
	(0.0969)	(0.0971)	(0.0457)	(0.0502)	(0.0873)	(0.110)	(0.0576)	(0.0464)
LN_LAW&ORDER	-0.0435	-0.0382	-0.148**	-0.126**	-0.102	-0.125	-0.115	-0.0580
	(0.120)	(0.120)	(0.0578)	(0.0615)	(0.111)	(0.139)	(0.0706)	(0.0610)
LN_MILITARYINPOLITICS	-0.107	-0.0996	-0.190***	-0.0341	-0.0471	0.0209	-0.0361	-0.0270
	(0.123)	(0.123)	(0.0452)	(0.0635)	(0.0863)	(0.109)	(0.0729)	(0.0461)
LN_INTERNALCONFLICT	0.308*	0.276*	0.261***	0.126	0.242	-0.118	0.171*	0.103
	(0.167)	(0.167)	(0.0773)	(0.0864)	(0.148)	(0.187)	(0.0992)	(0.0791)
LN_ETHNIC TENSIONS	-0.0958	-0.115	-0.0420	-0.0650	-0.0641	-0.120	-0.0427	0.121**
	(0.103)	(0.103)	(0.0492)	(0.0531)	(0.0940)	(0.119)	(0.0610)	(0.0508)
CONSTANT	1.131*	1.159*	2.311***	2.805***	0.717	2.839***	2.184***	3.713***
	(0.622)	(0.623)	(0.286)	(0.322)	(0.547)	(0.691)	(0.369)	(0.295)
OBSERVATIONS	604	604	673	610	673	672	610	628
R-SQUARED	0.102	0.102	0.199	0.113	0.144	0.023	0.155	0.042
NUMBER OF COUNTRYCODE	67	67	74	67	74	74	67	72

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 11 2 years lagged FDI and ICRG 1998-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LAG2_LN_FDI	0.0944***	0.0867***	0.0268***	0.0284***	0.0715***	0.0315	0.0433***	0.0175**
	(0.0190)	(0.0190)	(0.00861)	(0.00975)	(0.0164)	(0.0202)	(0.0112)	(0.00855)
LN_TRADE	0.301***	0.317***	0.319***	0.178***	0.461***	-0.106	0.254***	0.0732
	(0.112)	(0.112)	(0.0511)	(0.0588)	(0.0971)	(0.120)	(0.0677)	(0.0510)
LN_INFLATION	-0.0425*	-0.0391*	-0.0256**	-0.0232**	-0.0343*	-0.000863	-0.0324**	0.00663
	(0.0217)	(0.0218)	(0.0100)	(0.0114)	(0.0190)	(0.0236)	(0.0132)	(0.0101)
LN_CORRUPTION	-0.0539	-0.0310	-0.0911***	-0.0221	-0.0465	-0.222***	-0.0504	0.0134
	(0.0760)	(0.0763)	(0.0352)	(0.0403)	(0.0669)	(0.0825)	(0.0464)	(0.0347)
LN_DEMOCRATICACCOUNTABILITY	0.0235	0.0433	0.00179	0.0102	0.0967	-0.0297	0.00466	0.0870*
	(0.0996)	(0.100)	(0.0477)	(0.0528)	(0.0907)	(0.112)	(0.0609)	(0.0468)
LN_LAW&ORDER	-0.112	-0.106	-0.151**	-0.161**	-0.128	-0.188	-0.156**	-0.0250
	(0.125)	(0.126)	(0.0610)	(0.0656)	(0.116)	(0.143)	(0.0756)	(0.0622)
LN_MILITARYINPOLITICS	0.0255	0.0276	-0.167***	0.00573	0.0288	0.0264	0.0200	-0.00811
	(0.128)	(0.129)	(0.0484)	(0.0680)	(0.0920)	(0.114)	(0.0783)	(0.0479)
LN_INTERNALCONFLICT	0.417**	0.385**	0.339***	0.192**	0.381**	-0.0683	0.272***	0.0942
	(0.171)	(0.172)	(0.0801)	(0.0907)	(0.152)	(0.188)	(0.104)	(0.0788)
LN_ETHNIC TENSIONS	-0.0722	-0.0966	-0.0477	-0.0669	-0.0509	-0.0966	-0.0397	0.104**
	(0.109)	(0.110)	(0.0532)	(0.0580)	(0.101)	(0.125)	(0.0669)	(0.0530)
CONSTANT	1.149*	1.176*	2.129***	2.667***	0.562	2.794***	1.940***	3.616***
	(0.631)	(0.634)	(0.293)	(0.334)	(0.557)	(0.687)	(0.385)	(0.292)
OBSERVATIONS	614	614	685	619	685	684	619	642
R-SQUARED	0.081	0.074	0.157	0.067	0.094	0.023	0.087	0.033
NUMBER OF COUNTRYCODE	68	68	75	68	75	75	68	73

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 12 2 years lagged ODA and WGI 1998-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LAG2_LN_ODA	-0.150*** (0.0214)	-0.0973*** (0.0267)	-0.0568*** (0.0113)	-0.0617*** (0.0137)	-0.127*** (0.0181)	-0.110*** (0.0311)	-0.0621*** (0.0135)	-0.00912 (0.0112)
LN_TRADE	0.377*** (0.0768)	0.134 (0.0967)	0.288*** (0.0376)	0.317*** (0.0493)	0.331*** (0.0602)	-0.173 (0.105)	0.297*** (0.0488)	0.159*** (0.0364)
LN_INFLATION	-0.0166 (0.0148)	-0.0148 (0.0185)	-0.0171** (0.00754)	-0.0184* (0.00955)	-0.00606 (0.0121)	-0.0182 (0.0210)	-0.0254*** (0.00934)	0.00833 (0.00732)
WGI_VOICENACCOUNTABILITY	0.0829 (0.0704)	-0.0131 (0.0891)	0.0496 (0.0337)	0.102** (0.0452)	0.162*** (0.0543)	0.300*** (0.0939)	0.0176 (0.0449)	0.0866*** (0.0332)
WGI_POLITICALSTABILITYANDABSENCE	0.0680 (0.0427)	0.00135 (0.0538)	0.0317 (0.0209)	0.00713 (0.0274)	0.0440 (0.0335)	-0.247*** (0.0584)	-0.00771 (0.0271)	0.111*** (0.0202)
WGI_GVERNMENTEFFECTIVENESS	-0.0667 (0.0906)	0.0467 (0.118)	0.0999** (0.0471)	-0.0838 (0.0582)	0.0370 (0.0756)	-0.248* (0.131)	0.0378 (0.0597)	-0.0425 (0.0471)
WGI_REGULATORYQUALITY	0.0775 (0.0723)	0.244*** (0.0930)	-0.0421 (0.0371)	-0.0119 (0.0464)	0.0550 (0.0593)	0.217** (0.105)	0.0993** (0.0468)	0.0906** (0.0365)
WGI_RULEOFLAW	0.266*** (0.0870)	0.257** (0.109)	0.159*** (0.0460)	0.211*** (0.0560)	0.181** (0.0742)	0.312** (0.129)	0.198*** (0.0551)	0.0353 (0.0455)
WGI_CONTROLOF CORRUPTION	0.122* (0.0710)	-0.0652 (0.0898)	-0.0554 (0.0367)	0.0467 (0.0456)	0.0173 (0.0588)	-0.262** (0.102)	-0.0503 (0.0453)	-0.00620 (0.0361)
CONSTANT	1.112*** (0.350)	2.344*** (0.441)	2.351*** (0.174)	2.102*** (0.224)	1.463*** (0.278)	1.912*** (0.484)	1.953*** (0.223)	3.734*** (0.168)
OBSERVATIONS	1,011	1,001	1,209	1,007	1,203	1,181	999	1,140
R-SQUARED	0.117	0.050	0.107	0.101	0.106	0.047	0.107	0.094
NUMBER OF COUNTRYCODE	99	98	118	98	117	115	98	113

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 13 2 years lagged Remittances and WGI 1998-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LAG2_LN_REMITTANCES	0.0687*** (0.0130)	0.0789*** (0.0172)	0.0379*** (0.00708)	0.0308*** (0.00771)	0.0772*** (0.0123)	0.0507*** (0.0191)	0.0496*** (0.00868)	0.0138** (0.00615)
LN_TRADE	0.363*** (0.0815)	0.228** (0.107)	0.310*** (0.0420)	0.201*** (0.0481)	0.412*** (0.0731)	-0.127 (0.112)	0.254*** (0.0542)	0.177*** (0.0368)
LN_INFLATION	-0.0165 (0.0144)	-0.0161 (0.0191)	-0.0194*** (0.00739)	-0.0164* (0.00858)	-0.00824 (0.0129)	0.000416 (0.0199)	-0.0209** (0.00963)	0.00791 (0.00655)
WGI_VOICOUNTABILITY	-0.0406 (0.0689)	-0.0430 (0.0910)	-0.0387 (0.0338)	-0.0179 (0.0410)	0.0674 (0.0592)	0.275*** (0.0902)	-0.0341 (0.0461)	0.0738** (0.0299)
WGI_POLITICALSTABILITYANDABSENCE	0.0558 (0.0418)	0.0338 (0.0551)	0.0276 (0.0211)	-0.00452 (0.0248)	0.0436 (0.0368)	-0.302*** (0.0562)	0.00507 (0.0279)	0.0756*** (0.0183)
WGI_GVERNMENTEFFECTIVENESS	-0.0157 (0.0881)	-0.0390 (0.117)	0.0607 (0.0474)	0.0250 (0.0524)	0.0244 (0.0826)	-0.226* (0.127)	0.0171 (0.0593)	0.0215 (0.0420)
WGI_REGULATORQUALITY	0.302*** (0.0689)	0.274*** (0.0913)	-0.0119 (0.0364)	0.0687* (0.0408)	0.184*** (0.0634)	0.124 (0.0980)	0.122*** (0.0461)	0.0989*** (0.0319)
WGI_RULEOFLAW	0.375*** (0.0827)	0.385*** (0.109)	0.194*** (0.0442)	0.219*** (0.0491)	0.303*** (0.0776)	0.283** (0.120)	0.267*** (0.0551)	0.0693* (0.0398)
WGI_CONTROLOFCORRUPTION	0.0259 (0.0695)	0.00795 (0.0918)	-0.0455 (0.0363)	-0.0498 (0.0412)	0.00168 (0.0632)	-0.251*** (0.0966)	-0.0711 (0.0464)	-0.0496 (0.0321)
CONSTANT	1.799*** (0.349)	2.367*** (0.461)	2.451*** (0.181)	2.824*** (0.207)	1.644*** (0.315)	2.060*** (0.483)	2.373*** (0.232)	3.701*** (0.159)
OBSERVATIONS	1,006	1,004	1,177	1,008	1,171	1,157	1,008	1,102
R-SQUARED	0.144	0.076	0.111	0.083	0.125	0.054	0.119	0.097
NUMBER OF COUNTRYCODE	101	100	118	100	117	117	100	113

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

Appendix 14 2 years lagged FDI and WGI 1998-2011

VARIABLES	DEPTH (1)	DEPTH (2)	DEPTH (3)	DEPTH (4)	DEPTH (5)	EFFICIENCY (1)	EFFICIENCY (2)	EFFICIENCY (3)
LAG2_LN_FDI_GDP	0.0681*** (0.0124)	0.0609*** (0.0158)	0.0277*** (0.00621)	0.0252*** (0.00729)	0.0586*** (0.0106)	0.00843 (0.0168)	0.0335*** (0.00790)	0.0310*** (0.00585)
LN_TRADE	0.223*** (0.0787)	0.0957 (0.100)	0.244*** (0.0385)	0.219*** (0.0468)	0.294*** (0.0656)	-0.167 (0.104)	0.253*** (0.0506)	0.118*** (0.0358)
LN_INFLATION	-0.0118 (0.0147)	-0.00862 (0.0187)	-0.0123* (0.00739)	-0.0190** (0.00880)	0.00183 (0.0127)	-0.0125 (0.0201)	-0.0218** (0.00947)	0.00996 (0.00689)
WGI_VOIC EANDACC OUNTABILITY	-0.0361 (0.0708)	-0.0831 (0.0910)	0.00792 (0.0338)	0.0288 (0.0423)	0.0474 (0.0580)	0.339*** (0.0913)	-0.00989 (0.0461)	0.0867*** (0.0317)
WGI_POLI TICALSTA BILITYAN DABSENCE	0.0939** (0.0433)	0.0260 (0.0554)	0.0589*** (0.0214)	0.0320 (0.0258)	0.0590 (0.0364)	-0.243*** (0.0575)	0.0286 (0.0281)	0.111*** (0.0197)
WGI_GOVE RNMENTE FFECTIVE NESS	-0.0751 (0.0916)	-0.0709 (0.120)	0.0728 (0.0472)	-0.0208 (0.0548)	0.00661 (0.0804)	-0.286** (0.127)	0.00346 (0.0609)	-0.0241 (0.0448)
WGI_REGU LATORYQ UALITY	0.303*** (0.0726)	0.404*** (0.0940)	-0.0245 (0.0363)	0.0724* (0.0433)	0.186*** (0.0639)	0.256** (0.102)	0.148*** (0.0476)	0.0622* (0.0341)
WGI_RULE OFLAW	0.285*** (0.0877)	0.346*** (0.112)	0.199*** (0.0457)	0.217*** (0.0524)	0.229*** (0.0790)	0.358*** (0.126)	0.262*** (0.0567)	0.0349 (0.0435)
WGI_CONT ROLOFCO RRUPTION	0.0648 (0.0734)	-0.0620 (0.0940)	-0.0510 (0.0374)	-0.00801 (0.0438)	0.00438 (0.0638)	-0.321*** (0.101)	-0.0593 (0.0476)	-0.00499 (0.0352)
CONSTANT	2.322*** (0.340)	2.859*** (0.434)	2.723*** (0.168)	2.750*** (0.202)	2.065*** (0.286)	2.286*** (0.453)	2.367*** (0.219)	3.912*** (0.156)
OBSERVATIONS	1,040	1,033	1,244	1,041	1,234	1,213	1,036	1,171
R-SQUARED	0.126	0.076	0.118	0.101	0.115	0.047	0.128	0.120
NO. OF COUNTRY	104	103	123	103	122	120	103	118

Standard errors in parentheses,

*** p<0.01, ** p<0.05, * p<0.1

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