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Laws, attitudes and financial inclusion of women: A cross-country investigation

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Abstract

Why are women financially excluded? Is there an association between women empowerment laws, prevalence of discriminatory attitudes in a society towards women and financial empowerment of women? Using a cross-country survey, this paper finds statistical evidence that suggests women are significantly less likely to be financially included as compared to their male counterparts. However, countries that promote gender equality particularly in the workplace and have strong enforcement mechanisms tend to have greater number of financially included females. Societal attitudes matter as well. Intolerance of discrimination, in particular allowing men and women a level playing field in education is significantly associated with greater financial inclusion of women.

1. Introduction

Gender disparity is a global phenomenon and it extends to most spheres of our social and economic life. Be it economic disparity manifested in lower wages for the same job, with women earning only 82.2% of men's median weekly earnings (Institute for Women's Policy Research 2011), or political (18% of members of Congress are women) and corporate board representation (17% women in corporate boards)[1], women lag behind their male counterparts. Even as many countries formally adopt gender empowerment as an explicit policy goal, recent works of the World Bank highlight another area where women are under-represented - financial inclusion.

Financial inclusion, defined as the "use of formal financial services" is an important yardstick for economic development and individual wellbeing. In financial development literature, "financial inclusion" is defined specifically as "access to a formal financial account, either in banks, post offices or other micro finance institutions[2]". For women in particular, financial independence, or individual access to finance is also an important determinant of her bargaining power in the household. Yet, recent reports by World Bank show that large disparities exist between genders, with 47% of the women surveyed reporting that they owned an account in a formal financial institution as compared to 55% of the men (Demirguc-Kunt, Klapper and Singer, 2013) .

Why do we observe such disparities in financial inclusion between men and women? Is there an association between a country's adoption of women empowerment measures and female financial inclusion? Do we find any statistically significant association between a society's tolerance of gender discrimination and female financial inclusion? In this paper, we explore these issues using an unique cross-country survey data provided by Gallup in conjunction with the World Bank and the Bill and Melinda Gates Foundation.

This paper presents two primary findings. First, we document that while significantly lower number of females own a financial account at a formal financial institution compared to the men (consistent with current literature), empowering women particularly in the workplace and developing a strong enforcement mechanism to uphold laws are associated with increased financial inclusion of women. Specifically, the findings show that countries where men and women are allowed to work in the same

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[1]Sheryl Sandberg, COO of Facebook and author of "Lean In: Women, Work, and the Will to Lead".

[2]The respondent can either have an account solely to her name, or jointly with any other person. In both instances, she would be classified as "financially included". Note that in many developing economies with sparse banking system, a family's wealth could be held in other forms of asset, jewelry of a woman being one (Parthi and Sriram, 2004). While that would not imply that a women who owns her jewelry has no asset, in finance literature, she would be classified as "financially excluded" from the formal financial system if she does not have a financial account at a formal financial institution.

industries and the same number of night hours, and countries that provide some form of maternity benefits have a greater incidence of financially included females. This observed correlation can be the artifact of the fact that conducive workplace laws encourage more women to participate in the labor force and employed women are more likely to have a bank account to their name.

While most countries have attempted to put laws in place to remove discrimination, laws by themselves might be ineffective unless there is a strong enforcement mechanism guaranteeing violators are penalized. Recognizing this, the United Nations enacted the Optional Protocol to the Convention on the Elimination of All Forms of Discrimination against Women (henceforth, OPTCEDAW) in a landmark decision on 6th October 1999, which "recognizes the competence of the Committee on the Elimination of Discrimination against Women – the body that monitors States parties' compliance with the Convention – to receive and consider complaints from individuals or groups within its jurisdiction". We find that countries that have ratified the OPTCEDAW are significantly more likely to have financially included females, even after controlling for the empowerment laws themselves as well as the general legal environment of the countries under consideration.

While the results so far suggest that there is a link between empowerment policies and financial inclusion, one must be careful to interpret this link as a correlation rather than trying to infer anything about causality. It can be argued that both financial empowerment of women as well as willingness to implement female empowerment laws by a country are influenced by existing societal attitudes. A progressive or more tolerant society that values women equally as men would be one where women are likely to be financially included as well as be more likely to adopt laws that create a level playing field for both genders[3]. Given this endogeneity concern, it is important to interpret the results so far as a correlation between observed empowerment laws and financial emancipation of women without drawing any inferences about the direction of causality. In the last segment of the paper, we analyze the relation between a society's attitude towards gender discrimination and female financial inclusion. Utilizing the responses of individuals surveyed in the World Values Survey database on their attitudes towards gender equality, particularly attitudes towards allowing women level playing field at work, in education and in political representation, we create a ranking of countries ranging from most discriminatory to the least discriminatory. Individual level regressions suggest that a society's attitude towards education in particular is significantly positively associated with female financial inclusion with societies that believe women have as much a right to university level education as men are more likely to have financially included females.

This paper adds to two branches of literature on gender discrimination. Most studies in current literature have focused on causes of gender disparity. Ranging from disparity that is biological in nature with mortality rates showing that approxi-

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[3]Conversely, it is also plausible that governments in regressive societies are more likely to adopt policies to empower women to give them a level playing field they would be otherwise denied.

mately 6 million women are missing in the world (Sen 1990; Duflo 2012; Anderson and Ray, 2010), to gender disparity in economic position of women (Wood, Corcoran and Courant, 1993; Bertrand, Goldin and Katz 2010, Blanchard, Zhao and Yinger 2008; Beck, Behr and Madestam 2013), while proof abound of gender disparity, causes have been varied ranging from policy differences to biological differences to differences in norms and social attitudes. On the other hand, studies on the correlation between empowerment laws and emancipation of women is limited and evidence is mixed. Most studies have focused on political representation and women empowerment, suggesting a positive correlation between the two. Beaman, Duflo, Pande, and Topalova (2010) find that political quotas for women in India improve educational attainment of girls (similar empowerment impacts of political representation are found by Iyer, Mani, Mishra and Topalova (2012) and Chattopadhyay and Duflo (2004)). Ashraf, Karlan and Yin (2010) provide experimental evidence that financially empowering women improve their bargaining position in the household, a finding supported by Doepke and Tertilt (2013). In contrast, collecting evidence from a cross-section of U.S. states, Neumark and Stock (2006) finds that equal-pay laws have reduced the employment of women making it more costly for businesses to hire women. In this paper, we adopt a broader approach where instead of focusing on one particular area of empowerment, we look at a broad spectrum of measures. The benefit of this approach is that while most countries have some form of discrimination laws, they need not be the same. For example, Chad, Congo, Jamaica and Turkey have laws against violence on women, but they do not have any workplace equality laws. Mauritania allows women quota in elections but has no laws against violence. Focusing on a broad spectrum of laws allows us to consider financial empowerment in a wider range of countries than focusing on a particular law would allow. Secondly, and more importantly, looking at social, political and work-place empowerment laws in unison helps inform the policy debate about which laws are associated with better financial empowerment. Secondly, this paper adds to the emerging literature in development economics that looks at the role of social attitudes in determining economic outcome. Starting from the seminal work of Greif (1994), a vast array of literature has focused on how cultural norms, language and religious beliefs shape the economic outcome (Guiso, Sapienza and Zingales (2003), Chen (2013) amongst others). Given that attitudes about gender are at the core of a society's value system, the present study develops the link between culture and financial inclusion of women by looking at a host of beliefs regarding the perceived difference between genders and highlights how these beliefs define financial inclusion of women, educating us on areas where there is a need for change in social attitudes through better information. The rest of the paper is as follows. In the next section, we describe the data and the empirical model. Section 3 discusses the results and Section 4 examines the role of social attitudes in financial inclusion. Finally, Section 5 concludes.

2. Data and Model Specification

The data comes from the Global Financial Inclusion database (henceforth, GFI) of the World Bank[4]. GFI is the outcome of Gallup style surveys conducted during the year 2011 in 148 economies around the world covering $150,000$ adults. The survey probed into the financial behavior of civilian, non-institutionalized population of 15 years of age and above, noting both their financial practice (for example, having an account at a bank or any other financial institution[5]) and the reasons behind their financial practice (for example , if a person has an account, is it to directly credit salary to this account?).

Following past literature and policy debates (Shultz 2002; Goldin, 2006; Berman 1987 amongst others), we focus on three broad areas of women empowerment deemed important: (1) women in governance roles (2) women in the work-place and (3) women's position in the society. Using country data from United Nations Entity for Gender Equality and the Empowerment of Women, we create a binary index of the existence of a law in each area in the countries included in our study. For women's political rights, we look at quotas for women in parliament and quotas for women to contest in election where "quota systems are defined as mandatory or targeted measures put in place to promote gender balance in political positions." Next, to trace how the work-place treats women, we look at three measures - laws in place to allow women to work in the same industry as men, to allow women to work the same night hours as men and mandatory maternity leaves (with or without compensation). Finally, to track women's position in the society at large and focus on her overall security, we look at laws in place to stop violence against women, to stop sexual harassment of women, as well as laws against marital rape. The effectiveness of laws is subject to its effective implementation. Realizing this, the United Nations adopted the OPTCEDAW allowing the world body to receive and consider complaints from individuals or groups within its jurisdiction. The CEDAW itself was adopted in 1979 by United Nations General Assembly and implemented in 1981, and while almost all nations ratified the resolution itself, the OPTCEDAW adopted in 1999 (implemented in 2000) was not ratified by many nations. In addition to the existence of laws, we therefore take into account if a country has ratified the OPTCEDAW. In addition, we also control for country specific governance indicators - rule of law and government effectiveness - provided by the World Bank Governance Index. In our regression analysis, we use a binary variable to indicate society's commitment to women empowerment. The variable takes a value 1 if there is a law in place to avoid discrimination and 0 otherwise. We drop any observation for which any

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[4]The data is publicly available at: http://datatopics.worldbank.org/financialinclusion/

[5]The survey asks respondents if they have an account at a formal financial institution like a bank, post office or micro finance institution? The answer is a "yes" if a respondent has his/her name on an account. The account can be individually held, or held jointly with other members of the family. The important thing is for the respondent's name to be there on the account.

of our explanatory variables are missing or for which the respondents answered "I don't know" or refused to answer a question for variables of interest. In addition, combining the survey data from GFI with the data on empowerment laws available from the United Nations causes us to lose some of the countries in the GFI database for which we do not have data on women empowerment measures. The final sample covers 99 countries with $104,198$ distinct observations.

Given that we have survey data, we declare a survey design for our dataset using the weights as provided in the database and defining the stratification at the country level. The benchmark model is essentially a probit model that takes the form:

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\begin{aligned}
y^*_{1ij} &= \alpha x'_{ij} + \beta z'_j + u_{ij}, &&(1) \\
y_{1ij} &= 1 \text{ if } y^*_{1ij} > 0 \\
y_{1ij} &= 0 \text{ if } y^*_{1ij} \leq 0
\end{aligned}
$$

where y_{1ij} is a binary variable indicating financial inclusion of an individual i who lives in country j. For example, if an individual has a formal bank account, then $y_{1ij} = 1$, 0 otherwise. y^*_{1ij} is the latent variable, x'_{ij} is a vector of individual-specific characteristics made available by GFI like age, squared of age, education, the income quartile that the individual belongs to and gender. Education is defined in three levels with level 1 indicating $0 - 8$ years of schooling, 2 indicating $9 - 15$ years of schooling and 3 indicating more than 15 years of schooling. Level 3 education is the omitted category in the regression. Income is divided into five quartiles and the highest income quartile is the omitted category in the regressions. z'_j summarizes country-specific characteristics controlled either by specific country level variables or by country fixed effects. The female empowerment measures are interacted with the female indicator variable to capture the specific effect of gender empowerment measures on female financial inclusion. The standard errors are robust and clustered at the strata (country) level.

3. Results

3.1. Individual characteristics and financial inclusion

The sample surveys an equal proportion of men and women aged 15 to 99 in each country. As illustrated in **Table I**, about 51% of the respondents report having some form of financial account to their name. However, amongst the male respondents, the percentage who own an account is 52% as compared to 49% of the female respondents. A simple *T-test* (**Table II**) reveals that this difference is significant at 0.1% level or better. The first regression (**Table III**) looks at the association between individual traits and account ownership. The main variable of interest is the gender and conducting a probit analysis as specified in equation 1, we find that women are significantly less likely to own a formal financial account, even after controlling for other

individual level characteristics like age, education or income level of the respondents and country level controls, either incorporated in specific measures like log of real GDP per capita, log of population and women's labor force participation[6](column 1), or incorporated in country fixed effects (columns 2 and 3). The results also show that women in countries with higher percentage of women in the labor force, as expected, have greater incidence of financial inclusion (the coefficient on Female Flag*Women labor force participation is positive and significant at 0.1% or better) which, in the absence of individual employment data, goes some way in addressing the importance of employment in encouraging female financial inclusion.

3.2. Empowerment Laws and Financial Inclusion

Next, we try to decipher the association between empowerment laws and policies and female financial inclusion (**Tables IV** to **VI**[7]). Summarizing the extent of adoption of women empowerment and non-discrimination laws, we find that political empowerment is not widespread with only 10% and 32% of the countries setting aside quota for women in parliamentary positions or in elections respectively. Laws to empower women in the workplace are more in place with 60% of the countries allowing men and women to work in the same industries while almost 75% of the 99 countries allow men and women to work the same number of hours at night. However, existence of maternity benefits is less common with only half of the 99 countries in the final sample having some sort of maternity benefit in place by law (either paid or unpaid). The same pattern is observed for social empowerment laws. While over 70% of the countries have laws against domestic violence and sexual harassment, laws against marital rape exist only in 33% of the countries[8]. In terms of implementation of laws by signing or ratifying the OPTCEDAW agreement, it is interesting to note that while all 99 countries signed the protocol CEDAW itself, assuring their commitment to empower women in various walks of life, only 70% of the countries agreed to the OPTCEDAW which allowed the United Nations to take necessary actions in case a country fails to protect the women rights. In **Table V**, the correlations of the adoption of laws present an interesting picture. Countries tend to focus on empowering women in one sphere of life rather than adopting a diverse set of laws. For example, countries that allow men and women to work in the same industries are also more likely to allow them to work the same night hours or allowing women maternity ben-

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[6]Data on real GDP per capita, population and women's labor force participation is collected form WDI. Women labor force participation data from Montenegro and Serbia are not available reducing our sample to 97 countries.

[7]Regressions in this section also control for individual characteristics outlined in Table 3 that are not presented in the tables for brevity.

[8]Note that while we have clubbed the laws into different groups like work-place empowerment and social empowerment, laws do have far reaching consequences and are correlated. An ideal example is sexual harassment laws which helps empower women at workplace but has a wider impact on women's safety in society as well.

efits, strengthening women's position at work-place. Adoption of laws against sexual harassment is also highly correlated with work-place empowerment laws, supporting our previous conjecture that these laws are not mutually exclusive, and social empowerment can also empower women at work-place. However, correlation amongst work-place empowerment & political empowerment or other social empowerment laws are less strong.

In **Table VI**, we plot the regression results. Even after controlling for all empowerment measures, we still find that females are significantly less likely to be financially included, with the negative coefficient being significant at 0.1% level or better for all combinations. However, we do find that all work-place empowerment measures, allowing both genders to work in the same industry, the same night hours as well as some form of maternity assistance to females are significantly positively correlated with females having a formal account to their name. Enforcement helps, with adoption of OPTCEDAW being significantly correlated with female financial inclusion. This result suggests that empowering women in the work-place allow more women to enter the work-place and working women tend to have bank accounts to their name[9]. The correlation between other empowerment measures and financial inclusion is less clear.

3.2.1 Alternative Test: The Impact of Sharia Laws

Many of the 99 economies included in our study have an Islamic majority which begs the question: are we picking up the impact of religion? In other words, is financial exclusion of women mostly concentrated in Islamic countries? To test this, we include the role of Sharia Law in determining female inclusion, where Sharia Law is a binary indicator taking a value 1 if the country follows the Sharia in personal status, criminal proceedings or in case of regional variances, if the majority follows the Sharia. Out of the 99 economies[10], we have 21 countries that follow the Sharia Law, and the regression results controlling for Sharia Law are presented in **Table VII**[11]. In column (1), running the baseline regression after eliminating countries that have Sharia Law, we still find females to be less financially included compared to men, suggesting that female financial exclusion is a more general phenomenon than can be just attributed to the role of Sharia Law. However, as column (2) illustrates, females in countries that have the Sharia Law are likely to be even more financially excluded with the coefficient on "Female Flag*Sharia Law" being negatively significant at 1% level, even after controlling for gender and other individual characteristics. Column (3) highlights

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[9]In the publicly available GFI database, employment status is not provided so we cannot test this conjecture directly.

[10]If we include women labor force participation, we have 97 countries.

[11]Sharia Law, which allows women to retain her dowry and jewelry in case of a divorce, might also reduce the need of women to have access to a formal financial account. In our regressions, we retain the labor force participation of women as an additional robustness indicator to test our conjecture that employment is the route through which women become financially included.

that the effect of workplace empowerment and OPTCEDAW on financial inclusion of women is robust, even after controlling for women labor force participation rates in a country as well as the implementation of Sharia Laws.

4. Social attitudes and financial inclusion

The results so far should be cautiously interpreted as a correlation and not a causation. One might very well argue that social attitudes dictate gender differences in financial behavior as well a country's willingness to adopt laws to empower women[12]. In this section, to analyze the relation between social attitudes and female financial inclusion, we use the World Values Survey (WVS) responses and create a ranking amongst the countries based on attitudes towards gender. We focus on three broad questions relating to each area of empowerment discussed above where questions are chosen such that at least 75% of the respondents in WVS gave a response as "Agree", "Strongly Agree", "Disagree" & "Strongly Disagree" with the statements. The statements are: (1) does the respondent agree with the statement that in times of scarcity, a man has more right to a job than a woman? (2) does the respondent agree with the statement that an university education is more important for a boy than for a girl? and (3) does the respondent agree with the statement that men make better political leaders than women? WVS and GFI have 65 economies in common, so we can only retain 65 of our 99 economies for this section. Ranking is created based on a weighted discrimination index:

$$\frac{x}{N-x} * \frac{N}{P} \tag{2}$$

where P is the total number of respondents by country, N is the number of survey respondents who provided a response and x is the number of survey respondents who strongly agreed or agreed with the statement made. Given the nature of the questions, if more respondents agree or strongly agree with the statements made by the interviewer, the society is deemed as less tolerant of gender equality and more discriminatory. The regression results (controlled for individual characteristics) are summarized in **Table VIII**. With specific country level controls on log of real GDP and population[13] (column 1), attitudes towards work and education are both significantly correlated with female financial inclusion. Controlling for country level fixed effects (column 2) the attitude of society towards equality in education turns out to be significantly correlated (at 1% level) with female financial inclusion[14], with less

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[12] The reverse is also possible as suggested by Stevenson and Wolfers (2008) who argue that with development society shifting from marriage as production to marriage as consumption, the shift leads to changes in norms, mores, practices and laws.

[13] We do not include women labor force participation as it would further shrink our sample and we suspect multicollinearity between societal attitudes and women's labor force participation rates.

[14] Attitudes towards workplace equality, though negatively correlated as expected, is no longer significant.

discriminatory nations having more females with financial accounts to their name. One can conjecture that equal educational opportunities encourage women to have a career or enter the work-place which in turn leads to greater financial emancipation, one form of which is having one's own financial account.

5. Conclusion

In this paper, using an unique cross-country survey data, we document that gender discrimination exists in financial inclusion - or the ownership of a formal financial account by an individual. However, we also document that anti-discriminatory measures, particularly in the work-place and a strong enforcement mechanism giving women voice to report discrimination is associated with greater female financial inclusion. Social attitudes towards equal educational opportunities for boys and girls matter, with less discriminatory attitudes being highly correlated with increased female financial inclusion. These preliminary findings suggest that policy measures should be directed towards giving women more freedom in the work-place. Ensuring that nondiscrimination laws are implemented and supported by the country's legal system and encouraging education would also be conducive in achieving greater female financial inclusion, leading to greater women empowerment.

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Table I: Summary Statistics of Financial Behavior overall and by gender

	N	Mean	Standard Deviation	Minimum	Maximum
Do you have an account at a formal financial institution?					
Full Sample	104,198	0.51	0.50	0	1
Male	46,818	0.52	0.50	0	1
Female	57,380	0.49	0.50	0	1

Table II: Gender disparity in financial inclusion - T-test

	Mean		Difference	Standard Error
	Male	*Female*		
Binary Variables (1/0)				
Do you have a formal financial account?	0.52	0.49	0.03	0.00***

Note: *, **, *** denotes significance at 5%, 1% and 0.1% level or better respectively.

Table III: Individual characteristics and Financial Inclusion

Probit model of an association between individual characteristics and financial inclusion. Dependent Variable: A binary indicator that takes a value 1 if a respondent has an account at a bank, post office or any other formal financial institution, 0 otherwise

Do you have an account at a formal financial institution?			
	Probit		
	(1)	**(2)**	**(3)**
Female Flag (1/0)	-0.17***	-0.18***	-0.66***
	(0.01)	(0.01)	(0.04)
Age	0.06***	0.06***	0.06***
	(0.00)	(0.00)	(0.00)
Age-squared	-0.00***	-0.00***	-0.00***
	(0.00)	(0.00)	(0.00)
Education: 0-8 years of schooling (1/0)	-1.01***	-1.12***	-1.12***
	(0.02)	(0.02)	(0.03)
Education: 9-15 years of schooling (1/0)	-0.53***	-0.60***	-0.60***
	(0.02)	(0.02)	(0.02)
Income level: Poorest 20% (1/0)	-0.65***	-0.72***	-0.73***
	(0.02)	(0.02)	(0.02)
Income level: Second to poorest 20% (1/0)	-0.50***	-0.55***	-0.56***
	(0.02)	(0.02)	(0.02)
Income level: Middle 20% (1/0)	-0.35***	-0.38***	-0.39***
	(0.02)	(0.02)	(0.02)
Income level: Second to top 20% (1/0)	-0.19***	-0.23***	-0.24***
	(0.02)	(0.02)	(0.02)
Log of real GDP per capita	0.62***		
	(0.01)		
Log of population	0.01		
	(0.01)		
Women labor force participation	0.01***		
	(0.00)		
Female Flag*Women labor force participation			0.01***
			(0.00)
Constant	-6.02***	-1.85***	-1.76***
	(0.10)	(0.10)	(0.10)
Region fixed effects	Yes	No	No
Country fixed effects	No	Yes	Yes
Number of observations	102,212	104,198	102,212
Number of strata	97	99	97
F-statistic	1251.13***	194.17***	193.61***

Note: *, **, *** denotes significance at 5%, 1% and 0.1% level or better respectively. The standard errors are robust and clustered at the strata level which is a country. Results in column (1) provide alternative specification with specific country level controls like log of real GDP per capita, log of population and the rate of labor force participation of women with regional fixed effects, where each country is included in one of the seven regions - Sub-Saharan Africa, Europe and Central Asia, Latin America and Caribbean, High Income, South Asia, East Asia and Pacific, and Middle East and North Africa.. In column (2), we provide baseline results where all country level controls are incorporated in the country fixed effects . Finally, in column (3), we have the country fixed effects but interact the rate of labor force participation of women with the female flag to ascertain financial inclusion of women in countries with higher labor force participation of women.

Table IV: Summary Statistics of Country Level Female Empowerment Measures

Country level summary of implementation of women empowerment measures and enforcement of laws

	N	Mean	Standard Deviation	Minimum	Maximum
Political Empowerment					
1. Quota in parliament	99	0.10	0.30	0	1
2. Quota in elections	99	0.32	0.47	0	1
Work-place Empowerment					
1. Allow men and women to work in same industries	99	0.61	0.49	0	1
2. Allow men and women to work the same hours	99	075	0.44	0	1
3. Paid or Unpaid maternity leave benefits	99	0.51	0.50	0	1
Social Empowerment					
1. Laws against domestic violence	99	0.73	0.45	0	1
2. Laws against sexual harassment	99	0.70	0.46	0	1
3. Laws against marital rape	99	0.33	0.47	0	1
Enforcement of Laws					
1. Optional Ratification of CEDAW	99	0.70	0.46	0	1
2. Government Effectiveness	99	0.03	0.92	-1.72	2.25
3. Rule of Law	99	-0.07	0.96	-1.64	1.95

Note: All empowerment measures as well as ratification of the Optional Protocol (OPTCEDAW) are coded as a binary variable where the indicator takes a value 1 if the law is in place, and 0 otherwise. The two additional measures of effective governance- government effectiveness and rule of law- are taken as indices that run from -2.5 to $+2.5$ as coded by the World Bank, where -2.5 is the sign of weakness of the government while $+2.5$ shows strong governance and measures range within these two extremes.

Table V: Pairwise Correlation of Female Empowerment Measures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Parliament_Quota	1.00								
Election_Quota	0.20*	1.00							
	(0.05)								
Same Industries	-0.00	0.03	1.00						
	(0.97)	(0.79)							
Same Hours	-0.11	0.05	0.44***	1.00					
	(0.26)	(0.60)	(0.00)						
Maternity Benefits	-0.00	-0.05	0.32***	0.31**	1.00				
	(0.97)	(0.62)	(0.00)	(0.00)					
Domestic Violence	-0.02	0.04	0.30**	0.22*	0.17	1.00			
	(0.84)	(0.73)	(0.00)	(0.03)	(0.10)				
Sexual Harassment	0.15	0.13	0.32***	0.28**	0.32**	0.29**	1.00		
	(0.14)	(0.21)	(0.00)	(0.01)	(0.00)	(0.00)			
Marital Rape	0.05	0.06	0.22*	0.12	0.10	0.43***	0.37***	1.00	
	(0.64)	(0.55)	(0.03)	(0.26)	(0.33)	(0.00)	(0.00)		
OPTCEDAW	0.00	0.13	0.32***	0.22*	0.31**	0.24*	0.38***	0.23*	1.00
	(0.98)	(0.21)	(0.00)	(0.03)	(0.00)	(0.02)	(0.00)	(0.02)	

Note: *, **, *** denotes significance at 5%, 1% and 0.1% level or better respectively. The correlations are estimated over the 99 economies included in the final sample

Table VI: Female Empowerment Measures and Financial Inclusion

Probit model of an association between female empowerment measures and financial inclusion. Dependent Variable: A binary indicator that takes a value 1 if a respondent has an account at a bank, post office or any other formal financial institution, 0 otherwise

	(1)	(2)	(3)	(4)
Female Flag	-0.17***	-0.39***	-0.20***	-0.42***
	(0.01)	(0.03)	(0.03)	(0.04)
Parliament Quota*Female Flag	0.02			0.04
	(0.04)			(0.04)
Election Quota*Female Flag	-0.02			-0.07*
	(0.03)			(0.03)
Same Industries*Female Flag		0.10***		0.08**
		(0.03)		(0.03)
Same Hours*Female Flag		0.16***		0.17***
		(0.03)		(0.03)
Maternity Benefits*Female Flag		0.10***		0.09***
		(0.02)		(0.03)
Domestic Violence*Female Flag			0.05	0.04
			(0.03)	(0.03)
Sexual Harassment*Female Flag			-0.01	-0.11***
			(0.03)	(0.03)
Marital Rape*Female Flag			-0.04	-0.07*
			(0.03)	(0.03)
OPTCEDAW*Female Flag				0.16***
				(0.03)
Government Effectiveness*Female_Flag				0.04
				(0.05)
Rule of law*Female_Flag				-0.07
				(0.05)
Constant	-1.85***	-1.78***	-1.84***	-1.79***
	(0.10)	(0.10)	(0.10)	(0.10)
Country Fixed Effects	Yes	Yes	Yes	Yes
Number of observations	104,198	104,198	104,198	104,198
Number of strata	99	99	99	99
F statistic	190.65***	188.62***	189.02***	175.34***

Note: *, **, *** denotes significance at 5%, 1% and 0.1% level or better respectively. The standard errors are robust and clustered at the country level.

Table VII: Sharia Law, Financial Inclusion and Female Empowerment

Probit model of an association between adoption of Sharia Laws and financial inclusion, as well as the correlation between female empowerment laws and female financial inclusion, controlling for Sharia Laws. Dependent Variable: A binary indicator that takes a value 1 if a respondent has an account at a bank, post office or any other formal financial institution, 0 otherwise

	(1)	(2)	(3)
Female Flag	-0.53***	-0.56***	-0.64***
	(0.05)	(0.07)	(0.07)
Female Flag*Women labor force participation	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)
Female Flag* Sharia Law		-0.09**	-0.03
		(0.03)	(0.04)
Parliament Quota*Female Flag			-0.08
			(0.05)
Election Quota*Female Flag			-0.04
			(0.03)
Same Industries*Female Flag			0.08**
			(0.03)
Same Hours*Female Flag			0.07*
			(0.04)
Maternity Benefits*Female Flag			0.09***
			(0.03)
Domestic Violence*Female Flag			0.02
			(0.03)
Sexual Harassment*Female Flag			-0.11***
			(0.03)
Marital Rape*Female Flag			-0.09***
			(0.03)
OPTCEDAW*Female Flag			0.08*
			(0.03)
Constant	-1.02***	-1.76***	-1.76***
	(0.07)	(0.10)	(0.10)
Country Fixed Effects	Yes	Yes	Yes
Number of observations	78,737	102,212	102,212
Number of strata	76	97	97
F statistic	193.78***	192.16***	173.85***

Note: *, **, *** denotes significance at 5%, 1% and 0.1% level or better respectively. The standard errors are robust and clustered at the strata level which is a

country. Column (1) presents presents the benchmark results for countries that *do not* have the Sharia Law while column (2) presents the effect of Sharia Law on financial inclusion of women. In column (3), we test the association between empowerment laws and financial inclusion of women, controlling for Sharia Law.

Table VIII: Social Attitudes and Financial Inclusion

Probit model of an association between cultural beliefs and female financial inclusion. Dependent Variable: A binary indicator that takes a value 1 if a respondent has an account at a bank, post office or any other formal financial institution, 0 otherwise

Do you have an account at a formal financial institution?		
	(1)	**(2)**
Female Flag (1/0)	-0.12***	-0.13***
	(0.02)	(0.03)
Rank_Work*Female Flag	-0.01***	-0.01
	(0.00)	(0.00)
Rank_Educ*Female Flag	-0.01***	-0.01**
	(0.00)	(0.00)
Rank_Politics*Female Flag	0.01	0.01
	(0.01)	(0.01)
Constant	-5.64***	2.05***
	(0.11)	(0.13)
Country fixed effects	No	Yes
Region fixed effects	Yes	No
Number of observations	69,626	69,626
Number of strata	65	65
F-statistic	720.67***	180.58***

Note: *, **, *** denotes significance at 5%, 1% and 0.1% level or better respectively. The standard errors are robust and clustered at the strata level which is a country. Column (1) includes specific country level controls like log of real GDP per capita and log of population, with regional fixed effects, while column (2) incorporates country level controls as country fixed effects.