

1. Effects of Human Capital Development on Bank deposits

1.1. Abstract

In this paper, I investigate the effects of human capital development on bank deposits by employing 2SLS and two-step difference and system GMM model in a cross-country setup. In human capital development, I include the government, public and private contribution to healthcare system as a measure of healthcare development and also use education index as a proxy for the education level of the country. The results show a positive relationship healthcare development and bank deposits. In high-income countries, a contribution from public and private sector to healthcare incentivize households for saving. On the other hand, in low & middle-income countries, the government expenditure on healthcare has a greater impact on bank deposits. Two dependent variables: deposit to GDP ratio and value of total deposit (USD) have been employed. The impact of healthcare on total bank deposits of the country is higher than bank deposits to GDP ratio. This suggests that improvement in healthcare system, increases the income of households and a proportion of that increased income goes into the banking system. Results show that education has a positive impact on bank deposits. This relationship is more prominent in high-income countries but not in low & middle-income countries.

1.2. Introduction

It is estimated that around 530,000 families file for bankruptcy every year in the US due to heavy medical expenditures (Konish, 2019). These medical expenditures arise due to sudden health shocks in the family, and in most cases households are not prepared financially for such events (Fisher & Montalto, 2011). The intensity of health shocks is severe when the main breadwinner falls sick (Naraya, Patel, Schafft, Rademacher, & Koch-Schulte, 2000; Sun & Yao, 2010). This causes loss of income and savings to households. To combat health shocks and uncertain medical expenditures, households save money in good times (Deaton, 1989; Jappelli, Pistaferri, & Weber, 2007); this is called precautionary savings. Precautionary savings depend on the income level of the household. A high-income earner can save relatively more than a middle-income earner. However, households with lower income may not have enough funds to, even, meet their regular expenditure. Hence, it is difficult for such people to save money for rainy days.

To address this issue faced by lower income households, many countries offer government sponsored healthcare system or promote public and/or private health insurance schemes. These measures assist households to cover uncertain medical expenditures. Households are also then able to reduce the proportion of precautionary savings, thus allowing for consumption or other savings for retirement, and/or lifestyle savings. A better and accessible healthcare system increases life expectancy, which further changes the motivation, as savings for retirement which may even become a priority. Changes in households' financial situation and motivations effect financial decision-making and their usage of the financial system. Among the participants within the financial system, the banks are often the first point of contact for households. Thus, a study that evaluates the impact of healthcare system on bank deposits taking into account the economic development level of the country is helpful for making policy decisions.

In the human capital literature, the role of education and health is often highlighted as the factors affecting economic growth. Education increases the skillset and productivity, and good health provides an opportunity to reap the benefits of those skillset and productivity are a long period. Contrary to health shocks, education encourages households to save by helping them understand and assess more sophisticated financial products and financial systems. Most studies have shown that education is one of the important determinants of using a formal financial system (Demirguc-Kunt & Klapper, 2012; Zins & Weill, 2016). Moreover, the role of education and financial literacy in portfolio allocation behavior has been explored extensively in portfolio management and savings literature (Lusardi & Mitchell, 2007; Lusardi & Mitchell, 2007; Van Rooij, Lusardi, & Alessie, 2011). The portfolio allocation behavior of households eventually influences the financial system of the country. To the best of my knowledge the research investigating the effects of education on bank deposits is limited.

The aim of this paper is to understand the influence of human capital development on the financial development of a country. This study has several policy implications. One is that the development of a healthcare system can improve work-life endurance, lifespan and cognitive abilities of households, which, in turn, increase the income level and thereby increase bank deposits. Governments of low & middle-income countries should be cautious while using the option of public and private contributions for the healthcare system. These contributions reduce the disposable income of households, decreasing the usage of the banking system. The results show that education allows households to use the benefits of good health by increasing the skillsets and cognitive abilities. It facilitates households to understand the financial products. They use deposit products for transaction and saving purposes thus increasing bank deposits. To accomplish this aim, I conduct tests employing 2SLS and GMM methods on the panel data of 70 countries including high-income and low & middle-income countries.

This paper forms part of the health economics literature studying the effects the health shocks on income and savings of households (Genoni, 2012; Wagstaff, 2007). It extends the work of Jappelli et al. (2007) who studied the impact of the quality of healthcare systems on income inequality in Italy. They conducted their study at the district level and found that districts which have a lower quality of healthcare system have increased income inequality and have tended to increase the precautionary savings in those districts. This paper examines the impact of the healthcare system on the financial system especially in the banking system. This study also explores the relationship between the household incomes and the healthcare system. Moreover, this study further contributes to the human capital and financial development literature by studying the effect of education on bank deposits.

The main findings of the research are as follows: Public expenditure on improving the healthcare system improves the income level of households, which translates into bank deposits. This result is consistent across regions and the incomes levels of the countries studied. However, the impact of the healthcare system is more prominent in market-driven and high financial inclusion countries. The results also show that education plays a key role in increasing the usage of the banking system, primarily in high-income countries. The results show that the good governance in countries encourages households to use the banking system, especially in countries with better regulatory qualities and less corruption.

The rest of the paper is organized as follows: section 2.2 presents the prior literature related to health shocks, education, and savings. Section 2.3 discusses data collection, econometric methodologies and primary investigations. Section 2.4 and 2.5 comprises the discussion and analysis of the main findings. Section 2.6 presents the validation of the findings by employing different control variables and section 2.7 provides the conclusion.

1.3. Existing Literature

The literature on human capital and economic development discusses the effect of the health and education status of households on economic growth. In this section, first the existing literature on the relationship between health shocks and economic and financial development has been presented. Later part of section discusses the role of education on the banking system.

Good health helps households by improving their productivity and earning capacity. Generally, a healthy person lives longer and can take more risks to earn income. Several studies show a positive relationship between income and health status (Deaton, 2003; Pickett & Wilkinson, 2015; Preston, 1980; Pritchett & Summers, 1993; Strauss & Thomas, 1998). Two types of income impact on health have been observed: one is direct, with income allowing households to access better medical facilities as and when needed, and the second are the indirect effects. Income growth allows governments and households to attain a healthy environment such as access to water, proper sanitation, and healthy lifestyle, which improves life expectancy (Marmot, 2002).

On the other hand, some economists show a reverse causal relationship between health and income (Arora, 2001; Bloom & Canning, 2000). They state that health increases the productivity, clarity of thought, life expectancy and other factors improving earnings and therefore bank deposits (Well, 2007). Some economists believe that today's health is a function of various factors such as current and previous income, environment, education, and medical care (Deaton, 2003; Grossman, 1972). Case et al. (2002) studied the effect of economic status on the health status of children. They found that children from lower income households reach adulthood in poorer health conditions. Hence, literature showed two-way relationship between health and income.

Income is used for consumption and savings. The consumption and savings of households depend on education, health status, and other macroeconomic factors. Poor health conditions affect savings in two ways: (i) it increases immediate consumption in terms of medical expenditure, hence, reducing savings. (ii) it increases the proportion of safe assets in the portfolio due to risk aversion needs. The study of health status and its impact on portfolio allocation is relatively new.

According to the life-cycle hypothesis, portfolio managers advise investors to increase the proportion of safe assets in their portfolio, as their customers' age increases (Basu & Drew, 2009; Bikker, Broeders, Hollanders, & Ponds, 2012; Campbell, Viceira, & Viceira, 2002). One of the main reasons for such advice is the perception of risk that ageing deteriorates health conditions, which may increase medical expenditure (Edwards, 2008). Similarly, Rosen and Wu (2004) found that poor health conditions incentivize investors to decrease the proportion of risky assets. Yogo (2016) reported a negative relationship between the ratios of out of pocket health expenditure to income and the health status of the household. Fan and Zhao (2009) stated that a health shock causes households to increase their proportion of safe assets, such as bonds, bank deposit products, and treasury bills. Rosen and Wu (2004) found that health shocks also decrease investment in bonds, retirement accounts, and stocks to smoothen consumption.

Households use multiple ways to meet their expenses such as withdrawing savings, insurance, availing themselves of credit facilities, and selling assets. Wagstaff (2007) found that poor households in Vietnam rely on dissaving and informal credit to cover their medical expenditures. Wagstaff and Lindelow (2010) obtained similar results in Laos. On the other hand, Genoni (2012) reported an insignificant relationship between health shocks and dissaving in Indonesia. However, according to the survey conducted by Lusardi, Schneider, and Tufano (2011) 62 percent of households in the USA prefer using savings accounts (including retirement investments and investments with a withdrawal facility after charging a penalty) to

cover unexpected expenditures. In a recent study in India, Pradhan and Mukherjee (2018) reported a positive relationship between dissaving and health shocks.

Households saving decisions depends on health insurance and the healthcare system of the country. If a country has a comprehensive public health insurance, it reduces the financial damage arising due to health shocks, thereby discouraging households' precautionary savings (Cheung & Padieu, 2015; Hsu, 2013; Starr-McCluer, 1996). The same results are obtained via using government healthcare system (Jappelli et al., 2007). The reduction in precautionary savings increases the surplus fund. A robust healthcare system provides improved medical facilities, which increases households' capability and life span. This increased life span and capability improve households' income, which they manage through a banking system either for consumption or for savings. This paper investigates the effects of health shocks on bank deposits at the macro level.

In the last few decades, the importance of financial education on households' financial decision-making have been widely explored (Bernheim, Garrett, & Maki, 2001; Cole, Sampson, & Zia, 2011; Lusardi & Mitchell, 2007). Lusardi and Mitchell (2007) reported that financial illiteracy is one of the main reasons for lack of retirement savings. Furthermore, according to the Lusardi et al. (2011) households' financial fragility survey in the USA, less educated households were more severely prone to financial difficulties. The study shows that financial literacy enhances households' skill sets in the optimal allocation of funds in high yield assets (Lusardi & Mitchell, 2011). Van Rooij et al. (2011) reported that around 23.8 percent of households hold stocks in the Netherlands. This percentage of stock ownership increases with education and financial literacy. Hence, education enables households to understand and analyze financial products and use them according to their needs and desires.

To operate a bank account, one needs to be educated enough to at least read and write. Although bank employees generally help people who face difficulties due to their limited literacy in filling in forms for the deposits and withdrawals, they feel embarrassed and thus avoid such situations. Education gives confidence to households to operate a bank account. Hogarth, Anguelov, and Lee (2005) stated that, amongst unbanked households, the proportion of less educated people were high. Demirguc-Kunt and Klapper (2012) showed education is one of the important factors in using the banking system. They found that people with higher education in developing and emerging economies are two times more likely to have formal accounts than the people with only primary education. According to the Cole et al. (2011) survey in Indonesia, the second most cited reason for people being unbanked is lack of knowledge of using a bank account. Hence, financial education helps households to understand sophisticated financial products and increases the usage of such products (Calvet, Campbell, & Sodini, 2007; Hilgert, Hogarth, & Beverly, 2003).

Several studies show that financial literacy is based on the cognitive abilities of households (Hogarth et al., 2005). Hence, they used education as a proxy for the financial literacy. Most researchers reported a strong positive relationship between education and cognitive abilities. Sekita (2011) stated that people with higher education are more likely to be financially literate. Data related to financial literacy is not available for the selected countries; therefore, the education index (UNDP) has been employed as a proxy for the cognitive abilities of households in this paper.

1.4. Data Collection and Methodology

I have collected data for bank deposit to GDP, stock traded value to GDP, commercial bank branching, inflation, bank stability (Z score) and per-capita income covering the period 2005 to 2015 from the World Bank Database. Data on political stability, regulatory quality, voice and accountability, control for corruption, and government effectiveness indexes are also collected from the World Bank Database. The data related to health care expenses such as out-of-pocket health expenditure, public and private compulsory contribution to health care financing schemes in value terms, public and private compulsory contribution to health care expenditure to GDP ratio, government expenditure on healthcare, and government expenditure on healthcare to GDP ratio have been obtained from the World Health Organization (WHO).

In human capital development literature, enrollment in primary school, secondary school, and government expenditure on education are used for the measurement of education level of the country (Baldacci, Clements, Gupta, & Cui, 2008; Loening, 2005; Ranis, Stewart, & Ramirez, 2000). However, the education index developed by UNDP has been used to measure the education level of the country. One of the main reasons of not using traditional variables is the limited data availability. The education index developed by UNDP uses the mean years of schooling and expected years of schooling to construct this index (UNDP, 2018).

First, I collected data for 110 countries, which was later reduced to 70 countries due to the limited data availability for the other countries. The data set of 70 countries are representative of 40 high-income, 15 low income and 15 middle-income countries as shown in Table 1. The data sets are also distributed in various regions. It covers East Asia and Pacific (EAP, 9), Europe and Central Asia (ECA, 30), Latin American and Caribbean (LAC, 10), the Middle East and North Africa (MENA, 9), North America (NA, 2), South Asia (SA, 2), and Sub-Saharan Africa (SSA, 4)

Table 1 Distribution of countries as per region and income level

<i>Row Labels</i>	<i>High income</i>	<i>Lower middle income</i>	<i>Upper middle income</i>	<i>Grand Total</i>
East Asia & Pacific	3	4	2	9
Europe & Central Asia	25	2	3	30
Latin America & Caribbean	4		6	10
Middle East & North Africa	6	2	1	9
North America	2			2
South Asia		4		4
Sub-Saharan Africa		3	3	6
Grand Total	40	15	15	70

Due to the different income level of the countries, variables such as deposit to GDP, stock traded value to GDP, health expenses, trade openness, bank stability, among others have high variability. The deposit to GDP ratio varies from 11.98 percent to 263.13 percent. Similarly, the stock traded value to GDP ratio varies from 0.00 percent to 372.26 percent. The out of pocket expenditure of individuals and households level show high variation from USD 7.30 to USD 2,928 and USD 36 to USD 312,200 and have standard deviation of 399 and 39430 respectively. Hence, to normalize this variation, we used the log value of deposit to GDP ratio, deposit value, health expenses, and trade openness.

In the financial development literature, deposit to GDP ratio is generally used as a proxy for the usage of the banking system in the country; hence, we used this as the dependent variable. I also used the absolute value of deposit as dependent variable to nullify the effect of GDP of the country on deposits.

Table 2 Summary Statistics

<i>Variables Name</i>	<i>Observation</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
Deposit to GDP	725	84.67	48.34	11.98	263.13
Log of Deposit	725	25.76	1.89	20.80	30.00
Public and private compulsory contribution to health Care financing scheme to GDP (%)	730	4.26	2.41	0.43	13.78
Public and private compulsory contribution to health Care financing scheme (in USD millions)	730	53,802	182,483	107	2,297,545
Government expenditure in Healthcare (in millions)	720	752	1,221	3.23	6826

Government expenditure in Healthcare to GDP (%)	730	35	11	11	65
Education Index	730	0.72	0.14	0.33	0.94
Stock Traded Value to GDP	719	36.44	51.86	0.00	372.26
Out of Pocket Expenditure in USD (OOPSUSD)	727	348.65	398.94	7.30	2,928.07
Inflation	730	4.72	4.85	-4.86	48.70
Bank Stability (BankZ)	727	12.94	9.07	-0.34	48.90
Political Stability	730	0.11	0.94	-2.81	1.60
Voice and Accountability	730	0.40	0.87	-1.91	1.74
Government effectiveness	730	0.60	0.87	-1.21	2.44
Regulatory Quality	730	0.60	0.80	-1.30	2.26
Rule of Law	730	0.50	0.92	-1.35	2.03
Control for Corruption	730	0.45	1.01	-1.43	2.47
Economic Freedom Index	730	65.33	8.86	44.10	89.40
Per capita income (GDP)	730	22,464	21,343	599	91,617

1.4.1 Methodology:

It is important to identify a robust econometric methodology to find out the effects of healthcare system and education on bank deposits. In economic development literature, healthcare and education are considered endogenous variables (Gilleskie & Harrison, 1998). Therefore, these variables are considered endogenous in this study too. Furthermore, I conduct an endogeneity test and find the evidence for endogeneity of these variables. I do not believe that this endogeneity is due to reverse causality between human capital (healthcare and education) and bank deposits. I believe that is because of the omitted variables, which also influence bank deposits of the countries, and are correlated with the human capital. Literature suggests that depositors monitor the banks (Diamond & Rajan, 2001) and penalize them by asking for higher interest rates on deposits or withdrawing funds from them (Egan, Hortaçsu, & Matvos, 2017). Hence, I use bank stability as an endogenous variable. The Wu-Hausman test also suggests that bank stability is an endogenous variable. However, finding a suitable instrument for endogenous variables is very difficult. In the absence of exogenous instruments, it is recommended using the lagged value of endogenous variables. I employ the lagged value of the endogenous variables, which is also considered in the system GMM model as a valid instrument (Roodman, 2009). The results show that variables such as per-capita health

expenditure (OOPSUSD) and education index, and bank stability (Z score) are endogenous through the Wu-Hausman test.

The Hausman test confirms that the fixed effect method would be suitable for this study. The heteroscedasticity test results favor the using of the heteroscedastic model. I do not find multicollinearity in the regressor variables. Bank deposits carry a lagged effect, which means that the deposits of period (t) depends on the deposits of period (t-1). The panel fixed effect OLS model gives biased results in such situations, whereas the dynamic panel data model would be applicable to address these issues. Although the dynamic panel data model is suited for this dataset, I also employ the fixed effect and first difference model for the preliminary analysis.

Arellano and Bond (1991) have proposed a two-step difference GMM estimator. In the first step, they assumed that the errors are homoscedastic and estimate the residuals by using the first difference of the variables to eliminate the firm specific factors. The model uses the lagged level of variables as instruments. In the second step, the residuals are used to estimate the weighting matrix that makes the estimator asymptotically efficient and robust when the dataset is heteroscedastic. However, this model was later criticized by Blundell and Bond (2000) when instruments are weakly correlated with the first difference equation. They proposed the extended system GMM method that uses both level and first-differenced variables as instruments for each other to reduce the bias and provide better estimation even in the smaller dataset. The Windmeijer (2005) correction has also been employed to make the two-step system GMM estimation more robust. Even though the system GMM is an advanced technique, it has certain limitations such as using too many instruments. To avoid this situation, I use the collapse function to make the smaller sets of instruments. The Sargan and the Hansen tests have been performed to check for the over-identification of instruments. The Sargan test is

useful when the data is homoscedastic (Roodman, 2009). I present the results of the Hansen test in the paper. I also present the results of the two-step difference GMM estimator.

I apply the model on a full dataset of 70 countries to identify the effect of health and education on bank deposits. Then, the dataset is divided into two subgroups based on the income level of the countries and replicate the same model. The empirical model has the following form.

$$Y_{ct} = \beta_0 + \theta_c + Y_{ct-1} + \sum_{g=1}^G \beta_g X_{bct}^g + \sum_{e=1}^E \beta_e X_{bct}^e + \mu_c + \varepsilon_{cbt} \dots \dots (1)$$

Where Y_{ct} is the dependent variables: ratio of bank deposits to GDP ratio and total deposits at a time "t" and of country "c". Y_{ct-1} is a lag of dependent variables of one year. θ_c - country fixed effects. X_{ct}^g consists of the banking industry factors such as financial stability of the firm. X_{ct}^e indicates the vector of macroeconomic factors including the health expenses and the education index. ε - denotes disturbance or error term.

1.5. Preliminary Analysis

The relationship between the betterment of the healthcare system, education and the usage of the banking system for savings has been examined using the panel fixed effect (Appendix 1) and the first difference methods (Appendix 2). I use public and private compulsory contributions to healthcare in value (PPCC) and to the GPD ratio(PPCCGDP) in columns 1, 2, 5, and 6 and government expenditure on healthcare to GDP ratio (GEGDP) and an absolute term (GE) in the columns 3, 4, 7, and 8. Columns 1-4 shows the ratio of deposit to GDP as a dependent variable whereas columns 5-8 present a log of total deposit of the country as a dependent variable. This is to identify the trend of total deposits base. Seven out of the

eight regressions show positive and statistically significant results. Columns 5-8 show higher coefficients for healthcare expenditures than the columns 1-4. This shows that countries attract more deposits (absolute) than the deposits to GDP ratio due to improvement in healthcare system. The same results are obtained through first difference method, as shown in Appendix 2.

Another main explanatory variable is the education index. It does not show a statistically significant relationship with the bank deposit using both panel fixed effect and first difference methods. Moving to control variables, I do not find a statistically significant relationship between the out-of-pocket health expenditure, stock traded value to GDP ratio and bank deposits in the fixed effect and first difference methods. I find a negative relationship between bank stability and bank deposits in the fixed effect method but do not find a statistically significant result with the first difference method. On the other hand, inflation shows a positive relationship in the first difference method, but fixed effect method does not show a statistically significant relationship.

An interesting finding is the relationship between bank deposits and income. Both fixed effect and first difference methods show a negative relationship between income and the ratio of bank deposit to GDP and a positive relationship with the bank deposit value. This indicates that income improves the total deposit base of the country, but it does not translate into bank deposits in the same proportion. We employ the economic freedom index to measure the effect financial freedom and rule of law on bank deposits. Both methods viz. fixed effect and first difference methods show a positive and statistically significant relationship.

1.6. Discussion and Analysis

This section discusses the main results of the study and presents the results of various sensitivity analysis. The sensitivity analysis is conducted in various settings viz. (i) economic

development level, (ii) regional level, (iii) financial inclusion level, and (iv) including different control variables.

This section presents 2SLS, two-step difference and GMM results for the entire datasets. As mentioned earlier, the first section (columns 1-4) of Table 3, present the results for the dependent variable natural log of deposit to GDP ratio and the second section (columns 5-8) shows the natural log of the total deposit of the country as a dependent variables. The same pattern is followed in other results' tables. Four independent variables viz. public and private compulsory contribution to healthcare (PPCC), public and private compulsory contribution to healthcare to GDP ratio (PPCCGDP), government expenditure to healthcare (GE), and government expenditure on healthcare to GDP ratio (GEGDP) as primary independent variables for measuring the healthcare system in the country. Columns 1- 2 show a positive effect of PPCC, PPCCGDP and bank deposit to GDP ratio and columns 5-6 show the same effect on bank deposits, and the effects are statistically significant at 1 percent level.

Table 3 Human capital (healthcare and education) development: bank deposits (2SLS)

The table presents the results for 70 countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.278*** (0.0504)				0.457*** (0.0558)			
PPCCGDP (%)		0.325*** (0.0559)				0.361*** (0.0659)		
GE			0.0806*** (0.0297)				0.123*** (0.0297)	
GGEGDP(%)				0.464*** (0.0831)				0.557*** (0.0955)
Education index	1.108** (0.539)	1.163** (0.514)	1.859*** (0.543)	1.236** (0.521)	1.166** (0.558)	1.714*** (0.557)	2.510*** (0.620)	1.725*** (0.585)
Bank Z	-0.0190*** (0.00661)	-0.0213*** (0.00736)	-0.0224*** (0.00736)	-0.0174** (0.00681)	-0.0261*** (0.00931)	-0.0309*** (0.0112)	-0.0319*** (0.0111)	-0.0260** (0.0104)
OOPSUSD	0.292*** (0.0678)	0.254*** (0.0721)	0.214*** (0.0740)	0.180*** (0.0690)	0.189** (0.0793)	0.0933 (0.0992)	0.0550 (0.100)	0.0103 (0.0951)
Stock Traded to GDP	0.0279 (0.0173)	0.0271 (0.0168)	0.0286 (0.0181)	0.0272 (0.0168)	0.0276* (0.0165)	0.0279 (0.0170)	0.0279 (0.0182)	0.0276* (0.0168)
Inflation	0.000436 (0.00179)	-0.000168 (0.00191)	-0.000210 (0.00193)	0.0000858 (0.00179)	-0.00171 (0.00221)	-0.00276 (0.00254)	-0.00284 (0.00256)	-0.00245 (0.00237)
Income	-0.864*** (0.144)	-0.541*** (0.134)	-0.620*** (0.144)	-0.429*** (0.135)	0.0802 (0.143)	0.621*** (0.158)	0.495*** (0.169)	0.754*** (0.158)
Economic Freedom Index	0.0206*** (0.00305)	0.0215*** (0.00305)	0.0198*** (0.00318)	0.0213*** (0.00290)	0.0236*** (0.00317)	0.0237*** (0.00324)	0.0227*** (0.00345)	0.0236*** (0.00314)
F	20.38	20.53	16.12	20.94	60.15	55.70	52.82	67.73
r2	0.370	0.378	0.324	0.409	0.689	0.653	0.629	0.675
N	640	640	635	640	640	640	635	640

However, the impact of healthcare expenditure on the total deposit base is stronger than the deposit to GDP ratio. This result is consistent with the preliminary analysis of the findings. As per column 1, the coefficient of PPCC is 0.278, when the deposit to GDP ratio has been used as a dependent variable. The same explanatory variable shows coefficients of 0.457, when the total deposit is a dependent variable, as shown in column 5 of Table 3. Similar pattern has been observed while using the other explanatory variables. For example, PPCCGDP shows the coefficient of 0.33 for deposit to GDP and 0.36 for deposits, GE shows coefficients of 0.08 for deposit to GDP and 0.12 for deposit, and GEGDP shows 0.46 for deposit to GDP, and for deposit 0.56. The economic impact of these variables is also significant. For example, as per the columns 1 and 5, a 10 percent increase in the PPCC will increase the ratio of deposit to GDP by 2.78 percent and it will increase the total deposit by 4.57 percent in the country. Hence, 10 percent increase in the public and private compulsory contribution in the healthcare of Australia increases the deposit to GDP ratio by 2.78 percent. Similarly, a 10 percent increment in government expenditure in healthcare increases the bank deposit by 1.23 percent in Australia.

Table 4 and Table 5 present the results of two-step difference GMM and system GMM methods. The difference GMM shows the positive relationship between the healthcare system and the bank deposits. Unlike 2SLS, difference GMM shows higher coefficients for dependent variable the deposit to GDP ratio than the total deposits. Column 1 shows the coefficient 0.34 for PPCC when use deposit to GDP ratio as dependent variable, whereas the same variable shows the coefficient 0.30 when total deposit is used as the dependent variable. On the other hand, no regressions show a statistically significant relationship by system GMM methods, except column 2. Column 2 of

Table 5 shows a negative but moderately statistically significant relationship, which is against the findings from other methods. However, this result is significant at a 10 percent level and seven out of the eight regressions are showing over-identification issue. Hence, I believe that the results of system GMM are not reliable. Instead, I rely on the findings of 2SLS and discuss the same in following sections.

Table 4 Human capital (healthcare and education) development: bank deposits (two-step Difference GMM)

The table presents the results for 70 countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of endogenous variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.337*** (0.0730)				0.289*** (0.0599)			
PPCCGDP (%)		0.345*** (0.0814)				0.287*** (0.0664)		
GE			0.136* (0.0700)				0.118** (0.0591)	
GGEGDP(%)				0.416*** (0.141)				0.293** (0.145)
Education index	4.042* (2.444)	5.204* (2.670)	5.230* (3.170)	4.255* (2.559)	3.284* (1.710)	4.325** (1.902)	3.816* (2.192)	3.853* (2.167)
Observations	567	567	562	567	567	567	562	567
No. of instruments	23	22	22	22	22	22	22	22
AR2 (p-value)	0.436	0.499	0.292	0.212	0.219	0.309	0.116	0.161
Hansen-J (p-value)	0.223	0.147	0.0800	0.0781	0.358	0.237	0.194	0.0342

Table 5 Human capital (healthcare and education) development: bank deposits (two-step system GMM)

The table presents the results for 70 countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of endogenous variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	-0.00785 (0.0206)			0.0252 (0.217)				
PPCCGDP (%)		-0.230* (0.129)			-0.255 (0.178)			
GE			0.0244 (0.0288)				-0.0290 (0.0341)	
GGEGDP(%)				0.0149 (0.175)				-0.0239 (0.128)
Education index	1.087 (0.765)	2.820** (1.367)	0.665 (0.682)	0.804 (0.953)	0.967 (2.036)	3.730* (1.906)	-0.386 (0.988)	0.430 (1.373)
Observations	639	639	634	639	639	639	634	639
No. of instruments	28	26	28	28	28	28	28	28
AR2 (p-value)	0.190	0.140	0.260	0.204	0.0262	0.0569	0.0349	0.0455
Hansen-J (p-value)	0.00313	0.602	0.00634	0.00761	0.0281	0.0496	0.00347	0.00150

The results support the hypothesis that a better healthcare system improves the households' savings, which eventually increases usage of the banking system for deposits. A better healthcare system by improving health, enables people to save more. One of the interesting findings is that the coefficients of the public and private compulsory contributions to healthcare variables are higher than the government expenditures to healthcare system when total deposit is used as a dependent variable. The public and private compulsory contribution to healthcare includes the government expenditure on healthcare. Higher coefficients suggest that the private contribution of households encourages people to save more and hence increases their bank deposits and eventually increases bank deposit base of the country.

I believe that these results can vary with the income levels of countries. Therefore, the dataset has been divided into two subgroups, high-income countries and middle-income countries. This classification is based on the World Bank report. The results of subgroups are consistent with the main findings. Table 6 shows that the coefficients of PPCC and PPCCGDP are 0.32 and 0.38 for the dependent variable deposit to GDP ratio respectively. These coefficients increase to 0.58 and 0.54 respectively for the dependent variable total deposits. The coefficients of government expenditure to healthcare are also higher for the later dependent variable. On the other hand, the coefficients of PPCC and PPCCGDP for both the dependent variables for lower and middle-income countries are lower than for those higher income countries, as shown in Table 7. The coefficients of PPCC and PPCCGDP are 0.27 and 0.41, when using deposit to GDP ratio as dependent variable and the coefficients of the GE and GEGDP are 0.24 and 0.40 for the same dependent variable. We observe the economic significance of the healthcare system in high-income countries is higher than in the low and middle-income countries. This observation is

consistent with the income and savings literature, which suggests that a dollar increase in the income of rich households increases their savings more than an increase for the low & middle-income households. Moreover, the impact of government expenditure on healthcare on bank deposits in low and middle-income countries are relatively higher than the high-income countries. This may be due to an existing poor healthcare system in low & middle-income countries; a small improvement makes a larger impact in the system.

Table 6 Human capital (healthcare and education) development: bank deposits (High Income countries-2SLS)

The table presents the results for 40 countries representative of high-income countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Deposit to GDP	Deposit to GDP	Deposit to GDP	Deposit to GDP	Deposit	Deposit	Deposit	Deposit
PPCC	0.315***				0.584***			
	(0.0486)				(0.0578)			
PPCCGDP (%)		0.384***				0.545***		
		(0.0593)				(0.0808)		
GE			0.0697**				0.581***	
			(0.0271)				(0.178)	
GGEGDP(%)				0.430***				0.146***
				(0.133)				(0.0337)
Education index	0.962*	1.040**	1.409***	1.916***	0.859	1.423*	1.988***	2.764***
	(0.520)	(0.521)	(0.534)	(0.584)	(0.657)	(0.734)	(0.734)	(0.802)
F	21.96	20.80	15.67	13.07	29.56	21.48	17.21	15.87
r2	0.505	0.492	0.466	0.399	0.683	0.587	0.557	0.520
N	359	359	359	354	359	359	359	354

Table 7 Human capital (healthcare and education) development: bank deposits (Low and Middle Income countries-2SLS)

The table presents the results for 30 countries representative of low- and middle-income countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Deposit to GDP	Deposit to GDP	Deposit to GDP	Deposit to GDP	Deposit	Deposit	Deposit	Deposit
PPCC	0.272***				0.305***			
	(0.0963)				(0.0856)			
PPCCGDP (%)		0.405***				0.338***		

		(0.0859)				(0.0834)		
GE			0.236***				0.432***	
			(0.0715)				(0.0986)	
GGEGDP(%)				0.400***				0.212***
				(0.114)				(0.0634)
Education index	-0.0725	-0.667	0.255	0.118	-0.380	-0.583	0.0180	0.0171
	(1.122)	(1.075)	(1.080)	(1.010)	(1.009)	(0.991)	(1.020)	(0.962)
F	12.71	13.70	12.50	11.07	74.62	75.14	80.62	67.77
r ²	0.374	0.415	0.434	0.386	0.796	0.804	0.817	0.797
N	281	281	281	281	281	281	281	281

Moving to another main variable, the education index, a positive and statistically significant relationship between education and bank deposits has been found. Columns 1-4 of Table 3 show the coefficients range between 1.10 and 1.90 for the first dependent variable, whereas the same coefficient are in the range of 1.17 to 2.51 for the second one. The same positive relationship has been found through the difference GMM method. The coefficients are significant at the 10 percent level. Table 5 shows that the two regressions are statistically significant when using the system GMM method. Hence, the relationship between education and bank deposits are consistent with different methodologies. This result is consistent with the literature which suggests that education increases the usage of financial system for savings (Demirguc-Kunt & Klapper, 2012).

Like the healthcare system, education increases both the total income and the total deposits of the country. The effects of increase in deposits is lower than the increase in the income of the country. Therefore, the coefficients for the total bank deposits are higher than the bank deposit to GDP ratio. This relationship is further verified through two subgroups of the datasets and find a consistent positive relationship between education and bank deposits in high-income countries. The relationship between education and bank deposits is insignificant in low and middle-income countries.

The other important variable is bank stability, which influences the depositors' behavior in using the banking system. I find a negative and statistically significant relationship between bank

stability and bank deposits in all countries. The coefficients of this variable are in the range of 0.02 to 0.03. I also estimate this relationship through difference and system GMM model but do not find a statistically significant relationship, except using GEGDP as a main independent variable and total deposit as dependent variable, which show a contrary relationship. This relationship is consistent in the high-income countries. This result may be due to two reasons: one, as banks become more stable, they increase funds from other sources, which decreases bank deposits. Two, the stable banks offer relatively lower interest rates, which is a disincentive to households to deposit their funds (Calomiris & Kahn, 1991; Diamond & Rajan, 2001). I do not find a statistically significant relationship in lower-middle income countries.

The individual's health shocks play a key role in their income and saving. Hence, out of pocket per-capita health expenditure is employed as a control variable and find a positive and statistically significant impact on bank deposits. The difference and system GMM methods do not show a statistically significant relationship, except in one regression of system GMM method. I find a negative relationship in that regression but significant at the 10 percent level only. I am cautious to interpret this result due to the over-identification issue. Hence, I conclude that households save money to combat health shocks. I further estimate the impact of the variable into the subgroups. Similar positive relationship in lower and middle-income countries has been observed, but the relationship in higher-income countries cannot be determined. One of the main reasons for this finding is that the lower and middle-income countries do not have an effective healthcare system. Therefore, households rely on their savings to meet a health shock. This incentivizes households to save more in low and middle-income countries.

I envisage that the development of financial markets affects bank deposits, since, it provides an alternative channel for savings. I employ the stock market turnover value to GDP ratio

as a control variable¹. Table 3 do not show a statistically significant relationship in all countries, except in column 5 and 6. However, the coefficients are significant at 10 percent level. The similar trend is observed through difference GMM method and in high-income countries. Moreover, the results of lower and middle-income countries are not statistically significant. Hence, the relationship between the stock market development and bank deposits cannot be determined.

Table 3 shows an insignificant relationship between inflation and bank deposit in all countries. The same results are obtained through difference and system GMM methods. This same pattern is followed in lower and middle-income countries. On the contrary, we find a negative relationship between inflation and bank deposits in high-income countries, as shown in Table 6. This negative relationship suggests that households in high-income countries are rate sensitive. They recover their inflation cost by investing in high yield assets.

The impact of per capita income on bank deposits has also been examined. Column 1-4 of Table 3 show a negative relationship between income and bank deposits, whereas column 5-8 show a positive relationship with bank deposits. The dependent variable in column 1-4 is bank deposit to GDP ratio, whereas the dependent variable in from column 5 to 8 is total bank deposits. The inverse relationship between income and the two dependent variables suggest that although income has a positive impact on bank deposit, the relationship with the GDP is relatively higher than the bank deposits. This trend is consistent in both subgroups viz. high-income and lower middle-income countries.

Another control variable, economic freedom index is used as control variable. The economic freedom index measures the business, trade, fiscal, government spending, monetary,

¹ This is one of the many variables, which measures the financial market development of the country. However, an in-depth study on this front is the out of scope for the paper.

investment, financial, and property freedom of the country. We find that economic freedom has a positive impact on bank deposit, as shown in Table 4. The same relationship has been estimated through difference and system GMM methods; we do not find a statistically significant relationship. The 2SLS findings are consistent with the fixed effect and first difference methods, hence, I believe that the relationship between the two variables is positive. This positive relationship is consistent with the subgroups regressions' finding. Moreover, the impact of the variable in low and middle-income countries is relatively smaller than in high-income countries.

1.6.1 Bank based economy v/s financial market-based economy

Although we employed stock market turnover to GDP ratio to control for the effect of financial market development, the relationship between the independent and the dependent variables in the bank based and the financial market-based economy has also been investigated. The countries, which have a higher deposit to market capitalization ratio than the mean value of deposit to market capitalization ratio of the dataset, are considered market-based economies, and remaining economies are considered a bank-based economy (Delis, Hasan, & Kazakis, 2013).

I employ the same set of independent variables as in the main model and find the same consistent relationship in both types of economies for the healthcare system (see Appendix 4 and Appendix 5). The elasticity of health expenditure in market-based economies is higher in the bank-based economies. Most of the high-income countries are market-based economies and low & middle-income countries are bank-based economies, both markets follow the same trends as high-income and low & middle-income countries. Moving to the second independent variable, we find a positive and statistically significant relationship with the education index and bank deposits in bank-based economies but not in market-based economies.

1.6.2 Financial Inclusion

I believe that effect of the education and healthcare system will be higher in the countries which have higher financial inclusion. Hence, the dataset is divided into two subgroups, higher financial inclusion countries and lower financial inclusion countries. The higher financial inclusion countries are those which have a higher percentage of account owners above the age of 15 than the average (mean) value of percentage of account owners above the age of 15 of the dataset in the Year 2014. Due to limited data availability of percentage of account owners above the age of 15, total number of countries for this study dropped to 54, out of which, 32 are high financially inclusive and remaining countries are categorized into less financially inclusive countries.

The relationship between healthcare system and bank deposits in both types of countries are positive and statistically significant. The impact of government expenditure on bank deposits is higher in high financial inclusive countries. For Australia, 10 percent increase in government expenditure on healthcare will increase the deposit to GDP ratio by 4.24 percent and deposit by 5 percent. On the other hand, in India the impact will be 4.09 percent and 3.5 percent respectively. Moreover, the relationship between education and bank deposits cannot be established in less financial included countries. On the other hand, high financial included countries show positive coefficients significant at 10 percent level. The results of high financial included and less financial included countries are in Appendix 6 and Appendix 7.

1.7. Robustness

Economic development literature mentions that factors such as political stability and quality of governance play an important role in economic growth (Barth, Lin, Ma, Seade, & Song, 2013; Fratzscher, König, & Lambert, 2016). The variables such as political stability, voice and accountability, government effectiveness, regulatory quality, and control for corruption have been

employed in the main model. To save the space, I only discuss the findings of regressions using the governance indicators. These results are available upon request.

The relationship between the healthcare system and bank deposits are consistent with the main findings when political stability is used as a control variable. Similarly, the education index also has positive and statistically significant coefficients. However, I do not find a relationship between political stability and bank deposits. Similar relationships between healthcare, education and bank deposits are obtained when using the voice and accountability as a control variable. Although a negative relationship between voice & accountability and bank deposits has been found in three out of eight regressions, I still believe that the relationship cannot be determined due to low significance level.

I employ government effectiveness as a control variable and find a positive impact of healthcare and education on bank deposits. The elasticity of the education index is higher than the elasticity obtained when using political stability and voice & accountability as control variables. Moreover, the results show a positive and statistically significant relationship between government effectiveness and bank deposits. The economic significances of government effectiveness are in the range of 0.29 to 0.39, which suggests that one unit increase in government effectiveness increases bank deposit by around 30 percent.

Regulatory quality, a key variable of the World Governance Indicator, is used as a control variable in the main model. The relationship between healthcare, education and bank deposit do not change. Four out of eight regressions show a positive and statistically significant elasticity of regulatory quality on bank deposits. The coefficients are in the range between 0.11 and 0.16. This finding is consistent with the finding of government effectiveness. However, the elasticity is slightly lower than for government effectiveness. I further use control for corruption in our main

model. The relationship between the key independent variables and dependent variables are the same. Furthermore, the results show a positive impact of the control for corruption on bank deposits. Hence, conclusively I concluded that the relationship between healthcare, education and bank deposit does not change even after employing various control variables. Moreover, among the World Governance Indicators, government effectiveness, regulatory quality, and control for corruption plays an important role in determining bank deposits.

1.8. Conclusion

To the best of my knowledge, this paper is first to study the effects of individuals and households' health expenses on bank deposits. The results show that the improvement in the healthcare system makes the banking system stable by increasing bank deposits. However, the impact of the healthcare system varies depending upon the economic development level of the countries, market- versus bank-based economies, and financial inclusion level.

I also find that the impact of government expenditure on the healthcare system on bank deposits is more than the public and private compulsory contribution to healthcare system, primarily in low & middle-income countries. It may be because public and private compulsory contribution to healthcare includes the contribution from households thereby reducing their disposable income. Hence, it reduces the households' deposit in banks. Although improvement in the healthcare system increases bank deposits, the impact of the healthcare system on GDP of the country is higher than the deposits. Thus, the elasticity of the dependent variable total deposit of the country is higher than the deposit to GDP ratio.

The results show a greater effect of the healthcare system on bank deposits in high financial inclusive countries. On the other hand, results show a higher impact of the healthcare system in

market-based economies than the bank-based economies. This may be due to the better governance in a market-based economy. This relationship is examined by employing the World Governance Indicators in the study and as expected; the governance indicators show a positive impact on bank deposits.

The relationship between education and the usage of the banking system has been investigated in terms of obtaining the loan, access of financial system, and savings. However, the relationship between education and bank deposits had a limited attention from researchers. The positive relationship between education and bank deposits show that the education helps individuals in using the banking system and thereby increasing bank deposits mostly in high-income countries and bank-driven economies. The results show that effect of education is more in low-income countries.

What are the policy implications of this study? Public expenditure on the healthcare system aims at one hand in improving the capability and income, and on the other hand reducing the uncertain expenditures of households. Several studies have shown the impact of health shocks on income (Deaton, 2003; Pickett & Wilkinson, 2015; Yogo, 2016) and savings behavior (Fan & Zhao, 2009; Rosen & Wu, 2004). The relationship between public health insurance, the healthcare system and savings has also been explored (Cheung & Padiou, 2015; Pradhan & Mukherjee, 2018). Furthermore, education influences the cognitive ability. Hence, it improves households' saving decisions (Cole et al., 2011) and usage of the banking system (Demirguc-Kunt & Klapper, 2012). However, how does human capital development affect the usage of the banking system?

To answer this question, I argue that a good healthcare system provides timely health services to households, which makes them healthy and increases their capacity. Good health increases endurance, life span, and cognitive abilities that helps in growing income level of

households. It insures us against any financial damage that arises due to health shocks thereby reducing the precautionary savings and increasing the surplus fund. This fund can be used either for consumption or for savings depending upon the income and life expectancy of households. However, for both viz. consumption and savings households find convenience in using the banking system for managing funds. In addition, bank deposits, being a first point of contact to financial system for households, increases. Education also enhances the financial decision making of households. It facilitates in understanding the usage of the banking system, thereby increasing bank deposits.

Five clear suggestions develop from this paper in improving the bank stability by increasing bank deposits. (i) Government should focus on the betterment of the healthcare system, which increases the income level of households and allows households to use that increased income either for savings or for consumption, thereby increasing bank deposits. (ii) Compulsory contribution of households for healthcare in low & middle-income countries reduces the disposable income of households. It discourages households to save, thus, reducing bank deposits. It is recommended to use the private contribution methods wisely in low & middle-income countries. (iii) Education does play a key role in accessing the banking system mainly in high-income countries and African countries. Hence, it is advisable to develop a policy, which increases the number of schooling years in the country, this leads to increase an increase the banking system. (iv) Good governance develops the trust of households in the financial system. This in turn increases the usage of the banking system for savings and transactions. (v) Since, bank stability changes the orientation of bank management in acquiring low-cost fund to increase the profitability. Hence, they decrease bank deposits primarily in high-income countries, bank-based

economies, and high-financial inclusive countries. Thus, banks should be vigilant on their orientation even at the time of stability to increase bank deposits.

I believe that this study can make more plausible results, if studies at microeconomic level by using household surveys. It will allow investigating the households' characteristics and their usage of the banking system for the savings. Moreover, banks generally provide two types of deposits viz. transaction accounts and non-transaction accounts, studying a relevance of human capital development on these deposit products will give more understanding on the usage of the banking system.

1.9. Reference

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Appendix 1 Fixed effect OLS

The table presents the results for 70 countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.248***				0.274***			
	(0.0769)				(0.0792)			
PPCCGDP (%)		0.195**				0.397***		
		(0.0820)				(0.103)		
GE			0.0586				0.0985**	
			(0.0553)				(0.0412)	
GGEGDP(%)				0.452***				0.525***
				(0.0959)				(0.0976)
Education index	0.412	0.386	0.651	0.209	0.973	0.528	1.249	0.712
	(0.627)	(0.636)	(0.641)	(0.601)	(0.698)	(0.659)	(0.754)	(0.690)
OOPSUSD	0.116	0.131*	0.0897	0.0854	0.00921	0.0697	-0.0150	-0.0240
	(0.0803)	(0.0685)	(0.0806)	(0.0822)	(0.137)	(0.0978)	(0.134)	(0.135)
Inflation	0.00100	0.00128	0.000961	0.00160	-	-	-0.00101	-
					0.000961	0.000116		0.000249
	(0.00291)	(0.00263)	(0.00287)	(0.00292)	(0.00433)	(0.00366)	(0.00425)	(0.00416)
Bank Z	-0.0129**	-0.0118**	-0.0118**	-0.0106**	-	-	-0.0169**	-0.0153**
					0.0179***	0.0163***		
	(0.00490)	(0.00482)	(0.00515)	(0.00469)	(0.00672)	(0.00582)	(0.00696)	(0.00634)
Economic Freedom Index	0.0184***	0.0176***	0.0175***	0.0190***	0.0210***	0.0206***	0.0206***	0.0218***
	(0.00609)	(0.00606)	(0.00624)	(0.00571)	(0.00662)	(0.00647)	(0.00689)	(0.00629)
Income	-0.221	-0.429**	-0.270	-0.163	0.836***	0.415**	0.751***	0.904***
	(0.164)	(0.164)	(0.162)	(0.164)	(0.204)	(0.168)	(0.208)	(0.202)
Stock traded GDP	0.00174	0.00230	0.00178	0.00350	-	0.00126	-	0.00200
					0.000061		0.000539	
					4			
Constant	(0.0148) 4.004***	(0.0155) 4.502***	(0.0160) 4.433***	(0.0148) 2.405	(0.0136) 15.53***	(0.0134) 16.32***	(0.0146) 16.08***	(0.0137) 13.66***
	(1.390)	(1.368)	(1.346)	(1.477)	(1.538)	(1.412)	(1.535)	(1.652)
F	10.80	10.63	8.696	9.872	29.37	30.19	26.19	32.57
r ²	0.437	0.432	0.412	0.455	0.700	0.725	0.691	0.713
N	710	710	703	710	710	710	703	710

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix 2 First Difference

The table presents the results for 70 countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	D.LDeposi ttoGDP	D.LDeposi ttoGDP	D.LDeposi ttoGDP	D.LDeposi ttoGDP	D.LDepo sit	D.LDepo sit	D.LDepo sit	D.LDepo sit
PPCC	0.298***				0.304***			
	(0.0443)				(0.0455)			
PPCCGDP (%)		0.287***				0.325***		
		(0.0466)				(0.0505)		
GE			0.120**				0.129***	
			(0.0508)				(0.0483)	
GGEGDP(%)				0.308***				0.318***
				(0.0762)				(0.0788)
Education index	0.302	0.302	0.195	0.331	0.320	0.314	0.202	0.360
	(0.476)	(0.486)	(0.560)	(0.597)	(0.485)	(0.485)	(0.569)	(0.602)
OOPSUSD	0.0375	0.0411	0.0292	0.0324	0.0254	0.0303	0.0163	0.0199
	(0.0381)	(0.0390)	(0.0383)	(0.0339)	(0.0368)	(0.0371)	(0.0368)	(0.0336)
Inflation	0.00259***	0.00261***	0.00217**	0.00272***	0.00231**	0.00242**	0.00188*	0.00246**
	(0.000945)	(0.000922)	(0.000981)	(0.000970)	(0.00098)	(0.00094)	(0.00103)	(0.00102)
Bank Z	-0.00258	-0.00242	-0.00167	-0.00148	-0.00289	-0.00295*	-0.00195	-0.00189
	(0.00174)	(0.00174)	(0.00185)	(0.00185)	(0.00181)	(0.00178)	(0.00195)	(0.00193)
Economic Freedom Index	0.00984***	0.00972***	0.00935***	0.00863***	0.0100***	0.0101***	0.00951**	0.00883**
	(0.00288)	(0.00290)	(0.00296)	(0.00260)	(0.00283)	(0.00286)	(0.00293)	(0.00261)
Income	-0.151	-0.424***	-0.316**	-0.179	0.780***	0.491***	0.605***	0.753***
	(0.148)	(0.150)	(0.143)	(0.135)	(0.148)	(0.150)	(0.146)	(0.132)
Stock traded GDP	0.00335	0.00354	0.00381	0.00331	0.00339	0.00344	0.00384	0.00327
	(0.00606)	(0.00609)	(0.00644)	(0.00639)	(0.00600)	(0.00598)	(0.00635)	(0.00633)
Constant	0.0311**	0.0269*	0.0338**	0.0350**	0.0477***	0.0420***	0.0502***	0.0515***
	(0.0145)	(0.0148)	(0.0145)	(0.0141)	(0.0146)	(0.0144)	(0.0146)	(0.0141)
N	638	638	631	638	638	638	631	638

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix 3 Results for High-income countries (SLS)

The table presents the results for 40 countries representative of high-income countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.315*** (0.0486)				0.584*** (0.0578)			
PPCCGDP (%)		0.384*** (0.0593)				0.545*** (0.0808)		
GE			0.0697** (0.0271)				0.146*** (0.0337)	
GGEGDP(%)				0.430*** (0.133)				0.581*** (0.178)
Education index	0.962* (0.520)	1.040** (0.521)	1.916*** (0.584)	1.409*** (0.534)	0.859 (0.657)	1.423* (0.734)	2.764*** (0.802)	1.988*** (0.734)
OOPSUSD	0.106 (0.0915)	0.0303 (0.0973)	0.0176 (0.111)	0.00706 (0.101)	-0.0724 (0.112)	-0.217 (0.150)	-0.245 (0.166)	-0.249 (0.159)
Bank Z	-0.0208*** (0.00731)	-0.0243*** (0.00824)	-0.0249*** (0.00862)	-0.0196** (0.00844)	0.0287** (0.00995)	0.0358** (0.0129)	0.0363** (0.0128)	0.0296** (0.0128)
Stock traded GDP	0.0357 (0.0236)	0.0352 (0.0232)	0.0496* (0.0270)	0.0537** (0.0253)	0.0298 (0.0237)	0.0377 (0.0258)	0.0507* (0.0307)	0.0641** (0.0295)
Inflation	-0.00221 (0.00196)	-0.00384* (0.00230)	-0.00307 (0.00237)	-0.00245 (0.00222)	0.00647** (0.00291)	0.00912** (0.00379)	0.00798** (0.00379)	0.00718** (0.00366)
Income	-1.106*** (0.183)	-0.713*** (0.179)	-0.815*** (0.187)	-0.568*** (0.196)	-0.169 (0.198)	0.545** (0.248)	0.365 (0.258)	0.738*** (0.267)
Economic Freedom Index	0.0236*** (0.00350)	0.0247*** (0.00349)	0.0228*** (0.00369)	0.0229*** (0.00344)	0.0273** (0.00366)	0.0280** (0.00400)	0.0272** (0.00437)	0.0254** (0.00413)
F	21.96	20.80	13.07	15.67	29.56	21.48	15.87	17.21
r2	0.505	0.492	0.399	0.466	0.683	0.587	0.520	0.557
ar2								
N	359	359	354	359	359	359	354	359

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix 4 Low and upper middle-income countries (SLS)

The table presents the results for 30 countries representative of low- and middle-income countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.272***				0.305***			
	(0.0963)				(0.0856)			
PPCCGDP (%)		0.405***				0.338***		
		(0.0859)				(0.0834)		
GE			0.236***				0.212***	
			(0.0715)				(0.0634)	
GGEGDP(%)				0.400***				0.432***
				(0.114)				(0.0986)
Education index	-0.0725	-0.667	0.118	0.255	-0.380	-0.583	0.0171	0.0180
	(1.122)	(1.075)	(1.010)	(1.080)	(1.009)	(0.991)	(0.962)	(1.020)
LOOPSUSD	0.379***	0.391***	0.373***	0.268***	0.297***	0.275***	0.267***	0.173**
	(0.0876)	(0.0825)	(0.0860)	(0.0797)	(0.0792)	(0.0755)	(0.0776)	(0.0734)
BankZ	-0.00778	-0.00545	-0.00666	-0.00844	-	-	-	-
	(0.0104)	(0.00984)	(0.0102)	(0.00948)	0.00746	0.00679	0.00744	0.00837
					(0.0095	(0.0094	(0.0097	(0.0089
					9)	6)	8)	5)
LStocktraded gdp	0.0311	0.0332	0.0277	0.0217	0.0291	0.0280	0.0238	0.0185
	(0.0240)	(0.0222)	(0.0227)	(0.0223)	(0.0208)	(0.0196)	(0.0198)	(0.0192)
Inflation	0.00388	0.00464	0.00401	0.00294	0.00431	0.00470	0.00424	0.00326
	(0.00287)	(0.00285)	(0.00285)	(0.00273)	(0.0026	(0.0026	(0.0026	(0.0025
					9)	8)	8)	4)
LGDPercapit a	-0.783***	-0.520**	-0.728***	-0.451**	0.248	0.578***	0.382*	0.623***
	(0.260)	(0.212)	(0.243)	(0.217)	(0.231)	(0.189)	(0.218)	(0.188)
Economic Freedom Index	0.0144***	0.0152***	0.0147***	0.0159***	0.0143**	0.0144**	0.0141**	0.0159**
	(0.00479)	(0.00468)	(0.00471)	(0.00456)	(0.0044	(0.0043	(0.0043	(0.0041
					1)	1)	7)	3)
F	12.71	13.70	11.07	12.50	74.62	75.14	67.77	80.62
r2	0.374	0.415	0.386	0.434	0.796	0.804	0.797	0.817
ar2								
N	281	281	281	281	281	281	281	281

Standard errors in parentheses* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix 5 Bank Based Economy (SLS)

The table presents the results for 43 countries representative of low- and middle-income countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.210*** (0.0648)				0.295** (0.0635)			
PPCCGDP (%)		0.266*** (0.0696)				0.287** (0.0674)		
GE			0.0426* (0.0224)				0.0609* (0.0214)	
GGEGDP(%)				0.254*** (0.0966)				0.333** (0.0911)
Education index	1.600** (0.802)	1.656** (0.787)	1.842** (0.856)	1.515* (0.806)	1.940** (0.788)	2.074** (0.790)	2.325** (0.873)	1.851** (0.794)
Bank Z	-0.0221*** (0.00740)	-0.0211*** (0.00740)	-0.0220*** (0.00763)	-0.0186*** (0.00696)	- 0.0193* (0.0074 4)	- 0.0182* (0.0074 5)	- 0.0192* (0.0076 6)	- 0.0146* (0.0068 4)
OOPSUSD	0.258*** (0.0852)	0.263*** (0.0845)	0.250*** (0.0880)	0.248*** (0.0863)	0.268** (0.0824)	0.271** (0.0830)	0.256** (0.0855)	0.254** (0.0840)
Stock traded GDP	0.0211 (0.0188)	0.0218 (0.0179)	0.0145 (0.0187)	0.0123 (0.0180)	0.0205 (0.0171)	0.0184 (0.0166)	0.0101 (0.0173)	0.0082 (0.0165)
Inflation	-0.00162 (0.00218)	-0.00163 (0.00217)	-0.00111 (0.00229)	-0.000992 (0.00222)	- 0.0012 (0.0021 7)	- 0.0010 (0.0022 0)	- 0.0003 (0.0023 3)	- 0.0003 (0.0022 7)
Income	-0.791*** (0.174)	-0.561*** (0.160)	-0.608*** (0.170)	-0.541*** (0.162)	0.224 (0.169)	0.550** (0.159)	0.491** (0.167)	0.575** (0.159)
Economic Freedom Index	0.0239*** (0.00339)	0.0234*** (0.00330)	0.0223*** (0.00354)	0.0241*** (0.00332)	0.0210* (0.0032 6)	0.0198* (0.0032 3)	0.0189* (0.0034 4)	0.0210* (0.0032 0)
F	12.41	12.14	10.35	12.71	33.45	32.95	34.58	39.73
r2	0.410	0.421	0.381	0.430	0.707	0.704	0.690	0.714
N	385	385	380	385	385	385	380	385

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix 6 Market Based Economy (SLS)

The table presents the results for 27 countries representative of low- and middle-income countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.417***				0.562***			
	(0.0795)				(0.0843)			
PPCCGDP (%)		0.377***				0.384***		
		(0.0890)				(0.0972)		
GE			0.224***				0.245***	
			(0.0796)				(0.0857)	
GGEGDP(%)				0.727***				0.809***
				(0.123)				(0.135)
Education index	-0.229	0.435	0.716	0.0885	0.541	1.758**	1.990***	1.280
	(0.699)	(0.666)	(0.684)	(0.713)	(0.736)	(0.734)	(0.758)	(0.783)
Bank Z	-0.0194	-0.0210	-0.0185	-0.0126	-0.0245	-0.0259	-0.0233	-0.0168
	(0.0137)	(0.0149)	(0.0147)	(0.0129)	(0.0181)	(0.0198)	(0.0196)	(0.0177)
OOPSUSD	0.388**	0.259**	0.262**	0.127	0.176	-0.0230	-0.0143	-0.163
	(0.119)	(0.125)	(0.129)	(0.108)	(0.133)	(0.154)	(0.161)	(0.134)
Stock traded GDP	0.0459	0.0367	0.0485	0.0557	0.00822	0.00752	0.0177	0.0253
	(0.0430)	(0.0425)	(0.0447)	(0.0410)	(0.0422)	(0.0446)	(0.0467)	(0.0411)
Inflation	0.00319	0.00117	0.00117	0.00104	-0.00111	-0.00413	-0.00406	-0.00419
	(0.00311)	(0.00335)	(0.00339)	(0.00291)	(0.00373)	(0.00440)	(0.00447)	(0.00386)
Income	-0.960***	-0.535**	-0.756***	-0.231	-0.0784	0.477*	0.238	0.821***
	(0.253)	(0.238)	(0.265)	(0.236)	(0.248)	(0.261)	(0.300)	(0.260)
Economic Freedom Index	0.0168**	0.0198***	0.0186***	0.0126**	0.0257**	0.0281**	0.0272**	0.0206**
	(0.00671)	(0.00684)	(0.00698)	(0.00573)	(0.00691)	(0.00715)	(0.00729)	(0.00613)
F	9.869	10.02	8.020	12.73	39.07	36.33	32.01	41.90
r2	0.351	0.362	0.328	0.449	0.705	0.676	0.666	0.724
ar2								
N	255	255	255	255	255	255	255	255

Appendix 7 High Financial Inclusion (SLS)

The table presents the results for 32 countries representative of low- and middle-income countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.159*** (0.0483)				0.298* ** (0.054 6)			
PPCCGDP (%)		0.192*** (0.0512)				0.283* ** (0.059 7)		
GE			0.00894 (0.0197)				0.0429 ** (0.019 3)	
GGEGDP(%)				0.424*** (0.110)				0.491* ** (0.120)
Education index	1.489* (0.834)	1.487* (0.829)	1.448 (0.902)	1.668** (0.800)	1.517* (0.844)	1.578* (0.864)	1.718* (0.964)	1.839* (0.853)
Bank Z	-0.0226*** (0.00719)	-0.0222*** (0.00714)	-0.0234*** (0.00749)	-0.0188*** (0.00703)	- 0.0213 *** (0.007 28)	- 0.0212 *** (0.007 45)	- 0.0224 *** (0.007 89)	- 0.0176 ** (0.007 55)
OOPSUSD	0.0106 (0.108)	0.00940 (0.107)	0.0490 (0.114)	-0.0113 (0.101)	0.0122 (0.107)	0.0216 (0.108)	0.0550 (0.114)	0.0069 (0.106)
Stock Traded GDP	-0.00532 (0.0269)	-0.00690 (0.0268)	-0.00727 (0.0271)	-0.00872 (0.0241)	- 0.0125 (0.027 6)	- 0.0151 (0.027 7)	- 0.0195 (0.028 3)	- 0.0170 (0.025 0)
Inflation	0.000858 (0.00186)	0.000612 (0.00187)	0.00205 (0.00197)	0.00193 (0.00175)	- 0.0004 34 (0.002 02)	- 0.0004 38 (0.002 11)	0.0013 9 (0.002 29)	0.0014 6 (0.002 05)
Income	-0.460** (0.216)	-0.285 (0.204)	-0.270 (0.211)	-0.0829 (0.206)	0.489* (0.224)	0.823* (0.216)	0.826* (0.227)	1.062* (0.229)
Economic Freedom Index	0.0147***	0.0145***	0.0123***	0.0147***	0.0135 ***	0.0126 ***	0.0105 ***	0.0124 ***

	(0.00383)	(0.00371)	(0.00383)	(0.00340)	(0.00378)	(0.00384)	(0.00396)	(0.00354)
F	11.24	11.58	7.253	9.922	25.10	21.82	18.72	21.32
r2	0.383	0.388	0.327	0.428	0.650	0.639	0.608	0.653
N	303	303	298	303	303	303	298	303

Appendix 8 Less Financial Inclusion (SLS)

The table presents the results for 22 countries representative of low- and middle-income countries for the period of 2005-2015. Columns (1-4) present the results for deposit to GDP ratio, whereas columns (5-8) show the results for total deposit value of the country. All the variables are in natural log form except bank stability, inflation, education index, and economic freedom index. We use bank stability, education index, per capital health expenditure as endogenous variables and the instrument variable for the same are lag-level variable of respective variables. In all regression equations, we employ firm fixed and year effects. The robust standard errors are in parenthesis. The sign ***, **, and * present the statistical significance at 1%, 5% and 10% level respectively.

	(1) Deposit to GDP	(2) Deposit to GDP	(3) Deposit to GDP	(4) Deposit to GDP	(5) Deposit	(6) Deposit	(7) Deposit	(8) Deposit
PPCC	0.184				0.213*			
	(0.136)				(0.118)			
PPCCGDP (%)		0.373***				0.293***		
		(0.113)				(0.105)		
GE			0.208**				0.191***	
			(0.0852)				(0.0740)	
GGEGDP(%)				0.409**				0.350**
				(0.175)				(0.156)
Education index	0.432	-0.190	0.352	0.406	0.490	0.254	0.579	0.672
	(1.078)	(0.963)	(0.860)	(0.978)	(0.882)	(0.806)	(0.730)	(0.835)
Bank Z	-0.0128	-0.0114	-0.0110	-0.0166	-0.0106	-0.00973	-0.00913	-0.0141
	(0.0167)	(0.0161)	(0.0165)	(0.0158)	(0.0145)	(0.0141)	(0.0148)	(0.0147)
OOPSUSD	0.396***	0.443***	0.408***	0.315***	0.312***	0.317***	0.303***	0.217**
	(0.120)	(0.112)	(0.108)	(0.0982)	(0.103)	(0.0957)	(0.0924)	(0.0851)
Stock Traded GDP	0.0935***	0.0886***	0.0914***	0.0842***	0.0809***	0.0766***	0.0787***	0.0725***
	(0.0268)	(0.0264)	(0.0270)	(0.0271)	(0.0245)	(0.0243)	(0.0248)	(0.0253)
Inflation	0.00464	0.00571	0.00481	0.00323	0.00366	0.00405	0.00352	0.00209
	(0.00404)	(0.00400)	(0.00392)	(0.00367)	(0.00359)	(0.00357)	(0.00348)	(0.00328)
Income	-1.165***	-1.021***	-1.154***	-0.821***	-0.192	0.0108	-0.125	0.175
	(0.307)	(0.248)	(0.256)	(0.239)	(0.266)	(0.212)	(0.218)	(0.208)
Economic Freedom Index	0.0232***	0.0253***	0.0250***	0.0237***	0.0250***	0.0261***	0.0263***	0.0250***
	(0.00608)	(0.00603)	(0.00605)	(0.00576)	(0.00554)	(0.00545)	(0.00542)	(0.00521)
F	5.649	6.372	5.589	5.868	32.05	34.42	31.92	33.37
r2	0.209	0.257	0.228	0.283	0.727	0.740	0.733	0.748
ar2								
N	214	214	214	214	214	214	214	214

Appendix 9 List of Countries

<i>Countries Name</i>	<i>Period covered</i>	
Argentina	2005	2015
Australia	2005	2015
Austria	2005	2015
Bangladesh	2005	2015
Belgium	2005	2015
Brazil	2005	2015
Bulgaria	2005	2013
Canada	2005	2015
Chile	2005	2015
Colombia	2005	2015
Croatia	2005	2015
Cyprus	2005	2015
Czech Republic	2005	2015
Denmark	2005	2012
Ecuador	2005	2012
Egypt, Arab Rep.	2005	2015
Estonia	2005	2012
Finland	2005	2012
France	2005	2015
Georgia	2005	2012
Germany	2005	2015
Ghana	2005	2013
Greece	2005	2015
Hungary	2005	2015
Iceland	2005	2012
India	2005	2015
Indonesia	2005	2015
Ireland	2005	2015
Israel	2005	2015
Italy	2005	2015
Jamaica	2005	2015
Japan	2005	2015
Jordan	2005	2015
Kenya	2005	2015
Kuwait	2005	2013
Latvia	2005	2012
Malaysia	2005	2015
Mauritius	2005	2015
Mexico	2005	2015
Mongolia	2005	2012
Morocco	2005	2015
Namibia	2005	2015

Netherlands	2005	2015
Nigeria	2005	2015
Norway	2005	2015
Oman	2005	2015
Pakistan	2005	2015
Panama	2005	2015
Peru	2005	2015
Philippines	2005	2015
Poland	2005	2015
Portugal	2005	2015
Qatar	2005	2015
Romania	2005	2015
Russian Federation	2005	2015
Saudi Arabia	2005	2015
Singapore	2005	2015
Slovenia	2005	2015
South Africa	2005	2015
Spain	2005	2015
Sri Lanka	2005	2015
Sweden	2005	2012
Switzerland	2005	2015
Thailand	2005	2015
Trinidad and Tobago	2005	2012
Ukraine	2005	2015
United Arab Emirates	2008	2015
United Kingdom	2005	2014
United States	2005	2015
Vietnam	2005	2015

