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Gender gaps in ownership of nonagricultural enterprises in Georgia, Mongolia, and the Philippines

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GENDER GAPS IN OWNERSHIP OF NONAGRICULTURAL ENTERPRISES IN GEORGIA, MONGOLIA, AND THE PHILIPPINES

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ABSTRACT

Using unique survey data from Georgia, Mongolia, and the Philippines, we examine gender gaps in entrepreneurship. The overall incidence of entrepreneurship is highest in Cavite, Philippines, while the gender gap in ownership is highest in Mongolia. On average, enterprises operated by men have larger firm size relative to those operated by women. Except for Mongolia, the average income of male-owned enterprises is greater than the average income of female-owned enterprises. Multivariate analysis suggests that the determinants of income vary by gender and across countries.

Using the Oaxaca-Blinder decomposition, we find the average difference in income between men's and women's enterprise is not significant in Mongolia. More than 50% of the gender income gap is explained by observable characteristics in Georgia and the Philippines. On average, the income of female-owned enterprises would have seen a rise of 64% (Cavite, Philippines) and 59% (Georgia) if they had the same characteristics as male-owned firms.

Keywords: Georgia, Mongolia, Philippines, entrepreneurship, nonagricultural enterprises, gender-income gap

JEL codes: J16, L26, O31

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I. INTRODUCTION

Entrepreneurship is acknowledged globally as a critical driver for economic growth and employment generation. According to the 2018/2019 Global Entrepreneurship Monitor (GEM 2019) Report, entrepreneurship has played a significant role in the employment landscape around the world over the past 20 years. In the economies covered in the GEM study, 13% of adults were engaged in early-stage entrepreneurial activity, 4% are engaged in employee entrepreneurial activity, while 9% have established businesses. People engage in entrepreneurial activities for several reasons, such as need for achievement, desire to be independent, and the opportunities for social development. Others, however, identify risk of unemployment, family pressure, and individuals' general dissatisfaction with their current wage work-situation as reasons why they transition into an entrepreneurial-type of job (van der Zwan, Thurik, Verheul, and Hessels 2016). Given the importance of entrepreneurship and diversity of factors influencing entrepreneurial engagement, understanding the place of women entrepreneurs in society is relevant to address the growing demand for women's empowerment and gender equality.

Interestingly, existing studies (Muzondi 2014) suggest that female operators of enterprise or entrepreneurs provide significant impacts in economic development and poverty alleviation despite financial and social constraints like limited capital or lack of access to credit, domestic responsibilities, among others. Female owners of firms or enterprises also tend to be better providers of their children's education, health, and nutrition compared to their male counterparts (VanderBrug 2013).

Empirical studies show the importance of understanding women's ownership and control of enterprises. A closer investigation of the 2018/2019 GEM reveals that about 231 million women in 59 countries were either establishing a new enterprise or operating an existing enterprise. Despite the growing number of women owning enterprises, gender gap in entrepreneurship still

prevails in many countries. Female entrepreneurship rates in 21 of the 74 countries examined in the GEM study, for instance, are half or less than half of male entrepreneurship rates (GEM 2017).

Several studies have documented gender gaps in microenterprise business investment and performance (e.g., Friedson-Ridenour and Pierotti 2019), however, research is mostly centered on Sub-Saharan African countries using one-off specialized studies. This study investigates gender dynamics of enterprise ownership in the context of Asian countries that have diverse cultural backgrounds influencing how gender disparities may manifest. The study capitalizes on a unique data set produced through the Evidence and Data for Gender Equality (EDGE) initiative.¹ This initiative aimed to develop methodological guidelines for collecting sex-disaggregated data on asset ownership and entrepreneurship. Before EDGE, individual-level data on asset ownership and entrepreneurship were seldomly collected. If collected, they were not comparable due to different methodological concepts and principles.

This paper focuses on data collected from the household surveys piloted in three countries, Georgia, Mongolia, and the Philippines, under ADB funded technical and financial assistance to support the EDGE initiative. The EDGE pilot surveys provide rich data on **nonagricultural** enterprises with a gender perspective, which are not necessarily captured through conventional enterprise surveys, business registers, or household surveys. These surveys collected data from **nonagricultural** enterprises that are in regular operation, closed for the moment, or in seasonal operation, and owned by one or more adult household members. The enterprises may be formal or informal, managed inside or outside the dwelling area, and operational regardless of employment size. The surveys also capture information from one-person businesses that produce goods and services for the market (ADB 2018).

¹ This is an initiative led by United Nations Statistics Division (UNSD) together with the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), in collaboration with National Statistical Offices (NSO), the Asian Development Bank (ADB), Food and Agriculture Organization of the United Nations (FAO), the Organisation for Economic Co-operation and Development (OECD), and the World Bank.

This study contributes to the existing literature in several ways. First, as Georgia, Mongolia, and the Philippines differ in context, cultural landscape, gender norms as well as in social norms and legal aspects; this study will be able to draw insights on gender disparities in the region, using inter-country comparable data following consistent concepts and methodological principles. Second, this study captures both formal and informal entrepreneurship activities as it uses household-level data—providing a more complete view of entrepreneurship patterns. Other studies mostly use data on registered enterprises, which usually account only for a small proportion of entrepreneurial activities in many developing countries. Third, unlike conventional household surveys that rely on information provided by one household member, this study provides a comprehensive set of indicators on entrepreneurship by collecting information at the individual-level.²

The remaining sections of the paper are organized as follows: Section II discusses conventional data sources of entrepreneurship data and research findings on women's ownership of enterprises. Section III presents the data, concepts, and methodology used. The results are presented and discussed in Section IV. Section V summarizes and concludes.

² For example, incidence of entrepreneurship among men and women, patterns, and determinants of such enterprise ownership.

II. LITERATURE REVIEW: ENTERPRISE OWNERSHIP AMONG MEN AND WOMEN

Importance of Entrepreneurship

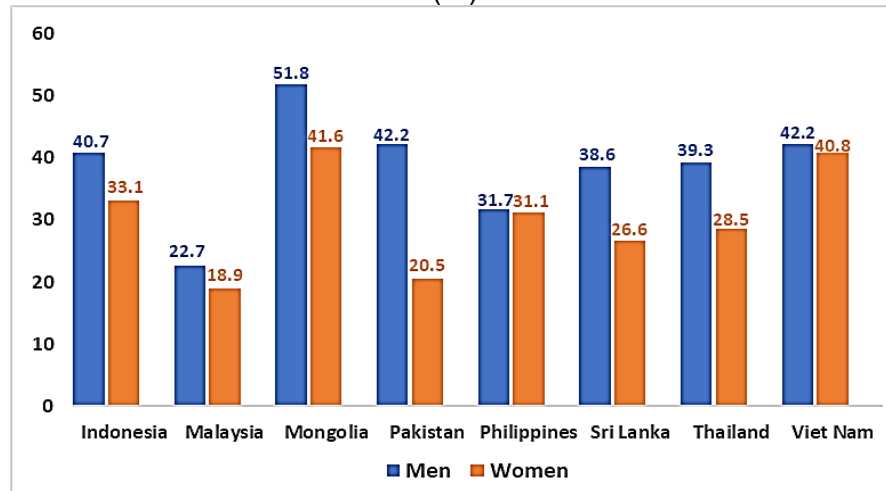
Entrepreneurship, whether operating own-account or with hired workers, has important contributions in the economic development of a country. As a major source of employment, it helps ease the problem of unemployment and poverty. In some parts of the world, small and medium-sized enterprises account for 80% of total employment (VanderBrug 2013). Also, the taxes generated from entrepreneurial activities allow governments to implement various kinds of public and social services that promote the welfare of their citizens.

Are There Gender Gaps in Ownership and Operation of Enterprises?

Promoting gender equality and empowerment is explicitly articulated as part of the Sustainable Development Goals (SDGs) (UNSD 2019). However, significant gender disparities continue to exist in this domain. According to the GEM Women's Entrepreneurship Report 2018/2019, there are 7 female entrepreneurs for every 10 male entrepreneurs. In Asia, statistics compiled from labor force surveys (LFS) of select Asian Development Bank (ADB) developing member countries (DMCs) suggest that, on average, about 40% of employed men are either employers or own-account workers, compared to only 30% of employed women (Figure 1).³

³ The proportion of people who are employers or own-account workers is a good proxy measure of entrepreneurship rate in the absence of internationally comparable data.

Figure 1: Proportion of Employed Men and Women Who are Either Employers or Own Account Workers (%)



Note: Data refer to 2017 except for Malaysia, Pakistan, and Thailand, which are 2016 data.
Source: Authors' calculations using labor force survey data from ILOSTAT Database

The literature suggests potential explanations for why fewer women operate enterprises as compared to men. Traditions, culture, and religion are cited as factors that restrict women in starting business ventures in Uganda and some South Asian countries (Namatovu, Dawa, Katongole, and Mulira 2012; Tambunan 2009). The limited participation of women in entrepreneurship is also associated with the lack of time due to childcare and domestic responsibilities, low level of education, lack of capital, and access to credit, among others (Dulos 2012, Tambunan 2009). When women start an enterprise, they face a high risk of ceasing operations during the early years as they have less time to devote to their enterprises (Robb and Watson 2010, Fairlie and Robb 2008).

Profile of Women Owning and Operating Enterprises

Understanding the profile of women entrepreneurs is essential if policies need to be designed to encourage women to be more entrepreneurial. Statistics show that many women entrepreneurs are aged 25–44 years and have completed at least secondary education (GEM 2017). The enterprises owned by women, commonly found in wholesale and retail trade or services sectors (Economist Intelligence Unit 2010, GEM 2017), are reported to be smaller in size and many are

considered as microenterprises requiring minimal capital, skills, and technology (Tambunan 2009). The majority of these enterprises source funding for business start-ups from family, social networks, and other informal channels (Hallward-Driemeier 2013, GEM 2011, Africa 2010, GEM 2007, Robb and Wolken 2002). Women entrepreneurs in higher income countries are usually responding to an opportunity (GEM 2013, 2017), while in lower income countries, the compulsions are often to maintain a minimum level of subsistence.

There was also an attempt to compile various conditions where gender norms restrict women's participation in the labor market in developing countries (Jayachandran 2019). The author suggested that policies and programs that consider these can boost employment for women. Women entrepreneurs have various needs. Shah and Saurabh (2015) reported that the capabilities of women entrepreneurs who are poor are critical considerations, adding that those who are capable can survive the non-conducive environment in developing countries. The authors further noted that external support—such as generating appropriate production technologies and skills, financial support and access, and marketing and enterprise management—are crucial in the survival and sustainability of women's microenterprises. Another study of women entrepreneurs in Indonesia found that they are relatively independent financially in managing their business with only few of them availing of microfinance or bank credit as their venture capital. This study also showed that Indonesian women entrepreneurs seem to regard themselves as having enough motivation to balance family and professional life—surpassing their western counterparts in this area (Hani et al. 2012).

Conventional Sources of Entrepreneurship Data

Most studies rely on conventional data sources such as household surveys or business registers. Household surveys are typical data collection vehicles when capturing information about women and men's participation in entrepreneurial and other employment-related activities. For instance,

LFS identify who works as employers and own account workers and provides information about the prevalence of self-employment.

Although data on self-employment is used as proxy information for entrepreneurship, the two concepts are not the same. Not all self-employed workers are entrepreneurs. The EDGE project defines entrepreneurs as persons who have direct control over the activities of an enterprise they own alone or with other individuals. Aside from enterprise owners, self-employed workers also comprise “free professionals” in regulated or unregulated occupations; and craft workers, traders, and farmers, some of whom are working with their family members or employing a small number of paid workers. Thus, self-employment counts should be used with caution in entrepreneurship studies (Piacentini 2013). Limited information about the characteristics of enterprises also poses a concern when using the LFS in conducting entrepreneurship-related studies.

Establishment-based surveys are ideally the most appropriate source to explore the structural difference of firms owned by women and men entrepreneurs. These surveys collect information on the characteristics of the enterprise such as revenues, profits, main economic activity, legal status (type of ownership), enterprise size as measured by number of employees, and geographic location. In most establishment surveys, however, detailed information such as sex of the owner of the enterprise and other social and demographic information of the household are not available. Unlike the LFS, the design is not guided by a “common international framework” (Piacentini 2013). Hence, the survey questions vary in each country. Further, most enterprise surveys cover only the formal sector.

Meanwhile, business registers (BRs), if available, provide rich information on entrepreneurship when used with economic census or census of establishment. Once the information to link business units with physical persons is developed, the production of statistics is less costly than representative firm survey (OECD 2013). Common variables available in BRs are registration name and address, kind of economic activity, number of employees, and type of

ownership. In most developing countries in Asia, the main issue is that BRs are nonexistent or are still in its early stages. Other information commonly available in registries are legal organization, asset size, business status, capital, turnover, and registration or establishment date.

International efforts on collecting and compiling data on entrepreneurship to allow comparable analysis are ongoing. These include popular initiatives such as the GEM, the World Bank Group Entrepreneurship Survey (WB-ES), World Bank – Global Indicators and Analysis: Enterprise Survey (WB-GIES), and Organisation of Economic Co-operation and Development – Eurostat Entrepreneurship Indicators Programme (OECD-EIP). While the sampling unit in the GEM is the individual or person, the WB-ES, WB-GIES and OECD-EIP collect firm-level data. The GEM, however, has no information on some demographic indicators that are important in gender analysis of entrepreneurship. In terms of sector coverage, the GEM covers all involved in entrepreneurship, including freelance and part-time. The WB-ES and OECD-EIP, however, cover only the usual formal sector while the WB-GIES cover formal and **nonagriculture** sector with five or more employees.

Analysis of enterprise ownership of men and women can be enriched if individual-level data featuring detailed information on ownership that are comparable across countries are accessible. Previous studies found difficulty in performing cross-country comparison as a standard approach in collecting individual-level data on assets and entrepreneurship was not applied. While some studies attempted to measure individual-level entrepreneurship data in the past, a standardized set of definition and methodology to follow was not available. Thus, comparing the results becomes impossible. Most often, available sex-disaggregated data on entrepreneurship do not provide additional insights and inputs for enhanced policymaking. In most developing countries where gender empowerment remains an issue, data collection and measurement of men and women's participation in entrepreneurship as part of official statistics are yet to be implemented.

The EDGE project, launched by UNSD and UN Women in collaboration with international and national partners including ADB, aimed to develop methodological guidelines for collecting sex-disaggregated data on asset ownership and entrepreneurship using survey results from seven pilot countries (UNSD 2014, 2018). These guidelines developed through this initiative seek to equip national statistical offices with the right tools to include the collection of entrepreneurship data in their regular statistical programs. The EDGE data is envisioned to offer richer and better metrics for measurement of entrepreneurship with gender perspective than data collected from conventional surveys.

The three countries featured in this study, Georgia, Mongolia, and the Philippines, were the pilot countries that ADB supported in the EDGE project. Looking at three countries with varying levels of development and cultural context is an important contribution of this study.⁴

III. DATA AND METHODS

Data Collection Strategy

In support of the global EDGE initiative, ADB provided technical and financial aid for the implementation of the household pilot surveys on measuring asset ownership and entrepreneurship from a gender perspective in Georgia, Mongolia, and the Philippines. The three countries provide a good mix of case studies as they differ on levels of development and cultural context, which could potentially give rich insights on gender distribution of enterprise ownership in the region.

Georgia is an upper-middle income country with a gross domestic product (GDP) per capita income of \$6,628 in 2022. Mongolia and the Philippines are lower-middle income countries and Mongolia's GDP per capita income is \$4,947 and \$3,499 for the Philippines, for the same

⁴ The pilot surveys were conducted by the National Statistics Office of Georgia in Georgia, National Statistics Office of Mongolia in Mongolia, and the Philippine Statistics Authority (PSA) in the Philippines under the technical assistance from ADB.

period.⁵ Georgia belongs to the very high human development group according to the Human Development Report 2021/2022. Georgia with a rank of 63, however, surpassed the other two countries in human development. While Mongolia is categorized as having high human development with a ranking of 92, the Philippines is placed in the medium human development category with a ranking of 106.

The three countries implemented standalone household surveys in 2015 to collect data on ownership of assets and entrepreneurship. The surveys conducted in Georgia covering 2,783 sample households and Mongolia covering 2,962 sample households were nationally representative while the Philippines survey was representative for the province of Cavite with 1,536 households surveyed. The province of Cavite was selected as the pilot province for the EDGE project for technical and practical reasons. Cavite is a combination of urban and rural areas. The proximity of the PSA Central Office and Regional Office in CALABARZON to the pilot area made supervising and managing the project more convenient (ADB 2018). A two-stage stratified sampling design was adopted in Georgia and Cavite, Philippines, and a three-stage selection process was carried out in Mongolia.

As the main objective of the pilot surveys was to test methodology developed under the EDGE project for measuring individual level asset ownership and control and entrepreneurship from a gender perspective, the sampling units were the household and its individual members. Two standardized questionnaires: (i) a household questionnaire for collecting household level information, and (ii) an individual questionnaire for gathering data at the individual level from sampled adult members of the selected households. A maximum of three adult members (aged 18 years and above) were interviewed from each selected household to collect data on assets owned by them as well as owned by other adult members of the household. To ensure that the data collection is not biased due to the presence of other members of the household during the

⁵ Income classification was based on the World Bank's income classification as of July 2022 while GDP per capita were taken from the World Bank's World Development Indicators downloaded on 04 July 2023.

interview, the survey protocol required conducting individual interviews independently and simultaneously or at least consecutively, if simultaneous interviews were not possible. The number of respondents interviewed for each country are the following: 5,937 for Georgia, 5,592 for Mongolia, and 3,456 for Cavite, Philippines.

The individual questionnaire was divided into the following modules to collect data about the financial and nonfinancial assets and **nonagricultural** enterprises owned by the respondent adult member(s) of the household: (i) dwelling, (ii) agricultural land, (iii) livestock, (iv) small and large agricultural equipment, (v) nonagricultural enterprise owned by household members and enterprise assets, (vi) other real estate, (vii) consumer durables, (viii) financial assets, (ix) liabilities, and (x) valuables.

This study focuses on the results from the survey module on the ownership of **nonagricultural** enterprises. An enterprise is defined as an entity engaged in the production or distribution of goods and services mainly for the purpose of sale. Agricultural enterprises were enterprises engaged in the production and sale of non-processed agricultural goods (such as milk, wool, fruits, vegetables) produced on own farm and were excluded from the scope of the pilot surveys. On the other hand, enterprises engaged in the production and/or sale of goods and services other than own-produced, non-processed agricultural products, were **nonagricultural** enterprises.

In contrast to agricultural enterprises that deal with the production or sales of unprocessed agricultural products such as fruits, milk, and vegetables, **nonagricultural** enterprises include those that are engaged in the production or sales of agricultural by-products such as bread, cheese, and textile. For instance, the collection and sales of fresh milk from the farm are considered agricultural activities but the production and sales of cheese or ice cream are **nonagricultural** activities.

The survey covered all **nonagricultural** enterprises owned by individual household members that were currently operating, closed temporarily, or operating seasonally on the date

of survey, irrespective of their registration status or size by employment or turnover. Thus, enterprises owned and run as single-person operations in the production and sale of goods and/or services, also known as own-account enterprises, were included. The focus on **nonagricultural** enterprise is motivated mainly by the operational challenges of distinguishing between own consumption from activities that are purely intended for market transaction, which complicates the process of collecting data on agricultural enterprises.

Analytical Strategy

The surveys collected data from each selected respondent in the sampled household about the **nonagricultural** enterprises they owned (self-assigned ownership), as well as enterprises owned by other household members (proxy reporting). Under proxy reporting, an individual is considered an owner when at least one of the interviewed household members identifies the individual as an owner of a **nonagricultural** enterprise. In this study, we consider only the information on self-assigned ownership i.e., the information provided by the respondents who identified themselves as the owner, whether exclusively or jointly with others, of a **nonagricultural** enterprise. This approach disregards the information provided (as a proxy reporting) by the other respondents about ownership of assets, except when ownership is joint with the respondent. This approach is grounded on the principle that the respondent is the best person to provide accurate information about the assets they own.⁶

The enterprise information can be classified into three broad categories: enterprise ownership and management, entrepreneurial resources, and enterprise type.

Enterprise ownership and management cover indicators on ownership, management, financial control, right to sell and right to bequeath. This category responds to the question “Do

⁶ The methodological guidelines on compiling sex-disaggregated data on asset ownership that was developed through the EDGE initiative examined the two approaches of data collected and identify limitations associated with proxy information. In proxy reporting, there may be biases due to incomplete sharing of information among the household members that may result to inaccuracies in reported data.

women have access to and control of enterprise ownership?". It examines the incidence of reported ownership of enterprises and incidence of reported enterprise owners with a direct control of their enterprises.

Entrepreneurial resources include indicators on mode of acquisition of enterprise, loans application of enterprise owners, source of funding for enterprise start-up, source of funding for expansion and capital improvements, and average income of enterprise owners. This answers the question "*Are there available resources for women entrepreneurs?*" and evaluates distribution of women enterprise owners by entrepreneurial resources related characteristics.

Enterprise type includes economic sector of enterprise, employment size, enterprise registration, and type of accounting records of enterprise. This addresses the question "*What kinds of enterprise are women managing and how are they different from enterprises managed by men?*" and assesses the distribution of women enterprise owners.

To understand the profile of the owners, we examine the distribution of owners of enterprise by sex and other sociodemographic characteristics of the household and individual. For persons owning multiple enterprises, we consider the largest enterprise in terms of employment size or income. In cases, when employment size or income are the same across all enterprises, the firm that is owned exclusively is selected.

In addition to the descriptive analysis, we use a multivariate regression framework to investigate the factors that are statistically associated with an individual being an enterprise owner. Unlike descriptive analysis, the multivariate framework helps us control for confounding factors. However, given the cross-sectional nature of our data, we do not make any causal claims.

We estimate the following empirical model:

$$Y_i = \alpha + \beta_0 \text{Sex}_i + \beta_1 X_i + \beta_2 Z_i + \varepsilon_i \quad [1]$$

where Y_i is a binary variable that is equal to unity if the individual is an owner (either exclusive or joint) and is zero otherwise. For ease of exposition, we use a linear probability model (LPM) rather

than a probit or logit model. X_i and Z_i represent the vector of individual and household attributes, respectively. The individual characteristics include age, marital status, education attainment, relationship to head, and if the person owns any other property in the form of agricultural land or their residence. The following variables—household occupation and age structure, economic status (as proxied by the asset quintile), location (rural or urban)—are included in the household vector.

The model is first estimated as a pooled (men and women) regression, with the sex of the individual as a separate variable. These models are also estimated separately for men and women to tease out if the correlates of being an enterprise owner differ by sex.

Conditional on enterprise ownership, we estimate an OLS model with average monthly income as the dependent variable. The estimated model is:

$$\ln Y_i = \alpha + \beta_0 \text{Sex}_i + \beta_1 X_i + \beta_2 Z_i + \beta_3 \text{Indus}_i + \beta_4 \text{Firm}_i + \varepsilon_i \quad [2]$$

where Y_i denotes the average monthly income earned from the enterprise during the last 3 operational months. Income is defined as monthly income from enterprise activities after excluding all expenses on enterprise activity. Expenses include purchase of raw material and wages of employees, but do not include any wages paid to the respondent or other owners if the business is jointly owned.

In addition to the individual and household characteristics in equation [1], we include industry and firm related characteristics. It can be argued that the broad industry classification can have a bearing on the income earned while firm characteristics capture the level of formality (registration, location of enterprise, maintenance of accounts), age and size of firm, and how it was acquired. Similar to the determinants of ownership model, we first estimate a pooled sample for men and women, followed by separate regressions.

Differences in Monthly Income

We use the standard Oxaca-Blinder decomposition to further explore the factors that contribute to a gap between the average income of male-owned and female-owned enterprises. Essentially, the gender gap in income is decomposed into two components. One component can be explained by the differences in observable characteristics of men and women. The second component is attributable to the differences in the returns to the coefficients. The first component is referred to as the explained portion, while the second one is referred to as the unexplained portion. In addition to the differences in the returns to the coefficients, the unexplained portion captures omitted variables and other measurement errors.

$$\Delta Y_i = \hat{\beta}_m(\bar{X}_m - \bar{X}_f) + \bar{X}_f(\hat{\beta}_m - \hat{\beta}_f) \quad [3]$$

Where ΔY_i represents the expected difference in monthly income as estimated in equation [2]. The first part of equation [3] represents the explained portion of the gender gap in income—differences in observables at the mean, weighted by the coefficients of the male-owned firms. The second part of equation [3] is the unexplained portion of the gender income gap.

IV. RESULTS

This section presents the descriptive and multivariate results of our analysis of nonagricultural enterprises ownership among men and women in Georgia; Mongolia; and Cavite, Philippines.

Enterprise Ownership and Management

We start with a simple indicator—the incidence of **nonagricultural** enterprise ownership—which shows the proportion of adult population owning an enterprise (Table 1). The incidence of entrepreneurship is highest in Cavite, Philippines (17.9%) and lowest in Georgia (8.1%). A higher incidence of ownership among men than women is observed in both Georgia (10.7%) and Mongolia (14.8%). However, for Cavite, Philippines the gender gap favors women (19.9%) instead

of men (15.8%). Incidence of entrepreneurship for men and women in the urban areas are generally higher compared to their counterparts in the rural areas, except in Georgia where incidence of entrepreneurship is higher for women in the rural areas (6.4%) than in the urban areas (5.6%).

Table 1: Incidence of Nonagricultural Enterprise Ownership
(%)

| Country | Men | Women | Total | Men | | Women | | Total | |
|---------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | Urban | Rural | Urban | Rural | Urban | Rural |
| Georgia | 10.7 | 6.0 | 8.1 | 11.6 | 9.7 | 5.6 | 6.4 | 8.2 | 8.0 |
| Mongolia | 14.8 | 11.1 | 12.9 | 16.3 | 11.7 | 11.4 | 10.4 | 13.7 | 11.0 |
| Cavite, Philippines | 15.8 | 19.9 | 17.9 | 17.0 | 14.2 | 20.8 | 18.7 | 18.9 | 16.5 |

Source: Authors' calculations using Evidence and Data for Gender Equality pilot surveys.

Focusing on owners, it is seen that entrepreneurship is the main activity for majority of the **nonagricultural** enterprise owners in the three countries (Table 2). Only 13.9%, 5.7%, and 7.0% of the **nonagricultural** enterprise owners in Georgia, Mongolia, and Cavite, respectively own and operate the enterprise in a subsidiary capacity.

Table 2: Distribution of Nonagricultural Enterprise Owners by Type of Activity
(%)

| Country | Main Activity | Subsidiary Activity | Total |
|---------------------|---------------|---------------------|-------|
| Georgia | 86.1 | 13.9 | 100.0 |
| Mongolia | 94.3 | 5.7 | 100.0 |
| Cavite, Philippines | 93.0 | 7.0 | 100.0 |

Source: Authors' calculations using EDGE data.

An owner's control over the enterprise is often correlated with the form of ownership and the ability to exercise alienation rights over the enterprise. A person can own an enterprise exclusively or jointly. A person is an exclusive owner if they are the sole owner while joint ownership can be between members of principal couple, other household members, or household and non-household members. As presented in Table 3, exclusive ownership by men is the most

common form of ownership in Georgia and Mongolia (37%). In Cavite, on the other hand, joint ownership by the principal couple is prevalent (35.7%). Exclusive ownership by women is also dominant at 32.2% and is higher compared to exclusive ownership by men at 22.0%. We see some interesting patterns in ownership. The gender disparity in exclusive ownership is highest in Georgia—37.7% of men exclusively owned the enterprise compared to only 20.9% of women owners. On the other hand, the gender disparity works against men in Cavite, Philippines with 32.2% of women being exclusive owners compared to 22% for men.

Table 3: Distribution of Forms of Enterprise Ownership
(%)

| Country | Exclusive Male | Exclusive Female | Principal Couple | All Household Members | Other Joint Ownership | Joint Ownership with Non-Household Members | Total |
|---------------------|----------------|------------------|------------------|-----------------------|-----------------------|--|-------|
| Georgia | 37.7 | 20.9 | 13.6 | 13.9 | 6.5 | 7.4 | 100.0 |
| Mongolia | 37.3 | 24.2 | 27.2 | 1.6 | 5.5 | 4.1 | 100.0 |
| Cavite, Philippines | 22.0 | 32.2 | 35.7 | 1.4 | 5.5 | 3.1 | 100.0 |

Source: Authors' calculations using EDGE data.

Ownership of an enterprise may not necessarily translate into participation in decision-making or control on the affairs of business. To further assess the gender difference in decision-making, the prevalence of owners with direct control (daily operations and financial control) of the enterprise is examined. Overall, at least 85% of the enterprise owners reported to have control of the enterprise. Gender disparity in control of enterprise varies by country. Men owners slightly tend to have more control in managing the day-to-day operations and finance of the enterprise in Georgia while the opposite holds in Mongolia. For instance, men owners (91.5%) have slightly more direct control in managing day-to-day operations compared to women owners (90.1%). Furthermore, men owners (92.4%) in Georgia also have main financial control than women owners (88.0%). Meanwhile, in Mongolia 93.7% of women owners reported managing day-to-day operations of their enterprise compared to only 86.7% of men owners reporting the same. Also, more women enterprise owners (93.6%) reported having main financial control than men

owners (88.0%) in Mongolia. In Cavite, Philippines, while more men owners manage day-to-day operations, women owners (91.1%) are more likely than men owners (70.6%) to have the main financial control.

Table 4: Incidence of Enterprise Owners with Direct Control of Enterprise, by Sex
(%)

| Country | Managing Day-to-Day Operations | | With Main Financial Control ^a | |
|---------------------|--------------------------------|-------|--|-------|
| | Men | Women | Men | Women |
| Georgia | 91.5 | 90.1 | 92.4 | 88.0 |
| Mongolia | 86.7 | 93.7 | 88.0 | 93.6 |
| Cavite, Philippines | 91.4 | 90.7 | 70.6 | 91.1 |

^a This means the ability to sign loans, etc.

Source: Authors' calculations using EDGE data.

Owners who were founder entrepreneurs were asked on the source of funding used in starting the enterprise (Table 5). The majority of the enterprise owners in the three countries used their own household savings to start the enterprise. There is no significant difference observed between men and women. In Mongolia, commercial or development banks play an important role in funding the enterprise at 22.0% for men and 22.6% for women owners.

Table 5. Source of Funding Used to Start an Enterprise
(%)

| Source of Funding | Georgia | | Mongolia | | Cavite, Philippines | |
|-----------------------------|---------|-------|----------|-------|---------------------|-------|
| | Men | Women | Men | Women | Men | Women |
| Own/Household Savings | 71.4 | 81.0 | 67.3 | 64.4 | 85.0 | 88.6 |
| Friends/Relatives | 5.9 | 2.1 | 8.4 | 5.4 | 7.3 | 7.0 |
| Private Moneylender | 2.5 | 1.5 | 1.1 | 1.5 | 4.4 | 3.5 |
| Commercial/Development Bank | 13.2 | 9.2 | 22.0 | 22.6 | 0.7 | 0.0 |
| Others | 6.1 | 6.3 | 4.1 | 3.2 | 1.7 | 1.1 |

Note: Column totals may exceed 100 as multiple sources of financing were reported by the respondents.

Source: Authors' calculations using EDGE data.

Table 6 presents the percentage of enterprise owners who applied for loans and applicants whose loan application is successful. About 33.9% among men owners and 40.1% among women owners applied for loan in Mongolia and 73.9% of the men applicants and 86.0% of the women applicants were successful in getting the loan. The number of loan applicants are much lower in Georgia and Cavite, Philippines at 19%-23%. Generally, a larger proportion of

women enterprise owners who applied for loan as compared to men applicants reported that their loan application had been accepted.

Table 6: Incidence of Enterprise Owners by Country, Loan Application Status, and Sex

| Country | Loan | Men | Women |
|---------------------|------------------|------|-------|
| Georgia | Applied for loan | 21.8 | 18.6 |
| | Loan accepted | 94.6 | 100.0 |
| Mongolia | Applied for loan | 33.9 | 40.1 |
| | Loan accepted | 73.9 | 86.0 |
| Cavite, Philippines | Applied for loan | 23.0 | 23.3 |
| | Loan accepted | 73.4 | 77.3 |

Source: Authors' calculations using EDGE data.

The majority of entrepreneurs in the three countries are own account workers, that is, they do not employ any worker on a regular basis (Table 7). The proportion of women entrepreneurs without employees is slightly higher as compared to men owners. Consequently, enterprises operated by men tend to have a larger firm size (in terms of the number of paid employees) relative to those operated by women.

**Table 7: Incidence of Enterprise Owners by
Size of Enterprise (number of paid employees) and Sex
(%)**

| Country | Size | Men | Women |
|------------------------|----------|------|-------|
| Georgia | 0 | 82.9 | 89.5 |
| | 1 to 5 | 14.7 | 13.2 |
| | 6 to 10 | 3.4 | 0.4 |
| | 11 to 15 | 1.6 | 0.4 |
| | 16 to 20 | 0.0 | 0.0 |
| | 20+ | 1.4 | 0.1 |
| Mongolia | 0 | 71.8 | 75.2 |
| | 1 to 5 | 30.5 | 27.9 |
| | 6 to 10 | 5.3 | 2.3 |
| | 11 to 15 | 0.7 | 0.0 |
| | 16 to 20 | 0.4 | 0.0 |
| | 20+ | 0.6 | 0.9 |
| Cavite, Philippines | 0 | 88.1 | 93.9 |
| | 1 to 5 | 19.0 | 13.2 |
| | 6 to 10 | 0.6 | 0.2 |
| | 11 to 15 | 0.0 | 0.0 |
| | 16 to 20 | 0.0 | 0.0 |
| | 20+ | 0.1 | 0.1 |

Source: Authors' calculations using EDGE data.

Characteristics of Enterprise Owners

Table 8 presents key socio-demographic attributes of our enterprise owners and their households. A majority of owners in the three countries are married. Interestingly, a higher proportion of women owners are widowed, separated, or divorced as compared to being never married, with the converse being true for men. This suggests there could be economic hardship experienced by currently single women that pushes them into entrepreneurship. In terms of educational attainment, 43.0% of the men owners in Georgia attained tertiary education or above compared to only 30.5% of women owners. Most owners in Mongolia and Cavite, Philippines, regardless of sex, attained secondary education. Most owners of **nonagricultural** enterprises across the three countries are around 30 to 49 years old.

Table 8: Distribution of Socio-Demographic Characteristics of Enterprise Owners by Sex
(%)

| Socio-demographic Characteristics | Georgia | | | Mongolia | | | Cavite, Philippines | | |
|---|---------|-------|-------|----------|-------|-------|---------------------|-------|-------|
| | Men | Women | Total | Men | Women | Total | Men | Women | Total |
| Marital Status | | | | | | | | | |
| Married | 82.8 | 68.2 | 77.0 | 88.8 | 77.9 | 83.9 | 85.4 | 77.1 | 80.7 |
| Widowed/ Separated/ Divorced | 3.0 | 24.7 | 11.7 | 1.9 | 15.4 | 7.9 | 6.9 | 15.4 | 11.7 |
| Never Married | 14.1 | 7.1 | 11.3 | 9.3 | 6.7 | 8.1 | 7.7 | 7.5 | 7.6 |
| Educational Level | | | | | | | | | |
| Primary or lower | 0.0 | 0.0 | 0.0 | 15.9 | 12.8 | 14.5 | 17.0 | 18.6 | 17.9 |
| Secondary | 36.0 | 34.7 | 35.5 | 57.2 | 54.6 | 56.0 | 45.1 | 51.8 | 48.9 |
| Post-secondary non-tertiary | 21.0 | 34.8 | 26.5 | | | | | | |
| Tertiary or above | 43.0 | 30.5 | 38.0 | 26.9 | 32.7 | 29.5 | 37.9 | 29.6 | 33.2 |
| Age Group | | | | | | | | | |
| 18–29 | 9.9 | 9.0 | 9.6 | 19.6 | 13.8 | 17.0 | 9.0 | 11.0 | 10.2 |
| 30–49 | 47.0 | 35.9 | 42.5 | 57.9 | 61.7 | 59.6 | 52.5 | 49.5 | 50.8 |
| 50–59 | 27.6 | 29.7 | 38.5 | 18.7 | 20.0 | 19.3 | 26.8 | 25.5 | 26.1 |
| 60 and above | 15.5 | 25.4 | 19.4 | 3.8 | 4.5 | 4.1 | 11.7 | 13.9 | 12.9 |
| Relationship to Head of Household | | | | | | | | | |
| Head | 57.9 | 28.7 | 46.2 | 89.8 | 15.6 | 56.6 | 83.7 | 22.6 | 49.3 |
| Spouse | 5.9 | 46.8 | 22.3 | 0.9 | 74.7 | 33.9 | 1.9 | 66.2 | 38.1 |
| Other or Non-relative | 36.2 | 24.4 | 31.5 | 9.3 | 9.8 | 9.5 | 14.3 | 11.2 | 12.6 |
| Average Number of Dependents | 1.0 | 0.8 | 0.9 | 1.4 | 1.4 | 1.4 | 1.8 | 1.8 | 1.8 |
| Average Number of Working Household Members | 1.2 | 1.3 | 1.2 | 1.0 | 1.0 | 1.0 | 1.4 | 1.6 | 1.5 |
| Average Number of Household Member in Wage Employment | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.8 | 1.0 | 0.9 |
| Reported Dwelling Ownership (%) | 81.0 | 85.4 | 82.7 | 70.0 | 40.6 | 56.8 | 53.8 | 52.2 | 52.9 |
| Reported Agricultural Land Ownership (%) | 50.6 | 50.5 | 50.6 | 9.5 | 2.4 | 6.3 | 3.1 | 6.0 | 4.7 |
| Reported Other Real Estate Ownership (%) | 30.8 | 15.3 | 24.6 | 26.1 | 17.6 | 22.3 | 13.0 | 13.4 | 13.2 |

Source: Authors' calculations using EDGE data.

Likelihood of Being a Nonagricultural Enterprise Owner

We estimate three LPMs in each country to examine the factors that are correlated with the likelihood of being an enterprise owner. These models relate to equation [1] and for each country we first estimate a pooled model and then separate models for men and women. In the pooled models (results not presented here), we find that the sex variable is significant for Cavite and Georgia, but not for Mongolia. In line with the descriptive results, we find that in Cavite, women are more likely to be enterprise owners, while the opposite is true in Georgia. The separate regressions are presented by country (Table 9); for brevity we highlight only the variables of importance.

We see that there is a life cycle association of age with the probability of being an owner. The likelihood of being an owner increases initially but declines as one gets older. The relationship to head does not have a uniform association. We expected that marital status would have a role to play, particularly for women, but is not significant for men or women across countries. In Georgia, the relationship status does not make any difference to the likelihood of being an owner for men and women. But in Cavite, male heads are more likely to be owners. But for women, being head (Cavite) or spouse of head (Cavite and Mongolia) increases the likelihood of being an owner as compared to others or non-relatives. Presumably this reflects greater access to resources that can help with enterprise creation. An increase in educational qualifications leads to a higher likelihood of being an owner for men and women in all countries except Cavite, Philippines. Though high levels of education are not a requirement to become an entrepreneur, it may be associated with one's knowledge and self-confidence. Further, education can provide entrepreneurs with reasoning skills to better understand and take advantage of entrepreneurial opportunities and reduce possible risks.

A household member being in wage employment reduces the probability of being an enterprise owner for men and women. This variable is significant at the 1% level across all three countries and possibly reflects that wage employment is the preferred employment option in most

households and that starting an enterprise is a fall-back option. In line with expectations, being in an urban area increases the probability of being an owner (except in one instance), reflecting increased opportunities for diversification from agriculture.

The ownership of immovable property is expected to be correlated positively with being an enterprise owner. Property ownership could enable entrepreneurship via loosening of credit constraints, or by providing a physical space for the enterprise. Our results show mixed effects of property ownership on entrepreneurial activity for men and women making it difficult to draw even a correlational picture. While the direction suggests mostly a positive association, these are consistently not significant. However, owning agricultural land reduces a male Caviteños likelihood of owning a **nonagricultural** enterprise.

Table 9: Correlates of Ownership by Sex, Linear Probability Models

| Variables | Georgia | | Mongolia | | Cavite, Philippines | |
|---|------------|------------|------------|------------|---------------------|------------|
| | Men | Women | Men | Women | Men | Women |
| Age | 0.0100*** | 0.0060*** | 0.0113*** | 0.0137*** | 0.0146*** | 0.0208*** |
| | (0.0023) | (0.0016) | (0.0032) | (0.0022) | (0.0000) | (0.0000) |
| Age^2 | -0.0001*** | -0.0001*** | -0.0001*** | -0.0001*** | -0.0002*** | -0.0002*** |
| | (0.0000) | (0.0000) | (0.0000) | (0.0000) | (0.0001) | (0.0000) |
| Marital Status (Base is Single) | | | | | | |
| Married | 0.0223 | -0.0043 | 0.0380 | -0.0225 | 0.0489 | 0.0026 |
| | (0.026) | (0.0186) | (0.0309) | (0.0249) | -0.034 | (0.0346) |
| Separated | -0.0021 | 0.0058 | -0.0449 | -0.0034 | 0.0575 | -0.0388 |
| | (0.0292) | (0.0233) | (0.0333) | (0.0267) | (0.0649) | (0.0402) |
| Relationship to Household Head (Base is Other or Non-relative) | | | | | | |
| Head | -0.0028 | 0.0107 | 0.0468 | 0.004 | 0.1012** | 0.1195*** |
| | (0.0249) | (0.0169) | (0.032) | (0.0258) | (0.0419) | (0.0399) |
| Spouse | 0.0437 | 0.0098 | 0.0348 | 0.0558** | 0.0134 | 0.0779** |
| | (0.0528) | (0.0173) | (0.1171) | (0.0256) | (0.0588) | (0.0384) |
| | | | | | | |
| Ethnicity | -0.0683** | 0.0032 | -0.0077 | 0.0378*** | -0.0122 | -0.019 |
| | (0.0271) | (0.0148) | (0.02) | (0.0144) | (0.0219) | (0.0228) |
| Urban | 0.0458** | 0.0225* | 0.1231*** | 0.0619*** | 0.0379** | 0.0295 |
| | (0.0197) | (0.0136) | (0.0214) | (0.0169) | (0.0192) | (0.0201) |
| Education (Base is Primary) | | | | | | |
| Secondary | 0.0765*** | 0.0332*** | 0.1069*** | 0.0719*** | 0.012 | 0.0143 |
| | (0.0229) | (0.0119) | (0.0193) | (0.0159) | (0.0289) | (0.0318) |
| Post-secondary | 0.0949*** | 0.0635*** | | | | |
| | (0.0267) | (0.0163) | | | | |
| Tertiary | 0.1216*** | 0.0407*** | 0.0947*** | 0.061*** | 0.0448 | -0.0137 |
| | (0.0283) | (0.0157) | (0.0233) | (0.0183) | (0.0316) | (0.0335) |
| | | | | | | |
| Number of Working HH Member | 0.0214** | 0.0129** | 0.0469*** | 0.0409*** | 0.0805*** | 0.0628*** |
| | (0.0087) | (0.006) | (0.0128) | (0.0108) | (0.0132) | (0.0161) |
| Number of HH Member in Wage Employment | -0.0521*** | -0.0299*** | -0.0838*** | -0.0744*** | -0.0932*** | -0.0794*** |
| | (0.0092) | (0.0064) | (0.0115) | (0.0097) | (0.0123) | (0.0122) |
| Number of Old Member in HH (>60 years) | -0.0145 | -0.0104 | -0.0376** | -0.0274** | 0.0002 | 0.0121 |
| | (0.0119) | (0.0085) | (0.0168) | (0.0128) | (0.0268) | (0.0204) |
| Number of Children(0-14 years) | 0.0084 | -0.0058 | 0.0026 | -0.006 | 0.005 | -0.0125 |
| | (0.0087) | (0.0051) | (0.008) | (0.0058) | (0.0080) | (0.0093) |

| Variables | Georgia | | Mongolia | | Cavite, Philippines | |
|--------------------------------------|-----------|-----------|-----------|-----------|---------------------|-----------|
| | Men | Women | Men | Women | Men | Women |
| Dwelling Owner | 0.0019 | 0.0113 | 0.0144 | 0.03* | 0.0418 | 0.0763*** |
| | (0.0201) | (0.0114) | (0.0196) | (0.0157) | (0.0260) | (0.0267) |
| Agricultural Land Owner | -0.0016 | 0.0260** | 0.0167 | 0.0173 | -0.1268*** | 0.073 |
| | (0.0178) | (0.0128) | (0.0328) | (0.04) | (0.0344) | (0.0629) |
| Other Real Estate Owner | 0.1018*** | 0.0211 | 0.0553** | 0.0468* | 0.1455*** | 0.2334*** |
| | (0.0265) | (0.017) | (0.0263) | (0.0253) | (0.0515) | (0.057) |
| Asset Index (Base is First Quintile) | | | | | | |
| Second Quintile | 0.0623*** | 0.0284** | 0.0791*** | 0.0254 | -0.0463 | -0.0077 |
| | (0.0202) | (0.0117) | (0.0269) | (0.0188) | (0.0300) | (0.0286) |
| Third Quintile | 0.0373 | 0.0026 | 0.0520** | 0.0599*** | 0.0656 | 0.0624 |
| | (0.0216) | (0.0138) | (0.0217) | (0.0182) | (0.0480) | (0.0482) |
| Fourth Quintile | 0.0652*** | 0.0545*** | 0.0861*** | 0.0691*** | 0.0184 | -0.0278 |
| | (0.0228) | (0.0162) | (0.0239) | (0.0195) | (0.0334) | (0.0306) |
| Fifth Quintile | 0.1210*** | 0.0735*** | 0.1265*** | 0.0857*** | 0.0656* | 0.0138 |
| | (0.0393) | (0.0265) | (0.0335) | (0.0276) | (0.0381) | (0.0333) |
| | | | | | | |
| Constant | -0.2060 | -0.1580 | -0.3210 | -0.3322 | -0.2867 | -0.3110 |
| R squared | 0.0833 | 0.0409 | 0.1082 | 0.0852 | 0.1624 | 0.1418 |
| Number of observations | 2,499 | 3,438 | 2,488 | 3,104 | 1,605 | 1,851 |

HH = household.

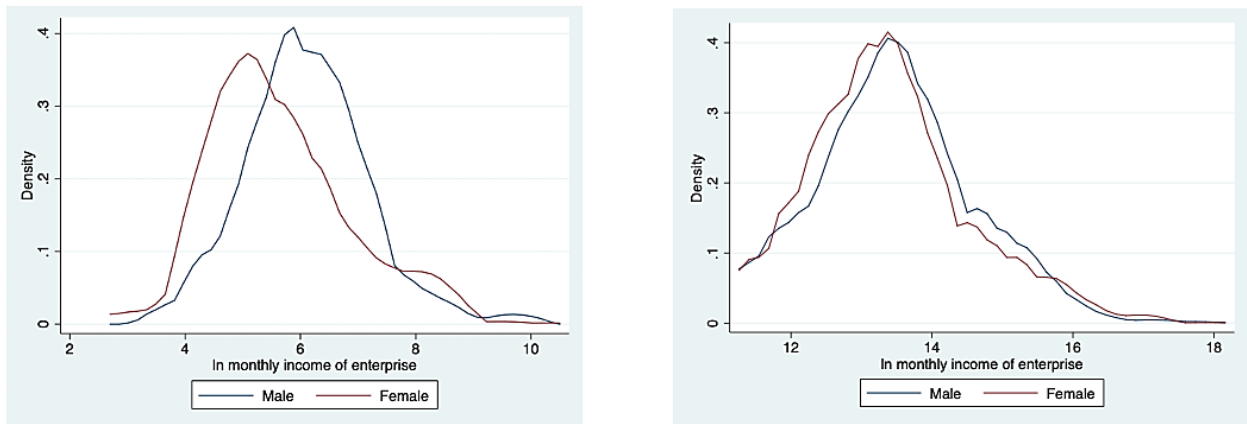
Notes: Standard errors are reported in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Source: Authors' calculations using EDGE data.

Income Distributions of Male-owned and Female-owned Enterprises

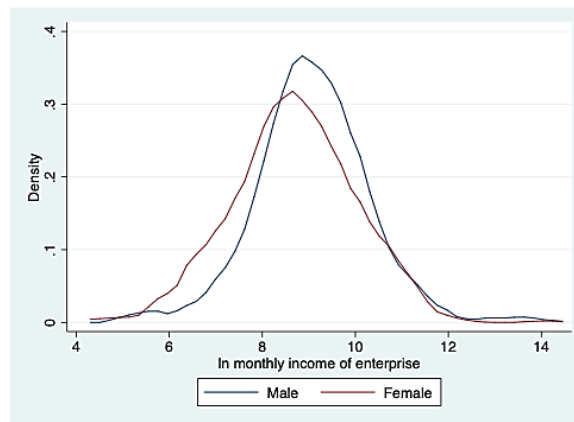
We first examine the kernel density plot of mean incomes for male-owned and female-owned enterprises by country (Figure 2).

Figure 2: Kernel Density Estimate



Kernel Density Estimate (Georgia)

Kernel Density Estimate (Mongolia)



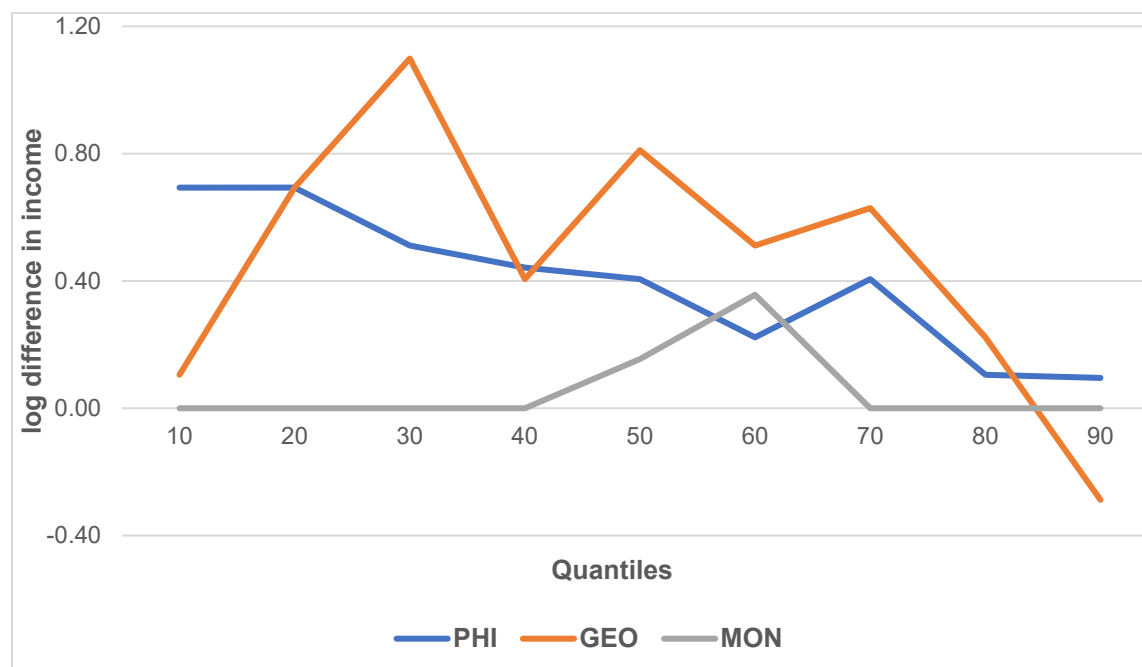
Kernel Density Estimate (Cavite, Philippines)

Source: Authors' calculations using EDGE data.

The mean income is higher for male-owned enterprises in Georgia and is a little to the right, higher for female-owned enterprises in Cavite, but overlapping with the male distribution. There is no perceptible difference between male and female owned incomes in Mongolia—the distributions largely overlap. Figure 3 plots the gender income gap by quantile. In Cavite, the gap

(mostly) shows a steady decline, while Georgia shows variation with the gap lowest at the top and bottom percentile (gap is reversed in favor of women. In Mongolia, there is practically no gap except in the middle parts of the distribution.

Figure 3: Gender Monthly Income Gap by Quantiles



GEO = Georgia, MON = Mongolia, PHI = Philippines.

Source: Authors' calculations using EDGE data.

Turning to the regression analysis of an OLS with log of mean monthly income as our dependent variable, we compare the associations of various factors across men and women (Table 10). Our notable finding is that firm characteristics are correlated with the enterprise income across country contexts, and these vary by the sex of the enterprise owner. If the enterprise is registered, then it impacts income positively for men and women in Cavite, Philippines, but only for men in Mongolia. In Georgia, there is no impact on men's and women's incomes. Broadly, we also find that formal maintenance of accounts is positively associated with enterprise income across all models (male-owned enterprises in Cavite are the exception where

informal accounts rather than formal accounts is significant). Registration and maintenance of formal books of accounts could help enterprises with accessing formal credit that is usually associated with increased productivity. While the sector seems to matter, we do not see any consistent patterns by sex of owner or within countries.

Table 10: Correlates of (ln) Monthly Income by Sex, Ordinary Least Squares Regression

| Variables | Georgia | | Mongolia | | Cavite, Philippines | |
|---|------------|------------|-----------|------------|---------------------|------------|
| | Men | Women | Men | Women | Men | Women |
| Age | -0.0182** | -0.0023 | -0.0049 | 0.0074 | -0.0139* | -0.0013 |
| Marital Status (1-Married; 0-Single) | 0.0943 | 0.3058 | -0.318 | -0.1694 | -0.1885 | 0.4546 |
| Relationship to Household Head (Base is Other or Non-relative) | | | | | | |
| Head | -0.1833 | 0.0902 | 0.1557 | -0.0031 | 0.8904** | -0.9140*** |
| Spouse | -0.261 | 0.0027 | -0.5963 | 0.224 | 0.9814* | -1.0065*** |
| Ethnicity | -0.5293* | 0.4389 | 0.0448 | -0.1279 | 0.0552 | 0.0247 |
| Urban | 0.1112 | -0.7117** | 0.4238*** | 0.3921*** | -0.2328 | -0.0122 |
| Education (Base is Secondary for Georgia while Primary for both Mongolia and Cavite, Philippines) | | | | | | |
| Secondary | | | 0.2144 | -0.0305 | -0.1946 | 0.0752 |
| Post-secondary | -0.046 | -0.1953 | | | | |
| Tertiary | 0.0559 | 0.3421 | 0.4691** | 0.4726** | 0.0187 | 0.15 |
| Number of Working HH Member | -0.0563 | 0.054 | 0.1291 | 0.1125 | 0.0802 | 0.1937** |
| Number of HH Member in Wage Employment | 0.1939* | -0.0124 | -0.1494* | -0.3038*** | -0.0339 | -0.2639*** |
| Number of Old Member in the HH (>60) | -0.2019 | 0.2939* | -0.3125* | -0.1019 | 0.1005 | -0.2829* |
| Number of Children(0-14) | -0.035* | 0.2650** | 0.0748 | 0.0595 | 0.0312 | -0.0212 |
| Dwelling Owner | 0.5832*** | 0.0904 | -0.2456* | 0.066 | 0.0793 | 0.3499** |
| Agricultural Land Owner | 0.2163 | -0.337 | 0.1969 | 0.0437 | 0.1309 | -0.1538 |
| Other Real Estate Owner | 0.232 | 0.3875 | 0.0007 | 0.3633** | 0.186 | -0.0166 |
| Location of Enterprise (1-Fixed; 0-No fixed premise) | 0.1592 | -0.193 | 0.0725 | -0.2843 | -0.1022 | 0.1741 |
| Industry (Base is Other) | | | | | | |
| Manufacturing | -0.977*** | -1.4669*** | 0.1375 | 0.1939 | 0.383 | -0.3786 |
| Trade | -0.6846*** | -0.4334 | 0.3223** | 0.5546*** | -0.1458 | -0.2097 |
| Mode of Acquisition (1-Founded/ purchased; 0-Other) | 0.4274 | 0.0863 | -0.0596 | 0.3125 | -0.0484 | 0.6092*** |
| Enterprise Registration (1-Registered with local/ national government; 0-Not registered) | 0.2695 | 0.5326 | 0.2706* | 0.103 | 0.6656*** | 0.4055** |
| Account maintained (Base is No Account) | | | | | | |
| Informal Accounts | 0.2286 | -0.3657 | 0.2379 | 0.1337 | 0.4286* | 0.2758 |

| Variables | Georgia | | Mongolia | | Cavite, Philippines | |
|---|-----------|----------|-----------|-----------|---------------------|-----------|
| | Men | Women | Men | Women | Men | Women |
| Formal Accounts | 0.6924*** | 0.6534** | 0.4165** | 0.1689 | 0.2948 | 1.0039** |
| Age of Firm | 0.0199** | 0.0088 | 0.0177** | -0.0041 | 0.0088 | 0.0037 |
| Number of Paid Employees (1-with employee; 0-own account) | 0.203 | 0.0604 | 0.4958*** | 0.4178*** | 0.6743*** | 0.7107*** |
| | | | | | | |
| Constant | 6.0629 | 5.299 | 12.6626 | 12.1615 | 8.4531 | 8.0782 |
| R squared | 0.4812 | 0.5437 | 0.3401 | 0.2538 | 0.2505 | 0.2826 |
| Number of observations | 173 | 126 | 348 | 351 | 270 | 377 |

Notes:

1. *p<0.1; **p<0.05; ***p<0.01

2. For ethnicity variable, the code is 1 if Georgian in Georgia; 1 if Khalk in Mongolia; and 1 if Tagalog in Cavite.

3. HH = household.

Source: Authors' calculations using EDGE data.

The results of the Oxaca-Blinder decomposition are presented in Table 11. The decomposition was conducted only for Georgia and Cavite, Philippines since the difference in mean income between male-owned and female-owned enterprise was not significant for Mongolia. Following the gender wag-gap and the gender-discrimination literature, men are used as the reference group. The results show qualitative similarities across both countries. The difference in monthly income is significant at the 1% level. The explained and the unexplained component are positive. While the explained component is significant at the 5% level, the unexplained component is positive but not statistically significant. What this implies is that the difference in monthly income is attributable to the differences in the observable characteristics between male-owned and female-owned enterprises. The results suggest that more than 50% of the gender income gap can be explained by the observable characteristics. Income of female-owned enterprises would have seen a rise of 64% (Cavite) and 59% (Georgia) if they had the same characteristics as male-owned enterprises. The fact that the unexplained component is not significant is suggestive that the returns to the characteristics are not differential across female and male entrepreneurs. This is a counter-intuitive result and needs to be further investigated. It is pertinent to point out that the Oxaca-Blinder method adopted in this paper is a simple decomposition of differences at the mean. Following Gang et. al (2021), we propose to refine and

extend the decomposition by performing the Oaxaca decomposition at different quantiles in the income distribution using the Recentered influence functions (RIF) approach. The RIF approach developed by Firpo et al (2007, 2009) goes beyond the assessment of mean differences to examine the gaps in income along the whole income distribution by using a decomposition approach based on unconditional quantile regression estimates (Davino et al. 2014, Firpo et al. 2009). The RIF helps in understanding the role played by different variables in explaining the income gap at different points in the distribution.

Table 11: Oaxaca-Blinder Decomposition of Gender Income Gap

| | Georgia | | Cavite, Philippines | |
|---|-------------|-------|---------------------|-------|
| | Coefficient | Share | Coefficient | Share |
| Gender income gap (ln male income-ln female income) | 0.464*** | | 0.394*** | |
| of which Explained | 0.274** | 59% | 0.253** | 64% |
| of which Unexplained | 0.190 | 41% | 0.141 | 36% |

Notes: *p<0.1; **p<0.05; ***p<0.01

Source: Authors' calculations using EDGE data.

V. CONCLUSION

Using unique data from three Asian countries—Georgia, Mongolia, and Cavite, (Philippines), this paper examines entrepreneurship patterns using a gender perspective. In addition to the descriptive analysis, we also examine the correlates of being an entrepreneur for men and women. Further, for male-owned and female-owned enterprises, we examine the correlates of monthly income. Finally, we use the Oaxaca-Blinder decomposition to understand the contribution of explained factors (observed characteristics) and unexplained factors on the monthly income gap for male and female entrepreneurs.

We find that the incidence of ownership ranges from about 9% to 18% and is the highest in Cavite, Philippines where the proportion of women entrepreneurs is also higher compared to male entrepreneurs. While women are less likely to be exclusive owners of their enterprise in

Georgia and Mongolia, it does not compromise their management or control of their operations. While both male-owned and female-owned entrepreneurs tend to be mainly own account workers, the former are larger in terms of employee size. There is a gender gap in monthly income, but it varies across countries. The gap is negligible in Mongolia and quite significant in Cavite, Philippines. The gender gap in monthly income is not consistent over the income distribution, thus, pointing to the need of moving away from only mean comparisons.

Contrary to expectations, the Oxaca-Blinder decomposition results suggest that only the observed characteristics of entrepreneurs and enterprises are correlated with the gender gap in monthly income in Georgia and Cavite, Philippines. This implies that there is little or no gender discrimination that explains the gender gap in monthly income. However, we refrain from drawing such a conclusion from our current analysis as we believe that the models can be refined further.

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Gender Gaps in the Ownership of Nonagricultural Enterprises in Georgia, Mongolia, and the Philippines

Entrepreneurship is significant in driving economic growth and job creation and can be a powerful tool for achieving the goals of gender equality and enhancing women's empowerment. However, there is little evidence on women entrepreneurs in Asia. To support the Evidence and Data for Gender Equality (EDGE) initiative, this study examined gender gaps in entrepreneurship using unique household data collected from Georgia; Mongolia; and Cavite, Philippines. The study provides insights into women and men entrepreneurs and their activities. It suggests, using multivariate analysis, that the determinants of income vary by gender and across countries.

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