Sys Rev Pharm 2020;11(12):192-196
A multifaceted review journal in the field of pharmacy

THE DETERMINANTS OF FINANCIAL INCLUSION IN LATIN AMERICA AND EUROPE (BRAZIL AND ROMANIA CASE)

Yaseen Altarawneh
Assistant professor, University of Jordan
Email:y.tarawneh@ju.edu.jo
Prof. Mohamed Al-Nuaimi
Professor of Business, University of Jordan.
Email:M.nuaimi@ju.edu.jo
Ade Al-Nimri
Economic and Financial Researcher, University of Jordan
Email:adenimri@yahoo.com

ABSTRACT
The aim of this paper is to examine the level and determinants of financial inclusion in Latin America and Europe and especially in Brazil and Romania based on the Global Findex database. We found that income and education contribute to greater financial inclusion as they are positively related to having a formal account and this finding supports the view that policies favoring financial inclusion should target certain groups of population such as women and young people. Our main conclusions found that the level of financial inclusion in Brazil and Romania is high relative to comparable countries. Financial inclusion, as measured by the ownership of a formal account, does not create a major problem in both countries. Brazilian and Romanian authorities could nonetheless improve the ownership of a formal account by dismantling obstacles related to income and education, all of which found more long-run issues. In summary, our work contains findings of particular interest to design policies to improve financial inclusion in Brazil and Romania. It stresses the role of policies targeting groups of population particularly affected by financial Inclusion and identifies the main obstacles they face.

Keywords: Financial inclusion, Economic growth, Development, Poverty, Entrepreneurship.

INTRODUCTION:

The global financial system and World economy was the subject of discussion during the G20 summit in Seoul 2010, recognizing Financial inclusion, which defines as access to financial products and services, as one of the main pillars of the global development agenda. The leaders announced the establishment of The Global Partnership for Financial Inclusion (GPFI)[1] as the mechanism for implementing the G20 action plan for financial inclusion. The World Bank has played a major role in advancing financial inclusion around the world; they support the effort of government and monetary authorities through developing guidelines, standards and good practices. They also develop guidance for regulators and policymakers in order to guide them to support financial inclusion. Policy maker should essentials of strong financial system through providing a strong political environment that provide the necessary protection for all economic agents; savers, creditors, investors and borrowers, which will enhance financial capabilities, promote financial access. The benefit of improvement in the financial inclusion was a subject of many empirical researches. Dupas and Robinson (2013) show that individual who use accounts van save more and increase their productive and private expenditure. On the other side Lusardi(2011) examines the financial capabilities of Americans and shows that the majority of them do not have a plan for expected events like retirement or college education, which lead them to more expose to economic shocks, however, having an account or not is not the only issue of financial inclusion, but the level of financial knowledge is mutter too.
Measuring the accessibility of financial services has its complication, due to the lack of micro level data; however, the World Bank Findex data base provides comprehensive information about financial inclusion for more than 140 countries. However, financial inclusion can be measured through developing indicators but it is necessary to distinguish between voluntary exclusion in which

[1] GPFI: https://www.gpfi.org/about-gpfi

individuals chose not to use financial services due to Cultural or religious reasons; and involuntary exclusion which is resulted due to low income, discrimination, contractual or costs.[2]The policy makers in Romania have given great interest for the financial inclusion, they have conducted a strategy depends on by inducing lending and developing capital markets, Reducing regional disparities. They also started an educational project through the national bank of Romania at the national level in order to support financial education among elementary and secondary school students.[3]The monetary authority in Brazil has created a financial inclusion project, through which the central bank was responsible about assessing and developing policies, collect and analyze data in order to determine the Perspectives and Challenges for Financial Inclusion in Brazil. However the central bank has set a plan based on improving data, strengthen microcredit financial education in order to assess and improve financial inclusion in different cities around the country.[4]

FINANCIAL INCLUSION: LITERATURE REVIEW:

The effect of financial development on economic growth has been a subject of debate between economists. Many of the early economists argued that financial intermediaries' activities has positive effect on economic growth; this result was presented by Schumpeter (1912)who argued that saving play a major role in economic growth while banking sectors plays a key role through financing innovation is financed by providing credit. By using a cross sectional data of 80 countries R. Kingand and R. Levine (1993) have presented evidence that growth can be promoted by financial development. Levine, R., Loayza, N., & Beck, T. (2000) examine the effect of exogenous component of financial intermediary on economic growth; they concluded that "legal and accounting reforms that strengthen creditor rights, contract enforcement, and accounting practices can boost financial development and accelerate economic growth".[5]Financial sectors have played a major role in allocation of resources through aggregating savings from households and other agents and providing funds for investors to finance their activities, this traditional role of the financial intermediaries has been expanded to include payments services and developed new investment instruments. However, Financial inclusion means "individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way."[6]In the last few years financial inclusion has attracted the attention of policy makers around the world, since the increase of access and use of financial services increase the depth of the financial sector and ensure development. Dabla-Norris, Robert Townsend, and Unsal (2015) have evaluated the impact of policies considering the constraint of financial inclusion in six countries. Their micro-founded model considers three dimensions of financial inclusion; access, depth and intermediation efficiency. They have concluded that financial inclusion effect on GDP differs according to the country specification; more over government has to enhance financial inclusion through laws and regulation and protecting creditor's rights. For monetary policy financial inclusion is important for stabilizing financial stabilities, through increasing the ability of monetary policy to influence economic agents' behavior. Mehrotra and Yetman (2014) examine the effect of financial inclusion on welfare-maximizing monetary policy, they build their model based on the assumption that financially included households can smooth their consumption, more over they examine how volatility of GDP and inflation vary related to the level of inclusion. Their results show that monetary policy has higher effect as financial inclusion increase. The recent empirical research has examined the financial inclusion around the world in order to determine the reasons behind the financial exclusion and set the suitable policies to decrease it. Based on Global Findex2014 data Rojas-Suárez (2016)has measured financial inclusion in Latin America using the data of three indicators; the percentage of adults that have an account at a formal financial institution, the percentage of adults that have saved at a financial institution over the past year and the percentage of adults that have borrowed from a financial institution over the past year, she has shown that financial inclusion gap In resulted from institutional weakness, low of legal enforcement and insufficient bank competition. Fondeville, Őzdemir and Ward (2010) have reported that high level of exclusion in Europe is related to countries like Bulgaria, Romania and Greece; they attributed that to the definition of a bank account adopted in the EU-SILC. They also find that a higher rate of population who do not have an account is concentrated in women, low income individuals. This result is repeated for number of people without a credit facility.

THE DATA, METHODOLOGY AND ESTIMATED RESULTS:

In this segment we document financial inclusion in Latin America and Europe especially in Brazil and Romania.Wedescribethedataandthenexaminethemainfinancialinclusionindicators.To realize our analyses we use the World Bank's 2014 Global Findex database. The database is obtained thanks to surveys realized in more than 140 countries and covering almost 150,000 persons worldwide representing more than %97 of the world's population. The

[2]Demirgüç-Kunt, Aslı, 2008– Finance for all? : policies and pitfalls in expanding access, World Bank.

[3]http://www.bnr.ro/page.aspx?prid=13136

[4]http://www.cgap.org/blog/head-brazil%E2%80%99s-central-bank-financial-inclusion-team-speaks-cgap

[5]Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth: Causality and causes. Journal of Monetary Economics, 46, 31–77.

[6] World Bank definition : http://www.worldbank.org/en/topic/financialinclusion/overview

survey was prepared by Gallup, Inc., in association with its annual Gallup World Poll. By using randomly selected, nationally representative samples, roughly 1000 people in each economy have been questioned using over 140 languages. The target population is the entire civilian, non-institutionalized population aged 15 and above. The Globa lFindex database delivers a large number of indicators on financial inclusion enabling to assess the volume of account penetration, the use of financial services, the purposes and motivations, the alternatives to formal finance, etc. It also provides information on some characteristics of individuals such as (income, education, age, and gender) that will be used in our estimations. In line with previous literature; we focus on the main measures of financial inclusion. Formal account refers to the fact that the individual has an account at a financial institution. To provide insights on the level of financial inclusion in Latin America and Europe, we measure financial inclusion from different perspectives. We focus on one main indicator, in line with Demirgüc-Kuntand Klapper (2012).The ownership of an account in a formal financial institution (formal account) which considers as the most traditional indictor to measure the financial inclusion. This is defined using the following survey question: Do you currently have a bank account at a formal financial institution?

Findings and Discussions:

Table 1: Main indicators for financial inclusion for both "Europe & Central Asia" and "Latin America & Caribbean"

	Formal account		
	Obs.	Mean	Std. dev.
Brazil	1007	0.70	0.46
Romania	998	0.59	0.49
Latin America & Caribbean	16536	0.44	0.50
Europe & Central Asia	21040	0.49	0.50
World	129082	0.53	0.50

Data source: World Bank Global Findex database.

This table shows the descriptive statistics for the main financial inclusion indicator "Formal account". Formal account refers to adults reported to currently have a bank account at a formal financial institution. Financial inclusion can take diverse forms, the broader one being the ownership of an account in a formal financial institution. A formal account serves as anentry key to the bankingindustrybecauseitallowstheindividualtoopenasavi ngsaccountandto applyforaloan.Weobservethat%70ofBrazilianindividualsh aveanaccountataformalfinancialinstitution.ThisfigureisLa rgerthan the average for Latin America & Caribbean, compare with%59of Romanian individuals have a formal account, which also larger thanfigures reported in Europe & Central Asia. Both Brazilian and Romanian figures a real so high income parison with the world average, as half of the world adult population still does not have a formal account (Demirgüc-Kunt&Klapper,2012)

Table 2: Definitions for the main variables

Variables	Definition
Gender	= 0 if female, =1 Male
Age	age in number of years
Income - poorest 20%	=1 if income in the first income quintile, = 0 otherwise
Income - second 20%	=1 if income in the second income quintile, = 0 otherwise
Income - third 20%	=1 if income in the third income quintile, = 0 otherwise
Income - fourth 20%	=1 if income in the fourth income quintile, = 0 otherwise
Secondary education	=1 if secondary education, = 0 otherwise
Tertiary education	=1 if tertiary education, = 0 otherwise

Table 3: Descriptive statistics for the main variables in the estimations

Gender	1007	0.40	0.49	998	0.44	0.50
Age	1007	45.15	18.03	998	55.19	18.60
Secondary education	1007	0.45	0.50	998	0.53	0.50
Tertiary education	1000	0.04	0.19	998	0.13	0.34
Income - poorest 20%	1007	0.18	0.38	998	0.16	0.36
Income - second 20%	1007	0.19	0.39	998	0.18	0.39
Income - third 20%	1007	0.20	0.40	998	0.20	0.40
Income - fourth 20%	1007	0.22	0.42	998	0.23	0.42

Data source: World Bank Global Findex database.

This segment is devoted to the presentation of our main empirical findings. We first describe the methodology. We then present the results for the determinants of the main financial inclusion indicator. In order to evaluate the determinants of financial inclusion in Brazil and Romania, we perform logit estimations and use the following equation:

$$X_i = \alpha + \beta * Gender_i + \Phi * Income_i + \sigma * Age_i + \rho * Education_i + \varepsilon_i$$

Where X is the financial inclusion variable and i represents

one given individual. The individual characteristics are the explanatory variables. Gender is a dummy variable equal to zero if the individual is a woman (Female) and one else. Taking income into account, we use four dummy variables (poorest 20%, second 20%, third 20% and fourth 20%). The fifth richest quintile is the omitted dummy variable. Poorest 20% is a dummy variable equal to one if income is in the first income quintile, zero elsewise, and so on for the other dummies. Age is represented with one measure: one with the number of years (Age).Regarding to education, we use two dummy variables: Secondary education and Tertiary education. Secondary education is equal to one if the individual has completed secondary education, zero elsewise. Tertiary education is equal to one if the individual has completed tertiary education or more, zero elsewise. The omitted dummy variable is primary school or less. Table 3 reports the descriptive statistics for the individual characteristics.

Table 4: Determinants of financial inclusion in Brazil and Romania

	Brazil	Romania
Variables	:ount at formal ıcial institution	:ount at formal ıcial institution
Gender	0.23	0.24
Age	0.02***	- 0.02***
Secondary education	0.93***	0.79***
Tertiary education	2.93***	2.56***
Income — poorest 20%	-0.56**	-1.48***
Income — second 20%	-0.79***	-1.14***
Income — third 20%	-0.77***	-0.47**
Income — fourth 20%	-0.30	-0.54**
Constant	-0.06	1.23***
Nagelkerke R^2	0.12	0.26
Log likelihood	1145.200	1132.485

***Denotes significance at the 1% level. ** Denotes significance at the 5% level. * Denotes significance at the 10% level.

Data source: World Bank Global Findex database.

Wefoundthat theimpactofageisidenticalforthefinancialinclusionindicators.Wefoundsignificant and positive effectsfor agein Brazil and in the other hand this relationship is negative and significant in Romania.Hencethereisanonlinearrelationbetweenageandfinancialinclusion.Thismeansthatolderpeopleusemoreformalfinancialservicesthandoestherestofthepopulation as the Brazilian case,butthisobtainsonlyuptoacertainage. Alternatively,financialinstitutionsmightputlesseffortintoattractingolderclients.Olderindividualsmightbemoreunenthusiastictouseformalfinancialservicesastheyarenotusedtousingthem as Romanian case.

We observe significantly positive coefficients for Secondary education and Tertiary education for the indicator of financial inclusion in both countries, with higher coefficients for the latter one. Alike Allen et al. (2016) worldwide and Fungácová and Weill (2015), we find that more educated adults are more likely to be financially included and that age has a non-linear relation with financial inclusion.Furthermore, Income is related to numerous explanations for not having an account. As expected, lack of money explains why poor individuals do not have formal account. Dummy variables for the fourth first income quintiles are all positive and significant, with higher effects for lower income in Brazil and Romania. In other words, poor individuals do not feel the same need to have an account in the household as do rich individuals. This finding supports the Fungáčová, Z., & Weill, L. (2015) view that the cost of banking services is not – or at least is not perceived to be – an obstacle to financial inclusion, as it does not affect the poorest persons' demand.Overall,thesefindingsraisefurtherquestions.Wewonderifindividuals'characteristicsalsodeterminethebarrierstofinancial inclusionandtheuseofalternativesourcesofborrowing in both countries.

SUMMARY AND CONCLUSION:

InthispaperweexaminethelevelanddeterminantsoffinancialinclusioninBrazil and Romania basedontheGlobalFindexdatabase.Financial inclusioniscriticalbecauseithelpsfostereconomicgrowthbyincreasingthepossibilitiesforeducation andentrepreneurship in addition it could be contributing to alleviate poverty; therefore understanding the determinants of financial inclusion in to two different countries from two different continent is a major issue.Wefoundthatincome and education,contributetogreaterfinancialinclusion,asthey arepositivelyrelatedtohavingaformalaccount and this finding supports the view that policies favoring financial inclusion should target certain groups of population such as women and young people.Our main conclusion is thus that the level of financial inclusion in Brazil and Romania is high relative to comparable countries. Financial inclusion, as measured by the ownership of a formal account, does not create a major problem in both countries. Brazilian and Romanian authorities could nonetheless improve the ownership of a formal account by dismantling obstacles related to income and education, all of which found more long-run issues. In summary, our work contains findings of particular interest to design policies to improve financial inclusion in Brazil and Romania. It stresses the role of policies targeting groups of

population particularly affected by financial Inclusion and identifies the main obstacles they face.

REFERENCES:

- Aaron Mehrotra and James Yetman. (2014).” Financial inclusion andoptimal monetary policy”, BIS Working Papers, No 476
- Allen Franklin ,KuntAsliDemirguc- c , KlapperLeora c , Maria Soledad Martinez Peria, (2016),” The foundations of financial inclusion: Understanding ownership and use of formal accounts”, J. Finan. Intermediation 27 (2016) 1–30.
- Demirgüc¸-Kunt, A., Klapper, L., 2012. Measuring Financial Inclusion: The Global Findex Database Policy Research Working Paper 6025. The World Bank, Washington, DC.
- Dipasha Sharma, (2016) "Nexus between financial inclusion and economic growth: Evidence from theemerging Indian economy", Journal of Financial Economic Policy, Vol. 8 Issue: 1, pp.13-36.
- Era Dabla-Norris, Yan Ji, Robert Townsend, and D. FilizUnsal,(2015), “Identifying Constraints to Financial Inclusionand Their Impact on GDP and Inequality:A Structural Framework for Policy”, (IMF Working Paperwp/15/22).
- Fondeville, N., Őzdemir, E. and Ward, T. (2010), “Financial exclusion in the EU: new evidencefrom the EU-SILC special module”, Social Europe Research Note 3/2010, EuropeanCommission, Brussels.
- Fungáčová, Z., & Weill, L. (2015). Understanding financial inclusion in China. China Economic Review, 34, 196-206.
- King, R., & Levine, R. (1993). Finance and growth. Schumpeter might be right. Policy research.(Working papers, 1083).
- Lei Chen, Jo Danbolt, John Holland, (2014) "Rethinking bank business models: the role of intangibles", Accounting, Auditing & Accountability Journal, Vol. 27 Issue: 3, pp.563-589.
- Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth: Causality andcauses. Journal of Monetary Economics, 46, 31–77.
- Liliana Rojas-Suárez, (2016), “Financial Inclusion in Latin America: Facts, Obstacles and Central Banks’ PolicyIssues”, IDB, (DISCUSSION PAPER No. IDB-DP-464).
- Lusardi, A. 2010. “Americans’ Financial Capability.” Report Prepared for the United States Government Financial Crisis Inquiry Committee (FCIC).
- PascalineDupas and Jonathan Robinson.(2013), “Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya. American Economic Journal: Applied Economics 2013, 5(1): 163–1920
- Raymond W. Goldsmith, (1959), “The Comparative Study of Economic Growth and Structure”, NBER.
- Robert G. King; Ross Levine, (1993), “Finance and Growth: Schumpeter Might be Right”, The Quarterly Journal of Economics, Vol. 108, No. 3.
- Schumpeter, J.A., 1934. The theory of Economic Development, Harvard University Press, Cambridge.
- Shawaqfeh, W and Al-Nimri, A. (2018), “the Determinants of Financial Inclusion in Emerging Markets "Jordanian Case"”, American Journal of Business Studies, Vol. 1 Issue 1. pp. 31-44.
- Stephen Sinclair, (2013) "Financial inclusion and social financialisation: Britain in a European context",International Journal of Sociology and Social Policy, Vol. 33 Issue: 11/12, pp.658-676,

Websites:

http://www.tandfonline.com/doi/full/10.1080/1331677X.2014.947107

http://www.worldbank.org/en/topic/financialinclusion

http://www.worldbank.org/en/topic/financialinclusion/overview