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# WHAT IS PREVENTING WOMEN'S FINANCIAL INCLUSION? A CAMEROONIAN EVIDENCE<sup>1</sup>

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#### Abstract

In the quest for the determinants of financial inclusion, the role and relevance of gender has increased in recent years, particularly in Africa where financial inclusion is low. Thus, this study identifies the factors that hinder the financial inclusion of women in Cameroon. Based on data from the World Bank's Global Findex, we applied a probit model and a Heckman selection model. The results show that there is no significant gender difference in access to an account and some uses of the account. On the other hand, women have a lower probability of accessing credit than men. In addition, several factors have been identified as preventing women from including themselves financially. Overall, vulnerable women are young, poorly educated and those with relatively high incomes. Also, the lack of confidence in the formal Cameroonian financial market, the perception of a lack of money and the perception of the uselessness of having a formal account are all factors responsible for the financial exclusion of Cameroonian women. The results of this research could serve as an alarm bell for Cameroonian policy makers to combat gender discrimination in financial inclusion, mainly access to credit.

*Keywords:* Financial inclusion, gender, probit, Heckman, Cameroon *Classification-JEL*: G21, O16, O55

## **INTRODUCTION**

Access to formal financial services is of crucial importance because of its usefulness and the various effects it can have on its beneficiaries. Thus, financial inclusion can be defined as a situation in which individuals and companies have the opportunity to have access to and the ability to use various appropriate financial services, which are provided in a responsible and sustainable manner by a formal financial institution (CGAP, 2015). Financial inclusion provides benefits for the poor. By providing them with opportunities to make investments, have an account and access to credit through a formal financial institution and finally to increase their income and the possibility of finding a job (Bruhn and

love, 2014). Macroeconomic studies have shown us that an economy grows faster if financial intermediation is deep (Demirguc-Kunt *et al.*, 2013, Iqbal and Sami, 2017; Dahiya, S. and M. Kumar, 2020; Van *et al.*, 2021).Erlando *et al.* (2020) have shown a high relationship level between financial inclusion, economic growth, poverty, and income distribution.

Despite the development benefits of financial inclusion, the financial sector does not seem to have sufficiently taken into account all segments of the population. Indeed, most people in the world do not have access to formal financial services and only 30% of women have access to an account (Oumaa et al., 2017). The poorer the country, the more people with the least bank accounts. According to the Global Findex database, 515 million adults worldwide opened an account with a financial institution or via a mobile phone banking service provider between 2014 and 2017. This means that 69% of adults now have an account, compared to 62% in 2014 and 51% in 2011. In high-income economies, 94% of adults have an account, compared to 63% in developing economies (Demirgüc-Kunt et al., 2018). In Sub-Saharan Africa (SSA) 80% of adults did not have access to formal financial services and only 28% of adults over 15 years of age had an account. In addition, only 2.4% used their account to make a transaction (Demirgüc-Kunt et al., 2015). The growth in account ownership since 2011 has not benefited all groups equally. Women are still less likely than men to have an account. Globally, 72% of men and 65% of women have an account, representing a gap of 7 percentage points between men and women (Demirgüc-Kunt et al., 2018). This 7 percentagepoint gender gap was also present in 2014 and 2011. The gender gap is similar in developingeconomies, with 67% of men but only 59% of women having an account. In developing economies, the gender gap remains unchanged at 8 percentage points.

In Cameroon, data on financial inclusion remain very weak. Indeed, according to Global Findex data in 2017, only 35% of adults have an account with a gender difference of 9 percentage points. Only 12.2% of the 15+ years old have an account in a formal financial institution. In addition, only 0.3% of adults make their payments with a credit card, and 1.9% have made a loan from a formal financial institution. These data on financial inclusion in Cameroon contrast sharply with the strong presence of microfinance institutions. Indeed, according to the Central African Banking Commission (COBAC), Cameroon had 509 microfinance institutions in 2012 (COBAC, 2012). Overall, in Cameroon, it is women who show more pronounced signs of fragility than men. According to the third Cameroonian household survey (ECAM 3)

conducted by the National Statistics Institute (NSI 2010), women are less educated than men. The female literacy rate is 58.9% compared to 70.6% for men. Similarly, in terms of health, the reported morbidity rate is 25.9% for women compared to 23% for men.

The aim of this study is to identify the factors that explain the low financial inclusion of women in Cameroon. This study is one of the first to analyse the issue of access to and use of funding by women in a developing economy such as Cameroon. Several empirical studies show that gender is a significant determinant in macroeconomic outcomes (Duflo, 2012). Most studies are generally of the inter-country type (Lampietti and Stalker, 2000; Demirguc et al., 2013). Even national studies do not adequately address women's behaviour, or even if they do, focus mainly on access (Holvoet, 2004; Hazarika and Guha-Khasnobis, 2008; Fletschner, 2009). The existence of a significant gender gap is explained by lower financial literacy among women (Lusardi and Tufano, 2009), differences in behaviour (Beck and Brown, 2011) or even discrimination (Fletschner, 2009). There is no systematic empirical evidence and this is one of the main concerns of our study. Therefore, understanding the influence of gender on financial inclusion is a key concern to promote women's economic development in Cameroon. The objective of this document is to contribute to the understanding of the factors that prevent (or promote) the financial inclusion of women in a developing economy like Cameroon.

To this end, we are using the Global Findex database on Cameroon in 2017. After showing that gender is a problem of financial inclusion, we will then determine the factors responsible for this financial exclusion. To do this, we will use a probit model and a Heckman model tocorrectthe selection bias. The rest of the article is organized as follows. Section 2 provides the empirical literature on gender concerns and financial inclusion. Section 3 presents the methodology used. The results are discussed in Section 4 and finally Section 5 concludes with some public policy recommendations.

## LITERATURE REVIEW

This section provide a brief empirical literature on gender concerns and financial inclusion. In India, Swain (2002) examines the extent of credit rationing in rural areas and finds that at least 60% of households were not fully satisfied with their credit demand at formal financial institutions. Using the database on access to finance in rural areas, Basu (2006) arrived at the following result: women-centred banking models are effective in saving and repayment. Through

the National Organization's (NSSO) 59th round data, Rajeev et al (2011) indicates that the debt ratio of female-headed households is 4 to 10 percentage points higher than that of male-headed households, although they do not undertake any formal empirical analysis. Subsequently, Rajeev and Bhattacharjee (2015) show that female-headed households pay almost 5 percentage points more interest and that their access to formal sources of finance is 7 to 10 percentage points lower than that of male-headed households. Basavaraj and Bhattacharjee (2014) also found that households with fewer land holdings are more likely to have access to credit from lenders. Similar evidence also exists on the use of finances. Demirgüç-Kunt et al (2013) show that, in the case of developing countries, women are more often excluded from the use of financial services and that the consequences of their financial exclusion are linked to inequality in terms of income, education and employment. Presbitero et al (2014) analyse the participation of women in their enterprises and the management of these enterprises. Their conclusion is that companies in which women are predominantly included are more likely to be rationed by credit. Muravyev et al (2009) reached a similar conclusion.

Using country data, Beck *et al* (2015) identified a gender bias in the interest rate on microcredit loans: borrowers matched with a loan officer of the opposite sex on average pay higher rates by 26 to 28 basis points compared to when they are matched with a loan officer of the same sex. Malapit (2012) found that women had 11% credit constraints compared to men in the Philippines. In sub-Saharan Africa, Aterido *et al* (2013) have provided evidence to support the gender gap in the use of financial services.

With regard to studies on the determinants of financial inclusion, Uddin *et al* (2017) in their study in Bangladesh over the period 2005-2014 shows using the generalized method of moments and the regression approach that: the size of an institution, its efficiency and interest rates are determinants of supply, while the literacy rate and dependence are factors of demand. Zins and Weill (2016) surveyed the determinants of financial inclusion in Africa using the World Bank's Global Findex Database on 37 African countries. They used the probit estimation method and found that inclusion was determined by gender (in favour of men), age and education level with a greater influence of education and income. For Wachiraand Kihiu (2012), financial literacy is an important factor in financial inclusion. Thus, access to and use of financial services from an MFI can be influenced by the knowledge that populations in general (and women in particular) may have of these services. The authors underline this

point by mentioning that people often have misinformation about the costs of obtaining credit such as interest rates. In the same vein, Lévi-D'Ancona (2014) states that the low financial literacy of rural women is a key factor in their financial exclusion. For theauthor, the use of an MFI's financial products depends on its knowledge of the products of these institutions. Mastery of formal financial services would enable rural women to make good decisions in the management of their financial assets, which in the long run encourages them to make regular use of them.

Dar *et al.*, (2020) sought to investigate the determinants and barriers of financial inclusion in India. Using the Global Findex Database (Findex) of 2017, the study found out that gender, age, education and income influence financial inclusion with a significant influence on the informal saving and borrowing. Some of the results by Dar *et al.*, (2020) were supported by Mhlanga and Denhere(2020). Specifically, Mhlanga and Denhere(2020) showed a negative and significant relationship between gender and financial inclusion. The meaning of the negative sign on gender implied that access to financial products and services decline as far as women are concerned. This result is in line with the idea that males are the heads of households in many family setups in Africa.

The literature shows that there is a multitude of studies on the determinants of financial inclusion. However in this article we do not only identify these determinants including gender, but we try to understand why women are poorly included financially. Apart from the individual characteristics of these women, we identify barriers often overlooked in the literature: distance from a formal financial institution, cost of access to the financial service, documentation on the financial service, trust in financial institutions and the usefulness of this financial service.

## DATA AND METHODOLOGY

#### **Data Source**

We use the World Bank's Global Findex 2017 database to conduct our analyses. This database is obtained through a survey conducted in Cameroon. This survey was conducted by Gallup, Inc. in association with its annual Gallup World Poll. Using a nationally representative and randomly selected sample, approximately 1000 people were interviewed. The target population is the entire noninstitutionalized civilian population aged 15 years and over. The Global Findex database provides a large number of indicators on financial inclusion to assess the degree of account penetration, use of financial services, objectives and incentives, alternatives to formal financing, etc. It also provides sociodemographic information: gender, age, income and education.

Figure 1 shows in general that the rate of financial inclusion is very low in Cameroon. Indeed, less than 30% of Cameroonians have a formal account, 12% constitute formal savings and only 6% have taken out credit in a financial institution. Moreover, these figures hide gender disparities linked to financial inclusion. In fact, whatever the type of financial service, women are the least included, with a greater gap compared to men for savings (a gap of more than 10 percentage points).



Figure 1: Penetration rate of formal financial services in Cameroon in 2017 (% age 15+)

Source: authors, based on data from Global Findex 2017

#### Measurement of Variables

In line with the previous literature, we focus on the two main measures of financial inclusion: access (formal account, formal credit) and use (deposit and/ or withdrawal into the account and formal savings) of a financial service. A formal account refers to the fact that the person has an account with a financial institution. Formal savings refers to the fact that the person has saved by using an account at a financial institution over the past 12 months. Formal credit refers to the fact that the individual has borrowed from a financial institution in the past 12 months. Deposits and withdrawals by individuals with an account refer to any deposits and withdrawals into an account within the last 12 months. All these variables are dummy variables that take the value 1 if the person answered "yes" and zero if not.

Demographic variables include age groups (15-25 years, 26-35 years, 36-44 years and 45- 54 years 55-64 years and over 64 years), gender, education level (completed highereducation, completed high school, completed high school or less) and income quintile.Gender is a dummy variable equal to one if the individual is a woman (Female) and zero if not. To take income into account, we use five dummy variables (the poorest 20% and the richest 20%, with three intermediate levels). The poorest 20% are a dummy variable equal to 1 if the income is in the first income quintile, zero if not, and so on for the other dummy variables. We are also talking about the 5th richest quintile or quintile. Table 1 (in appendix) presents descriptive statistics for all the variables used.

#### **Empirical Model**

To examine gender differences in access to and use of finance, following previous research (Demirguc-Kunt *et al.*, 2013, 2015; Zins and Weill, 2016; Ghosh and Vinod, 2017), we use a multivariate regression model in which we examine the impact of gender on financial inclusion, while controlling for other individual characteristics. Consequently, for individual *i*, the basic regression takes the following form:

$$FI_i = \boldsymbol{\alpha}_0 + \boldsymbol{\alpha}_1 WOMAN_i + \boldsymbol{\alpha}_2 X_i + \boldsymbol{\mu}_i$$
(1)

$$FI_{ni} = \beta_0 + \beta_x X_{ni} + \varepsilon_{ni}$$
(2)

Where FIrepresents the different dimensions of financial inclusion (formal account, formal savings, formal credit and deposit and/or withdrawal into the account); *WOMAN* represents gender (male or female); Interest coefficients are  $\alpha_1$  and  $\beta_x$  identify women's responses and women's characteristics to financial inclusion respectively. X being the matrix of other variables that can explain financial inclusion (individual characteristics); wire presents woman *i*.  $\mu$  and  $\varepsilon$  are the error terms.

Equation 2 can be rewritten as follows:

$$FI_{wi} = \beta_0 + \beta_1 age_{wi} + \beta_2 education_{wi} + \beta_3 income_{wi} + \beta_4 distance_{wi} + \beta_5 cost_{wi} + \beta_6 Idocument_{wi} + \beta_7 ltrust_{wi} + \beta_8 religion_{wi} + \beta_9 money_{wi} + \beta_{10} useless_{wi} + \varepsilon_{ii}$$
(3)

When access to a financial service is the dependent variable, we use a probit model, since the variables explained are binary. When the dependent variable is the use of the financial service (in this case the use of the account), we use a two-step Heckman model. In the first step, the probit model (formal count) is estimated by the maximum likelihood method. Its estimation makes it possible to calculate the selection term  $\sigma i$ . Then, in the second step, the equation of the use is estimated by the non-linear least squares method or by the maximum likelihood method by including the correction term as an additional variable. The coefficient of this selection term captures the effect of the correlation of error terms in the estimation of selection processes with that of account usage. This estimation method then makes it possible to correct the selection bias and obtain unbiased coefficients.

The expected signs of the coefficients are as follows :  $\alpha_1 < 0$ ,  $\beta_1 > 0$ ,  $\beta_2 > 0$ ,  $\beta_3 > 0$ ,  $\beta_4 < 0$ ,  $\beta_5 < 0$ ,  $\beta_6 < 0$ ,  $\beta_7 < 0$ ,  $\beta_8 < 0$ ,  $\beta_9 < 0$ ,  $\beta_{10} < 0$ .

#### RESULTS

Table 3 (in the appendix) presents the results of the marginal effects of probit estimates for the main1financial inclusion indicators<sup>2</sup>. The formal account, formal savings, formal deposits and/or withdrawals and formal credit are our dependent variables. These marginal effects allow us to estimate the extent (or gaps) of gender discrimination related to financial inclusion in Cameroon. Initial results show that the coefficient associated with the opposite of the Mill ratio is negative and significant, confirming the existence of a selection bias for the "formal savings" and "formal deposits and/or withdrawals" models. The negative sign of this Mill ratio can be interpreted as follows: unobserved characteristics that positively influence the probability of having a formal account, negatively affect the probability of saving and making deposits and/or withdrawals.

We observe that most individual characteristics have a significant relationship with financial inclusion. For models (1) to (4) (*equation 1*), being a woman reduces the probability of having a formal credit by 2.7%, while no significant results are observed regarding the formal account, withdrawal and formal deposit or formal savings. According to Demirgüç-Kunt *et al* (2018), inability to provide collateral, low awareness of financial education and limited business experience are among the main reasons for this gender gap in formal financial inclusion, and mainly access to formal credit. Thus, apart from access to credit, gender is not significantly related to financial inclusion in Cameroon. These results are not consistent with data from the World Bank's Global Financial Inclusion database (Demirgüç-Kunt *et al.*, 2018), which highlights significant gender differences in account ownership and use of savings and credit products. These results are also different from those of Zins and Weil (2016) in Africa, who show that being a woman significantly reduces the chances of owning an account and saving and has no effect on formal credit. Similarly, Fungácová and Weill (2015) in China and Lotto (2018) in Tanzania find a negative link between women and account ownership. On the other hand, our results are partially in line with those of Allen *et al* (2016) and Lyons *et al* (2018), who do not find a significant gender gap in the appropriation of accounts at the global level and in OECD countries respectively. Alshamsan*et al* (2017) showed in the Gulf States that women are less likely to borrow money for medical purposes.

Age has different effects depending on the financial inclusion indicator. Indeed, although age has a positive and linear relationship with obtaining an account and credit, it has a negative effect on formal movements in the account and not significant on savings. As aresult, younger people are more active in their accounts than older people. In addition, we find that the results do not support the life-cycle theory that older people save more for old age until retirement age. This theory would mean that the level of financial inclusion is higher among middle-aged people (Carmen, Ximena and David, 2013). Financial inclusion is also declining, as a large part of the population is either too young or over retirement age, which hinders their access to financial services because they do not earn income (Cyn-Young and Rogelio, 2015).

Education has a positive influence on access to an account and has no effect on other financial indicators. The possible reason for this observation can be clearly linked to the financial ability of educated individuals to afford bank accounts and personal guarantees when banks request it, as the level of education is parallel to the level of income (Demirgüç-Kunt *et al.* 2018). Tambunlertchai (2018) also showed a positive effect of education on formal financial inclusion. Like Allen *et al* (2016) worldwide,Zins and Weil (2016) in Africa and Fungácová and Weill (2015) in China, we found that wealthier people are more likely to be financially included, mainly in the use of the formal account. However, formal credit is not influenced by income level. Our results also show that (wage) employment promotes access to financial services, while lack of documentation, lack of trust and lack of money negatively affect access to financial services.

Models (5) to (8) (*equation 2*) give us the results of the determinants of financial inclusion of Cameroonian women. These results show that women who are more likely to have a formal account are 36-44 years old and 55-64 years old. Those aged 36-44 are also more likely to obtain credit from a financial institution. However, age has a negative effect on deposits and withdrawals into the account. Moreover, women's age has no effect on their savings in a financial institution. Among women, education is a discriminating variable in financial inclusion, including the formal account and withdrawals and/or

deposits. For access, the level of discriminating education is secondary (with a probability of attainment of 9%) while for its use it is tertiary (with a probability of 19%). The possible reason for this observation can be clearly linked to the financial ability of educated women to afford to own and use often complex financial services. As for income, it can be seen that women with higher incomes are more likely to save than the poorest 20%. Women in wage employment have a 7% probability of having a formal account compared to women not in wage employment. Other variables responsible for women's financial exclusion are lack of trust, lack of money and the uselessness of financial services. Thus, women who do not trust theformal Cameroonian financial market are less likely to be included than those who do. The probability that Cameroonian women who do not have confidence in the formal financial market are included (have a formal account) is about 14% lower than those who have confidence in the country's formal financial market. In addition, women who feel they do not have enough money are less likely to be included in the formal financial market than those who think otherwise. Thus, the probability that a woman who perceived that she has no money is included (access to the formal account) in Cameroon's formal financial market is about 33% lower than the woman who perceives the opposite. This is all the truer since women involved in Cameroon's formal financial market can be perceived as rich and, consequently, the formal financial market is considered to be the prerogative of socially well positioned people. Similarly, the probability that a woman who has perceived that it is unnecessary to have an account is included in Cameroon's formal financial market is about 11% lower than a woman who perceives otherwise.

The results can be summarized in Table 4.

Variables	Expected signs	Real signs					
		Account	Movement	Saving	Credit		
Woman	-				-		
Age	+	+	-		+		
Education	+	+					
Income	+	-		+			
Distance	-						
Cost	-						
Lack of documentation	n -						
Lack of trust	-	-					
Religious reasons	-	+					
Lack of money	-	-			-		
Uselessness	-	-			-		

Table 4:	Summary	of	Results
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### **CONCLUSION AND POLICY IMPLICATIONS**

Developing economies such as Cameroon have low financial inclusion compared to their developed counterparts. Since financial inclusion can be considered a tool for poverty reduction, it is inevitable to study its determinants. In the quest for financial inclusion, the role and relevance of gender has recently become more important. Economies are engaged in designing policy responses to this challenge. In this context, this work provided an overview of this issue based on existing evidence. Indeed, in this article we have addressed the issue of the gender gap in financial inclusion in Cameroon in order to identify the factors responsible for the financial inclusion (or exclusion) of women. Using a Probit model and a two-step Heckman model to correct selection bias, the results in the Cameroonian context reveal the following. First, there is no significant gender difference in access to an account and some uses of that account. On the other hand, women have a lower probability of access to credit than men. This gender disparity in access to credit may be due to women's inability to provide guarantees, low awareness of financial education and a more limited business experience. In addition, several factors have been identified as preventing women from including themselves financially. These factors are both demographic and perceptual. Overall, vulnerable women are young, poorly educated, with relatively high incomes and those without wage employment. Also, the lack of confidence in the formal Cameroonian financial market, the perception of a lack of money and the perception of the uselessness of having a formal account are all factors responsible for the financial exclusion of Cameroonian women.

The results of this research could serve as an alarm bell for policy makers to combatgender discrimination in financial inclusion, mainly access to credit. To this end, decisionmakersshould focus on young, illiterate and unemployed women, so that they are not left out of the Government's efforts to financially include the entire population.

As having a formal credit is a major problem for the financial inclusion of Cameroonian women, this problem could be mitigated, in addition to investing in formal education, through awareness campaigns that would bring financial services closer to women and thus reduce gender differences. The government should strengthen its policies to support the unemployed in order to generate sources of income by offering loans to enable them to engage in commercial activities that will increase their income and thus provide guarantees for obtaining formal credit. Financial education programs for women will enable them to develop a reasonable understanding of the language used by banks, the benefits of having a bank account, having a formal credit and how to apply for it. Such programs should also enable women to develop household financial management skills that will enable them to be empowered and participate more fully in household financial decisions.

#### Notes

- 1. We would like to thank the two anonymous reviewer for very useful comments on this paper.
- 2. The results of the probit estimates are presented in Table 2 in the Appendix.

#### References

- Aghion, P., Boustan, L., Hoxby, C. and Vandenbussche, J. (2009). The causal effect of education on economic growth: Evidence from United States. In D. Romer, & J. Wolfers (Eds.), Brookings Paper on Economic Activity (Spring).
- Aghion, P. and Bolton, P. (1997). "A theory of trickle-down growth and development", *Review of Economic Studies*, 64, 151–172.
- Allen, F., Demirgüç-Kunt, A., Klapper, L. and Peria, M.S.M. (2016). "The foundations of financial inclusion: Understanding ownership and use of formal accounts", *Journal of Financial Intermediation*, Vol. 27, pp. 1-30.
- Alshamsan, R., LeslieH., Majeed A. and Kruk M. (2017). "Financial hardship on the path to Universal Health Coverage in the Gulf States", *Health Policy*, 121, 315– 320.
- Aterido, R., Beck, T. and Iacovone, L. (2013). "Gender and finance in Sub-Saharan Africa: Is there a gender gap?", *World Development*, 47, 102–120.
- Basu, P. (2006). "Improving access to finance for India's rural poor, directions in development", The World Bank, Washington, DC 20433.
- Bayoumi, T. and Melander, O. (2008). "Credit matters: Empirical evidence on US macrofinancial linkages", IMF Working Paper 169, Washington DC: IMF.
- Beck, T., Behr, P., and Melanger, O. (2015). "Sex and credit: Is there a gender bias in lending?", European Banking Center Discussion Paper No 2012-017.
- Beck, T., and Brown, M. (2011). Use of banking services in emerging markets-Household level evidence, CEPR Discussion Papers 8475 CEPR Discussion Papers.
- Bruhn, M., and Love, I. (2014). "The Real Impact of Improved Access to Finance: Evidence from Mexico", *The Journal of Finance*, Vol. 69, Issue 3, pp. 1347-1376.
- Burgess, R., and Pande, R. (2005). "Do rural banks matter? Evidence from the Indian social banking experiment", *American Economic Review*, 95, 780–795.

- Carmen H., Pena, X. and Tuesta, D. (2013). "Demand factors that influence financial inclusion in Mexico: analysis of the barriers based on the ENIF survey," Working Papers 1337, BBVA Bank, Economic Research Department.
- Cecchetti, S. and Kharroubi, E. (2012). "Reassessing the impact of finance on growth", BIS Working Paper 381. Basel: BIS.
- Central African Banking Commission (COBAC), (2012). Annual Report.
- Consultative Group to Assist the Poorest (CGAP). A Systemic Approach to Financial Inclusion, Donor Guide, 1818 H Street NW, MSN P3-300, Washington, DC 20433, USA.
- Cyn-Young P. and Rogelio, V. (2018). "Financial inclusion, poverty and income inequality in developing Asia", *The Singapore Economic Review*, Vol. 63, No. 01, pp. 185-206.
- Dabla-Norris, E., Ji, Y., Townsend, R. and Filiz Unsal, D. (2015). "Identifying constraints to financial inclusion and their impact on GDP and inequality: A structural framework for policy", IMF Working Paper 22. Washington DC: IMF.
- Dahiya, S. and Kumar, M. (2020). "Linkage between Financial Inclusion and Economic Growth: An Empirical Study of the Emerging Indian Economy", Vision, 24(2), pp. 184-193.
- Dar, A.B. and Ahmed, F. (2020). "Financial inclusion determinants and impediments in India: insights from the global financial inclusion index", *Journal of Financial Economic Policy*.
- Demirguc-Kunt, A., Klapper, L., and Singer, D. (2013). Financial inclusion and legal discrimination against women: Evidence from developing countries Policy Research Working Paper no WPS 6416. Washington D.C.: World Bank.
- Demirguc-Kunt, A. A., Klapper, L., Singer, D., and Van Oudheusden, P. (2015). The global findex database 2014: Measuring financial inclusion around the world Policy Research Working Paper WPS7255, Washington D.C.: World Bank Group.
- Demirüc-Kunt, A., Klapper, L., Singer, D., Ansar, S. and Hess, J. (2018). "Measuring financial inclusion and the fintech revolution. In The Global Findex Database 2017", The World Bank: Washington, DC, USA.
- Duflo, E. (2012). "Women empowerment and economic development", Journal of Economic Literature, 50, 1051–1079.
- Erlando, A., Riyanto, F. D. and Masakazu, S. (2020). "Financial inclusion, economic growth, and poverty alleviation: evidence from eastern Indonesia", Heliyon, 6 (10), pp. 1-13.
- Fletschner, D. (2009). "Rural women's access to credit: Market imperfections and intra-household dynamics", *World Development*, Vol. 37(3), pp. 618–631.
- Food and Agriculture Organisation (2011). State of food and agriculture report 2011. Rome: Italy.

- Fungácová, Z. and Weill, L. (2015). "Understanding financial inclusion in China", *China Econ. Rev.*, Vol. 34, pp. 196–206.
- Galor, O. and Zeira, J. (1993). "Income distribution and macroeconomics", *Review of Economic Studies*, 60, pp. 35–52.
- Ghosh, S. and Vinod, D. (2017). "What Constrains Financial Inclusion for Women? Evidence from Indian Micro data", *World Development*, vol. 92(C), 60-81.
- Hazarika, G. and Guha-Khasnobis, B. (2008). "Household access to microcredit and children's food security in rural Malawi: A gender perspective", Discussion Paper No. 3793. Bonn, Germany: IZA.
- Holvoet, N. (2004). "Impact of microfinance programs on children's education: Do the gender of the borrower and the delivery model matter?", *Journal of Microfinance*, 6(2), pp. 1–23.
- Iqbal, B. A. and Sami, S. (2017). "Role of banks in financial inclusion in India", Contaduría y Administración, *Accounting and Management*, 62(2), pp. 32-33.
- Klasen, S., and Lamanna, F. (2008). "The impact of gender inequality in education and employment on economic growth in developing countries: Updates and extensions", *Centre for Research in Economic Development Working Paper 10.* Belgium: CRED.
- Lampietti, J.A. and Stalker, L. (2000). "Consumption Expenditure and Female Poverty: AReview of the Evidence", Policy Research Report on Gender and Development, Working Paper Series No. 11.
- Lévi-D'Ancona. (2014). "Financial Literacy and Financial Inclusion of Women in Rural Rajasthan", SIT Study Abroad. SIT Digital Collections.
- Lotto, J. (2018). "Examination of the Status of Financial Inclusion and Its Determinants in Tanzania", Sustainability, 10, 2873; doi:10.3390/su10082873.
- Lusardi, A., and Tufano, P. (2009). "Debt literacy, financial experiences and over indebtedness", NBER Working Paper No 14808.
- Malapit, H. J. (2012). "Are women more likely to be credit constrained? Evidence from low income urban households in the Philippines", Feminist Economics, 18(3), 81–108.
- Mhlanga, D. and Denhere, V. (2020). "Determinants of Financial Inclusion in Southern Africa", Studia Universitatis Babe'-Bolyai Oeconomica, Sciendo, vol. 65(3), pp. 39-52.
- Muravyev, A., Talavera, O. and Schäfer, D. (2009). "Entrepreneurs' Gender and Financial Constraints: Evidence from International Data", *Journal of Comparative Economics*, 37(2), pp. 270-286.
- Oumaa, S. A., Odongob, T. M. and Were, M. (2017). "Mobile financial services and financial inclusion: Is it a boon for savings mobilization?", *Review of Development Finance*, 7(1), pp. 29-35.

- Presbitero, A., Rabellotti, R. and Piras, C. (2014), "Barking up the Wrong Tree? Measuring Gender Gaps in Firm's Access to Finance", *Journal of Development Studies*, 50(10): 1430–44.
- Rajeev, M., and Bhattacharjee, M. (2015). "Access to financial services: Are poor excluded: A case study of India", Norwegian Institute of International Relations, NUPI Working paper No. 808, Norway.
- Rajeev, M., Vani, B. P. and Bhattacharjee, M. (2011). "Credibility of equal access to credit: does gender matter?", *Economics and Political Weekly*, XLVI (33), 76–79.
- Seguino, S., and Floro, M. S. (2003). "Does gender have any effect on aggregate saving? An empirical analysis", *International Review of Applied Economics*, 17, 36–48.
- Swain, R. B. (2002). "Credit rationing in rural India", Journal of Economic Development, 27(2), 1–20.
- Tambunlertchai, K. (2018). "Determinants and barriers to financial inclusion in Myanmar:what determine access to financial services and what hinder it?", *The Singapore Economic Review*, pp. 1–18.
- Tuesta, D., Sorensen, G., Haring, A. and Camara, N. (2015). "Financial inclusion and its determinants: the Argentine case", BBVA Research.
- Uddin, A., Ashraful, M. and Islam, N. (2017). "Determinants of Financial Inclusion in Bangladesh: Dynamic GMM &Quantile Regression Approach", *Journal of Developing Areas*, vol. 51, issue 2, pp. 221-237.
- Van, L. T-H., Vo, A. T., Nguyen, N. T. and Vo, D. H. (2021). "Financial Inclusion and Economic GROWTH: An International Evidence", *Emerging Markets Finance and Trade*, 57(2):1-25.
- Wachira, I. and Kihiu, N. (2012). "Impact of Financial Literacy on Access to Financial Services in Kenya", *International Journal of Business and Social Science*, Vol. 3 No. 19.
- Zins, A. and Weill, L. (2016). "The determinants of financial inclusion in Africa", *Review of Development Finance*, 6, pp. 46–57.

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	Table 1: Descriptive statistics			
Variables	Definition	Obs.	Mean	Std. Dev.
Financial Inclusionindicators	1 if the individual is a woman and 0 if not			
ACCOUNT	1 if the individual has an account in a financial intuition and 0 if not	1000	0.298	0.457
MOW	1 if the individual has made a deposit and/or withdrawal in the last $12 \mod 0$ if not	298	0.664	0.472
SAVING	1 if the individual has saved using an account at a financial institution in the last $12$ months and 0 if not	1000	0.121	0.326
CREDIT	1 if the individual has borrowed from a financialinstitution in the last 12 months and 0 if not	1000	0.064	0.244
Characteristics of the individus	al			
WOMAN	1 if the individual is a woman and 0 if not	1000	0.543	0.498
AGE1	1 if the individual's age is between 15-25 years and 0 otherwise	1000	0.354	0.478
AGE2	1 if the individual's age is between 26-35 years and 0 otherwise	1000	0.299	0.458
AGE3	1 if the individual's age is between 36-44 years and 0 otherwise	1000	0.158	0.364
AGE4	1 if the individual's age is between 45-54 years and 0 otherwise	1000	0.083	0.276
AGE5	1 if the individual's age is between 55-64 years and 0 otherwise	1000	0.064	0.244
AGE6	1 if the individual is over 64 years of age and 0 if not	1000	0.042	0.201
EDUC1	1 if the individual has completed primary school or lessand 0 if not	1000	0.458	0.498
EDUC2	1 if the individual has completed high school and 0 if not	1000	0.521	0.499
EDUC3	1 if the individual has completed higher education or moreand 0 if not	1000	0.021	0.143
			contd	table 1

Appendix

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Variables	Definition	Obs.	Mean	Std. Dev.
REV1	1 if the individual's income is in the first income quintile (20% of the poorest) and 0 if not	1000	0.151	0.358
REV2	1 if the individual's income is in the second incomequintile and 0 if not	1000	0.18	0.384
REV3	1 if the individual's income is in the third income quintileand 0 if not	1000	0.195	0.396
REV4	1 if the individual's income is in the fourth income quintileand 0 if not	1000	0.217	0.412
REV5	1 if the individual's income is in the fifth income quintile (richest 20%) and 0 if not	1000	0.257	0.437
Barriers to Financialinclusion	Reasons for not baning an account			
DISTANCE	1 if the individual answers "too far" and 0 if not	1000	0.164	0.370
COsT	1 if the individual answers "too expensive" and 0 if not	1000	0.189	0.391
LDOCUMENT	1 if the individual answers "Lack of documentation" and 0 if not	1000	0.203	0.402
LTRUST	1 if the individual answers "Lack of trust" and 0 if not	1000	0.137	0.344
RELIGION	1 if the individual answers "Religious reasons" and 0 if not	1000	0.051	0.220
MONEY	1 if the individual answers ''Lack of money'' and 0 if not	1000	0.587	0.492
USELESS	1 if the individual answers "No need for financial Services" and 0 if not	1000	0.137	0.344

			iciusion o	or Gamero	Joinan wo	men (pio	on and I	ickeman)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		A	11			Fen	nale	
Variable	Account	Mov	Savings	Credit	Account	Mov	Saving	Credit
WOMAN	-0.0212	-0.146	-0.0385	-0.286*	-	-	-	-
	(0.122)	(0.184)	(0.120)	(0.154)				
AGE1	Řéf.	Réf.	Řéf.	Řéf.	Réf.	Réf.	Réf.	Réf.
AGE2	0.372**	-1.225***	0.145	0.358*	0.255	-0.740	-0.170	0.398
	(0.152)	(0.452)	(0.152)	(0.217)	(0.207)	(0.464)	(0.238)	(0.362)
AGE3	0.587***	-1.753***	0.113	0.569**	0.605**	-1.235**	-0.200	0.903**
	(0.182)	(0.613)	(0.188)	(0.241)	(0.251)	(0.548)	(0.276)	(0.379)
AGE4	0.280	-0.227	0.109	0.312	0.0573	0.548	0.209	0.211
	(0.231)	(0.473)	(0.231)	(0.306)	(0.320)	(0.699)	(0.333)	(0.526)
AGE5	0.504*	-1.636***	-0.0278	0.426	0.894**	-1.349*	-0.314	0.437
	(0.266)	(0.605)	(0.272)	(0.331)	(0.422)	(0.714)	(0.358)	(0.578)
AGE6	0.209	-0.584	-0.128	0.981***	0.630	-1.027	-0.274	1.141**
	(0.322)	(0.519)	(0.340)	(0.322)	(0.498)	(0.720)	(0.426)	(0.559)
EDUC1	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.
EDUC2	0.508***	0.532*	0.206	-0.0720	$0.579^{***}$	-0.158	-0.0740	-0.160
	(0.133)	(0.497)	(0.139)	(0.169)	(0.193)	(0.423)	(0.209)	(0.276)
EDUC3	1.384***	1.131	0.471	0.0671	0.888	1.716	0.456	-0.131
	(0.487)	(2.046)	(0.321)	(0.399)	(0.694)	(1.694)	(0.429)	(0.735)
REV1	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.
REV2	-0.116	0.326	0.563**	0.115	-0.303	-0.322	0.817*	0.263
	(0.222)	(0.397)	(0.274)	(0.319)	(0.287)	(0.793)	(0.444)	(0.431)
REV3	-0.0549	0.121	0.193	0.371	-0.449	-0.157	0.435	0.433
	(0.211)	(0.351)	(0.276)	(0.292)	(0.279)	(0.765)	(0.446)	(0.419)
REV4	-0.390*	1.182**	0.765***	0.376	-0.648**	0.0789	1.132***	0.258
	(0.212)	(0.506)	(0.259)	(0.293)	(0.277)	(0.836)	(0.429)	(0.445)
REV5	0.0129	-0.0619	0.507**	0.0689	0.0428	-1.051	0.492	-0.329
	(0.205)	(0.335)	(0.258)	(0.305)	(0.269)	(0.717)	(0.422)	(0.504)
DISTANCE	-0.0614			-0.103	-0.301			-0.759
	(0.217)			(0.296)	(0.309)			(0.526)
COST	-0.0356			0.0425	0.0514			0.0386
	(0.205)			(0.271)	(0.303)			(0.428)
LDOCUMENT	-0.389*			0.351	-0.465			0.517
	(0.207)			(0.259)	(0.305)			(0.380)
LTRUST	-1.033***			-0.560*	-0.905**			-0.368
	(0.240)			(0.319)	(0.354)			(0.450)
RELIGION	0.843***			0.261	1.204***			0.249
	(0.282)			(0.388)	(0.391)			(0.583)
MONEY	-2.122***			-0.971***	-2.140***			-0.853***
	(0.135)			(0.197)	(0.188)			(0.298)
USELESS	-0.666***			0.564**	-0.696**			-0.944***
	(0.219)			(0.230)	(0.311)			(0.326)
Mills ratio		-4.980***	-0.548***			-2.823**	-0.695***	
CONTRACT	0.000	(1.918)	(0.0725)	4.00	0.4.10	(1.251)	(0.115)	
CONSTANT	-0.0237	4.076***	-1.188***	-1.826***	0.118	3.033***	-0.851*	-2.228***
	(0.227)	(1.540)	(0.297)	(0.336)	(0.253)	(1.118)	(0.474)	(0.455)
DECUDO DA	0 5050			0.1010	0 5/74			0.0040
PSEUDU KZ	0.5250	200	1.000	0.1810	0.56/4	170	457	0.2019
003	1,000	298	1,000	1,000	545	160	43/	545

Table 2: Determinants of financial inclusion of Cameroonian women (probit and Hekcman)

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; Ref. reference variable

Table 3: Deter	rminants of	financial	inclusio	n of Cam	eroonian v	women (r	narginal	effects)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		A	11			Fen	nale	
Variable	Account	Mov	Saving	Credit	Account	Mov	Saving	Credit
WOMAN	-0.00351	-0.0386	-0.00629	-0.0268*	-	-	-	-
	(0.0202)	(0.0484)	(0.0196)	(0.0145)				
AGE1	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.	Réf.
AGE2	0.0631**	-0.235***	0.0238	0.0273*	0.0405	-0.138*	-0.0315	0.0183
	(0.0260)	(0.0558)	(0.0248)	(0.0161)	(0.0328)	(0.0710)	(0.0443)	(0.0168)
AGE3	0.101***	-0.387***	0.0183	0.0511**	0.0994**	-0.274***	-0.0367	0.0644**
	(0.0320)	(0.0961)	(0.0307)	(0.0233)	(0.0420)	(0.100)	(0.0501)	(0.0319)
AGE4	0.0472	-0.0283	0.0176	0.0230	0.0089	0.0521	0.0440	0.00821
110111	(0.0394)	(0.0576)	(0.0382)	(0.0253)	(0.0499)	(0.0642)	(0.0722)	(0.0226)
AGE5	0.0860*	-0.353***	-0.00420	0.0343	0.1513**	-0.309*	-0.0552	0.0208
110110	(0.0466)	(0.108)	(0.0407)	(0.0317)	(0.0765)	(0.163)	(0.0594)	(0.0350)
AGE6	0.0350	-0.0866	-0.0184	0.117**	0.1037	-0.214	-0.0490	0.0985
nolo	(0.0546)	(0.0835)	(0.0466)	(0.0535)	(0.0860)	(0.166)	(0.0709)	(0.0762)
EDUC1	Réf	Réf	Réf	Réf	Réf	Réf	Réf	Réf
EDUC2	0.0873***	-0.124	0.0329	-0.00676	0.0938***	-0.0380	-0.0135	-0.0100
	(0.0230)	(0.0958)	(0.0216)	(0.0160)	(0.0310)	(0.0981)	(0.0383)	(0.0172)
EDUC3	0.252**	0.151	0.0848	0.00688	0.1485	0.189**	0.0993	-0.00836
LDCCS	(0.0989)	(0.151)	(0.0674)	(0.0423)	(0.1261)	(0.0794)	(0.102)	(0.0432)
REV1	Réf	Réf	Réf	(0.0125) Réf	(0.1201) Réf	Réf	(0.102) Réf	(0.0452) Réf
REV2	-0.0194	0.0870	0.0773**	0.00887	-0.0499	-0.0598	0.125**	0.0164
	(0.0371)	(0.106)	(0.0348)	(0.0242)	(0.0472)	(0.139)	(0.0586)	(0.0263)
REV3	-0.00919	0.0335	0.0212	0.0343	-0.0729	-0.0275	0.0544	0.0308
KL V J	(0.0354)	(0.0977)	(0.0212)	(0.0248)	(0.0450)	(0.128)	(0.0547)	(0.0280)
REV4	-0.0643*	0.251**	0.117***	0.0348	-0.1032**	(0.120)	0.108***	0.0160
KL V T	(0.0347)	(0.251)	(0.0331)	(0.0248)	(0.0434)	(0.135)	(0.0570)	(0.0266)
REV5	0.00216	-0.0175	0.0674**	0.00513	(0.0+3+) 0.0072	(0.133)	0.0635	-0.0128
KL V J	(0.0345)	(0.00173)	(0.007 + (0.0204))	(0.00010)	(0.0072)	(0.124)	(0.0452)	(0.0120)
DISTANCE	(0.03+3)	(0.0941)	(0.0294)	-0.00069	(0.0+37)	(0.124)	(0.0452)	(0.0200)
DISTANCE	(0.0358)			(0.0277)	(0.0480)			(0.0336)
COST	0.00590			0.00308	0.00407)			0.00243
0031	-0.00320			(0.00576)	(0.0001)			(0.00243)
IDOCUMENT	-0.0644*			0.0234)	-0.0736			0.0325
LDOCOMENT	(0.0343)			(0.0243)	(0.0482)			(0.0323)
TRUSS	-0.171***			-0.0525*	-0.1434***			(0.0241)
LIKU55	(0.0390)			(0.0320)	(0.0553)			(0.0232)
RELICION	0.139***			0.0244	0.1007***			0.0263)
KELIOION	(0.0462)			(0.0244)	(0.0605)			(0.0130)
MONEV	(0.0402)			0.0010**	(0.0005) * 0.3300***	ĸ		(0.0507)
MONEI	-0.331			(0.0101)	(0.01.40)			-0.0550
	0.110***			(0.0191)	(0.0149)			(0.0196)
USELESS	-0.110			$(0.0326^{-10})$	-0.1105***			(0.0394
	(0.0360)	1 215***	0.0004**	(0.0217) *	(0.0488)	0 ((0**	0 1 2 / * * *	(0.0218)
MILLS KATIO		-1.313***	-0.0894***			-0.009**	-0.120***	
OBS	1.000	(0.490)	(0.0117)	1.000	E 4 2	(0.284)	(0.0200)	E 4 2
085.	1,000	298	1,000	1,000	545	160	45/	545

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; Ref. reference variable