

Women Who Save:
A Comparative Analysis of Ecuador, Ghana and Karnataka, India

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1. Introduction

Ownership of financial assets is an important component of the path towards women's economic empowerment. Savings serve as the most reliable and convenient way to cushion against economic shocks while providing a way for women to accumulate the means to purchase productive assets. A woman with her own savings may be able to exercise more bargaining power and decision-making capabilities within the household, which could allow her to accumulate individual wealth, invest in her children's education and nutrition, or enable her to leave an abusive relationship.¹

And yet, no comparative, large-scale study has been done on the patterns of women's savings.² While some research has tried to isolate the marginal impacts of women becoming savers, the patterns of savings are still not understood very well. Important questions remain unanswered: Do urban women save more than rural women? Does the level of household wealth influence how much a woman saves? What can be learned by comparing women's savings in countries at differing levels of development? What correlations exist between having savings and owning other key assets, such as housing, agricultural land, and businesses?

In this paper, we attempt to answer these and other questions through a detailed descriptive analysis of women's savings in Ecuador, Ghana, and the Indian state of Karnataka. Using data collected by the Gender Asset Gap project, we analyze which women have savings, what kinds of savings they possess (formal or informal), and how these are related to both individual and household characteristics. Individual characteristics include marital status, education level, and employment status. Household characteristics include household wealth quintile and rural/urban locale. We find that women in rural areas have different savings patterns from those in urban areas and, hence, the policy implications differ depending on the locale of residence.

In addition, our data sets include information not only on women's savings, but also on men's savings. The final sections compare both the incidence and values of men's and women's savings to examine the extent of gender differences in the patterns of savings. Although there is a gender gap in favor of men, savings rates are low in all three countries for both men and women.

Comprehensive descriptive analyses of the patterns of savings are key to developing interventions to increase women's savings. While they cannot tell us which interventions have been most successful, they do provide insights about the women who are currently able to accumulate savings, which types of savings institutions and/or instruments they currently utilize, and how these women differ from those who are not able to save. Augmenting our understanding of women's savings has implications for enhancing women's economic empowerment, and we conclude this paper by discussing how this analysis may help inform future development policies.

2. Methodology & Data

The Gender Asset Gap project is a joint initiative of an international research team that has collected individual-level asset data to calculate measures of the gender asset and wealth gaps.³ The project has collected nationally representative data in Ghana and Ecuador and data

representative at the state level for Karnataka, India. All physical and financial assets are included, including both formal and informal means of savings.

The data collection involved two phases: qualitative field work and a household assets survey.⁴ In the qualitative phase, the primary methodology was focus group discussions, complemented by interviews with key informants and a compilation of the secondary literature, including the study of marital and inheritance regimes. The four main themes of the focus groups were the importance of assets; the accumulation of assets over the individual's life cycle; the market for assets; and household decision-making over asset acquisition and use. The qualitative work was essential in adapting the generic template of the survey instrument to country-specific contexts.

The quantitative phase of the study involved the implementation of household surveys. The surveys were fielded between May 2010 and January 2011. Two survey instruments were administered. The first collected data on household demographics, livelihoods, consumption expenditure, the inventory of physical assets owned by members of the household (housing, agricultural land, other real estate, livestock, agricultural implements, non-farm businesses, consumer durables), and the identity of the asset owners. The second instrument was administered separately to up to two adult members of the household and collected information on ownership of financial assets, decision-making, awareness of inheritance laws, and recent shocks and coping strategies.

In Ecuador, the sample of 2,892 households is representative of rural and urban areas and the two major regional geographic and population groupings of the country, the sierra (highlands) and coast. A total of 4,668 persons completed the individual questionnaire, including the financial assets section. In Ghana, a total of 2,170 households were surveyed and 3,272 persons answered the individual questionnaire; the survey is representative of the ten administrative regions of the country. In Karnataka, a total of 4,110 households were surveyed across the rural and urban areas of nine districts covering all agro-climatic zones of the state and 7,095 individuals completed the individual questionnaire.

Our qualitative fieldwork revealed that while it was likely that an individual would know about the physical assets owned by other household members, it was less likely that one person knew about the financial assets of all household members. Thus, each of the two respondents was asked only about his or her own financial assets, and whether these were held individually or jointly with someone else. Otherwise, data is not available on the financial assets of other members of the household.

3. Country Context: Ecuador, Ghana and Karnataka, India

The three countries surveyed differ along a set of important dimensions, including population, urbanization, and level of development. The population of Ecuador is 14 million, Ghana's is 25 million, and the state of Karnataka's is 52 million.

Ecuador is both the most urbanized and the most developed of the three. Over two-thirds of its residents live in urban areas and the country has a Human Development Index (HDI) of 0.720.

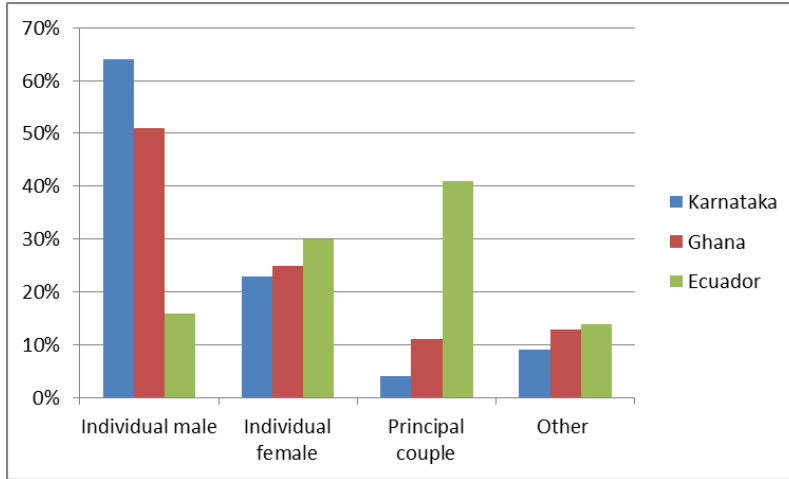
Ghana, like much of Sub-Saharan Africa, is undergoing rapid urbanization; while under 30% of the population lived in urban areas in 1970, that figure rose to 44% by 2000.⁵ Its HDI is substantially lower than Ecuador's at 0.541.

Finally, Karnataka, despite being relatively urbanized compared with other states in India, is still much more rural than either Ecuador or Ghana, with only 38% of its population living in urban areas.⁶ Karnataka's HDI, at 0.519, is marginally lower than Ghana's.⁷

The recent work of the Gender Asset Gap project indicates that the share of assets owned by women is related to a country's legal marital regime,⁸ which determines whether property acquired during marriage is owned individually or jointly and how it would be distributed should the union dissolve. The marital regime of a given country helps provide insights into patterns of ownership. Of the three countries examined, Ecuador is the only one with a partial community property marital regime, which means that all property—except for inheritances—acquired by either spouse during the marriage belongs jointly to the couple. Property acquired prior to marriage, on the other hand, remains individual property, as do inheritances. Both Ghana and India have separation of property marital regimes, meaning marriage does not automatically confer any legal rights over the property acquired by one's spouse, and assets brought into the marriage or acquired during marriage remain individual property. In other words, it is not a legal requirement for couples in Ghana or India to jointly own assets, open joint savings accounts, or put both names on a title deed. The separation of property regime is biased against women, since it fails to recognize the non-monetary contributions of women to the household economy. It has an added bias because men generally have more means to acquire property individually. The joint property system in Ecuador results in a much lower gender asset gap in all of the key assets.

Figure 1 indicates the distribution of the ownership of the principal residence in the three countries by form of ownership.⁹ The "other" category includes all situations where the residence was owned by a household member jointly with someone other than his or her spouse or by all household members. While in Karnataka and Ghana the majority of residences are owned by individuals, primarily individual men, in Ecuador over 40% are owned jointly by the principal couple.

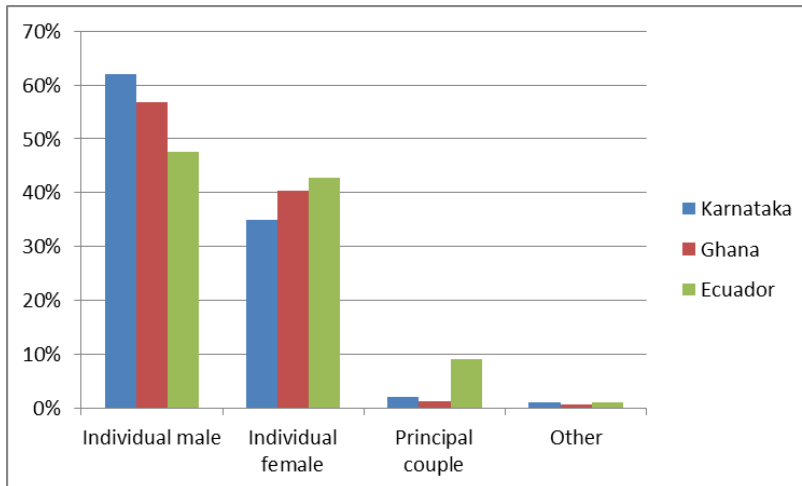
Figure 1. Distribution of ownership of principal residence, by form of ownership.



Source: Doss et al. (2011).

This contrasts markedly with the ownership patterns for formal savings accounts, which are almost all held individually. Thus, even in Ecuador with its community property marital regime, most of the savings accounts are in one person’s name and are perceived as owned by the individual.

Figure 2. Distribution of ownership of formal savings accounts, by form of ownership.



Source: Doss et al. (2011).

The World Bank Findex database provides information on the percentage of adults (age 15+) in each of these three countries with formal savings accounts. In Ecuador, 37% of the adult population has a formal savings account; in Ghana, the comparable figure is 29%. State-level data is not available for Karnataka, but overall for India 35% of the population has a formal account.¹⁰ These contrast with the rates in countries such as the United States, where 88% of the adults have a formal savings account, and the United Kingdom, where the corresponding figure is 97%. Thus, in all three of the countries analyzed here, there is considerable scope for increasing women’s and men’s access to formal savings accounts.

Table 1 shows the Gender Asset Gap project survey results on the percentage of respondents (age 18+) who have formal savings accounts, money held as informal savings, and the percentage of respondents who have any savings in either form or both. The overall rates for Ecuador show that most savings are in the formal sector. In Ghana, although more people have formal than informal savings, the incidence is similar to Ecuador's. The definitions of what are included as formal and informal for each country are discussed in detail below.

Table 1. Percentage of total respondents who have formal savings accounts and informal savings, by location.

	n=	Formal	Informal	Formal and/or Informal Savings
Ecuador	4,668	36%	8%	42%
Ghana	3,272	28%	24%	47%
Karnataka	7,090	33%	19%	46%

Note: "n" refers to sample size, but the percentages reported are weighted according to the respective survey expansion factors.

For formal savings accounts, Table 2 presents the incidence disaggregated by gender and whether the respondent resides in a rural or urban area. In both rural and urban areas of all three countries, a higher percentage of men than women have formal savings accounts.

Table 2. Percentage of respondents who have formal savings accounts, by sex and rural/urban.

		Rural		Urban	
			n=		n=
Ecuador	Women	28%	873	32%	1,783
	Men	35%	687	47%	1,325
Ghana	Women	13%	1,154	32%	638
	Men	25%	974	57%	506
Karnataka	Women	22%	2,430	27%	1,331
	Men	39%	2,196	51%	1,133

To explore questions about how household wealth is correlated with women's savings rates, we employ wealth quintiles. These were constructed using the national/state household level wealth data from the surveys. In Ecuador and Ghana, both gross physical and financial wealth were used to construct the quintiles; only gross physical wealth was used to construct the quintiles in Karnataka. Table 3 shows the distribution of rural and urban households by national wealth quintiles. In Ecuador and Ghana, a higher proportion of urban, as opposed to rural, households are in the higher quintiles. However, in Karnataka, 35% of urban households are in the lowest quintile while 12% of rural households are in this quintile, a result that is aligned with the trend of increasing urban poverty in the state. Ecuador has the highest proportion of its rural households in the middle quintile, with relatively few in the wealthiest quintile.

Table 3. Distribution of households by wealth quintile, location, and rural/urban.

	Ecuador		Ghana		Karnataka	
	Rural	Urban	Rural	Urban	Rural	Urban
1-Lowest	20%	20%	22%	18%	12%	35%
2	20%	19%	21%	17%	20%	19%
3	23%	19%	20%	19%	23%	12%
4	20%	21%	20%	21%	24%	13%
5- Highest	18%	21%	17%	25%	20%	21%
n=	936	1,956	1,374	796	2,628	1,460

Note: Categories may not add to 100% due to rounding.

The economic contexts in which Ecuadorian, Ghanaian, and Indian women save differ dramatically. A précis of each of these contexts—including the makeup of formal and informal savings structures—will be useful before we discuss specific aspects of women’s savings.

Ecuador

The Ecuadorian financial system essentially collapsed in 1999-2000, when 22 major banks failed (representing 60% of the system). This led to the dollarization of the economy in late 2000, causing a significant devaluation. Most of the middle class lost their life savings¹¹ and there was a significant migration of lower/middle class men and women (in approximately equal numbers) to Spain, Italy, and other European countries.¹² A relatively modern system of financial regulation was subsequently put into place, and since 2005 Ecuador has been lauded for its financial stability and institutional accountability. The growth of all financial indicators (deposits, credit, etc.) was significant in the 2005-2010 period.

Ecuador’s formal financial system is regulated by the Superintendancy of Banks & Insurance of Ecuador and the Ministry of Social and Economic Inclusion, which cover all public and private banks, credit unions, and savings and loans cooperatives.¹³ The national financial system, that which is governed by the Superintendancy of Banks, has grown considerably since 2005; the value of deposits comprised 24.8% of GDP in that year, increasing to 35.7% of GDP in 2010.¹⁴ There are other private institutions, such as NGOs with microfinance programs, that are considered to operate in the formal sector; these are categorized as formal because they have savings and loans programs which regularly report financial data to the Ministry, along with the smaller savings and loans cooperatives.

In the case of Ecuador, as Table 4 shows, informal savings consist of only three components: informal savings groups; cash held with third parties; and rainy day funds that are kept at home. The informal savings groups are usually a group of neighbors. Members deposit a certain amount each week (not usually in a bank account) and rotate the person who gets the “pool” among them. People use the “third party” option for safe-keeping to prevent themselves from being tempted to spend their money. Rainy day funds are kept at home for emergency use, and are accumulated to make large expenditures (e.g. purchasing an asset, or making a down payment to obtain consumer credit).¹⁵

In Ecuador, women, both urban and rural, are much more likely to have formal savings accounts than informal savings, although overall, the incidence of both types is higher for urban women (see Table 4). Women from the wealthier quintiles have higher incidences of formal savings accounts, but even those from the lowest wealth quintiles use formal savings accounts more often than they do informal savings. Urban women are more likely to have formal bank accounts than accounts at credit unions or savings and credit cooperatives; for rural women this relationship is reversed. For those who have informal savings, the highest percentage hold cash savings at home.

Table 4. Incidence (percentage) of women respondents in Ecuador who have savings, by wealth quintile and type of savings.

Urban	Total	Q1	Q2	Q3	Q4	Q5
<i>All formal</i>	32%	16%	31%	23%	35%	51%
Bank account	19%	9%	17%	13%	20%	35%
Cooperative/credit union acct.	16%	9%	16%	15%	18%	23%
Other private account (NGOs, etc.)	1%	0%	2%	1%	1%	2%
Stocks, bonds, etc.	0%	0%	0%	0%	0%	1%
Other formal	1%	1%	2%	0%	1%	1%
<i>All Informal</i>	11%	10%	12%	10%	10%	6%
Informal savings program	2%	0%	1%	5%	1%	1%
Deposited w/ 3 rd party	1%	0%	2%	0%	1%	0%
Cash savings at home	9%	9%	9%	11%	8%	5%
Total urban women	1,783	369	343	313	360	398
Rural						
<i>All formal</i>	28%	14%	14%	26%	38%	50%
Bank account	14%	6%	9%	12%	17%	27%
Cooperative/credit union account	18%	8%	6%	12%	27%	40%
Other private account (NGOs, etc.)	1%	1%	0%	2%	0%	1%
Stocks, bonds, etc.	0%	0%	0%	0%	0%	0%
Other formal	1%	0%	0%	1%	0%	5%
<i>All Informal</i>	4%	2%	6%	5%	4%	2%
Informal savings program	1%	0%	3%	1%	0%	0%
Deposited w/ 3 rd party	0%	0%	1%	0%	0%	0%
Cash savings at home	3%	2%	4%	4%	4%	1%
Total rural women	873	168	198	217	167	123

Note: Due to rounding, the zero entries may reflect instances where the incidence is positive but less than 0.5%.

Ghana

Ghana's financial sector has expanded rapidly in the last two decades, seeing a marked increase in the number of commercial banks and non-financial banking institutions. There are 26 commercial banks in the country. In recent years, the commercial banks have given more attention to small lenders and savers, and several of these banks have established units to cater to the needs of small- and medium-scale enterprises.

Savings and loans companies can be found in all ten of Ghana's administrative regions and tend to be concentrated in the larger towns and regional capitals. They target a broad clientele and develop products to meet the needs of all categories of savers.¹⁶ They also employ strategies such as visiting savers at their work places to collect deposits. The legal framework for the establishment of nonbank financial institutions has been in place since 1991, allowing these institutions to mobilize deposits, provide credit to low-income clients and small- and medium-scale enterprises, improve the level of financial literacy, and facilitate money transfers.

Credit unions in Ghana date back to 1955 and have been organized in the national association of credit unions since 1968. There are over 400 credit unions dotted across the country. They may be work-based, church-based, or community-based.

Rural and community banks were first established in 1976. These are unit banks that can operate agencies in different locations in order to mobilize deposits. There are currently 136 such banks. The internationally-funded Rural Financial Services Project, implemented between 2002 and 2008, established the ARB Apex Bank, which acts as a mini central bank for rural banks. During the implementation of the project, rural banks were provided with training that resulted in the introduction of a wide array of savings products. In addition, a special division for microfinance was created within the Bank of Ghana and the capacity of the central bank to supervise the rural banks was also enhanced. A microfinance policy was developed in 2006. One of its objectives is to create a favorable environment for the development of microfinance.

In Ghana, informal savings groups (rotating savings and credit associations, ROSCAs) and *susu* are the prevalent forms of informal savings. *Susu* involves the regular—sometimes daily—deposit of an agreed sum of money with a collector for a specific period of time. The collector visits savers at their workplace or homes for the deposit and charges a service commission. Monies collected by the *susu* collector are lent out to others, deposited in a bank or invested. Building up savings with a *susu* collector is not without its risks since there are instances when collectors take off with the deposits of their savers.

In Table 5, we see that, as household wealth increases, women are more likely to have formal savings accounts. There is a lack of diversity when it comes to how those with formal savings accounts save; they almost always use bank accounts, and tend not to keep savings by other means such as cooperatives/credit unions, savings and loans branches, or stocks/shares/treasury bills/bonds. This is true across quintiles.

Table 5. Incidence (percentage) of women respondents in Ghana who have savings, by wealth quintile and type of savings.

	Total	Q1	Q2	Q3	Q4	Q5
Urban						
<i>All formal</i>	32%	4%	24%	40%	35%	46%
Bank account	20%	4%	17%	33%	28%	40%
Cooperatives/Credit Union	2%	0%	3%	2%	2%	3%
Savings & Loan	4%	0%	5%	6%	5%	5%
Stocks/shares/treasury bills/ bonds	3%	0%	0%	1%	0%	9%
<i>All Informal</i>	33%	26%	44%	35%	37%	26%
ROSCA, <i>Susu</i>	18%	15%	21%	19%	20%	15%
Deposit w/ another person	2%	0%	0%	3%	3%	2%
Cash savings	16%	12%	28%	14%	15%	12%
Total urban women	638	95	102	129	145	167
Rural						
<i>All formal</i>	13%	4%	7%	15%	11%	31%
Bank account	10%	3%	5%	11%	9%	25%
Cooperatives/Credit Union	1%	0%	0%	2%	0%	1%
Savings & Loan	3%	1%	2%	4%	3%	5%
Stocks/shares/treasury bills/ bonds	0%	0%	0%	0%	0%	2%
<i>All Informal</i>	20%	13%	24%	23%	20%	20%
ROSCA, <i>Susu</i>	4%	4%	5%	3%	4%	6%
Deposit w/ another person	2%	0%	1%	2%	2%	3%
Cash savings	15%	9%	19%	19%	15%	13%
Total rural women	1,154	237	232	240	238	207

Note: Due to rounding, the zero entries may reflect instances where the incidence is positive but less than 0.5%.

India

The Indian banking system is comprised of commercial banks, Regional Rural Banks (RRBs), and co-operative banks.¹⁷ Besides banks, post offices in India also provide various small savings schemes and other financial services.¹⁸ The 1990s saw an opening up of all sectors of the Indian economy, including the financial sector. Priority sector lending¹⁹ requirements of banks were eased during this period. In spite of liberalization and increased competition in the banking sector, public sector banks (including the nationalized banks, the State Bank of India, and RRBs) still dominate the banking system, accounting for 73% of commercial banking assets and 52.4% of the assets of all financial institutions in the system. Competition is particularly weak in rural areas.

The importance of ensuring hassle-free, no-frills bank accounts and the issuance of timely credit was addressed by the National Bank for Agriculture and Rural Development program to link self-help groups with banks in the 1990s. Microfinance was seen as one of the pathways to improving financial inclusion, and this option has seen explosive growth in the last two decades.²⁰ Microfinance has been able to fill the void left by mainstream banks that found the poor to be lacking in creditworthiness, and were unable (or unwilling) to design products that

could meet the needs of this segment in a commercially-viable manner. Using group-based lending and local employees, microfinance provides financial services (largely savings and credit and, increasingly, insurance) in close geographical proximity to those requiring the services. These qualities facilitated the proliferation of microfinance from being almost nonexistent in 1990 to becoming a small, but increasingly important, source of finance for India's poor.

Micro-finance in India is considered to be a semi-formal system rather than formal or informal, as it aims to combine the safety and reliability of formal finance with the convenience and flexibility of informal finance to serve the financial needs of the poor.²¹ There is considerable variation in microfinance incidence across the country and the southern states of Karnataka, Tamil Nadu, Andhra Pradesh, and Kerala account for about 75% of the funds flowing under microfinance programs in the country. The majority of the microfinance groups in the country are based on the self-help group model wherein the savings of self-help groups (promoted by either government programs or NGOs) are deposited in banks, and bank credit is provided to groups, which further disburse it to the members based on their needs. Augmented levels of bank credit are made available to mature groups. As far as individual members of these groups are concerned, their day-to-day involvement in the group activities is at an informal level; this is one of the important reasons we categorize it under informal savings in Karnataka.

The Karnataka data does not distinguish between cash savings and any cash that respondents had on hand for immediate use. It is thus not comparable with the measure of cash savings collected for Ecuador and Ghana and has been excluded in the analyses that follow.

In Karnataka, while bank accounts are again the most common form of formal savings, 3% of both urban and rural women respondents saved through post office accounts (see Table 6). A relatively high percentage of women, in both rural and urban areas, have informal savings. Microfinance programs that include savings make up a considerable share of those with informal savings.

Table 6. Incidence (percentage) of women respondents in Karnataka, India who have savings, by wealth quintile and type of savings.

Types of savings instruments	Total	Q1	Q2	Q3	Q4	Q5
Urban						
<i>Any formal</i>	27%	15%	29%	30%	21%	50%
Bank accounts	26%	14%	27%	25%	20%	48%
Post office savings	3%	1%	4%	4%	3%	3%
Government certificates, bonds, stocks, shares, debentures	1%	1%	1%	1%	1%	3%
<i>Any informal</i>	19%	19%	14%	25%	28%	13%
Cooperative/NGO/Microfinance	17%	16%	14%	21%	26%	12%
Other informal, including deposit with another individual, pigmy savings	2%	3%	0%	4%	1%	1%
Total urban women	1,331	446	238	187	194	266
Rural						
<i>Any formal</i>	22%	20%	22%	21%	20%	26%
Bank accounts	20%	17%	20%	19%	18%	24%
Post office savings	3%	4%	3%	2%	2%	2%
Government certificates, bonds, stocks, shares, debentures	1%	0%	1%	1%	0%	1%
<i>Any informal</i>	37%	34%	37%	40%	36%	35%
Cooperative/NGO/Microfinance savings	36%	33%	37%	39%	36%	35%
Deposit with another individual, pigmy savings ²² , other informal savings, other	1%	1%	1%	1%	2%	1%
Total rural women	2,430	332	513	560	565	460

Note: Due to rounding, the zero entries may reflect instances where the incidence is positive but less than 0.5%. The “Any informal” for Q4 for Karnataka urban is higher than the sum of its parts because of rounding margins.

Other Financial Assets

Three other types of financial assets were considered and are reported in Table 7. These are not included in our analyses of savings in this paper but it is useful to note them. Loans to third parties may be a means to save in Ecuador; people considered such loans to be a form of savings, whether or not interest was collected on them. In Ecuador, the incidence of women reporting this practice may also include moneylenders, those whose profession it is to loan money to others at relatively high interest rates. The incidences of loans to third parties are also high in both rural and urban Ghana, but the survey findings indicate that the person who loaned the money does not always expect to receive it back.²³ Thus, it may play a role in cementing community relationships, but is not always a form of financial savings. The incidence of loans made by respondents was the lowest in Karnataka, at 1% in both rural and urban areas, but loans made by professional moneylenders were considered in the business module rather than with financial assets.

Table 7. Percentage of women respondents holding other forms of financial assets.

	Ecuador		Ghana		Karnataka	
	Rural	Urban	Rural	Urban	Rural	Urban
Loans to third parties	7%	15%	19%	27%	1%	1%
Insurance	2%	5%	0%	2%	13%	16%
Pensions	11%	12%	1%	5%	1%	3%

Insurance and pensions were defined differently in the three countries. Pensions come in two broad categories. First, with pension savings funds, people and/or their employers contribute to a savings program that becomes available upon retirement. Second, defined benefit pension schemes provide recipients with a stream of income, typically after retirement. While often pensions are provided by employers, including government employers, some pension schemes are provided by the government as a social safety net. The relatively high incidence of women who have pensions in Ecuador reflects the relatively greater importance of formal sector employment in that country, and hence coverage by the national social security system.

The National Social Assistance Programme of the central government in India provides pensions for the elderly, widows, and disabled among poor households. Since these are payments made entirely out of the social security funds of the government and meant to serve as a source of income for the beneficiaries, they are not treated as savings and therefore not included in the incidence in Table 7. Pensions and provident funds as instruments of formal savings are largely restricted to formal sector workers, who constitute a miniscule proportion of the workforce and are concentrated in urban areas.

Insurance schemes also vary significantly across the countries. In Ecuador, the national social security system includes a life insurance benefit; thus insurance in Table 7 refers to private schemes, which are relatively rare except among upper income groups. It is more common for low income groups to hold burial insurance, usually informal schemes organized at the community level. Burial insurance schemes are a form of savings, with savings to be used for a particular purpose. Implementation of a new pension scheme began in Ghana in June 2012. The previous pension system comprised a scheme introduced in 1950 (which covered some sections of the public service), the Social Security and National Insurance Scheme introduced in 1972, and private schemes. The pension schemes have served mainly formal sector workers. The incidence of insurance is higher in Karnataka than in Ecuador and Ghana. Life insurance is the most common form of individual insurance in India. For the upper and middle classes, life insurance schemes generally serve as investment products as well. For poorer households and those in the informal sector, the Life Insurance Corporation (LIC) of India has routinely come up with specialized products, and in some cases the premium amounts are subsidized by the government. The Janashree Bima Yojana (JBY) is one such popular product introduced in the early 2000s, in which the central government bore half the premium burden for every subscriber.

4. Which women have informal savings and formal savings accounts?

The first set of questions that we explore is about the characteristics of women who are informal and formal savers. Specifically, we examine women savers by location, marital status, literacy,

and occupation. One would expect that whether a woman lives in a rural or urban area might affect whether or not she has a savings.

Table 8 presents the incidence of women respondents who have only informal savings, disaggregated by these individual level characteristics. Women who have only formal savings or both formal and informal savings accounts are included in Table 9.

Relatively few women in Ecuador have only informal accounts. The incidence is much higher in Ghana and Karnataka. In Ghana, a higher proportion of urban women, in contrast to rural women, have only informal savings. In Karnataka, the pattern is the opposite, with a higher proportion of rural women having only informal savings.

Table 8. Incidence (percentage) of women respondents in each category who only have informal savings accounts.²⁴

	Ecuador		Ghana		Karnataka	
	Rural	Urban	Rural	Urban	Rural	Urban
Total, all women	3%	8%	20%	33%	26%	14%
<i>Marital Status</i>						
Never married	0%	1%	20%	29%	17%	5%
Currently married/ Consensual union	3%	8%	21%	36%	28%	15%
Widowed/Divorced/Separated	2%	9%	17%	29%	19%	8%
<i>Literacy:</i>						
Literate	3%	8%	26%	36%	29%	11%
Not literate	1%	7%	18%	30%	23%	21%
<i>Primary Employment Status:</i>						
Employer	7%	16%	38%	16%	NA	NA
Wage worker	0%	5%	17%	28%	11%	9%
Casual worker	0%	8%	12%	9%	27%	24%
Self-employed	4%	10%	21%	45%	26%	21%
Unpaid family worker	2%	5%	18%	36%	28%	22%
Paid domestic worker	2%	9%	0%	0%	24%	11%
Not economically active	2%	7%	11%	14%	23%	12%
Total respondents, n=	873	1,783	1,154	637	2,430	1,331

Note: Employer was not asked as a separate category in Karnataka; employers would be in the self-employed category.

As Table 9 shows, in all three countries there is an overall higher incidence of formal savings accounts among urban women (compared to rural women). There is not a clear pattern across the three countries on the incidence of savers by women's marital status. In both Ecuador and Ghana the highest incidence is found among never married urban women, while for Karnataka it is among urban widowed/divorced/separated women. In both Ecuador and Karnataka, currently married women have the lowest proportion of savers in both rural and urban areas. In Ghana, the group with the lowest incidence of formal savings are rural widows, divorcees, and separated women.

Women's lower literacy rates are often used to explain their low participation rates in formal banking and savings, and Table 9 shows that a higher share of literate women have savings accounts than illiterate women. In particular, illiterate women in rural Ecuador, rural Ghana, and urban Karnataka have very low formal savings rates. It may not be that illiteracy itself is a barrier to formal savings, but rather that those who are illiterate in those particular areas are also among the most disadvantaged in many related ways. In Ghana, 21% of illiterate urban women have formal savings accounts. This suggests that it is possible to reach illiterate women with formal accounts.

With respect to employment, the incidence of formal savers is highest among wage workers in all three countries and also among employers in urban Ecuador and Ghana. In all three countries, individuals employed in the formal sector are often required to have a bank account into which their salaries can be deposited. Therefore, we would expect that a high percentage of wage workers would be savers. Among the urban respondents in Ecuador, 19% are wage workers (see Table 10), while only 9% of urban respondents in Ghana and 6% in Karnataka are wage workers. The incidence of formal savings is lowest among casual workers, unpaid family workers, and those who are not economically active.

Table 9. Incidence (percentage) of women respondents in each category who have formal savings accounts.²⁵

	Ecuador		Ghana		Karnataka	
	Rural	Urban	Rural	Urban	Rural	Urban
Total, all women	28%	32%	13%	32%	22%	27%
<i>Marital Status</i>						
Never married	21%	49%	28%	39%	33%	31%
Currently married/ Consensual union	27%	30%	14%	34%	19%	26%
Widowed/Divorced/Separated	32%	34%	11%	23%	30%	35%
<i>Literacy:</i>						
Literate	31%	33%	29%	42%	26%	33%
Not literate	7%	11%	9%	21%	18%	11%
<i>Primary Employment Status:</i>						
Employer	24%	45%	11%	61%	NA	NA
Wage Worker	66%	61%	60%	62%	74%	63%
Casual worker	8%	16%	0%	20%	22%	13%
Self-employed	30%	33%	14%	30%	32%	45%
Unpaid family worker	19%	22%	4%	8%	18%	14%
Paid domestic worker	21%	23%	0%	0%	70%	20%
Not economically active	21%	17%	7%	23%	17%	24%
Total respondents, n=	873	1,783	1,154	637	2,430	1,331

Note: Employer was not asked as a separate category in Karnataka; employers would be in the self-employed category.

A comparison across tables 8 and 9 allows us to see whether different characteristics are correlated with having formal savings accounts or only informal savings. For every characteristic, Ecuadorian women are more likely to have formal savings accounts than informal

savings. The patterns are less clearly defined in Ghana and Karnataka. In these two countries, never married women are more likely to have formal savings accounts than informal savings. Except in urban Karnataka, married or widowed/divorced women are more likely to have informal savings. And except for rural Karnataka, literate women are more likely to have formal savings and nonliterate women are more likely to have only informal savings. Other than wage workers, most women in Ghana and Karnataka are more likely to have informal savings.

5. Are women who have formal savings accounts different?

In this section, the analysis focuses on the characteristics of those who have formal savings accounts. While informal savings may be a first step towards establishing savings accounts, in this paper we are particularly interested in formal savings and identifying whether there may be constraints to women accessing formal accounts. Note that we are referring to formal savings accounts, rather than formal savings. For Karnataka and Ghana, there is little difference. But in Ecuador, many people report formal savings accounts, but with a current zero balance. In a later section of the paper, we examine the patterns of who has formal savings accounts with a non-zero balance and compare the balances of men and women.

Below, we categorize women savers according to the same key characteristics used in the previous section. Here, instead of looking at the percentage of savers against all respondents, we examine the distributions of women savers, using the same characteristics.

Considering rural and urban women respondents separately, we first examine the distributions of women respondents according to the various characteristics used above. The majority of women respondents are married, with a higher percentage of rural respondents being married than urban respondents, in all three locations.

Literacy rates are much higher in Ecuador than in Ghana and Karnataka, and in all three sites, they are much higher among urban respondents than among rural respondents. The rates range from 94% of urban respondents in Ecuador to 21% of rural respondents in Ghana.

The patterns of employment for women differ markedly across countries, with implications, as noted above, for savings patterns. Among rural respondents in Ecuador, 37% are self-employed and 28% are not economically active. For urban respondents, 32% are self-employed and a larger share, 36%, are not economically active. In Ghana, for both urban and rural respondents, self-employment is the predominant form of employment. In Karnataka, the largest share of rural respondents report being casual workers (41%) followed by not being economically active and unpaid family workers. Notably, a large majority of urban respondents in Karnataka (66%) are not economically active.

Table 10 also compares the distributions of savers and non-savers. In Ecuador and Karnataka, a higher share of savers than non-savers is widowed, divorced, or separated. The opposite is true for married or partnered women; they are over-represented among non-savers. In rural Ghana, never married women are over-represented among savers and divorced/widowed/separated

women are under-represented. A similar pattern is found in urban Ghana, but currently married women are also over-represented among savers.

In all three countries, in both rural and urban areas, a higher share of savers than non-savers are literate. This is true even in Ghana, where illiteracy rates are high.

Table 10. Distribution of women respondents, formal savers and non-savers, by key characteristics and location.

	Rural respondents	Rural savers	Rural Non-savers	Urban respondents	Urban savers	Urban Non-savers
ECUADOR						
<i>Marital Status:</i>						
Never married	6%	5%	7%	3%	5%	2%
Currently married	74%	73%	75%	73%	69%	75%
Widowed/Divorced/Separated	20%	23%	19%	24%	26%	23%
Chi-squared	p=.000			p=.000		
<i>Literacy:</i>						
Literate	89%	97%	86%	94%	98%	93%
Not literate	11%	3%	15%	6%	2%	7%
Chi-squared	p=.000			p=.000		
<i>Primary Employment Status:</i>						
Employer	2%	2%	2%	2%	3%	2%
Wage worker	10%	24%	5%	19%	36%	11%
Casual worker	5%	2%	7%	2%	1%	3%
Self-employed	37%	40%	36%	33%	34%	32%
Unpaid family worker	13%	9%	15%	4%	3%	5%
Domestic worker	4%	3%	4%	5%	4%	6%
Not economically active	28%	21%	31%	36%	20%	43%
Chi-squared	p=.000			p=.000		
n= Women respondents	873	203	670	1,783	573	1,210
GHANA						
<i>Marital Status:</i>						
Never married	5%	10%	4%	13%	15%	11%
Currently married	65%	66%	65%	61%	65%	58%
Widowed/Divorced/Separated	30%	24%	31%	27%	20%	30%
Chi-squared	p=.030			p=.060		
<i>Literacy:</i>						
Literate	21%	45%	17%	51%	68%	43%
Not literate	79%	55%	83%	49%	32%	57%
Chi-squared	p=.000			p=.000		
<i>Primary Employment Status:</i>						
Employer	3%	3%	4%	6%	11%	3%
Wage worker	3%	14%	1%	9%	18%	5%

Casual worker	0%	0%	0%	1%	1%	1%
Self-employed	68%	72%	68%	55%	51%	57%
Unpaid family worker	11%	3%	12%	3%	1%	4%
Domestic worker	0%	0%	0%	1%	0%	1%
Not economically active	14%	7%	15%	25%	18%	28%
Chi-squared	p=.000			p=.000		
n= Women respondents	1,154	149	1,005	637	204	433
KARNATAKA						
<i>Marital Status:</i>						
Never married	1%	2%	1%	3%	4%	3%
Currently married	81%	73%	83%	79%	73%	82%
Widowed/Divorced/Separated	18%	25%	16%	18%	23%	15%
Chi-squared	p=.0012			p=.0002		
<i>Literacy:</i>						
Literate	41%	50%	39%	73%	89%	67%
Not literate	59%	50%	61%	27%	11%	33%
Chi-squared	p=.0020			p=.000		
<i>Primary Employment Status:</i>						
Employer	NA	NA	NA	NA	NA	NA
Wage worker	2%	7%	1%	6%	26%	5%
Casual worker	41%	41%	41%	15%	6%	13%
Self-employed	7%	11%	7%	4%	9%	4%
Unpaid family worker	23%	19%	24%	5%	2%	5%
Domestic worker	0%	1%	0%	5%	3%	3%
Not economically active	27%	21%	29%	66%	54%	70%
Chi-squared	p=.000			p=.000		
n= Women respondents	2,430	559	1,871	1,331	346	985

Note: Categories may not add to 100% due to rounding. The Pearson Chi-squared asymptotic significance (2-sided) has been calculated using the survey expansion factors.

The share of savers who are wage workers is higher than that of non-savers for all three countries. And the share of savers who are not economically active is lower than that for non-savers. There are a few country-specific patterns. In rural Ecuador, the share of savers who are self-employed is higher than for non-savers. And in rural Ghana, unpaid family workers are overrepresented among the non-savers, when compared to savers.

These patterns across countries suggest that women who are not literate and those who are either unpaid family workers or not economically active are underrepresented among savers.

The Chi-squared tests indicate that for all sets of characteristics (other than marital status in rural Ecuador) there is a significant difference between savers and non-savers. Thus, women who have formal savings accounts are different, on average.

6. How is wealth and other asset ownership related to women having formal savings accounts?

Having examined some of the key characteristics of women savers, we continue to fill out the profile of women savers by investigating household wealth. Are women from wealthier households more likely to have formal savings? In the following tables, we explore this question by analyzing the distribution of women savers by household wealth quintile; and the percentage of those women savers who also own productive assets such as houses, real estate, or businesses.

Table 11 presents the distribution of women savers according to household wealth quintile. It indicates that savers are concentrated in the top wealth quintile, particularly in Ghana, and with respect to urban women in Ecuador and Karnataka. Women savers are underrepresented in the lowest quintile in Ecuador, Ghana and rural Karnataka. Overall, there is a close, positive association between the incidence of women having formal savings accounts and the household's quintile group, but there are some anomalies. For instance, 19% of the savers in urban Karnataka each are in the poorest two quintiles, while the proportions in the third and fourth quintiles are lower. This reflects, in part, the fact that there is a concentration of urban households in the poorest quintiles.

Table 11. Distribution of women who have formal savings accounts, by household wealth quintile.

	Ecuador		Ghana		Karnataka	
	Rural	Urban	Rural	Urban	Rural	Urban
1-Lowest	10%	10%	7%	2%	12%	19%
2	10%	19%	10%	12%	21%	19%
3	21%	14%	24%	24%	22%	13%
4	28%	23%	18%	26%	22%	11%
5-Highest	32%	34%	41%	36%	23%	38%
N=	203	573	149	204	559	346

Note: Categories may not add to 100% due to rounding.

A second way to consider the relationship between savings accounts and wealth is to consider the relationships between having a savings account and owning other key productive assets, such as real estate and businesses. The first set of columns of Table 12, below, indicate the percentage of women savers who live in a household where someone owns real estate (agricultural land, the principal residence, or other real estate) or a business.

Thus, 71% of the rural women savers in Ecuador live in a household where someone owns the residence, while the corresponding figure for urban women savers is 56%. This same pattern also holds for Ghana and Karnataka, since urban households are more likely than rural households to rent their place of residence. As expected, rural women savers in all three countries are also more likely than urban women savers to live in landowning households. While a clear tendency distinguishing savers from non-savers is not apparent with respect to land or the dwelling, in all three countries a higher proportion of savers than non-savers live in households that own other real estate (such as an urban lot or a second dwelling) or a business. In rural and urban Ecuador

and rural Ghana, women who are savers are more likely to live in households that own a business.

The second set of columns in Table 12 indicates the percentage of women respondents, savers and non-savers, who themselves are owners of these assets. They may own the assets individually or jointly with someone else. Fewer women, especially in Ghana and Karnataka are themselves owners of these types of property. In Ecuador, which has a community property marital regime, much more of the real estate is owned jointly by spouses. Thus, women are much more likely to be owners of major assets in Ecuador than in either Ghana or Karnataka.

Table 12. Percentage of women respondents, formal savers and non-savers, where they or someone in their households also own major assets (individually or jointly).

	Someone in Household Owns:				Woman Respondent Owns:			
	Land	Principal Residence	Other Real Estate	Business	Land	Principal Residence	Other Real Estate	Business
Ecuador								
Rural Respondents	28%	71%	13%	41%	21%	59%	10%	30%
Rural Savers	26%	71%	19%	53%	20%	63%	16%	40%
Rural Non-savers	29%	71%	10%	36%	22%	57%	8%	25%
Chi-squared	p=.000	p=.135	p=.000	p=.000	p=.000	p=.000	p=.000	p=.000
Urban Respondents	7%	56%	13%	53%	5%	46%	10%	37%
Urban Savers	10%	58%	18%	55%	5%	50%	14%	43%
Urban Non-savers	6%	55%	11%	53%	4%	44%	8%	35%
Chi-squared	p=.000	p=.000	p=.000	p=.000	p=.000	p=.000	p=.000	p=.000
Ghana								
Rural Respondents	35%	44%	19%	46%	16%	17%	9%	40%
Rural Savers	31%	43%	30%	67%	16%	19%	13%	65%
Rural Non-savers	36%	44%	18%	43%	19%	16%	8%	36%
Chi-squared	p=.259	p=.822	p=.001	p=.000	p=.530	p=.391	p=.069	p=.000
Urban Respondents	14%	22%	24%	67%	7%	11%	12%	56%
Urban Savers	14%	24%	28%	71%	8%	12%	15%	59%
Urban Non-savers	13%	22%	22%	66%	7%	11%	11%	54%
Chi-squared	p=.699	p=.423	p=.147	p=.204	p=.517	p=.744	p=.163	p=.248
Karnataka								
Rural Respondents	63%	88%	22%	15%	12%	24%	6%	6%
Rural Savers	62%	87%	28%	18%	20%	33%	10%	9%
Rural Non-savers	63%	88%	20%	14%	10%	21%	5%	5%
Chi-squared	p=.637	p=.833	p=.030	p=.3749	p=.000	p=.000	p=.009	p=.062
Urban Respondents	11%	49%	12%	20%	2%	16%	3%	7%
Urban Savers	15%	54%	17%	17%	5%	22%	6%	9%
Urban Non-savers	10%	47%	10%	22%	1%	14%	2%	6%
Chi-squared	p=.232	p=.163	p=.041	p=.254	p=.046	p=.033	p=.015	p=.240

Note: Categories may not add to 100% due to rounding. The Pearson Chi-squared asymptotic significance (2-sided) has been calculated using the survey expansion factors.

In Karnataka, for each type of asset, women who are savers are more likely to own the asset themselves than non-savers. (The numbers are small, but statistically significant except in the case of businesses in urban areas). In Ecuador, savers are more likely to own their own

residence, other real estate, or a business than non-savers. While urban women savers are more likely to own land than non-savers, this trend does not hold for rural women. In Ghana, the difference between savers and non-savers is only statistically different for ownership of a business by rural women.

Generally, savers are more likely than non-savers to own other real estate or a business. Owning a house or land is less consistently correlated with being a saver. Thus, savers are more likely to have moved beyond simply owning a house or agricultural land to having property that is used to generate income.

The data does not allow us to distinguish the patterns of causality; does being a saver make it possible to acquire these assets, or is it that people with these assets are more able to save?

To some extent, savings and other assets may be substitutes; someone may save to purchase property, after which their financial savings would be lower. This should not, however, confound our analysis of savings accounts, since although the balance may fluctuate with purchase of other assets, the account would likely remain open. The data presented here suggests that savings accounts and other real estate and businesses are complements, rather than substitutes.

7. Are women able to use their savings to purchase assets?

We now delve a step further into the use of savings by examining how women asset owners acquired their assets, irrespective of whether these are owned individually or jointly. For those who purchased the asset (as opposed to inheriting it or acquiring through other means) we asked how the money for the purchase was obtained. The responses included using *only* her own earnings or savings; with the savings of someone else; a combination of her savings and those of someone else; the use of credit; a combination of credit and her own savings, and so on. In Table 13 we have grouped the responses where women used their own savings into two categories: 1) Women who said they used only their own savings and/or earnings and nothing else to purchase productive assets;²⁶ and 2) Women who said they used their own savings and/or earnings in combination with any other source (such as with a spouse's savings or remittances, or in combination with a loan) to purchase assets.

As table 13 shows, in Ecuador and Karnataka most women do not buy real estate only with their own earnings and savings. Instead, they use different mechanisms to purchase them. For example, only 8% of rural Ecuadorian female homeowners bought their dwellings with their own savings; 44% of female homeowners purchased a dwelling using their own savings combined with resources from someone else. Comparable numbers for Karnataka are 4% and 8%, respectively. In Ghana, in contrast, most women asset owners purchase real estate using only their own savings

Table 13. Percentage of women respondents who are asset owners who used own savings/earnings to purchase assets.

	Ecuador		Ghana		Karnataka	
	Rural	Urban	Rural	Urban	Rural	Urban
<i>Primary Residence:</i>						
Only w/ own savings	8%	10%	54%	27%	4%	4%
W/ own savings and others*	44%	37%	4%	8%	8%	10%
Total	52%	47%	58%	35%	12%	14%
n=women asset owners	514	765	176	60	582	214
<i>Land:</i>						
Only w/ own savings	5%	8%	8%	5%	2%	0%
W/ own savings and others*	31%	19%	1%	2%	4%	9%
Total	36%	27%	9%	7%	8%	10%
n=women asset owners	196	73	203	63	389	56
<i>Other Real Estate</i>						
Only w/ own savings	4%	14%	39%	35%	13%	11%
W/ own savings and others*	41%	21%	9%	9%	12%	30%
Total	45%	35%	48%	44%	25%	41%
n=women asset owners	68	181	127	112	136	45
<i>Business:</i>						
Only w/ own savings	35%	44%	65%	60%	NA**	NA
W/ own savings and others*	26%	18%	9%	11%	NA	NA
Total	61%	62%	74%	71%	NA	NA
n=women asset owners	244	658	434	353		

Note: * Besides their own savings, this category includes the use of savings of other household and/or non-household members (such as remittances), in addition to the use of credit from whatever source in combination with own savings.

** The data on modes of acquisition for businesses in Karnataka does not allow calculating these figures.

Business ownership in Ecuador and Ghana stands out as a special case, since a relatively high share of women utilized only their own savings to start or acquire a business. In both countries, in both rural and urban settings, the percentages of women who used only their own savings to purchase their businesses are higher than those who combined their own savings with resources from others.²⁷

Table 13 does not disaggregate the data by whether the asset is owned individually or jointly. But in Ecuador, which has a community property regime, the majority of women owners used their own and others' resources to buy real estate jointly with their spouses. In Ghana, where property is owned individually, 54% of rural and 27% of urban women homeowners used only their own savings to purchase the dwelling.

Finally, a question that arises from these findings—and which goes beyond the scope of this study—was "Whose additional savings were used?". In some cases, credit was an important additional source; in Ecuador, the savings of one's spouse were frequently used. In Karnataka, it was typically a combination of women's savings/earnings with those of her spouse and other household members.

8. How do women's savings compare with men's?

This paper has thus far focused on women's savings, but it is useful to contrast women's savings with those of men. Comparisons of men's and women's savings patterns might indicate the extent to which the lack of formal savings is specifically due to gender constraints vis-à-vis broader constraints within the local context.

In the subsequent analysis we focus on those who have a positive balance in their accounts. Other studies have shown that it is much more likely for people to have formal accounts at an institution than to have actually saved some funds during the previous year. According to the FINDEX survey, in 2011 in Ecuador 37% of men and women (15 years and older) had an account, but only 15% saved during the past year. For Ghana the corresponding figures were 26% and 12%, and for the whole of India, 29% and 16%.²⁸

Also, capturing positive savings and their amounts is very sensitive to the time period of reference, whether one asks about current savings (at the moment of the interview) or the average balance during the previous month or past year. In the Ecuador and Karnataka surveys, the question was posed in terms of current savings. In Ghana, respondents were asked to provide information on the average balance held over the past month. Thus, the numbers are not comparable across countries, but are comparable for men and women within each country.

Our survey data for Ecuador present the largest gap between those who reported having an account and those reporting positive current savings. Only 70% of urban women and 73% of urban men with formal accounts reported a positive balance in their accounts; the share for rural women and men was slightly higher, 72% and 75% respectively. This gap could also be explained by the relatively high share of respondents who are paid through automatic bank deposits. According to the FINDEX survey, 16% of Ecuadorean respondents received their pay through automatic deposits, 12% in Ghana and only 8% in India. Our focus groups in Ecuador revealed that it was a fairly common practice, for example among the workers on flower plantations, to go to the bank on pay day and withdraw all of one's earnings to meet current expenditures. Another explanation of this gap is that many credit institutions require that the borrower have a savings account to receive a loan, but do not necessarily require a minimum balance in the account.

Table 14 presents the incidence of men and women who have savings accounts with a positive balance (it excludes those with zero balances as well as missing values), which is then the basis for the analysis of those with positive medians and means.

Table 14. Incidence (percentage) of respondents who have a savings account with a positive balance, by urban/rural and sex.

	Rural			Urban		
Ecuador	Formal	Informal	Any	Formal	Informal	Any
Women	20%	3%	23%	22%	10%	30%
Men	26%	4%	30%	34%	7%	39%
Ghana						
Women	13%	20%	31%	29%	32%	55%
Men	20%	22%	43%	50%	19%	61%
Karnataka, India						
Women	21%	36%	47%	26%	19%	41%
Men	39%	6%	42%	50%	6%	53%

The overall pattern is quite clear. A higher percentage of men have positive savings than women in all three countries. The gender gaps are widest for formal savings accounts. In urban Ecuador and Ghana, a higher percentage of women than men have informal savings; but the gender gaps in formal savings dominate, meaning that there is a gender gap in favor of men for the incidence of any form of savings.

For both men and women, Ecuador has a higher incidence of formal savings accounts than of informal savings. This is also true for men in Karnataka and urban men in Ghana. For rural men in Ghana and women in Ghana and Karnataka, informal savings is more common than formal savings.

A starker gender gap emerges when we consider the median and mean amount of savings held by men and women. Tables 15 and 16 present these results for Ecuador and Ghana. (The values are not available for Karnataka).

Table 15. Median value of positive savings, by sex, urban/rural, type of savings, and wealth quintile (in US Dollars).

	Women						Men					
	Rural			Urban			Rural			Urban		
	Formal	Informal	Any	Formal	Informal	Any	Formal	Informal	Any	Formal	Informal	Any
Ecuador												
Lowest	20	7.5	20	20	25	30	75	32.5	45	90	25	65
2	43	27.5	35	100	35	94	30	32.5	30	200	100	200
3	50	80	60	145	70	130	100	100	100	200	100	200
4	100	50	100	200	20	100	200	200	200	200	50	200
Highest	185	5	165	300	55	270	290	50	265	400	200	400
All	100	50	95	150	37.5	100	107.5	50	100	200	100	200
Ghana*												
Lowest	28	21	21	14	35	35	35	21	28	31	35	35
2	32	21	28	60	37	42	56	34	42	63	42	56
3	48	35	38	70	35	70	35	32	35	64	21	70
4	70	28	35	141	42	70	95	58	70	141	70	106
Highest	141	49	70	141	70	141	211	70	169	194	123	211
All	56	28	35	106	42	70	70	35	56	106	61	85

*Exchange rate utilized was that of 1.42 cedis per dollar at the time of the survey.

The median values for men are higher overall than they are for women. There are a few exceptions in particular cells where the median value of women’s savings is higher than that of men. It is particularly noticeable that for the middle wealth quintile in Ghana, the median value for women is greater than or equal to that of men for both rural and urban and for formal and informal savings.

The median value of savings in both countries is quite low for both men and women, but usually higher in urban as compared to rural areas. Considering the column of “any” savings, there is generally a positive association between the median savings level reported and the quintile level. The highest median is only \$400 for any savings for the top quintile of urban men in Ecuador. Thus, while there is a gender gap in the median value of savings, the overall values remain low.

Table 16 presents the mean savings balances for men and women. In Ghana and Ecuador, the means for men are higher in every category than those for women. Those which are statistically significant differences include informal balances among rural and urban savers in Ghana and both formal and informal balances in urban and rural Ecuador.

Table 16. Mean positive savings balance, by sex and rural/urban (in US Dollars).

	Rural			Urban		
	Formal	Informal	Any	Formal	Informal	Any
Ecuador, Women	314 (652)	96 (132)	286 (611)	596 (1,442)	99 (175)	487 (1,293)
Ecuador, Men	423 (881)	143 (253)	383 (825)	1023 (4,719)	262 (665)	947 (4,444)
P value	.000	.000	.000	.000	.000	.000
Ghana, Women	349 (1,391)	73 (129)	190 (901)	366 (928)	73 (101)	251 (726)
Ghana, Men	588 (2,984)	138 (325)	397 (2,235)	384 (932)	126 (202)	352 (882)
P value	.369	.004	.105	.835	.004	0.120

Note: Standard deviation below each mean, in parentheses. P values are based on Levene’s test for homogeneity of variance calculated using the survey expansion factors.

Thus, for formal savings, only in Ecuador is there a statistically significant difference between the value of men’s and women’s savings. The mean value of formal account balances for men in urban Ecuador is substantially higher than urban women’s; the gender gap is also larger in urban than in rural areas. And overall, men are more likely than women to have formal savings accounts.

9. Policy Implications and Recommendations

The overall levels of savings are low, for both men and women, in the three countries analyzed. Thus, efforts are needed to increase both the incidence of holding formal savings accounts and the level of savings for everyone, both men and women. In addition, there is a gender gap, especially in the incidence of formal savings and among urban men and women in Ecuador, with

regard to the value held. Thus, efforts should also target women and the specific constraints that they face.

The poorest quintiles are typically the least likely to have any form of savings. In addition, those that do, either in formal accounts or through informal means, save quite small amounts. The locale of residence seems to matter greatly in poor women's ability to save. In both Ecuador and Ghana, urban women in households in the bottom 40% of the wealth distribution are more likely to have formal savings accounts and informal savings than rural women in the bottom two quintiles (Table 4 and Table 5). Karnataka shows a different pattern, with rural women in the bottom quintile demonstrating a higher incidence of formal accounts than urban women of that quintile, and rural women in quintile 2 having a higher incidence of informal accounts than urban women of quintile 2 (Table 6). These results suggest that recent efforts directed at increasing rural women's savings in Karnataka, discussed further below, may be having an impact.

One interesting finding is the high number of women in Ecuador who have formal bank accounts, but have a zero balance in their accounts. This suggests that it is not just the challenge of opening a formal account that is constraining women's accumulation of formal savings. Instead, it appears that women use all of the earnings that are deposited into these accounts to cover regular expenses. Thus, programs simply to make it easier to open accounts will not necessarily result in increased levels of savings.

Yet, at the same time, a not insignificant number of women keep cash savings at home, rather than deposit these into an account. As tables 4 and 5 show, 15% of rural and 16% of urban women in Ghana have cash savings at home; the corresponding figures for Ecuador are 3% and 9%.²⁹ This suggests that there might be an unmet demand for accounts, if they met the needs of women savers.

In Ecuador, the spread of savings and loans cooperatives throughout the country, and particularly in the rural highlands, is one of the factors that explain the relatively high incidence of women with formal accounts as opposed to informal savings. This is suggested by the much smaller gap in the incidence of rural and urban women who have an account in a cooperative or credit union, (18% vs. 16%) compared with a private bank (14% vs. 19%).

India has been relatively successful in bringing women into the microfinance sector, particularly in the southern states including Karnataka. A large majority of the informal savings held by women in Karnataka is through microfinance savings programs. While these have been useful in mobilizing women's small savings on a routine basis, the incidence is much higher in rural than in urban areas; poverty is higher in urban areas. Further, the amounts that women have in microfinance groups are relatively low.

We had expected that Ecuador, which is more urbanized and more developed, would have higher levels of formal savings accounts, however, the pattern is not this clear. The comparative data may indicate that recent efforts to extend savings programs in both Ghana and Karnataka have had some success.

As an ongoing strategy, 1) Widening the network of financial institutions (particularly banks); and 2) Designing innovative savings products to address the specific needs of poorer households would help bring cash and other informal savings into the formal system. A 2005 survey³⁰ in India identified the main constraints to bringing informal savings into the formal financial system as being both the location and hours of bank branches and the requirements of accounts, such as minimum balances and transactions.

In Ghana, although there are savings alternatives apart from bank accounts, the proportion of women who save using these alternatives is much smaller than the proportion holding bank accounts. There has been rapid growth in the number of savings and loans organizations that are designed to attract the small saver. However, most of these organizations are located in towns. Improving physical access to savings institutions will go a long way to reducing the incidence of savings kept at home and moving the money into the formal sector. Women may save for a number of reasons, including because they want to withdraw their deposits in the future or in order to access loans. If, however, the time costs in accessing their deposits are high or they cannot access loans in the desired amounts or for the desired purpose, women may choose to save at home or in kind through the purchase of assets such as livestock.³¹

Women are involved in saving to purchase major household assets, but rarely do they purchase real estate with only their own earnings. Women in Ghana are an exception, for most Ghanaian women who purchase their dwellings or other real estate do so using only their own earnings. Overall, women account for less than 40% of the owners of these assets. In both Ghana and Ecuador, however, where the majority of individual owners of businesses are women, a relatively high share of female business owners utilized their own savings to start their business. Of course, many of these businesses are small and undercapitalized.

Women still face disadvantages in the labor market that make it difficult for them to save substantial amounts of money on their own. Women in Ghana earn 35% less than men in the labor market. The wage differential is higher among the self-employed (51%) than in paid employment (25%).³² In Ecuador they earn 33% less than men.³³ In Karnataka, the agricultural wage gap between men and women has increased in absolute and relative terms. As a percentage of the female agricultural wage rate, the gap increased from 33.8% to 53% between 1991 and 2001.³⁴

In all three countries the overall financial wealth of men is higher than that of women. In order to reduce this gap, enabling women to save more and save higher amounts in the formal sector is needed. However, this depends critically on women's labor force participation and wage rates; both of these domains also have substantial gender gaps in favor of men. The stagnation of women's labor force participation rates in India over the past couple of decades, in particular, is a worrying trend for women's overall economic empowerment. Thus, it is hard to disentangle savings behavior from the broader context. Women do open formal savings accounts in both rural and urban areas of all three countries. They have savings, although the amounts tend to be small. Most of the savings accounts are owned individually, even in Ecuador where other physical assets are much more commonly owned jointly by couples. Hence women's savings is associated with income they potentially control.

A complete analysis of women's savings, however, also requires a parallel analysis of women's access to credit, a topic beyond the scope of this paper. Often it is the prospect of a loan that induces women to begin to save, either because it is a formal requirement to obtain credit, or because to realize an investment of a certain size requires that personal savings complement a loan. In addition, in countries such as Ecuador, where access to consumer credit is widespread, accumulating a down payment is often a precondition to qualifying for installment payments. Women commonly consider making such installment payments a form of forced savings, one that allows a higher standard of living to be attained than would otherwise be the case. Thus, among the next steps in this analysis would be to consider whether there is a positive association in the incidence of women savers and in the amount they save with whether they have or have had access to credit. Future work also needs to consider the relative role of access to credit compared to own savings in women's ability to accumulate assets.

Notes

¹ For a study on increasing decision-making capabilities, see: Bina Agarwal. 1997. "Bargaining? and gender relations: Within and beyond the household." *Feminist Economics* 3(1): 1-51. For investing in education and nutrition, see: World Bank. 2011. *World Development Report 2012: Gender Equality and Development*. Washington, DC: World Bank. And for a means of decreasing domestic violence, see: ICRW. 2005. "Property ownership for women enriches, empowers and protects." Policy Brief. (http://www.icrw.org/docs/2005_brief_mdg-property.pdf); Pradeep Panda and Bina Agarwal. 2005. "Marital violence, human development, and women's property status in India." *World Development*, 33(5): 823-50; and A.S. Bedi, A. Chhachhi, and M. Bhattacharyya. 2011. "Marital violence and women's employment and property status: Evidence from North Indian villages." *World Development*, 39(9), 1676-1689.

² Smaller-scale exceptions do exist, such as N. Ashraf, D. Karlan, and W. Yin. 2008. "Female Empowerment: Impact of a Commitment Savings Product in the Phillipines." Draft. http://karlan.yale.edu/p/Female_Empowerment_v15.pdf

³ See: Cheryl Doss, Carmen Diana Deere, Abena D. Oduro, Hema Swaminathan, Suchitra J. Y., Rahul Lahoti, W. Baah-Boateng, L. Boakye-Yiadom, Jackeline Contreras, Jennifer Twyman, Zachary Catanzarite, Caren Grown, and Marya Hillesland. 2011. *The Gender Asset and Wealth Gaps: Evidence from Ecuador, Ghana, and Karnataka, India*. Bangalore: Indian Institute of Management Bangalore.

⁴ For more details on the methodology see: Cheryl Doss, Carmen Diana Deere, Suchitra J. Y., Abena D. Oduro, and Marya Hillesland. 2011. *Lessons from the Field: Implementing Individual Asset Surveys in Ecuador, Ghana, India and Uganda*. Bangalore: Indian Institute of Management Bangalore.

⁵ Abena D. Oduro, W. Baah-Boateng, and L. Boakye-Yiadom. 2011. *Measuring the Gender Asset Gap in Ghana*. Accra: University of Ghana.

⁶ Government of India. 2011. "Karnataka Profile". *Census of India: Provisional Population Totals 2011*. http://censusindia.gov.in/2011census/censusinfodashboard/stock/profiles/en/IND029_Karnataka.pdf

⁷ HDI for Ecuador and Ghana are taken from United Nations Development Program. 2011. *Human Development Index and Its Components*. http://hdr.undp.org/en/media/HDR_2011_EN_Table1.pdf. The HDI rating for Karnataka is taken from Institute of Applied Manpower Research, Planning Commission. 2011. *India Human Development Report 2011: Towards Social Inclusion*. Government of India. http://www.pratirodh.com/pdf/human_development_report2011.pdf

⁸ Cheryl Doss, Carmen Diana Deere, Abena D. Oduro, Hema Swaminathan, Suchitra J. Y., Rahul Lahoti, W. Baah-Boateng, L. Boakye-Yiadom, Jackeline Contreras, Jennifer Twyman, Zachary Catanzarite, Caren Grown, and Marya Hillesland. 2011. *The Gender Asset and Wealth Gaps: Evidence from Ecuador, Ghana, and Karnataka, India*. Bangalore: Indian Institute of Management Bangalore.

⁹ Ownership here was defined by the respondent; additional questions were asked about whether there was an ownership document for the residence and, if so, whose names were on it.

¹⁰ The Findex database is available at: http://data.worldbank.org/data-catalog/financial_inclusion

¹¹ This was called a major “calamity” by members of our focus group discussions.

¹² Rough estimates suggest that approximately 10% of Ecuadorians now live abroad either in the United States or Europe.

¹³ The former oversees entities with assets of more than US \$1 million and deposits greater than \$200,000, while the latter oversees organizations with assets below those figures. The other main distinction between the institutions governed by the Superintendancy and the Ministry with respect to credit unions/cooperatives is that only the former institutions can capture savings from non-members. In recent years a number of credit unions have graduated to being regulated by the Superintendancy.

¹⁴ See Superintendencia de Bancos y Seguros del Ecuador. 2010. “Desarrollo Financiero period Dic. 2005-Jun. 2010”. *Direccional Nacional de Estudios, Subdireccion de Estudios*. www.sbs.gob.ec

¹⁵ The spouse of the rainy day saver may not know about the existence of such a saving.

¹⁶ For example, one such institution introduced a savings product in 2009 that required a minimum deposit of 50 pesewas (approximately US\$ 0.35).

¹⁷ The subsequent paragraphs draw insights and facts from the following sources: M.L. Sukhdeve. 2008. “Informal Savings of the Poor: Prospects for Financial Inclusion.” *CAB Calling*. January-March 2008 Issue.

<http://www.cab.org.in/CAB%20Calling%20Content/Financial%20Cooperatives%20in%20India%20-%20Where%20are%20the%20Members/Informal%20Savings%20of%20Poor.pdf> ; Rajalaxmi Kamath. 2007. “Financial Inclusion vis-à-vis Social Banking.” *Economic and Political Weekly*. April 14; Priya Basu and Pradeep Srivastava. 2005. “Exploring Possibilities: Micro-finance and Rural Credit Access for the Poor in India.” *Economic and Political Weekly*. April 23; Priya Basu. 2005. “A Financial System for India’s Poor.” *Economic and Political Weekly*. September 10; Robin Burgess and Rohini Pande. 2003. “Do Rural Banks Matter? Evidence from the Indian Social Banking Experiment.” Discussion Paper No. DEDPS/40. London School of Economics and Political Science. <http://sticerd.lse.ac.uk/dps/de/dedps40.pdf>

¹⁸ As of 2005, India had over 32,000 rural branches of commercial banks and regional rural banks (RRBs), around 14,000 cooperative bank branches, 98,000 primary agricultural credit societies, thousands of mutual fund sellers, several non-bank finance companies (NBFCs), and a large post office network with 1,54,000 outlets that are required to focus on deposit mobilization and money transfers.

¹⁹ For about two decades starting in the late 1960s, the Reserve Bank of India mandated that all commercial banks had to meet specified targets with respect to lending to certain priority sectors, including agriculture, small scale industries, small businesses, service enterprises, housing, and education.

²⁰ It is the currently the fastest growing non-institutional/semi-formal channel for financial inclusion in India.

²¹ See Priya Basu. 2005. “A Financial System for India’s Poor.” *Economic and Political Weekly*. September 10.

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- ²² Pygmy savings programs were designed to meet the needs of poor individuals by collecting small amounts of money on a regular basis from savers. They have been mostly discontinued.
- ²³ Owners of about 16% of loans made do not expect to be paid back in full or at all.
- ²⁴ These numbers reflect the percentages of respondents who have informal savings relative to those in the same category who do not (i.e. 27% of rural never married women in Ecuador have informal savings, whereas the remaining 73% of rural never married women do not).
- ²⁵ These numbers reflect the percentages of respondents who have formal savings accounts relative to those in the same category who do not (i.e. 27% of rural never married women in Ecuador have formal savings, whereas the remaining 73% of rural never married women do not). Women reported here with formal savings accounts may also have informal savings.
- ²⁶ The questions asked about the respondent's own earnings, not specifically savings. Implicitly, we are assuming that one's earnings must be saved in order to use them to purchase property. Savings acquired through means other than own earnings would not be included in this analysis.
- ²⁷ The data collected in Karnataka did not allow for this analysis for businesses.
- ²⁸ The FINDEX database is available at: http://data.worldbank.org/data-catalog/financial_inclusion
- ²⁹ It is not possible to provide this figure for Karnataka, since cash savings at home cannot be distinguished from cash balances held by the respondent.
- ³⁰ Rajesh Shulka. 2005. *How India Earns, Spends and Saves: Results from the Max New York Life-NCEAR India Financial Protection Survey*. National Council of Applied Economic Research (NCAER) and Max New York Life Inc.: New Delhi.
- ³¹ An IFAD study on women's finance in the northern part of Ghana found that the loan conditions of credit unions were too stringent for women and that men prevented women from borrowing for "women's activities." IFAD. Ghana - Women's Access to Formal Financial Services. www.ifad.org/gender/learning/sector/finance/42.htm
- ³² W. Baah-Boateng. 2012. "Labour Market Discrimination in Ghana: A Gender Dimension." LAMBERT Academic Publishing: Germany.
- ³³ INEC. 2009. *Encuesta de Empleo y Subempleo*. Quito: INEC.
- ³⁴ Government of Karnataka. 2006. *Karnataka Human Development Report 2005*.