

Profiting from Parity

Unlocking the Potential of Women's Businesses in Africa

This report was produced jointly by the World Bank's Africa Region Gender Innovation Lab (GIL) and the Finance Competitiveness & Innovation (FCI) Global Practice.

The World Bank's Africa Region Gender Innovation Lab (GIL) conducts rigorous research to support the design of innovative, scalable interventions to address gender inequality across Africa.

The Finance, Competitiveness & Innovation Global Practice (FCI) combines expertise in the financial sector with expertise in private sector development to foster private-sector led growth and help create markets in client countries.

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Foreword

Sub-Saharan Africa has the highest rate of entrepreneurship in the world, with approximately 42% of the non-agricultural labor force classified as self-employed or employers. Yet most entrepreneurs are unable to grow their businesses beyond small-scale subsistence operations, impeding their contribution to poverty reduction and shared prosperity.

This is particularly so for women. As governments continue their efforts to improve the conditions for private investment, a focus on the specific constraints faced by women entrepreneurs can help maximize the returns to limited public resources and ensure the benefits of private sector development are felt by everyone.

Women play a key role in the economies of sub-Saharan Africa. In fact, sub-Saharan Africa is the only region where women make up the majority of those who are entrepreneurs. However, a range of impediments render women's businesses less productive and having fewer employees than those owned by men.

This new report, "*Profiting from Parity: Unlocking the Potential of Women's Businesses in Africa*", produced by the World Bank Group's Africa Gender Innovation Lab and the Finance, Competitiveness and Innovation Global Practice, seeks to focus attention on the challenges that Africa's women entrepreneurs face and identify practical solutions.

The report draws on new, high-quality, household and firm level data to present the clearest evidence to date about the barriers to growth and profitability faced by women entrepreneurs. It goes beyond looking at contextual, endowment and household restrictions in isolation, and, through deep-dive analysis, uncovers new evidence on how social norms, networks and household-level decision making contribute to business performance. It analyzes how they are linked to each other and to women's strategic business decisions.

The report offers policy makers evidence-based guidance on designing programs to target multiple obstacles and improve the performance of women entrepreneurs. The policies recommended by the report include training programs that apply lessons from

psychology to encourage women to act with an entrepreneurial mindset; secure savings mechanisms that provide a layer of privacy and security in the management of funds; and large grants as part of business plan competitions to address capital constraints of growth-oriented firms.

As part of its Maximizing Finance for Development (MFD) approach, the World Bank Group continues to support policymakers in their efforts to improve the business enabling environment and crowd in private sector development support. However, we also recognize that the results of these efforts will be limited if they are gender-neutral and are not informed by evidence on what works to support women entrepreneurs to profitably run and grow their businesses.

We are hopeful that the findings of this report will drive action to ensure that women can fully access the benefits of improved business opportunities. The World Bank Group will strive to operationalize this evidence in policy dialogue and program design with our clients and partners. The continent is full of promise and, by addressing the difficulties women entrepreneurs face, we can unlock the potential of women's businesses to become a major driver of economic growth and poverty reduction.

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Female entrepreneurs in Africa: A force for growth

Enterprise development is a crucial engine of economic growth and jobs creation. Without entrepreneurship, there would be little innovation, little productivity growth, and few new jobs.¹ Over three-quarters of the African population believe that entrepreneurs are admired in their societies. Entrepreneurship is also seen by 76% of Africans as a good career choice. This is the highest rate in the world.²

Advancing gender equality is smart economics, sound business practice, and essential development policy. When women and men have equal opportunities to shape their own lives and contribute to their families, communities, and countries, it leads to enhanced productivity, improved development outcomes, and better performance by businesses and institutions.³

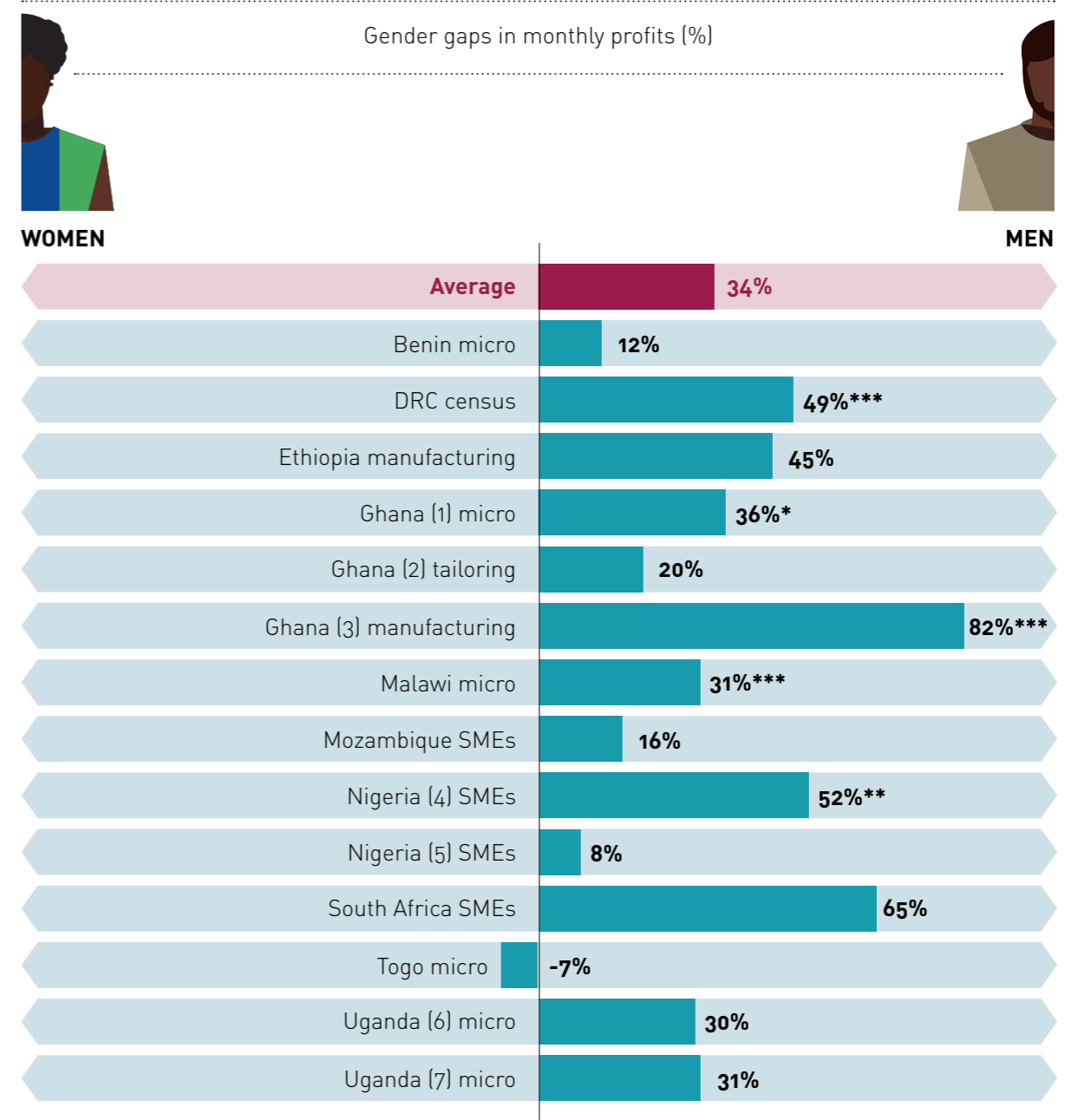
The countries in sub-Saharan Africa (referred to as Africa in this report) have already made significant progress in fostering the economic empowerment of women and girls. Women in Africa are more likely to be working than women in other regions, and almost 50% of women in the non-agricultural labor force are entrepreneurs. It is the only region in which women are more likely to be entrepreneurs than men.

Increasingly, national government leaders and other stakeholders across Africa are recognizing that women are a force for growth – but could be even more so. Policymakers need to act to expand opportunities for female entrepreneurs to be agents of growth and job creation – particularly in the context of a large youth population with high expectations for quality employment.

In Africa, the performance of female-owned businesses consistently lags behind that of male-owned businesses. They have fewer employees, lower average sales, and less value-added.⁴ Drawing on survey data from 14 countries,⁵ this report finds wide gaps in average profits between male- and female-owned firms (Figure 1).

Figure 1

Gender gap in profits wide on average, but varies across countries



Source: Authors using IE database. Ghana (1): Grants for micro-enterprises survey; Ghana (2): Tailoring survey; Ghana (3): Enterprise Census; Nigeria (4): Growth and employment survey; Nigeria (5): Business plan competition survey; Uganda (6): Kassida survey; Uganda (7): Loans, grants, and training survey.

For countries seeking to harness the full potential of female entrepreneurs, the central question is why female-owned businesses underperform. The report draws on a wealth of new, high-quality household and firm-level data in Africa to paint a more detailed picture of female entrepreneurs and the constraints to growth and profitability they face. It first explores the strategic decisions of female entrepreneurs, and then explores the underlying constraints. It presents new deep-dive analysis in three areas: social norms, networks, and household-level constraints. Finally, based on the findings and prior research, it makes recommendations for policymakers and other stakeholders on how to close the gap.

Box 1

What's new about this report?

1

Updated analysis: Uses new high-quality data to update earlier analyses of the gender gap in business performance.

2

Deeper understanding: Presents a novel way of understanding how gender-specific constraints affect female entrepreneurs' decisions and outcomes.

3

Evidence-informed solutions: Offers policymakers and other stakeholders research-based guidance on designing programs and policies to improve the performance of female entrepreneurs.

What's driving the gender gap in business performance?

Wage job opportunities are limited in Africa. This drives men and women who might not otherwise be inclined to start a business to become entrepreneurs. According to the Global Entrepreneurship Monitor, Africa features the world's lowest share of entrepreneurs who started a business in order to pursue an opportunity.⁷

Many women who become entrepreneurs out of economic necessity do not intend or have the skills to build large and successful companies. Their decision to start a business instead of seeking wage work is influenced by important constraints such as differences in skills, capital, networks, time and family formation, occupational opportunities, and safety.⁸

It is important to note that if women face greater constraints than men in pursuing alternative job opportunities, this can lead to a relatively higher share of women taking up self-employment, which can affect their opportunities. Recent evidence from Ghana suggests that self-employed women operate in more crowded markets than do self-employed men.⁹ The gaps in economic opportunities are a primary, and significant, driver of the gender gap in business performance.

Furthermore, this report examines the status of already existing businesses which, in the absence of alternative labor-market opportunities, are likely to persist in Africa. The report also examines the conditions influencing female entrepreneurs' decision-making, in particular those that perpetuate their lower performance rates. Women overwhelmingly choose to enter sectors with reduced opportunities for growth; they also have lower levels of available assets and capital to invest into their businesses; and they show less willingness to compete. They are more likely to operate in the informal economy and less likely to adopt advanced business practices.

Drawing on extensive data analysis and earlier research, this report argues that women make or are obliged to make different decisions than men because they are constrained by gender-specific factors that hinder the growth of their businesses. These constraints, related to the contexts in which women operate, their endowments, and household-related factors, influence the strategic decisions that female entrepreneurs make – which, in turn, lead to less productive outcomes. This report presents a new, clear and illuminating guide to help further explain the factors that give rise to the gender gaps in productivity (Figure 2).



Figure 2

**Constraints, decisions, and outcomes:
A blueprint for closing the gender gap in business performance
in Africa**

OUTCOMES

Gender differences in firm performance (sales, profits)

STRATEGIC DECISIONS

1

Sector segregation

2

Differences in capital and labor

3

Differences in firm capabilities (business practices / innovation), and formalization

4

Differences in willingness to compete

UNDERLYING CONSTRAINTS

CONTEXTUAL FACTORS

- I** Legal discrimination
- II** Social norms
- III** Risk of GBV

ENDOWMENTS

- IV** Education/Skills
- V** Confidence/Risk preferences
- VI** Finance and assets
- VII** Networks and information

HOUSEHOLD-LEVEL CONSTRAINTS

- VIII** Allocation of factors of Production
- IX** Time constraints/Care

Strategic decisions

As illustrated in [Figure 2](#), female entrepreneurs' strategic decisions in key areas diverge from those of male entrepreneurs in important ways. These areas include:

1. the sector they choose;
2. differences in capital and labor;
3. differences in firm capabilities; and,
4. differences in their willingness to compete.

Sector of operations

- **Female entrepreneurs build larger and more profitable companies when they operate in male-dominated sectors.** While female entrepreneurs tend to cluster in sectors dominated by other women, such as retail and hospitality, evidence suggests a potential dividend to "crossing over" into male-dominated sectors. Female-owned enterprises operating in male-dominated industries are as large and just as profitable as their male-owned counterparts. They are also larger than those in female-dominated sectors.¹⁰ Studies in specific settings suggest that a female entrepreneur's decision to work in higher-return sectors is not driven by differential access to education or finance but by social factors, particularly the influence of male role models and exposure to the sector by family and friends.¹¹

Capital and labor

- **Female entrepreneurs in Africa have systematically lower levels of business capital – including equipment, inventory and property – relative to their male peers.** Drawing on data from 14 impact-evaluation datasets from 10 countries in Africa, the typical male-owned firm has over six times the capital investment of female-owned enterprises.
- **Female entrepreneurs' lower levels of labor contribute to gender productivity gaps in six of the 10 countries analyzed.** Relative to male entrepreneurs, female entrepreneurs employ fewer workers and use fewer labor hours in operating their businesses – but in most countries, women obtain returns on their business labor that are on par with those obtained by men.
- **The gender differences in capital and labor are associated with men having higher profits than women.** Although it may also be the case that male entrepreneurs use more capital and labor due to gender differences in returns to the initial units of investment, the analyses in this report suggest that providing women with the same amounts of investment resources as men is promising.

Firm capabilities: Business practices, innovation, and formalization

- **Differences in the adoption of good business practices help explain the gender gap in productivity for some countries.** Consistent with earlier research,¹² this report finds that male entrepreneurs are more likely to adopt advanced business practices in most countries analyzed. However, the magnitude of the gender gaps on an index of business practices is on average less than half of the capital investment gaps.
- **This report shows some differences in innovation between male and female-owned enterprises.** Women in Togo are half as likely as men to have introduced a new product in their operation. In Mozambique, women are less likely to have introduced a new process – 31% of women and 39% of men have taken innovative steps in the past 12 months. In Nigeria, female-owned firms are 20% less likely than male-owned firms to have improved existing products or to have introduced a new product design.
- **This report's analysis does not find a clear pattern between individual business formalization and the gender gap in enterprise performance.** Many female-owned firms are in the informal economy. While this report's analysis finds that female-owned businesses enjoy higher productivity returns when formal in three countries, recent studies^{13,14} indicate a lack of impact on business performance and access to finance from helping entrepreneurs obtain formal status.

Decision to compete

- **A lab experiment in Kenya¹⁵ finds that women were less than half as likely as men to compete with others.** Numerous laboratory experiments from outside of Africa confirm this finding. However, limited data on willingness to compete makes it difficult to weigh the importance of gender differences in entering competition relative to other drivers of the gender gap in business performance.¹⁶

Nine factors holding back women's business performance in Africa

Female entrepreneurs do not make business decisions in a vacuum. Rather, their business decisions differ systematically from those of male entrepreneurs because they are constrained by factors in a way that men are not. This report presents nine underlying constraints and explores the evidence on why the factor matters and the extent to which it contributes to the gap in business performance. In some cases, the report recommends further analytical work to allow for a deeper understanding of a constraint's relevance. The report leverages new data to dive deep on three factors – adding new insights for policymakers and other stakeholders looking to close the gap.

Contextual factors

I

Legal discrimination: Female entrepreneurs cannot have equal economic opportunity if a country's laws restrict a woman's ability to own and run a business. Women often face barriers from customary law.¹⁷ In addition, formal laws still do not ensure a level playing field. Although many African countries have made progress in removing legal barriers – including laws that deny women the same rights as men to register a business, sign a contract, open a bank account, or own and inherit property – only three African countries have formal laws that prohibit gender discrimination.¹⁸

Bottom line: Recent progress in regulatory reforms means legal discrimination may not be constraining female entrepreneurs as much as in the past. However, even when laws are gender neutral, they are not applied equally. Work is needed to ensure gender-equal laws are both introduced and appropriately implemented.

II

Social Norms: Social norms exert strong influence over the strategic choices that female entrepreneurs make and can constrain their ability to grow their businesses. They can shape how women view themselves,¹⁹ perceive their abilities,²⁰ impact their aspirations, and can lead to discriminatory treatment by others.²¹ Because social norms in many African countries do not align with a woman striving for business growth, women's choices are limited. Women who contradict social norms may also face retaliation.^{22,23}

Bottom line: The influence of gender norms on women's business decisions is likely to be pervasive and significant, affecting major choices such as the sector of operations. For more on this, see "deep dive" 1.

III

Risk of gender-based violence: Widespread gender-based violence (GBV) likely takes a toll on women's health and well-being, which hinders their ability to run their businesses effectively. Working outside of the home may put women at risk,²⁴ while some women may view self-employment as a way to avoid sexual harassment at the workplace.²⁵ In Malawi, 14% of female entrepreneurs have been subject to physical or emotional violence by their domestic partner; 32% say their husband insists on knowing where they are at all times; and 7% say their husbands force them to have sexual intercourse.

Bottom line: GBV can hinder women's managerial capacity. Testing and evaluating more solutions to overcome GBV is critical to understanding its relevance in addressing the business-performance gender gap. Research is also needed to determine whether the risks of being exposed to GBV influences a woman's tendency to shy away from growing her business.

Endowments

IV

Education and skills gaps: While most African countries have achieved gender parity in access to primary education,²⁶ a persistent gap in educational and skill attainment between male and female entrepreneurs – particularly at the secondary level and beyond – may help explain gender differences in strategic business decisions. Evidence points to gaps between male and female entrepreneurs in three areas: formal education, management skills, and socio-emotional skills. This report finds that self-employed women have overall completed fewer years of education than self-employed men. Male entrepreneurs often have higher technical skills; sometimes have higher financial literacy; and are sometimes more likely to participate in training or offer training. Data from Togo shows that while male and female entrepreneurs are comparable on some important socio-emotional measures, male entrepreneurs score higher than their female counterparts on measures of ambition, creativity, innovation, and imagination.

Bottom line: Education and skill gaps in Africa are wide and persistent, and likely have a strong influence on women's business decisions.

V

Confidence and risk preferences: Women business owners in Africa frequently show less confidence than their male counterparts. Among entrepreneurs in Ghana, women are 14% less likely than men to think they would make a good leader. Female entrepreneurs demonstrate less confidence in their abilities,²⁷ which may make them less willing to compete (and win)²⁸ – especially in stereotypically male domains.²⁹ Women's lack of confidence relative to men could be related to risk aversion, but analysis for this report do not show a clear pattern on this issue.

Bottom line: Women's lack of confidence relative to men may keep them from taking big risks that lead to high returns. More experimental work on mechanisms designed to enhance confidence can prove important for policy.

VI

Finance and assets: Female entrepreneurs continue to control fewer assets than men, affecting their capacity to invest in their business and access large enough loans. While the gender gap in obtaining loans from financial institutions is smaller in Africa than in any other region of the world,³⁰ this report's analysis shows consistent and large gender gaps in the size of the loans outstanding for various target groups of entrepreneurs in Africa.

Bottom line: The gender divide in access to credit is not as strong as it once was, but with smaller asset ownership, women still struggle to get loans of the same size as men – a factor that likely fuels the capital investment gap.

VII

Access to networks and information: Women often do not have the same access as men to large and diverse social networks that can support the growth and competitiveness of their business. This report's analysis suggests that men's and women's networks vary in important ways. Both men's and women's networks are largely segregated by gender. Women's networks command fewer resources than men's and include more "strong" family and kin relationships that are less valuable than new connections in creating business opportunities.³¹

Bottom line: With growing evidence on the importance of networks, understanding how the networks of female entrepreneurs vary from those of men – and how those differences may impact their success – is vital. For more on this, see "deep dive" 2.

Household-level constraints

VIII

Household allocation of productive resources: Women often lack authority over the allocation of household assets and may face more pressure to share resources, which restricts both their willingness and ability to invest in their businesses. Women's lack of control over the allocation of household resources may be a source of inefficiency if it means that assets are invested in male-supported enterprises irrespective of managerial ability or the value of the business opportunity.³² Research shows that female entrepreneurs struggle to direct capital to their business, which can be a function of either their own or others' needs. Inefficiency in intra-household allocation is compounded when female entrepreneurs are compelled to share resources derived from social connections outside of the home.

Bottom line: Household resource allocation is likely a major factor influencing women's decisions regarding their businesses. The next stage of research should include identifying scalable mechanisms to encourage couples to think differently about the role of women's contribution to household decision-making, or advocating that female entrepreneurs simultaneously achieve both their business and non-business goals. For more on this, see "deep dive" 3.

IX

Time constraints and care: Women in Africa spend more time than men on domestic chores.³³ This limits the amount of time they can dedicate to their business and requires them to stay home at times of the day that are best for conducting business. This report finds that women in Uganda, Togo, and Malawi are much more likely than men to be taking care of others while running their business – a task that can take up to twice as much of their time as men's.³⁴ This report finds that men spend on average 10% more time per week working in their business than women. Being married increases the gender gap in time spent on the business in three countries, while the gap is lower in male-dominated sectors where women may have to work the same hours as men to participate. Emerging evidence suggests that childcare programs may have a positive impact on women's employment outcomes,³⁵ but these studies do not analyze the impact of childcare on women's business outcomes.

Bottom line: Women's time constraints associated with domestic chores and care are likely a strong constraint on their business activities, but further rigorous evidence and analysis is needed on whether increasing childcare services and other types of interventions produce lasting effects on business performance.



Diving deep on three constraints

■ Deep dive 1: Do gender-biased social norms dampen business performance?

Drawing on data from Togo, Ghana, and Malawi, this report presents a deep-dive analysis assessing the prevalence of gender-biased beliefs and their potential contributions to the gender gap in business performance in Africa.³⁶

Key findings

1. Gender-biased beliefs are prevalent among surveyed entrepreneurs in Africa.
2. Both men and women have largely internalized gender-biased norms,³⁷ though there are some important gender differences. Women are less likely than men to be biased toward the pursuit of business opportunities, but they are more likely to prioritize household needs.
3. Entrepreneurs with comparatively high levels of education are less likely to espouse gender-biased beliefs.
4. Holding gender biases is associated with lower investment levels and lower business performance, but this relationship is not robust in all settings. There is suggestive evidence in some settings that businesswomen that hold more progressive views and operate in male-dominated sectors face discrimination in their operations.

Way forward for combined research and policy

- A research agenda is needed to test the mechanisms and importance of social norms as a constraint to business development. Solutions to tackle embedded social norms in enterprise development can be drawn from a number of promising areas of research on norms, including: large-scale institutional changes,³⁸ changes in regulations,³⁹ addressing mobility issues,⁴⁰ overcoming sector sex-segregation issues,⁴¹ and community and couple dialogues.⁴²

■ Deep dive 2: Do gender differences in entrepreneurial networks fuel the gender performance gap?

This deep-dive analysis draws on data from Ghana, Malawi, Togo, and Uganda to assess gender differences in African entrepreneurs' business networks and their potential contributions to the gender gap in business performance.

Key findings

1. Female entrepreneurs' business networks are mostly comprised of other women.
2. Men have larger business networks than women.
3. Business networks with "strong ties," and family members in particular, are more likely to be part of the process of business creation and development for women than for men.
4. Women rely on their networks when starting a business and for financial support, but men more intensively use their business networks to share information, equipment, and supplies.
5. The relationship between networks and business performance is likely not straightforward and depends on aspects such as the depth of the relationships and their influence on various areas of business development.

Way forward for combined research and policy

- Additional experiments creating networking opportunities for different categories of entrepreneurs would be helpful in identifying the type of businesses who stand to benefit the most from diversifying their connections. Is networking more important in early or later stages of business development? To what extent do other gendered constraints dampen the benefits of expanding one's networks? Why do business networks remain so strongly segregated by gender? Are there opportunities to loosen the networks' "ties"? What is the effect of network diversification on entrepreneurs' choice of activity?

■ Deep dive 3: Do intra-household relationships affect the strategic choices made by female entrepreneurs?

This deep dive draws on an analysis of micro-entrepreneurs in urban Ghana, in-depth qualitative research with the same population to explore how women's businesses contribute to the household, and of how household demands and power dynamics impact their business decisions. Though specific to urban Ghana, the findings suggest ways that intra-household dynamics might be influential in women's business decisions elsewhere.

Key findings

1. Women's businesses are important for meeting household needs.
2. Spouses have incomplete information about each other's earnings.
3. Women generally maintain control of their business income, but that does not always mean they have flexibility in determining how to spend it.
4. Women and men have incentives to hide their income due to pressure to share it and to increase contributions to household needs.
5. Women's independence in business management is associated with higher profits, but it is still unknown whether this is a causal relationship.
6. Households manage their finances in a range of different ways and future research and programs should explore links between intra-household relationships and the success of women's businesses.

Way forward for combined research and policy

- Future research should examine the extent to which different financial management practices within households can be encouraged and lead to business investments by female entrepreneurs. Additional research is also needed to identify possible policy responses either to think differently about the role of women's businesses in the household, or to support female entrepreneurs to simultaneously achieve both their business and non-business goals.

Path forward: How policy and decision makers can act to eliminate the gender gap

Gender-neutral policies that seek to create a more conducive business environment while supporting entrepreneurs will not be sufficient to address the constraints identified in this report. Indeed, they may instead widen existing gaps. But the good news is that with targeted strategies, the international community, national governments, NGOs, and other stakeholders can help address the challenges that female entrepreneurs face and thereby unleash their productive potential.

This report reviews the existing evidence, classifies strategies based on the strength of the evidence, and makes recommendations based on the evidence. The results are summarized in [Table 1](#). As much as possible, the report identifies success factors, potential risks, and mitigating measures. This evidence is typically based on a set of countries and generalizing to others is not necessarily straightforward. Therefore, local adaptation will be important as a means of ensuring sound implementation of the most promising ideas.

The evidence presented regarding the most promising interventions is typically based on the results for the average female-owned businesses. However, there are often female entrepreneurs who can benefit more than others from each viable or emerging solution.

While the set of constraints and solutions are listed individually, female entrepreneurs in Africa are affected by the interplay of several gender-specific constraints. Increasingly, programs for female entrepreneurs recognize this and combine interventions targeting multiple constraints.

The strategies proposed are to a large extent a subset of the most promising interventions

designed to support firms, innovation, and investment in Africa. Whenever applicable, the solutions recommended in this report are also sound for male-owned firms. Implementing them at scale with thorough mechanisms of delivery can support female entrepreneurship while also expanding all types of businesses in the economy.

■ Promising strategies

The best evidence today suggests that these three strategies are likely to be effective for female entrepreneurs:

1. Training programs that apply lessons from psychology to encourage women to act with an entrepreneurial mindset. Emerging evidence from impact evaluations demonstrates the importance of strengthening socio-emotional skills for female entrepreneurs in Africa. In Togo, personal initiative training has positive and significant effects on sales and profits of male and female-led micro-enterprises and generated a 91% return on investment.⁴³ Similarly, a training program emphasizing self-esteem and entrepreneurship in Ethiopia increased the business performance of female-owned firms.⁴⁴ A video to increase aspirations of market vendors in Mozambique (45% of them women) led to very large impacts on business performance.⁴⁵ Finally, a training program for female micro-entrepreneurs in Kenya led to sustained increases in firm profits, survival, and growth.⁴⁶

Summing It up: Training programs addressing socio-emotional skills and gender-specific content – as opposed to standard managerial training programs – have proven effective in numerous contexts in Africa, and pay for themselves in increased profits over the long-term.

2. Supporting women with secure savings mechanisms.

Unequal bargaining power within the household and domestic expenditure needs can affect women's ability to finance their business activities. Therefore, providing women with mechanisms to set aside money for their business can help insulate these funds from household demands. Providing female market vendors in Kenya with access to savings accounts led to a 45% increase in business investment, while no impact was found in providing such accounts to male motorbike drivers.⁴⁷ Targeting seems important, as providing these accounts in rural settings in Uganda and Malawi led to limited bank account usage.⁴⁸ On the other hand, adding access to business bank accounts to support formalization led to significant increases in women's usage of business bank accounts and insurance, and it also resulted in more women separating household and business funds.⁴⁹ This drove large impacts on sales and profits for female entrepreneurs.⁵⁰ Mobile money and other digital payments make it easier to target women specifically and provides them with greater privacy and control over household expenditures.⁵¹ In turn, this leads to potential increases in women's consumption and savings,⁵² and supports new economic activities and empowerment.⁵³

Summing It up: Rigorous evidence from more than one study in Africa shows the positive effects of savings mechanisms on business investment and performance of female-owned firms. The interventions need to be well-targeted to ensure appropriate uptake from the relevant target group.

3. Providing large cash grants to female-owned businesses as part of business plan competitions.

Providing large cash grants as part of a business plan competition can help address the capital constraints of growth-oriented firms, including those owned by women. A business plan competition in Nigeria providing cash grants averaging \$50,000 increased the likelihood that women would operate a firm by reducing capital constraints. It also helped trigger hiring and led to large increases on sales and profits.⁵⁴ This is backed up by another study of business plan competitions in Ethiopia, Tanzania, and Zambia.⁵⁵ Additional impact evaluations of business plan competitions are under way in Africa, and will address how results are influenced by the size of different grants and the selection process.

Summing It up: Studies show positive impacts of large grants under business plan competitions on employment, sales, and profits among female-owned firms.

In addition, the following set of policies and interventions that draw on emerging evidence offer strong potential and would benefit from further assessment of impact:

1. **Removing legal constraints to gender equality and regulatory implementation gaps;**
2. **Strengthening land tenure rights for women;**
3. **Expanding women's linkages to new business networks;**
4. **Offering women-friendly training designs, including peer support;**
5. **Providing in-kind grants to female-owned firms;**
6. **Introducing financial innovations that reduce collateral requirements, including psychometric scoring;**
7. **Facilitating access to childcare services;**
8. **Engaging men to provide a more supportive environment for female entrepreneurs;**
9. **Incentivizing women to cross over to male-dominated sectors by sharing information on expected returns in those sectors, and through early exposure in the form of apprenticeships and male role models.**



Table 1

**What works to support female-owned firms in Africa?
Key findings from rigorous impact evaluations**

LEGEND

- CREDIBLE EVIDENCE OF POSITIVE IMPACT ON BUSINESS OUTCOMES
- EMERGING EVIDENCE OF IMPACT ON BUSINESS OUTCOMES
- EVIDENCE OF NO/LOW IMPACT ON BUSINESS OUTCOMES (NOT PROMISING)

POLICY AREA	CONSTRAINT ADDRESSED	TYPOLGY OF FIRMS	MAIN CONCLUSIONS
1. Removing regulatory and institutional constraints for female entrepreneurs	Legal discrimination	All firms	Removing legal gender biases and gaps in the implementation of laws increase women's agency and intra-household bargaining power
	Legal discrimination	All firms	Strengthening land rights for women increases their time and effort in entrepreneurship
	Informality	Micro-enterprises	Easing constraints to formalization by itself is not sufficient to help female-led micro-enterprises grow
2. Improving skills and networks	Skills	Micro-enterprises	Providing traditional managerial training alone does not typically improve the business performance of small female-owned firms
	Skills; confidence/risk preferences; social norms	Micro-enterprises and small-business owners	Training addressing socio-emotional skills and gender-specific content leads to high levels of impact on business performance
	Networks and information	Micro-enterprises and small-business owners	Expanding firms' access to new networks may, in the right settings, have positive impacts on business performance
	Skills; networks and information	Micro-enterprises	Providing mentoring on top of traditional business training has limited additional value to micro-entrepreneurs
	Skills; confidence/risk preferences; social norms	Micro-enterprises	Complementing delivery of training programs with direct peer support may be promising
3. Improving access to capital and assets	Finance and assets	Micro-enterprises	Microcredit has only limited effects on business outcomes for women
	Finance and assets; allocation of factors of production	Micro-enterprises	Providing in-kind grants can lead to higher profits for more successful women micro-entrepreneurs
	Finance and assets; confidence/risk preferences; skills	Start-up or existing businesses	Large cash grants for growth-oriented firms selected through a business plan competition can help overcome capital constraints for women
	Finance and assets; allocation of factors of production	Micro-enterprises	Providing women with access to secure mechanisms for savings – including mobile savings – can increase business investment
	Finance and assets	Micro-enterprises	Alternative credit scoring technologies using psychometric tests offer the promise of easing women's access to larger business loans
4. Easing household constraints	Time constraints/care	All	Providing childcare can increase female participation in the workforce
	GBV; time constraints/care; allocation of factors of production	Micro-enterprises	Engaging men can potentially foster a more supportive environment for female entrepreneurs
5. Addressing social norms regarding women's occupational decisions	Skills; networks and information; confidence/risk preference	Young entrepreneurs	Providing information on earnings in traditionally male-dominated sectors and early exposure through apprenticeships and male role models can encourage female entrepreneurs to enter these sectors
6. Facilitating access to markets	Social norms; GBV	Micro-enterprises	Training does not eliminate harassment by guards at border crossings, but can make female traders aware of ways to minimize harassment

■ Challenges in designing effective programs for female entrepreneurs

When designing programs for female entrepreneurs, policymakers and other stakeholders need to consider the following factors:

1. Getting targeting right: Growth-oriented female entrepreneurs often benefit the most from skills-development programs, but will only participate if they understand the value-added. Some interventions can only be successful for groups of female entrepreneurs with access to satisfactory infrastructure such as roads, energy, and communications.
2. Building gender-sensitive aspects of program design: Programs need to address the constraints discussed in the report, such as women's lower willingness to compete and greater constraints on time.

■ Steps for African policymakers

1. Support concrete policy actions that demonstrate strong commitment to female entrepreneurs, such as eliminating existing legal barriers and fostering women's participation in public life, including the promotion of female role models.
2. Ensure private sector development strategies and policies include a gender focus that addresses the specific challenges faced by female entrepreneurs.
3. Scale up policies that have shown credible results.
4. Support the testing and evaluation of promising approaches – and share the findings widely.
5. Invest in promoting the systematic collection of gender-differentiated data that captures the performance, endowments, and preferences of female-owned firms.
6. Involve men in policy advocacy and in the implementation of solutions. Because men are husbands, but are also more likely to be bankers, inspectors, trainers, and policymakers, it is important to engage them at multiple levels in efforts to provide better opportunities for female entrepreneurs.

■ Steps for development partners, corporations, and civil society

1. Provide funding to test innovative approaches and to research that contributes to closing the gender entrepreneurship gap while expanding global knowledge of what works.
2. Use findings from this report to inform the design of programs.
3. Continue advocacy efforts by highlighting the business and economic case for removing the obstacles constraining female entrepreneurs' growth.
4. For larger firms, consider the gender dimensions in their supply strategies and opportunities to integrate female-owned firms.

Unleashing the hidden potential of female entrepreneurs in Africa

Advancing gender equality is smart economics, sound business practice, and essential development policy. A growing body of evidence demonstrates that when women and men have equal opportunities to shape their own lives and contribute to their families, communities, and countries, it leads to enhanced productivity, improved development outcomes, and better performance by businesses and institutions.

Increasingly, national government leaders and other stakeholders across Africa are recognizing that female entrepreneurs are a force for growth – but could be even more so. Policymakers need to act in order to expand opportunities for women as agents of growth and job creation, particularly in the context of a developing young population in Africa with high expectations in terms of finding quality employment.⁵⁶



Following increases in access to infrastructure, communications, education, and health systems, young people are demanding jobs. Ensuring that half the population has appropriate opportunities to become employers and create such jobs is critical for the long-term political and economic well-being of countries in Africa.

Enterprise development is a crucial engine of economic growth and job creation. Without entrepreneurship, there would be little innovation, little productivity growth, and few new jobs.⁵⁷ Over three-quarters of the African population believes that entrepreneurs are admired in their societies. Entrepreneurship is also seen by 76% of Africans as a good career choice. This is the highest rate in the world.⁵⁸ The top 10 African countries in the Global Entrepreneurship Index are Botswana, South Africa, Namibia, Gabon, Swaziland, Rwanda, Ghana, Nigeria, Zambia and Senegal.

Over the past five years, there has been a tenfold increase across the region in the supply of new entrepreneurship-support solutions such as incubators, accelerators and tech hubs, which collectively provide a wide range of services for budding entrepreneurs and startups. These intermediaries offer the opportunity to decentralize the implementation of entrepreneurship initiatives. Today numbering more than 200 across the region as a whole, these entrepreneurship intermediaries are multifunctional one-stop shops that connect nascent startups with key investors and raise the overall profile of entrepreneurship in the eyes of the public.⁵⁹

Entrepreneurs in Africa are different than the average member of the population. This report's analysis of data from almost 1 million Africans across the region, 30% of which are entrepreneurs, show that business owners are on average three years older and more likely to be married – especially in the case of men – than the rest of the adult population (Table 2). Entrepreneurs have lower average levels of education than non-entrepreneurs, although the differences are small in magnitude. Business owners typically work more hours. They are less likely to live in households with access to water, electricity, bathrooms, and computers.

Table 2

Female and male entrepreneurs show some differences relative to the rest of the population

Sub-Saharan Africa						
Variables	Female entrepreneurs mean	Female non-entrepreneurs mean	Difference	Male entrepreneurs mean	Male non-entrepreneurs mean	Difference
INDIVIDUAL CHARACTERISTICS						
Age	38.8	36.0	2.8***	39.8	36.9	2.9***
Married	70.3	58.4	12.0***	76.9	49.5	27.4***
Ever attended school	62.3	63.6	-1.3***	76.3	80.9	-4.6***
Literate	52.3	55.8	-3.5***	71.8	76.5	-4.7***
Years of education	4.2	5.1	-0.8***	5.4	7.4	-2.0***
HOUSEHOLD CHARACTERISTICS						
Rural area	62.5	62.8	-0.4**	66.7	59.8	6.8***
House owner	75.9	76.9	-1.0***	79.4	74.2	5.2***
Water	9.0	13.7	-4.7***	8.4	14.6	-6.2***
Electricity	35.2	39.7	-4.5***	28.4	44.6	-16.2***
Bathroom	6.1	9.1	-3.0***	5.4	9.9	-4.5***
Phone available	1.3	3.6	-2.3***	1.6	3.6	-2.0***
Cell phone	62.5	62.7	-0.2	55.2	68.0	-12.7***
Computer available	5.4	6.9	-1.5***	4.4	8.0	-3.6***
LABOR CHARACTERISTICS						
Hours worked last week	39.1	34.6	4.6***	41.2	40.1	1.1***

Source: Authors using household surveys.

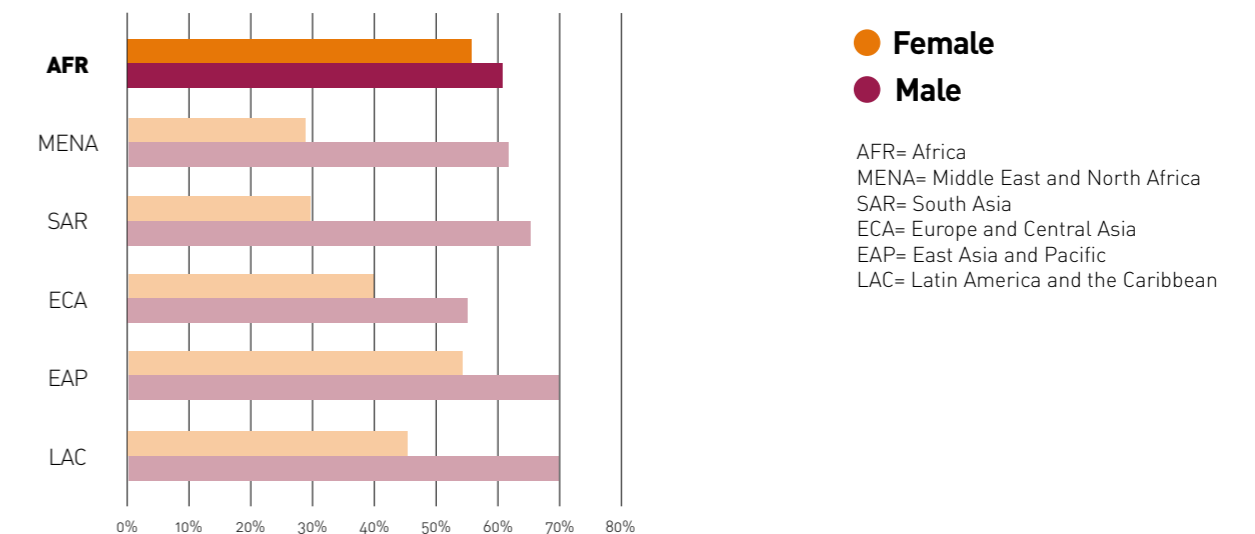
Female entrepreneurs in Africa can drive growth

Sub-Saharan Africa (referred to as Africa in this report) has already made significant progress in fostering the economic empowerment of women and girls. Women in Africa are more likely to be in the workforce than is the case in any other region in the developing world (Figure 3). Half of Africa's working women are active in the agricultural sector, 38% work in identified non-agriculture sectors, and the remainder are in undefined sectors or unemployed.

Figure 3

Women in Africa more likely to be in labor force than women in other regions

Labor force participation by region



Source: Authors using household surveys.

Women's strong non-agricultural labor-force participation rate is driven in large part by their participation in entrepreneurship. About 50% of the women who are in the labor force but not working in agriculture are entrepreneurs. Africa is the only region where women are more likely to be self-employed than men. In non-agricultural sectors, 58% of the self-employed are women, and 45% of employers are women, the highest rate alongside Europe and Central Asia.

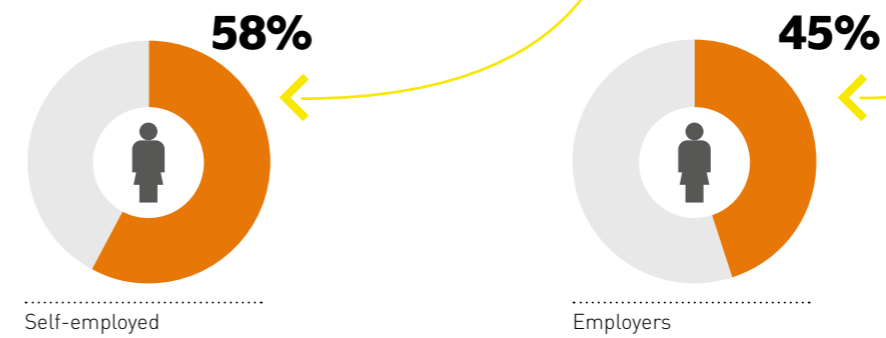
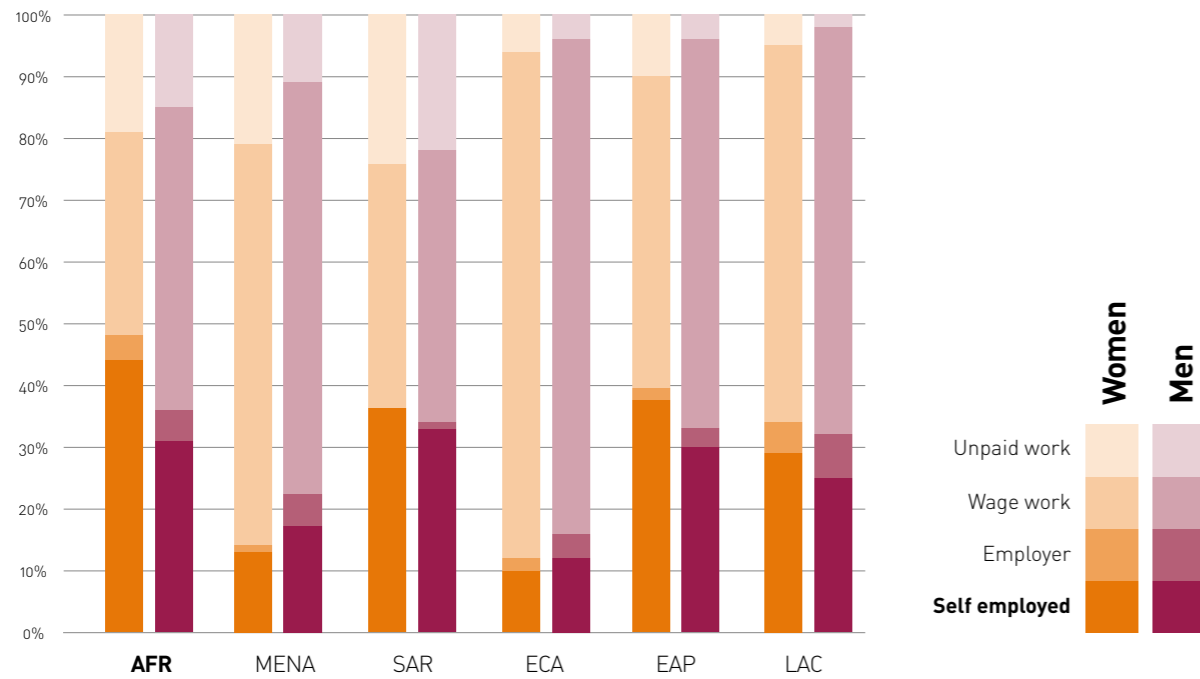


Figure 4

Women in Africa more likely than men to be entrepreneurs

Activity of non-agricultural labor force by gender and region



Source: Authors using household surveys.

Figure 4 shows the activity among those in the labor force: in Africa, 61% of men and 55% of women participate in the labor force. Taking into account this difference, women are still more likely than men to be entrepreneurs in Africa.

AFR= Africa
 MENA= Middle East and North Africa
 SAR= South Asia
 ECA= Europe and Central Asia
 EAP= East Asia and Pacific
 LAC= Latin America and the Caribbean

But gender gaps persist in business performance

While female entrepreneurs are already a vital and vibrant source of economic growth in Africa, prior research⁶⁰ and this report's analysis of data from enterprise, household and impact-evaluation studies demonstrate that they have yet to fully realize their tremendous potential. Compared to male-owned businesses, female-owned businesses have:

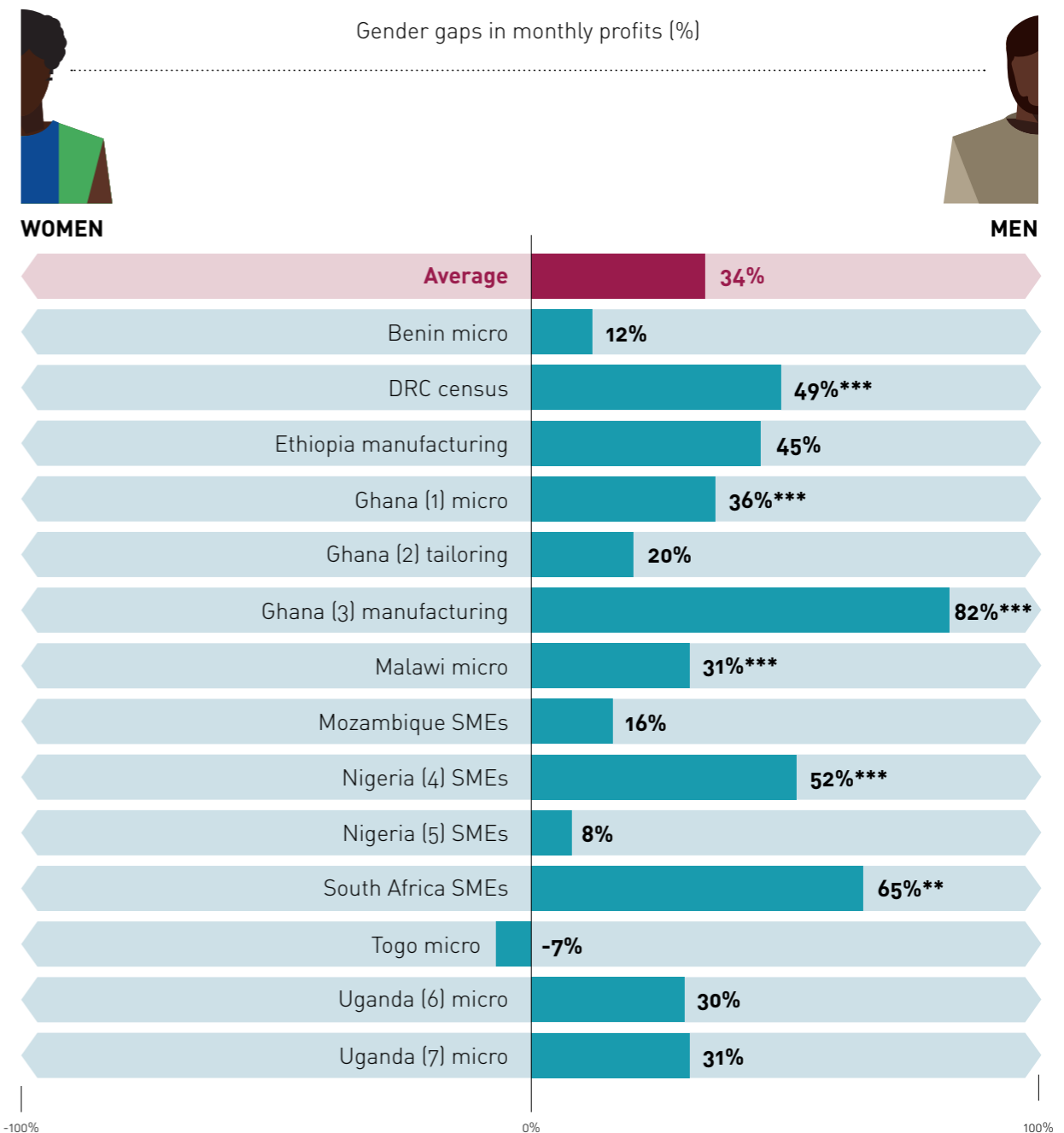
- **Lower profits.** In the datasets analyzed for different groups of entrepreneurs,⁶¹ firms⁶² run by women have profits that are on average 34% lower than those run by men (see Figure 5).⁶³
- **Fewer employees.** Firms with majority-female ownership account on average for 20% of firms in the formal economy with 10 or fewer employees, but only 10% of firms with 100 to 500 employees, and 7% of firms with more than 500 employees⁶⁴ (see Figure 6).

- **Lower average sales.** Average sales are 38% lower in female-owned formal firms than in male-owned formal firms.⁶⁵
- **Less value-added.**⁶⁶ Enterprises run by men add approximately 38% more value than those owned by women.⁶⁷

While these gender gaps vary widely across countries, female-owned businesses consistently perform worse than male-owned businesses (Figures 5 and 6).

Figure 5

Wide gender gap in monthly profits

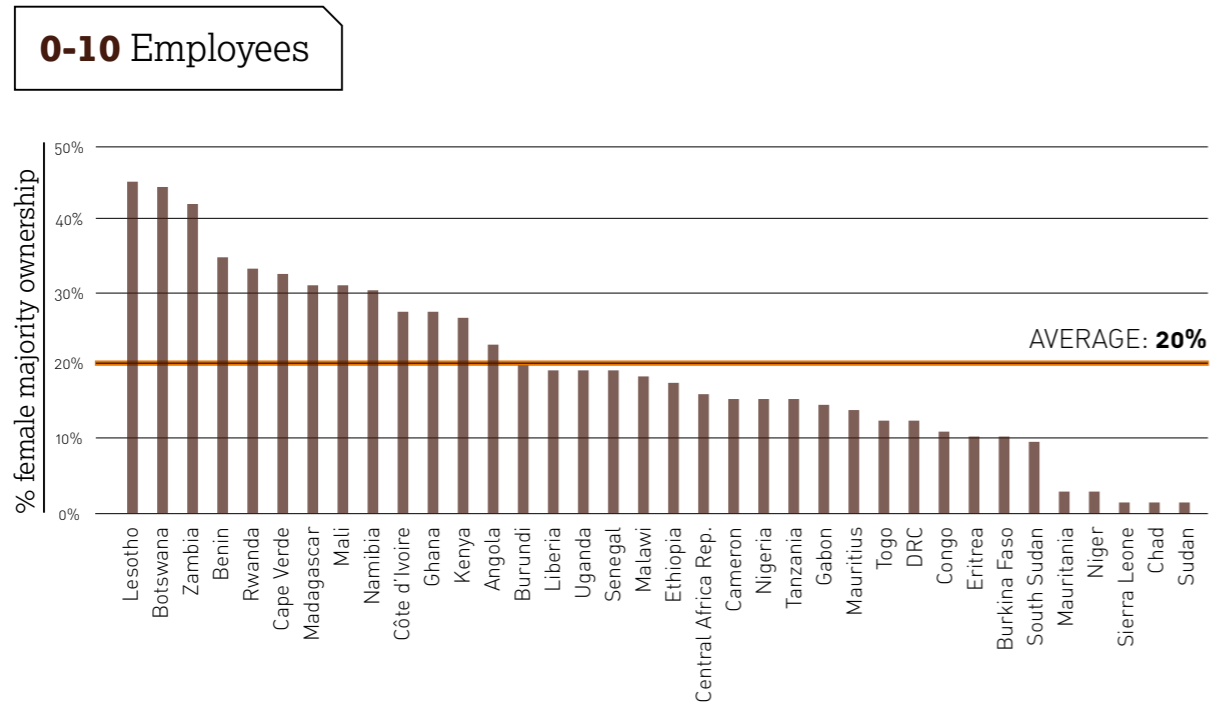


Source: Authors using IE database. Ghana (1): Grants for micro-enterprises survey; Ghana (2): Tailoring survey; Ghana (3): Enterprise Census; Nigeria (4): Growth and employment survey; Nigeria (5): Business plan competition survey; Uganda (6): Kassida survey; Uganda (7): Loans, grants, and training survey.

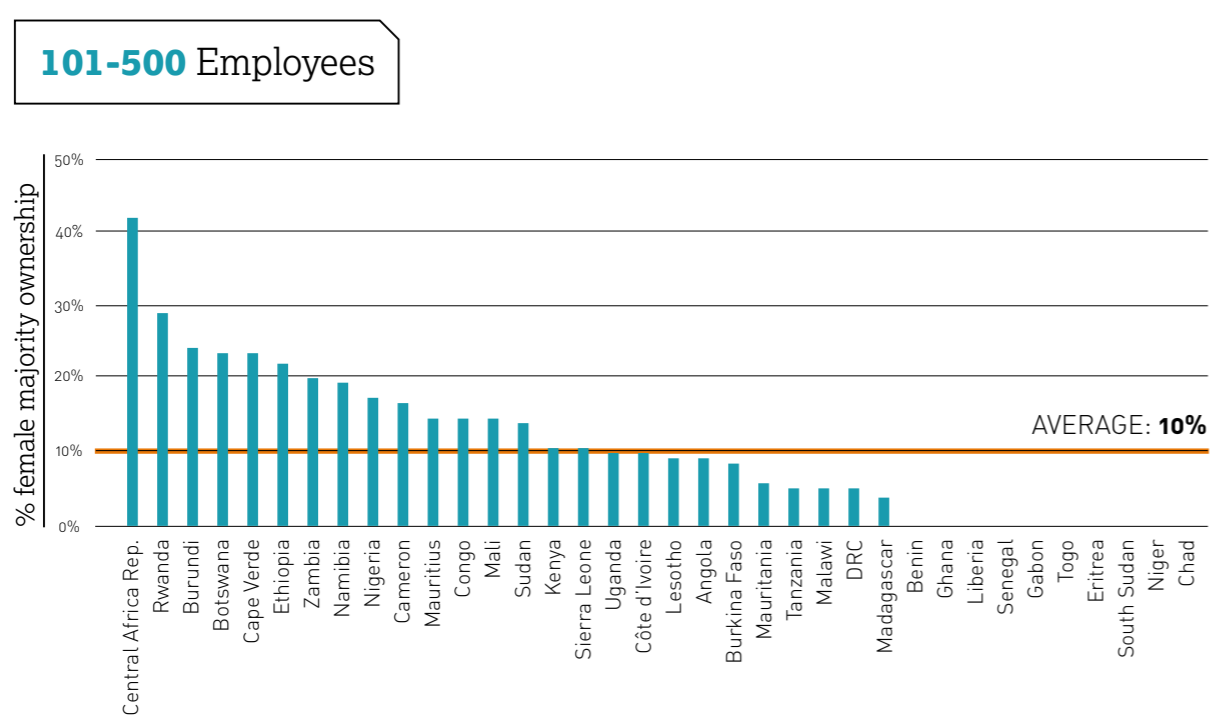
Figure 6

Average number of employees in Female-owned businesses

Proportion of firms with female majority among those with 0-10 employees



Proportion of firms with female majority among those with 101-500 employees



Source: Authors using ES database.

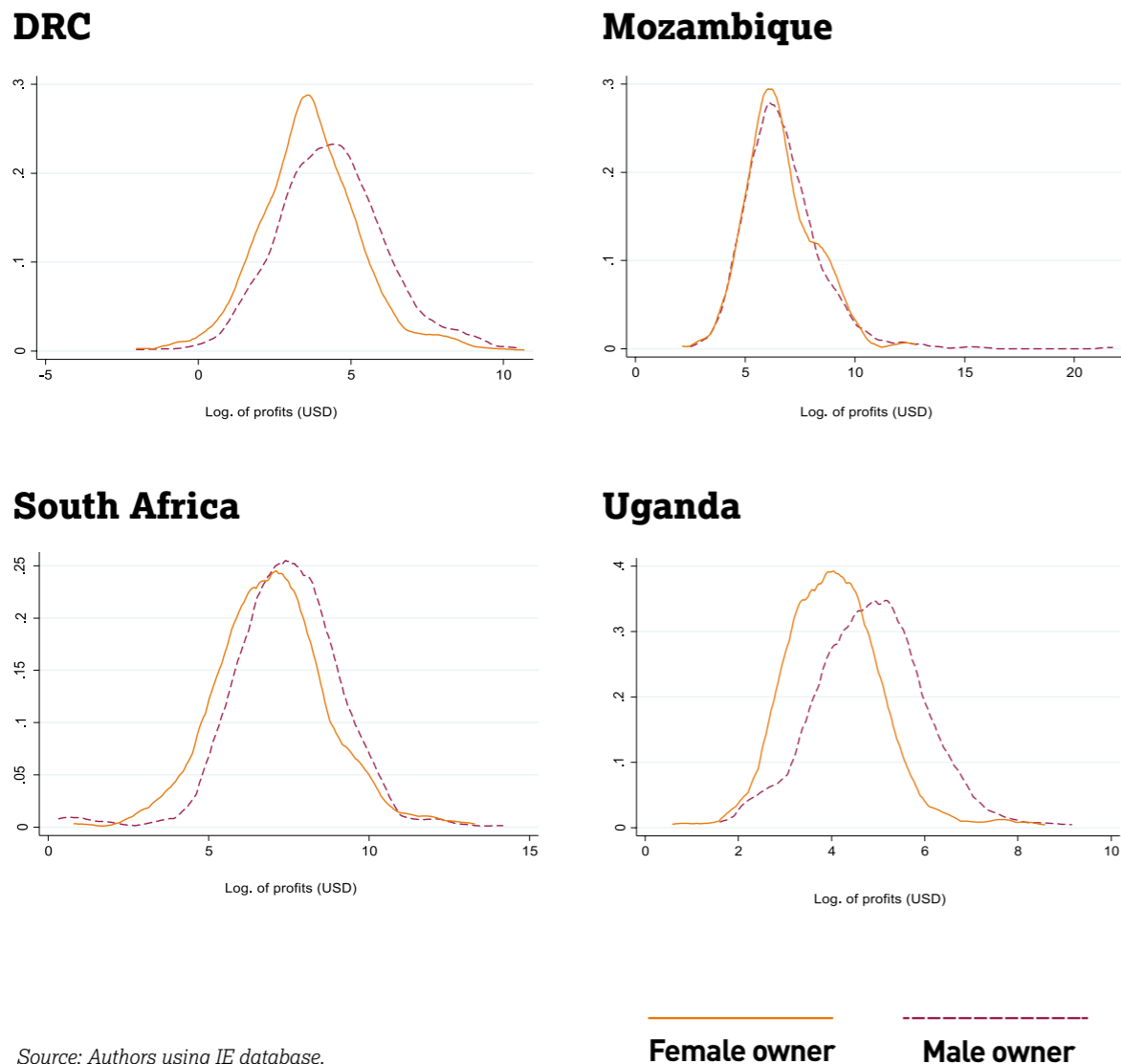


Despite these average differences in business size and performance, a number of individual enterprises owned by women perform as well as those owned by men. Some do better than many of those owned by men. There is some overlap in the distribution of profits (Figure 7). But the gender gap in profits is persistent across the profit distribution (Figure 8). Similar patterns occur for other measures of business performance.

Thus, the main question is how to bring more female-owned enterprises to the level of performance of male-owned firms. If women and more generally Africa are to profit from parity, policies need to be well designed to eliminate the gender gaps currently affecting the various levels of business development and types of firms.

Figure 7

Partial overlap in distribution of profits by gender⁶⁸

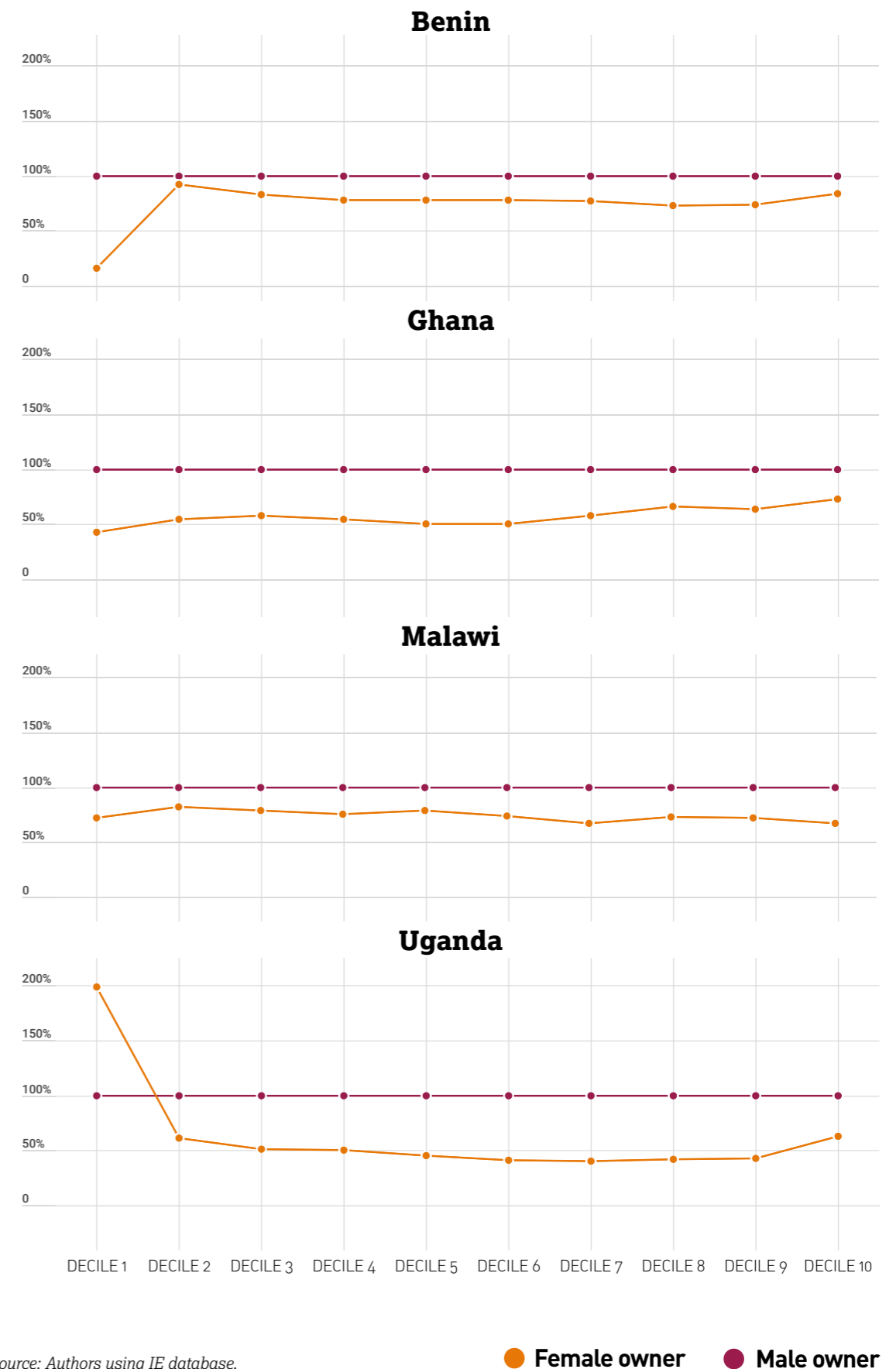


Source: Authors using IE database.

Figure 8

The gender gap in profits is persistent across profit distributions⁶⁹

Female-owner average profits per decile as % of male-owner profits:



Source: Authors using IE database.

Understanding how to close the gap

For countries seeking to harness female entrepreneurs' full potential, the central question is why female-owned businesses lag behind male-owned firms.

First and foremost, the pool of women and men who end up owning businesses may be different. Women in Africa face disadvantages as they seek to enter the labor market.⁷⁰ Their choice to have a business instead of engaging in wage work is influenced by important factors such as differences in skills, capital availability, networks, time availability and family duties, constraints on occupational choices, and safety.⁷¹

It is important to note that if women face greater limitations than men in regards to alternative job opportunities, this can lead to a relatively higher share of women engaging in self-employment which can in turn have an effect on their relative options. Recent evidence from Ghana suggests that self-employed women operate in more crowded markets than do self-employed men.⁷² Women compete with a relatively large number of other women in small markets typically consisting of mostly female clients.

Moreover, the pool of people who own businesses is influenced over time by imperfections in the labor market; this implies that women with comparatively fewer employment alternatives – that is, with limited access to wage-labor – are more likely to persist in operating subsistence-level businesses.⁷³ This has additional implications with regard to the type of women (relative to men) who own businesses at any given point.

While labor-force participation is not the focus of this report, expanding labor-market opportunities beyond small-scale entrepreneurship could potentially help women in self-employment. However, given Africa's fast-growing young population,⁷⁴ this appears to be a challenging prospect in the short to medium term. If anything, women who are not at the bottom of the pyramid may be able to find first wage jobs, which could potentially even increase

the gender gap in business performance in the interim.

In that vein, this report investigates the status of existing businesses – a sector that is likely to continue to exist in Africa in the absence of alternative labor-market opportunities – and examines how female entrepreneurs systematically make or are obliged to make strategic decisions that contribute to the comparatively lower performance of their businesses. Women overwhelmingly choose to enter sectors with constrained growth opportunities,⁷⁵ have lower levels of available assets and capital to invest into their businesses⁷⁶ than men, and show less willingness to compete.⁷⁷ They also are more likely than men to operate in the informal economy,⁷⁸ and less likely to adopt advanced business practices.⁷⁹

This report argues that female entrepreneurs make different business decisions than men because they are constrained by gender-specific factors that influence their strategic decisions and hinder the growth of their businesses.

These underlying constraints are related to the contexts in which these firms operate, the endowments possessed by female entrepreneurs, and additional household-level factors. Understanding how these constraints influence female entrepreneurs' strategic decisions is key to developing effective policies and interventions to improve their business performance. To date, there have been relatively few evidence-based solutions aimed at closing the gender gap in business performance.

What to expect from this report

This report focuses on gender gaps displayed by existing non-farm enterprises in Africa. It does not address the agriculture sector. Moreover, it does not focus per se on labor-market participation, including the broad area of youth employment, or why women and men choose to enter into entrepreneurship versus wage employment versus household work. It does not concentrate on livelihood programs or graduation policies. It does not make a detailed study of property rights, or of land and financial assets beyond the finance provided to businesses. These are separate areas of study pursued by the World Bank Africa Gender Innovation Lab and other researchers. However, as these areas are connected with enterprise development, they will be referenced when applicable in the report.

This report updates previous regional and cross-regional analyses of gender differences in firm ownership participation and performance, and analyzes new data collected from impact evaluations and other research studies. It analyzes the main contributors to the gaps in business performance. It then outlines the decisions and constraints facing female entrepreneurs and provides action-oriented recommendations for removing barriers and allowing female entrepreneurs to become more powerful drivers of economic growth.

Part 1 provides a profile of female entrepreneurs in Africa using demographic data.

Part 2 presents an analysis of the main factors observed to contribute to gender differences in business performance.

Part 3 presents an overarching blueprint indicating how women's strategic decisions and underlying constraints impact their performance as entrepreneurs. It then presents a detailed analysis of these decisions and constraints, with the goal of understanding how different factors affect the size of the gender gap in business performance.

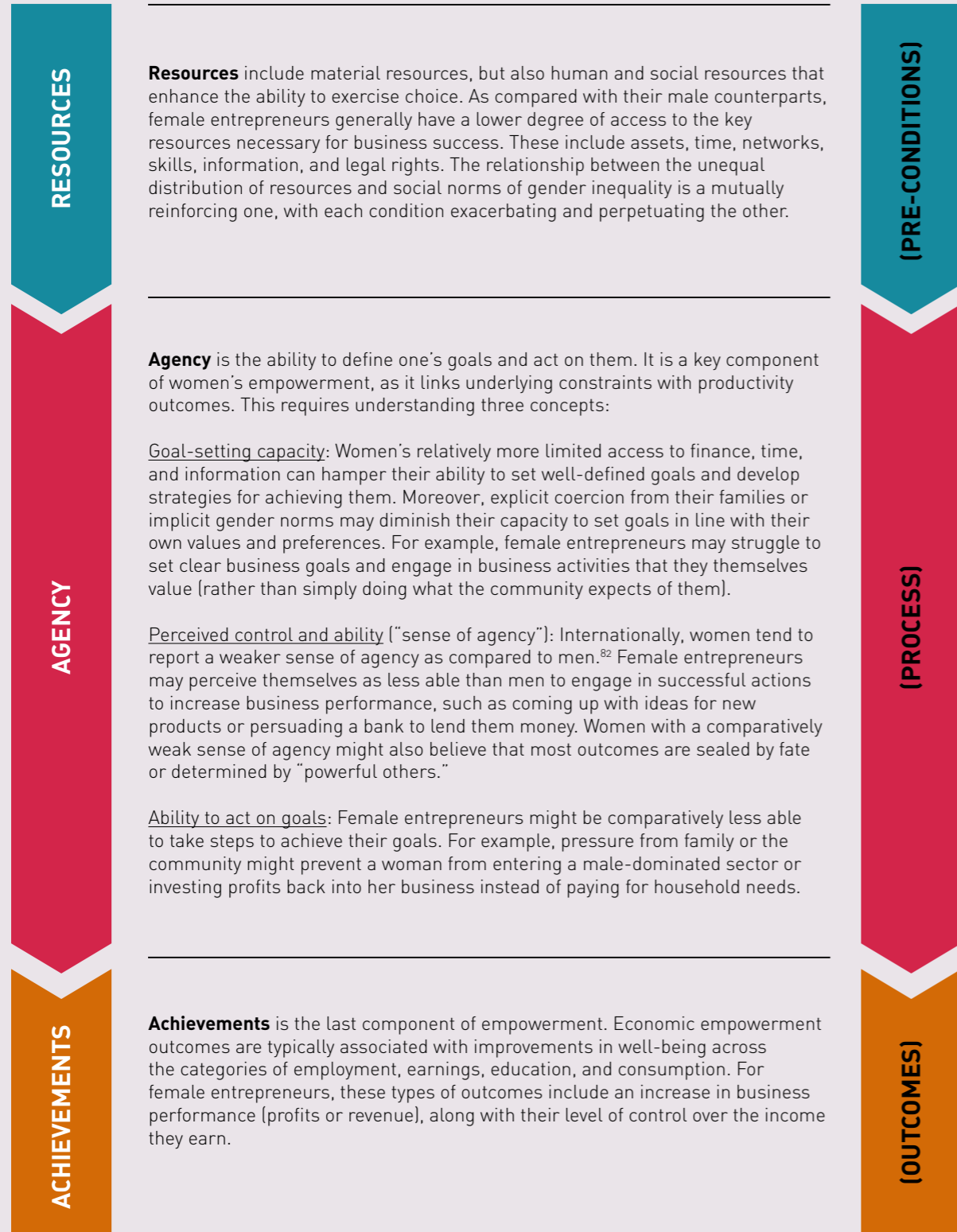
Part 4 presents deep dive analyses focusing specifically on three of the constraints for which research is currently weakest.

Finally, **Part 5** provides an overview of the evidence to date regarding what has been successful in eliminating the constraints facing female entrepreneurs, and in helping them improve the performance of their businesses. It analyzes opportunities for the World Bank Group and other actors to adapt efforts to support female entrepreneurs so as to better align programming with the research on the decisions and constraints presented in this report. It also describes areas where evidence gaps remain, and where more analytical work is required.

Closing the gender gap in business performance requires knowledge, innovation, and investment. Although many countries and the development community have mobilized in support of women's economic empowerment, investing in gender equality within the financial and productive sectors lags behind other priorities.⁸⁰ African countries can show global leadership by making gender equality in enterprise development a priority. The challenges faced by female entrepreneurs in Africa are shared by women throughout the world. By promoting evidence-based policymaking and designing new solutions to support female entrepreneurs, countries in Africa have a rare and unique opportunity to provide a model for unleashing women's unmet potential worldwide.

Entrepreneurship and women's economic empowerment

Women's empowerment is the increased opportunity for women to make strategic life choices where such choices were previously denied to them.⁸¹ Economic empowerment is about expanding a woman's ability to make decisions and achieve outcomes important to her in the economic sphere. There are three central components of empowerment: resources, agency, and achievements.



Resources include material resources, but also human and social resources that enhance the ability to exercise choice. As compared with their male counterparts, female entrepreneurs generally have a lower degree of access to the key resources necessary for business success. These include assets, time, networks, skills, information, and legal rights. The relationship between the unequal distribution of resources and social norms of gender inequality is a mutually reinforcing one, with each condition exacerbating and perpetuating the other.

Agency is the ability to define one's goals and act on them. It is a key component of women's empowerment, as it links underlying constraints with productivity outcomes. This requires understanding three concepts:

Goal-setting capacity: Women's relatively more limited access to finance, time, and information can hamper their ability to set well-defined goals and develop strategies for achieving them. Moreover, explicit coercion from their families or implicit gender norms may diminish their capacity to set goals in line with their own values and preferences. For example, female entrepreneurs may struggle to set clear business goals and engage in business activities that they themselves value (rather than simply doing what the community expects of them).

Perceived control and ability ("sense of agency"): Internationally, women tend to report a weaker sense of agency as compared to men.⁸² Female entrepreneurs may perceive themselves as less able than men to engage in successful actions to increase business performance, such as coming up with ideas for new products or persuading a bank to lend them money. Women with a comparatively weak sense of agency might also believe that most outcomes are sealed by fate or determined by "powerful others."

Ability to act on goals: Female entrepreneurs might be comparatively less able to take steps to achieve their goals. For example, pressure from family or the community might prevent a woman from entering a male-dominated sector or investing profits back into her business instead of paying for household needs.

Achievements is the last component of empowerment. Economic empowerment outcomes are typically associated with improvements in well-being across the categories of employment, earnings, education, and consumption. For female entrepreneurs, these types of outcomes include an increase in business performance (profits or revenue), along with their level of control over the income they earn.

Understanding the data

A wealth of new, high-quality household and firm-level data allows this report to paint a more detailed picture of female entrepreneurs and their constraints to growth and profitability. Specifically, this report draws on three types of data: enterprise surveys, household surveys, and impact-evaluation surveys. Appendix 2 describes the datasets used in the report. When combined, these datasets provide rich data on female entrepreneurs and their firms. Due to differing methodologies, these surveys may sometimes reach divergent answers to the same question, such as "What percentage of female entrepreneurs are literate?" Below is an explanation of the types of surveys, their advantages and their limitations:

Enterprise surveys:

The World Bank Group's Enterprise Surveys, which are firm-level surveys of a representative sample of an economy's private sector, can be used to assess firm characteristics and gender gaps in firm revenues. However, they have important limitations with regard to analyzing female entrepreneurs in Africa. First, because they are designed to survey formal firms with five or more full-time employees, and because female-led firms are on average smaller than male-led firms, these surveys might underrepresent female-owned firms. As a result, the 36 country-level Enterprise Surveys have been supplemented in some countries with additional surveys focusing on micro-firms with fewer than five employees (11 countries) and/or informal firms (13 countries). Second, these surveys do not provide a detailed breakdown of female ownership and control of firms. Therefore, female control over assets and decision-making is not typically captured in their data. Finally, low response rates to some questions can undermine the quality of the analysis of the gender gap in performance.

Household surveys:

A household survey is any survey administered at the household level. This report uses 38 nationally representative household surveys from the International Income Distribution Database (I2D2), which includes modules on labor-force participation. These include data collected through the World Bank Living Standard Measurement Studies (LSMS), considered the "gold standard" for multi-topic surveys in developing countries, as well as other household surveys. While these surveys provide important data – including some information on the occupation of all household members – they have some limitations with regard to the analyses pursued by this report. Specifically, they lack deep firm-level data, and focus on household enterprises rather than corporations (e.g., foreign companies with no domestic ownership are not captured). Given their sampling methodology, they often over-represent the smallest of the firms, without fully capturing businesses with a fixed location in non-residential areas.

Impact-evaluation surveys:

Several experimental studies assessing the effectiveness of specific enterprise-development policies and interventions have been conducted in African countries in recent years. The resulting database⁸³ (referred to in this report as the "IE database") includes surveys conducted by researchers from the World Bank's Africa Gender Innovation Lab; the Finance, Competitiveness and Innovation Global Practice; and the Development Research Group, as well as various academics. Appendix 2 describes these datasets. While the samples are not nationally representative and their structure varies (e.g., not all samples include male-owned firms), the types of firms included in these experimental studies capture the full range of women's entrepreneurship activities. The surveys provide a depth of information about entrepreneurs and their businesses that is typically lacking in standard enterprise and household surveys – thus making it possible to measure gender gaps in performance in a rigorous way. Moreover, these surveys include richer measures of performance, firm capabilities, skills, informal access to finance, networks, and women's economic empowerment than have previous investigations.

Table 3

Impact-evaluation and household surveys sample of different entrepreneurs

Average from Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Nigeria, Togo, and Uganda

Variables	Female entrepreneurs			Male entrepreneurs		
	Impact evaluation surveys	Household surveys	Difference	Impact evaluation surveys	Household surveys	Difference
INDIVIDUAL CHARACTERISTICS						
Age	37.9	39.8	-1.9	35.9	40.7	-4.8
Married	66.4	72.2	-5.8	66.9	76.5	-9.6
Ever attended school	97.1	65.8	31.3**	97.4	83.1	14.3
Literate	90.9	55.1	35.9***	95.3	75.7	19.6
Years of education	10.4	4.8	5.7*	9.6	6.3	3.3
LOCATION CHARACTERISTICS						
Owns house or space of business	33.9	72.4	-38.5***	29.8	75.6	-45.8***
Water	20.5	8.5	12.1	21.2	8.1	13.1
Electricity	35.7	47.0	-11.3	55.0	39.2	15.8
Phone available	9.1	0.3	8.9***	14.4	0.4	14.1***
Cell phone	86.6	68.0	18.7	89.5	60.1	29.3
Computer available	31.2	5.9	25.3	45.8	4.9	40.9***
LABOR CHARACTERISTICS						
Hours worked last week	64.7	40.0	24.7***	58.4	41.3	17.0**

Source: Authors using impact-evaluation and household surveys.

This report seeks to present the evidence in clear and understandable terms, while acknowledging and reflecting on complexity where it exists. If possible, it presents the best available single data point in the main text and in infographics. This may be the average or median across several surveys, the figure provided by the impact-evaluation surveys, or the data provided by the only available source. In some cases, the difference between the surveys is illustrative, and the implications are addressed within the report. Wherever necessary, endnotes provide additional context on what the data show and how the report makes use of it.



At a glance: Quantitative methods used

This report employs a combination of quantitative methods, including summary descriptive analysis, regression analysis, and Oaxaca-Blinder decomposition, to better understand the drivers behind gender gaps in entrepreneurship across Africa. The report also uses qualitative assessments, mixed-methods and laboratory experiments to study specific aspects of interest. Within each section, the report provides a summary of the specific method used for that analysis.

Oaxaca-Blinder decomposition analysis.

The main decomposition analysis is run for 10 countries using 14 datasets from the IE database. Surveys were carried out between 2003 and 2016, with the large majority carried out in the last five years. See [Box 5](#) and [Appendix 1](#) for more information.

Assessing the productivity gap between firms with male and female owners.

The logarithm of monthly firm profits is used as a proxy for productivity. All datasets have some information about firm-level profit. Some surveys directly ask for the previous month's profits.⁸⁴ In other cases,⁸⁵ the surveys record information about the firm's revenues and costs, allowing for a calculation of profits by subtracting total costs (both direct and indirect) from total revenues.

Testing for the robustness of findings.

When negative profits are common, additional measures of productivity are used, including the inverse hyperbolic sine transformation of monthly profits.⁸⁶ The analysis also considers the firm's value-added, which is the amount obtained by subtracting direct costs (costs of inputs, raw materials, and goods purchased for resale) from firm sales. In this case, the logarithm of the value-added instead of the logarithm of profits is used as a proxy measure. In general, the results are consistent and do not vary significantly from the analysis of monthly firm profits.

Analyzing the gender gap, step-by-step.

To analyze the gender gap, the analysis first uses a regression framework to test for a simple (unconditional) difference in monthly profits between male and female business owners. Conditional gender differences are examined by controlling for key firm-level factors (e.g., capital, labor, inputs), owner characteristics (e.g., age, education level), and other firm characteristics such as sector and business practices. The multivariate regression analysis allows an estimation of whether the gender difference in profits can be explained by the observable characteristics of the firm and the owner.

For specific datasets, an extended analysis that controls for additional firm-specific characteristics is conducted where data is available. This includes the owner's time and risk preferences, socio-emotional skills, place of business, spouse characteristics, household relationships, and market structure, among other items. The full set of variables included in the extended analysis varies based on the information available for each country.

01

Who is a female entrepreneur in Africa?

Whether driven by economic opportunity or acting out of necessity, selling food in rural areas or running shops in urban centers, women business owners are a visible force across Africa. This section provides a snapshot of these women, their businesses, and how they compare to male entrepreneurs.



Profile

In the datasets analyzed for this report, the typical female entrepreneur is 37 years old, married or living with a partner, with low levels of education.

About 71% of female entrepreneurs have completed primary school, 30% have finished secondary school, and only 9% have completed higher education. Schooling differences between female and male entrepreneurs are significant at the highest levels: 40% of male business owners have completed secondary school and 12% have finished tertiary education.

Male business owners are more likely than female entrepreneurs to be considered the main provider of the household. About 91% of male business owners consider themselves to be the main household providers, compared to 69% of female business owners. It is possible that male entrepreneurs overestimate their income's importance when their wives also run businesses and hide their returns. Female entrepreneurs are more likely to have a spouse who is a salaried worker – 30% versus 5% for male entrepreneurs.

Nonetheless, women's business income is a critical source of household earnings. In Kenya, firm-level profits earned by female entrepreneurs represent on average 65% of their household income. In Ghana, women micro-entrepreneurs' profits account for 33% of the household expenditures.⁸⁸ In Malawi, 38% of the money earned by women's businesses goes toward daily household expenses.

Figure 9

Profiles of African women as entrepreneurs vary across countries



Source: Authors using IE database.
 Ghana (1): Grants for micro-enterprises survey; Ghana (2): Tailoring survey;
 Ghana (3): Enterprise Census; Nigeria (4): Growth and employment survey;
 Nigeria (5): Business plan competition survey; Uganda (6): Kassida survey;
 Uganda (7): Loans, grants, and training survey.

Average

Business Profile

Among the firms analyzed, the typical entrepreneur launched her or his own business and has been operating for approximately 10 years, with female-owned businesses on average one year younger than those owned by men.⁸⁹ About 27% of women business owners report having a mother who runs (or ran) a business, compared with 18% of the male business owners.

Business is a full-time job for female entrepreneurs in Africa, who work on average 22 days per month.⁹⁰ The typical woman-owned enterprise has only two workers, compared with four workers for male-owned businesses.⁹¹

Women and men tend to run different types of business. For example, while most female entrepreneurs operate in the retail sector, male entrepreneurs are more likely to be in manufacturing. Women are also less likely than men to run enterprises with access to electricity.⁹²

Female-owned businesses in Africa have low levels of capital investment. One in five female entrepreneurs own their place of business.⁹³ The capital-stock value of male-owned firms is typically six times larger than that of female-owned firms.⁹⁴

Female and male entrepreneurs vary in their use of and access to financial services. About half of female business owners have a bank account, compared to 59% of male business owners.⁹⁵ Female entrepreneurs are less likely than male entrepreneurs to have financial accounts (50% vs. 63%). There is a great variation in access to loans across the datasets analyzed. For instance, in the case of the Democratic Republic of Congo (DRC), 11% of female owners have borrowed in the past, while this proportion climbs to 74% in Togo.⁹⁶

Impact

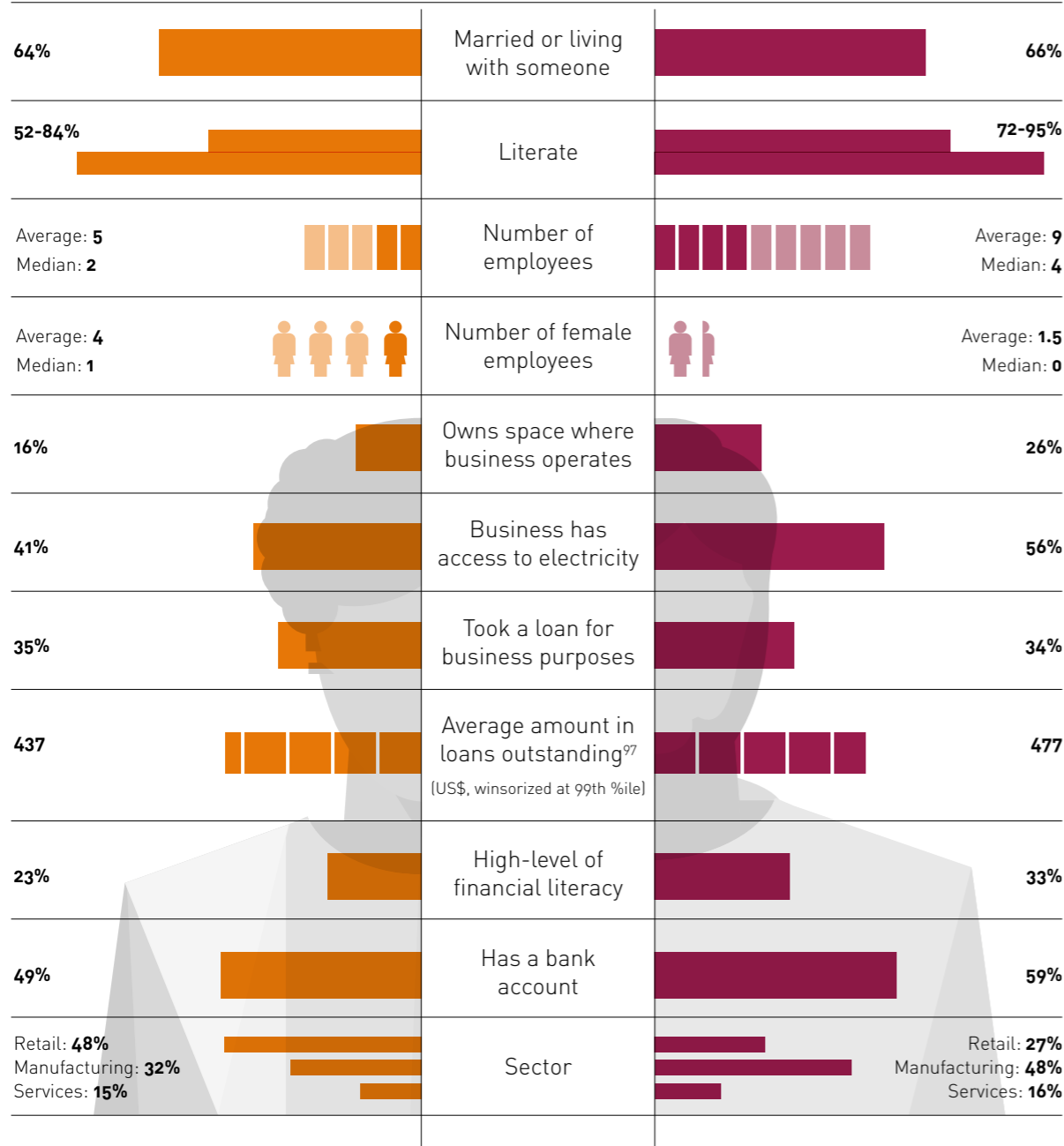
Female entrepreneurs are much more likely than male entrepreneurs to employ women, suggesting that they can be a catalyst for bringing more women into the workforce. About 75% of the workers in female-owned enterprises are women (when excluding the business owner), while in male-owned businesses, only 20% of employees are women. This difference stays this large even after controlling for the sector of operations.

Figure 10

Female and male entrepreneurs in Africa: How do they differ?

WOMEN

MEN



Note: All statistics were obtained from the impact-evaluation surveys except for literacy rates, where two figures are presented: one based on impact-evaluation surveys and the other on household surveys: 52% of female owners and 72% of men are on average literate based on the household surveys; these proportions rise to 84% for women and 95% for men when using impact-evaluation surveys.

Source: Authors using impact-evaluation and household surveys.

Profiles of female entrepreneurs



Sewasew Hailu

As a little girl, Sewasew Hailu's grandmother taught her how to make handicrafts. This experience sparked a lifelong passion and led to a profession in fashion design. Now a shop owner and clothing designer at 39, Sewasew is part of a growing fashion industry in Addis Ababa, Ethiopia. Over the last seven years, she has built up her business, winning over loyal customers from other African countries and from Europe who come to her for their wedding dresses, suits, and graduation outfits. Together with her five employees, Sewasew produces all the clothing by hand in her Addis Ababa shop. Despite this success, Sewasew faces ongoing challenges as a divorced, single mother of three. In particular, collateral requirements have prevented her from getting enough financing to grow her business further.



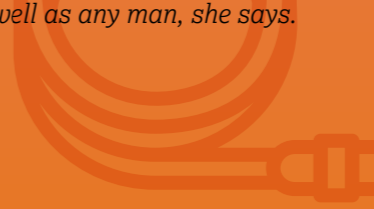
Betty Ajio

Betty Ajio, 43, pours molten metal into dirt-covered molds to make cooking pots in the Kisenyi slum of Kampala, Uganda. She makes 120 to 230 pots a day as part of a sweltering, open-air production line. Preparing the molds requires a lot of shoveling, and this physically demanding work is typically done by men, but Betty is proud of her job. A metal fabricator for 23 years, she was encouraged by her father to get into the business to improve her earning potential. Today, the mother of seven has four employees and makes enough money to support a nine-person household and pay school fees. She says she would not trade this work for an easier but lower-paying job, and believes other women should learn the trade.



Merharriet Hailemariam

Merharriet Hailemariam, 26, originally studied to be a journalist, but today she is an electrician working at a 200-acre condominium development outside of Addis Ababa, Ethiopia. Merharriet switched professions when she learned she could earn more money as an electrician, and convinced two sisters and two friends to follow her example. Now she would like to pursue a degree in construction technology and management. Merharriet says it is better to be an entrepreneur than to work as an employee of an organization. Although there is a lot of opportunity for women in construction, few women work in the field due to stereotypes regarding gender roles. Many people think the construction sector is only for men; but women can install electric wiring as well as any man, she says.



02

Gender gap explained

This section seeks first to quantify the extent of the gender gap in profits and then to pinpoint the main contributors to the gender gap in each country. Later sections will then seek to understand what gives rise to the differences between female- and male-owned businesses.

First take: How large is the gender gap?

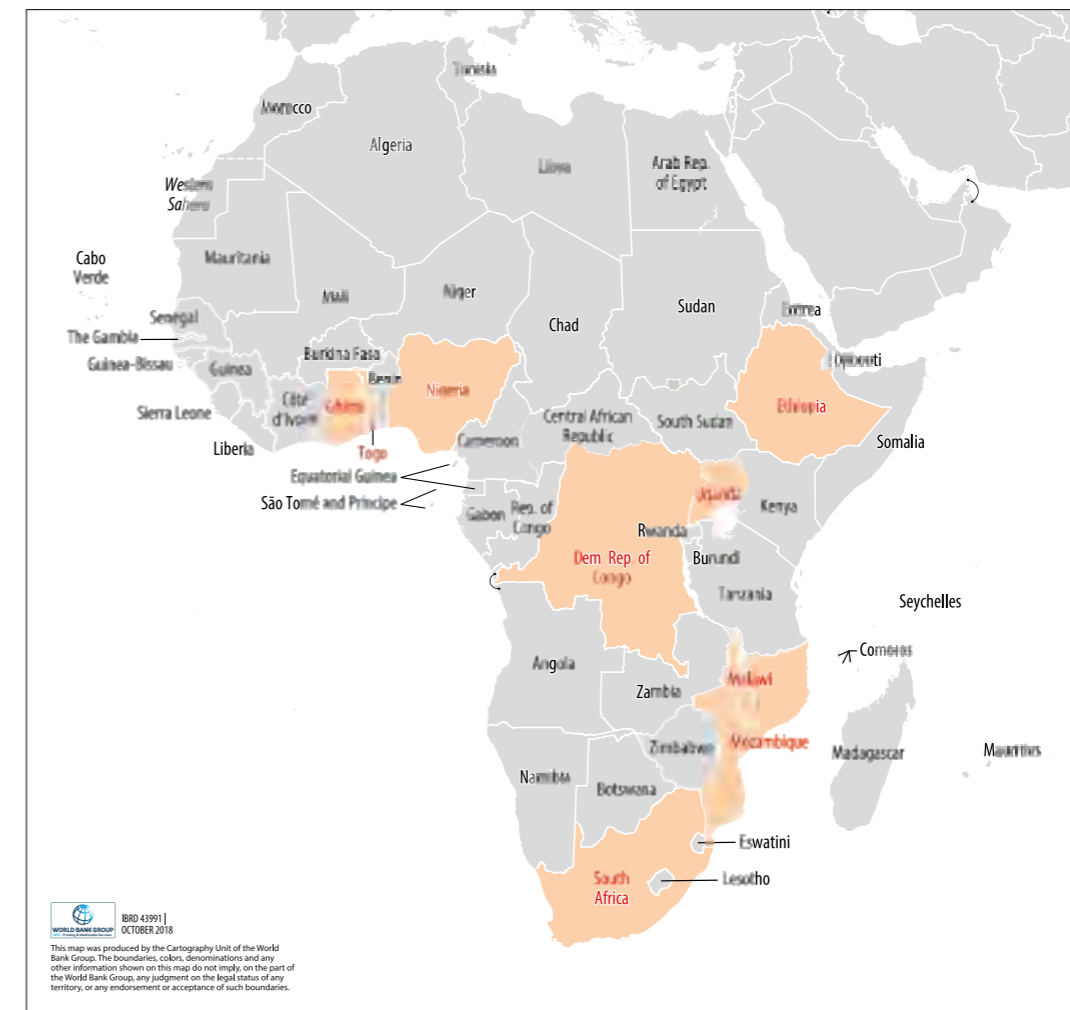
Methodology

This analysis draws on data from 14 impact-evaluation datasets from 10 countries in Africa. These countries represent more than 55% of sub-Saharan Africa's population and West, East, Central and Southern Africa – Benin, the Democratic Republic of Congo, Ethiopia, Ghana, Malawi, Mozambique, Nigeria, South Africa, Togo, and Uganda.⁹⁸ Controlling for potential core differences in individual, firm and sector characteristics allows for an “apples-to-apples” comparison of the gender gap across contexts. The core set of factors includes:

- Firm characteristics: labor,⁹⁹ capital stock,¹⁰⁰ business practices,¹⁰¹ formalization,¹⁰² innovation, financial services,¹⁰³ firm has a loan, firm has at least one additional worker, and sector.
- Owner characteristics: age, tenure,¹⁰⁴ marital status, household size, number of children per adult, and education.

Figure 11

Map of Africa with 10 countries used in impact-evaluation analysis



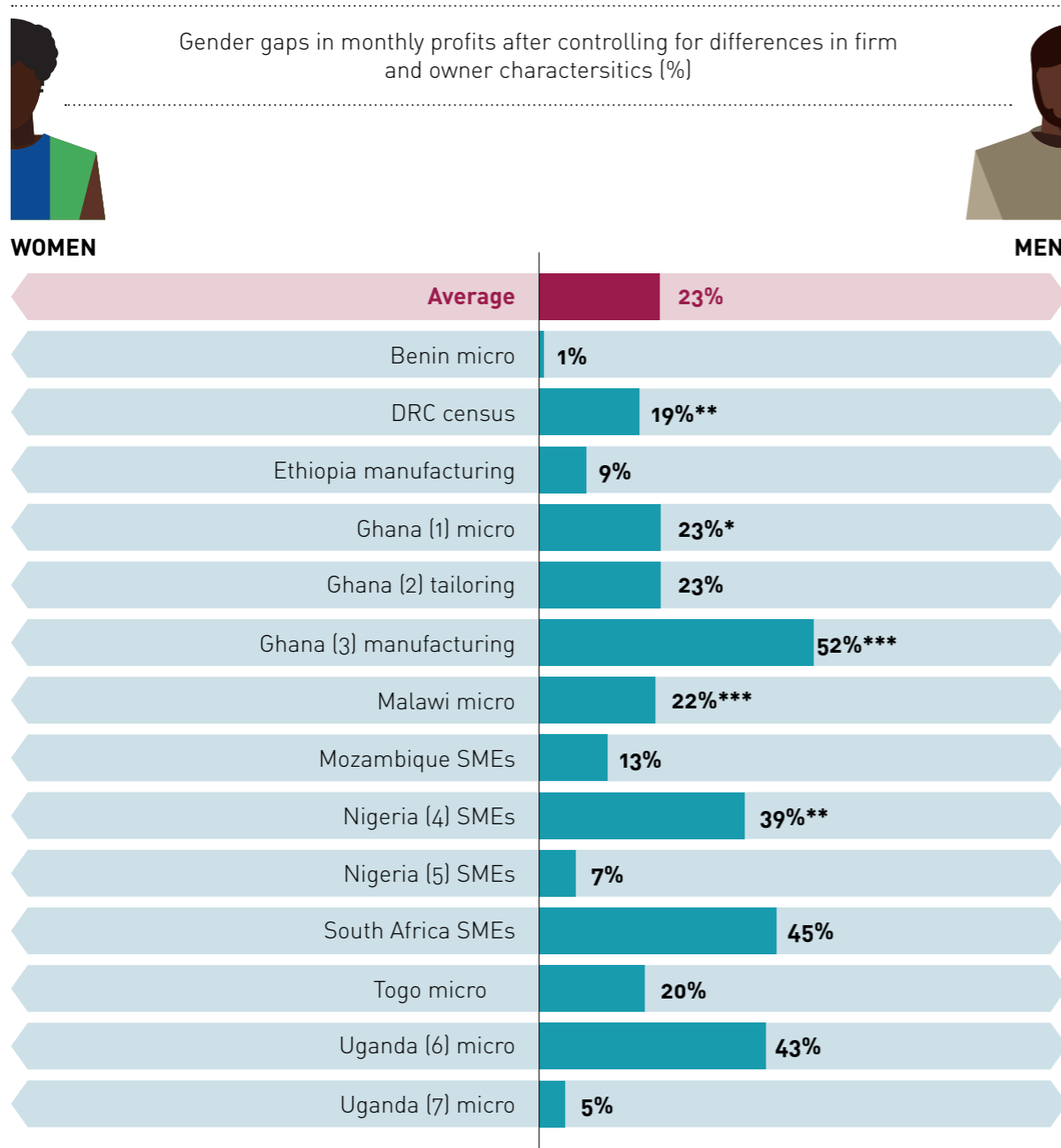
Source: Authors / World Bank Group cartography unit.

■ Key finding

As presented in [Figure 1](#), the unconditional gender profit gap is 34% for the datasets analyzed. Profits in female-owned firms are on average 23% lower than in male-owned firms, after accounting for the core differences ([Figure 12](#)).¹⁰⁵ The gender gaps in business profits range from 1% in Benin to 52% in the manufacturing census from Ghana, when accounting for firm and owner characteristics.¹⁰⁶ Differences in firm and individual characteristics account for about one-third of the gender gap in business performance – which suggests that much of the gap cannot be explained just by these core differences.

Figure 12

Gender gap in profits after controlling for key factors is wide on average, but varies across countries



Source: Authors using IE database.

Note: Ghana (1): Grants for micro-enterprises survey; Ghana (2): Tailoring survey; Ghana (3): Enterprise census; Nigeria (1): Growth and employment survey; Nigeria (2): Business plan competition survey; Uganda (1): Kassida survey; Uganda (2): Loans, grants, and training survey.

Looking deeper: What is driving the gender gap?

■ Methodology

To further understand the factors that help explain the gender gap in productivity among those with existing enterprises, an Oaxaca-Blinder decomposition approach is used. This tool allows researchers to predict the main contributors to the gender gap in each country (see [Box 5](#) and [Appendix 1](#) for an explanation of the methodology). While the decomposition does not allow for a causal explanation of the differences in business performance, the method helps illuminate the answers to key questions:

- Is the gender gap in profits associated with:
 - Differences in quantity (or levels) of resources used by male and female entrepreneurs, or,
 - Differences in returns to those factors and resources used by male and female entrepreneurs

This quantitative analysis is an important starting point in assessing the factors that help explain the gender gaps in business performance. The analysis is relevant for structuring this report's proposed blueprint of constraints impacting choices women make when operating a business in Africa.

On average, 41% of the gender gaps in business profits can be explained with the Oaxaca-Blinder decomposition and the set of control variables available.¹⁰⁷ The unexplained parts of the gender gaps in business performance can to some extent be a reflection of measurement issues, particularly of underlying factors that are not well captured in firm-level surveys (e.g., social norms, intra-household dynamics, confidence, etc.). In addition, they may also reflect the lower level of demand for female-owned businesses' products and services. Other studies have shown that the gender gaps in business performance are often not explained by extensive firm- and owner-level characteristics.¹⁰⁸

Oaxaca-Blinder decomposition

This report uses a common method of breaking down the gender gap in business outcomes: the Oaxaca-Blinder decomposition. It allows a distinction to be made between two categories of factors: the **endowment effect** and the **structural effect**. While this method is widely used in labor economics, it is applied in a novel way in this report, shedding new light on the gender gap in African enterprise development.

- **The endowment effect**

refers to the portion of the gender gap that results from differences in the quantities or levels of resources used in running a business by male entrepreneurs as compared with female entrepreneurs. These resources include labor, capital, years of education, and so on. Although the differences

in endowments are at the margin also a response to the returns earned by firms at any given moment, the decomposition provides suggestive evidence that policymakers can help reduce the portion of the gender gap attributable to differences in quantity used by ensuring that women have the same amounts of these resources as men – i.e., in the form of more labor, expanded access to finance, more education, and so forth.

- **The structural effect** refers to the portion of the gender gap that is explained by differences between men and women with regard to the average returns to the resources used. For example, a male entrepreneur may achieve higher productivity from schooling than a female

entrepreneur, despite having the same level of education, or may obtain greater sales with the same amount of labor. It may be the case that men and women increase the level of their investments until they have equal marginal returns, or there may be differences in the treatment of men and women by formal and informal institutions, markets, programs, etc. Providing women with more resources may not necessarily reduce this structural-effect portion of the gender gap. Instead, policies may need to understand and target the constraints that contribute to these differences in returns.

[Appendix 1](#) provides further technical details on this methodology.

gains to female-owned enterprises – seems to be explained by the frequency with which those resources are diverted away from the female-owned business due to other household needs¹¹⁴ or other opportunities in the household such as the husband's business.¹¹⁵

Sector choice also contributes to the gap in some countries

In three countries, operating in male-dominated sectors or not helps explain the gender gap in business profits.¹¹⁶ Operating in a male-dominated sector is associated with a larger gender productivity gap in the Democratic Republic of Congo. In both Nigeria and Uganda, differences in returns between businesses operating in male-dominated sectors and those that do not contribute to explaining differences in business performance in one of two datasets for each country.

Business practices are an additional issue in some countries

Male entrepreneurs are more likely to adopt high-quality business practices (such as the use of advertising and financial record-keeping). The better business practices of male-owned enterprises are associated with widening the gender gap in four countries studied.

Evidence is mixed on whether business formalization contributes to the gender gap

In the Democratic Republic of Congo and Ghana, lower registration rates among female-owned businesses is associated with larger gender gaps. In Ghana, Nigeria, and South Africa formalization is associated with *reducing* the gender gap through differences in returns. In the Democratic Republic of Congo and South Africa, the fact that male-owned businesses are more likely to pay taxes is associated with the gap in productivity.

Gender differences in taking a loan do not contribute to the gap

The results also reveal that gender differences in having ever had a loan do *not* explain productivity gaps in any of the studies analyzed – a finding that runs counter to the typical narrative around female entrepreneurs. However, male entrepreneurs typically borrow higher amounts than female entrepreneurs – a factor that likely contributes to the large gaps in the measure of capital investment.

Other factors contribute to gap in isolated cases

In Nigeria and Ghana, male-owned firms benefit from higher returns to the entrepreneur's education than do female-owned firms, but in the remaining countries analyzed, the business owner's education level does not explain the gender gap in productivity. In Benin and Togo, female entrepreneurs tend to be younger than their male counterparts. This age difference increases the gender profit gap, and this could be a proxy for overall experience. In Nigeria, female entrepreneurs derive lower returns than men from running their business for an extra year, which suggests that the gender gap widens as businesses age. In Malawi, women face structural disadvantages to entrepreneurship as they themselves age.

In addition to the core analysis, specific country factors available in individual datasets were studied (results not shown in [Figure 13](#)). These include analyses of a rich set of information on socio-emotional traits in Togo; various metrics of time and risk preferences and household control of assets in Ghana, Malawi, Mozambique, Nigeria, South Africa, and Uganda; and measures of competition in several countries. Most do not help explain the gender gap in productivity. Notable exceptions include differences in the level of domestic responsibilities in Malawi and Mozambique; differences in returns to firm competition in Nigeria and South Africa; and differences in the spouse's control of earnings in Togo.

■ Key findings

Female entrepreneurs use less capital and labor – A key factor in explaining the gender gap in business performance

Taken together, the results from the multi-country analysis point to two key factors behind the gender productivity gap in African entrepreneurship ([Figure 13](#)). First, compared to male entrepreneurs, female entrepreneurs have lower levels of capital – which includes inventory, equipment, property, and other firm assets. This gender difference in capital is associated with a wider productivity gap in half of the countries examined.¹⁰⁹ Second, female-owned businesses typically use less labor than male-owned ones. These gender differences in *quantities* are associated with men having higher profits than women. Although it may also be the case that male entrepreneurs use more capital and labor due to gender differences in returns to the initial units of investment, these findings seem to suggest policies aimed at providing women with the same amounts of investment resources as men.

Differences in returns to capital and labor are not associated with differences in business performance

In contrast, men- and female-owned businesses in most of the countries analyzed show similar average *returns* to capital and labor. One explanation for this finding is that male entrepreneurs use capital and labor until their marginal productivity reaches the same level as that of women. A separate way of interpreting this result is that when both men and women invest the same capital and labor resources (up to the current levels), women produce the same productive outcomes. Both interpretations accord with causal relationships identified in recent research where the value at the margin of providing large grants under a business plan competition leads women to perform at least as well as men.¹¹⁰ A similar effect is evident in the case of smaller grants allocated to existing businesses through in-kind capital infusions.¹¹¹ The evidence from microfinance¹¹² and small cash grants¹¹³ – which reveals limited to no

Figure 13

Factors contributing to Africa's productivity gap in entrepreneurship

Contributors to the gap in the mean logarithm of monthly profits based on the Oaxaca-Blinder decomposition analysis.

The factor significantly contributed to **reducing** the gender gap through differences in **quantities**

The factor significantly contributed to a **widening** of the gender gap through differences in **quantities**

The factor was included in the country analysis but did not affect the gender gap

The factor significantly contributed to **reducing** the gender gap differences in **returns**

The factor significantly contributed to a **widening** of the gender gap through differences in **returns**

The factor was not included in the analysis for that country

COUNTRY	SURVEY	FIRM'S CHARACTERISTICS										OWNER'S CHARACTERISTICS									
		Sector of activity significantly dominated by men		Labor			Firm capabilities		Formalization			Finances			Firm's age		Sociodemographic characteristics				
			Log of value of capital stock	Log of total hours of labor	At least one additional worker	Business practices score	Innovation	Business is registered	Firm pay license	Firm pay taxes	Business has a bank account	Business separates business money from HH	Took a loan for business (ever)	Firm's age	Owner's tenure	Owner age	Married	Household size	Children per adults	Education	
Benin	Entrepreneur Initiative		••		••								••		•						
DRC	National Household Survey	•••	••	•••		•••		•••		••											
Ethiopia	Enterprise Census		•••	•																	
Ghana	Grants for microenterprises					••															
Ghana	Tailoring Enterprises																			•••	
Ghana	Enterprise Census		•••	•				•••		••		•••									
Malawi	Business Registration Impact Evaluation		•••	••										•••	•		••				
Mozambique	Matching Grant Scheme for Business Performance				••																
Nigeria	Growth and Employment Survey	•		•••				•									••				
Nigeria	Business Plan Competition						••	••	••					•	••	••				•	
South Africa	Online Market Place							•		••		••							•		
Togo	Managerial Training for Formal and Informal Firms	•••	••	••		••									••						
Uganda	Kassida			••	•	•					•••										
Uganda	Loans, Grants, and Training Impact Evaluation Survey	•••	•	••		•															

Source: Authors using IE database.

Note: ••• p<0.01 •• p<0.05 • p<0.1



03

Decisions and constraints: A blueprint for closing the gender gap in entrepreneurship



The analysis in the last section provides an important starting point for policy action. But it does not fully explain the why behind the findings. Why do female entrepreneurs invest less than their male counterparts in capital and labor? Why are they operating in specific sectors? Why are they not borrowing the same amount as male entrepreneurs?



This section presents a new blueprint to help explain the factors that give rise to the gender gaps in productivity (Figure 14). Under this framework, gender differences in business outcomes are linked to gender differences in the strategic decisions that female and male entrepreneurs make in areas such as:

- Sectoral choice: Which business sector should I choose?
- Differences in capital and labor: How much should I invest? How much can I invest?
- Differences in firm capabilities: What business practices can I employ? Should I formalize the business?
- Differences in willingness to compete: Should I compete in certain markets?

These real-life decisions are then shaped by a set of underlying constraints that fall into three categories:

- Contextual factors, such as unequal legal frameworks and social norms;
- Endowments, including differences in education, confidence, assets and networks;
- Household-level constraints that undermine women's ability to control their resources and devote time to their business.

As laid out in Figure 14 the blueprint thus links the: (i) gender-specific underlying constraints; the (ii) strategic decisions made by these entrepreneurs, which are in turn influenced by the underlying constraints; and (iii) the business outcomes that reflect these decisions. The rest of this section will examine how strategic decisions vary between male and female entrepreneurs, and how the underlying constraints influence those decisions.

Figure 14

Constraints, decisions, and outcomes: Framing the gender gap in business performance in Africa

OUTCOMES

Gender differences in firm performance (sales, profits)

STRATEGIC DECISIONS

1

Sector segregation

2

Differences in capital and labor

3

Differences in firm capabilities (business practices / innovation), and formalization

4

Differences in willingness to compete

UNDERLYING CONSTRAINTS

CONTEXTUAL FACTORS

- I Legal discrimination
- II Social norms
- III Risk of GBV

ENDOWMENTS

- IV Education/Skills
- V Confidence/Risk preferences
- VI Finance and assets
- VII Networks and information

HOUSEHOLD-LEVEL CONSTRAINTS

- VIII Allocation of factors of Production
- IX Time constraints/Care

Strategic decisions: How do the constrained choices made by female entrepreneurs influence the gender gap?

Consistent with this report's analysis, the literature on gender and enterprise development shows that female and male entrepreneurs in Africa consistently make different strategic decisions that impact business performance. In Madagascar,¹¹⁷ a study shows that 42% to 51% of the gender gap in firm performance can be explained by differences in the amount of capital and labor used. In Ghana, women channel a lower share of their accessible capital into their business than do men, and this adversely affects their business performance.¹¹⁸ Female-owned firms in Africa also adopt fewer advanced business practices – such as marketing strategies and human-resources management – that can be critical for success.¹¹⁹ Furthermore, the choice of the sector in which a business operates is a consequential one: Studies in Africa estimate that sector choice can help predict a firm's profitability.¹²⁰ This section exploits a wealth of new micro data from impact-evaluation and household surveys to assess the differences in each of these strategic decisions and weigh their importance in contributing to the gender gap.

■ Analyzing gender differences in strategic decisions

Sector of operations

Female entrepreneurs build larger and more profitable companies when they operate in male-dominated sectors. Women in Africa, both those in small-scale self-employment and those operating larger formal firms, are more involved in retail and less involved in the transport, manufacturing, and construction sectors than men. When formal-sector female-owned firms are active in manufacturing, they tend to produce garments, textiles, or food. Women are also more active in the hospitality industry than in other types of services. This is reflected in data from Benin, Ghana, Togo, and Malawi (Figure 15).

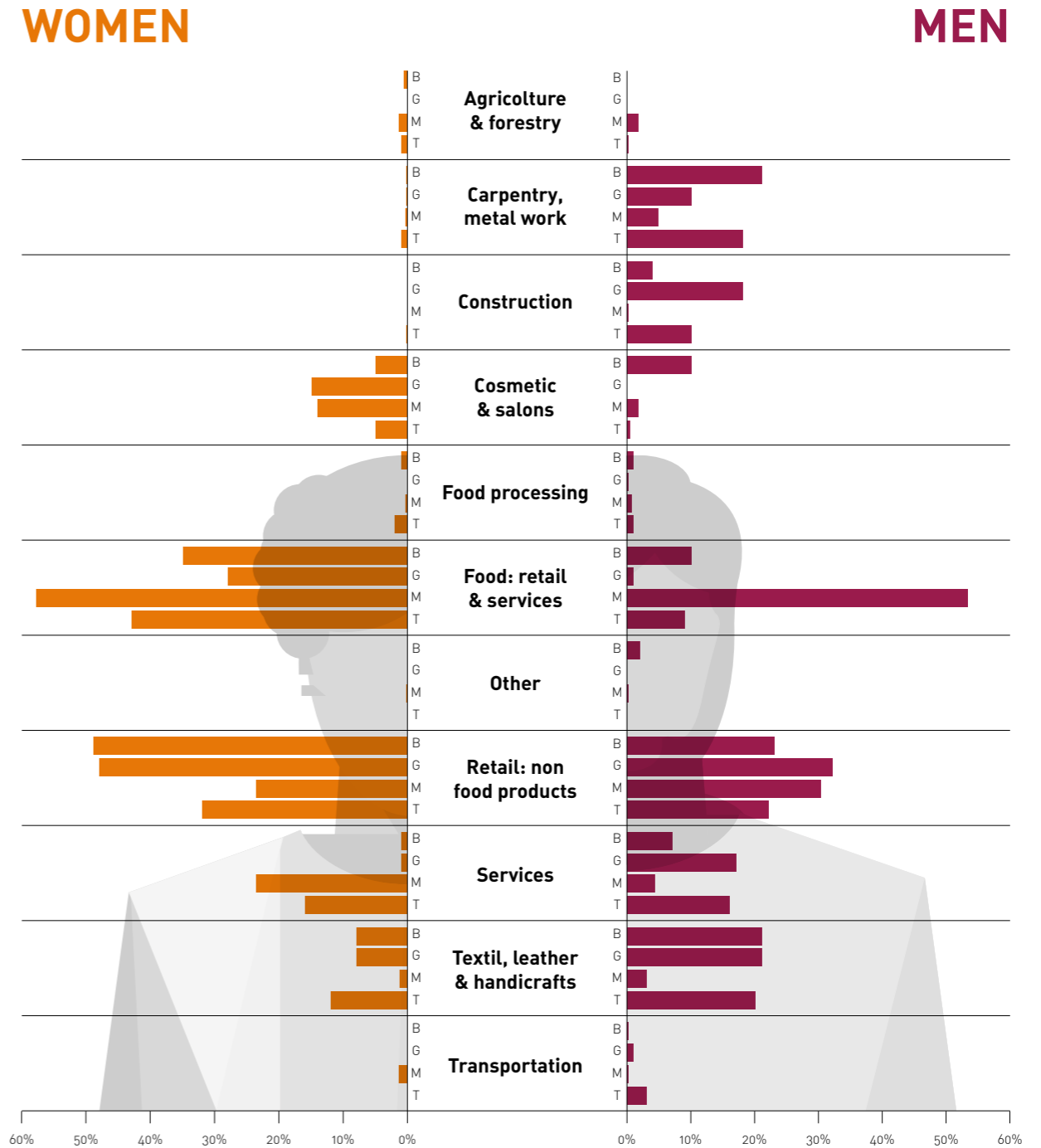
However, a study across three regions shows that female-owned enterprises in Africa that operate in male-dominated industries are on average as large as their male-owned counterparts, while firms in female-dominated sectors are 56% smaller than those in male-dominated sectors.¹²¹ This report's analysis finds that one-quarter of the gender gap in profits in the Democratic Republic of Congo can be explained by women's choices to operate in comparatively less profitable sectors.

Moreover, evidence from studies in Ethiopia¹²² and Uganda¹²³ shows that female entrepreneurs who operate in male-dominated sectors (referred to as sectoral "crossovers") perform much better than those in traditionally female-dominated sectors. In Uganda, for instance, only 6% of women operate in male-dominated sectors, but these "crossover" firms are just as profitable as those owned by men in those sectors and larger than female-owned enterprises in traditional sectors. These studies suggest that social factors – rather than differential access to education or finance – may play the most significant role in a female entrepreneur's decision to work in a higher-return sector. Such factors include having male role models and exposure to the sector by family and friends. Experiments in multiple settings are now testing strategies based on these findings for encouraging female entrepreneurs to shift into high-productive sectors.¹²⁴

Crossing over to male-dominated sectors increases the risk of harassment and gender-based violence, as well as unfair practices from male competitors. These risks should be assessed when encouraging women to enter non-traditional sectors.

Figure 15

Female and male entrepreneurs consistently choose to operate in different sectors



B Benin / G Ghana / M Malawi / T Togo
micro-entrepreneurs: distribution by gender and sector

Source: Authors using IE database.

Capital

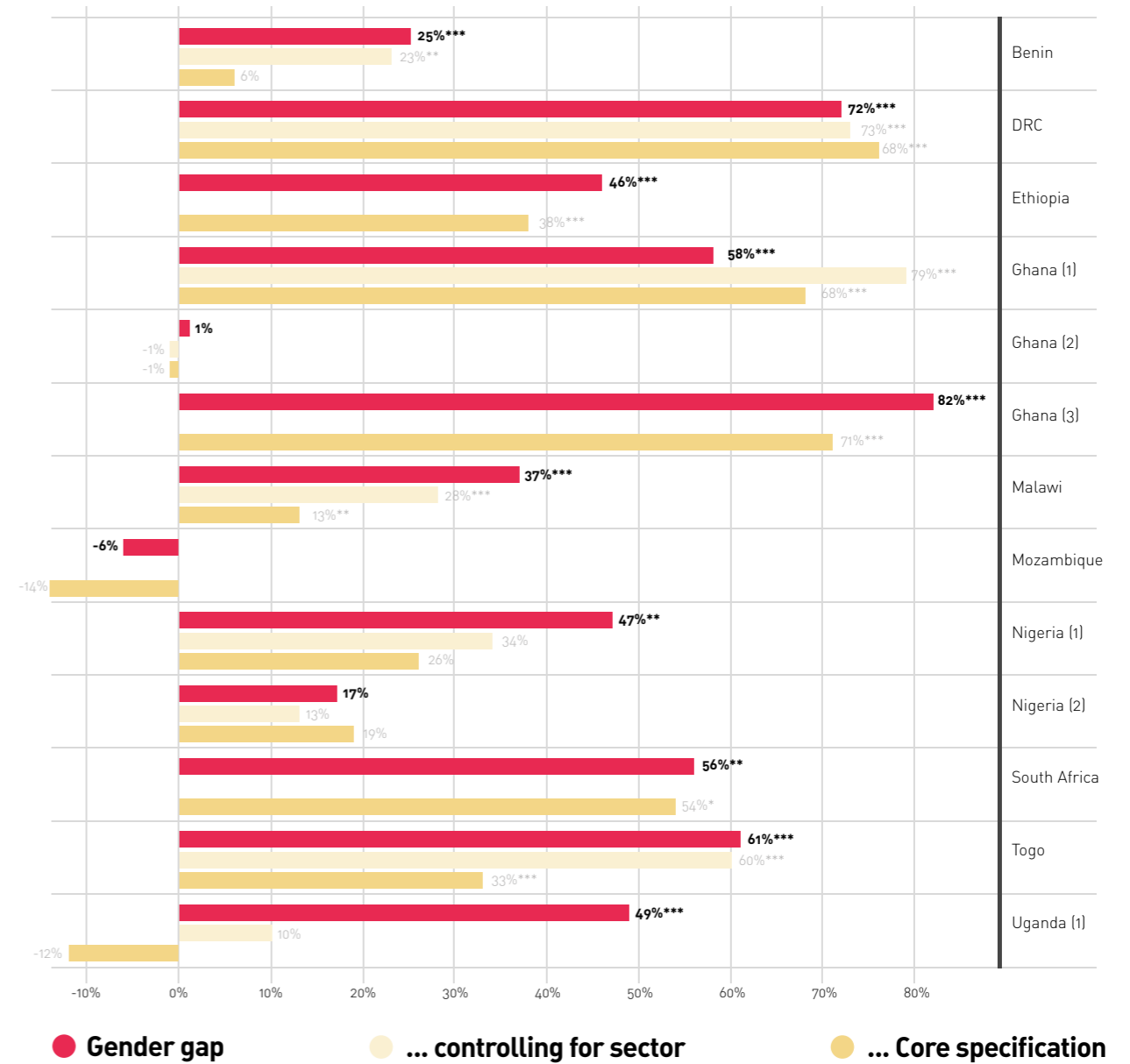
Female entrepreneurs in Africa have systematically lower levels of business capital – including equipment, inventory and property – than do their male peers. This plays a central role in explaining the gender gap in business performance. The typical male-owned firm in Africa has over six times the capital investment of the typical female-owned enterprise. The large differences in capital investment are consistent across a wide range of business types.¹²⁵ The large gender gap in the level of capital investment persists even after accounting for the sector of operation and other firm and entrepreneur characteristics¹²⁶ – indeed, this gap exceeds 70% in the Democratic Republic of Congo and in one of the datasets in Ghana (Figure 16). The remaining gap is as high as 30% in Ethiopia and Togo, and persists at above 50% in South Africa, an environment with relatively efficient credit markets. An analysis of the impact-evaluation datasets does not detect a significant “reverse gender gap” in capital investment in any country.



Figure 16

Female entrepreneurs have systematically lower levels of business capital than do male entrepreneurs

Gender gap in capital investment



Source: Authors using IE database.

Note: Ghana (1): Grants for micro-enterprises survey; Ghana (2): Tailoring survey; Ghana (3): Enterprise census; Nigeria (1): Growth and employment survey; Nigeria (2): Business plan competition survey; Uganda (1): Kassida survey.

Gender gaps in capital investment are evident both in manufacturing-sector firms and in retail-sector firms, but are smaller in the former. On average, male-owned firms in the manufacturing sector invest in capital at levels 30% higher than female-owned firms. However, this gender gap in manufacturing capital varies significantly across countries. It stands at 77% in the Democratic Republic of Congo, 65% in Ghana, and nearly 50% in Togo and Ethiopia. By contrast, the capital-investment gap in Nigeria favors female-owned manufacturing firms. Excluding Nigeria, the average gender gap in capital in the manufacturing sector rises to 49%, which is close to the capital gap in the retail sector (51%). Gender differences in retail capital investment range from 36% in Malawi to 82% in Ghana.

Labor

Female and male entrepreneurs in Africa differ starkly in their hiring decisions. On average, women make up almost 75% of the employees of female-owned enterprises – a share nearly four times that of male-owned enterprises. This sex segregation among workers is not explained by the sector of operation for male- and female-owned firms.

Male-owned enterprises in Africa employ more workers on average than do female-owned enterprises. While female-owned firms in the datasets analyzed have an average of two people working in the business, those male-owned have four people. These differences include the entrepreneurs along with formal and informal workers alike, addressing the issue that smaller firms are more likely to include family and part-time people working in the business.

Workers in male-owned firms spend more hours operating the business than do workers in female-owned firms. Female-owned firms in Africa use on average about 40 hours less labor per month than do those owned by men, after accounting for the number of people working in the business. The typical male-owned firm in Africa uses 25% more labor hours than does the typical female-owned enterprise. The labor gap is particularly large for the micro-enterprises in the impact-evaluation database.¹²⁷ For example, in the outskirts of Kampala in Uganda, the total number of hours of monthly labor for male-owned firms, on average at 827 hours, dwarfs the 361 hours of labor used by female-owned firms.

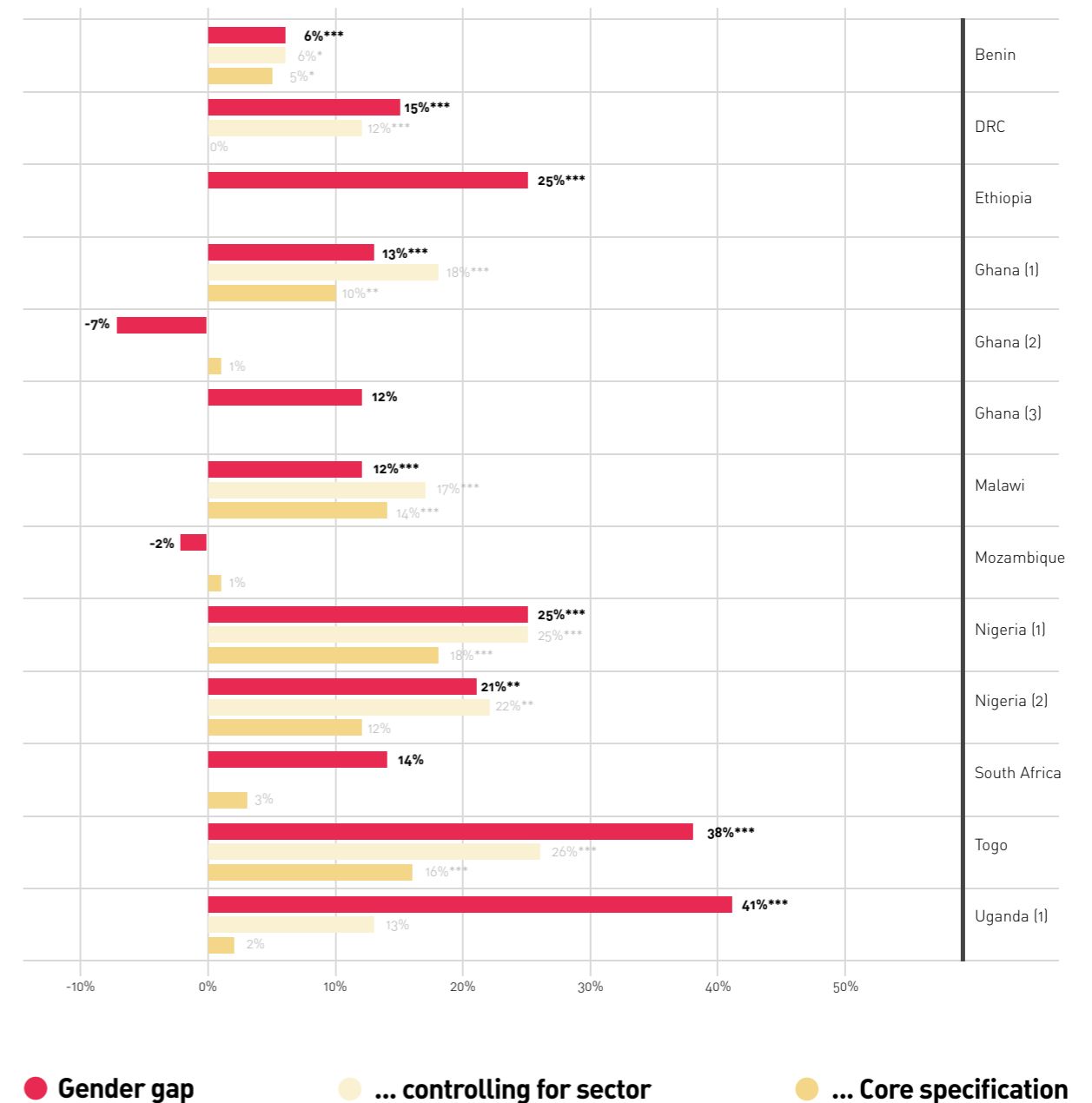
These large labor disparities contribute to the gender gap in firm performance. Female-owned firms' lower levels of labor contribute to gender productivity gaps in six of the 10 countries analyzed: the Democratic Republic of Congo, Ghana, Malawi, Nigeria, Togo, and Uganda. Even though female entrepreneurs have more household responsibilities (and therefore fewer available hours to dedicate to their business), female entrepreneurs do not seem to compensate by hiring more workers. However, in only two of these countries (Ghana and Uganda) did women obtain lower returns than men from their business labor – suggesting that in most of the countries analyzed, women and men derive similar average profit gains from their employees' time.¹²⁸

The gender difference in labor is explained by a set of factors. Sector allocation alone does not explain the differences between the size of men and female-owned firms, but the gap is lower in most countries when other firm and personal characteristics are taken into account (Figure 17). For example, after accounting for these factors,¹²⁹ the gender labor gap is eliminated in the Democratic Republic of Congo; Togo's gap shrinks by more than half to 16%; the gap observed in one survey in Nigeria drops from 25% to 18%; and the gender gap in Uganda is reduced from 41 to 2%.

Figure 17

Female entrepreneurs use less labor

Gender gap in labor hours



Source: Authors using IE database.

Note: Ghana (1): Grants for micro-enterprises survey; Ghana (2): Tailoring survey; Ghana (3): Enterprise census; Nigeria (1): Growth and employment survey; Nigeria (2): Business plan competition survey; Uganda (1): Kassida survey.

3 Firm capabilities: Business practices, innovation, and formalization

Business practices

Differences in the adoption of good business practices help explain the gender gap in productivity for some countries. Recent research on small firms in developing countries¹³⁰ shows that female entrepreneurs are less likely to adopt advanced business practices including: (i) marketing practices such as advertising and price comparisons with competitors; (ii) purchase- and inventory-control practices, including negotiating with suppliers and techniques designed to avoid running out of stock; (iii) cost-analysis and record-keeping practices, for instance keeping written business records or identifying which products are most profitable; and (iv) financial-planning practices, such as setting sales targets and creating budgets.

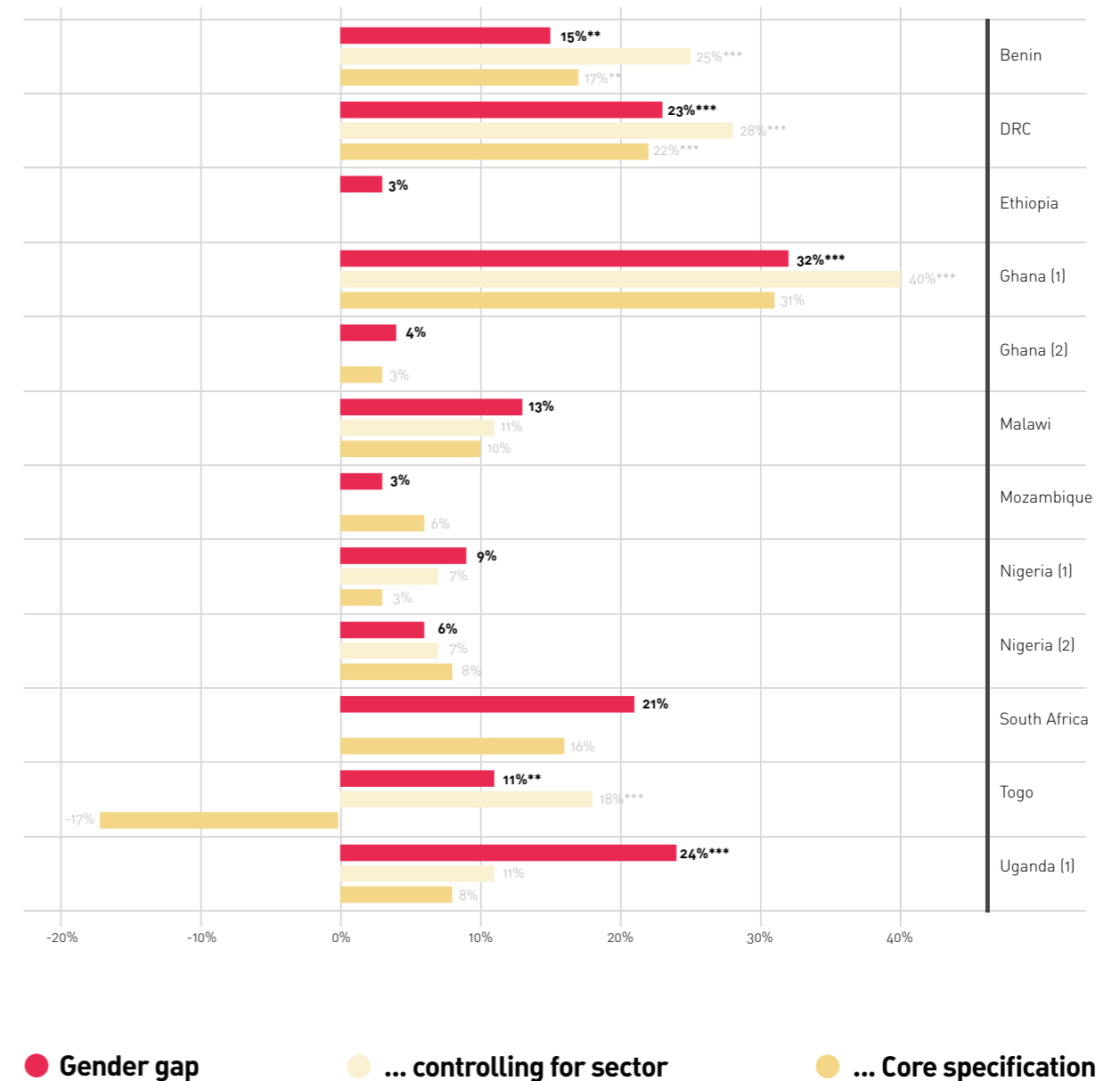
Using a standardized business-practices score, this report finds gender differences in favor of male-owned firms that are large and significant in most of the datasets analyzed (Figure 18). Only in Benin did female-owned firms score higher than male-owned businesses with respect to these practices. The gender gap in business practices remains in 10 of 13 datasets in Africa, even after accounting for personal and firm-level factors. Yet, these adjusted differences are statistically significant in only four of these datasets. And in contrast, the gap in business practices reverses in favor of female-owned businesses in Togo after controlling for other factors.

The gender gaps in business-practices indexes are on average less than half the size of the capital-investment gaps. This may help explain the relatively muted impact deriving from efforts to teach business skills on reducing business-performance gender gaps.

Figure 18

Female entrepreneurs less likely to adopt good business practices

Gender gap in an index of business practices



Source: Authors using IE database.

Note: Ghana (1): Grants for micro-enterprises survey; Ghana (2): Tailoring survey; Nigeria (1): Growth and employment survey; Nigeria (2): Business plan competition survey; Uganda (1): Kassida survey.

Innovation

The analysis for this report shows some differences in innovation practices between male and female-owned enterprises, notably on the introduction of new processes within the firm. Innovation relates to the ability of a business “to use knowledge to develop and apply new ideas that result in changes in the production and organizational structure of the firm.”¹³¹ This includes (i) the introduction of a new product or a modification to an existing product, (ii) a new process or technology, (iii) the discovery of a new market, (iv) the development of new sources of supply for inputs and raw materials, and (v) changes in industrial organization.

Data on innovation in Africa is scarce, and gender-gap analysis focusing on innovation (before this report) is even slimmer.¹³² In a survey of female-owned firms in Kenya, 82% of female entrepreneurs indicated that they ask customers if there are other products or services the clients would buy from them. Almost 20% of women business owners said also that they were planning to introduce new products or improve existing products in the coming two years.¹³³ However, 31% of the female entrepreneurs in Kenya suggested that they were unwilling to try something new unless they were 100% certain it would succeed.

A survey in Togo elicited information on innovation practices among female and male-owned businesses (Figure 19). An analysis finds that female-owned businesses are less likely than their male-owned peers to have introduced new products and services or to have implemented a new business process. Women are half as likely as men to have introduced a new product in their neighborhood of operation. This may be because there is little space to innovate in the specific sectors in which women typically operate.

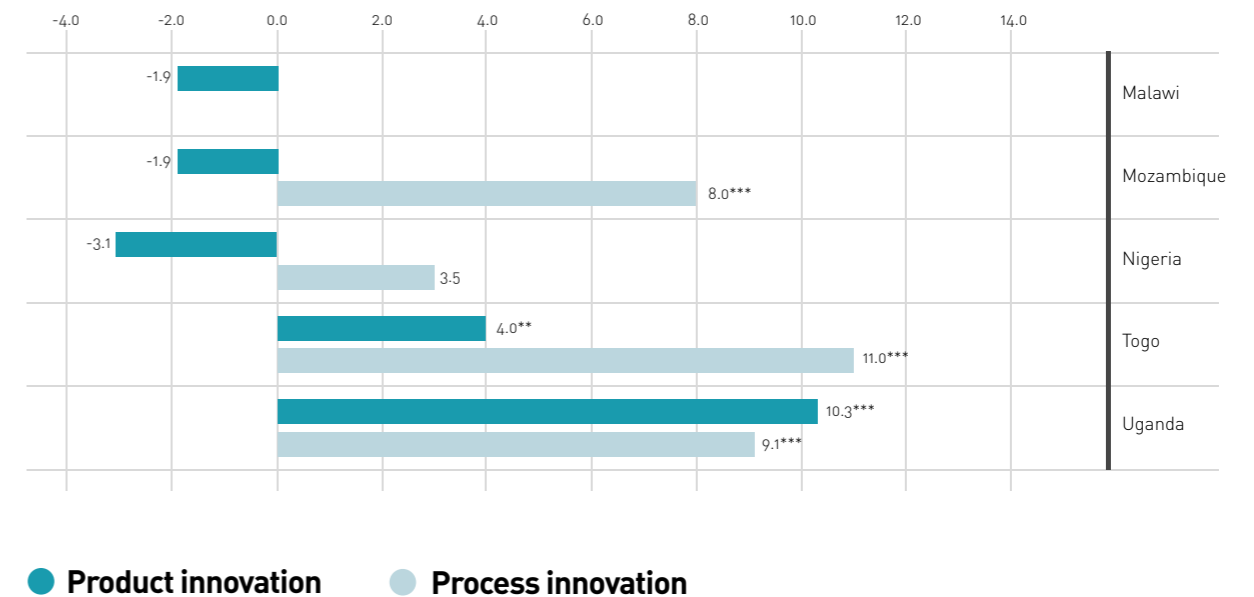
In Mozambique, about 18% of female entrepreneurs and 16% of male entrepreneurs have introduced a new product in the past 12 months. However, women are less likely to have introduced a new process – 31% of women and 39% of men have carried out innovation of this kind in the past 12 months. In Nigeria, female-owned firms are 20% less likely to have improved existing products or to have introduced a new product design. Female-owned businesses in Nigeria also spend less on R&D,¹³⁴ and their owners are on average less confident than men in their ability to come up with an idea for a new business product or service. An analysis of these differences indicates that they can be explained by differences in firm and individual characteristics of the entrepreneurs.

In Uganda, 18% of female entrepreneurs introduced a new product or service in the past 12 months, and 16% introduced a new process in the same period. But both of these are 37% below male-owned firms’ likelihood of having introduced a new product or new process. Women in Uganda are also less likely to develop a new product or service in the next 12 months. These differences are explained by a range of factors, chiefly the differences in the entrepreneurs’ education levels.

Figure 19

Gaps in innovation more pronounced in introducing new processes

Gender gap in innovation (pp)



Source: Authors using IE database.
Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Furthermore, gender gaps in innovation do not arise when examining larger firms in Africa. An analysis for this report of Enterprise Survey data from 11 countries¹³⁵ did not reveal significant differences in innovation measures between female and male-owned formal firms with at least five employees. This suggests that women who have overcome growth constraints and reached such a scale adopt innovative practices at rates similar to men.¹³⁶

Formalization

Women own approximately half of the firms in Africa, but many are in the informal economy. Only a third of formal firms with five or more employees have any female ownership; even fewer (17%) have at least 50% female ownership (Figure 21).¹³⁷ This clearly indicates differences in business-formalization rates, which are likely associated with the gaps measured in the size of the businesses.

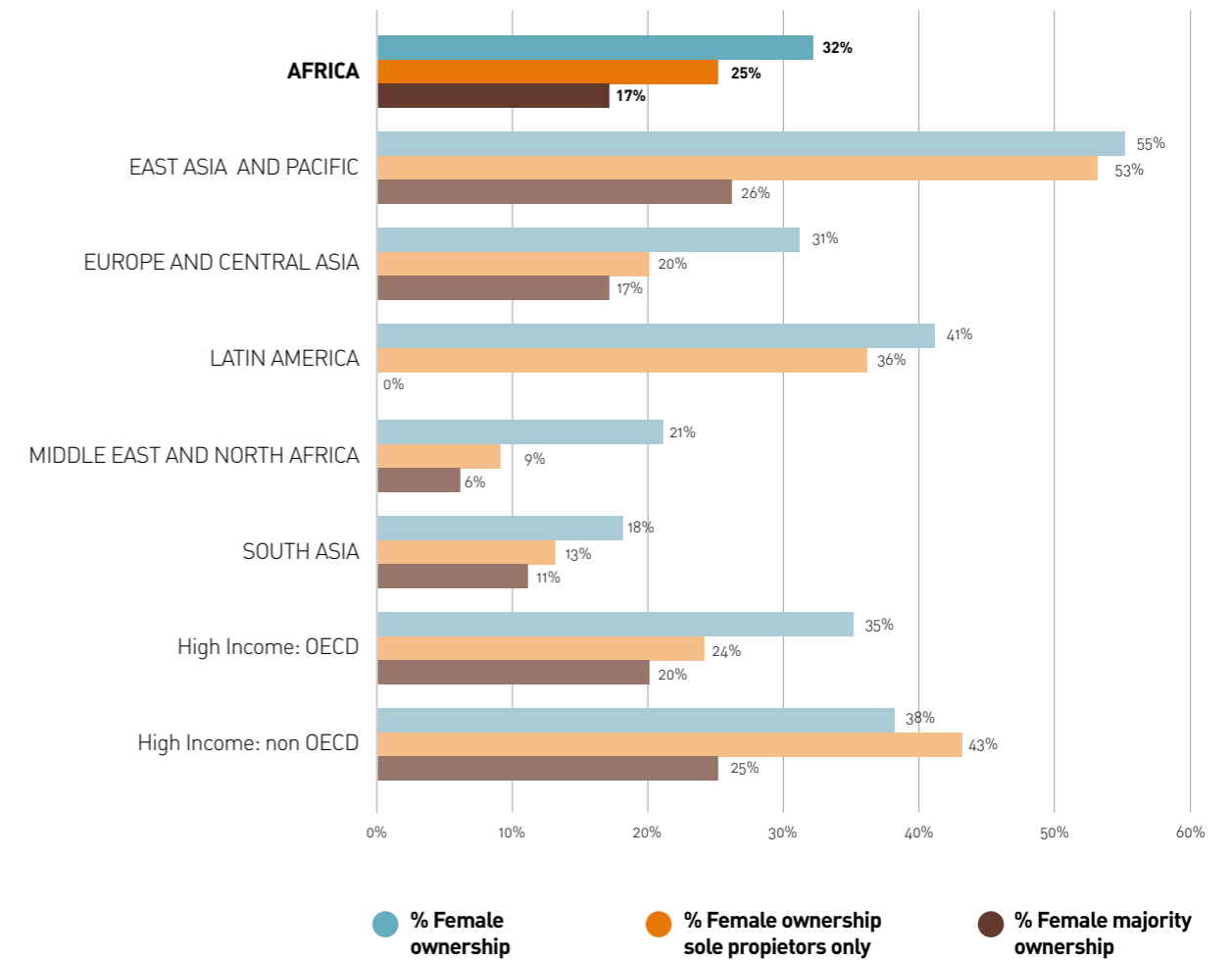
In theory, business formalization could help increase women's use of formal financial services and facilitate their access to formal business institutions such as private-sector associations and government-development programs.

However, this report's analysis does not find a clear pattern between individual business formalization and the gender gap in enterprise performance. In datasets in Ghana, Nigeria, and South Africa, female-owned businesses enjoy higher productivity returns to formalizing than male-owned businesses. This finding may relate to a small subset of female-owned firms that are operating comparatively large formal businesses – and whose owners may be less constrained than the average female business owner in Africa. Recent studies in Benin¹³⁸ and Malawi¹³⁹ with a broader set of entrepreneurs indicate a lack of impact on business performance and access to finance from helping entrepreneurs obtain formal status.

Figure 20

Rate of female ownership of formal firms in Africa lags that in East Asia and Pacific and Latin America,¹⁴⁰ but compares favorably to other regions

% of formal firms with female ownership by region

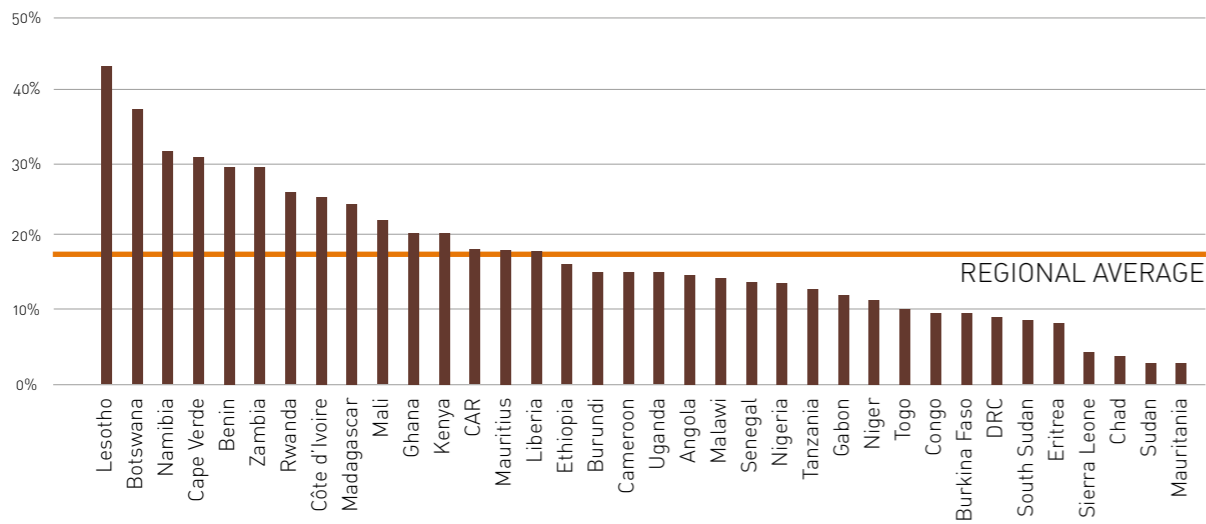


Source: Authors using World Bank Enterprise Surveys, most recent years.
Note: Data considering firms with five or more employees.

Figure 21

Rates of female participation in the formal economy vary widely, but no countries have achieved gender parity with regard to majority ownership rates

% of formal businesses with majority female ownership



Source: Authors using World Bank Enterprise Surveys, most recent years



4 Decision to compete

Women's reluctance to compete in stereotypically male environments may help explain some of the gender gaps in entrepreneurial performance in Africa.

There is limited research on women and men's competitive behavior within Africa. When studying the Maasai in Tanzania, researchers¹⁴¹ found that men were twice as likely as women to enter into competition during an experiment. A lab experiment in Kenya conducted for this report,¹⁴² found that women were less than half as likely to participate in a competition than men, no matter whether the stakes associated with winning were low or high. Women were much more likely to enter into competitions when facing female competitors than when they faced male competitors. [Box 6](#) describes this set of experiments in Kenya.

Numerous laboratory experiments from outside of Africa confirm these findings.^{143, 144}

Women opt out of engaging in competition even when they are qualified.¹⁴⁵ This leads to different economic outcomes, with more high-ability women missing out on significant earnings as compared to high-ability men. This difference in attitudes between men and women can explain some of the gaps with regard to engaging in competition. It could be that "while the prospect of engaging in a future competition [with men] may cause women to anticipate a psychic cost and deter them from tournaments, men may anticipate a psychic benefit and instead be drawn to them."¹⁴⁶ This may stem from different upbringings as children, with boys being the ones who are typically encouraged to be assertive.¹⁴⁷ The expectations set by social norms could further exacerbate these differences. In fact, in the same study in Tanzania, researchers found that when applying the experiment to the Khasi society, a matrilineal society as opposed to the Maasai which is patrilineal, women are found to be more competitive than men.^{148, 149}

However, limited data¹⁵⁰ on willingness to compete makes it difficult to weigh the importance of gender differences in engaging in competition in explaining the gender gap in business performance.

Data on this issue is rarely present in impact-evaluation, household, or enterprise surveys, not least because the most effective ways to measure this are through laboratory experiments similar to those described in [Box 6](#).¹⁵¹ Planned lean evaluation studies in Kenya testing multiple mechanisms for encouraging women to apply to coding bootcamps and a business plan competition will complement these lab experiments.

Kenya: Exploring gender differences in the willingness to compete

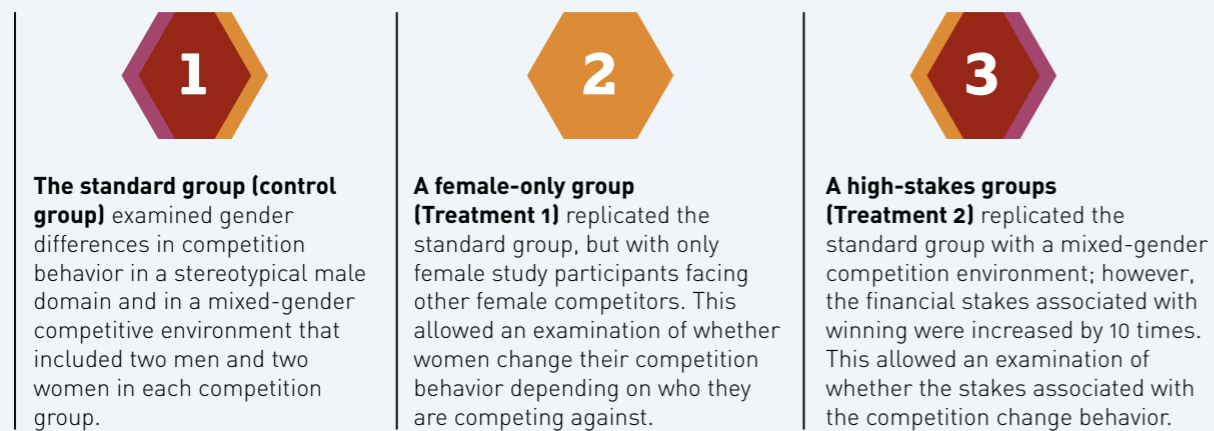
To examine gender differences in competition behavior in traditional male domains and sectors, a series of laboratory experiments in Kenya were conducted.¹⁵² Recent research in the region has shown that the willingness to compete in lab settings is associated with competitive choices, including decisions resulting in higher capital- and labor-investment rates.¹⁵³

The experiments followed the basic design of the Niederle and Vesterlund (2007) competition experiments in the United States, but used a stereotypical male performance task that was appropriate for the Kenyan context and the population of interest.

Due to sample size limitations, the study did not analyze the results by marital status or any other metric and focused primarily on a comparison between men and women in terms of the willingness to compete in different situations.

Methodology

The experiments included three groups, each with 80 study participants:



Participants reflected the typical pool of African entrepreneurs. They were between 18 and 40 years of age and had completed schooling at least through the primary level, with a maximum secondary-level education. To ensure that groups were balanced, participants were randomly assigned to different session times.

The study relied on touch-screen computers. Study participants were seated in randomly assigned groups of four in the lab. Each participant had his or her own cubicle, with a computer terminal that was separated by partition walls. While individuals could see each other, they were not able to see each other's computer screens, performance, or decision information. In addition, the topic of gender was not explicitly mentioned during the experiment.

Key findings

The results reveal a significant gender gap in willingness to compete:

(1) Women were much less likely to compete in a mixed-gender environment. In the standard group, only 31% of women chose to compete as compared to 69% of men. This is very similar to Niederle and Vesterlund's findings in the United States, where they found 35% of women and 73% of men entering the competition.

(2) Women were significantly more likely to enter into the competition when faced with only female competitors: 53 percent of women entered the competition in the female-only competition environment (Treatment 1) as compared to 31 percent of women in the mixed-gender competition (standard group).¹⁵⁴

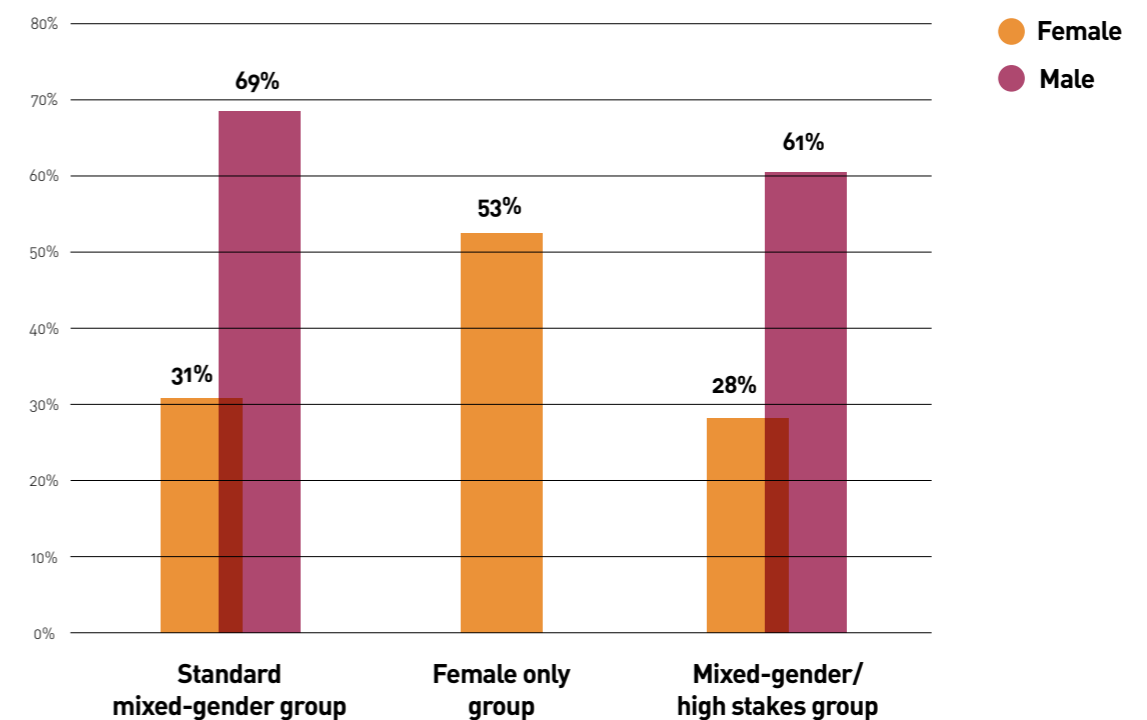
(3) Women were significantly less likely to compete in a mixed-gender competition environment with high stakes: in Treatment 2, only 28% of women chose to compete as compared to 61% of men.

(4) Regardless of the group, past performance does not appear to be a significant predictor of the choice to enter the competition.

Figure 22

Women less likely to compete in mixed-gender than in female-only contexts

Gender differences in competition entry, Kenya



Nine factors holding back women's business performance in Africa

Understanding the constraints

Female entrepreneurs do not make business decisions in a vacuum. Rather, their business decisions differ systematically from those of male entrepreneurs because they are constrained in a way that men are not.

This section presents nine of these underlying constraints and explores the evidence on why the factors matter and the extent to which they contribute to the gap in business performance. Some of these factors are more established in the literature, while others, such as the risk of gender-based violence or risk preferences, are more limited in terms of evidence regarding their relevance for explaining gender gaps in business performance. While analyzing each case individually, the report will highlight where the evidence is strongest.

The section is followed in the next section by deep-dive analyses of three factors for which the evidence on its impact on business performance is relatively limited, or where the mechanisms behind the evidence remain unclear. The deep dives include studies of social norms, networks and information, and household allocation of factors of resources.

Contextual factors

I

Legal discrimination

Female entrepreneurs cannot have equal economic opportunity if a country's laws restrict a woman's ability to own and run a business.

In some countries, formal business and family laws deny women rights equal to those of men to register a business, sign a contract, open a bank account, or own and inherit property. For example, in Cameroon, Chad, the Democratic Republic of Congo, and the Republic of Congo, the law gives husbands sole control over marital property, making it difficult for married women to obtain loans to finance their business, since these loans often require property as collateral.¹⁵⁵ In Chad, Guinea-Bissau, and Niger, married women need their husbands' permission to open a bank account. In Equatorial Guinea, a wife needs her husband's permission to sign a contract.

A review in the World Bank's *Women, Business and the Law 2018* (WBL) publication finds that formal law treats women and men equally in their pursuit of economic opportunities in only three African countries¹⁵⁶ – South Africa, Zimbabwe, and Rwanda. Countries such as Mozambique, Ghana, and Liberia comply with 21 out of 22 measures of equality with regard to economic opportunities. Three economies (Sudan, Guinea-Bissau, and Niger) had at least 10 significant differences in the legal status accorded to women and men that made it more difficult for female entrepreneurs to operate. Another nine countries had at least eight differences.¹⁵⁷ Furthermore, women in 65% of African economies face legal challenges in building credit ratings, and 19% of countries in Africa receive a score of zero with regard to protecting women from violence. Even where statutory law seeks to promote gender equality, female entrepreneurs may face barriers deriving from customary law – the uncodified traditional legal system of a community or locale – which often takes precedence in settings with legal pluralism. The influence of customary law continues to be stronger in sub-Saharan Africa than in any other region.¹⁵⁸

In recent years, many African countries have made strides in removing formal legal barriers that have prevented female entrepreneurs from owning and running successful businesses. In 2012, Mali removed legal restrictions that prevented married women from registering a business. Côte d'Ivoire now allows both spouses the legal right to choose where to live, whether and where to work outside the home – and to be designated "head of household." In 2016, Rwanda granted both spouses equal rights to choose where to live, and eliminated a provision designating the husband as "head of household." That same year, the Democratic Republic of Congo eliminated provisions that prevented married women from signing contracts, getting jobs, registering companies, opening bank accounts, or obtaining loans without the permission of their husbands. The obligation for a married woman to obey her husband, as well as gender-based discrimination by creditors in financial transactions were also prohibited. In Zambia and Guinea, discrimination based on gender and marital status in access to credit is now forbidden by law.

Some countries have sought to eliminate gender discrimination arising from customary law. Zimbabwe approved important constitutional reforms in 2013, and Botswana has also made significant strides with regard to eliminating discrimination in customary law.

However, and despite the significant regulatory advances in Africa, many countries grapple with challenges in enforcing these laws. Gender discrimination is still a factor in the implementation of these laws, and judicial systems are not responding fast enough to these concerns.

Bottom line: Progress means legal discrimination may not be constraining female entrepreneurs as much as in the past. Continuous work is needed to ensure that laws avoid gender discrimination, and that they are appropriately implemented.

II

Social norms

Social norms exert strong influence over female entrepreneurs' strategic choices, and can constrain their ability to grow their businesses.

Social norms are informal rules about what behaviors are typical and desirable that are widely accepted and shared within a given social group. No formal sanction system exists to support and enforce such rules. Yet because such norms can become part of a community's system of values, they retain a strong influence on behavior, and people may feel a strong obligation to obey them.¹⁵⁹ Gender norms are shared expectations about differences between men and women, as well as what behaviors are common and appropriate for men and women.

Female entrepreneurs make decisions shaped by norms that establish expectations regarding accepted roles and responsibilities for men and women, and widely shared conceptions of masculinity and femininity.¹⁶⁰ For example, women perform the vast majority of housework in Africa (described in the time constraints/care section), which affects the amount of time they have for their businesses. Non-conforming behavior can result in discrimination or other sanctions. For example, women who strive to grow their businesses can face reduced support or violence from a spouse

who feels threatened, ostracization from social networks of peers who disapprove, or discrimination from suppliers or buyers. When women seek to contradict societal prescriptions for female behavior, they may face retaliation.¹⁶¹ And fear of retaliation could deter women from being assertive in work and competitive negotiation settings.¹⁶²

Research demonstrates that women (as well as men) internalize these social norms through gendered self-conceptions, self-assessments, and aspirations:

- Self-conceptions, or how women imagine themselves and their responsibilities in life, can influence their career choices.¹⁶³ Research in Ghana finds that some women view entrepreneurial success as core to their identity, while others approach their businesses more as generators of petty cash.¹⁶⁴ Gender norms that emphasize women's role in the home and men's role as providers discourage women from developing an entrepreneurial identity.
- Women's self-assessments, or the specific beliefs about their ability to perform specific tasks, reflect gender differences that affect their confidence in their ability to engage in technical occupations.¹⁶⁵ If women perceive that they are less able to compete in and pursue business activities considered to be "male," female entrepreneurs may avoid entering higher-value sectors that present greater business opportunities.¹⁶⁶
- Gendered differences in aspirations, or the shared mental representations of the proper roles, behaviors, and goals for men and women, may lead to substantial differences in aspirations between men and women.¹⁶⁷ When female entrepreneurs conform to social norms, they may be less likely to aspire to growing a large business if that does not align with how women in their community behave.

Direct quantitative evidence regarding the degree to which social norms contribute to the gender gap in business performance is limited. Recent research in Nigeria suggests that effective training can help women overcome unconscious self-defeating biases. It shows that promoting skills in the information- and communications-technology sector was more than three times as effective (with regard to having women switch their professional activities to that sector) for women who had implicit biases against women's professional work than it was for unbiased women.¹⁶⁸

Furthermore, because of their greater power and influence, men can play a significant role in either perpetuating or changing existing gender norms and how they impact women's economic decisions and empowerment. In Ethiopia, women with spousal support were found to be significantly more likely to cross over into the more profitable traditionally male-dominated sectors.¹⁶⁹ In Uganda, women who had male role models in their youth (e.g., fathers or politicians) were 20% to 28% more likely to cross over into these sectors than women who did not have these role models in their lives.¹⁷⁰

Bottom line: The influence of gender norms on women's business decisions is likely pervasive and strong, including through its influence on major choices such as the sector of operations. More research is needed on mechanisms by which social norms can be circumvented or changed as a means of reducing the gap in business performance in Africa. For more, see "deep dive" 1.



Risk of gender-based violence

Experiencing gender-based violence can take a toll on women's health and well-being that hinders their ability to run their businesses effectively.

Gender-based violence (GBV) – which includes physical violence, emotional violence, sexual violence and economic violence – is prevalent in many African countries and has the potential to shape women's business employment decisions. Two-thirds of young female apprentices in Ibadan, Nigeria's third-most-populous city, reported having experienced physical violence. Among this group, 39% indicated that their employer was the most recent perpetrator.¹⁷¹ A study conducted in Peru, Haiti, and Zambia finds that women who were victims of GBV were more likely to be employed than women who had not been abused – suggesting that engaging in work outside the home may itself put women at risk for GBV.¹⁷² Women may prefer self-employment because it helps them avoid sexual harassment, as reported by 20% of participants in a study in Liberia.¹⁷³

In recent impact-evaluation surveys, about 11% and 14% of female entrepreneurs in Malawi and Uganda respectively reported that they had experienced sexual harassment while running their businesses in the preceding 12 months. Moreover, in Malawi, 14% and 11% of female and male entrepreneurs respectively indicated that a man has a good reason to hit his wife for not completing the housework, disobeying, refusing to have sexual relations with him, or being unfaithful. Similarly, 14% of female entrepreneurs in Malawi have experienced physical or emotional violence from their domestic partner; 32% say the husband insists on knowing where they are at all times; 7% say their husbands force them to have sexual intercourse; and 8% say their husbands try to keep them from seeing their friends.¹⁷⁴

In Tanzania, 11% of female entrepreneurs say they have received a request for sex in exchange for support for their business in the past 12 months.¹⁷⁵ Asked the same question in terms of other women – "out of 10 women, how many do you think have received requests for sex in exchange for help with their business in the past 12 months?" – the proportion reaches 40%.¹⁷⁶

There is little rigorous evidence on how the risk of GBV impacts the decisions made by female entrepreneurs or their capacity to run a productive business. Existing research suggests that GBV has complex consequences. Taking time off work due to injury may lead to losses in productivity and revenues. Furthermore, exposure to GBV can take a toll on women's mental health, which may manifest as insomnia, anxiety, and social dysfunction,¹⁷⁷ and may hinder the victims' managerial capacity. A study in Colombia finds that the monthly earnings of women exposed to GBV are on average 70% lower than the earnings of non-victims.¹⁷⁸ A study in Rwanda suggests that engaging men in group discussions on sensitive issues regarding sexual health and gender-based violence can lead to large and significant impacts on women's reports of violence perpetrated by intimate physical and sexual partners, as well increased decision-making power for women.¹⁷⁹ This growing evidence is suggestive of the importance of the constraint and the need to identify effective solutions to reduce its prevalence.

Bottom line: GBV likely has complex consequences on women's mental health, which may hinder their managerial capacities and lead to losses in productivity and revenues. More rigorous evidence is needed in order to understand how GBV impacts female entrepreneurs and their economic performance, including on whether women shy away from growing their businesses because of the risk¹⁸⁰ of increasing their exposure to GBV.

■ Endowments

IV

Education and skills gaps

While most African countries have achieved gender parity in access to primary education,¹⁸¹ a persistent gap in educational attainment between male and female entrepreneurs in older cohorts and in secondary education for younger cohorts may help explain gender differences in strategic business decisions.

Traditionally, the gender gap in educational and skill attainment in Africa is driven by a range of factors, including greater parental investment in sons' educations¹⁸² and the prevalence of early marriages for girls. A systematic review of more than 100 empirical studies indicated that education has a substantial effect on self-employment earnings,¹⁸³ and found that this effect tends to be larger for women than for men.

Three types of education and skills gaps matter most for entrepreneurs across Africa:

1. Differences in formal education. Average schooling levels of self-employed women in Africa vary substantially by country, ranging from under two years in Burkina Faso and Côte d'Ivoire to eight years in Ghana. Remarkably, regardless of the absolute level of the average, self-employed women have systematically completed fewer years of education than have self-employed men. Even in Ghana and Kenya, where self-employed women have completed on average the most years of education, this gender gap remains significant.¹⁸⁴ As most countries have now reached gender parity at the primary-education level, this gap will likely narrow over time as new cohorts join the labor market.
2. Differences in management skills. Beyond increased access to formal education, opportunities for developing management and entrepreneurial skills may be greater for men than for women.¹⁸⁵ Young men may have more opportunities to receive either formal training through specialized providers or to be trained by a member of their network. Furthermore, women may also be less likely than men to enroll in training programs in technical sectors with comparatively high average earnings such as mechanics, electronics, or construction.¹⁸⁶

This report's analysis finds that in Malawi and Mozambique, male entrepreneurs often have greater technical skills than do female business owners. In Malawi and Togo, the gender gap in financial literacy is significant. Data from Togo shows that more than 90% of business owners have the confidence to manage a team or a business, but female owners have less confidence in their managerial skills than males. In Nigeria, Malawi, and Mozambique, however, women have confidence levels in their management skills that are similar to those shown by men.

The gap in skills may also be tied to a gap in training, with male-owned firms being more likely to participate in training programs than female-owned firms (that is the case in the Democratic Republic of Congo, for instance). And these gaps also extend within firms: in Nigeria and Uganda, male-owned firms are more likely than female-owned enterprises to offer internal training courses.

3. Differences in socio-emotional skills. For taking advantage of economic opportunities, cognitive and noncognitive skills are equally important.¹⁸⁷ A growing body of evidence¹⁸⁸ shows that socio-emotional skills such as self-starting behavior, future orientation and persistence have a positive bearing on business success.¹⁸⁹ Even if there are no average differences in socio-emotional skills between male and female entrepreneurs, they can be used differently for business-development purposes according to need.

Data from Mozambique suggests limited average differences in socio-emotional skills between male and female entrepreneurs. Data from Togo points to a gender gap in some socio-emotional skills.¹⁹⁰ Men and women in Togo are just as likely to search for new and better solutions, seek new experiences, explore novel ideas, and demonstrate emotional stability and empathy. However, male entrepreneurs in Togo score higher on measures of ambition, creativity, innovation, and imagination than do female entrepreneurs. Men are also more likely than women to enjoy gathering the right people for their business. On the other hand, women have greater verbal-communication skills than men. Data from Togo suggests a gender gap of 24 percentage points on a combination of socio-emotional skills.

Bottom line: Education and skills gaps in Africa are wide and persistent, and likely have a strong influence on women's business decisions.

V

Confidence / risk preferences

Female entrepreneurs in Africa have lower confidence in their abilities,¹⁹¹ which may make them less willing to compete¹⁹² (and win) – especially in stereotypically male domains.¹⁹³

Women business owners in Africa frequently show less confidence than their male counterparts. For example, among entrepreneurs in Ghana, women are 14% less likely than men to think they would make a good leader.¹⁹⁴

Women's lack of confidence relative to men has varied and important consequences. Women are unlikely to decide to pursue opportunities in traditionally male – and traditionally more profitable – domains if they do not believe that they can succeed. Research shows that when individuals believe that women are better at a stereotypically female task and men are better at a stereotypically male task, the gender gap in confidence and competition entry is larger in the task that is stereotypically male.¹⁹⁵ Furthermore, women who are responsible for others – as entrepreneurs often are – are less confident in their abilities as compared to women who are only representing themselves. By contrast, men do not experience this difference in confidence. This is the result of women setting a higher bar for themselves when they represent the interests of others.¹⁹⁶

Women's lack of confidence could be tied to lower appetite for risk.¹⁹⁷ The analysis carried out for this report does not show a clear pattern on this issue. Two datasets in Ghana show a self-reported gender gap in

the likelihood of taking risks among micro-entrepreneurs. In one of the datasets, the gender gap with regard to being a risk-taker is 23%. This difference remains large and significant after controlling for personal and household characteristics. However, the report finds no difference between men and women micro-entrepreneurs in Togo asked to choose between alternative businesses with different levels of risk (Table 4). In the context of a business plan competition in Nigeria, which studies indicate attract comparatively competitive women,¹⁹⁸ female entrepreneurs say they would prefer a lottery ticket over a fixed amount of money more often than do male entrepreneurs.

More analysis is needed on risk-taking behavior, including in the context of lab experiments in the region. In this regard, one recent laboratory experiment in Tanzania randomly assigned microfinance clients to different groups, including female-only, mixed-gender and male-only groups. Members of the female-only groups were more willing to take risks than were members of the male-only or mixed-gender groups.¹⁹⁹

Table 4

Female and male entrepreneurs in Togo show broadly similar preferences for alternative businesses with various degrees of risk

Option	Profit in a bad month (US\$)	Profit in a good month (US\$)	Women	Men	Difference
Business 1	30	30	8%	9%	-1.1%
Business 2	27	57	10%	13%	-3.2%*
Business 3	24	72	16%	18%	-1.6%
Business 4	21	75	14%	12%	1.3%
Business 5	18	90	13%	13%	-0.3%
Business 6	12	96	7%	5%	1.9%
Business 7	6	94	12%	12%	0.2%
Business 8	0	120	20%	17%	2.9%

Source: Authors using IE database. Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Bottom line: Women's lack of confidence can keep them from taking risks that could lead to higher returns. More experimental work on mechanisms by which this lack of confidence can be reduced and its implications for business performance may indicate promising future policy avenues.



VI

Finance and assets

While women’s access to formal financial services has improved, female entrepreneurs continue to control fewer assets than male entrepreneurs, affecting their capacity to invest in their business and access loans of sufficient size.

Access to finance is critical to the success of any business, and poses a problem for both men and women. The gender gap in obtaining loans in sub-Saharan Africa appears to be relatively modest. The microfinance industry’s focus on making services available to women has reduced gender disparities in credit usage. A comprehensive study using data from 37 countries across Africa finds no evidence that women are disadvantaged in credit usage after controlling for firm and entrepreneur characteristics.²⁰⁰ Data from the 2018 Global Financial Inclusion Database (Findex)²⁰¹ shows that the share of women receiving a loan from any source was five percentage points lower than that of men (43% of women and 48% of men). And although 6% of women and 7.9% of men borrowed from a financial institution in 2017, the gender gap in obtaining loans from financial institutions is smaller in Africa than in any other region of the world.

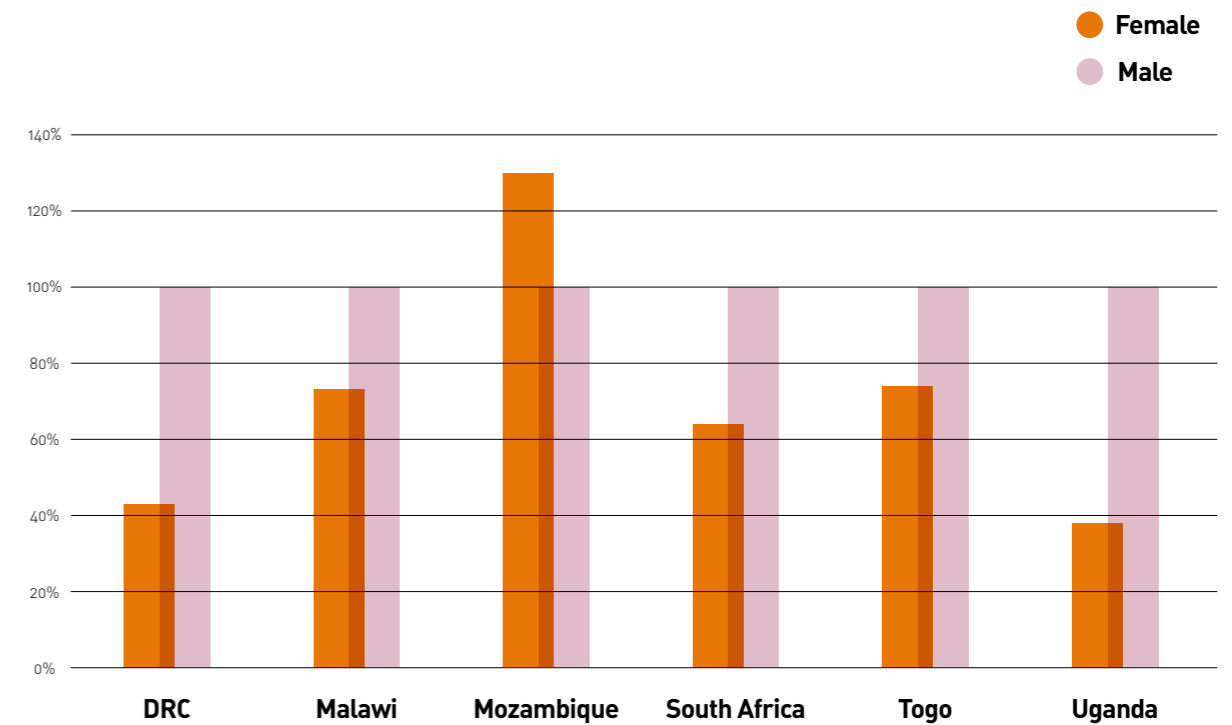
However, the fact that women tend to have less assets and savings than men can significantly curb their financing opportunities. Financial assets enable business owners to grow their asset base, fund productive investments, and smooth their household consumption. Where financial markets are imperfect, entrepreneurs’ ability to obtain finance is largely determined by their ability to provide collateral rather than by the stream of revenues that their business can be expected to generate. Even where laws do not restrict women’s access to and control over assets, providing collateral is harder for women due to their smaller asset base.

This report’s analysis shows consistently large gender differences in the size of outstanding loans for various target groups of entrepreneurs in Africa (Figure 23). In the Democratic Republic of Congo, loans obtained by female entrepreneurs are on average 43% of the value obtained by male business owners. In Malawi (micro), South Africa (SMEs), Togo (micro), and Uganda (micro), this proportion ranges from 38% to 74% – pointing to a sizable gap in the volume of credit for both micro-entrepreneurs and SMEs. Only in Mozambique, where the sample is concentrated among larger firms for both women and men, do female-owned companies have higher aggregate loan amounts than male-owned enterprises.

Figure 23

Women typically receive loans of lower amounts than men

Loans (amount) held by female-owned businesses as a proportion of those held by male-owned businesses (%)



Source: Authors using IE Database

Additionally, when women do receive loans, they may not receive them on the same terms as men. Getting loans of smaller amounts affects female entrepreneurs’ ability to use these loans productively.²⁰² One study suggests women pay higher average interest rates or receive loans with shorter maturities.²⁰³ However, analysis for this report in Benin, DRC, Ghana, Malawi, Mozambique, Nigeria, South Africa, Togo and Uganda did not find significant gender gaps in the following loan conditions when taking into account the size of the loan: interest paid, loan maturity, need to present a business plan, and the need to show credit history.²⁰⁴ Nevertheless, even after accounting for the size of the loans, the analysis suggests that women have a greater need than men to present collateral in Mozambique, Togo and Uganda, three of the five datasets containing this information.²⁰⁵

Finally, the Global Financial Inclusion database shows that about 38% of men and 27% of women in Africa had an account in a formal institution, while 24% of men and 18% of women had mobile money accounts.^{206, 207} In Malawi, 68% of male and 47% of female business owners used personal savings for the initial investment in their business. However, these data ignore important differences. About 23% of women, compared to only 2% of men, had to rely on capital from their spouse to start their business.²⁰⁸ And it is clear that the gender gap in assets can translate into gender differences in productive outcomes. For example, a survey finds that in central Uganda, 30% of male-owned transport-related assets – which facilitate mobility and market access – compared to only 1% of women.²⁰⁹

In some countries, mobile money accounts might be helping to narrow the gender gap in financial inclusion.²¹⁰ In the eight countries where 20% or more of adults have only a mobile money account, there is a statistically significant gap between men and women in the likelihood of having an account. However, just two of these countries – Burkina Faso and Tanzania – show a gender gap in having only a mobile money account. In Côte d'Ivoire, for example, men are twice as likely as women to have a financial institution account – yet women are just as likely as men to have only a mobile money account.

In Africa, mobile phone ownership offers large opportunities among the unbanked – 54% of men have a mobile phone, as compared to 43% of women. In several countries, including Mozambique and Senegal, unbanked women are about as likely as their male counterparts to own a mobile phone. And in some countries, such as Botswana and Zimbabwe, unbanked women are more likely than unbanked men to have a mobile phone.

Bottom line: The gender divide in access to credit is not as strong as it once was, but with smaller asset ownership, women still struggle to get loans of the same size as men – a factor that likely fuels the capital investment gap.

VII

Access to networks and information

Women do not have the same access as men to large and diverse social networks that can support the growth and competitiveness of their business.

A long-standing body of research demonstrates the value of good business connections.²¹² In the early stages of a firm's development, business networks can influence the size of initial investments and the choice of activity.²¹³ Throughout a firm's life, the diversity of these networks can impact whether an entrepreneur has access to credit,²¹⁴ learns about new information and market opportunities,²¹⁵ and acquires the skills needed to successfully operate their businesses. Peer support can have a significant effect on female entrepreneurs' ability to learn and apply new business skills.²¹⁶ Networks can also provide important channels to customers and suppliers, (informal) credit,²¹⁷ and technology used in production,²¹⁸ which collectively allow small firms to enjoy economies of scale that would otherwise remain inaccessible.

Analysis for this report as well as other research suggests that women's business networks may differ from men's in important ways:

- **Men's and women's networks are largely segregated by gender.**²¹⁹
- **Women tend to have network connections with the opposite gender more frequently than the other way around.**²²⁰
- **Women may act strategically in pursuing business relationships with men to access the greater opportunities associated with men's networks.** Research from Ethiopia and Uganda highlights the importance of the support of mentors – most of whom are men – in assisting women in starting activities in male-dominated sectors. The lack of such connections may limit women's entry into non-traditional and possibly more profitable activities.²²¹
- **Women's networks typically command fewer resources than men's.** Men are more likely to be connected with organizations occupying a central position within the business community, which fosters connections with bigger firms.²²²

- **Women's networks include a higher share of family and kin relationships.**²²³ These "strong ties" – which can also be thought of as "old" and long-standing connections – may be less valuable than "weak ties" – or "new" and looser connections – in creating professional opportunities.²²⁴ This gender difference in network composition may stem from norms limiting women's ability to venture away from their home and interact with strangers,²²⁵ and from women's greater responsibilities in household production and childcare.²²⁶
- **Gender-segregated networks can limit economic opportunities for female entrepreneurs.** In a recruitment drive in Malawi, men's strong tendency to refer other men for jobs created a significant gender differential in access to opportunities.²²⁷ While that study focuses on access to formal employment, it suggests that men tend to benefit from network referrals at higher rates than women.

A reliance on networks may be especially important in developing countries due to the high prevalence of small firms and the associated need for sharing capital, the limited development of credit markets, and the insufficient formal enforcement of contracts.²²⁸ Experimental studies conducted throughout Africa show that encouraging men and female entrepreneurs to expand their networks can bring benefits for their businesses.²²⁹

Bottom line: With growing evidence on the importance of networks, understanding how the networks of female entrepreneurs vary from those of men – and how those differences may impact their success – is vital. For more on this issue, see "deep dive" 2.

■ Household-level constraints

VIII

Household allocation of productive resources

Women often lack authority over the allocation of household assets and may face more pressure to share resources – restricting both their willingness and ability to invest in their businesses.

Women's lack of control over the allocation of household resources may be a source of inefficiency if it means that assets are invested in male-supported enterprises irrespective of managerial ability or the value of the business opportunity.²³⁰

The evidence on how African households allocate resources is limited, especially when members of these households run several businesses. A study in Madagascar showed that while men have a business premium from marriage, women do not – reflecting a husband's greater ability to marshal the labor contributions of household members for their business.²³¹ Research from Sri Lanka and Ethiopia demonstrates that women with greater decision-making power in the household and more cooperative husbands than those with lower scores are more likely to invest in their business and more able to grow their enterprises.^{232, 233} However, studies suggest that household behavior tends to follow a non-cooperative model. In Kenya, married couples were more likely to invest a monetarily significant subsidy in livestock and household assets if received in a joint account than if received in an individual account. When the large subsidy went to an individual account owned by either the husband or wife, either was more likely to invest in their own income-generating activities.²³⁴



Furthermore, research shows that female entrepreneurs struggle to direct capital to their business, a fact that can be either due to their own or others' needs. A study in Ghana shows that giving female entrepreneurs in-kind grants is effective in increasing business profits, but providing them with cash grants is not. This may be because in-kind contributions are easier for women to keep in the business than cash. No such difference is found for male entrepreneurs, for whom both in-kind and cash grants prove effective.²³⁵ In-depth qualitative research among micro-entrepreneurs in urban Ghana shows that, even while striving for business success, some female entrepreneurs also try to achieve other non-business goals that may compete for available capital.²³⁶

A follow-up study using the same Ghana data, as well as other data from India and Sri Lanka,²³⁷ indicates that in households in which there is both a male- and female-owned enterprise, cash grants or microloans tend to be invested in the male enterprise, even when the woman is the cash grant/loan recipient. When women are the sole household enterprise operator, these investments lead to positive increases in profits. The study concludes that female entrepreneurs are as capable as male entrepreneurs of making sound investment decisions, but they may not be able to control capital in the household.

Households may decide to invest in male-owned enterprises because they yield higher returns. However, this difference in returns to capital between female and male-owned businesses may be driven by earlier biases in the allocation of resources rather than by innate differences in managerial ability. Additionally, various studies suggest that women may prefer – or may feel compelled – to spend money on domestic goods or their children²³⁸ – a bias that may help explain why in-kind grants are more effective for women-led businesses.²³⁹

Inefficiency in intra-household allocation is compounded when female entrepreneurs are compelled to share resources from social connections outside of the home.²⁴⁰ The importance of these dynamics is backed up by an experiment in Uganda. When unconditional grants were distributed to microenterprise owners, the profits of firms owned by women in the treatment group who lived near their family were even lower than the profits of firms owned by similar women in the control group (i.e., those who received no grants or other support).²⁴¹

Bottom line: Household resource allocation is likely a major factor influencing women's decisions regarding their businesses. Further research should include the identification of scalable mechanisms for involving couples, men and other male household members to help ease constraints related to the distribution of household resources. See "deep dive" 3.

IX

Time constraints / Care

Women spend more time than men on domestic chores, limiting the amount of time that they can dedicate to their business.

Research demonstrates that women dedicate substantially more time than men to household tasks²⁴² – sometimes even when they contribute more than their partner to the household’s earnings.²⁴³ Women not only devote more time to household tasks, but they may also need to stay at home at certain times of the day – even if those times are best for conducting business – or multitask between household and business responsibilities.

This report finds that in Uganda, women are three times more likely than men to take responsibility for household chores and caring for others (children, sick and elderly) while operating their business, and 50% more likely than men to be engaged in multiple activities while running their businesses. In Malawi and Togo, female entrepreneurs spend twice as much time as their male peers taking care of children, the sick, or the elderly while simultaneously running their businesses. Moreover, in Togo women spend three times more hours than men on childcare during business working hours.²⁴⁴

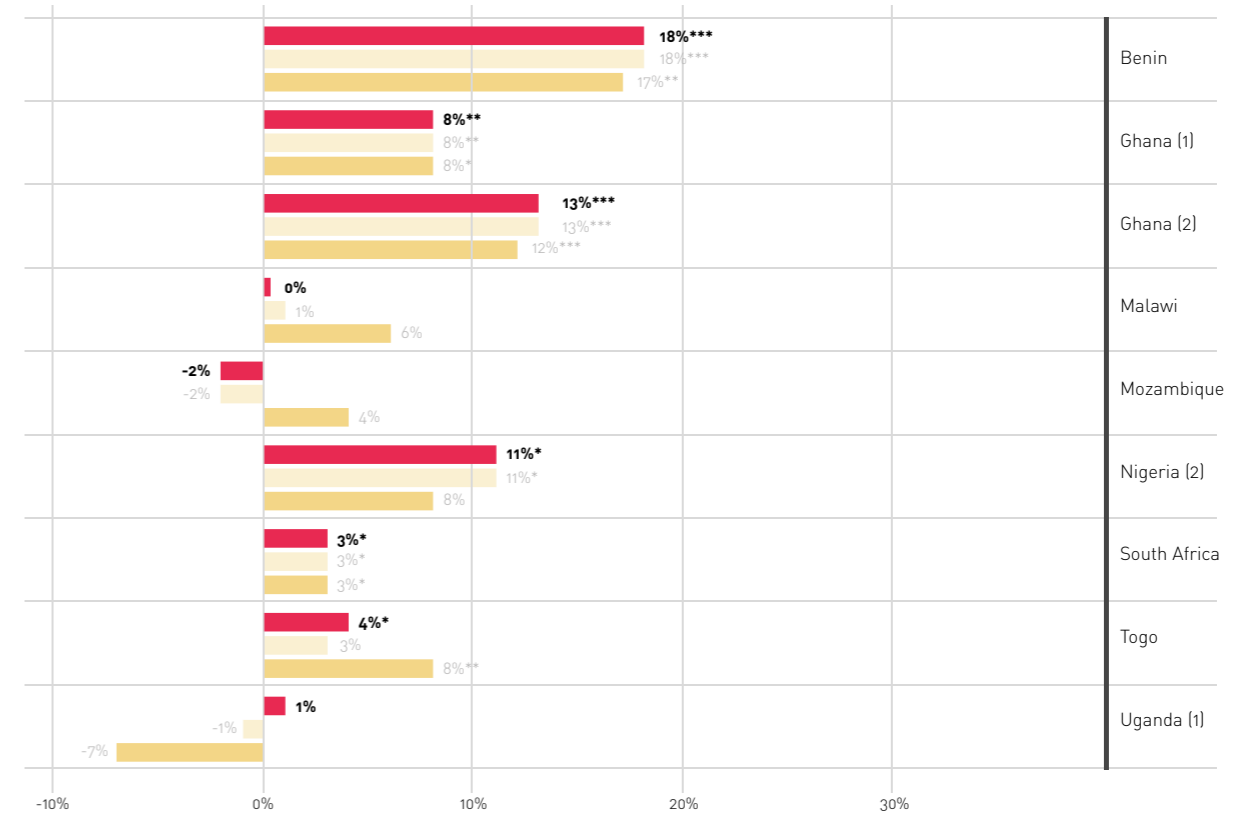
In agribusiness in the Democratic Republic of Congo,²⁴⁵ female plot managers spend significantly more time than male plot managers on domestic and care work, while also spending significantly less time on productive activities, resting, and conducting social activities than male plot managers. In male-headed households, being a female plot manager is associated with spending even less time on productive activities. After accounting for differences in household composition and village and individual characteristics, women plot managers in the Democratic Republic of Congo spend on average 20 minutes less per day than male plot managers on farm work and other income-generating activities, and an hour and 45 minutes more on domestic work. In the Democratic Republic of Congo, 64% of plot managers think that having a child under five years of age lowers their productivity – with female plot managers six percentage points more likely to report this strongly adverse effect. This significant difference holds when controlling for household composition, as well as for individual and household characteristics, and village characteristics. While this example is more linked to agriculture than entrepreneurship, it is important to highlight given the limited granular data on these dynamics in Africa.

Overall, both women and men entrepreneurs spend a lot of time working on their businesses, exceeding the standard of 40 hours a week. African entrepreneurs spend an average of between 50 and 67 hours per week on their businesses. However, women spend fewer hours than men at work: on average, men work 10% more hours per week than women. There is some variation across countries in Africa (Figure 24). The gender gaps in hours spent on the business tend to be smaller and not statistically significant in male-dominated sectors – perhaps because women in these sectors need to match men’s time commitment in order to compete.

Figure 24

Male entrepreneurs in Africa spend more time than female entrepreneurs on their businesses

Gender gap in hours spent working on a business



● Unconditional gap ● ... controlling for age and tenure ● ... Core specification

Source: Authors using IE database.

Note: Ghana (1): Grants for micro-enterprises survey; Ghana (2): Tailoring survey; Nigeria (2): Business plan competition survey; Uganda (1): Kassida survey.

Household and care responsibilities may limit the time women can dedicate to a business. The burden on women to complete household chores influences their choices in terms of what they can do with the time left, with these choices having implications for their economic decisions. Time is a limited resource – more time working means less leisure, and therefore implies a greater degree of “time poverty.”²⁴⁶

In Ghana, Malawi, Nigeria, and Uganda, being married is a factor that contributes to increasing the gender gap in the number of hours spent working in a business, suggesting that women with husbands and children face greater demands on their time for household tasks. Similarly, having children increases the gap in business performance in Mozambique and South Africa.

Freeing women from some household responsibilities could help to expand their economic activities. There is emerging evidence, especially from outside of Africa, about the importance of childcare programs. However, this evidence mostly focuses on the impacts on children or on women’s participation in economic activities, rather than looking at the impacts on firm performance or women’s abilities to manage their businesses.

A study in Mozambique finds that childcare services increased the caregiver’s employment rate by 26%.²⁴⁷ An impact evaluation in Kenya showed that mothers of children who received subsidized early childcare were on average 17% more likely to be employed. Women receiving this support were 1.3 percentage points more likely than in the control group to be running a business, an impact smaller than the one in wage employment.²⁴⁸ A quasi-experimental study in southern Togo indicates that enrolling children three to five years of age in preschool resulted in women being 37% more likely to work outside the home.²⁴⁹

Other studies have researched the effect of the price of childcare and women’s labor-market activity in low-income countries, concluding that the high costs of outside-home care have a negative effect on maternal employment.²⁵⁰ In Brazil, mothers’ employment rates increased from 36% to 46% after the introduction of public-funded childcare services, with a significant increase in household incomes (although the cost of childcare services offset these higher incomes).²⁵¹ In Argentina, a large pre-primary school-building program increased the likelihood of maternal employment by between 7 and 14 percentage points.²⁵²

Bottom line: Women’s time constraints related to domestic chores and care are likely a strong constraint on their business activities relative to men, but further rigorous evidence and analysis is needed on whether increasing childcare services and other types of interventions produce lasting effects on business performance.

04

Deep-dive analyses

This section examines in greater detail the following underlying constraints affecting gender parity: (i) social norms, (ii) networks and information, and (iii) household allocation of factors of resources.



From the initial list of nine underlying constraints, these issues were selected for deeper analysis for the following reasons:

- Rigorous evidence of their importance in explaining gender gaps in business performance in Africa is not comprehensive.
- Their measurement is challenging.
- The mechanisms involved vis à vis business performance are unclear.
- Highlighting these issues in this report can lead to further analytical work being done on them.
- Understanding these constraints more thoroughly is critical in driving the next generation of program development.

Given the limited data available in Africa on these underlying factors, most of the deep-dive analyses rely on surveys conducted in Ghana, Malawi, Togo, and/or Uganda. These countries were selected for the deep dives in order to leverage existing impact-evaluation studies in each country, which can provide in-depth quality information that is hard to replicate from scratch in a new country. In the three studies, the initial impact-evaluation surveys were complemented with additional quantitative or qualitative surveys focused on the deep-dive issues. This makes the descriptive analysis completed in these deep dives quite unique in the literature on gender and enterprise development in Africa.

Deep dive 1:

Do gender-biased social norms dampen business performance?

This deep-dive analysis draws on rich data collected for this report in recent surveys in Togo and Malawi, as well as additional impact-evaluation data from Ghana and Malawi. It assesses the prevalence of gender-biased beliefs and norms and their potential contributions to the gender gap in business performance.²⁵³

While this deep dive focuses on a small set of countries and is therefore not representative of all of Africa, it is worth noting that in a ranking of countries by the proportion of female ownership represented in formal firms,²⁵⁴ Malawi ranks close to the middle, Ghana at the lower end of the top 10, and Togo ranks near the bottom, at tenth to last. The countries at the bottom of this list are Mauritania, Chad, and Sudan. Those leading this list are Lesotho, Botswana and Namibia.

■ Main findings

1. Gender-biased beliefs are prevalent among surveyed entrepreneurs in Africa.
2. Both men and women have largely internalized gender-biased norms,²⁵⁵ with some important gender differences. Women are less likely than men to be biased toward the pursuit of business opportunities, but they are more likely to prioritize household needs.
3. Entrepreneurs with comparatively high levels of education are less likely to espouse gender-biased beliefs.
4. Holding gender biases is associated with lower investment levels and lower business performance, but this relationship is not robust in all settings. There is suggestive evidence in some settings that businesswomen holding more progressive views and those operating in male-dominated sectors face discrimination in their operations.

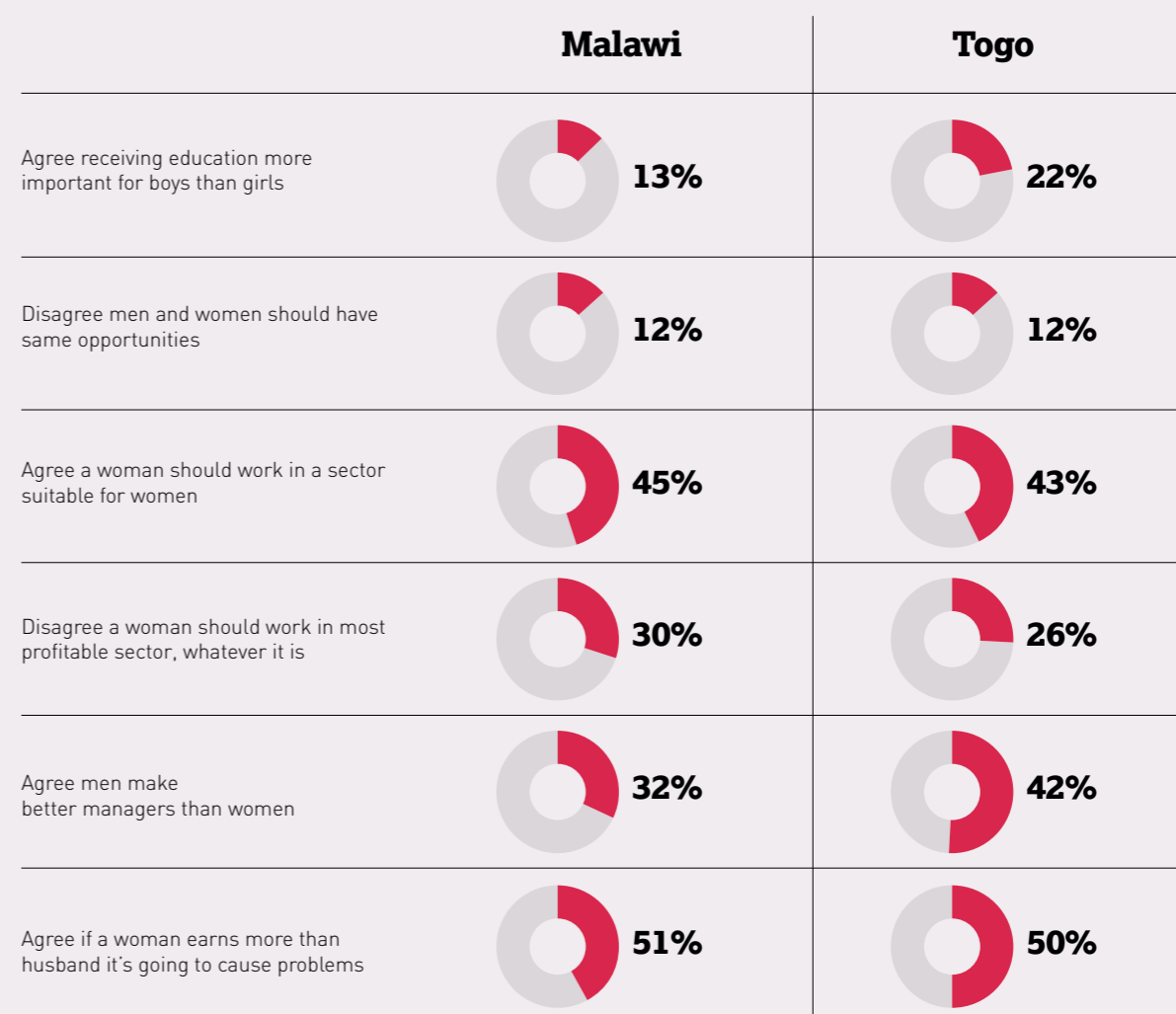
■ Analysis

1. Gender-biased beliefs are prevalent.

- Both male and female entrepreneurs in this analysis have beliefs that can be generally classified as gender-biased. Half of the business owners surveyed in Malawi and Togo believe that problems will arise if a woman earns more than her spouse (Figure 25). This is also prevalent outside of Africa; a recent study showed evidence of these attitudes in the United States, as well as their negative effects on women's employment and earnings potential.²⁵⁶
- Entrepreneurs in Togo and Malawi hold deeper gender biases regarding norms related to business abilities and performance than for norms related to education and opportunities in general. While about 32% and 42% of entrepreneurs in Malawi and Togo respectively agree that men make better managers than women, only 12% of entrepreneurs in these settings disagree that men and women should have the same opportunities. And whereas more than 40% of respondents agree that women should work in sectors that are suitable for them and at least 25% think women should not work in the most profitable sector, only 13% of business owners in Malawi state that education is more important for boys than girls.

Figure 25

Gender-norm biases are common among entrepreneurs



Source: Authors using surveys for this report

- Mobility restrictions, which limit women's opportunities outside of the home, are undergirded by gender norms that dictate socially accepted behaviors for women. Data from a 2014 survey in Malawi reveal that 32% of entrepreneurs agree that a woman's place is in the home and more than two-thirds agree that when a woman works outside the home, the children suffer.

Box 7

Using vignettes to assess business vs. household choices in Togo

Summary

Vignettes allow researchers to tease out subtle differences in attitudes, perceptions, and norms. In a survey in Togo for this report, the team administered a set of carefully worded vignettes to assess the entrepreneurs' priorities for – and biases around – business and family choices.

Methodology

Entrepreneurs listened to a vignette about an individual who owns a business and has just received a government grant. If the individual were to hire an employee with that money, she/he could double her/his profits. The individual had an alternative option of using the grant to pay for the children's supplies in school.

Respondents were asked two separate questions: 1) whether the individual should hire an employee (and not pay for the children's supplies); 2) whether the individual should consult with the spouse before making this decision.

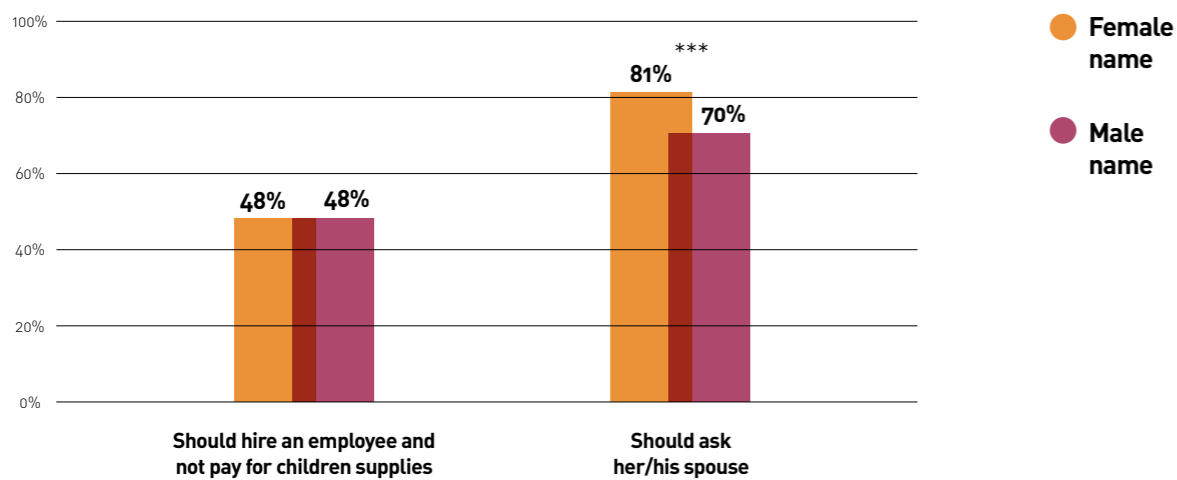
A randomly selected half of the sample received the vignette question with a female name, and the other half received it with the individual having a male name.

Key findings

- For both male and female names, 48% thought that the individual should hire an employee, suggesting no bias at this level.

Figure 26

Gender biases are prevalent in decision-making



Source: Authors using survey for this report. Note: *** p<0.01, ** p<0.05, * p<0.10. Tests of equality by gender of the entrepreneur represented in the vignette.

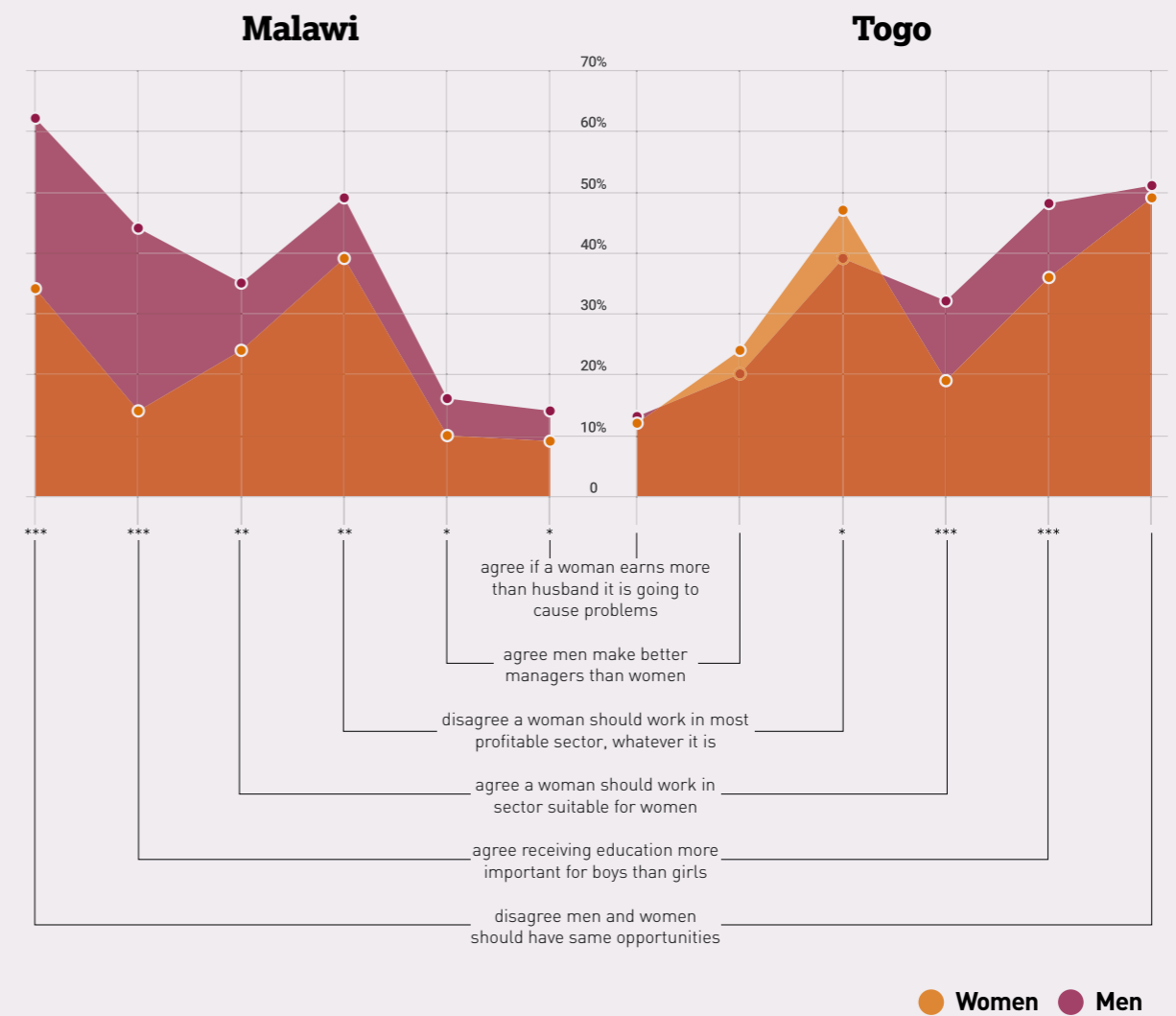
- Gender biases emerged around decision-making.** About 81% of those who received the vignette with a female name replied that she should consult with her husband before making the decision. This was 11 percentage points higher than when respondents were asked whether the husband should first consult his wife.

2. Women are less biased than men regarding gender norms as they relate to business opportunities, but are more likely to prioritize household needs over the business.

- While differences in views on overall gender equality tend to be small in Togo and Malawi, men and women diverge markedly over questions relating to men's and women's abilities to run a business, the appropriate sectors for women's work, and women's mobility.
- On average, women hold less powerful gender-biased beliefs than do men. In both Malawi and Togo, women are significantly less likely to agree that men make better managers than women. This difference remains significant even after controlling for personal characteristics and sector of operations. Women are also more likely to agree that they should work in the most profitable sector, whatever that may be.²⁵⁷

Figure 27

Consistent gender differences around gender-biased norms

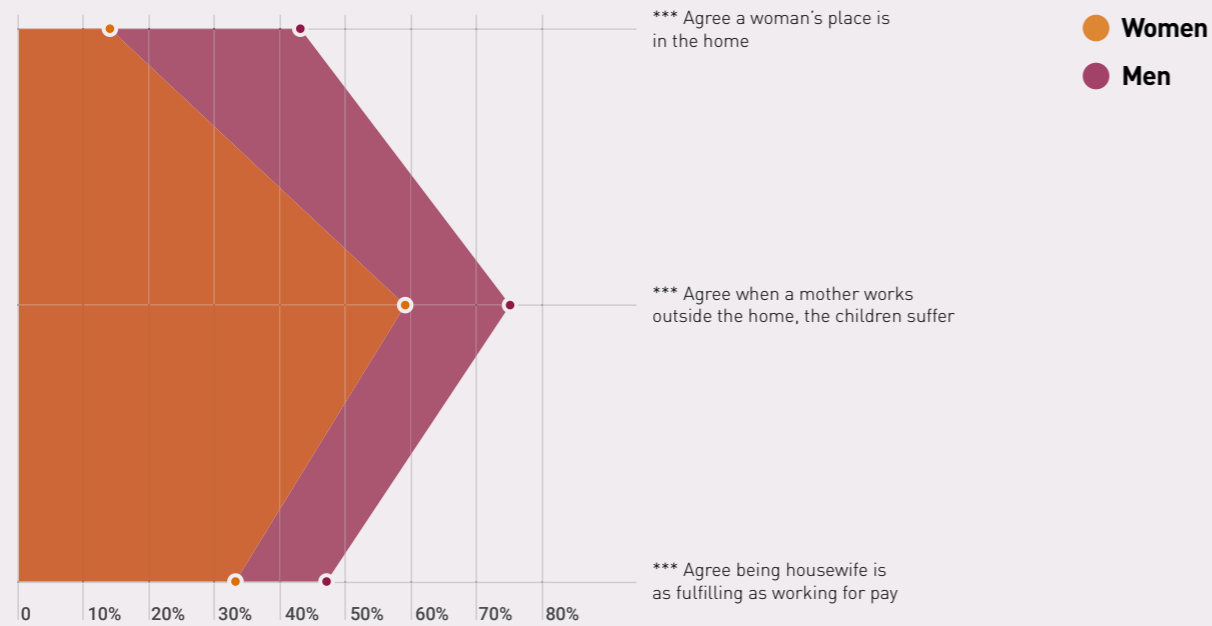


Source: Authors using surveys for this report. Note: *** p<0.01, ** p<0.05, * p<0.10 Tests of equality by gender. Unconditional gender differences reported.

- Women are also significantly less likely than men to support norms restricting women's mobility. While only 14% of female entrepreneurs in Malawi (2014) agree that a woman's place is in the home, 43% of male business owners think that this is the case. And three-quarters of male entrepreneurs agree that children suffer when a mother works outside the home, compared to 59% of women business owners.

Figure 28

Gender differences relating to biases concerning women's mobility (Malawi)

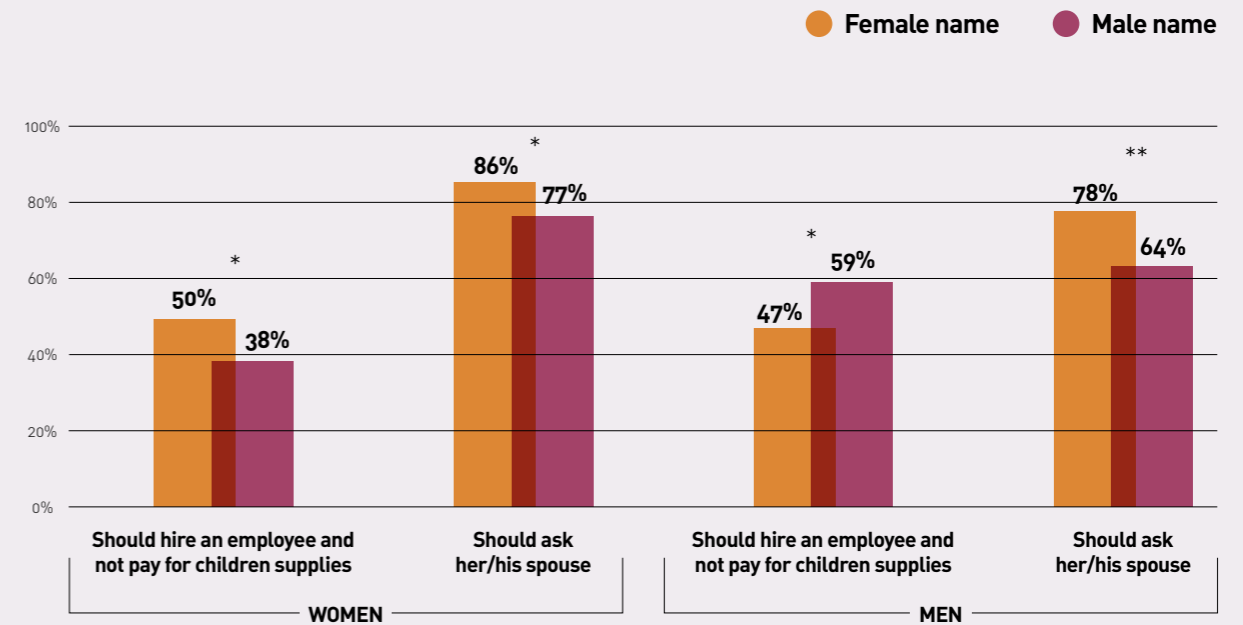


Source: Authors using surveys for this report
 Note: *** p<0.01, ** p<0.05, * p<0.10 Tests of equality by gender. Unconditional gender differences reported.

- However, women tend to prioritize family over business more than men do. The Malawi survey from 2014 asked male and female entrepreneurs where they see themselves on a scale between preferring family or work: 27% of women and 19% of men see themselves closer to family than to work.²⁵⁸
- In the vignettes from Togo, both women and men hold biases in favor of their own gender. That is, they are both more likely to agree that entrepreneurs of their own gender should prioritize their business (instead of school supplies) as compared to individuals of the opposite gender (Figure 29). Nonetheless, women appear to prioritize household needs: 50% of women think the female name should hire an employee, while 59% of men agree the male name should hire an employee. Only 38% of women believe that the male name should hire an employee, when 47% of men think the female name should hire an employee.
- Women are also more likely than men to agree that entrepreneurs should consult their spouse, independently of whether the entrepreneur is male or female.²⁵⁹

Figure 29

Women tend to prioritize household needs more strongly than men



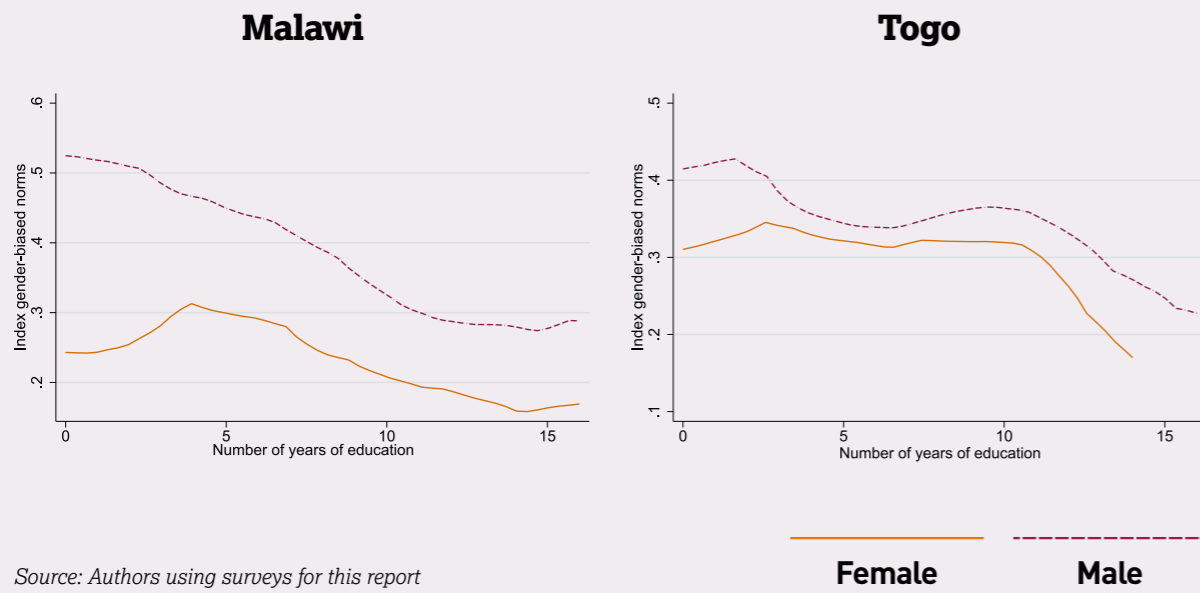
Source: Authors using surveys for this report
 Note: *** p<0.01, ** p<0.05, * p<0.10. Tests of equality by gender of the entrepreneur represented in the vignette, separately by gender of the respondent. Unconditional gender differences reported.

3. Entrepreneurs with comparatively high education levels are less likely to espouse gender-biased beliefs

- A measure of gender-biased beliefs is constructed for this report that aggregates six statements asked in the Togo and Malawi surveys (see Figure 25 for the specific statements). The report then analyzes the relationship between personal characteristics and these beliefs. It defines the gender-biased norm index as the proportion of the six statements with which the individual agrees. The average of the index in both Togo and Malawi is about 0.33; thus, on average, respondents hold close to two of the six gender-biased beliefs.²⁶⁰
- Figure 30 shows that comparatively more educated individuals – both men and women – are less likely to be gender-biased. However, the negative correlation is especially evident at higher levels of education, suggesting that primary education alone is not associated with weaker gender-biased beliefs.
- Regression results confirm that education is a strong and statistically significant correlate of gender-biased beliefs for both men and women. Moreover, consistent with the previous section, women hold significantly fewer gender-biased beliefs than do men, as an overall average.²⁶¹

Figure 30

Gender bias of entrepreneurs declines as education increases



Source: Authors using surveys for this report



Table 5

Being male and having a low level of education are the main factors associated with holding gender-biased beliefs

Dep. variable: gender-biased beliefs index	MALAWI			TOGO		
	(1) ALL	(2) WOMEN	(3) MEN	(4) ALL	(5) WOMEN	(6) MEN
Woman	-0.144*** (0.022)			-0.061** (0.026)		
Owner's age	-0.002* (0.001)	-0.001 (0.001)	-0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.002)
Years of education completed	-0.016*** (0.003)	-0.008** (0.004)	-0.022*** (0.004)	-0.008*** (0.003)	-0.006* (0.003)	-0.008* (0.004)
Married	-0.026 (0.029)	-0.054* (0.031)	0.009 (0.059)	0.019 (0.024)	0.015 (0.031)	0.026 (0.045)
Household size	0.004 (0.003)	0.008 (0.005)	0.001 (0.004)	0.001 (0.004)	-0.001 (0.006)	0.003 (0.006)
Number of Young children	-0.002 (0.012)	-0.011 (0.012)	0.001 (0.018)	0.015 (0.012)	0.024 (0.018)	0.005 (0.017)
Constant	0.531*** (0.081)	0.315*** (0.103)	0.528*** (0.122)	0.341*** (0.059)	0.292*** (0.077)	0.338*** (0.087)
Sector dummies	Y	Y	Y	Y	Y	Y
Observations	484	195	289	480	233	247
R-squared	0.186	0.133	0.150	0.047	0.046	0.067

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4. Gender-biased beliefs are associated with lower investment and performance levels. These relationships are partly explained by other factors such as education levels.

- In Malawi and Togo, gender-biased beliefs are negatively associated with firm-level capital investment (Figure 31). Holding more gender-biased beliefs is associated with a 70% to 80% difference in capital investment in Malawi and Togo. In Malawi, this relationship is reduced and statistically insignificant after controlling for the entrepreneur's characteristics (such as years of schooling) and the sector of operation, but remains very large for women.²⁶² It may also be the case that norms reduce investment by pushing women into specific low-investment sectors of operation. In Togo, gender-biased beliefs are associated with lower levels of capital investment even after accounting for the sector and the entrepreneur's characteristics. No similar pattern emerges in either country when examining the number of hours worked, which is not correlated with gender norms.

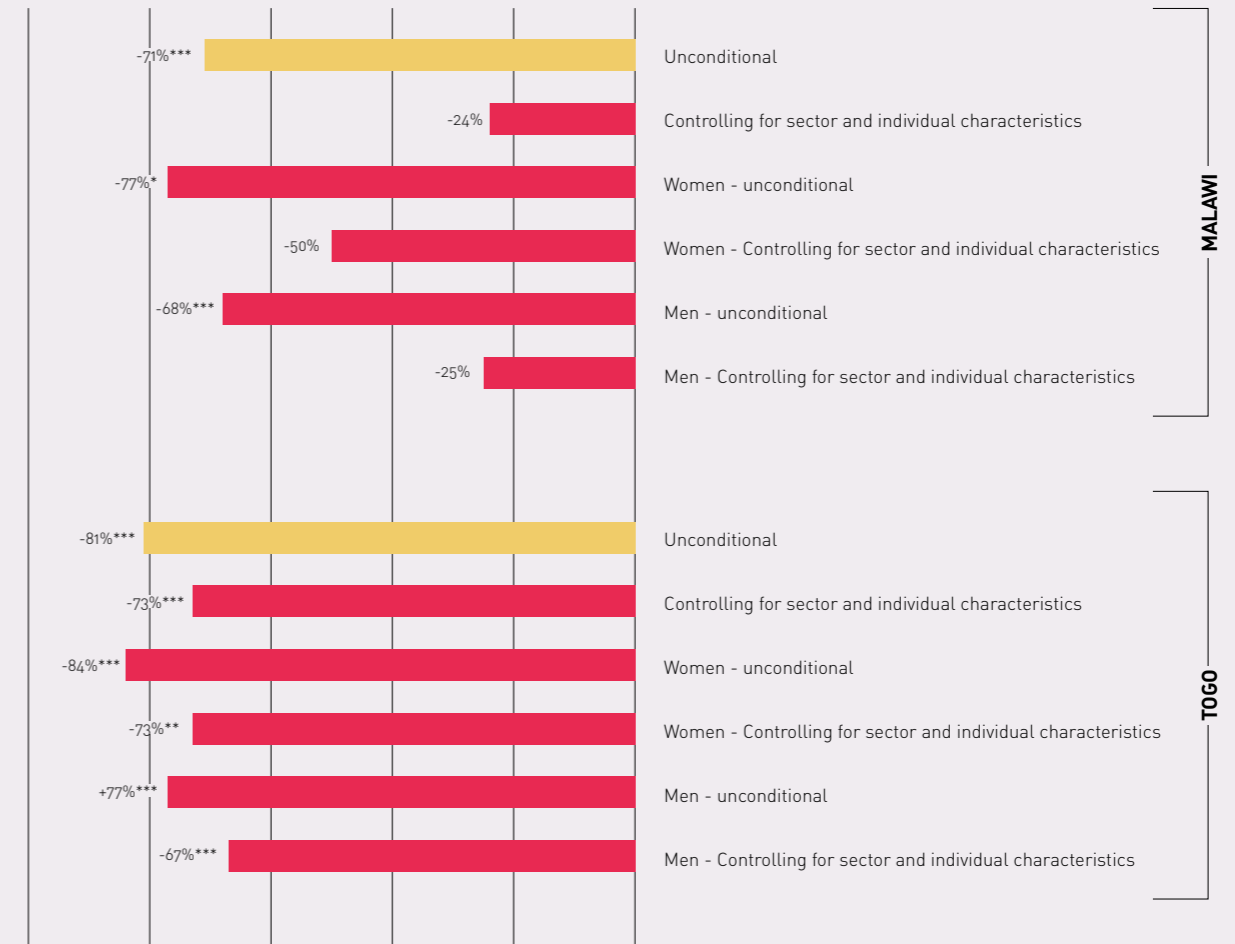
- As with investment levels, the inverse relationship between gender bias and profits remains large in Malawi. Holding more gender-biased beliefs is associated with profit levels that are on average 52% lower, with this effect rising to 68% lower profits among female entrepreneurs in Malawi. The correlation between the two factors is not statistically significant but remains greater than 30% when accounting for individual characteristics and the sector of operations. The importance of individual characteristics in mediating the association between norms, investment and profit levels may be due to the role of norms in influencing (and being influenced by) key life choices – such as educational attainment, marriage, and the number of children.
- For female entrepreneurs in Togo, on the other hand, the relationship between gender biases and profits is *positive*. The correlation is statistically insignificant when one accounts for other characteristics, but is still large.²⁶³ Further analysis points to occupational segregation as the driver of this result. The positive and significant relationship between bias and women’s profits is concentrated within sectors where women are not highly represented. These findings indicate that female entrepreneurs in Togo who hold comparatively progressive views on gender equality and operate outside “traditional” female sectors may be marginalized or face social discrimination. This is supported by the fact that they show lower profits than those with more biased beliefs, even after accounting for individual characteristics, sector, and firm inputs and characteristics.

5. Conclusion

- A large share of both male and female entrepreneurs in Malawi and Togo hold gender-biased beliefs. Men are more likely to hold biases regarding how and in what sector women should run a business. Women, meanwhile, are more likely to value family over business, which may influence their entrepreneurial decisions.
- Educational attainment is associated with a reduced level of bias, but a relatively high level of education is needed before these biases become less common.
- Holding more gender biases is associated with lower levels of capital investment in Malawi and Togo and lower profits in Malawi. In addition, norms may be so entrenched in life choices that it may be the case that factors helping explain the relationship between norms and business performance are also influenced by these biases.
- There is limited causal evidence with regard to how strongly social norms impact business performance. A research agenda is needed to test the mechanisms and importance of social norms as constraints to business development. In particular, rigorous impact evaluations of interventions seeking to address targeted gender biases – or at least circumvent them – can provide crucial insights into the relative importance of this factor.
- This research agenda should build on existing evidence in parallel areas of study. Solutions for tackling embedded social norms in the context of enterprise development can be drawn from a number of promising areas of research on norms, including large-scale institutional changes,²⁶⁴ changes in regulations,²⁶⁵ addressing mobility issues,²⁶⁶ overcoming sector sex-segregation issues,²⁶⁷ and community and couple dialogues.²⁶⁸

Figure 31

Gender-biased beliefs associated with lower levels of capital investment



Source: Authors using surveys for this report
 Note: *** p<0.01, ** p<0.05, * p<0.10. Individual characteristics include gender, age, years of education, marital status, household size, and number of young children. Conditional regressions also include sector dummy variables. Investment measured using inverse hyperbolic sine.²⁶⁹

Deep dive 2:

Do gender differences in entrepreneurial networks fuel the gender performance gap?

This deep-dive analysis assesses gender differences in African entrepreneurs' business networks and their potential contributions to the gender gap in business performance. It draws on a range of detailed surveys collected for impact-evaluation studies (Ghana, Malawi, Togo, and Uganda), as well as two surveys conducted in Togo and Malawi in preparation for this report.

■ Main findings

1. Female entrepreneur's business networks are mostly comprised of other women.
2. Men have larger business networks than women.
3. Business networks with "strong ties," and family members in particular, are part of the process of business creation and development for both male and female entrepreneurs. Women are more likely to use this type of networks.
4. Women rely on their networks when starting a business and for financial support, but men more intensively use their business networks to share information, equipment, and supplies.
5. The relationship between networks and business performance is likely not straightforward, and dependent on aspects such as the depth of the relationships and their influence on various areas of business development.

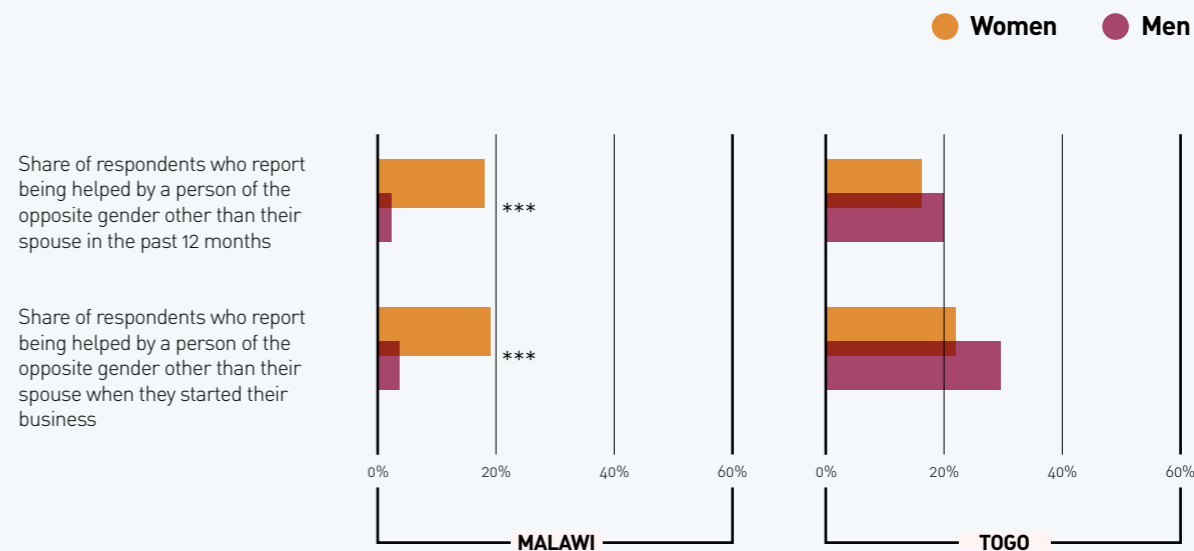
■ Analysis

1. Female entrepreneur's business networks are mostly comprised of other women.

- Consistent with earlier evidence,²⁷⁰ the analysis for this report suggests that African entrepreneurs' business networks are strongly segregated by gender; that is, men interact primarily with other men, and women with other women. For example, in Uganda, women account for nearly 80% of women's networks, but less than 10% of men's.
- Women's networks appear to be more gender-diverse than men's. In Uganda, women are more likely than men to list at least one person of the opposite gender in their networks. In Togo and Malawi, only a small minority of men and women indicate having received support from people of the opposite gender (other than their spouse), either when they started their business or in the past 12 months. In Malawi, women are more likely to report having benefited from this support (Figure 32).
- Among entrepreneurs who report knowing a specialist, women are more likely to point to a male specialist than men to a female one. The gap is particularly large in Malawi, where only 2% of the men named a female specialist, while almost 40% of women named a male one.

Figure 32

Women more consistently report being helped by a person of opposite sex



Source: Authors using surveys for this report. Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

2. Men have larger business networks than women.

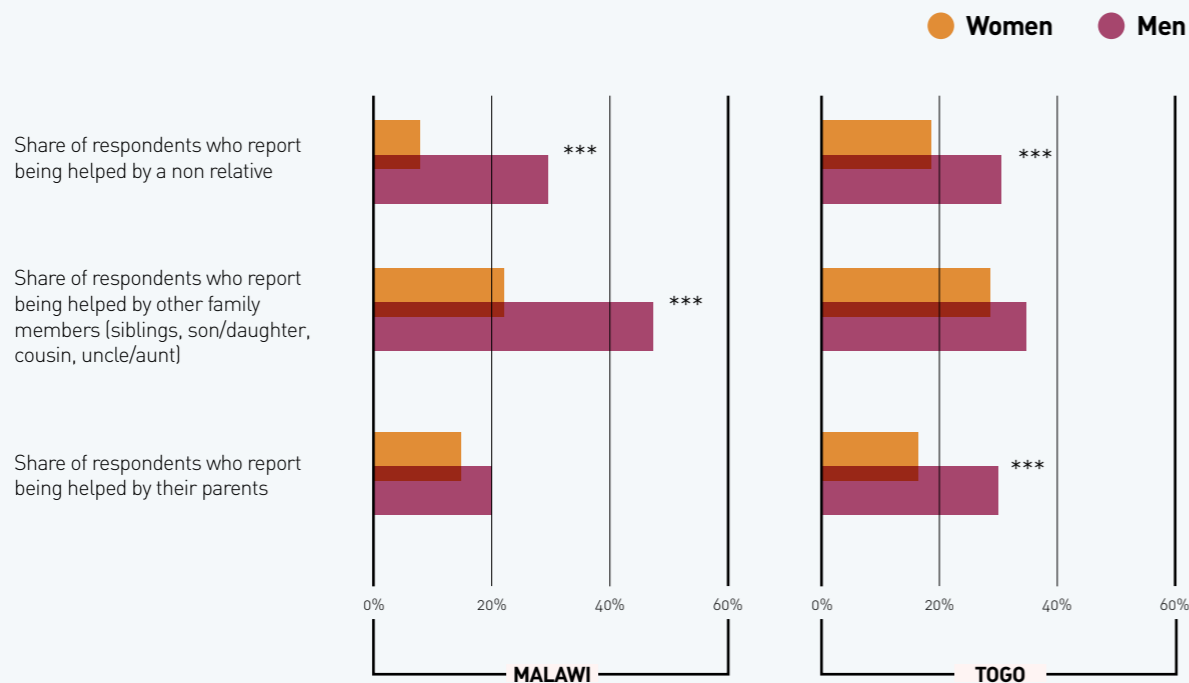
- In Malawi,²⁷¹ female entrepreneurs have 18% fewer people in their networks than do male entrepreneurs. A similarly sized gap (23%) emerges when considering networks within the entrepreneur's sector. This difference between the sizes of within-sector networks is 19%, and is statistically significant after accounting for firm and owner characteristics.
- In Uganda, male entrepreneurs' networks tend to be twice as large as those of female business owners. And men reported an average of 3.2 members in their core business network versus 2.9 for women. Despite the differences in network size, women and men in Uganda appear to be equally satisfied with their networks: 72% of women and 77% of men agree that networks are very important, and 77% of all entrepreneurs (no gender differences) state that the current level of information sharing is optimal.

3. Business networks with “strong ties,” and family members in particular, are part of the process of business creation and development for both male and female entrepreneurs. Women are more likely to use this type of networks.

- In Uganda, family and friends provide support to business owners. Family accounts for approximately 17% of women and men’s networks, while friends account for roughly 65%. The large majority of any given entrepreneur’s business connections in Uganda are within his or her business or residential area.
- In Togo and Malawi, most entrepreneurs receive help from relatives when starting their businesses. Women are more likely than men to receive help from relatives at the start, and report less support from non-relatives.
- Men and women also appear to rely on different categories of relatives. Men are more likely to receive assistance from their parents, but also from other relatives including siblings. Women, on the other hand, often receive assistance from their spouse. These patterns are consistent in both countries, and remain similar not only at a business’ start, but also with regard to subsequently provided assistance (Figures 33 and 34).
- In Togo,²⁷² women are more likely than men to hire employees based on social connections rather than skills or degree (17% vs 4%).

Figure 33

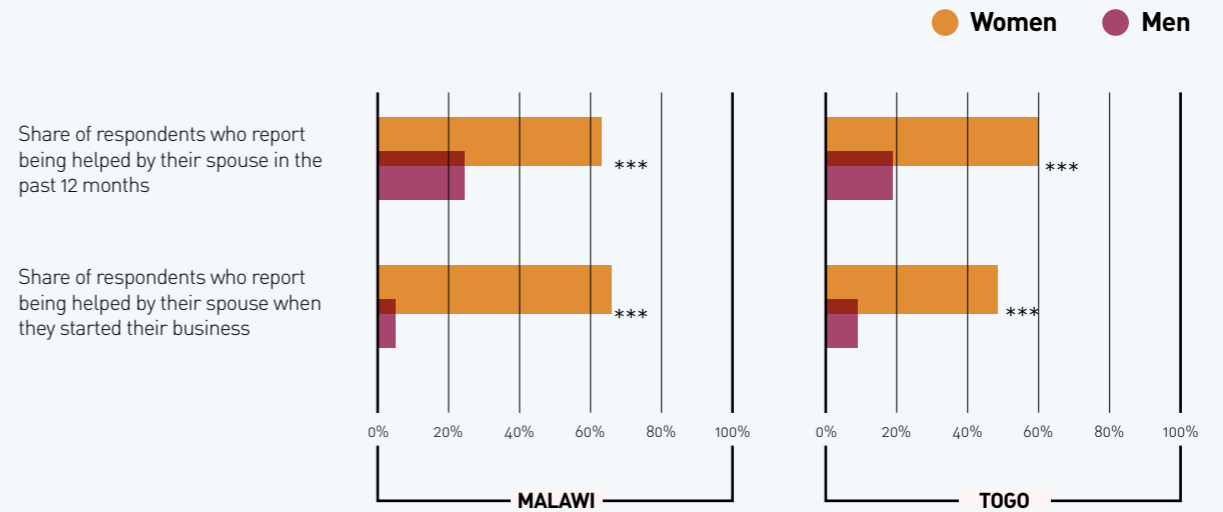
Men and women have different composition of networks



Source: Authors using surveys for this report. Note: *** p<0.01, ** p<0.05, * p<0.10.

Figure 34

Married women more likely to receive support from husbands than vice versa



Source: Authors using surveys for this report. Note: *** p<0.01, ** p<0.05, * p<0.10.

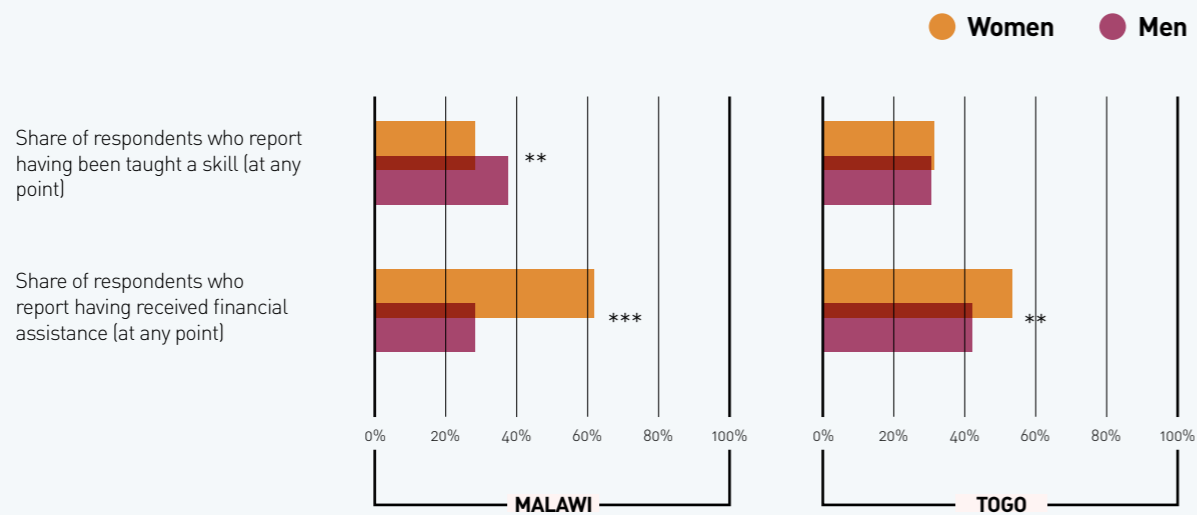
4. Women are more likely to use networks when starting their business and for financial support, but men use their business networks more intensively to share information, equipment and supplies.

- In Togo and Malawi, most entrepreneurs indicated that they had access to networks when launching their business, and women were more likely to have received help at that stage. Female entrepreneurs in Togo are also more likely than male ones to search for advice if they launch a new product or service. This is in line with findings from South Africa, where female-owned enterprises that had discussed partnerships with other firms are significantly more likely than male-owned to be a larger firm.²⁷³ However, the importance of networks for operating a business may decline over time. In both Togo and Malawi, more than 60% of entrepreneurs indicated that they did not receive support in the preceding 12 months.
- Women are more likely than men to benefit from financial support from their networks. The surveys in Togo and Malawi for this report consistently show that women more frequently receive financial assistance from their networks, both when they launch their business and in the previous 12 months (Figure 35). This difference remains significant even when controlling for sector, marital status, and level of education. However, in Uganda, men appear more likely than women to cooperate financially with their network: 58% of men and 48% of women report this type of cooperation (Figure 36).

- Men are more likely to share equipment, inputs and information. More men than women report having been taught a skill in Malawi, and having shared equipment when they started their business in Togo. Men in Togo are more likely to know a 'specialist', meaning "somebody with superior management or technical knowledge relevant to the activity." This seems to be driven by the sector of operations, with male-owned firms typically in sectors seen as "more technical." In Uganda, over 90% of the entrepreneurs share information on techniques and skills. Men appear more likely than women to share information on equipment, reflecting both differences in the sector of activity and in the nature of their interactions (Figure 36).
- Women receive different types of support by gender: they are more likely to obtain capital (as a loan or a gift) from men, and are more likely to be taught a skill by other women. This is true across surveys in Ghana, Togo, and Malawi (Figure 37).

Figure 35

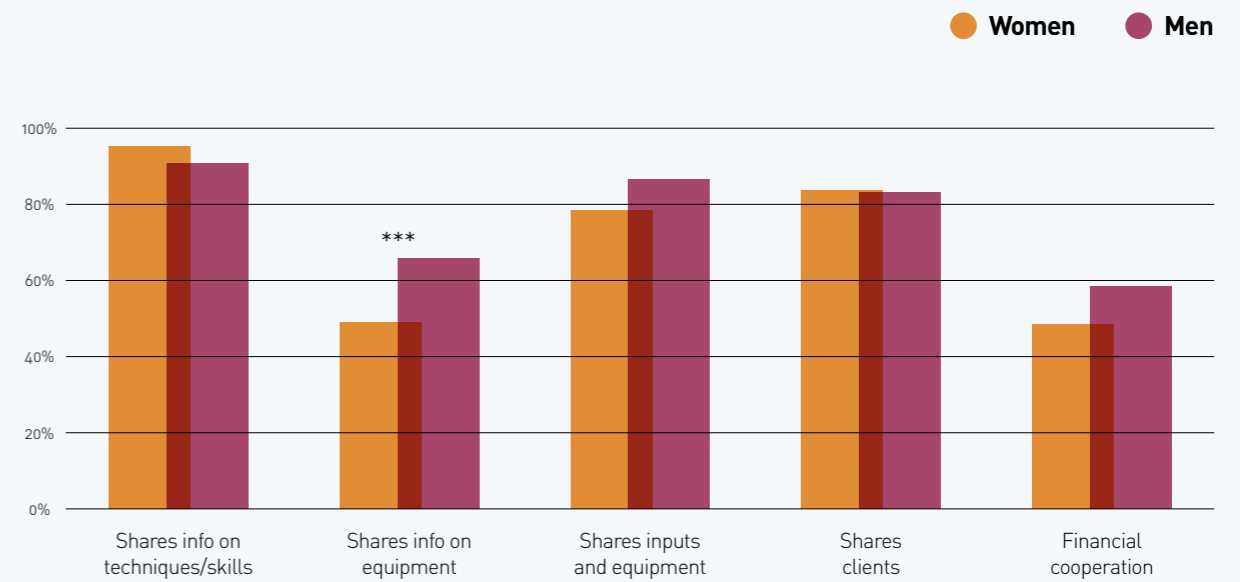
Female and male entrepreneurs receive different types of assistance



Source: Authors using surveys for this report. Note: *** p<0.01, ** p<0.05, * p<0.10.

Figure 36

Men in Uganda more likely to share information on equipment

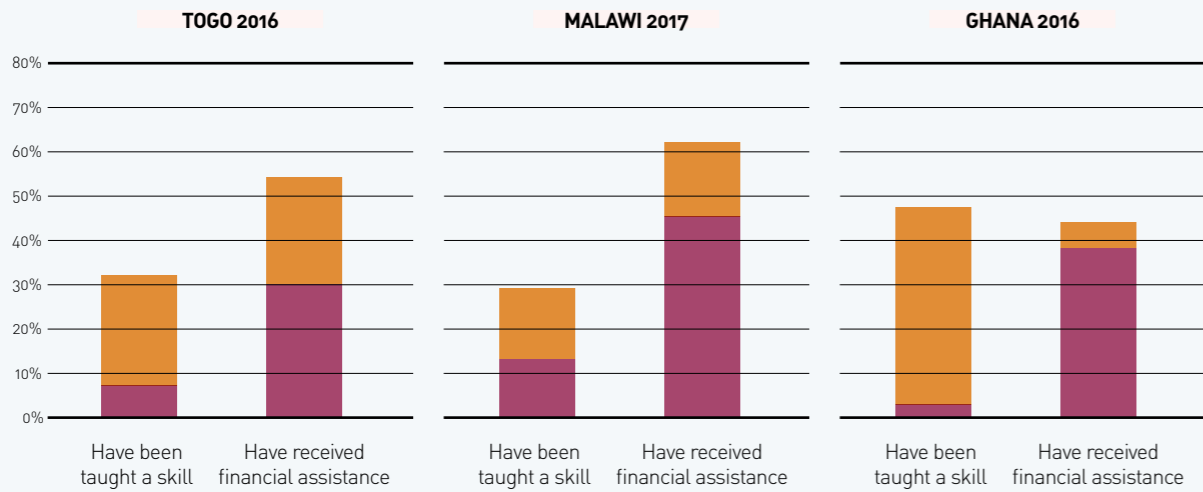


Source: Authors using IE database. Note: *** p<0.01, ** p<0.05, * p<0.10.



Figure 37

Women receive relatively more financial support from men and more technical support from other women



Source: Authors using IE database and surveys for this report.

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

● by/from a woman ● by/from a man

5. The relationship between networks and business performance is not straightforward, and is dependent on aspects such as the depth of relationships and their influence on various areas of business development.

- The evidence from rigorous evaluations suggest networks can play a particularly important role in reducing transaction costs, by fostering trust, information sharing, and supporting alternate enforcement mechanisms. An impact evaluation in Ghana found that increasing access to a new business network had a positive effect on business performance.²⁷⁴ Still, women were less likely than men to have interacted with members of their network. An experiment in Ethiopia, Tanzania, and Zambia found a positive effect with regard to the diffusion of business practices for the managers of small firms assigned to collaborate with large firms.²⁷⁵
- This report analyzed the correlation between the characteristics of entrepreneurs' networks and the performance of their businesses. The analysis first considers the relationship between network size and business performance. This report does not find a significant correlation between network size and profits. In Togo and Malawi, entrepreneurs who report having received help when they started their business do not appear to be performing any better than those who indicated having received no such help. In Uganda, entrepreneurs belonging to networks in which equipment was shared do not appear to be performing better than others. In Malawi and Togo, female entrepreneurs who have been taught a skill by someone in their network appear to have higher profit and capital investment levels. For men on the other hand, no such relationship was observed.

- There are several potential explanations for why the relationship between networks and business performance is not straightforward:
 - › More than the size of the networks, the quality of these relationships may be more important for business development.
 - › The analysis for the report excludes failed businesses, where the lack of networking support may have been most important.
 - › Network effects may be captured through other dimensions considered in the analysis. In Malawi,²⁷⁶ gender differences in network size lose their significance after controlling for sector and owner characteristics, suggesting strong associations between network size and these other dimensions.
 - › Women – particularly those with large and diverse networks – may be prevented from reaping the benefits of their networks by other constraints. These include gendered social norms and the decision-making process within their household.
 - › Entrepreneurs – both male and female – may make additional investment in their networks to compensate for an initially low level of financial or human capital. This is known in the networks literature as the “network compensation hypothesis,” and implies that the data could show a negative correlation between networking and performance even when networking actually helps business development.²⁷⁷
 - › Having an extensive network may be a mixed blessing, with additional costs imposed on entrepreneurs. Previous research²⁷⁸ shows that family pressure can have adverse effects on female-owned businesses. Women who receive more support from their network may also face more demands on their own resources from the members of this network. These two effects may cancel each other out, so that women with particularly supportive networks may end up not performing better than women receiving less assistance.

6. Conclusion

- The analysis for this report indicates that entrepreneurs' networks in four different countries in Africa are strongly segregated by gender, and women's networks are different from men's in important ways.
- Men's networks are larger, and evidence suggests that they are more likely to provide opportunities for sharing equipment. Women often rely on their spouse, in particular for financial support.
- Additional experiments creating networking opportunities for different categories of entrepreneurs would be helpful in identifying the type of businesses that stand to benefit the most from diversifying their connections. The following questions seem important at this juncture:
 - › Is networking more important in the early or later stages of business development?
 - › To what extent do other gendered constraints dampen the benefits of expanding one's networks?
 - › Why do businesses networks remain so strongly segregated by gender?
 - › Are there opportunities to loosen the networks' “ties” across gender and family presence?
 - › What is the effect of network diversification on entrepreneurs' choice of activity?

Deep dive 3: Do intra-household relationships affect the strategic choices of female entrepreneurs?

This section draws on a survey of micro-entrepreneurs in urban Ghana, along with complementary qualitative research examining the same population. These data permit an in-depth analysis of how women's businesses are affected by relationships within their households. The findings are specific to urban Ghana, but suggest ways that intra-household dynamics might be influential in women's business decisions elsewhere.

Undoubtedly, the burdens of meeting household needs place pressure on both men's and women's businesses, especially in low-income households. The data suggest, however, that female entrepreneurs may face additional challenges because:

1. How much and when they use business income for household needs is often determined by factors outside their control; and
2. Additional visible business income can mean reduced support from the spouse for meeting household needs, which can increase the financial burden on women.

■ Main findings

1. Women's businesses are important for meeting household needs.
2. Spouses have incomplete information about each other's earnings.
3. Women generally maintain control of their business income, but that does not always mean they have flexibility in determining how to spend it.
4. Women and men have incentives to hide their income due to pressure to share it and to increase contributions to household needs.
5. Women's independence in business management is associated with higher profits, but it is still unknown whether this is a causal relationship.
6. Households manage their finances in a range of different ways, and future research and programs should explore links between intra-household relationships and the success of women's businesses.

■ Analysis

1. Women's businesses are important for meeting household needs.

- More than three-quarters of women micro-entrepreneurs in urban Ghana agree that their household would have a hard time paying for food or school-related expenses without the income earned from their business. Surveys in other countries confirm the importance of women's businesses to households.²⁷⁹ This runs counter to the popular narrative, documented in qualitative fieldwork in Ghana, that the man is the primary breadwinner and that it is his responsibility to pay for housing, school fees, food, and medical expenses.

- Husbands in Ghana seem generally supportive of their spouse's business. Perhaps because of the importance of women's businesses for meeting household needs, only 10% of female entrepreneurs report that their husbands are unsupportive of their decisions to run businesses. Qualitative research also finds a widely shared expectation that women will operate businesses and receive support from their husbands to make this happen, especially at the time of business start-up. Recent research in Ethiopia suggests that while some husbands constrain women's business activity, many husbands provide various forms of support that are important for women's entrepreneurship activities.²⁸⁰

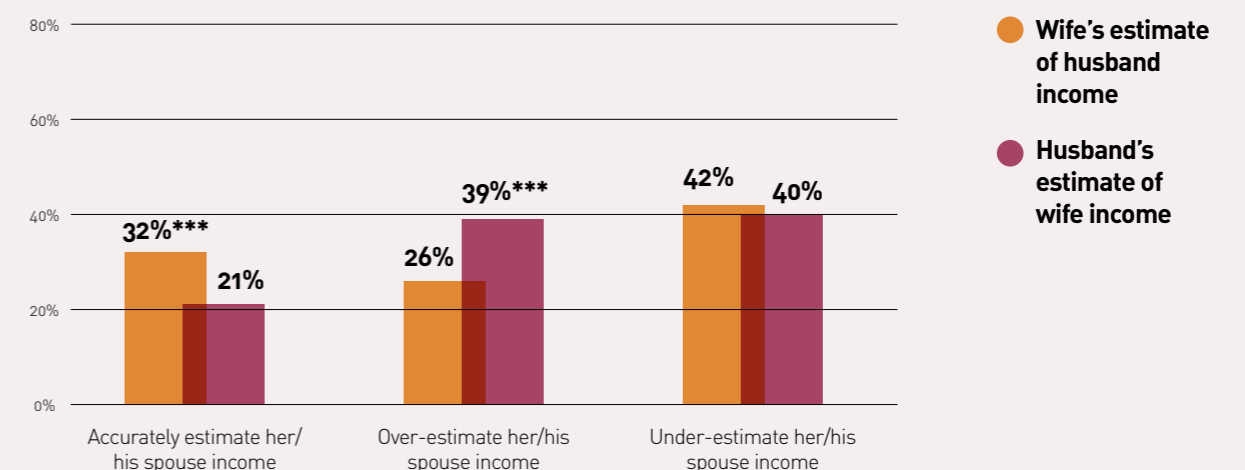
2. Spouses have incomplete information about each other's earnings.

- Previous studies have documented a lack of cooperation between spouses in maximizing household income.²⁸¹ In the Ghana survey, when asked to guess their spouse's income, only about 32% of female entrepreneurs and 21% of their husbands guessed a figure that was within 20% of the actual figure. In the qualitative study, female entrepreneurs indicated that they did not share information about their income with their husbands, and their husbands did not share it with them. Relatedly, pooling income was also unexpected and viewed as uncommon.
- Husbands of female entrepreneurs are more likely to overestimate their spouse's earnings. Figure 38 shows the frequency of income over- and underestimates by spouses when both members of the couple are entrepreneurs. Nearly 40% of husbands of female micro-entrepreneurs overestimate their wife's income, while 40% underestimate the amount. Women in the sample have somewhat more accurate information about their spouse's earnings, but some of the husbands in this sample are salaried, which means their income is easier to guess.

Figure 38

Most female and male entrepreneurs in Ghana misestimate their spouse's income

Gender gap in hours spent working on a business



Source: Authors using IE database. Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ for gender differences on estimates.



3. Women generally maintain control of their income, but that does not always mean they have flexibility in determining how to spend it.

- Only 8% of female entrepreneurs say that they do not have control over how their own income is spent.
- Direct economic coercion is relatively uncommon as well: less than 10% of female entrepreneurs in Ghana say their husbands compel them to give money in the previous 3 months, and nearly all of these women report that they usually control their income. About 11% anticipate that their husband would take some of their money if they received a grant to expand the household's economic opportunities.
- Despite their relative degree of control over their own income, female entrepreneurs have less say than their husbands over how household needs are met. Drawing on 16 longitudinal surveys from 12 countries (including eight surveys in sub-Saharan Africa), a recent study finds that small firms operated by women are more likely than male-owned firms to close because of household shocks (such as illness or other family needs). In fact, when explaining the reason for business closure, women report illness or family needs (34%) almost as frequently as they cite making a loss (36%). In contrast, only 12% of men mentioned family reasons as explanation for firm closure.²⁸²
- Qualitative research in Ghana suggests women receive money from their husbands to meet household needs, but that the money is often inconsistent and in some cases inadequate. Quantitative data indicates that 81% of women receive regular transfers from their husbands for household maintenance, called "chop money." Corresponding estimates from Malawi (84%) and Togo (91%) are similarly high. In Ghana, on average, the amount of chop money given to female entrepreneurs every month is roughly equal to the average level of profits for women's businesses, suggesting that on average it doubles women's business income.²⁸³
- In Ghana, 91% of husbands decide unilaterally how much to give to their wife for household needs, without consultation between the spouses. This uncollaborative financial-management arrangement can leave women faced with hard tradeoffs between meeting business or household needs. The requirement that they be ready to make up for unpredictable shortfalls in their spouse's income or household contributions also means that entrepreneurs highly value saving for emergencies and insist on retaining access to liquid savings, even when they want to make a business investment. These findings are in line with a previous study in Ghana that documented that giving women in-kind grants resulted in increased business profits, but that giving cash grants – which can be more easily diverted for household priorities – did not have the same effect.²⁸⁴

4. Women have fears about showing how much they make.

- As documented elsewhere in Africa,²⁸⁵ entrepreneurs have reasons not to disclose their income levels. In a lab experiment in Tanzania, women were less inclined than men to share income information with their spouse.²⁸⁶ They seem to face family pressure to share income; indeed, about half of the female entrepreneurs in Ghana agree that husbands or other family members end up requesting money whenever they have it on hand. More than three-quarters agree that, in general, people who do

well are likely to receive requests from family and friends to help out with expenses. Consequently, over two-thirds of women agree that machines and equipment held by their businesses are a good way of saving money, so that others do not take it. Men face similar pressures to share, and are equally unlikely to be transparent about their income.

- Women in Ghana reported a need to hide income from their spouse, in particular, because of the fear that their husbands would reduce their contributions to the households if they knew that their wives had money.²⁸⁷ In the quantitative data, around 65%-70% of women say their husband does not know how much they have in their savings.

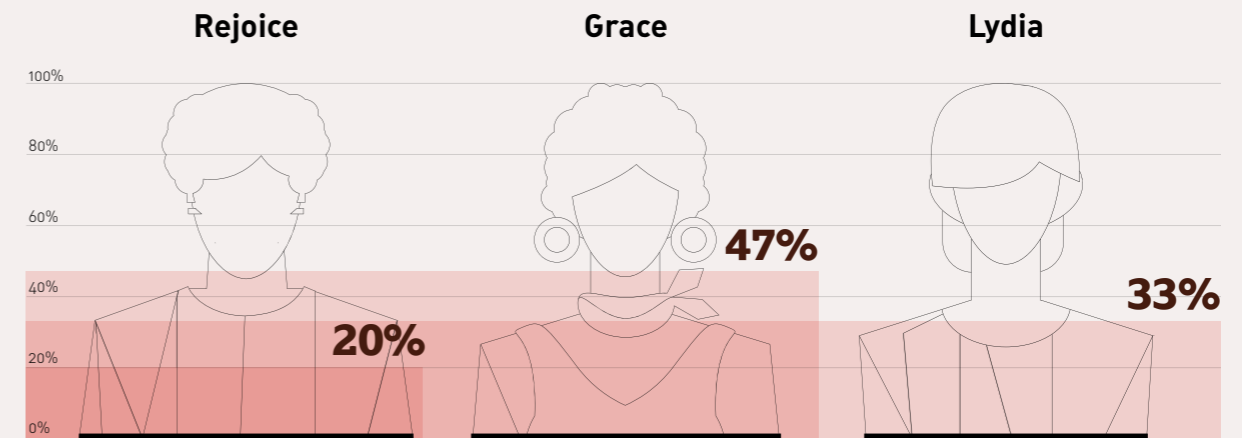
5. Women's independence in business management is associated with higher profits, but more research is needed to understand whether higher profits are a result of that independence.

- Consistent with previous evidence,²⁸⁸ limited decision-making power is associated with fewer hours of work and lower profits among women. Female entrepreneurs in Ghana have lower profits on average if they need to ask their spouse permission to start a business (43% of the female entrepreneurs surveyed are in this category) or to purchase equipment (28%); if they cannot make decisions about how to spend their own income (8%) or household income (27%); or if they cannot make their own decisions about borrowing money for the household (50%). A lack of independent decision-making power over household income is also associated with lower levels of capital investment in the woman's business.
- Perhaps more surprisingly, female entrepreneurs also do better on average when their spouse does not provide certain types of support for their business. Those who report that their husband does not help when they have a difficult month (7%) have higher profits, and those whose husbands do not provide money for making household purchases (19%) also have higher profits. In addition, female entrepreneurs who think that their husband would decrease his contribution to the household if he knew that his wife had money have higher average profits (11%) than those who do not. This relationship could be due to women with higher profits needing less support from their husbands, or it could be due to women's greater independence, leading to more investment on their own.
- Related findings can be seen in the results of a vignette survey question that asked female entrepreneurs to identify with one of three illustrative descriptions of women's intra-household financial management. Nearly half of the female entrepreneurs identified with a story that depicted a woman (Grace) whose income is kept separate from her husband's and who has a distinct set of responsibilities within the household. One-third identified with a story about a woman (Lydia) who has a cooperative relationship with her husband and who sits with her husband to determine the best way to spend and invest the money available. A final 20% identified with a story of a woman (Rejoice) who has little control – she waits to see what her husband contributes to the household and then makes her decisions about consumption and investment.

Box 8

Vignette on allocation of resources in household

The survey in Ghana asked respondents to identify with one of the following three women in Ghana: Rejoice, Grace, or Lydia.



Rejoice is a businesswoman. Before she can decide how much of her income she can spend on inventory and supplies for her business, she first has to wait to see how much other household members will contribute to meet household needs. [20% of the sample]

Grace is a businesswoman. Unlike Rejoice, other household members pay for the same household expenses each month. Since she has the same responsibilities each month, she can decide on her own how much of her income to spend on inventory and supplies for her business. She does not have to wait to see what other household members will contribute to meet household needs. [47% of the sample]

Lydia is a businesswoman. She is different from Grace and Rejoice because she decides how much of her income to spend on inventory and supplies for her business after discussing household needs and income with other household members. They sit together and determine how much each of them should contribute to household needs based on what the needs are that month, what each of them earned, and each of their priorities for their businesses. [33% of the sample]

Female entrepreneurs who identify with Grace have higher profits than those who identify with Lydia or Rejoice. Grace is different from Rejoice and Lydia in two important ways: she is relatively independent from her husband and she has predictability in her financial responsibilities. It is unknown whether the conditions of independence and predictability lead to higher profits or whether those with higher profits are able to generate those favorable conditions.

Those who identify with Lydia – a more cooperative model of household financial management – have lower profits than others. Given that these are female entrepreneurs who collaborate with their husbands to make consumption and investment decisions, it is possible that they are making strategic choices to maximize household income, which may not result in investment in the woman's business.

6. Conclusion

- Households manage their finances in a range of different ways, and future research should explore links between intra-household relationships and the success of women's businesses.
- With different businesses in the household, these firms and their owners face different needs and constraints. Larger or more formal businesses may require higher capital investment to remain competitive, while smaller or informal firms may require day-to-day working capital to maintain operations. This starting point will affect decisions in the household in the allocation of resources.
- Business decisions by female entrepreneurs are affected also by how they and their husband manage all sources of income and how they distribute expenditure responsibilities. In Ghana, it is common for husbands and wives to maintain separate income streams and to be responsible for different expenses. Income transparency is not expected and not practiced. Most married women are given housekeeping allowances by their husbands and are expected to meet daily household needs using the allowance as well as their own income when necessary. This can mean that when and how much women use business income for household needs is often determined by factors outside their control. There is a need for research to examine whether these patterns are common in other contexts.
- In-depth qualitative research in Ghana shows that women micro-entrepreneurs strategically manage their income to meet both business and household needs. While striving for business success, women also pursue strategies to ensure continued support from their husband, to shore up their ability to meet daily household needs, and to plan for long-term security, all of which can lead to the de-prioritization of business investment.²⁸⁹ Some women fear that additional visible business income will mean reduced support from their spouse for meeting household needs.
- Not all households exhibit the same level of cooperation, however, and differences may matter for women's business decisions. In Ghana, survey responses indicate that there is variation in how households manage their finances. The data also suggest that women's independence in business management is associated with greater profits, but it is unclear whether this is a causal relationship in either direction. Recent studies in other contexts have documented the importance of variation in levels of cooperation for household investments.²⁹⁰
- Future research should examine the extent to which different financial-management practices within households can be encouraged, thus leading to business investments by female entrepreneurs. Additional research is also needed on how behavior in households where entrepreneurs are not married or living with a partner differs from households where entrepreneurs are married.
- More work is needed to identify possible policy responses either to think differently about the role of women's businesses in the household, or to support female entrepreneurs in the simultaneous achievement of their business and non-business goals.

Path forward: How policy and decision makers can act to eliminate the gender gap

Despite high levels of entrepreneurship among African women, their businesses lag behind those owned by men. This report illustrated this performance gap and examined the differences in strategic decisions and underlying factors behind it.

Gender-neutral policies that seek to create a more conducive business environment and support entrepreneurs will not be sufficient to address these constraints – and may instead widen existing gaps. But the good news is that with targeted strategies, the international community, national governments, NGOs, and other stakeholders can help to address the specific challenges that female entrepreneurs face and unleash their productive potential.



Across the region and globally, policies and programs supporting businesswomen abound. A few of them have been rigorously evaluated. This section:

- Provides an overview of existing programs supported by governments, development partners, private companies, and NGOs to address gender inequality in enterprise development in Africa;
- Presents policy recommendations grounded in impact evidence to address the gender-specific constraints to enterprise development;
- Identifies common features associated with the successful design and implementation of programs to promote female entrepreneurship in Africa;
- Proposes areas to improve knowledge of what works to support gender and entrepreneurship and makes recommendations on the role of governments and development partners in this area.

This chapter builds on the previous analysis to investigate how various interventions address gender-specific constraints, which is critical to

understanding²⁹¹ why some interventions help female entrepreneurs and others do not. The available evidence is classified as follows:

- **Credible:** The program or policy is supported by strong evidence from impact evaluations and inferential research. It addresses a gender-specific constraint, and there is more than one rigorous study in Africa with a positive impact on female entrepreneurs.
- **Emerging:** A small body of rigorous evidence is available, but further testing is required. The program or policy addresses a gender-specific constraint, but there is only one or no impact evaluations from Africa. At least one rigorous study in another region or a study in the region without gender-disaggregated results suggests a potential positive impact.
- **Not promising:** Policymakers should not pursue these policies and programs in the absence of new positive evidence. There is at least one impact evaluation in Africa with gender-disaggregated analysis, and the impacts on the business performance of female-owned firms are at best mixed.

The chapter provides practical guidelines for policy design and implementation. Actual project examples are provided as case studies. The chapter also outlines what needs to be studied in future impact evaluations, providing a road map for future analytical work.

The chapter also identifies – as much as it can – success factors, potential risks, and mitigating measures. While evidence is typically based on a set of countries, and generalizing to others is not necessarily straightforward, local adaptation will be important as a means of ensuring sound implementation of the most promising ideas. This includes aspects that can improve the targeting, uptake, or effectiveness of policies among female-owned firms, even for programs also benefiting male entrepreneurs. Combining interventions that address multiple reinforcing constraints to female entrepreneurs may also be critical for progressively reducing the gender gaps in business performance.

Moreover, while the evidence presented on the most-promising interventions is typically based on the results for the average female-owned businesses, there are often women who can benefit more than others from each credible or emerging solution. In particular, the presence of an adequate infrastructure and business environment that ensures targeted female entrepreneurs have appropriate access to markets and inputs are critical aspects to assess before introducing specific firm-level interventions. Being careful in ensuring replications of successful interventions are taking place among similar target groups of firms/business owners can, in principle, increase the chances of success.

Box 9

Other policy areas that support female entrepreneurship



a. Active labor-market programs for young women

The constraints driving the performance gap for female entrepreneurs are similar to those faced by women – especially young women – seeking access to employment, including self-employment. These include gaps in skills and capital relative to men, and the underlying social norms about women's roles. A recent review of experimental or quasi-experimental evidence of policy interventions to increase the employment of young women in Africa^{292,293} finds mixed evidence on skills programs, including vocational and business skills. Fewer studies have evaluated the impact of constraints related to caregiving responsibilities, occupational choice, mobility and safety. The most promising results are those that simultaneously tackle multiple constraints, including providing technical and vocational education and training (TVET), combined with “girl-friendly” aspects to address limited networks, care obligations, and capital constraints. Among these, a randomized controlled trial of the Empowerment of Adolescent Girls and Young Women (EPAG) project in Liberia showed impressive results, increasing employment by 47% and earnings by about 80% (or USD 32 per month).²⁹⁴ Participants were asked to select between a wage and an entrepreneurship track, and a major share of the gain in earnings was obtained in the latter. The project combined socio-emotional and employment skills training, and included features to address young women's constraints such as monetary incentives for attendance, small mentorship groups, savings accounts, and childcare.

While this report focuses on female-owned firms, several related policy areas also include the promotion of female entrepreneurship and are critical for Africa's shared growth and poverty reduction.



b. Graduation programs and cash transfers for women in ultra-poor households

Graduation programs for the very poor are becoming increasingly popular. These programs usually target women in the poorest households, offer a combination of training, cash or in-kind asset transfer, and technical assistance, and may also include savings mechanisms, health information, and life skills training. Mounting global evidence on the impact of these “wrap-around” programs points to them as a cost-effective way to increase household assets, consumption, and food security.²⁹⁵ The best known of these studies analyzed such programs in six countries and found significant positive impacts on household assets, consumption, income and revenues, among other factors.²⁹⁶

Graduation programs that involve providing women with productive assets such as a goat or a cow can be expensive, but evidence shows that the benefits typically outweigh the costs. In some instances, large cash grants have also worked well to increase the income of very poor households. For example, young women²⁹⁷ in very poor households in northern Uganda received relatively large cash grants (equivalent to 42 times the median monthly income).²⁹⁸ The program doubled the monthly earnings of women engaging in small retail activities by spurring changes in the women's occupational choices. But despite the positive economic outcomes, there was no evidence of increased independence or community status among women, or of reductions in gender-based violence.

Cash transfers have become the bedrock of social protection programs in Africa and globally, and have been proven to increase household consumption and income, as well as to reduce poverty.²⁹⁹ Cash transfers also lead to improved employment and education outcomes for women and girls and reduce the incidence of their physical abuse. Impacts are also strong for men. Cash transfers do not necessarily lead to greater impact on other measures of women's economic empowerment, including on time allocation within the household. The impacts seem to depend on household dynamics, which are hard to change.³⁰⁰



c. Support to women farmers

Women represent almost half of the agricultural labor force in Africa, a critical sector for the continent's growth and poverty reduction. However, there is a significant gap in the productivity of male and female farmers, as reported in a recent World Bank/ONE Campaign study.³⁰¹ The gap is driven by unequal access to and use of inputs such as land, labor, seeds, fertilizer, and equipment. In addition, women farmers are constrained by lower education levels and limited access to markets. The report identified 10 policy areas in which addressing key constraints could narrow this gap. Policy recommendations include strengthening land rights; addressing labor constraints by enabling women to hire more paid labor; increasing women's access to mechanization and providing childcare centers; increasing the use of high-quality seed and fertilizers; tailoring extension services to women's needs; facilitating access to markets by women; and improving female farmers' education levels.

1. Overview of existing programs

Programs to support female entrepreneurs are becoming increasingly popular in Africa as governments, development partners, NGOs and the private sector recognize their contribution to economic development and job creation.³⁰²

Nevertheless, few programs are designed to address the specific constraints faced by female-owned businesses. These programs are typically built out of comparable interventions on private sector development in the region. Moreover, only a fraction of programs supporting female entrepreneurs include rigorous impact evaluations, making it difficult to assess their effectiveness.

Table 6 provides an overview of the typical interventions being implemented in various programs in Africa, including some relevant examples as an illustration. The table does not aim to be comprehensive or provide an endorsement of these initiatives. However, the recommendations that follow in the next section can be compared with the type of interventions that are actually being pursued at scale.

Table 6

Overview of typical interventions to support female entrepreneurs in Africa

Intervention	Examples
Legal and regulatory reforms to address legal discrimination limiting women's ability to conduct businesses.	World Bank Group investment climate programs in Côte d'Ivoire and the Democratic Republic of Congo provided support to revise family laws and other legal texts to give all women equal opportunities to own and inherit property, and to conduct businesses without husband's authorization. African Development Bank's African Women in Business (AWIB) Initiative identifies business environment constraints for female entrepreneurs to access credit in Tanzania, Uganda, Kenya, Ethiopia and Cameroon.
Training and advice/mentoring programs to provide support to female entrepreneurs in improving their business management skills.	World Bank Women X Program in Nigeria offers growth-oriented female entrepreneurs a package that includes business training (in-class and online), mentoring, access to networks and linkages to financial institutions. Goldman Sachs' 10,000 Women Project is a corporate initiative to train growth-oriented female entrepreneurs in 56 countries working with 100 academic, non-profit and bank partners to offer a six-month long business management training program as well as networking, mentoring, and access to finance. The program in Rwanda also included a business plan competition.
Credit lines and technical assistance to financial institutions to enhance access to finance for female entrepreneurs.	IFC and Goldman Sachs Foundation's Women Entrepreneurs Opportunity Fund provides lines of credit to and technical assistance to financial institutions in 26 developing countries to reach female-owned businesses. World Bank's Ethiopia Women Entrepreneurship Development Project supports female-owned enterprises in Ethiopia through a dedicated credit, coupled with technical assistance to participating financial institutions to develop tailored products for women, and entrepreneurship training to female entrepreneurs. Women Entrepreneurs Finance Initiative (We-Fi) is a multi-donor facility to provide financial support and technical support to promote female entrepreneurs and unlock their access to finance and markets in developing countries (see Box 13 for more).
Mentoring programs and networking platforms connecting women business owners with successful female entrepreneurs in the region or abroad to build their confidence, develop strategies to grow their businesses, and expand their networks.	Cherie Blair Foundation for Women's Mentoring Women in Business matches female entrepreneurs in developing countries with male and female entrepreneurs for a 12-month mentoring program using an online platform. Power Africa and USAID's Women in African Power is a network to promote the participation and advance of women in Africa's energy sector. African Development Bank's "50 million women speak" is a regional digital platform seeking to offer female entrepreneurs and networking opportunities and information on financial and non-financial services.
Private sector or NGO-led interventions to strengthen the integration of female-owned firms in their supply chains.	Coca-Cola 5by20 initiative offers women business owners, working with Coca Cola globally, skills building courses, financial services, mentoring and networking opportunities, working in collaboration with partners, including IFC. WeConnect International identifies and trains female-owned enterprises and connects them with international buyers.
Business plan competitions provide relatively large cash grants and advice to startups, including led by women.	World Bank Kenya Youth Employment and Opportunities project includes a business plan competition targeting young entrepreneurs, and a focus on encouraging women participation. A similar World Bank program in Guinea-Bissau included a feature that 50% of participants in all stages of the competition (business training, business plan design support, and grants' winners) had to be women.
Business incubator and accelerator programs support growth-oriented firms with a comprehensive technical assistance package.	Standard Chartered Women in Technology Incubator Kenya Program offers training, mentorship and advice to female-owned startups. USAID and Feed the Future Accelerating Women Entrepreneurs Award provides a package of technical assistance to the winners of a competition among female-owned or led agribusinesses in sub-Saharan Africa.
Entrepreneurship summits and awards to give visibility to women as entrepreneurs, discuss common issues that affect them, and strengthen their networks.	Africa Women Innovation and Entrepreneurship Forum (AWIEF) , includes an annual conference bringing together regional female entrepreneurs, an exhibition, and an awards ceremony recognizing women as entrepreneurs' contribution to sustainable development.

Source: Authors and websites of the initiatives mentioned.³⁰³



2. What works and why: Evidence on interventions to support women-led businesses

Drawing on the best available evidence from rigorous impact evaluations, this section assesses the effectiveness of – and prioritizes – those policies seeking to address constraints to women-led businesses. The policies are categorized into one of six policy areas and by the main constraint they try to address. However, these policy areas should not be considered in isolation. As explained in this report, a growing body of evidence supports the idea that the performance of female-owned businesses is affected by the interplay of several gender-specific constraints. Increasingly, programs for female entrepreneurs recognize this and combine interventions targeting multiple constraints.

Table 7 summarizes the main conclusions from this review. Based on the credible evidence of positive impact, the following policy interventions are recommended for scaling up to support female entrepreneurs in Africa:

1. Training programs that apply lessons from psychology to encourage women to act with an entrepreneurial mindset;
2. Supporting women with secure savings mechanisms; and,
3. Injecting large cash grants for female-owned businesses in the context of business plan competitions.

In addition, the following set of policies and interventions, based on emerging supportive evidence, offer good potential and would benefit from further assessment of impact:

1. Removing legal constraints to gender equality;
2. Strengthening land tenure rights for women;
3. Expanding women's linkages to new business networks;
4. Offering women-friendly training designs, including peer support;
5. Providing in-kind grants to female-owned firms;
6. Introducing financial innovations that reduce collateral requirements, including psychometric scoring;
7. Facilitating access to childcare services;
8. Engaging men to provide a more supportive environment for female entrepreneurs; and,
9. Incentivizing women to cross over to male-dominated sectors by sharing information on expected returns in those sectors, and through early exposure in the form of apprenticeships and male role models.

Table 1

**What works to support female-owned firms in Africa?
Key findings from rigorous impact evaluations**

LEGEND

- CREDIBLE EVIDENCE OF POSITIVE IMPACT ON BUSINESS OUTCOMES
- EMERGING EVIDENCE OF IMPACT ON BUSINESS OUTCOMES
- EVIDENCE OF NO/LOW IMPACT ON BUSINESS OUTCOMES (NOT PROMISING)

MAIN CONCLUSIONS

POLICY AREA	CONSTRAINT ADDRESSED	TYPOLGY OF FIRMS	MAIN CONCLUSIONS
1. Removing regulatory and institutional constraints for female entrepreneurs	Legal discrimination	All firms	Removing legal gender biases and gaps in the implementation of laws increase women's agency and intra-household bargaining power
	Legal discrimination	All firms	Strengthening land rights for women increases their time and effort in entrepreneurship
	Informality	Micro-enterprises	Easing constraints to formalization by itself is not sufficient to help female-led micro-enterprises grow
2. Improving skills and networks	Skills	Micro-enterprises	Providing traditional managerial training alone does not typically improve the business performance of small female-owned firms
	Skills; confidence/risk preferences; social norms	Micro-enterprises and small-business owners	Training addressing socio-emotional skills and gender-specific content leads to high levels of impact on business performance
	Networks and information	Micro-enterprises and small-business owners	Expanding firms' access to new networks may, in the right settings, have positive impacts on business performance
	Skills; networks and information	Micro-enterprises	Providing mentoring on top of traditional business training has limited additional value to micro-entrepreneurs
	Skills; confidence/risk preferences; social norms	Micro-enterprises	Complementing delivery of training programs with direct peer support may be promising
3. Improving access to capital and assets	Finance and assets	Micro-enterprises	Microcredit has only limited effects on business outcomes for women
	Finance and assets; allocation of factors of production	Micro-enterprises	Providing in-kind grants can lead to higher profits for more successful women micro-entrepreneurs
	Finance and assets; confidence/risk preferences; skills	Start-up or existing businesses	Large cash grants for growth-oriented firms selected through a business plan competition can help overcome capital constraints for women
	Finance and assets; allocation of factors of production	Micro-enterprises	Providing women with access to secure mechanisms for savings – including mobile savings – can increase business investment
	Finance and assets	Micro-enterprises	Alternative credit scoring technologies using psychometric tests offer the promise of easing women's access to larger business loans
4. Easing household constraints	Time constraints/care	All	Providing childcare can increase female participation in the workforce
	GBV; time constraints/care; allocation of factors of production	Micro-enterprises	Engaging men can potentially foster a more supportive environment for female entrepreneurs
5. Addressing social norms regarding women's occupational decisions	Skills; networks and information; confidence/risk preference	Young entrepreneurs	Providing information on earnings in traditionally male-dominated sectors and early exposure through apprenticeships and male role models can encourage female entrepreneurs to enter these sectors
6. Facilitating access to markets	Social norms; GBV	Micro-enterprises	Training does not eliminate harassment by guards at border crossings, but can make female traders aware of ways to minimize harassment

■ Policy area 1: Removing regulatory, administrative, and institutional constraints for female entrepreneurs



A good investment climate matters for all firms. Over the past 10 years, African governments have significantly improved the regulatory environment for business.³⁰⁴ Policymakers should consider three important gender dimensions when approaching investment climate reforms. First, tackling inequalities in the legal status and property rights accorded to men and women could strengthen female entrepreneurs' control over assets. Second, some gender-neutral regulations could actually widen inequalities. For example, a regulation that disproportionately negatively impacts the small-business sector may be especially burdensome for women, since female entrepreneurs tend to be concentrated among small firms. Third, gender disparities in the ability to influence public policy debates, given the varying degrees of women's political representation and participation in public life, can translate into comparatively less favorable policies for women business owners.³⁰⁵

Applying a gender lens to changes in policies and regulations, including their enforcement, can help identify how constraints to female entrepreneurs in the three areas could be addressed. Attention to strengthening property rights seems particularly important given women's challenges in access and control of assets.³⁰⁶ The following overview assesses the evidence on the effectiveness of removing regulatory, administrative, and institutional constraints for female entrepreneurs, including:

1. Removing legal gender inequalities and their implementation gaps;
2. Strengthening land rights; and,
3. Formalization.

Removing legal gender biases and gaps in implementation of laws increase women's agency and intra-household bargaining power.

Policymakers should seek to remove legal barriers restricting women's property rights, occupational choices, and legal capacity to enter contracts. Legal barriers, which are more prevalent for married women, can restrict women's rights to own, purchase, manage, or dispose of land and other property that can be used as collateral for loans, which reduces women's bargaining power within the household.³⁰⁷

African countries have followed a positive global trend in eliminating legal gender disparities.³⁰⁸ In recent years, Togo, Côte d'Ivoire and the Democratic Republic of Congo have joined the list of countries that have removed provisions denying married women head-of-household benefits (Box 10). Few studies rigorously evaluate the impact of these reforms, partly due to the difficulty of isolating the reform's effect from other factors. An evaluation³⁰⁹ of the changes in Ethiopia's family law to require both spouses' consent to administer common marital property, eliminate the husband's prerogative to deny permission to work outside the home, and increase the minimum age for marriage, found an increase in women's non-home work across all age groups.³¹⁰ The study supports the idea that providing married women more bargaining power in the household allows them to make decisions to engage in activities

with higher returns. An impact evaluation of reforms to Kenya's Succession Law removing inequality in inheritance rights among male and female siblings similarly found the reform was associated with greater bargaining power for married women.³¹¹

However, changing formal laws will not be sufficient to address legal gender inequalities for entrepreneurs, given prevailing social norms and weak enforcement capacity. For example, an analysis of subnational business regulations in Nigeria found that women often send a man to deal with administrative requirements for businesses, even if no formal legal constraints exist.³¹² Customary laws are also very important.

In some countries, customary laws prevail in matters of marriage, property, and inheritance, and are explicitly exempted from constitutional principles of non-discrimination.³¹³ Botswana is one such example, but there, women's groups successfully challenged the constitutionality of customary rights favoring male heirs.³¹⁴

- Status of evidence: **Emerging**. No specific evidence of impact associated with removing legal gender inequalities on the business performance of female entrepreneurs, but evidence of positive gender outcomes including labor-force participation rates and women's bargaining power from targeted policy reforms in Africa.

Box 10

Family law reform in the Democratic Republic of Congo

Before the reform, the Family Code in the Democratic Republic of Congo prohibited married women from signing a contract, registering land or their company, going to court, or opening a bank account without their husbands' permission.

Reforming the Family Code required a coalition of government champions and private sector, civil society, and development partners. The ministries of Gender and Justice, with support from the World Bank, proposed revisions to the Family Code in 2013, removing most of the marital authorizations. Advocacy efforts continued until the revised

Family Code was adopted by the parliament in June 2016. Now, married women can sign contracts, register land or enterprises, go to court, and open a bank account without needing their husbands' permission. The minimum marriage age for women was also increased.

The government of the Democratic Republic of Congo has also signed various international and regional agreements for the protection of women and young girls, such as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). However, challenges remain. While the

law gives women co-ownership of household assets, the husband continues to hold the legal status as the head of household with the authority to administer the joint property. And the law – including the new Family Code amendments – are not always properly implemented. Frequently, women, particularly widows, are illegally denied pensions and inheritance rights.

Source: World Bank Feature Story. What does it mean to be a woman entrepreneur in the Democratic Republic of Congo? January 10, 2017.

Strengthening land rights for women increases their time and effort in entrepreneurship.

Secured land rights can provide women with greater control over assets for business ventures, while increasing their bargaining power within the household. It can increase their financial capital by allowing them greater access to credit using land as collateral, and providing income from land sales and rentals.³¹⁵ Land is the main productive asset for African households, but land tenure rights remain skewed against women, who make up a minority of landholders in the region.³¹⁶

A growing body of impact evaluations of land formalization programs in Africa finds that, when accompanied with the right policy framework, these programs contribute to positive gender outcomes, including investments by women on their land.³¹⁷ However, these studies focus mostly on agricultural land with limited evidence on the impact on entrepreneurship in urban settings.

Past land-titling programs in Africa did not always benefit women, and therefore their design needs to include features to increase women's secured land tenure.³¹⁸ For example, a gender-sensitive land regularization program in Rwanda offered co-ownership to married men and women, resulting in a cost-effective way to strengthen women's land tenure rights.³¹⁹ In an urban land regularization program in Tanzania, price incentives were effective in encouraging demand for co-titling.³²⁰ Similarly, adding incentives in a program in Uganda – information nudges and conditional subsidies – increased the take-up of joint titling by households by 25%-50%.³²¹ Beyond co-titling, programs should ensure non-married women also benefit. In Benin, a participatory land-demarcation program and certification program helped female-headed households retain control over their land. It also contributed to changing perceptions toward inheritance rights for wives and daughters.³²²

The scaled-up Rwanda land-titling program and a pilot land-titling program in Ghana also found increased off-farm business activity among women and men.³²³ However, evidence of impact of land formalization on access to finance is limited. The impact evaluation in Rwanda finds no effects on credit or land markets, due to limited development of land registries at that stage.³²⁴

- Status of evidence: **Emerging.** No specific evidence of impact on female-owned businesses, but positive evidence on gender outcomes of land formalization, including investment in land and increase in off-farm work.

Easing constraints to formalization is not by itself sufficient to help female-led micro-enterprises grow.

For informal female-owned firms, formalization could in theory ease constraints in access to credit, networks, government contracts, or harassment from tax officials. Yet in practice, there is no evidence that spurring formalization by simplifying business registration has direct effects on those outcomes.

Global evidence suggests limited uptake of easier business registration among informal firms.³²⁵ Policymakers have experimented with more hands-on ways to encourage formalization. A program offering cost-free assistance³²⁶ to register informal firms in Malawi substantially increased registration for both male and female entrepreneurs, although few firms chose to register for taxes.³²⁷ More modest increases in registration from a program in Benin that combined business and tax registration suggest that the perceived higher costs of formalization, such as paying more taxes, factor into the decision to register. Moreover, formalization rates among women were lower in the Benin study.³²⁸ In both cases, registration rates for men and women were higher when additional incentives were offered, such as a bank-information session and business bank account in Malawi, and banking services, training, and tax-mediation services in Benin.

Available evidence on the benefits for formalized firms suggests limited impacts. In Malawi,³²⁹ providing only assistance in registering the business had no impact for either men or women on bank-account usage, savings, credit, business performance or other outcomes of interest. However, the combination of formalization assistance and the bank information session resulted in significantly large impacts on having a business bank account, financial practices, savings, and use of complementary financial products including insurance. They also had positive impacts of 28% and 20% respectively on the sales and profits of female-owned enterprises.³³⁰

- Status of evidence: **Not promising.** Limited evidence that policies to support business formalization, taken alone, have positive impact on the performance of female-owned enterprises. Emerging evidence of positive impact when combining business formalization with complementary interventions such as the provision of business bank accounts.

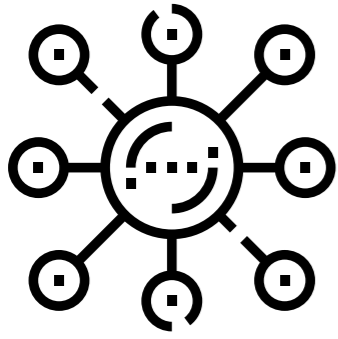
What's next: Expanding our understanding of what works to reduce legal and institutional barriers

Future research should seek to expand the still-limited understanding of how changes in family, property and inheritance laws affect sector choice, investment decisions, and access to capital by women. It should study as well how reviews of bankruptcy and inheritance laws reduce risks of assets getting expropriated. It should explore how different policy reforms – like registries of movable collateral, credit information systems including on microfinance, and regulations underpinning micro- and small to medium enterprise (SME) finance – impact women's opportunities to get loans.

Even where formal laws do not discriminate against women, prevailing gender biases may lead to implementation gaps that disadvantage female entrepreneurs³³¹ – for example, through inconsistent court rulings. More work is needed to identify the impact of these gaps on women and how they can be addressed. Understanding the effectiveness of complementary interventions, such as advocacy, information campaigns, provision of legal services to female entrepreneurs, and nudges that enhance the application of legal reforms supporting gender equality, are areas of further study. In addition, interventions to strengthen business women's participation in public-private dialogue and other business to government (B2G) feedback mechanisms can also be areas of future research.

Finally, new programs could shed light on how gender-biased social norms influence the implementation of legal reforms. Establishing causality in this context is challenging since several factors may contribute to changes in gender norms and the change process tends to be non-linear.³³²

■ **Policy area 2:
Developing skills and networks**



The analysis presented in Part 3 of this report revealed evidence of gender differences in a variety of business, technical, and socio-emotional skills among entrepreneurs – as well as gender gaps in access to training – to develop those skills. Moreover, differences in the size, influence, and roles of men’s and women’s business networks can potentially contribute to differences in business outcomes.

The following overview assesses the evidence on the effectiveness of entrepreneurship interventions to impart skills and expand business networks, including: (a) traditional managerial training; (b) development of other skills that may be particularly relevant for women; (c) networking with other firms; (d) mentorship directly linked to a training program; and (e) peer support on top of a training.

This section also emphasizes the need to better understand what types of training and additional support may be most effective for different types of female entrepreneurs.³³³

Providing traditional managerial training does not typically improve the business performance of small female-owned firms.

Despite the popularity of business training programs, global evidence of their impact on firm performance, and specifically on that of female-owned firms, is at best mixed. Business training aims to lead to improved business practices, and in turn better business outcomes. Yet reviews of impact evaluations of business-training programs find that while they can affect the business practices of the beneficiaries, their impact on firms’ growth, survival rates, and profits remains limited for women.³³⁴

Some limitations make it difficult to assess the effectiveness of business-training programs on female entrepreneurs. First, such programs vary widely in content, duration, and delivery,³³⁵ and this may partly explain why studies find wide variation with regard to impact. A review of entrepreneurship training services in Ghana, Kenya, and Mozambique found a variety of programs targeting different audiences and objectives, but these programs were not generally customized to their beneficiaries’ needs and did not pay enough attention to the development of business acumen and entrepreneurial mindsets (considered important elements for success).³³⁶ Business-training programs typically cover general business practices such as record-keeping and marketing.³³⁷ Less common are programs that combine general business management skills with sector-specific technical training.³³⁸ There is also rarely any gender-specific-content in business-training programs. Additionally, some

of the impact evaluations have a relatively small sample size, resulting in insufficient statistical power to uncover gender differences or any impact overall when they might occur.³³⁹

Furthermore, the type of training and target audience could help explain the limited impact of traditional business training. First, many programs focus on micro-enterprises, which may ex ante have limited possibilities for growth, and whose owners may require other types of skills.³⁴⁰ Second, the training may not address other constraints hindering firm growth, such as social norms shaping women’s entrepreneurial mindsets or the household allocation of resources.³⁴¹ Third, the training may not sufficiently impact business practices in a way that improves firm performance. A recent review of these programs³⁴² finds a strong correlation between business practices and firm performance across seven countries, including Ghana, Kenya, and Nigeria.³⁴³ This suggests that training of sufficient quality and duration could have a large enough impact on business practices to improve performance,³⁴⁴ assuming there are no other binding constraints, and that drop-out rates do not increase with longer training durations.³⁴⁵

Household dynamics could also contribute to different business-training impact for women. In a lab experiment in the context of a program offering business training for micro-enterprises in Tanzania, women were less inclined than men to share income information with their spouse. This suggests women may have less control over their income and therefore benefit less from the gains associated from greater business knowledge.³⁴⁶

- Status of evidence: **Not promising.** Mixed evidence as to whether traditional business-training programs have an impact for female entrepreneurs, and little evidence of impact on micro-entrepreneurs. However, generalizing conclusions is difficult due to the wide variety of approaches and the small sample sizes of most training impact evaluations.

Training addressing socio-emotional skills and gender-specific content leads to high levels of impact on business performance.

The importance of socio-emotional skills – including self-confidence, leadership, creativity, risk propensity, motivation, resilience, and self-efficacy – on business outcomes is well-established.³⁴⁷ There is emerging evidence from impact evaluations of the importance of strengthening these skills for female entrepreneurs in Africa.

An entrepreneurship program in South Africa focused on women had positive impact on participants’ profits and sales six months after the training ended, with participants also showing improved motivation and confidence.³⁴⁸ A study in Togo finds that personal initiative training – seeking to foster self-starting, future-oriented and persistent behavior – has positive and significant effects on the sales and profits of men- and women-led micro-enterprises, while managerial training alone did not have an impact (Box 11).³⁴⁹ Women who received personal initiative training saw their profits increase by 40%, compared to a 5% increase among those who underwent a traditional business-training program. The gains stemmed from increased business investment, expanded innovation, and the proactive pursuit of financing sources. A previous pilot experiment with small-business owners in Uganda also found a similarly positive sales impact associated with personal initiative training.³⁵⁰ Similarly, a study in Uganda examining very recent high school graduates (not focused on existing firms like this report) found that providing hard entrepreneurial skills (finance, accounting and marketing) was successful at creating businesses within the target population. However, only an alternative soft-skills course on communication, persuasion, negotiation and leadership was able to lead both to firm creation and impacts on profits.³⁵¹ Moreover, recent research in Mozambique demonstrated that providing a video to increase the aspirations of market vendors (45% of them women) led to very large impacts on business performance.³⁵²

Furthermore, combining business training with socio-emotional skills training focusing on female entrepreneurs is also effective. Participants in an innovative training program emphasizing self-esteem and entrepreneurship initiative in Ethiopia – DOT ReachUp!³⁵³ – had 30% higher profits than the control group. The training also increased the motivation and confidence of participants.³⁵⁴

An impact evaluation of a five-day training program targeting female micro-entrepreneurs in rural markets in Kenya using the International Labour Organization's (ILO) Gender and Entrepreneurship Together – the Get-Ahead program³⁵⁵ also shows significant impact. This program takes a gender perspective to building entrepreneurship skills by complementing basic management skills with topics such as cultural barriers facing business women and the division of household and business activities. The study reveals increases in firm profits, survival, and growth, and these effects were enhanced three years after the training, suggesting that the effect of the training consolidated over time. These impacts were due to improved business practices including marketing, record-keeping and inventory management. Given the sustained increase in profits, the training, at a cost of about \$200 per participant, is credibly cost-effective. In addition, this work did not find evidence that the intervention negatively impacted non-trained competing businesses in the same neighborhood. The markets as a whole appear to have grown in terms of the number of customers and sales volumes.³⁵⁶

In Ethiopia, an intensive 12-day classroom training program for female entrepreneurs, spread over six months focusing on leadership, networking, mentoring, business development and communications, led to impacts on profits on average of 144% three years after the intervention, including through the development of new business activities and business practices.³⁵⁷ The participants were all women in the agribusiness sector, who had to be owners or managers of established businesses with at least one non-family employee. Moreover, participants had to secure referral letters from another well-established business person. They were also expected to nominate six to eight other women who they would like to mentor after the business training. The training cost roughly \$2,500 per participant, but the three-year impacts more than cover the cost during that period.

Finally, a program focused on adapting the Kaizen approach – continuous improvement through a process-oriented, commonsense, and cost-oriented approach to productivity improvement – to the garment industry in Tanzania (over 80% female-owned) had large impacts on profits three years after the intervention.³⁵⁸

- Status of evidence: **Credible**. Positive evidence
- exists on the impacts of psychosocial skills
- and gender-specific content on business
- outcomes for female entrepreneurs in Africa.

Box 11

Togo Personal Initiative Training

Personal Initiative (PI) Training, a type of psychological entrepreneurship training, teaches a proactive, self-starting approach to entrepreneurship. It focuses on future-oriented, persistent behavior and developing “an entrepreneurial mindset.” Participants learn to look for ways to differentiate themselves from other businesses, as well as to anticipate problems and overcome setbacks. This fosters better planning skills for opportunities, and better long-term preparation.

The government and the World Bank teamed up with psychologist Dr. Michael Frese, to implement the PI training in the context of a randomized controlled trial with small businesses in Lomé, Togo. The study compared the impact of the psychology-based PI training to the IFC's Business Edge training program. A control group received no training. Researchers conducted four follow-up surveys over the two years following the training program. Entrepreneurs who took the PI training saw their profits rise on average by 30% relative to the control group. Business Edge participants, in contrast, had a statistically insignificant

11% increase in average profits relative to the control group.³⁵⁹

PI training had even more of an impact for female entrepreneurs, who usually see little or no improvement after traditional business training. Women who received PI training saw their profits increase by 40%, compared to a 5% increase for those who had traditional business training. Additionally, because of the increase in their profits, participants in the training program recouped the cost of the training (about \$750 per person) within a year, thus demonstrating the cost-effectiveness of the training.

PI training led to more than just a boost in profits. Entrepreneurs who took PI training introduced more innovative products into their line of business than those who participated in the Business Edge training. They also borrowed more and employed more workers.

Moreover, there are reasons why different types of managerial training might be more effective for those who already begin with a higher existing base of human capital, but also reasons why they may compensate for those without

that base and have stronger impacts for those with lower levels of human capital. The analysis of the PI training program in Togo suggests that neither effect is first-order for women: the training is successful for those with all levels of schooling, and does not show significant differences with a range of different human-capital measures. The results suggest that the PI training can be effective for women with a wide range of existing human-capital levels.³⁶⁰

Building on these results, the team collaborated with the Mexican Institute of Entrepreneurs (INADEM) and CREA (a Mexican NGO that supports female entrepreneurs) to design a program that merged PI training with traditional business-literacy training. The training is now being customized and implemented in other countries including Ethiopia, Madagascar, Mauritania, Mozambique, Jamaica, and Nicaragua. Additional research is underway to evaluate the impacts of an adapted PI training for the agriculture sector and to adapt and scale this training to other sectors and country contexts.

In the right settings, expanding firms' access to new networks may have positive impacts on business performance.

As discussed in “deep dive” 2, networks can support the sharing of information, equipment, workers, finance, and customer knowledge and relationships. In particular, developing “new” and looser connections can be most fruitful in identifying such opportunities. The gender differences in network composition may be limiting women’s opportunities for growing their businesses.

It is difficult to build and test a program that allows firms to benefit from the full set of opportunities inherent in networking, including through costs, investments and sales. In Ghana, entrepreneurs were randomly incentivized to participate in a joint activity requiring daily collaboration.³⁶¹ This intervention – considered comparable with being given a business network – had a positive effect on capital investment and firm profits, and led to the diffusion of business practices among entrepreneurs assigned to the same team. Researchers found that women – around 60% of the sample – were less likely than men to have interacted with members of their assigned team, but the study did not present gender-disaggregated effects on business performance given the small sample size.

An experiment in Ethiopia, Tanzania, and Zambia, in the context of a business plan competition found a positive effect on the diffusion of business practices for the managers of firms assigned to collaborate with other peers.³⁶² Less than 20% of participants were women and no gender-disaggregated results were presented. The study found positive information-diffusion effects with regard to information about VAT registration and having a bank account. Diffusion appears to be a combination of “diffusion of innovation” and simple imitation. No effects on business performance were discussed in the study.

A program in Kenya that paired female entrepreneurs with more experienced firms in the community led to an average increase of 20% in the entrepreneurs’ profits.³⁶³ All participants received a cash grant; some were enrolled in a business course; and some were connected to an experienced mentor. The networking with the more experienced firms had positive impacts for as long as the relationship lasted. The effect faded as the matches dissolved, suggesting the importance of a continuous networking relationship for improving business performance. Those that kept networking after 12

months were still benefiting from that business relationship. Moreover, the changes among the group engaging in active networking primarily related to access to market-specific information on topics such as high-demand locations, low-cost suppliers, or high-profit products. There were no effects on the more general business skills covered in the classroom. The research also showed that the networking impacts were concentrated among business owners who more frequently went to the market to purchase inventory.³⁶⁴

Similarly, a six-month program³⁶⁵ that asked prominent businesswomen to nominate seven mentees, and provided the businesswomen with the tools to be effective mentors also showed no more than short-term impact.³⁶⁶ The mentees reported having on average 7.41 mentoring meetings. One month after networking meetings ended, there was a 24% increase in profits for the mentees’ main businesses, and an increase in record-keeping. About two-and-a-half years later, there was no impact on any business outcomes, including practices, profits, or the number of business activities performed. The intervention was intended to leverage social networks to disseminate business skills, but did not have lasting impacts.³⁶⁷

Outside the region, an important recent study showed that organizing business associations for the owners and managers of comparatively new Chinese firms increased sales by 8%. It also had positive impacts on profits, business partners, access to finance, and management skills. The effects persisted one year after the conclusion of the meetings. Managers shared business-relevant information, particularly when they were not competitors, showing that the meetings facilitated learning from peers. Managers created more business partnerships in regular meetings than in one-time meetings, showing that the meetings improved supplier-client matching. The study also suggests that the topic of discussions can matter.

- Status of evidence: **Emerging.** Access to new networks shown to have positive impacts in specific settings in the region, but no gender-disaggregated impact analysis has yet demonstrated lasting effects on business performance after networks are dissolved.

Providing mentoring on top of traditional business training has limited additional value to micro-entrepreneurs.

In theory, mentoring support could expand business knowledge learned in classroom training programs. However, evidence from mentoring programs for micro-entrepreneurs in Africa does not support this assumption. A program in Kenya providing individualized and group sessions by mentors to complement a business-training program found no additional benefits associated with mentoring, while the cost per participant of the mentoring program was double that of the training.³⁶⁸ This is consistent with evidence from outside Africa, which has found no lasting impact of mentoring for female entrepreneurs as compared to training alone.³⁶⁹

- Status of evidence: **Not promising.** Evidence of limited impact of mentorship programs for female entrepreneurs in Africa.

Complementing delivery of training programs with direct peer support may be more promising.

Policy practitioners should consider designing skills-development programs in ways that account for the barriers women face when growing their businesses. In-class learning and the process of applying the lessons from the training depend on the setting in which women operate. To encourage participation and provide room for peer support, a program in India provided female entrepreneurs with the opportunity to come with a friend to a two-day training program. The promising results show increased household income and business activity, and effects were particularly strong for women from socially conservative groups.³⁷⁰ This suggests that peer support can help ease the constraints that social norms and confidence may impose on female entrepreneurs.

- Status of evidence: **Emerging.** There is early evidence from outside of Africa on the added value of peer support in training programs.

What’s next: Expanding our understanding of what works with regard to improving skills and networks

Despite the popularity of skills-development programs for female entrepreneurs in the region, evidence of their effectiveness is mixed. Some new programs are promising with regard to addressing gender-related constraints. There are currently opportunities to further test policy interventions and rigorously assess their impact, including by:

- Testing different mechanisms and sequences when combining skills and financial training components.
- Evaluating psychology-based training under different settings, for example, in the context of conservative social norms.
- Studying different ways to incentivize female entrepreneurs to join business networks, including male networks, and assessing such programs’ impact on self-confidence and the availability of information for business decision-making.
- Comparing the impact and cost-effectiveness of in-class delivery of managerial training versus, or in combination with, personalized business advice and coaching.
- Testing different modalities of in-class skills-development programs, for instance by asking participants to bring a friend, male mentor, or husband to the training sessions.
- Preparing and evaluating different sets of training programs for different kinds of entrepreneurs and business managers, including by size, sector, stage of development, and market orientation (e.g., local vs. export).
- Evaluating integrated support to growth-oriented startups through business incubators and accelerators.



■ Policy area 3: Increasing access to finance



The analysis presented in Part 2 and 3 on explaining factors underlying the gender gap in firm performance pointed to gender differences in firm capital stock (such as inventory, equipment, and other property) as a key contributor to Africa's gender performance gap. While the gender gap between male and female business owners in Africa associated with simply taking out a loan is almost negligible, a deeper examination of the impact-evaluation data used in the report reveals that the gap in the amount of accessed credit is far more pronounced. Gender differences in savings can also contribute to gender differences in capital investment.

A growing number of approaches for increasing the capital available to female entrepreneurs have been tested within and outside the region with varied effects. These typically focus on micro-enterprises, and are often combined with additional entrepreneurship support such as training. As explained earlier in this report, the context, endowments, and household-level factors drive the way female entrepreneurs invest capital and labor in their businesses. Women may have less decision-making power over the use of funds, may be less willing to compete and take risks, or may face more household responsibilities than men – with important implications for their capital-investment decisions.

Research on the impact of business-development programs attempts to tease out the household and enterprise effects separately, as these may differ. The effects of programs addressing capital constraints for female entrepreneurs may vary if other members of the household (usually men) also own businesses.³⁷¹ This section assesses the evidence from those interventions which have addressed the capital and credit constraints specific to female entrepreneurs.³⁷²

Microcredit has only limited effects on business outcomes for women.

Microcredit services are one way of alleviating the capital constraints faced by women. Women represent 54% of microcredit clients in sub-Saharan Africa.³⁷³ A first round of six microfinance experiments (including in rural Ethiopia) shows mixed impacts on business investment, size, and profits. Eight of the 10-point estimates on these measures are positive, with two of the positive ones reaching statistical significance. The results in Ethiopia case could not confirm any impact on business outcomes.³⁷⁴ The studies found little evidence of an increase in household incomes.³⁷⁵

However, these studies have been criticized for their lack of statistical power to detect impacts. According to another recent study,³⁷⁶ many outcome effects are large on average, but with high variance. Combined with low take-up rates of the microcredit interventions offered, this means that the studies do not have sufficient power to detect results. Pooling the data from the six studies together improves this power for most outcomes, with researchers³⁷⁷ finding effects of 29% on profits. However, this review has also been criticized for its limitations,³⁷⁸ and other reviews of existing impact evaluations globally have found mixed results associated with microcredit on firm creation and survival, and little evidence that it contributes to sustained increases in sales and profits.^{379, 380}

The diversity of firm types can complicate efforts to assess the average impact of microcredit. For example, a recent study in India found that microcredit produces substantial and lasting benefits on several metrics of size and performance within already existing firms,

while the impact for new firms was largely insignificant.³⁸¹ For more experienced firms, microfinance complemented informal sources of credit instead of replacing them, as in the case of the new firms.

Because the main gap between men and women is in the size of loans obtained and not in access to credit, microcredit may become an important tool if it can help women bridge the gap in the amount of credit available to them. This is not typically the case in most programs. A possible conclusion from the evolving debates on microfinance is that, while not a panacea, it can be a mechanism to smooth household liquidity constraints, and when well-targeted, a possible source of capital for micro-entrepreneurs.³⁸²

Credit terms may also affect the impact of microcredit, which typically carry high interest rates and no grace period. An experiment in India that relaxed the immediate repayment obligation associated with microfinance showed lasting impacts on investment rates and profit levels among micro-enterprises receiving the grace period.³⁸³ Among those firms, the most risk-averse and those with high short-term liquidity constraints benefited the most. Overall, this suggests that the way microcredit is offered can affect its impact, although identifying what features may be more positive for women micro-enterprises requires further study.

- Status of evidence: **Not promising.** Limited evidence that microfinance has a positive impact for female entrepreneurs in Africa, although there is emerging global evidence that it can work under certain conditions for certain subsets of entrepreneurs.

Providing in-kind grants instead of small cash grants can lead to higher profits for successful women micro-entrepreneurs.

As in the case of microfinance, small cash grants may not lead to higher profits and employment growth for low-income businesswomen. An experiment in Tanzania found that the provision of small cash grants had no effect on business performance for male or female micro-entrepreneurs.³⁸⁴ A study in Ghana found no effects for female entrepreneurs, but positive impacts for men.³⁸⁵ Outside the region, an example from Sri Lanka showed that male micro-entrepreneurs invested and earned returns on small and large grants, while women invested only the large grants, and earned no return, on average, on those investments.³⁸⁶

Providing in-kind grants may improve the effect of credit interventions. In Ghana, assistance in buying inventory or machinery led to large profit impacts for female-owned firms, but only for those that were initially more profitable.³⁸⁷ In-kind grants may offer a self-commitment device because they cannot be as easily used for household expenditures as cash grants.³⁸⁸

Additionally, neither in-kind nor small cash grants appear to be effective for low-productivity, subsistence-type firms. Targeting more successful female entrepreneurs seems to pay off, at least in the case of in-kind support.

- Status of evidence: **Emerging.** One study showing that in-kind grants have a positive impact on profits for comparatively profitable female-owned businesses run by micro-entrepreneurs in Africa.

Large cash grants for growth-oriented firms selected through a business plan competition can help women overcome capital constraints.

Providing large cash grants as part of a business plan competition can help address the capital constraints of growth-oriented firms, including those owned by women.

A business plan competition³⁸⁹ in Nigeria provided cash grants averaging \$50,000 to 1,200 existing or new entrepreneurs, who were competitively selected and received training and coaching. The program had larger positive effects on the likelihood of operating a firm for women than men, suggesting that women are indeed capital constrained. It had similarly large and positive effects on employment, sales, and profit levels for men- and female-owned firms. The path to positive impact seems to be through the additional access to capital and the hiring of labor triggered by the grant, while the program had little effect on mentoring, networks, or entrepreneurial attitudes.³⁹⁰ Moreover, the business plan competition turned out to be a useful approach to selecting entrepreneurs capable of growing their businesses beyond microenterprise status. However, just one-fifth of applicants in the first round were women, suggesting that extra efforts are required to increase the number of women applicants.³⁹¹

A second study to assess the impact of winning grants in business plan competitions was run in Ethiopia, Tanzania, and Zambia.³⁹² These competitions provided grants of \$1,000 to

emerging entrepreneurs, 22% of whom were women. The study found large impacts on the likelihood of being an entrepreneur, as well as on business performance (sales and profits) and access to banking services.³⁹³ No gender differences in impact were identified.

Additional impact evaluations of business plan competitions are underway in Africa. The results will provide further evidence of the impact of this approach, including how results are influenced by the size of different grants and the selection process.

A key challenge with business plan competitions is ensuring that the selection process is open and based on the merits of business plans, and not captured by well-connected businesses. To overcome this risk, the program is usually designed with high visibility, and the scoring of proposals is typically done through an anonymized process and/or by independent and reputable evaluators.

One of the most recognized strengths of the business plan competitions is the selection of a proportionately small number of winners after receiving a large number of applications. However, the importance of that selection process has yet to be formally evaluated. Moreover, after the initial hurdles of selecting the most promising applications, choosing the high-growth entrepreneurs (and those that will see the highest impact from the grant) has proven to be difficult.³⁹⁴

- Status of evidence: **Credible.** Studies in Africa
- show that large grants made in the context
- of business plan competitions have a positive
- impact on the employment, sales and profits
- of male- and female-owned firms.

Providing women with access to secure mechanisms for savings, including bank accounts and mobile savings technology, can increase their business investment.

Unequal bargaining power within the household and domestic expenditure needs can affect women's ability to finance their business activities. Therefore, providing female entrepreneurs with mechanisms to set aside money for their business can help keep it separate from household demands.

For example, providing female market vendors in Kenya with access to savings accounts enabled large increases in business investment (over 45%) and consumption (37%), while no impact was found in providing such accounts to male motorbike drivers.³⁹⁵ Adding access to business bank accounts to support formalization led to significant increases in women's use of business bank accounts and insurance, and also enabled more women to separate household and business money.³⁹⁶ This led to large impacts on sales and profits for female entrepreneurs.³⁹⁷

On the other hand, increased access to financial services does not always translate into greater use by women. In Kenya, researchers found that providing free ATM cards, which reduced withdrawal fees and increased account accessibility, increased overall account use.³⁹⁸ However, men significantly increased their usage of the accounts, whereas women reduced account usage.

Research in rural settings also suggest that is difficult for poor households to start using bank accounts. A study comprising Uganda and Malawi³⁹⁹ offered bank accounts to mostly unbanked individuals. The sample included 70% women. About 46% of the households in Uganda and 37% in Malawi had a business. The rate of account opening was 54% in Uganda and 69% in Malawi. But a much smaller percentage actually used the accounts; within two years, 17% of households had made at least five deposits in Uganda, and just 10% had done so in Malawi. One important question discussed in the study is whether the population was simply too poor to save, or whether the bank accounts were simply not well tailored to their needs or habits. The study suggests that both factors were important.

Technology can play an important role in overcoming these risks. The use of mobile money is spreading in Africa. Growing evidence backs the benefits of digital payments for women. In particular, mobile payments allow

programs to target women more efficiently, and provide them with greater control over household expenditures.⁴⁰⁰ Digital payments can provide recipients with greater privacy and control over wages earned, which can in turn provide an increased incentive to engage in wage employment.⁴⁰¹ They can also help women smooth unexpected income shocks by providing access to money or support from a broader social network.

A study in Kenya finds that in areas where mobile payment provider M-PESA expanded relatively strongly, female-headed households experienced greater increases in consumption than did male-headed households. The rise in consumption came hand-in-hand with an increase in savings by female-headed households and coincided with a shift in women's occupations from subsistence farming to business and retail occupations (with 185,000 women moving from farming into business occupations).⁴⁰²

Research in Tanzania assessed the six-month effect from promoting the registration of a mobile savings account among women micro-entrepreneurs in Tanzania, both with and without business training. The study showed that women save substantially more through the mobile account than those that did not receive the encouragement, and that the business training bolstered this effect. Women also obtained more small-size loans through the mobile account. The business training further led to an increase in advanced business practices. The study found no significant evidence that these impacts translated into greater investment, sales, and profits in the period studied, but there was increased business expansion through the creation of profitable secondary businesses, as well as improvements in women's empowerment and subjective well-being.⁴⁰³

- Status of evidence: **Credible.** Rigorous
- evidence from more than one study in Africa
- shows that providing female-owned firms with
- savings mechanisms has a positive impact
- on business investment and performance.
- The interventions need to be well-targeted to
- ensure appropriate uptake from the relevant
- target group.

Alternative credit-scoring technologies using psychometric tests may ease women's access to larger business loans.

In environments where women are less likely to own fixed assets than men such as houses and land that can serve as loan collateral, one solution may be to offer collateral-free (or reduced collateral) loans underpinned by solid credit-risk assessment mechanisms. Using financial technology (known as fintech), financial institutions can access previously untapped data that produces insights into customers and markets. Data can be derived from sources such as psychometric tests, mobile phones, social media, web browsers, utility payments, and point-of-sale transaction devices. Using this data, it is possible to better understand a borrower's cash flows, character traits, and networks to better calculate the risk associated with current customers, and to expand financial services' reach to new and previously unbanked borrowers.

A pilot project in Ethiopia is evaluating the implementation of an alternative credit scoring technology to enhance a financial institution's ability to lend to female entrepreneurs. In the absence of collateral, and with limited information available on the creditworthiness of women borrowers, psychometric testing is a promising solution. While it is widely known that a borrowers' character relates to their likelihood to repay a loan, financial institutions have found it challenging to quantify these traits. Years of research suggest that someone's personality can be broken down into measurable traits such as locus of control, fluid intelligence, impulsiveness, confidence, ability to delay gratification and conscientiousness, and that these traits can be used to predict credit risk through a psychometric test.

Financial technologies dependent on mobile phones or internet access are less viable in a market like Ethiopia, where only 16% of the population use the internet and 51 out of 100 people have mobile phone subscriptions.⁴⁰⁴ For this reason, psychometrics – literally the "measurement of the mind" – has emerged as a promising option for creating a better picture of Ethiopian borrowers. Unlike other fintech data solutions, psychometrics could create data on borrowers that did not exist before. The psychometric test has been adapted to include more visual and interactive exercises for members of the population in Ethiopia with low literacy levels and limited familiarity with digital technology.

In this pilot project, applicants can complete the psychometric test in just 45 minutes. Applicants scoring above a certain level on the test can use their score as a form of collateral to help assure the lender that they will be able and willing to pay back the loan. Preliminary results suggest the psychometric test is a reliable indication of whether an entrepreneur will repay a loan. Customers who scored at a high threshold on the test were seven times more likely to repay their loans compared to lower performing customers.

Similarly, an evaluation in Peru using a regression-discontinuity design and credit-bureau data found that the psychometric test increased small and medium-size enterprise loan use by up to 59 percentage points for applicants without a credit history, without leading to worse repayment behavior.⁴⁰⁵

- Status of evidence: **Emerging**. The use of psychometric tests as an alternative to collateral has produced promising results.

Box 12

Intra-household dynamics and interventions to address capital constraints

To effectively address capital constraints for women, programs need to account for how women and men cooperate within a household, as well as potential biases in the allocation of household resources. In an experiment in Kenya, married couples were randomly assigned different levels of subsidies flowing into individual and joint savings accounts.⁴⁰⁶ When the higher subsidy was assigned to a joint account, the couples were more likely to invest in livestock and household assets. They were more likely to invest in their income-generating activities when the higher subsidies were assigned to their individual accounts. This suggests that control over resources matters for their allocation.

In a related phenomenon, women may prefer to hide income from their spouse when they have comparatively less control over how it will be used.⁴⁰⁷ A recent study assesses the gender-differentiated outcomes of several entrepreneurship support programs in Uganda. These programs provided either a loan, a grant, or a loan or grant in addition to business-skills training. The study used a behavioral game to determine whether spouses hide their income from each other.⁴⁰⁸ At the aggregate household and individual level, no significant effects on economic outcomes were found for men and women who choose

to hide income. But for those couples not hiding income, the results go in opposite direction: A large positive impact was seen for men who received the loan, paired with a negative impact for women who received the loan and grant in addition to training. This research points to the need to explore approaches to supporting female entrepreneurs that consider the power relations within the household.⁴⁰⁹

Moreover, household and enterprise effects may differ and should be estimated to fully understand the impact of a policy intervention. One possible factor explaining the limited impact of microfinance (or grants) for female-owned enterprises is the presence of other enterprises in the household, with the capital being allocated to the highest-return – often male-led – enterprise. A study reviewing household and enterprise effects on microfinance clients in India and cash-grant recipients in Sri Lanka and Ghana suggests that new capital infusions (through a grant or loan) may be invested to maximize household income rather than business activities. When the woman is the single entrepreneur in the household, the capital shock leads to positive returns comparable to men's. However, in multiple-enterprise households, women-led enterprises experience no or little benefit.⁴¹⁰

What's next: Expanding our understanding of what works to increase access to capital and credit

Future research should compare the household effects of programs to ease capital constraints to the individual enterprise effects, as well as to the intra-household dynamics that lead to capital allocation decisions (Box 12). Understanding differences in bargaining power between spouses can help practitioners design effective interventions to support women-led businesses. More research is necessary to understand the impact of combining interventions to ease capital constraints, such as cash grants or savings mechanisms, with design features (e.g., increasing control and privacy) to increase the likelihood that capital will be invested in female-owned business.

Other policy interventions to ease capital constraints that could be tested in the African context include:

- Assessing the effectiveness of equity investments on female-owned firms, compared with credit. This could include studying mechanisms such as venture capital or angel investors.
- Assessing the impacts of matching grants on business performance.⁴¹¹ Matching grants are used to help expand business-development services, upgrade technology or other equipment, or introduce innovations.
- Offering crowdfunding as a potential source of capital for SMEs.
- Financing with movable collateral, such as leasing or micro-leasing, factoring, trade finance.
- Targeting female entrepreneurs with a business insurance product.⁴¹² Using these financial instruments to overcome lack of investment due to risks of fires, robberies or other incidents, as well as macroeconomic shocks impacting likelihood of failure.
- Testing different approaches to incentivize savings, including through mobile money platforms and commitment devices.
- Leveraging information and communication technologies (ICT) to develop innovative solutions to address credit constraints (e.g., data-driven lending for microcredit, non-collateralized loans, mobile financial services ranging from savings accounts to more complex financial products related to farmer insurance).
- Combining savings and grants with different kinds of training and business advice.
- Assessing mechanisms of reducing corruption in lending practices, as well as measure its importance.

■ **Policy area 4:**
Easing household constraints



Women as entrepreneurs spend a disproportionate share of their time on household work and childcare relative to men. The time constraints imposed by these activities can spill over into other productive work. Indeed, the analysis in Part 3 revealed that women business owners spend 3% to 17% less time per week than men working on their business – even after accounting for individual, firm, and sector characteristics. In addition, the analysis illustrated how women’s lack of control over the allocation of household resources may be a source of inefficiency.

To relax the household constraints faced by female entrepreneurs, some programs seek to expand access to care services for children and older family members. Others aim at engaging other household members to foster a more supportive environment for women business owners.

a. Providing childcare can increase female participation in the workforce.

Offering childcare may be an effective way to ease time constraints faced by female entrepreneurs. As mentioned in Part 3, several studies, including in Kenya, Mozambique and Togo, have looked at childcare from the perspective of female labor-force participation rates, and have found significant positive impacts.⁴¹³

However, there are currently no published studies that specifically assess the impact of childcare on business performance.

An impact evaluation in Kenya showed that mothers of children who received subsidized early childcare were on average 1.3 percentage points more likely than in the control group to be running a business.⁴¹⁴ Outside Africa, a study in China found that a one-percentage-point increase in access to affordable childcare increased the female entrepreneurship rate by 0.47 percentage points, with the entrepreneurship rate increasing more in provinces with greater increases in access to childcare.⁴¹⁵

However, the high costs of childcare services can diminish the potentially positive effects on women’s economic activity.⁴¹⁶ More broadly, childcare policies need to be designed jointly with other policies affecting female labor participation, such as education, and must take cultural norms into consideration.⁴¹⁷ Several other factors affect the take-up of childcare services, including parents’ employment, the availability of other caregivers, affordability, location and opening hours, and trust in the service provider.⁴¹⁸ Careful policy design and governance of childcare provision is also critical for a favorable impact on children’s development and long-term prospects.

- Status of evidence: **Emerging**. No studies from Africa demonstrate the impact of care services on business performance.
- Global evidence, including from Africa, show increases in women’s labor-force participation rates associated with greater provision of childcare services.

b. Engaging men can foster a more supportive environment for women as entrepreneurs.

Engaging spouses and other male household members has the potential to shift the household division of labor, and to change norms and behaviors⁴¹⁹ regarding household decision-making and the role of women as caregivers and business owners. Interventions that seek to engage men are increasingly common, especially in the areas of reproductive health and gender-based violence, although rigorous evidence of their impact remains limited.⁴²⁰

A recent program from Rwanda that engaged young men and couples in group discussions on gender-equitable behaviors has shown promising results. The program offered a structured curriculum of 15 sessions. About half of the sessions offered a men-only space to discuss sensitive issues regarding sexual health and gender-based violence, topics that men may be reluctant to talk about with their partners. These included open discussions among men about their role in the household as fathers and partners, as well as on their relationship with their own parents. In the couple sessions, inter-personal communication, decision-making, household roles and violence were discussed.

An evaluation of this program found a significant and meaningful impact across a range of health and behavioral outcomes. Women reported a lower incidence of physical and sexual violence from their intimate partners. Both women and men reported a lower incidence of violent punishment directed against children. Men and women were more likely to share household decision-making on finances and fertility. Finally, men shared more of the household chores, and spent almost an hour more per day doing them. While this study did not measure impacts on business performance, the results highlight the potential for such interventions to transform gender roles within households and have a positive impact on a range of development outcomes.⁴²¹

Joint couples training can also be used to promote greater equality in the allocation of household resources. A pilot project in Ghana is testing the relative effectiveness of providing small cash grants that are conditional on both the beneficiary and her partner attending a training program on the allocation of resources within the household.⁴²² The training program uses interactive exercises focusing on how women-run businesses can be as profitable as those run by men, the importance of supporting these businesses, and how this can benefit the entire household.

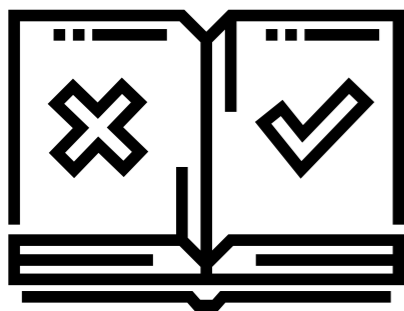
- Status of evidence: **Emerging**. No direct evidence yet exists showing that interventions encouraging men to take on a more equitable division of household labor and to provide a more supportive environment for female entrepreneurship have a positive impact on the performance of female-owned firms, but indirect evidence supports further testing.

What’s next: Expanding our understanding of what works to ease household constraints

This is an incipient area, but an important one to address gender constraints that are deeply rooted in norms about men and women’s roles and responsibilities in society. There are opportunities for further policy testing of different household-level approaches to support female entrepreneurs, such as:

- Understanding if improvements in childcare access produce lasting effects on business performance.
- Studying different mechanisms for involving couples, men and other male household members with the aim of easing constraints related to the distribution of household decision-making, caregiving and household responsibilities, and intimate partner violence.
- Understanding if programs that involve engaging men can complement interventions aimed at promoting proactive behavior.
- Comparing approaches designed to provide access to savings and capital, focusing on household collaboration (e.g., training of couples), with those focusing on female entrepreneurs’ control and privacy.
- Testing the importance of more holistic in-household approaches to overcoming gender norms and improving business opportunities for women.

■ Policy area 5: Addressing social norms regarding women's occupational choices



As presented in Part 3, an entrepreneur's sector of operations partly explains gender differences in business performance. Recent studies in the region found that female entrepreneurs who operate in male-dominated sectors perform much better than those in traditionally female-dominated sectors, and as well as men in these higher-return activities.⁴²³

An initial step to increase participation of women in traditionally non-female sectors would be to remove legal restrictions to women's occupational choices. In Africa, 62% of countries impose restrictions on women's access to certain professions.⁴²⁴ However, legal reforms by themselves are not sufficient to encourage more women to join sectors previously reserved for men.

The analysis thus far suggests that the differences in participation in higher-return sectors are not driven by endowments such as education or access to finance, but instead by psychosocial factors – particularly the influence of male role models and exposure to the sector by family and friends.⁴²⁵ Time preferences shaped by social norms may also contribute to sector selection.⁴²⁶

Providing information on earnings in traditionally male-dominated sectors, along with early exposure through apprenticeships and male role models, can encourage women to enter these sectors.

A set of policies are being tested across Africa aimed at encouraging more women "crossovers" to enter the higher-value sectors traditionally dominated by men, including providing information on earnings opportunities, mentorship and apprenticeship programs, and training sessions focusing on sector-specific business and technical skills.

One area of intervention includes providing information on the earnings opportunities in male-concentrated sectors. Accurate information can address misperceptions of earnings in traditionally female sectors and help women, especially young women, make more informed decisions when choosing their sector of activity. Female entrepreneurs in traditionally female-dominated sectors incorrectly believe they make the same or more than their counterparts in male-dominated sectors. In Uganda, 80% of non-crossovers who make less than crossovers think they make the same or more as the women in male-dominated sectors.⁴²⁷ In Ethiopia, women in traditionally female sectors incorrectly believe that their profits are the same or higher than their female counterparts in crossover sectors, when in fact they are lower for 64% of firms.⁴²⁸

In a vocational training program in Kenya, women exposed to information on expected earnings and a video of female mechanics were almost nine percentage points more likely to express a preference for taking vocational training in a male-dominated trade, and five percentage points more likely to enroll in one. Younger and more educated women were more likely

to opt for male-dominated fields. Most women who enrolled in these male-dominated trades eventually dropped out from the program, which suggests that information alone may not be sufficient.⁴²⁹

However, in Republic of Congo, a vocational training program on different trades (male and female-dominated) is providing information to applicants on returns. The program produced two videos: one simply describing the different trades and available training programs (version A), and one including the same descriptions but also information on median earnings in each trade (version B). Applicants are randomly invited to watch either version A or B before submitting an application for a specific trade. This will help clarify whether having better and more accessible information on potential earnings encourages women to opt for typically male-dominated trades.

Programs to encourage crossovers should consider exposing women to the sector through apprenticeships and by including male mentors, thus providing an encouraging environment for women to enter non-traditional sectors. The studies in Uganda and Ethiopia found that early exposure to a male role model was a key factor in women's decision to enter a male-dominated sector. Ugandan women with a male role model are 12% to 22% more likely to be a crossover.⁴³⁰ In Ethiopia, crossover firms were more likely to have started their business based on an opportunity provided by their husband. In addition, qualitative research has found that a father's occupation can influence the decision to enter a male-dominated sector by providing access to capital or start-up funds.⁴³¹

Emerging evidence suggests that the provision of technical training, even without explicitly targeting occupational choices, can shift women's internalized norms regarding their appropriate sectors of employment. A recent study in Nigeria found that graduates of an ICT training program were 23% more likely than a comparison group to be employed in that sector two years later, and that among those women initially more biased against professional attributes for women, the likelihood of switching to the ICT sector was three times higher than for non-biased women.⁴³² However, absent more deliberate policies, providing technical training is unlikely to have a substantial impact on occupational choice for women.

Potential risks related to an increase in harassment and gender-based violence should be assessed when encouraging women to enter non-traditional sectors, and mitigation measures

– including the provision of safe employment environments for women – should be identified.⁴³³

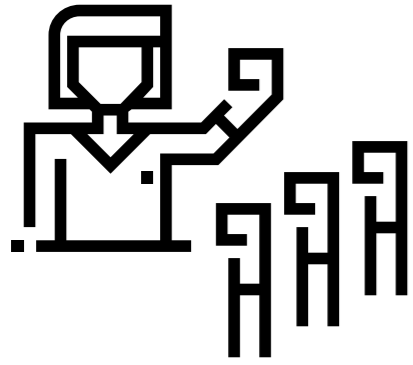
- Status of evidence: **Emerging**. Limited evidence exists as to whether interventions designed to encourage women to cross over to non-traditional sectors have positive impact; indirect evidence supports further testing.

What's next: Expanding our understanding of what works in addressing social norms regarding women's occupational choices

There is substantial scope to test and evaluate new approaches to helping women switch into more profitable sectors in different settings. Potential ways to expose women to these sectors include:

- Providing encouragement from mentors, family and friends to nudge women to make the switch.
- Leveraging apprenticeships and similar on-the-job learning opportunities to familiarize women with a sector, while building their skills to operate in it.
- Connecting women with male-dominated networks and opportunities (often as part of local content development), even for the supply of products and services in sectors in which women are already present.
- Exploring mechanisms to help women deal with social backlash resulting from their entry into male-dominated sectors.

■ **Policy area 6:**
Facilitating access to markets for female entrepreneurs



Across Africa, policymakers are implementing programs to connect businesses with domestic, regional and global markets. These programs need to pay attention to gender-specific constraints to make sure female-owned firms benefit from them. To date, they have not typically been oriented toward the constraints outlined in Part 3 of this report.

There is limited, albeit growing, recognition of the role that African women play in trade, as small informal traders, producers of tradable goods or service providers, or leaders of exporting firms.⁴³⁴ The specific challenges that each of these groups face when accessing markets need to be understood and addressed. For example, informal women traders often lack knowledge about border-crossing procedures and are subjected to requests for bribes and harassment.⁴³⁵ There is little rigorous evidence of gender-related outcomes associated with policy interventions promoting access to domestic or foreign markets, whether in Africa or globally. This is an area in which further study is acutely needed.

Training does not eliminate harassment at border crossings, but can make female traders aware of ways to minimize harassment.

Small informal traders, mostly women, handle a significant volume of trade in Africa, yet fall outside official trade statistics. A survey of small women traders in the DRC-Rwanda border found that 80% of respondents have been asked for a bribe, and more than half have been subject to harassment. Lack of information among women traders about their rights and responsibilities emerged as a key constraint.

An impact evaluation conducted along the DRC-Rwanda border measured the effects of a training program for (mostly women) traders regarding border procedures, customs tariffs, and their rights and personal safety during crossings. Border officials also received training on procedures and tariffs, governance issues and gender issues. Traders who received the training responded strategically, by crossing the border earlier than the control group – 23 minutes earlier on average – thus minimizing encounters with guards and other border controls (official or unofficial). Rates of harassment dropped by 29% among participants, and the share of traders reporting paying nothing at the border increased by 5%, despite the lack of impact on the total official and unofficial charges paid. There was no impact on overall profits.⁴³⁶

The results suggest that in a context of ambiguous rules, the traders provided with information opted to minimize risk by adjusting their behavior. Therefore, changing the behavior of border guards may require different or additional interventions.

- Status of evidence: **Not promising.** There
- is no evidence, based on a first study, that
- training of border guards and small traders
- by itself reduces the level of harassment by
- border guards. However, it is too early to
- rule out training as an effective policy option,
- particularly if it were to be coupled with
- improvements in the institutional environment
- (e.g., making sure border officials are paid on
- time, providing mechanisms to address legal
- complaints).

What's next: Expanding our understanding of what works in addressing women's access to markets

A range of policy interventions are being tried to facilitate access to markets, for male- and female-owned businesses in Africa and elsewhere. Unfortunately, there is limited to no gender-differentiated evidence that might enable recommendations about what works. Below are potential approaches that could expand female entrepreneurs' market-participation opportunities, but which require further study.

- Reducing the degree to which small-scale female cross-border traders are hassled. Some proposed interventions to test based on quantitative and qualitative research with small traders include:⁴³⁷
 - › Creating a charter listing the rights and obligations of traders, and displaying it at a visible place at customs offices.
 - › Increasing safety measures at the border including cameras, help lines, etc.
 - › Improving access to information.
 - › Introducing a simple trade regime (e.g., the simplified trade regime of the Common Market for Eastern and Southern Africa (COMESA) for shipments under \$1,000).
- Export promotion programs targeting female-owned firms. These programs, provided by trade and investment support institutions, NGOs, or business associations, can include information on market requirements and regulations, assistance in meeting export requirements, and networking assistance and links to foreign buyers. Impact evaluations from the Middle East and North African region have identified positive, though not always persistent effects associated with these policy interventions. No gender-differentiated results have been reported. A study of a public export promotion program in Tunisia finds the program led to faster export growth and a diversification of products. Yet the program's impacts dissipated after three years, suggesting that firms may need additional support to stay competitive in export markets.⁴³⁸ Another study in Egypt finds that rug producers offered the opportunity to export to the United States experienced

profit increases between 15% and 25% by securing export orders. The study finds strong evidence of "learning by exporting" among treatment firms.⁴³⁹

- Improving networking capital for female entrepreneurs through online platforms. Increasing opportunities for female-owned firms to increase their networking capital⁴⁴⁰ can in theory help them access new business opportunities. Policy interventions seeking to support women exporters should not rely on traditional male-dominated networks, as women may not be connected to these networks and thus may miss out on program benefits.⁴⁴¹

Using internet and mobile phone platforms offers an opportunity for SMEs, including those owned by women, to exchange information and potentially gain new clients.⁴⁴² The rapid expansion of broadband access, expected to reach 80% of the African population by 2020,⁴⁴³ along with the fast growth in smart-phone use, paves the way for the development of such platforms. There has not, however, been a rigorous impact evaluation of these platforms to date.

- Facilitating female-owned firms' access to government procurement contracts. Access to government procurement represents an important potential market for SMEs. Governments frequently use the public procurement framework as a way to achieve socioeconomic objectives, including the promotion of female entrepreneurs. Yet these policies have costs due to limits on competition and resources needed to minimize fraud. To determine the impact and cost-effectiveness of these policies, rigorous policy evaluations are needed. A study in Brazil shows that winning at least one government contract in a given quarter increases firm growth by 2.2 percentage points over that quarter. No gender-disaggregated results were presented.⁴⁴⁴

Governments can apply several specific measures to help reduce challenges for female-owned firms in accessing public contracts, similar to those aiming to facilitate the access of smaller firms to public procurement processes. These initiatives include streamlining tender documents and procurement processes, pre-qualifying female-owned firms, avoiding contract bundling, allowing time for tender preparation, providing feedback to potential suppliers, and enforcing rules requiring the prompt payment of suppliers.⁴⁴⁵ Another potential intervention is eProcurement, which can help

reduce transaction costs and increase SME participation, including by female-owned firms. Some countries have introduced more proactive policies to include female-owned firms (or other disadvantaged groups) such as: (i) establishing mandatory goals or targets, (ii) requiring firms awarded contracts above a certain threshold to include female-owned firms as subcontractors; (iii) providing preferences for female-owned firms (e.g., a price advantage); and (iv) setting aside contracts for female-owned firms.^{446, 447} Rigorous evaluations would help clarify the potential impact of these interventions.



3. Designing effective programs to support female entrepreneurs

Understanding the landscape of female-owned firms and the constraints they face is the first step in the design of any business program or intervention (Table 8). Moreover, effective program design calls for context-specific solutions, as environments for female entrepreneurs and the types of businesses they run vary within and across countries, sectors, and socioeconomic backgrounds.⁴⁴⁸ As more and more countries embark upon solutions aimed at overcoming the gender gaps in business performance (see, for example, Box 13), setting the bar high in terms of program design is critical for achieving success.

Relying on a combination of quantitative and qualitative methods can help provide a full picture of female entrepreneurs and the constraints they face. Useful sources of data include enterprise surveys, household surveys, and surveys from impact evaluations. Reports like the World Bank's *Women, Business, and the Law*, or country-specific investment climate or value-chain studies can provide further insights into legal constraints and other issues affecting female-owned firms. Gender-disaggregated diagnostics including those that can be integrated in IFC's Country Private Sector Diagnostic (CPSD) can be important instruments to design effective sector-oriented programs.

Conducting in-depth qualitative research can shed light on important questions at design. Consultations with women business associations and individual business owners can also help identify underlying constraints and hone program design. When gathering information on sensitive topics, such as domestic violence or psychological well-being, a mixed-methods approach can be most effective.⁴⁴⁹

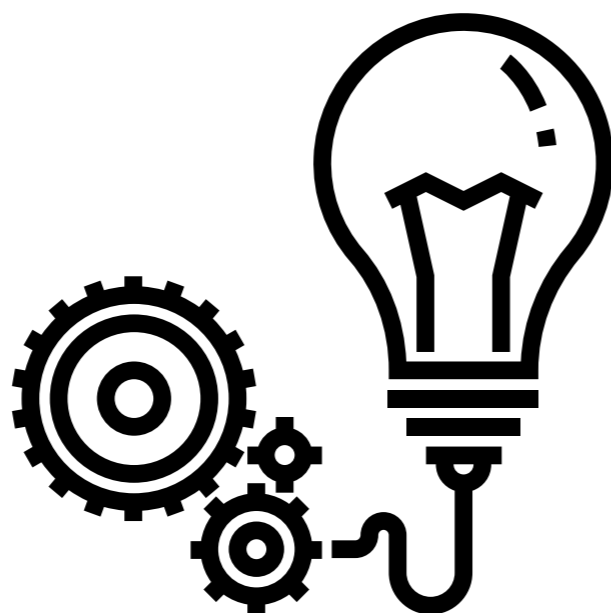


Table 8

Checklist for assessing potential country- or community-level gender-specific constraints

Business typology and performance	<input type="checkbox"/> number and size of female-owned businesses <input type="checkbox"/> sector disaggregation <input type="checkbox"/> formal vs. informal status of female-owned businesses <input type="checkbox"/> wage-employment opportunities available for women
Business operating context	<input type="checkbox"/> legal discrimination <input type="checkbox"/> political voice <input type="checkbox"/> sexual and gender-based violence <input type="checkbox"/> participation in social and business networks <input type="checkbox"/> interactions with individuals of the opposite sex <input type="checkbox"/> perceptions about women's role in household/caregiving activities <input type="checkbox"/> perceptions about sector choice <input type="checkbox"/> mobility constraints
Education and skills	<input type="checkbox"/> literacy levels <input type="checkbox"/> education attainment at secondary and tertiary levels <input type="checkbox"/> access and use of ICTs <input type="checkbox"/> availability of business and technical skills training programs, and women's participation in such programs
Finance and assets	<input type="checkbox"/> ownership of land and property <input type="checkbox"/> ownership of other tangible assets <input type="checkbox"/> access to savings mechanisms <input type="checkbox"/> access to finance
Confidence/Risk-taking	<input type="checkbox"/> willingness to compete <input type="checkbox"/> risk appetite
Household-level constraints	<input type="checkbox"/> control of household assets <input type="checkbox"/> patterns of household collaboration <input type="checkbox"/> time use preferences <input type="checkbox"/> availability and affordability of childcare

Source: Adapted from World Bank – WLSME (2013).

Women Entrepreneurs Finance Initiative (We-Fi)

The Women Entrepreneurs Finance Initiative (We-Fi) is a program launched in 2018 with an initial funding allocation of US\$ 340 million to support programs and activities that eliminate barriers that women face in starting and growing successful SMEs in a variety of sectors, and strengthen the enabling environment for such firms.

We-Fi supports complementary approaches through two windows: public and private sector windows. The We-Fi seeks to provide dedicated resources to foster innovation and new approaches to removing the constraints faced by women as entrepreneurs, while also helping elevate the issues so as to drive action by governments and the private sector.

In the private-sector window, We-Fi is looking to support financial services for women customers and women-led SMEs through financial intermediaries and non-bank financial institutions; implement performance-based incentives and risk sharing for banks and non-bank financial-service providers, including in the form of blended finance; support angel, seed, venture and growth capital-type facilities; provide financial tools, incentives, and technical assistance to increase corporate sourcing from and to female entrepreneurs and women-led SMEs; provide advisory services and technical assistance to financial intermediaries, business networks, funds, corporates, and accelerators/incubators

to encourage and facilitate greater use of and engagement with female-owned SMEs; collect high-quality financial data on female-owned businesses and impact evaluations; and leverage donor funds, ultimately channeling these directly or indirectly to women-led SMEs.

In the public-sector window, We-Fi seeks to help governments improve the business environment for female entrepreneurs by identifying and addressing binding regulatory and legal constraints, creating market opportunities and developing innovative programs to support the growth of female-led businesses that align with country commitments to gender equality. The We-Fi supports proposals that can improve the business and legal environment for women businesses in such areas as collateral registry, land registration, business registration and complementary targeted interventions (e.g., help with setting up business bank accounts); women's voices in public-private dialogues; and access to financial services. We-Fi also supports technical assistance and grants to help open markets to female-owned businesses, through advisory projects to increase women's engagement in export and trading activities, value-chain analysis and market linkages, online platforms, supplier development programs, business incubators, innovation centers, and capacity-building through training and technical assistance

and mentoring programs. Finally, We-Fi supports piloting innovative ideas in areas related to promoting the expansion of the number of women as entrepreneurs in male-dominated sectors, circumventing norms regarding willingness to compete, increasing the take-up of financial technology, and funding rigorous impact evaluations.

The initial allocation of funding in Africa includes programs led by the Islamic Development Bank in Nigeria and Mali, and those implemented by the World Bank Group in Côte D'Ivoire, Mozambique, Nigeria, Senegal, Tanzania, and Zambia. The World Bank program will also include global programs on collecting gender-disaggregated data on formal enterprises, impact evaluations, and tourism-sector opportunities and analysis.

■ Getting targeting right

In Africa, many entrepreneurs – both women and men – are driven to start their own businesses by limited opportunities for wage employment. Thus, many tend to be subsistence-oriented and comparatively uninterested in growing their businesses.⁴⁵⁰ Growth-oriented entrepreneurs are most likely to benefit from enterprise development programs but identifying such individuals remains a challenge. Evidence from recent impact evaluations offer some useful lessons on targeting.

The effectiveness of enterprise development programs for women – such as those providing skills, training or credit – can vary depending on the characteristics of the beneficiary firms, including size and the education or experience levels of managers (Box 14), as well as the surrounding environment and infrastructure available to them. In India, an impact evaluation of microcredit lending identified growth entrepreneurs as those who had started their businesses prior to the availability of the microcredit, and found that these firms were most likely to benefit from the credit.⁴⁵¹ Therefore, programs seeking to support high-growth entrepreneurs' skills development or access to credit may achieve the most benefits by considering targeting larger and more experienced businesses. However, training programs must clearly demonstrate their value if they want to entice the busy owners of such firms to participate.

Reports from community members can be a reliable way of identifying the men and female entrepreneurs most suited for participation in such programs, as demonstrated by a project distributing cash grants in India. Community members are typically good at assessing the micro-entrepreneur's abilities and potential return on capital, although the reports lost accuracy when participants were aware they could influence the allocation of cash grants and present friends and family members in a favorable light.⁴⁵² Some ways to mitigate misreporting include small monetary incentives, public vs. private reporting, and cross-checking reports to identify those who might give favorable reports to each other.

Business plan competitions are becoming popular in the region following the success of the Nigeria You Win! Program. These have proven a useful way to identify high-growth micro-enterprises.⁴⁵³ Applicants respond to a widely publicized call for business ideas and then participate in a competitive process. The programs typically provide a small amount of training to applicants to help them prepare a business proposal, which is then scored by business experts. Expert panels are a common mechanism used to select the winning firms. A recent paper compares the predictive power of expert opinions with entrepreneurs' surveys to gather applicant information in the context of a business plan competition in Ghana.⁴⁵⁴ It finds that ability – measured as a combination of education, cognitive skills, and financial literacy – and to a lesser extent, managerial practices, were good predictors of enterprise growth among participants. Experts' opinions added predictive value on top of the surveys. However, identifying the fastest potential growers remains tricky. In the business plan competition in Nigeria, among those participants reaching the semi-final stage, neither the business-plan scores (provided by experts), nor the entrepreneur or firm characteristics predicted those firms most likely to grow most quickly or benefit most from the program.⁴⁵⁵

Source: Adapted from *we-fi.org* and supporting documents.

Targeting may matter in skills development

Effective targeting identifies and attracts those firm owners who will benefit most from and most effectively apply the content of the training.⁴⁵⁶ Comparatively experienced business owners often already have the technical and entrepreneurial skills necessary to grow their business.⁴⁵⁷ However, more experienced business owners are also more likely to decline participation in training programs, perhaps due to the higher opportunity costs of training.⁴⁵⁸ Designers of such programs should thus consider how the training content and selection mechanisms will attract these firms.

A study of a program targeting female entrepreneurs in Tanzania highlights how firm impacts can vary by the entrepreneur's experience

level. A group of firms were offered basic business training, while another group received the training plus individual specific consulting sessions and coaching. In line with other studies, the basic business training did not result in improved business performance. The enhanced support was found to improve business practices, but only the comparatively experienced participants improved their earnings. The impact was larger with every additional year of experience. This finding suggests that experience may increase the ability to translate the training program's lessons into improved business practices, or that more experienced entrepreneurs may not be constrained by other barriers hindering business growth.⁴⁵⁹

In South Africa, an impact evaluation finds that training on marketing and finance among men and women small-business owners leads to significant improvements in profits one year after training delivery. The higher profits were produced by improved business practices in line with the type of training received. More established formal businesses were found to benefit more from the finance training, while those with less previous exposure to different business contexts and markets reaped higher profits from the marketing training. Influenced by the choices taken, the impacts were larger for the more motivated, formal, larger, and experienced businesses.⁴⁶⁰

■ Building gender-sensitive aspects in program design

Gender-specific constraints, like those discussed earlier in this report, may prevent female entrepreneurs from participating in business plan competitions, training, and other enterprise development programs. Women may decide not to participate in a business-plan competition if they are competing against men. Or they may drop out of a training program if the schedule interferes with their household obligations or requires them to travel to a distant location. Understanding these constraints and identifying ways to address them during program design will increase the likelihood of program effectiveness. Below is a discussion of the approaches being tested to address some of these constraints. More rigorous evidence is needed to know what solutions work best.

Addressing women's lower willingness to compete

Even after participating in a training program, women may still be more reluctant than men to enter a competition.⁴⁶¹ By acknowledging this gap, practitioners could explore different ways of encouraging women to compete, such as:

- All-female competitions: Women may be more likely to enter a contest if they are only competing against other women. The Kenya lab experiment described in Box 6 found that women were more likely to enter a competition when only facing other women.⁴⁶² Business plan competitions, for example, could reserve one round for women participants. Women may also prefer participating in women-only training sessions or mentoring groups.

- Lowering "the stakes" of the competition: Women may set a higher bar for themselves, compared to men, when the stakes, such as responsibility for someone else's earnings, are higher.⁴⁶³ One possible response is having competitions where the stakes, such as the size of the prize, are not as salient in the awareness campaign.
- Feedback on their ability to compete: Women may tend to underestimate their relative ability and, in turn, their chances of winning. This perception may lead women to stay out of the competition. Therefore, evaluating and providing feedback on their relative ability could address misperceptions and encourage more women to compete.
- Support from peers: This report described that successful female entrepreneurs in Africa typically receive strong support from their closed networks, especially their families. Building support from peers, such as allowing participants to bring a relative or friend to the program activities, may increase women's willingness to enter a competition.
- Incentive from role models: With the goal of encouraging women to see themselves as being able to replicate the success of competitive entrepreneurs, programs can bring in local or regional role models to the interventions or awareness campaigns.

Considering time and mobility constraints when designing training programs

Female entrepreneurs may face several barriers when taking up training, due to their caregiving obligations, social norms or safety concerns restricting their movement, lack of resources, or lower literacy levels. A study in Kenya finds that observable entrepreneur characteristics predicted differences in attendance rates in a business-training program for female small-business owners.⁴⁶⁴ Women over 35 years old and unmarried women were more likely to attend, suggesting that household responsibilities may constrain attendance rates. Previous participation in a training program and living in a large household or close to the training location were also associated with higher attendance rates. On the other hand, owners of firms with relatively high profits were less likely to attend, possibly due to time demands associated with the business, or to lower perceived benefits from the training.

The schedules, durations, and locations of training programs should therefore be tailored to the specific needs of targeted groups of female entrepreneurs. Approaches to be considered and evaluated depending on the context include:

- Reduced schedules (e.g., part-time instead of full-time sessions), so women can continue to tend to their businesses during the training.
- A non-sequential curriculum that allows trainees to complete a subset of sessions when their schedule permits.
- Conducting the training in a nearby location and/or offering transportation.
- Providing childcare during training.
- Offering food (including food to take home).
- Adjusting training content to participants' literacy levels.
- Being sensitive to cultural norms (e.g., female instead of male coaches).

Finally, leveraging technologies such as mobile phones for training delivery and business advice can potentially help women overcome some time and mobility constraints, although more research is needed to assess the effectiveness of such mechanisms.⁴⁶⁵

4. Expanding our understanding of what works

Evidence on what drives the existing performance gap between men and female-owned businesses in Africa – and on how to support female entrepreneurs – is growing, yet remains limited. Closing the performance gap requires a combination of clear policy actions at scale, better targeting of beneficiaries, and rigorous research and impact evaluations to expand our knowledge of what works. This section outlines opportunities to move this important agenda forward, including suggestions on the roles that governments and other stakeholders can play.

Developing effective policies to help African female-owned businesses thrive requires a continued push to expand the understanding of existing gender gaps and the underlying constraints behind them. Researchers should use an array of methods, including qualitative and inferential research, to learn about the constraints different groups of women face while operating their businesses across Africa.

Conducting this research *ex ante* and in combination with the preparation of impact evaluations will lead to the design of better solutions to be tested. For example, this research is critical to understand which constraints need to be jointly targeted for an intervention to result in higher profits for female entrepreneurs. Therefore, it is possible to gain additional insights about the strength of different constraints in the context of testing different intervention approaches.

When a policy intervention succeeds at promoting the growth of female-owned businesses, it confirms that the intervention effectively addresses a binding constraint for these firms. However, the well-estimated absence of impact from a policy intervention on the performance of female-owned businesses can be due to one of three reasons:

1. The constraint targeted is not binding, so addressing it has no impact on business outcomes;
2. The constraint is binding but the intervention tested is not an effective way of addressing it due to design or implementation issues; or
3. The constraint targeted is important, the intervention tested is an effective way of addressing this constraint, but other constraints bind at the same time. In the latter case, an intervention relaxing only one constraint will not affect business outcomes.

To design successful policy interventions, it is important to identify all the binding constraints that businesswomen face, and design solutions to address them jointly. This requires impact evaluations that “horse-race” different interventions to address similar constraints – to gauge the effectiveness of different delivery methods – as well as evaluations combining complementary interventions that address joint binding constraints in cases where research indicates they exist. Moreover, studies assessing the impact of different policy options targeting the constraints of female entrepreneurs need to consider the specific channels through which these constraints affect business profits. For instance, it would be useful to know whether the priority of business-training programs should be to provide technical knowledge on specific business practices or to build women’s confidence in launching new ventures.

Innovative policies could be tested to address the underlying constraints female-owned enterprises face in Africa. [Table 9](#) lists potential policy options to overcome specific constraints, and thus contribute toward learning about whether these constraints are binding.








Within the long list of ideas presented in [Table 9](#), one promising strategy is to first learn about the effectiveness of the interventions that have some emerging evidence, including securing land tenure rights, alternatives to collateral, exposure to male-dominated sectors, and childcare services.

To increase the external validity of these studies, it would be important to replicate promising policy interventions in different contexts. Additionally, longer follow-up periods will help confirm if results hold over time. Finally, research design should consider how statistical power will be achieved as low take-up rates and/or high attrition rates are common challenges in many programs supporting female entrepreneurs.



Table 9

Potential policy interventions to study effectiveness for female-owned businesses in Africa

						
1. Regulations & institutions	2. Access to skills and networks	3. Access to capital	4. Household	5. Sector segregation	6. Access to markets	Design
<p>Legal barriers to property rights, control of assets/household decision-making, business operations</p>	<p>Entrepreneurship training focused on building self-confidence</p>	<p>Alternatives to collateral (fintech innovations)</p>	<p>Different models for delivering childcare services</p>	<p>Information to enter male-dominated sectors</p>	<p>Trade facilitation and related interventions for traders</p>	<p>Mechanisms to identify high-growth entrepreneurs</p>
<p>Securing land tenure rights</p>	<p>Classroom delivery compared to, or in addition to coaching and/or business advice</p>	<p>Leasing</p>	<p>Engaging men to create more supportive environment</p>	<p>Exposure to male-dominated sectors through internships and training</p>	<p>Export promotion programs</p>	<p>Mechanisms to address issues of women's confidence and willingness to compete</p>
<p>Business to government feedback loops / public-private dialogue (PPD)</p>	<p>Business incubators/ accelerators for women</p>	<p>Equity vs finance vs grants</p>	<p>Increasing couples' collaboration vs. approaches to strengthen women's control and privacy on income/spending decisions</p>	<p>Support from male role models</p>	<p>Outsourcing models to procure services</p>	<p>Mechanisms to deliver training</p>
	<p>Worker skills</p>	<p>Matching grant programs</p>		<p>Women in leadership roles in firms</p>	<p>Online marketplaces</p>	
		<p>Factoring / trade finance</p>		<p>Government procurement programs for SMEs (preferential margins, payment periods)</p>	<p>Linkages programs connecting SMEs with large firms/SEZs</p>	
		<p>Crowdfunding</p>				
		<p>Angel investment</p>				
		<p>Digital savings</p>				
		<p>Mental accounting</p>				
		<p>Helping firms graduate (e.g., from microfinance institutions to banks)</p>				

Steps for African policymakers

1

Support concrete policy actions that demonstrate strong commitment to female entrepreneurs like eliminating existing legal barriers and fostering women's participation in public life, including promoting female role models.

2

Ensure private-sector development strategies and policies include a gender focus that addressing the specific challenges faced by female entrepreneurs.

3

Scale up policies that have shown credible results.

4

Support the testing and evaluation of promising approaches – and share the findings widely.

5

Invest in promoting the systematic collection of gender-differentiated data that captures the performance, endowments, and preferences of female-owned firms.

6

Involve men in policy advocacy and in the implementation of solutions – given that men are husbands, but are also more likely to also be bankers, inspectors, trainers, and policymakers, it is important to engage men at multiple levels in efforts to provide better opportunities for female entrepreneurs.



Steps for development partners, corporations, and civil society

1

Provide funding to test innovative approaches and research that contribute to closing the gender entrepreneurship gap while expanding global knowledge of what works.

2

Use findings from this report to inform the design of programs.

3

Continue advocacy efforts by highlighting the business and economic case for removing the obstacles constraining female entrepreneurs' growth.

4

For larger firms, consider the gender dimensions in their supply strategies and opportunities to integrate female-owned firms.



Appendix 1

Technical appendix on the decomposition method

This appendix provides a detailed technical overview of the decomposition method used in this report. This technical appendix is based on O'Sullivan et al. (2014) and Fortin, Lemieux, and Firpo (2011).

Decomposition methods have been widely used in economics to analyze the contribution of different factors to increase or decrease an outcome gap (e.g., productivity gap, gender wage gap, union wage gap, etc.). The report includes the Oaxaca-Blinder (OB) regression-based mean decomposition. The OB decomposition is the most extensive method employed in applied economics over the past three decades.

The method seeks to decompose differences in mean outcomes across two groups. Despite being very simple, this method requires a strong set of assumptions. First, it follows a partial equilibrium approach, where observed outcomes of one group are used to construct various counterfactual scenarios of the other group. Second, estimations used as inputs in OB decomposition are based on correlations, and hence cannot be interpreted as estimates of underlying causal parameters, as noted by Fortin, Lemieux, and Firpo (2011). Hence, expressions used in this report such as "the main factors that contribute to the gender gap in productivity are" should, therefore, be viewed in this light. Nevertheless, the decomposition methods allow an examination of the relative quantitative importance of factors in explaining an observed outcome gap, suggesting which factors drive the gender gap for further analysis and policy interventions. Third, the analysis assumes linear effects, leaving aside non-linear effects.

This work explores productivity gaps across firms with a female owner (FF) and firms with a male owner (MF). The background of this report relies on an OB regression-based mean decomposition. It considers as a productivity outcome measure (Y) the log of profits, sales, value-added, investment, labor hours, and other firms' relevant outcomes. Once a productivity measure is picked, the following equation is estimated:

$$(1) Y_g = X' \beta_g + \varepsilon_g$$

where g indicates the gender of the owner, X is a matrix ($n \times K+1$) with K observable owner and firm characteristics; β is the associated vector of intercept and slope coefficients; and ε_g the error term under the assumption that $E(\varepsilon_{FF}) = E(\varepsilon_{MF}) = 0$.

The gender gap "D" is expressed as the mean outcome difference:

$$(2) D = E(Y_{MF}) - E(Y_{FF})$$

Replacing Equation (1) into Equation (2) and taking the expectations, the gap is:

$$(3) D = E(X')\beta_{MF} + E(\varepsilon_{MF}) - E(X')\beta_{FF} - E(\varepsilon_{FF}) = E(X' | X)\beta_{MF} - E(X')\beta_{FF}$$

and Equation (3) could be rewritten as:

$$(4) D = \beta_{0,MF} + \sum_{k=1}^K E(X_{k,MF})\beta_{k,MF} - \beta_{0,FF} - \sum_{k=1}^K E(X_{k,FF})\beta_{k,FF}$$

where $\beta_{0,g}$ is the intercept of each gender model.

Subsequently, the analysis can estimate Equation (1) using a pooled sample of owners controlling for owner gender, i.e. including a dummy variable that identifies female-male owners. β^* is the vector of coefficients from this regression. The inclusion of the gender dummy is meant to avoid a possible distortion of the decomposition results due to the residual group difference reflected in coefficients β . Hence, rearranging Equation (4) and adding and subtracting the intercept coefficient of the pooled regression β_0^* and the terms $E(X_{g,k})\beta_k^*$, one obtains:

$$(5) D = \underbrace{\sum_{k=1}^K [E(X_{k,MF}) - E(X_{k,FF})]\beta_k^*}_{\text{Component 1: Endowment Effect}} + \underbrace{(\beta_{0,MF} - \beta_0^*) + \sum_{k=1}^K E(X_{k,MF})(\beta_{k,MF} - \beta_k^*)}_{\text{Male Structural Advantage}} + \underbrace{(\beta_0^* - \beta_{0,FF}) + \sum_{k=1}^K E(X_{k,FF})(\beta_k^* - \beta_{k,FF})}_{\text{Female Structural Advantage}}$$

Component 2: Structure Effect

where $\beta_{0,FF}$, $\beta_{0,MF}$, β_0^* , $\beta_{k,FF}$, $\beta_{k,MF}$, β_k^* ($k=1, \dots, K$) are the intercept and slope coefficients of each covariate included in the regressions of male, female and pooled owners' samples.

Equation (5) shows the aggregate decomposition. The first component is the endowment effect, or the explained part of the gender gap by differences in the levels of variables between both groups. The second component is the structure effect, or the unexplained part of the gender gap that is driven by deviation of each group's return from the corresponding "average" return. The first term of the structure effect represents the male structure advantage, which is the portion of the gender gap accounted by deviations of male returns from average returns. The second term of the structure effect represents the female structure advantage, which is the portion of the gender gap driven by deviations of female returns from average returns.

In practice, the OB decomposition is very simple to estimate. For example, the endowment effect is the sum of all differences between male and female owners' covariates means, valued at the corresponding average return. Thus, the analysis needs to compute sample means and estimate

the average return from the pooled model. In the case of the structural effect, besides means calculation, one needs to add the Ordinary Least Squares (OLS) estimated coefficients (intercepts and slopes) of all models.

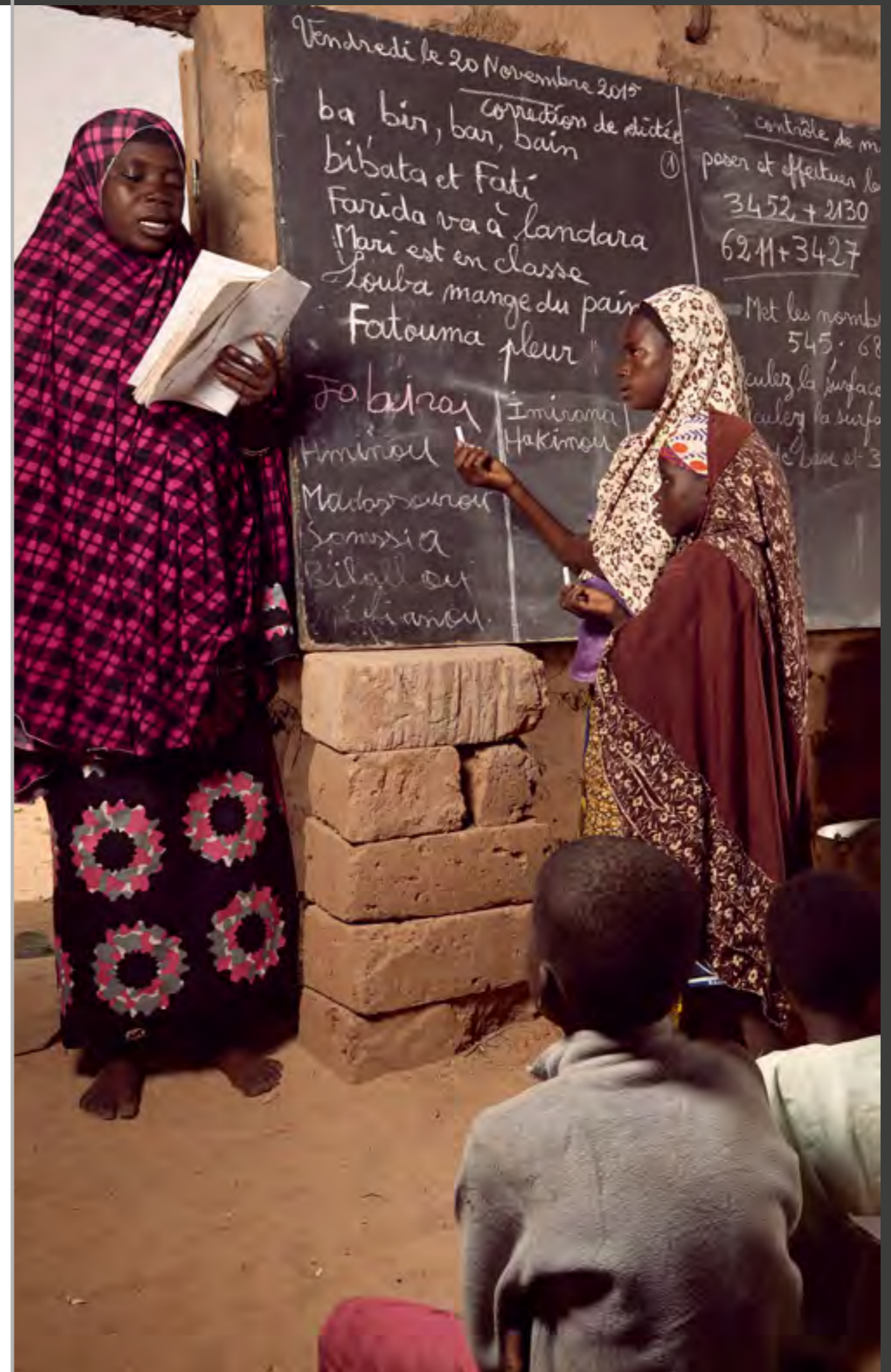
The coefficients are obtained estimating Equation (1) by OLS for (i) female owners, (ii) male owners, and (iii) both groups. In the first case, this analysis obtains the female-owner model coefficients ($\hat{\beta}_{FF}$); in the second, the analysis obtains the coefficients of the male-owner model ($\hat{\beta}_{MF}$); and in the third, this work gets the coefficients from the pooled model over both groups ($\hat{\beta}$).

The report's analysis estimates two specifications of Equation (1): i) a "core" specification and ii) an "expanded" specification. The "core" specification is common to all countries and it includes the following controls:

Firm characteristics: Number of employees (measured in hours of work), capital stock (inventory + equipment + property/land value), business practices, has a bank account, separates business from household money, formalization (firm is registered, pays the city assembly, pays taxes), innovation, firm has a loan, firm has at least one additional worker, sector. Owner characteristics: Age, tenure (when there is no information on tenure, firm age is used as a proxy), marital status, household size, number of children per adult, education.

The "expanded" specification includes a set of additional covariates to the "core specification" to explain a greater share of the gender gap. The added variables are not all the same among the countries.

As mentioned above, coefficients are interpreted as correlations and not as causal effects. Fortin, Lemieux, and Firpo (2011) present a detailed explanation of the assumptions required to identify the population parameters of interest. They impose two identification restrictions: (i) overlapping support and (ii) ignorability. Overlapping support implies that no single value of $X = x$ or $\varepsilon = e$ exists to fully identify female firms' productivity. Ignorability refers to the random assignment of female owners in firms conditional on observables attributes. These assumptions as additive linearity and zero conditional mean (i.e., ε is independent of X) are requirements to identify the individual contribution of each covariate in detailed decomposition. It should be noted that even the last both assumptions may not hold, the aggregate decomposition would remain valid as long as overlapping support and ignorability assumptions are accomplished.



Appendix 2

Description of datasets used in analysis

Name	Country	Year	Number of observations			Modules	Source
			Men	Women ^{a,b,c}	Total		
Impact Evaluation Surveys							
Entrepreneur Initiative Survey	Benin	2015	366	606	972	Owner Information. Firm information. Information about finances and credits. Capital, income, expenses and profit of the firm. Firm status. Taxes. Features and Practices of the firm.	Benhassine, McKenzie, Pouliquen, and Santini (2018)
Grants for Microenterprises Survey	Ghana	2009	337	503	840	Introduction. Personal and business information. Balance sheet information. Income statement information. Informality. Household roster and expenditures.	Fafchamps, McKenzie, Quinn, and Woodruff (2014)
Tailoring Enterprises Survey	Ghana	2008	65	88	153	Business overview. Staff. Current assets. Finance. Income.	Karlan, Knight, and Udry (2015)
Female Enterprise Survey	Kenya	2013	0	3,426	3,426	Personal and business information. Family background and childhood. Finance and loans information. Assets, income, expenses, and profit. Competitive environment. Business skills and practices. Empowerment.	McKenzie and Puerto (2017)
Business Registration Impact Evaluation Survey	Malawi	2011	1,807	1,195	3,002	Basic information about the business. Premises and equipment. Finance. Business registration. Profits, revenues and expenditures. Financial literacy and preferences. Workers. Training and networks.	Campos, Goldstein, and McKenzie (2015)
Matching Grant Scheme for Business Performance Survey	Mozambique	2012	831	364	1,195	Owner information. Activity. Installations and equipment. Financing. Bank account and other financial services. Evaluation of practices and competencies. Profits, revenues and expenses. Business registration. Workers.	Campos and Montalvo (2015)
Growth and Employment Survey	Nigeria	2016	3,047	1,254	4,301	Business information. Profits, sales and expenditures. Finance.	Anderson-McDonald, Buba, and McKenzie (2017)
Business Plan Competition Survey	Nigeria	2012	2,248	459	2,707	Demographic characteristics and socioeconomic background. Personal information. Employment in your firm. Financing your business. Business financials. Business practices.	McKenzie (2015)
Online Marketplace Survey	South Africa	2012	1,771	846	2,617	Owner information. Profits and revenues. Capital. Labor. Business practices.	Bossuoy, Campos, Coville, Goldstein, Roberts, and Sequeira (2012)
Virtual Business Incubator	Tanzania	2010	0	821	821	Basic information about the business. Employment status. Time use. Finance. Profits, revenues and expenditures. Skills. Harassment.	Bardasi, Gassier, Goldstein, and Holla (2017)
Training for Informal Firms Survey	Togo	2012	711	789	1,500	Contact information. Information about the start of the business and the business sector. Labor. Financial. Activities related to the firm. Personality and attitudes. Education and work experience.	Campos, Frese, Goldstein, Iacovone, Johnson, McKenzie, and Mensmann (2017)
Kassida Survey	Uganda	2011	408	325	733	Enterprise identifying information. Employees. Premises and equipment. Profits, revenues and expenditures. Finance. Regulation, standards and security. Training.	Campos, Goldstein, Pimhidzai, Stein, Zia (2013)
Loans, Grants, and Training Impact Evaluation Survey	Uganda	2012	130	232	362	Owner information. Profits and revenues. Capital. Labor. Finances. Business practices.e	Fiala (2013, 2015)
Census/household data							
Enterprise Census (Manufacturing)	Ethiopia	2011	1,091	161	1,252	General information. Sales. Costs. Investments.	
Enterprise Census	Ghana	2003	1,965	955	2,920	Organization. Industrial activity. Accounting records. Persons engaged.	
National Household Survey	DRC	2012	1,728	2,734	4,462	Sociodemographic characteristics. UPI filters. Firm characteristics. Labor. Profits and sales. Expenditures and expenses. Equipment, investment and financing. Problems and prospects.	

Name	Country	Year	Number of observations			Modules	Source
			Men	Women ^{a,b,c}	Total		
Enterprise Surveys							
Formal firms with more than 5 employees	Angola	2010	136	207	343	General information. Sales and supplies. Finance. Labor. Investment Climate Constraints.	World Bank
	Benin	2009	85	48	133		
	Botswana	2010	108	150	258		
	Burkina Faso	2009	214	104	318		
	Burundi	2014	97	60	157		
	Cameroon	2009	200	149	349		
	Cape Verde	2009	74	74	148		
	Central African Republic	2011	72	76	148		
	Chad	2009	113	33	146		
	Congo	2009	116	13	129		
	Côte d'Ivoire	2009	343	169	512		
	DRC	2013	438	89	527		
	Eritrea	2009	72	68	140		
	Ethiopia	2011	399	227	626		
	Gabon	2009	150	14	164		
	Ghana	2013	501	211	712		
	Kenya	2013	428	350	778		
	Lesotho	2009	103	17	120		
	Liberia	2009	81	15	96		
	Madagascar	2013	285	186	471		
	Malawi	2014	355	152	507		
	Mali	2010	86	111	197		
	Mauritania	2014	125	25	150		
	Mauritius	2009	185	187	372		
	Namibia	2014	309	262	571		
	Niger	2009	46	31	77		
	Nigeria	2014	2.123	469	2.592		
	Rwanda	2011	121	97	218		
	Senegal	2014	488	105	593		
	Sierra Leone	2009	140	8	148		
	South Sudan	2014	585	149	734		
	Sudan	2014	601	54	655		
	Tanzania	2013	602	197	799		
	Togo	2009	109	29	138		
	Uganda	2013	508	239	747		
	Zambia	2013	435	281	716		
Formal firms with less than 5 employees	Burkina Faso	2009	65	19	84	General information. Sales and supplies. Finance. Labor. Investment Climate Constraints.	World Bank
	Cameroon	2009	74	42	116		
	Cape Verde	2009	57	46	103		
	Côte d'Ivoire	2009	66	26	92		
	DRC	2013	305	106	411		
	Ethiopia	2011	96	48	144		
	Kenya	2013	196	161	357		
	Madagascar	2009	67	45	112		
	Mauritius	2009	39	36	75		
	Rwanda	2011	81	64	145		
	Togo	2009	93	24	117		

Name	Country	Year	Number of observations			Modules	Source
			Men	Women ^{a,b,c}	Total		
Informal firms	Angola	2010	71	43	114	General information. Sales and supplies. Finance. Labor. Investment Climate Constraints.	World Bank
	Botswana	2010	52	46	98		
	Burkina Faso	2009	93	27	120		
	Cameroon	2009	76	46	122		
	Cape Verde	2009	47	82	129		
	Côte d'Ivoire	2009	82	45	127		
	DRC	2013	364	116	480		
	Ghana	2013	251	472	723		
	Kenya	2013	316	214	530		
	Madagascar	2009	52	74	126		
	Mali	2010	92	27	119		
	Mauritius	2009	81	45	126		
	Rwanda	2011	145	95	240		
Household Surveys							
International Income Distribution Database (I2D2)	Angola	2008	22.059	23.339	45.398	Labor	World Bank
	Burundi	1998	15.656	16.918	32.574		
	Burkina Faso	2009	27.571	29.584	57.155		
	Botswana	2009	12.965	14.246	27.211		
	Central African Republic	2003	14.897	15.725	30.622		
	Côte d'Ivoire	2008	30.388	29.311	59.699		
	Congo	2005	12.827	13.772	26.599		
	Comoros	2004	8.936	9.021	17.957		
	Cabo Verde	2007	16.311	17.445	33.756		
	Ethiopia	2012	33.846	37.127	70.973		
	Gabon	2005	18.375	19.228	37.603		
	Ghana	2012	28.460	29.518	57.978		
	Guinea	2002	27.336	29.426	56.762		
	Gambia	2010	18.468	20.054	38.522		
	Guinea Bissau	1993	13.217	14.045	27.262		
	Kenya	2005	32.918	33.807	66.725		
	Liberia	2007	9.936	10.098	20.034		
	Lesotho	2010	10.155	10.836	20.991		
	Madagascar	2010	29.394	29.980	59.374		
	Mali	2003	20.805	20.675	41.480		
	Mozambique	2008	24.368	26.809	51.177		
	Mauritania	2008	35.330	39.791	75.121		
	Mauritius	2012	19.946	20.562	40.508		
	Malawi	2010	27.555	28.848	56.403		
	Namibia	2003	24.443	22.093	46.536		
	Niger	2011	12.405	12.720	25.125		
	Nigeria	2012	29.416	30.134	59.550		
	Rwanda	2010	32.490	35.908	68.398		
	Senegal	2011	79.627	87.992	167.619		
	Sierra Leone	2011	18.337	19.130	37.467		
	São Tomé and Príncipe	2010	6.961	7.104	14.065		
	Swaziland	2009	6.717	7.428	14.145		
	Chad	2003	19.440	20.105	39.545		
	Togo	2011	14.521	15.260	29.781		
Tanzania	2011	32.059	33.862	65.921			
Uganda	2010	8.779	9.137	17.916			
DRC	2005	35.978	36.707	72.685			
Zambia	2010	49.961	52.240	102.201			

^aIE datasets: Owner gender. ^bCensus data: For Ethiopia, it considers women if the owners of the firm are all females. For Ghana, it considers the owner gender. ^cEnterprise Surveys: number of firms that have at least one female owner. ^cI2D2: gender of the individual surveyed. ^dMain groups of variables used it (South Africa questionnaire has not modules or sections). ^eMain groups of variables used it.

References

- Adoho, Franck, Shubha Chakravarty, Dala Korkoyah, Mattias Lundberg, and Afia Tasneem. (2014). "The impact of an adolescent girls employment program: the EPAG project in Liberia." World Bank Policy Research Working Paper (6832).
- African Development Bank. (2015). "African Women: An Agenda for Action - Africa Gender Equality Index 2015."
- Agyei-Holmes, Andrew, Niklas Buehren, Markus Goldstein, Robert Osei, Isaac Osei-Akoto, and Christopher Udry. (2018). "The Effects of Land Title Registration on Tenure Security, Access to Credit, Investment and Production: Evidence from Ghana". Draft paper.
- Aker, Jenny, Rachid Boumnijel, Amanda McClelland, and Niall Tierney. (2016). "Payment Mechanisms and Antipoverty Programs: Evidence from a Mobile Money Cash Transfer Experiment in Niger." *Economic Development and Cultural Change* 65, 1, pages 1-37.
- Ali, Daniel Ayalew, Matthew Collin, Klaus Deininger, Stefan Dercon, Justin Sandefur, and Andrew Zeitlin. (2014). "The Price of Empowerment: Experimental Evidence on Land Titling in Tanzania." World Bank Policy Research Working Paper (6908).
- Ali, Daniel Ayalew, Klaus Deininger, and Markus Goldstein. (2014). "Environmental and Gender Impacts of Land Tenure Regularization in Africa: Pilot evidence from Rwanda." *Journal of Development Economics*. Volume 110, pages 262-275.
- Alibhai, Salman, Niklas Buehren, and Sreelakshmi Papineni. (2015). "Female Entrepreneurs Who Succeed in Male-Dominated Sectors in Ethiopia." World Bank Africa Gender Innovation Lab. Policy Brief Issue 12.
- Alibhai, Salman, Niklas Buehren, and Sreelakshmi Papineni. (2016). "From Learning to Earning: An Impact Evaluation of the Digital Opportunity Trust (DOT) Entrepreneurship Training." World Bank Africa Gender Innovation Lab. Policy Brief Issue 17.
- Amanatullah, Emily, and Michael Morris. (2010). "Negotiating Gender Roles: Gender Differences in Assertive Negotiating Are Mediated by Women's Fear of Backlash and Attenuated When Negotiating on Behalf of Others". *Journal of Personality and Social Psychology*, 98(2), 256-267.
- Anderson, Stephen, Rajesh Chandy, and Bilal Zia. (2016). "Pathways to Profits: Identifying Separate Channels of Firm Growth through Business Training." World Bank Policy Research Working Paper (7774).
- Angelucci, Manuela and Robert Garlick (2016). "Heterogeneity in the Efficiency of Intrahousehold Resource Allocation: Empirical Evidence and Implications for Investment in Children." Draft paper.
- Arias, Omar, David Evans, and Indhira Santos (2017). "The Skills Balancing Act in Sub-Saharan Africa". World Bank.
- Arraiz, Irani, Miriam Bruhn, Claudia Ruiz Ortega, and Rodolfo Stucchi. (2017). "Are psychometric tools a viable screening method for small and medium-size enterprise lending? evidence from Peru". World Bank Policy Research Working Paper (8276).
- Ashraf, Nava. (2009). "Spousal Control and Intra-Household Decision Making: An Experimental Study in the Philippines." *American Economic Review* 99, no. 4, pages 1245-1277.
- Ashraf, Nava, Natalie Bau, Nathan Nunn, and Alessandra Voena (forthcoming). "Bride Price and Female Education." *Journal of Political Economy*.
- Aterido, Reyes, Thorsten Beck and Leonardo Iacovone. (2011). "Gender and finance in Sub-Saharan Africa: Are women disadvantaged?" World Bank Policy Research Working Paper (5571).
- Atkin, David, Amit Khandelwal, and Adam Osman. (2014). "Exporting and Firm Performance: Evidence from a Randomized Trial." CEPR Discussion Paper (10276).
- Audretsch, David and Maryann Feldman. (2004). "Knowledge Spillovers and the Geography of Innovation." in Henderson and Thisse eds., *Handbook of Urban and Regional Economics*, vol. 4.
- Balafoutas, Loukas and Matthias Sutter. (2010). "Gender, competition and the efficiency of policy interventions." Working Papers in Economics and Statistics, No. 2010-12.
- Banerjee, Abhijit, Dean Karlan, and Jonathan Zinman. (2015). "Six Randomized Evaluations of Microcredit: Introduction and Further Steps." *American Economic Journal: Applied Economics*. 7(1), pages 1-21.
- Banerjee, Abhijit, Esther Duflo, Nathanael Goldberg, Dean Karlan, Robert Osei, William Pariente, Jeremy Shapiro, Bram Thuysbaert, and Christopher Udry. (2015a). "A multifaceted program causes lasting progress for the very poor: Evidence from six countries." *Science*. 348 (6236): 1260799.
- Banerjee, Abhijit, Emily Breza, Esther Duflo, and Cynthia Kinnan. (2015b). "Do Credit Constraints Limit Entrepreneurship? Heterogeneity in the Returns to Microfinance." *Buffett Institute Global Poverty Research Lab Working Paper*. 17-104.
- Baland, Jean-Marie, Isabelle Bonjean, Catherine Guirkinger, and Roberta Ziparo. (2016). "The economic consequences of mutual help in extended families." *Journal of Development Economics*. vol. 123 (C). pages 38-56.
- Bardasi, Elena, Shwetlena Sabarwal, and Katherine Terrell. (2011). "How Do Female Entrepreneurs Perform? Evidence from Three Developing Regions." *Small Business Economics* 37.4.
- Bardasi, Elena, Marine Gassier, Markus Goldstein, and Alaka Holla. (2017). "The profits of wisdom: The impacts of a business support program in Tanzania." World Bank Policy Research Working Paper (8279).
- Barros, Ricardo Paes de, Pedro Olinto, Trine Lunde and Mirela Carvalho. (2011). "The Impact of Access to Free Childcare on Women's Labor Market Outcomes: Evidence from a Randomized Trial in Low-income Neighborhoods of Rio de Janeiro."
- Bastian, Gautam, Iacopo Bianchi, Markus Goldstein, and Joao Montalvo. (2018a). "Short-Term Impacts of Improved Access to Mobile Savings, with and without Business Training: Experimental Evidence from Tanzania. CGD Working Paper 478.
- Bastian, Gautam, Mehrab Bakhtiar, Eliana Carranza and Markus Goldstein. (2018b). "Training Mentors? Experimental Evidence from Female Owned Microenterprises in Ethiopia." Draft paper.
- Batista, Cátia and Julia Seither. (2018). "Reference Points and Entrepreneurship: Evidence from a Field Experiment on Aspirations, Goal Setting, and Business Skills". CSAE 2018 working papers.
- Beaman, Lori, Niall Keleher, and Jeremy Magruder. (2017). "Do job networks disadvantage women? Evidence from a recruitment experiment in Malawi." *Journal of Labor Economics*, vol. 36, no. 1.
- Beckmann, Daniela and Lukas Menkhoff. (2008). "Will women be women?: Analyzing the gender difference among financial experts." Discussion papers // School of Economics and Management of the Hanover Leibniz University, No. 391.
- Benhassine, Najy, David McKenzie, Victor Pouliquen, and Massimiliano Santini. (2018). "Does
- Inducing Informal Firms to Formalize Make Sense? Experimental Evidence from Benin." *Journal of Public Economics*. 157, pages 1-14.
- Berge, Lars Ivar Oppedal, Kjetil Bjorvatn, and Bertil Tungodden. (2012). "Human and financial capital for micro enterprise development: Short-term and long-term evidence from a field experiment in Tanzania." Dartmouth University.
- Berge, Lars Ivar Oppedal, Kjetil Bjorvatn, Armando Pires, and Bertil Tungodden. (2015). "Competitive in the lab, successful in the field?" *Journal of Economic Behavior & Organization* Volume 118, Part C, pages 303-317.
- Berge, Lars Ivar Oppedal, Kartika Juniawaty, and Linda Sekei. (2016). "Gender composition and group dynamics: Evidence from a laboratory experiment with microfinance clients". *Journal of Economic Behavior & Organization* Volume 131, Part A, Pages 1-20.
- Bellemare, Marc and Casey Wichman. (2018). "Elasticities and the Inverse Hyperbolic Sine Transformation". Manuscript.
- Berlinski, Samuel and Sebastian Galiani. (2007). "The effect of a large expansion of preprimary school facilities on preschool attendance and maternal employment," in *Labour Economics*, 14, pages 665-680.
- Bernhardt, Arielle, Erica Field, Rohini Pande, and Natalia Rigol. (2017). "Household Matters: Revisiting the Returns to Capital among Female Micro-entrepreneurs." NBER Working Paper (23358).
- Bertrand, Marianne, Erzo Luttmer, and Sendhil Mullainathan. (2000). "Network Effects and Welfare Cultures." *The Quarterly Journal of Economics*, 115 (3), pages 1019-105.
- Bertrand, Marianne, Emir Kamenica, and Jessica Pan (2015). "Gender Identity and Relative Income within Households." *Quarterly Journal of Economics*, 130 (2), pages 571-614.
- Beyer, Sylvia. (1990). "Gender Differences in the Accuracy of Self-Evaluations of Performance". *Journal of Personality and Social Psychology*, 59 (5), 960-970.
- Bicchieri, Cristina. (2006). "The Grammar of Society: The Nature and Dynamics of Social Norms." Cambridge University Press.
- Blackden, Mark and Quentin Wodon. (2006). "Gender, Time Use, and Poverty in Sub-Saharan Africa." World Bank Research Working Paper (73).
- Blair-Loy, Mary. (2003). "Competing Devotions: Career and Family Among Women Executives". Harvard University Press, Cambridge, Massachusetts.

- Blattman, Christopher; Eric Green, Jeannie Annan, and Julian Jamison. (2013). "Building Women's Economic and Social Empowerment through Enterprise: An Experimental Assessment of the Women's Income Generating Support Program in Uganda". Logica study series; no. 1. World Bank, Washington, DC.
- Boltz, Marie, Karine Marazyan and Paola Villar. (2017). "Income Hiding and Informal Redistribution: A Lab-in-the-Field Experiment in Senegal." Working Papers 20170004, Université Paris 1 Panthéon Sorbonne, UMR Développement et Sociétés.
- Botha, Melodi, Gideon Nieman, and Jurie van Vuuren. (2006). "Evaluating the Women Entrepreneurship Training Programme." International Indigenous Journal of Entrepreneurship, Advancement, Strategy and Education, 2, pages 1-16.
- Bossuroy, Thomas, Francisco Campos, Aidan Coville, Markus Goldstein, Gareth Roberts, and Sandra Sequeira. (2013). "Shape Up and Ship Out? Gender Constraints to Growth and Exporting in South Africa," in: Women and Trade in Africa: Realizing the Potential, pages 129-165.
- Bowles, Hannah. (2012). "Psychological Perspectives on Gender in Negotiation." HKS Faculty Research Working Paper Series RWP12-046: John F. Kennedy School of Government, Harvard University.
- Brenton, Paul, Elisa Gamberoni, Catherine Sear, Maria Elena Garcia Mora, Sabrina Roshan, Louis Njie Ndumbe, Susan Ityavyar, John Baffes, Laura Maratou-Kolias, Antoine Coste, Nora Dihel, Michelle Christian, Jose Guilherme Reis, Thomas Bossuroy, Francisco Campos, Aidan Coville, Markus Goldstein, Gareth Roberts, Sandra Sequeira, Josaphat Kweka, and Mahjabeen Haji. (2013). "Women and trade in Africa: realizing the potential." World Bank Group.
- Breza, Emily and Cynthia Kinnan. (2017). "Measuring the Equilibrium Impacts of Credit: Evidence from the Indian Microfinance Crisis." Northwestern Institute for Policy Research.
- Brixiová, Zuzana and Thierry Kangoye. (2015). "Gender and Constraints to Entrepreneurship in Africa: New Evidence from Swaziland." IZA DP No. 9273.
- Brooks, Wyatt, Kevin Donovan, Terence Johnson (forthcoming). "Mentors or Teachers? Microenterprise Training in Kenya." American Economic Journal: Applied Economics.
- Brüderl, Josef and Peter Preisendörfer. (1997). "Network Support and the Success of Newly Founded Business." Small Business Economics, 10, pages 213-225.
- Bruhn, Miriam and David McKenzie. (2013). "Entry Regulation and Formalization of Micro enterprises in Developing Countries." World Bank Policy Research Working Paper (6507).
- Buehren, Niklas, Markus Goldstein, and João Montalvão. (2016). "Girls' Empowerment, Sibling Rivalry, and Competitiveness: Evidence from a randomized control trial and a lab experiment in Uganda." World Bank Policy Research Working Paper (7699).
- Bulte, Erwin, Robert Lensink, and Nhung Vu. (2017). "Do Gender and Business Trainings Affect Business Outcomes? Experimental Evidence from Vietnam." Management Science 63 (9), pages 2773-3145.
- Buvinic, Mayra and Rebecca Furst-Nichols. (2014). "Promoting Women's Economic Empowerment: What Works?" World Bank Policy Research Working Paper (7087).
- Buvinic, Mayra and Megan O'Donnell. (2016). "Revisiting What Works: Women, Economic Empowerment and Smart Design." Center for Global Development.
- Cadot, Olivier, Ana Fernandes, Julien Gourdon, and Aaditya Mattoo. (2015). "Are the benefits of export support durable? Evidence from Tunisia." Journal of International Economics. Volume 97, pages 310-324.
- Cai, Jing and Adam Szeidl. (2018). "Interfirm Relationships and Business Performance." The Quarterly Journal of Economics, 133 (3), pages 1229-1282.
- Campbell, Jacquelyn. (2002). "Health Consequences of Intimate Partner Violence." The Lancet 359, no. 9314, pages 1331-36.
- Campos, Francisco, Markus Goldstein, Obert Pimhidzai, Mattea Stein, and Bilal Zia. (2013). "Financial management and vocational training in Uganda: Impact and network effects in informal industrial clusters." World Bank Group - Enhancing financial capability and behavior in low-and middle-income countries.
- Campos, Francisco, Aidan Coville, Ana Fernandes, Markus Goldstein and David McKenzie. (2014). "Learning from the experiments that never happened: Lessons from trying to conduct randomized evaluations of matching grant programs in Africa," Journal of the Japanese and International Economics, 33, pages 4-24.
- Campos, Francisco, Markus Goldstein, and David McKenzie. (2015). "Short-Term Impacts of Formalization Assistance and a Bank Information Session on Business Registration and Access to Finance in Malawi." World Bank Policy Research Working Paper (7183).
- Campos, Francisco, Markus Goldstein, Laura McGorman, Ana Maria Munoz Boudet, and Obert Pimhidzai. (2015). "Breaking the metal ceiling: Female entrepreneurs who succeed in male-dominated sectors." World Bank Policy Research Working Paper (7503).
- Campos, Francisco, Michael Frese, Markus Goldstein, Hillary Johnson, Leonardo Iacovone, David McKenzie, and Mona Mensmann. (2017). "Teaching personal initiative beats traditional training in boosting small business in West Africa." Science 357 (6357), pages 1287-1290.
- Campos, Francisco, Michael Frese, Markus Goldstein, Hillary Johnson, Leonardo Iacovone, David McKenzie, and Mona Mensmann. (2018). "Is Personal Initiative Training a Substitute or Complement to the Existing Human Capital of Women? Results from a Randomized Trial in Togo." AEA Papers and Proceedings 2018, 108, pages 256-261.
- Campos, Francisco, Markus Goldstein, and David McKenzie. (2018). "How should the government bring small firms into the formal system? Experimental evidence from Malawi." World Bank Policy Research Working Paper (8601).
- Castilla, Carolina and Thomas Walker. (2013). "Is Ignorance Bliss? The Effect of Asymmetric Information between Spouses on Intra-household Allocations." American Economic Review, 103 (3), pages 263-68.
- Cech, Erin, Brian Rubineau, Susan Silbey, and Carol Seron. (2011). "Professional Role Confidence and Gendered Persistence in Engineering." American Sociological Review 76(5), pages 641-66.
- Chakravarty, Shubha, Smita Das, and Julia Vaillant. (2017). "Gender and youth employment in Sub-Saharan Africa: a review of constraints and effective interventions." World Bank Policy Research Working Paper (8245).
- Cherchi, Ludovica, Markus Goldstein, James Habyarimana, Joao Montalvão, Michael O'Sullivan, and Christopher Udry. (2018). "Incentives for Joint Land Titling: Experimental Evidence from Uganda." Draft paper.
- Cho, Yoonyoung and Maddalena Honorati. (2013). "Entrepreneurship programs in developing countries: A Meta regression analysis." World Bank Social Protection Discussion Papers (77168).
- Cirera, Xavier and Qursum Qasim. (2014). "Supporting Growth-Oriented Women Entrepreneurs: A Review of the Evidence and Key Challenges." Innovation, Technology & Entrepreneurship Policy Note.
- Cirera, Xavier and William Maloney. (2017). "The Innovation Paradox: Developing-Country Capabilities and the Unrealized Promise of Technological Catch-Up." Washington, DC: World Bank.
- Clark, Shelley, Caroline Kabiru, Soni Laszlo, and Stella Muthuri. (2017). "Can Subsidized Early Child Care Promote Women's Employment?: Evidence from a Slum Settlement in Africa." Research Contribution Paper. GWP-2017-05.
- Costa, Rita and Bob Rijkers. (2012). "Gender and Rural Non-Farm Entrepreneurship." World Development 40.
- Correll, Shelley. (2001). "Gender and the Career Choice Process: The Role of Biased Self-Assessments." American Journal of Sociology 106 (6), pages 1691-1730.
- Correll, Shelley. (2004). "Constraints into Preferences: Gender, Status, and Emerging Career Aspirations." American Sociological Review 69 (1), pages 93-113.
- Crant, Michael. (1995). "The proactive personality scale and objective job performance among real estate agents." Journal of Applied Psychology, 80, pages 532-37.
- Croke, Kevin, Markus Goldstein, Edouard Mensah, and Michael O'Sullivan. (2018). "Up Before Dawn: Cross-border Trade Experiment in Eastern Democratic Republic of Congo." Draft paper.
- Croke, Kevin, Markus Goldstein and Alaka Holla. (2017). "Can job training decrease women's self-defeating biases? experimental evidence from Nigeria." World Bank Policy Research Working Paper (8141).
- Croson, Rachel, and Uri Gneezy. (2009). "Gender Differences in Preferences." Journal of Economic Literature 448-74.
- Cull, Robert and Jonathan Morduch. (2017). "Microfinance and Economic Development." World Bank Policy Research Working Paper (8252).
- Dahal, Mahesh and Nathan Fiala (2018). "What do we know about the impact of microfinance? The problems of power and precision." Ruhr Economic Papers, No. 756, ISBN 978-3-86788-880-6, RWI - Leibniz-Institut für Wirtschaftsforschung, Essen.
- Davidsson, Per and Benson Honig. (2003). "The role of social and human capital among nascent entrepreneurs." Journal of Business Venturing, 18, pages 301-331.
- De Mel, Suresh, David McKenzie, and Christopher Woodruff. (2009). "Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns." American Economic Journal: Applied Economics 1.3.

- Demircuc-Kunt, Asli, Thorsten Beck, and Patrick Honohan. (2008). "Finance for All?: Policies and Pitfalls in Expanding Access." Washington, D.C.: World Bank.
- Deininger, Klaus, Aparajita Goyal, and Hari Nagarajan. (2013). "Women's inheritance rights and intergenerational transmission of resources in India." *Journal of Human Resources* 48(1), pages 114-141.
- Diwan, Faizan, Grace Makana, David McKenzie, and Silvia Paruzzolo. (2014). "Invitation Choice Structure Has No Impact on Attendance in a Female Business Training Program in Kenya." *PLOS ONE*. 9(10): e109873.
- Donald, Aletheia, Gayatri Koolwal, Jeannie Annan, Kathryn Falb, and Markus Goldstein. (2017). "Measuring women's agency." World Bank Policy Research Working Paper (8148).
- Donald, Aletheia, Julia Vaillant, Francisco Campos, and Maria Emilia Cucagna. (2018). "Caring about Carework : Lifting Constraints to the Productivity of Women Farmers in the Democratic Republic of the Congo." World Bank, Washington, DC.
- Doyle, Kate, Ruti Levitov, Gary Barker, Gautam Bastian, Jeffrey Bingenheimer, Shamsi Kazimbaya, Anicet Nzabonimpa, Julie Pulerwitz, Felix Sayinzoga, Vandana Sharma, Vandana, and Dominick Shattuck. (2018). "Gender-transformative Bandedereho couples' intervention to promote male engagement in reproductive and maternal health and violence prevention in Rwanda: Findings from a randomized controlled trial." *PLOS ONE*. 13 (4): e0192756.
- Drexler, Alejandro. (2014). "Learning Exercise: High-Potential Women Entrepreneurship Training Overview of Existing Programs." World Bank Group.
- Duflo, Esther (2003). "Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation in South Africa." *The World Bank Economic Review* 17, no. 1, pages 1-25.
- Duflo, Esther and Christopher Udry (2004). "Intrahousehold Resource Allocation in Côte d'Ivoire: Social Norms, Separate Accounts and Consumption Choices." National Bureau of Economic Research.
- Dupas, Pascaline and Jonathan Robinson. (2013). "Savings Constraints and Micro-Enterprise Development Evidence from a Field Experiment." *AEJ: Applied Economics* 5(1), pages 163-92.
- Dupas, Pascaline, Dean Karlan, Jonathan Robinson and Diego Ubfal. (2018). "Banking the Unbanked? Evidence from three countries." *American Economic Journal: Applied Economics* Vol. 10 (2), pages 257-97.
- Duvendack, Maren, Richard Palmer-Jones, James Copestake, Lee Hooper, Yoon Loke, Yoon, and Nitya Rao. (2011). "What is the evidence of the impact of microfinance on the well-being of poor people?" London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.
- Emran, Shahe, Mahub Morshed, and Joseph Stiglitz. (2011). "Microfinance and Missing Markets." MPRA Paper 41451, University Library of Munich, Germany.
- Fafchamps, Marcel and Bart Minten. (1999). "Relationships and Traders in Madagascar." *Journal of Development Studies* 35(6), pages 1-35.
- Fafchamps, Marcel. (2001). "Networks, Communities, and Markets in Sub-Saharan Africa: Implications for Firm Growth and Investment." *Journal of African Economies*, 10 (2), pages 109-142.
- Fafchamps, Marcel and Simon Quinn. (2013). "Social Networks and Business Practices: Evidence from a Randomized Experiment with Microentrepreneurs." Draft paper.
- Fafchamps, Marcel, David McKenzie, Simon Quinn, Simon, and Christopher Woodruff. (2014). "Micro-enterprise Growth and the Flypaper Effect: Evidence from a Randomized Experiment in Ghana." *Journal of Development Economics* 106, pages 211-26.
- Fafchamps, Marcel and Simon Quinn. (2016). "Networks and Manufacturing Firms in Africa: Results from a Randomized Field Experiment." *The World Bank Economic Review*, lhw057.
- Fafchamps, Marcel and Christopher Woodruff. (2016). "Identifying gazelles: expert panels vs. surveys as a means to identify firms with rapid growth potential." World Bank Policy Research Working Paper (7647).
- FAO – Food and Agriculture Organization of the United Nations. (2017). Gender and Land Rights Database.
- Fawole, Olufunmilayo, Ademola Ajuwon, and Kayode Osungbade. (2005). "Evaluation of interventions to prevent gender-based violence among young female apprentices in Ibadan, Nigeria." *Health Education*, 105(3), pages 186-203.
- Ferraz, Claudio, Frederico Finan, and Dimitri Sberman. (2016). "Procuring Firm Growth: The Effects of Government Purchases on Firm Dynamics." Working Paper.
- Fiala, Nathan. (2015). "Stimulating Microenterprise Growth: Results from a Loans, Grants and Training Experiment in Uganda." Grants and Training Experiment in Uganda.
- Fiala, Nathan. (2017). "Business is tough, but family is worse: Household bargaining and investment in microenterprises in Uganda." Working Paper.
- Field, Erica, Seema Jayachandran, and Rohini Pande. (2010). "Do Traditional Institutions Constrain Female Entrepreneurial Investment? A Field Experiment on Business Training in India." *American Economic Review Papers and Proceedings*.
- Field, Erica, Rohini Pande, John Papp, and Y. Jeanette Park. (2012). "Repayment Flexibility Can Reduce Financial Stress: A Randomized Control Trial with Microfinance Clients in India." *PLoS One*, Vol. 7 (9): e45679.
- Field, Erica, Seema Jayachandran, Rohini Pande, and Natalia Rigol. (2016a). "Friendship at Work: Can Peer Support Stimulate Female Entrepreneurship?" *American Economic Journal: Economic Policy*, 8(2), pages 125-53.
- Field, Erica, Rohini Pande, Natalia Rigol, Simone Schaner, and Charity Troyer Moore. (2016b). "On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply?." Draft paper.
- Fortin, Nicole, Thomas Lemieux, Sergio Firpo. (2011). "Decomposition Methods in Economics." in "Handbook of Labor Economics". Elsevier, pages 1-102.
- Frese, Michael, Stefanie Krauss, Nina Keith, Susanne Escher, Rafal Grabarkiewicz, Siv Luneng, Constanze Heers, Jens Unger, and Christian Friedrich. (2007). "Business owners' action planning and its relationship to business success in three African countries." *Journal of Applied Psychology*, 92 (6), pages 1481-1498.
- Frese, Michael. (2009). "Towards a psychology of entrepreneurship - An action theory perspective." *Foundations and Trends in Entrepreneurship*, 5 (6), pages 435-494.
- Friedson-Ridenour, Sophia and Rachael Pierotti (2018). "Competing Priorities: Women's Microenterprises and Household Relationships." World Bank Policy Research Working Paper (8580).
- Gertler, Paul (2018): "Presentation to World Bank on "Making Entrepreneurs: The Returns to Training Youth in Soft versus Hard Business Skills from an At-Scale Field Experiment." May 16, 2018.
- Giné, Xavier and Ghazala Mansuri. (2014). "Money or Ideas? A Field Experiment on Constraints to Entrepreneurship in Rural Pakistan." World Bank Policy Research Working Paper (6959).
- Gennari, Floriza, Diana Arango, and Nidia Hidalgo. (2015). "Violence against women and girls resource guide: finance and enterprise development brief." World Bank Group.
- Glaub, Matthias and Michael Frese. (2011). "A Critical Review of the Effects of Entrepreneurship Training in Developing Countries' Enterprise." *Development and Microfinance* 22 (4), pages 335-53.
- Glaub, Matthias, Michael Frese, Sebastian Fischer, and Maria Hoppe. (2014). "Increasing Personal Initiative in Small Business Managers/Owners Leads to Entrepreneurial Success: A Theory-based Controlled Randomized Field Intervention for Evidence Based Management." *Academy of Management Learning and Education* 13, pages 354-379.
- The Global Entrepreneurship and Development Institute – GEDI (2018). "The 2018 Global Entrepreneurship Index."
- Global Entrepreneurship Research Association – GERA. (2018). Global Entrepreneurship Monitoring 2016-2017.
- Goldstein, Markus, Kenneth Hounbedji, Florence Kondylis, Michael O'Sullivan, and Harris Selod. (2016). "Formalizing rural land rights in West Africa: early evidence from a randomized impact evaluation in Benin." World Bank Policy Research Working Paper (7435).
- Gneezy, Uri, Kenneth Leonard, and John List. (2009). "Gender Differences in Competition: Evidence from a matrilineal and a patriarchal society." *Econometrica*, 77 (5), pages 1637-1664.
- Granovetter, Mark. (1973). "The Strength of Weak Ties." *American Journal of Sociology* 78 (6), pages 1360-1380.
- Granovetter, Mark. (1983): "The Strength of Weak Ties: A Network Theory Revisited." in Randall Collins (ed.), *Sociological Theory*, San Francisco, CA: Jossey-Bass, pages 201-233.
- Greif, Avner. (1997): "Contracting, Enforcement, and Efficiency: Economics Beyond the Law." in *Annual World Bank Conference on Development Economics*, Bruno and Pleskovic, eds.
- Grown, Caren, Mary Porter-Peschka, Natalie Louat, Henriette Kolb, Gaelle Olivier, and Garance Wattez-Richard. (2017). "She for shield: insure women to better protect all." World Bank Group.
- Grosse, Niels and Gerhard Riener. (2010). "Explaining gender differences in competitiveness: Gender-task stereotypes." *Jena Economic Research Papers*, No. 2010.017.
- Hagen-Zanker, Jessica, Luca Pellerano, Francesca Bastagli, Luke Harman, Valentina Barca, Georgina Sturge, Tanja Schmidt and Calvin Laing. (2016). "The impact of cash transfers on women and girls." London: Overseas Development Institute.

- Hallward-Driemeier, Mary. (2013). "Enterprising Women: Expanding Economic Opportunities in Africa." Rep. Washington, DC: World Bank – AFD.
- Hallward-Driemeier, Mary and Ousman Gajigo. (2013). "Strengthening Economic Rights and Women's Occupational Choice: The Impact of Reforming Ethiopia's Family Law." World Bank Policy Research Working Paper (6695).
- Hallward-Driemeier, Mary, Tazeen Hasan, and Anca Bogdana Rusu. (2013). "Women's Legal Rights over 50 Years: What Is the Impact of Reform?" World Bank Policy Research Working Paper (6617).
- Harari, Mariaflavia (2018). "Women's Inheritance Rights and Bargaining Power: Evidence from Kenya." Economic Development and Cultural Change.
- Hardy, Morgan, and Gisella Kagy. (2018a). "Mind The (Profit) Gap: Why Are Female Enterprise Owners Earning Less than Men?" AEA Papers and Proceedings, 108: 1-4.
- Hardy, Morgan, and Gisella Kagy. (2018b). "It's Getting Crowded in Here: Experimental Evidence of Demand Constraints in the Gender Profit Gap." Draft paper.
- Healy, Andrew and Jennifer Pate. (2011). "Can Teams Help to Close the Gender Competition Gap?" The Economic Journal, 121 (555), pages 1192-1204.
- Heckman James, Jora Stixrud, and Sergio Urzua. (2006). "The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior." Journal of Labor Economics, 24 (3), pages 411-482.
- Hicks, Joan Hamory, Michael Kremer, Isaac Mbiti, and Edward Miguel. (2011). "Vocational Education Voucher Delivery and Labor Market Returns: A Randomized Evaluation among Kenyan Youth." Report for Spanish Impact Evaluation.
- Hoel, Jessica, Melissa Hidrobo, Tanguy Bernard, and Maha Ashour. (2018) "Productive efficiency and cooperation between spouses: Evidence from dairy farming in Senegal. Draft paper.
- Hundley, Gregory. (2001). "Why women earn less than men in self-employment." Journal of Labor Research 22, 817-829.
- Hussam, Reshmaan, Natalia Rigol, and Benjamin Roth. (2016). "Targeting High Ability Entrepreneurs Using Community Information: Mechanism Design In The Field." MIT Economics. Working Paper.
- International Telecommunications Union. (2016). "World Telecommunications/ICT Development Report database."
- International Finance Corporation. (2014). "Women-Owned SMEs: A Business Opportunity for Financial Institutions."
- International Labor Organization. (2018). "Gender and Entrepreneurship Together (GET Ahead)." Women's Entrepreneurship Development Programme.
- Instituto Promundo and CARE International in Rwanda. (2012). "Journeys of Transformation: A Training Manual for Engaging Men as Allies in Women's Economic Empowerment."
- Instituto Promundo and International Center for Research on Women. (2014). "Engaging Men to Prevent Gender-Based Violence: A Multi-Country Intervention and Impact Evaluation Study."
- International Trade Centre. (2015). "Unlocking markets for women."
- International Trade Centre. (2014). "Empowering Women through Public Procurement."
- Iqbal, Sarah, Asif Mohammed Islam, Rita Ramalho, and Alena Sakhonchik. (2016). "Unequal before the law: measuring legal gender disparities across the world." World Bank Policy Research Working Paper (7803).
- Jack, William and Tavneet Suri. (2016). "Study: Mobile-money services lift Kenyans out of poverty." MIT News Office.
- Jakiela, Pamela and Owen Ozier. (2016). "Does Africa Need a Rotten Kin Theorem? Experimental Evidence from Village Economies." Review of Economic Studies, 83 (1), pages 231-268.
- Kabeer, Naila. (1999). "Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment". Development and Change 30 (3), pages 435-464.
- Kamas, Linda, and Anne Preston. (2010). "Social preferences, competitiveness and compensation: Are there gender differences?." Draft paper.
- Kantor, Paula. (2005). "Determinants of Women's Microenterprise Success in Ahmedabad, India: Empowerment and Economics." Feminist Economics 11 (3), pages 63-83.
- Kelly, Tim and Rachel Firestone (2016). "How Tech Hubs are helping to Drive Economic Growth in Africa." World Bank WDR Digital Dividends background paper.
- Kes, Alisha, Krista Jacobs, and Sophie Namy. (2011). "Gender differences in asset rights in central Uganda." International Center for the Rights on Women. Washington, DC.
- Kevane, Michael and Bruce Wydick. (2001). "Microenterprise Lending to Female Entrepreneurs: Sacrificing Economic Growth for Poverty Alleviation?" World Development 29 (7), pages 1225-36.
- Kim, Seon Mi and Margaret Sherraden. (2014). "The Impact of Gender and Social Networks on Microenterprise Business Performance." Journal of Sociology and Social Welfare 29 (4), pages 404-417.
- Klyver, Kim and Siri Terjesen. (2007). "Entrepreneurial network composition: An analysis across venture development stage and gender." Women in Management Review, 22 (8), pages 682-688.
- Koop, Sabine, Tamara De Reu, and Michael Frese. (2000). "Sociodemographic factors, entrepreneurial orientation, personal initiative and environmental problems in Uganda." In: M. Frese (Eds.), Success and Failure of Microbusiness Owners in Africa: A Psychological Approach, 55-76.
- Lokshin, Michael, Elena Glinskaya and Marito Garcia. (2004). "The Effect of Early Childhood Development Programmes on Women's Labour Force Participation and Older Children's Schooling in Kenya." Journal of African Economies, Centre for the Study of African Economies (CSAE), vol. 13(2), pages 240-276.
- Loscocco, Karyn, Shannon Monnat, Gwen Moore, and Kirsten Lauber. (2009). "Enterprising Women: A Comparison of Women's and Men's Small Business Networks." Gender & Society June 2009 23: pages 388-411.
- Luke, Nancy and Kaivan Munshi. (2011). "Women as agents of change: Female income and mobility in India." Journal of Development Economics 94 (1), pages 1-17.
- Lundeberg, Mary, Paul Fox, and Judith Punjcoha. (1994). "Highly confident but wrong: Gender differences and similarities in confidence judgments." Journal of Educational Psychology, 86 (1), 114.
- Marcus, Rachel and Caroline Harper. (2014). "Gender justice and social norms – processes of change for adolescent girls." ODI.
- Martinez, Sebastian, Sophie Naudeau and Vitor Pereira. (2012). "The Promise of Preschool in Africa: A Randomized Impact Evaluation of Early Childhood Development in Rural Mozambique." World Bank / Save the Children.
- Mateo Díaz, Mercedes and Lourdes Rodriguez-Chamussy. (2016). "Women, Childcare, and Prosperity in Latin America and the Caribbean." Inter-American Development Bank.
- Mayoux, Linda. (1999). "From Access to Empowerment: Gender Issues in Micro-Finance." CSD Virtual Conference.
- McKenzie, David. (2017). "Identifying and Spurring High-Growth Entrepreneurship: Experimental Evidence from a Business Plan Competition." American Economic Review 107 (8), pages 2278-2307.
- McKenzie, David and Anna Luisa Paffhausen. (2017). "Small Firm Death in Developing Countries." CEPR Discussion Paper No. DP12401.
- McKenzie, David and Christophe Woodruff. (2013). "What Are We Learning from Business Training and Entrepreneurship Evaluations around the Developing World?." World Bank Research Observer. 29 (1), pages 48-82.
- McKenzie, David and Christopher Woodruff. (2017). "Business practices in small firms in developing countries." Management Science, 63 (9), pages 2967-81.
- McKenzie, David and Susana Puerto. (2017). "Growing Markets through Business Training for Female Entrepreneurs: A Market-Level Randomized Experiment in Kenya." World Bank Policy Research Working Paper (7993).
- McKenzie, David and Dario Sansone. (2017). "Man vs. machine in predicting successful entrepreneurs: evidence from a business plan competition in Nigeria." World Bank Policy Research Working Paper (8271).
- McKinsey Global Institute. (2016). "Lions on the Move II: Realizing the Potential of African Economies." McKinsey and Company.
- McMillan, John. (1997). "Markets in Transition." Advances in Economics and Econometrics: Theory and Applications, Kreps and Wallis, eds. Cambridge University Press.
- McMillan, John and Christopher Woodruff. (1999). "Interfirm Relationships and Informal Credit In Vietnam." The Quarterly Journal of Economics, 114 (4), pages 1285-1320.
- Meager, Rachael. (2016). "Understanding the Average Impact of Microcredit Expansions: A Bayesian Hierarchical Analysis of 7 Randomized Experiments." Draft paper.
- Mhede, Edwin, Yuki Higuchi, Tetsushi Sonobe. (2018). "Medium-run Impact of Management Training: Evidence from a Randomized Controlled Experiment in Tanzania." Draft paper.
- Microcredit Summit Campaign. (2015). "Mapping Pathways out of Poverty." RESULTS Educational Fund.

- Morris, Michael, Nola Miyasaki, Craig Watters, and Susan Coombes. (2006). "The Dilemma of Growth: Understanding Venture Size Choices of Women Entrepreneurs." *Journal of Small Business Management*, 44 (2), pages 221-244.
- Morrison, Andrew and Maria Orlando. (2004). "The Costs and Impacts of Gender-Based Violence in Developing Countries: Methodological Considerations and New Evidence." World Bank Report – 36151.
- Müller, Susan, Thierry Volery, and Björn Von Siemens. (2012). "What do entrepreneurs actually do? An observational study of entrepreneurs' everyday behavior in the start-up and growth stages." *Entrepreneurship Theory and Practice*, 36 (5), pages 995-1017.
- Munshi, Kaivan and Mark Rosenzweig. (2006). "Traditional institutions meet the modern world: Caste, gender, and schooling choice in a globalizing economy". *American Economic Review* 96 (4), pages 1225-1252.
- Niederle, Muriel, and Lise Vesterlund. (2007). "Do women shy away from competition? Do men compete too much?" *The Quarterly Journal of Economics*, 122, pages 1067-1101.
- Niederle, Muriel and Lise Vesterlund. (2008). "Gender Differences in Competition." *Negotiation Journal* (October), pages 447-463.
- Niederle, Muriel and Lise Vesterlund. (2010). "Explaining the Gender Gap in Math Test Scores: The Role of Competition." *Journal of Economic Perspectives*, 24(2), pages 129-144.
- Niederle, Muriel and Lise Vesterlund. (2011). "Gender and Competition." *Annual Review of Economics*, 3(1), pages 601-630.
- Nix, Emily, Elisa Gamberoni, and Rachel Heath. (2015). *Bridging the Gender Gap: Identifying What Is Holding Self-employed Women Back in Ghana, Rwanda, Tanzania, and the Republic of Congo.* The World Bank Economic Review, 30(3), pages 501-521.
- Nordman, Christophe Jalil and Julia Vaillant. (2014). "Inputs, Gender Roles or Sharing Norms? Assessing the Gender Performance Gap Among Informal Entrepreneurs in Madagascar." IZA Discussion Papers 8046, Institute for the Study of Labor (IZA).
- O'Sullivan, Michael, Arathi Rao, Raka Banerjee, Kajal Gulati, and Margaux Vinez. (2014). "Levelling the field: improving opportunities for women farmers in Africa." World Bank Group / One Campaign.
- O'Sullivan, Michael. (2017). "Gender and Property Rights in Sub-Saharan Africa: A Review of Constraints and Effective Interventions." World Bank Policy Research Working Paper (8250).
- OECD. (2016). "Tracking the Money for Women's Economic Empowerment: Still a Drop in the Bucket." OECD, Paris.
- Overseas Development Institute. (2015). "How do Gender Norms Change?"
- Paryavi, Maliheh. (2016). "Representing Others in Competitions: Why Women Lean Back." Harvard University, Graduate School of Arts and Sciences.
- Paryavi, Maliheh, Francisco Campos and Indhira Santos. (2018). "Gender and willingness to compete: lab experiments in Kenya." Draft paper.
- Patel, Payal. (2014). "Effectiveness of Entrepreneurship Development Interventions for women entrepreneurs." An ILO-WED Issue Brief. International Labor Organization, Women Enterprise Development.
- Platteau, Jean-Philippe. (2000). "Institutions, Social Norms, and Economic Development." *Fundamentals of Development Economics Series*. Amsterdam: Harwood Academic Publishers.
- Pierotti, Rachael. (2016). "Barriers for female entrepreneurs' access to finance: a qualitative assessment in Ethiopia." Presentation to World Bank Africa Gender Innovation Lab.
- Pulford, Briony and Andrew Colman. (1997). "Overconfidence: Feedback and item difficulty effects." *Personality and Individual Differences*, 23, pages 125-133.
- Raj, Anita, Mohan Ghule, Julie Ritter, Battala Madhusudan, Velhal Gajanan, Saritha Nair, Anindita Dasgupta, Jay Silverman, Donta Balaiah, and Niranjana Saggurti. (2016). "Cluster Randomized Controlled Trial Evaluation of a Gender Equity and Family Planning Intervention for Married Men and Couples in Rural India." *PLoS One*. 11 (5): e0153190.
- Rankin, Katherine. (2001). "Social capital, microfinance, and the politics of development." *Feminist Economics*, 8 (1), pages 1-24.
- Rauch, Andreas and Michael Frese. (2007). "Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success." *European Journal of Work and Organizational Psychology*, 16 (4), pages 353-385.
- Renzulli, Linda A., Howard Aldrich, and James Moody. (2000). "Family Matters: Gender, Networks, and Entrepreneurial Outcomes." *Social Forces* 79.2.
- Ribero, Rocio and Fabio Sánchez. (2004). "Determinantes, Efectos y Costos de la Violencia Intrafamiliar en Colombia." Universidad de los Andes-Cede.
- Ricardo, Christine, Marci Eads, and Gary Barker. (2011). "Engaging boys and young men in the prevention of sexual violence: A systematic and global review of evaluated interventions." Pretoria: South Africa: Oak Foundation.
- Ridgeway, Cecilia and Shelley Correll. (2004). "Unpacking the Gender System: a Theoretical Perspective on Gender Beliefs and Social Relations." *Gender & Society* 18 (4).
- Rodgers, Yana and Menon Nidhiya. (2012). "A Meta-Analysis of Land Rights and Women's Economic Well-Being." Draft paper.
- Robb, Alicia, Alexandria Valerio, and Brent Parton. (2014). "Entrepreneurship Education and Training: Insights from Ghana, Kenya and Mozambique." World Bank.
- RSA National Treasury (2017). "Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017." Government Gazette no. 40553.
- Roy, Sanchari. (2015). "Empowering women? Inheritance rights, female education and dowry payments in India." *Journal of Development Economics*, 2015, vol. 114, issue C, pages 233-251.
- Ruble, Diane, Carol Martin, and Sheri Berenbaum. (2006). "Gender Development." In W. Damon & R. M. Lerner (Eds.), *Handbook of Child Psychology: Social, emotional, and personality development*, Vol. 3, pages 858-932.
- Rudman, Laurie. (1998). "Self-Promotion as a Risk Factor for Women: The Costs and Benefits of Counter stereotypical Impression Management." *Journal of Personality and Social Psychology*, 74 (3), pages 629-645.
- Rudman, Laurie and Peter Glick. (1999). "Feminized Management and Backlash Toward Agentic Women: Hidden Costs to Women of a Kinder, Gentler Image of Middle Managers." *Journal of Personality and Social Psychology*, 77 (5), pages 1004-1010.
- Ruiz Abril, Maria Elena. (2008). "Liberia: Girls vulnerability assessment." Government of Liberia, Nike Foundation, and World Bank.
- Shattuck, Dominick, Brad Kerner, Kate Gilles, Miriam Harmann, Thokozani Ng'ombe, and Greg Guest. (2011). "Encouraging Contraceptive Uptake by Motivating Men to Communicate About Family Planning: The Malawi Male Motivator Project." *American Journal of Public Health* 2011. 101(6), pages 1089-1095.
- Schaner, Simone. (2015). "Do Opposites Detract? Intrahousehold Preference Heterogeneity and Inefficient Strategic Savings." *American Economic Journal: Applied Economics*, 7 (2), pages 135-174.
- Schaner, Simone. (2017). "The Cost of Convenience? Transaction Costs, Bargaining Power, and Savings Account Use in Kenya." *Journal of Human Resources*, 52 (4), pages 919-945.
- Simavi, Sevi, Clare Manuel, and Mark Blackden. (2010). "Gender Dimensions of Investment Climate Reform: A Guide for Policy Makers and Practitioners." World Bank.
- Soll, Jack and Joshua Klayman. (2004). "Overconfidence in interval estimates." *Journal of Experimental Psychology: Learning Memory, and Cognition*, 30 (2), pages 299-314.
- Sutter, Matthias and Daniela Rützler. (2010). "Gender differences in competition emerge early in life." *Working Papers in Economics and Statistics*, No. 2010-14.
- Tabbert, Falko. (2009). "Child Care and Female Labor Force Participation in Developing Countries – Quasi- Experimental Results from Togo." Faculty of Economics and Management, Leibniz-University of Hannover.
- Tarozzi, Alessandro, Jaikishan Desai, and Kristin Johnson. (2015). "The Impacts of Microcredit: Evidence from Ethiopia." *American Economic Journal: Applied Economics*. 7 (1), pages 54-89.
- Udry, Christopher. (1996). "Gender, Agriculture Production, and the Theory of the Household." *Journal of Political Economy* 104 (5).
- United Nations. (2017). "Leave No One Behind: Taking Action For Transformational Change On Women's Economic Empowerment." United Nations.
- Uzzi, Brian. (1996). "The Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect." *American Sociological Review* 61, pages 674-698.
- Uzzi, Brian. (1997). "Social structure and competition in interfirm networks: The paradox of embeddedness." *Administrative Science Quarterly*, 42, pages 35-67.
- Valdivia, Martin. (2015). "Business training plus for female entrepreneurship? Short and medium term experimental evidence from Peru." *Journal of Development Economics*. 113, pages 33-51.
- Valerio, Alexandria, Brent Parton, and Alicia Robb. (2014). "Entrepreneurship Education and Training Programs around the World: Dimensions for Success." World Bank.
- Van der Sluis, Justin, Mirjam van Praag, and Wim Vijverberg. (2008). "Education and Entrepreneurship

Selection and Performance: A Review of the Literature.” *Journal of Economic Surveys* 22 (5), pages 795–841.

Vyas, Seema and Charlotte Watts. (2009). “How does economic empowerment affect women’s risk of intimate partner violence in low and middle income countries? A systematic review of published evidence.” *Journal of International Development*. 21, pages 577–602.

Wang, Qing. (2015). “Child care, work-family policy and female entrepreneurship.” *Social Science Research Network*.

Wolf, Kathrin and Michael Frese. (2018). “Why husbands matter: Review of spousal influence on women entrepreneurship in sub-Saharan Africa.” *Africa Journal of Management*, vol. 4, pages 1–32.

World Bank - Independent Evaluation Group. (2011). “Evidence and Lessons Learned from Impact Evaluations on Social Safety Nets.”

World Bank. (2012). “World Development Report: Gender Equality and Development.” Washington, DC: World Bank.

World Bank - WLSME. (2013). “Female Entrepreneurship: Program Guidelines and Case Studies.”

World Bank. (2014). “Doing Business in Nigeria 2014: Understanding regulations for Small- and Medium-Sized Enterprises.”

World Bank - Infodev. (2016). “Growth Entrepreneurship in Developing Countries: A Preliminary Literature Review.” Washington, DC: The World Bank

World Bank. (2018). “The Little Data Book on Financial Inclusion 2018.” World Bank, Washington, DC.

World Bank Group. (2018). “Women, Business, and the Law 2018.” Washington, DC: World Bank. License: Creative Commons Attribution CC BY 3.0 IGO.

Wozniak, David, William Harbaugh, and Ulrich Mayr. (2014). “The Menstrual Cycle and Performance Feedback Alter Gender Differences in Competitive Choices.” *Journal of Labor Economics* 32 (1), pages 161–198.

Zhao, Hao and Scott Seibert. (2006). “The big five personality dimensions and entrepreneurial status: A meta-analytical review.” *Journal of Applied Psychology*, 91 (2), pages 259–271.

Endnotes

1. The Global Entrepreneurship and Development Institute - GEDI (2018).
2. Global Entrepreneurship Research Association - GERA (2018).
3. United Nations (2017).
4. This is based on the authors calculations using the World Bank Group’s Enterprise Surveys.
5. The following datasets are of micro-enterprises: Benin, Ghana (1), Malawi, Togo, Uganda (1) and Uganda (2). The following datasets are of SMEs: Mozambique, Nigeria (1), Nigeria (2), and South Africa. DRC is based on a census of firms. Ghana (2) is a survey of firms in tailoring. Ethiopia and Ghana (3) are firms in manufacturing.
6. See for example, Hallward-Driemeier (2013).
7. The Global Entrepreneurship and Development Institute - GEDI (2018).
8. Chakravarty, Das, and Vaillant (2017).
9. Hardy and Kagy (2018b).
10. Bardasi, Sabarwal, and Terrell (2011); Campos et al. (2015); Alibhai, Buehren, and Papineni (2015).
11. Evidence from other regions demonstrates that business sector sex segregation is not limited to Africa. In Sri Lanka, investment rates and returns to investment are lower in sectors characterized by a higher share of female entrepreneurs (De Mel, McKenzie and Woodruff, 2009). In the US, women’s concentration in the personal services sector explains as much as 14% of the gender-based self-employment earnings differential (Hundley, 2001).
12. McKenzie and Woodruff (2017).
13. Benhassine et al. (2018).
14. Campos, Goldstein, and McKenzie (2018).
15. Paryavi, Campos and Santos (2018).
16. Some surveys from the report’s impact evaluation database stand as exceptions. For example, in Malawi, female entrepreneurs are 38% more likely than male business owners to agree with the following statement: “If paid employment was offered to me at roughly the same level that I take home in this business, I would take such employment and close the business”.
17. World Bank Group (2018).
18. This is as measured by the World Bank Group’s Women, Business and the Law. These countries are South Africa, Zimbabwe, and Rwanda.
19. Cech et al. (2011).
20. Correll (2001; 2004).
21. Blair-Loy (2003); Ridgeway and Correll (2004).
22. Rudman (1998); Rudman and Glick (1999).
23. Amanatullah and Morris (2010); Bowles (2012).
24. Fawole, Ajuwon, and Osungbade (2005); Morrison and Orlando (2004).
25. Ruiz Abril (2008).
26. World Bank (2012).
27. Beyer (1990); Pulford and Colman (1997); Soll and Klayman (2004).
28. Niederle and Vesterlund (2007).
29. Grosse and Riener (2010); Kamas and Preston (2010); Lundeberg, Fox, and PunDcohaD (1994).
30. <https://globalfindex.worldbank.org/>
31. Loscocco et al. (2009); Kim and Sherraden (2014); Renzulli, Aldrich, and Moody (2000); Klyver and Terjesen (2007); Rankin (2001); Fafchamps and Minten (1999); Granovetter (1973, 1983).
32. Udry (1996).
33. World Bank (2012).
34. The importance of household responsibilities is in line with the findings in other regions. For instance, in Guatemala (Kevane and Wydick, 2001) and India (Kantor, 2005), women’s sector concentration responds to the time available for home production, and constraints on location of business.
35. Clark et al. (2017); Tabbert (2009); Barros et al. (2011); Berlinski and Galiani (2007).
36. The analysis draws on two surveys conducted specifically for this report: Togo (December 2016) and Malawi (February 2017). The questionnaires used in these surveys are very similar, so results are comparable. It also uses other impact-evaluation surveys from Malawi and Ghana. Most of the questions that relate to social norms in the impact-evaluation surveys are different from those asked in the Togo and Malawi surveys for this report.
37. Gender-biased norms are used in this context as those against women.
38. See Ashraf et al. (forthcoming) on the importance of large scale institutional interventions to overcome biases on women’s education participation.
39. See Deininger, Goyal, and Nagarajan (2013), and Roy (2015) on the importance of changes in property rights on investment in girls’ education.
40. See Munshi and Rosenzweig (2006), Field, Jayachandran and Pande (2010), Luke and Munshi (2011) on the importance of solutions to women’s mobility constraints in South Asia. The evidence on these issues in Africa is more limited.
41. See Croke, Goldstein and Holla (2017) about sector shifting. Women with traditional views regarding occupational segregation see larger improvements.
42. See Doyle et al. (2018) about a 15-week gender-transformative group education program that engages new and expectant fathers and their partners. Analysis of data 21 months post-baseline shows significant differences between the intervention and control groups across a range of health and development outcomes, including women’s reports of physical and sexual intimate partner violence, women’s and men’s reports of harsh discipline against children, contraceptive use and antenatal care attendance, men’s dominance in decision-making, and men’s participation in and time spent on domestic and caregiving tasks.
43. Campos et al. (2017).
44. Alibhai, Buehren, and Papineni (2016).
45. Batista and Seither (2018).
46. McKenzie and Puerto (2017). An impact evaluation of the same program in Vietnam also found positive impacts on firm growth (Bulte, Lensink, and Vu, 2017).
47. Dupas and Robinson (2013). However, it is not possible in this experiment to distinguish between the effects of gender and the effects of sector of operation on the impact of the intervention.
48. Dupas et al. (2018).
49. Campos, Goldstein and McKenzie (2015).
50. Campos, Goldstein and McKenzie (2018).
51. Aker et al. (2016); Field et al. (2016b).
52. Jack and Suri (2016).
53. Bastian et al. (2018a).
54. McKenzie (2017).
55. Fafchamps and Quinn (2016).
56. United Nations (2017).
57. The Global Entrepreneurship and Development Institute - GEDI (2018).
58. Global Entrepreneurship Research Association - GERA (2018).
59. Kelly and Firestone (2016).
60. Bardasi, Sabarwal and Terrell (2011); Hallward-Driemeier (2013); Nordman and Vaillant, 2014; Brixiova and Kangoye (2015); Nix, Gamberoni, and Heath (2015); McKenzie and Woodruff (2017); Hardy and Kagy (2018a).
61. The following datasets contain survey information on micro-enterprises: Benin, Ghana (1), Malawi, Togo, Uganda (1) and Uganda (2). The following datasets contain information on SMEs: Mozambique, Nigeria (1), Nigeria (2), and South Africa. DRC data is based on a census of firms. Ghana (2) data is a survey of firms in the tailoring sector. Ethiopia and Ghana (3) datasets contain information on manufacturing firms.
62. Throughout the report, the words enterprise, firm, company, and business are used interchangeably.
63. This is based on the authors’ calculations using the Impact Evaluation Surveys.
64. This is based on the authors’ calculations using the WBG Enterprise Surveys.
65. This is based on the authors’ calculations using the Impact Evaluation Surveys.
66. Value-added is obtained by subtracting direct costs (costs of inputs, raw materials, and goods purchased for resale) from firm sales.
67. This is based on the authors’ calculations using the Impact Evaluation Surveys.
68. Figures exclude 0 and negative profits.
69. All data using Impact Evaluation Surveys. Similar patterns were obtained using Household Surveys.
70. Chakravarty, Das, and Vaillant (2017).

71. Chakravarty, Das, and Vaillant (2017).
72. Hardy and Kagy (2018b).
73. Emran et al. (2011).
74. Chakravarty, Das, and Vaillant (2017).
75. Bardasi, Sabarwal and Terrell (2011).
76. Fafchamps et al. (2014); Nordman and Vaillant (2014).
77. Niederle and Vesterlund (2007, 2008); Balafoutas and Sutter (2010); Healy and Pate (2011); Niederle and Vesterlund (2010); Sutter and Rützler (2010); Wozniak, Harbaugh and Mayr (2014).
78. Bossuroy et al. (2013).
79. McKenzie and Woodruff (2017).
80. OECD (2016).
81. Kabeer (1999).
82. Donald et al. (2017).
83. The countries included are Benin, the Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Nigeria, South Africa, Togo, and Uganda.
84. For example, for Benin, the survey asks: "In the last month, what was the profit generated by your business? It is the difference between all the income of your company and all the costs [salaries of employees, materials, taxes, rents...]"
85. The Democratic Republic of Congo, Ethiopia, Ghana Census, and Nigeria GEMS.
86. As found in the Democratic Republic of Congo, Nigeria, and Togo.
87. This is from the Impact Evaluation surveys. Data on education levels excludes impact evaluations in Nigeria, which targeted a population where 80 to 90% of the sample received higher education.
88. In Ghana, firm-level profits of male entrepreneurs represent 45% of their household expenditures.
89. Data from the Impact Evaluation surveys show that female-owned businesses have been in operation on average for 8 years and male businesses have been in operation for 9 years. The female-owned (male-owned) firm's age rises to 11 (13) years when using the Enterprise Surveys for the informal sector. Among the group of formal large firms covered in the Enterprise Surveys, female-owned businesses have been in operation around 20 years and male-owned businesses almost 22 years, which is relatively similar to other regions for firms of this size.
90. Data from the Impact Evaluation surveys. It is 24 days for male-owned firms. These figures may be over-representing entrepreneurs with full-time businesses, as impact evaluations often select participants who have an interest in doing something for their business, which may exclude those who run part-time businesses.
91. Estimate based on median value from Impact Evaluation surveys. On average, female-owned firms in the datasets analyzed have five people working in their business and male-owned firms have nine.
92. Data from the Impact Evaluation surveys shows that 41% of female-owned businesses have electricity, while this proportion is 56% for male-owned firms. These figures increase to 53% and 62% respectively in Enterprise Surveys of informal firms. Female and male-owned large firms experienced on average 8 and 7% respectively of losses due to electricity cuts.
93. 16% in Impact Evaluation surveys, compared to 23% in Enterprise Surveys.
94. According to the median value of capital stock from the Impact Evaluation surveys.
95. Data from the Impact Evaluation surveys. These percentages decrease to 34% and 37% in Enterprise Surveys, and 34% and 35% in Enterprise Surveys of informal firms.
96. This large difference across countries on having borrowed may be due also to measurement issues as measurement work in multiple countries has shown that the way the question is asked (allowing for listing all sources of credit including household and community level versus questions just focused on formal loans from commercial banks) can lead to different statistics (World Bank - WLSME, 2013). The conclusions are mostly driven by gender comparisons within countries using the same questions and focusing on the typical and average results.
97. Given the significant differences across countries analyzed in the amount of outstanding loans, which would affect the averages (showing a larger gender gap) but not the conclusion of the importance of this issue, the figures presented in this table for loans outstanding only includes the countries where the amounts have lower variance: DRC, Malawi, Togo, Uganda. It is hence more conservative than if using all countries in datasets.
98. The survey conducted in Kenya includes only women, so it is not possible to compute gender gaps. As a result, this survey is excluded from the analysis presented in this section.
99. Measured in hours of work of all people working in the business.
100. This includes inventory plus equipment and property/land value.
101. Using an index of business practices within data availability as per McKenzie and Woodruff (2017).
102. Firm is registered and pays local/national taxes and fees.
103. Firm has a bank account and separates business from household money.
104. Tenure is measured in years managing business. When there is no information on tenure, the report uses the firm's age as a proxy.
105. When excluding Ghana manufacturing census (3), which does not control for any as many variables as the other datasets, the average gender gap is 21% when accounting for firm and household differences.
106. This survey has less detail than the other ones and analysis only controls for capital and labor. See Appendix 2 for a table with surveys used and modules available in each.
107. The part of the gap that can be explained using this statistical approach varies substantially by dataset, going from over 100% explained in Benin and one of the datasets in Uganda, down to zero for one of the datasets in Ghana. If one excludes Togo where the gap is very small to start with, the Oaxaca-Blinder decomposition can account for about 50% of the gender gap in business performance.
108. Hardy and Kagy (2018a) show that in the garment industry in Ghana, male-owned firms earn nearly twice as much profit as female-owned firms and the gap cannot be explained by a set of firm and owner characteristics.
109. This finding assumes that in Ghana and Uganda differences in the levels of capital investment are not contributing to the gender gap in profits. In Ghana and Uganda, the report has multiple studies and these do not get to the same conclusion. Otherwise this statistic would be 70%.
110. McKenzie (2017).
111. Fafchamps et al. (2014)
112. Banerjee, Karlan, and Zinman (2015).
113. Fafchamps et al. (2014).
114. Banerjee, Karlan, and Zinman (2015).
115. Bernhardt et al. (2017).
116. Within individual sectors identified in each dataset, there may be further sex-segregation with women mostly selling to other women and men to other men. These differences may not be reflected in the sector composition, limiting the depth of the analysis on the importance of sector choice.
117. Nordman and Vaillant (2014).
118. Fafchamps et al. (2014).
119. McKenzie and Woodruff (2017).
120. Bardasi, Sabarwal, and Terrell (2011); Costa and Rijkers (2012); Campos et al. (2015).
121. Bardasi, Sabarwal, and Terrell (2011).
122. Alibhai, Buehren, and Papineni (2015).
123. Campos et al. (2015).
124. Evidence from other regions demonstrates that gender business sector segregation is not limited to Africa. In Sri Lanka, investment rates and returns to investment are lower in sectors characterized by a higher share of female entrepreneurs (De Mel, McKenzie and Woodruff, 2009). In the US, women's concentration in the personal services sector explains as much as 14% of the gender-based self-employment earnings differential (Hundley, 2001).
125. As for the profit gap, in this analysis the following datasets are of micro-enterprises: Benin, Ghana (1), Malawi, Togo, and Uganda (1). The following datasets are of SMEs: Mozambique, Nigeria (1), Nigeria (2), and South Africa. DRC is based on a census of firms. Ghana (2) is a survey of firms in tailoring. Ethiopia and Ghana (3) are firms in manufacturing.
126. As mentioned above, the "core specification" includes firm characteristics (number of workers, capital stock, business practices, formalization, innovation, financial services, firm has a loan, firm has at least one additional worker, and sector) and owner characteristics (age, tenure, marital status, household size, number of children per adult, and education).
127. Impact evaluations include often businesses that operate on a full-time basis, so these metrics may be excluding the dynamics among those operating businesses on a part-time basis.
128. This finding is also compatible with men hiring more workers until the returns to labor are the same across gender.
129. Similarly to capital investment, this analysis controls for firm characteristics (number of workers, capital stock, business practices, formalization, innovation, financial services, firm has a loan, firm has at least one additional worker, and sector) and owner characteristics (age, tenure, marital status, household size, number of children per adult, and education).
130. McKenzie and Woodruff (2017).
131. Cirera and Maloney (2017).
132. Cirera and Maloney (2017).
133. 16% of female-owned businesses in Kenya are planning to introduce a new product and 3% are planning to improve existing products in the next 2 years.
134. This difference is large in magnitude and percentage terms (40%), but not statistically significant.
135. Results available upon request.
136. Identifying differences in innovation in impact evaluation datasets could be specific to the group of firms analyzed. More data needs to be collected throughout the region on firm-level innovation to take more appropriate conclusions.
137. Data on formal firms from World Bank Enterprise Surveys.
138. Benhassine et al. (2018).
139. Campos, Goldstein and McKenzie (2018).
140. Datasets in Latin American countries do not have information on share of ownership by gender.
141. Gneezy, Leonard, and List (2009).
142. Paryavi, Campos and Santos (2018).
143. Niederle and Vesterlund (2007, 2008).
144. Balafoutas and Sutter (2010); Healy and Pate (2011); Niederle and Vesterlund (2010); Sutter and Rützler (2010); Wozniak, Harbaugh and Mayr (2014).
145. Niederle and Vesterlund (2011).
146. Niederle and Vesterlund (2007).
147. Ruble, Martin, and Berenbaum (2006).
148. Gneezy, Leonard, and List (2009).
149. Women may be even less likely to compete when representing the interests of others, like their employees. Beckmann and Menkhoff (2008) found female mutual-fund managers to be more averse to competition compared to their male colleagues. Paryavi (2016) found that women were significantly less likely to enter into competition when charged with representing the financial interests of someone else than if they were to only represent themselves.
150. An additional lab experiment in Uganda (Buehren, Goldstein and Montalvão, 2016) found no gender differences in competition amongst adolescent boys and girls, but the experimental design had a couple of important constraints: participants could not see who else they were competing with, and the task chosen for the competition experiment was seen as gender neutral (sorting building blocks), whereas the literature has found that women are less competitive in stereotypically male tasks such as math.
151. Some surveys from the report's impact evaluation database stand as exceptions. For example, in Malawi, female entrepreneurs are 38% more likely than male business owners to agree with the following statement: "If paid employment was offered to me at roughly the same level that I take home in this business, I would take such employment and close the business".
152. Paryavi, Campos and Santos (2018)
153. Berge et al. (2015).
154. Similarly, a large-scale business plan competition in Nigeria had 24,000 entrants in round one, of which only 18% were women. In response, the second year was restricted only to women, and it received 65,000 entrants. This in part reflects increasing knowledge of the program (the program achieved more than 100,000 applicants in year three when it went back to both genders), but provides an example of how design can support participation in competition.
155. World Bank Group (2018).
156. A similar analysis for Europe indicates that 20 out of 39 countries fully comply with the 22 items of formal law that treat women and men equally. 34 out of 39 countries (87%) in Europe comply with at least 21 items of formal law that treat women and men equally.
157. World Bank Group (2018).
158. World Bank Group (2018).
159. Platteau (2000); Bicchieri (2006).
160. Marcus and Harper (2014).
161. Rudman (1998); Rudman and Glick (1999).
162. Amanatullah and Morris (2010); Bowles (2012).
163. Cech et al. (2011).
164. Friedson-Ridenour and Pierotti (2018).
165. Correll (2001, 2004).
166. This report's analysis in Malawi and Togo suggests that a large share of entrepreneurs believe men are better managers than women.
167. Blair-Loy (2003); Ridgeway and Correll (2004).
168. Croke, Goldstein, and Holla (2017).
169. Alibhai, Buehren, and Papineni (2015).
170. Campos et al. (2015).
171. Fawole, Ajuwon, and Osungbade (2005).
172. Morrison and Orlando (2004).
173. Ruiz Abril (2008).
174. Analysis for this report using Malawi and Uganda Impact Evaluation data.
175. Analysis for this report using Tanzania Impact Evaluation data.
176. While this difference between own and others may reflect underreporting, it can also be due to framing and anchoring, as no one would answer with non-integral figures out of 10 people (like 0.5 out of 10), and a low number out of 10 may end up by "higher" than out of 100.
177. Campbell (2002).
178. Ribero and Sánchez (2004).
179. Doyle et al. (2018).
180. Vyas and Watts (2009).
181. World Bank (2012).
182. This may be due to social norms or to lower labor market returns to women's education, which may itself be the result of discrimination in hiring or sex segregation of the workforce. These issues may limit women to lower paying jobs and sectors.
183. Van der Sluis, Van Praag and Vijverberg (2008).
184. Hallward-Driemeier (2013).
185. Morris et al. (2006).
186. Arias, Evans and Santos (2017).
187. Heckman, Stixrud and Urzua (2006).
188. Müller, Volery and Siemens (2012); Rauch and Frese (2007); Zhao and Seibert (2006).
189. Crant (1995); Frese (2009); Frese et al. (2007); Koop, De Reu, and Frese (2000); Campos et al. (2017).
190. The difference between Mozambique and Togo could be related to the firms in Mozambique being larger than those in Togo. Female entrepreneurs in the study in Mozambique may be already a selected sample, not representative of the population of those self-employed.
191. Beyer (1990); Pulford and Colman (1997); Soll and Klayman (2004).
192. Niederle and Vesterlund (2007).
193. Grosse and Riener (2010); Kamas and Preston (2010); Lundeberg, Fox, and PunDcohaD (1994).
194. Analysis for this report using data from Ghana Impact Evaluation.
195. Kamas and Preston (2010); Grosse and Riener (2010).
196. Paryavi (2016).
197. Croson and Gneezy (2009).
198. Paryavi, Campos and Santos (2018).
199. Berge, Juniway, and Sekei (2016). In the study, willingness to take risks as a group is captured by letting groups decide jointly, face to face, whether to invest in a risky asset or not.
200. Aterido, Beck, and Iacovone (2011).
201. <https://globalfindex.worldbank.org/>
202. Mayoux (1999); Demircuc-Kunt, Beck and Honohan (2008).
203. Demircuc-Kunt, Beck and Honohan (2008).
204. It is important to take into account that most datasets have only a few of the metrics on conditions of loans.
205. In Malawi, the positive difference (women more likely to need to present collateral) disappears after controlling for the size of the loan. In Benin, there is no information on size of loan and the unconditional difference is negative. In the other datasets, there is no information on the need for presenting collateral.
206. <https://globalfindex.worldbank.org/>
207. Africa is the leader region in the use of mobile money accounts where the 21% of adults have a mobile money account. World Bank (2018).
208. Campos, Goldstein and McKenzie (2015).
209. Kes, Jacobs and Namy (2011).
210. <https://globalfindex.worldbank.org/>
211. <https://globalfindex.worldbank.org/>
212. Granovetter (1973); Bertrand, Luttmer and Mullainathan (2000).
213. Davidsson and Honig (2003); Audretsch and Feldman (2004); Renzulli, Aldrich, and Moody (2000).
214. Qualitative work in Ethiopia suggests that large family and friend networks are important for having enough collateral for large loans. (Pierotti, 2016)
215. Uzzi (1997); McMillan and Woodruff (1999); Fafchamps (2001).
216. Field et al. (2016a).
217. Brüderl and Preisendorfer (1997); Uzzi (1996).
218. Uzzi (1997).
219. This reports' analysis based on impact evaluation data.
220. This reports' analysis based on impact evaluation data.
221. Alibhai, Buehren, and Papineni (2015); Campos et al. (2015).
222. Cai and Szeidl (2018).
223. Loscocco et al. (2009); Kim and Sherraden (2014); Renzulli, Aldrich, and Moody (2000); Klyver and Terjesen (2007); Rankin (2001); Fafchamps and Minten (1999).
224. Granovetter (1973, 1983).
225. Field et al. (2016a).
226. World Bank (2012).
227. Beaman, Keleher and Magruder (2017).
228. In an environment with weak contract enforcement, networks can be instrumental to facilitate credible commitments (Greif, 1997; McMillan, 1997; Fafchamps, 2001). Networks may play a particularly important role in reducing transaction costs, by fostering trust, information sharing, and supporting alternate enforcement mechanisms.
229. In Ghana, entrepreneurs were randomly incentivized to participate in a joint activity requiring daily collaboration (Fafchamps and Quinn, 2013). This intervention— seen as being given a business network— had a positive effect on business performance, and led to the diffusion of business practices among entrepreneurs assigned to the same team. Researchers found women were less likely than men to have interacted with members of their assigned team. An experiment in Ethiopia, Zambia and Tanzania found a positive effect on diffusion of business practices for the managers of small firms assigned to collaborate with large firms (Fafchamps and Quinn, 2016). The study, however, did not find evidence of diffusion of business practices among average participants.
230. Udry (1996).
231. Nordman and Vaillant (2014).
232. De Mel, McKenzie and Woodruff (2009).
233. Pierotti (2016).
234. Schaner (2015).
235. Fafchamps et al. (2014). However, a study from urban Madagascar

- shows low within-household differences in returns to capital in households operating informal businesses, which suggests an unbiased allocation of capital among household members (Nordman and Vaillant, 2014).
236. Friedson-Ridenour and Pierotti (2018).
237. Bernhardt et al. (2017).
238. Duflo (2003); Duflo and Udry (2004).
239. Fafchamps et al. (2014).
240. Nordman and Vaillant (2014).
241. Fiala (2015).
242. World Bank (2012).
243. World Bank (2012).
244. The importance of household responsibilities is in line with the findings in other regions. For instance, in Guatemala (Kevane and Wydick, 2001) and India (Kantor, 2005), women's sector concentration responds to the time available for home production, and constraints on location of business.
245. Donald et al. (2018).
246. Blackden and Wodon (2006).
247. Martinez, Naudeau and Pereira (2012).
248. Clark et al. (2017).
249. Tabbert (2009).
250. see Lokshin, Glinskaya and Garcia (2004) for Kenya.
251. Barros et al. (2011).
252. Berlinski and Galiani (2007).
253. The analysis draws on two surveys conducted specifically for this report: Togo (December 2016) and Malawi (February 2017). The questionnaires used in these surveys are very similar, so results are well comparable. It also uses other impact-evaluation surveys from Malawi and Ghana. Most of the questions that relate to social norms in the impact evaluation surveys are different from those asked in the Togo and Malawi surveys for this report.
254. Using WBG Enterprise Surveys.
255. Gender-biased norms are used in this context as those against women.
256. Bertrand, Kamenica, and Pan (2015).
257. Still, in Togo, women are more likely than men (47% versus 39%) to agree that they should work in sectors that are considered suitable for them, while in Malawi women are less likely to hold such views than men (39% versus 49%). In Togo, the women's view that they should work in suitable sectors seems to be driven by those in traditionally female-dominated sectors: In non-female-dominated sectors, 37% of women and 38% of men believe women should work in suitable sectors, compared with 50% of women (and 42% of men) in female-dominated sectors.
258. This difference is statistically different at the 5% level.
259. A similar set of vignettes on business vs. household priorities and decision-making was recently posed to female entrepreneurs in Ghana. Women were effectively gender-blind in their responses to questions on spending priorities and on consulting the spouse. This may be partly due to the fact that the stakes involved in the Ghana vignettes were higher than those in Togo.
260. In Togo, the maximum bias is 0.83, because the most gender-biased individuals in this sample believe in 5 of the 6 gender-bias questions.
261. Similar results are obtained when using the Malawi 2014 survey.
262. The small sample size and large variance of capital investment measures seem to be driving the non-significance, as the difference on average is still quite large.
263. The analysis obtains similar results for profits with the vignette responses from Togo. The more conservative views women have (particularly the more they believe that a female entrepreneur should consult with her husband before making important decisions / the less they believe that a female entrepreneur should hire an employee to increase profits), the higher profits they make compared to male entrepreneurs.
264. See Ashraf et al. (forthcoming) on the importance of large scale institutional interventions to overcome biases on women's education participation.
265. See Deininger, Goyal, and Nagarajan (2013) and Roy (2015) on the importance of changes in property rights on investment in girls' education.
266. See Munshi and Rosenzweig (2006), Field, Jayachandran and Pande (2010), and Luke and Munshi (2011) on the importance of solutions to women's mobility constraints in South Asia. The evidence on these issues in Africa is more limited.
267. See Croke, Goldstein and Holla (2017) about sector shifting. Women with traditional views regarding occupational segregation see larger improvements.
268. See Doyle et al. (2018) about a 15-week gender-transformative group education program that engages new and expectant fathers and their partners. Analysis of data 21 months post-baseline shows significant differences between the intervention and control groups across a range of health and development outcomes, including women's reports of physical and sexual intimate partner violence, women's and men's reports of harsh discipline against children, contraceptive use and antenatal care attendance, men's dominance in decision-making, and men's participation in and time spent on domestic and caregiving tasks.
269. This uses the approximation "exp(β)-1" for interpreting the inverse hyperbolic sine-dummy relationship as per Bellemare and Wichman (2018).
270. Renzulli, Aldrich, and Moody (2000).
271. This is based on the 2011 Malawi survey.
272. This is based on the 2013 Togo survey.
273. Bossuroy et al. (2013).
274. Fafchamps and Quinn (2013).
275. Fafchamps and Quinn (2016).
276. This is based on the 2011 Malawi dataset.
277. Brüder and Preisendörfer (1997) explore this possibility but do not reach any empirical conclusion.
278. Fiala (2015).
279. In Kenya, firm-level profits of female entrepreneurs represent on average 65% of their household income. In Malawi, 38% of money earned in business goes towards daily household expenses.
280. Wolf and Frese (2018).
281. Schaner (2015).
282. McKenzie and Paffhausen (2017).
283. The median chop money is about 25% higher than the median monthly profits. Both the distribution of chop money and of profits have high variance, requiring some caution in this type of comparison.
284. Fafchamps et al. (2014).
285. Nordman and Vaillant (2014); Fiala (2015).
286. Berge et al. (2012).
287. While over 40% of husbands overestimate how much female entrepreneurs make, which would suggest should disclose their income, there are few reasons otherwise: women do not know that their husbands over-estimate, not all husbands over-estimate, and even if husbands are over-estimating, women have been managing with their current income level, so disclosure might not lead men to conclude that they need to increase their contributions.
288. De Mel, McKenzie and Woodruff (2009).
289. Friedson-Ridenour and Pierotti (2018).
290. Angelucci and Garlick (2016); Hoel et al. (2018).
291. The policies also include bundled interventions that seek to address multiple constraints simultaneously and these are included whenever impact evaluation evidences is available.
292. Chakravarty, Das, and Vaillant (2017).
293. While arguably the high number of subsistence-level micro-enterprises in Africa reflects a lack of wage employment opportunities, there is limited evidence of the relative impact of programs to support micro-enterprise development compared to wage employment. Assessing the impact of enterprise development policies vis-à-vis those seeking to increase wage employment is beyond the scope of this report.
294. Adoho et al. (2014).
295. Buvinic and O'Donnell (2016).
296. Banerjee et al. (2015a).
297. Women represented 86% of participants.
298. Blattman et al. (2013).
299. World Bank - Independent Evaluation Group (2011).
300. Hagen-Zanker et al. (2016).
301. O'Sullivan et al. (2014).
302. International Finance Corporation (2014).
303. African Development Bank's African Women in Business (AWIB) Initiative <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/d%C3%A9pliant%20AWIB%20ENGL.pdf>; Goldman Sachs's 10,000 Women Project <https://www.goldmansachs.com/citizenship/10000women/#overview>; IFC and Goldman Sachs Women Entrepreneurs Opportunity Fund (WEOF) https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/perspectives/perspectives-itc6; Women Entrepreneurs Finance Initiative (We-Fi) <https://we-fi.org/>; Affirmative Finance Action for Women in Africa (AFAWA) Cherie Blair Foundation for Women's Mentoring Women in Business <http://www.cherieblairfoundation.org/programmes/mentoring/>; African Development Bank's "50 million women speak" <https://www.afdb.org/en/news-and-events/going-digital-afdb-50-million-women-speak-digital-platform-set-to-create-digital-value-that-underpins-africas-future-economic-transformation-17455/>; Power Africa and USAID's Women in African Power <https://www.usaid.gov/powerafrica/gender>; Standard Chartered Women in Technology Incubator Kenya Program <https://vc4a.com/ibizafrika/standard-chartered-women-in-technology-incubator-kenya-3/>; USAID Accelerating Women Entrepreneurs Award <https://www.opportunitiesforafricans.com/usaaid-accelerating-women-entrepreneurs-prize-2018/>; CocaCola 5by20 initiative <https://www.coca-colacompany.com/our-company/5by20-what-were-doing>; Africa Women Innovation and Entrepreneurship Forum <http://awieforum.com/>;
304. The World Bank Doing Business report identified 781 reforms in regulations governing business start-up, operations, property rights, and debt resolution in Africa between 2006 and 2017.
305. Simavi, Manuel, and Blackden (2010).
306. Hallward-Driemeier (2013).
307. Iqbal et al. (2016).
308. Hallward-Driemeier, Hasan, and Rusu (2013).
309. This study uses a difference-in-differences approach taking advantage of the sequencing of the reform rollout to estimate impact.
310. Hallward-Driemeier and Gajigo (2013).
311. Harari (2018).
312. World Bank (2014).
313. World Bank Group (2018).
314. Hallward-Driemeier (2013).
315. Rodgers and Menon (2012).
316. FAO (2017).
317. O'Sullivan (2017).
318. O'Sullivan (2017).
319. Ali, Deininger, and Goldstein (2014).
320. Ali et al. (2014).
321. Cherchi et al. (2018).
322. Goldstein et al. (2016).
323. Agyei-Holmes et al. (2018).
324. Ali et al. (2014).
325. Bruhn and McKenzie (2013).
326. Cost-free assistance included visiting business owners and offer assistance in registering their businesses, while conveying to them a single-page information flyer on the potential benefits offered by registration. For those who were interested, the team assisted them in filling out the business registration form, took the required photo, and delivered their entire application, including paying the registration fee on their behalf. Once ready – on average certificates take two weeks to be prepared – the team delivered the Business Registration Certificates back to these firms. Thus, the only cost to these firms was the time it took to fill out the registration form (where they were assisted by the team).
327. Campos, Goldstein and McKenzie (2018).
328. Benhassine et al. (2016).
329. The lower take-up of formalization in Benin due to the combination of tax and business registration means that there was no statistical power to detect impacts on business performance.
330. Campos, Goldstein and McKenzie (2018).
331. <http://www.enterprisesurveys.org/data/exploretopics/regulations-and-taxes>
332. Overseas Development Institute (2015).
333. Policy interventions that combine access to capital and assets with training and other support, in what is often called "bundled services" or "wrap-around services" are reviewed under Policy Area 4.
334. McKenzie and Woodruff (2013); Patel (2014); Cho and Honorati (2013).
335. Cirera and Qasim (2014).
336. Robb, Valerio, and Parton (2014).
337. McKenzie and Woodruff (2013).
338. An exception includes a study in Uganda, which also found no positive impacts for female or male entrepreneurs (Campos et al. 2013).
339. McKenzie and Woodruff (2013).
340. Cirera and Qasim (2014); Drexler (2014).
341. Berge et al. (2012).
342. McKenzie and Woodruff (2017).
343. The other countries are Bangladesh, Chile, Ghana, Kenya, Mexico, Nigeria, and Sri Lanka.
344. Buvinic and O'Donnell (2016).
345. Valdivia (2015) suggests that there are higher drop-out rates in longer training programs.
346. Berge et al. (2012).
347. Valerio, Parton, and Robb (2014); Glaub and Frese (2011).
348. Botha, Nieman and van Vuuren (2006).
349. Campos et al. (2017).
350. Glaub et al. (2014).
351. Gertler (2018).
352. Batista and Seither (2018).
353. "The training was provided by the Digital Opportunity Trust (DOT), a social enterprise that provides entrepreneurship training to clients of the Women Entrepreneurship Development Project (WEDP) in Mekelle, Ethiopia. The DOT ReachUp! training program takes an innovative approach to entrepreneurship development, through a 120-hour course that helps inexperienced entrepreneurs to learn basic technology and business skills, and to foster the self-esteem and entrepreneurial spirit needed to build sustainable livelihoods." (Alibhai, Buehren, and Papineni, 2016)
354. Alibhai, Buehren, and Papineni (2016).
355. International Labor Organization (2018).
356. McKenzie and Puerto (2017). An impact evaluation of the same program in Vietnam also found positive impact on firm growth (Bulte, Lensink, and Vu, 2017).
357. Bastian et al. (2018b).
358. Mhede, Higuchi, and Sonobe (2018).
359. Campos et al. (2017).
360. Campos et al. (2018).
361. Fafchamps and Quinn (2013).
362. Fafchamps and Quinn (2016).
363. Brooks, Donovan, and Johnson (forthcoming).
364. Among those who buy inventory at least once a week, the study found a substantial benefit from mentorship, but none from the class treatment.
365. Bastian et al. (2018b).
366. The mentors had to appoint mentees before their own entrepreneurship training program. Mentors were then randomly assigned to either participate in the mentee support intervention or not, allowing for comparing the impacts of the intervention across mentees in both groups.
367. Bastian et al. (2018b).
368. McKenzie and Puerto, 2016.
369. Valdivia (2015); Giné and Mansuri (2014).
370. Field et al. (2016a).
371. Bernhardt et al. (2017).
372. Buvinic and Furst-Nichols (2014).
373. Microcredit Summit Campaign (2015).
374. Tarozzi, Desai, and Johnson (2015).
375. Banerjee, Karlan, and Zinman (2015).
376. Dahal and Fiala (2018).
377. Dahal and Fiala (2018).
378. Meager (2016).
379. Patel (2014); Duvendack et al. (2011)
380. A recent study from India found more promising benefits on micro-enterprise performance (Breza and Kinnan, 2017).
381. Banerjee et al. (2015b).
382. Cull and Morduch (2017).
383. Field et al. (2012).
384. Berge et al. (2012).
385. Fafchamps et al. (2014).
386. De Mel, McKenzie and Woodruff (2009).
387. Fafchamps et al. (2014).
388. This finding applies to small cash grants to small businesses. See [Table 7](#) for the effect of grants in other contexts.
389. Similar programs include World Bank financed government programs in Côte D'Ivoire, Guinea-Bissau, Kenya, and Senegal; Dfid's ENGINE competition in Ghana; the African Innovation Prize; Enablis Entrepreneurial Network's Business Plan Competition in Ghana; the Darecha Business Ideas Competition in Tanzania; the SEED Awards in Ethiopia, Kenya, Malawi, Morocco, Mozambique, Namibia, South Africa, Tanzania and Uganda; the StartUp Cup in Cameroon, Ghana, Kenya, Rwanda and Zambia. This list is compiled mostly from Fafchamps and Quinn (2016).
390. McKenzie (2017).
391. In the first round of the business plan competition in Nigeria, only 18.5% of applicants were women. A second round targeting only female entrepreneurs was then conducted.
392. Fafchamps and Quinn (2016).
393. Fafchamps and Quinn (2016).
394. McKenzie and Sansone (2017).
395. Dupas and Robinson (2013). However, it is not possible in this experiment to distinguish between the effects of gender and the effects of sector of operation on the impact of the intervention.
396. Campos et al. (2015).
397. Campos et al. (2018).
398. Schaner (2017).
399. The study (Dupas et al., 2018.) also included Chile.
400. Aker et al. (2016).
401. Field et al. (2016b).
402. Jack and Suri (2016).
403. Bastian et al. (2018a)
404. International Telecommunications Union (2016).
405. Arraiz et al. (2017).
406. Schaner (2015).
407. Jakiela and Ozier (2016); Baland et al. (2016); Boltz, Marazyan and Villar (2017); Ashraf (2009); Castilla and Walker (2013).
408. Fiala (2017). The game was done two years after the treatments and could reflect their outcomes rather than prior conditions.
409. <http://blogs.worldbank.org/impacetevaluations/what-happens-when-business-training-and-capital-programs-get-caught-web-intrahousehold-dynamics>.
410. Bernhardt et al. (2017).
411. A first attempt to evaluate matching grant programs in Africa has proven unsuccessful (Campos et al., 2014). The study attempted to implement randomized experiments to evaluate the impact of seven matching grant programs offered in six African countries, but in each case the experimental evaluation was not possible. The study suggests three main proximate reasons for lack of implementation: continued project delays, politicians not willing to allow random assignment, and low program take-up; and then delves into the underlying causes of these occurring: political economy, overly stringent eligibility criteria, lack of attention to detail in "last mile" issues, incentives facing project implementation staff, and the way impact evaluations are funded.
412. Grown et al. (2017).
413. Martinez, Naudeau and Pereira (2012); Barros et al. (2011); Tabbert (2009); Berlinski and Galiani (2007); Clark et al. (2017).
414. Clark et al. (2017).

415. Wang (2015).
416. Lokshin, Glinskaya and Garcia (2004).
417. Mateo Díaz and Rodríguez-Chamussy (2016).
418. Mateo Díaz and Rodríguez-Chamussy (2016).
419. Most interventions thus far have focused on changing behaviors, and not norm change. Substantial behavior change might eventually lead to norm change, but that is harder to measure and harder to change in individual experimental work.
420. Ricardo, Eads, and Barker (2011); Instituto Promundo and CARE International in Rwanda (2012); Instituto Promundo and International Center for Research on Women (2014); Shattuck et al. (2011); Raj et al. (2016).
421. Doyle et al. (2018).
422. <https://www.poverty-action.org/study/making-cash-grants-work-small-scale-women-entrepreneurs-ghana>
423. Campos et al. (2015); Alibhai, Buehren, and Papineni (2015).
424. World Bank Group (2018).
425. Campos et al. (2015); Alibhai, Buehren, and Papineni (2015).
426. Nordman and Vaillant (2014).
427. Campos et al. (2015).
428. Alibhai, Buehren, and Papineni (2015).
429. Hicks et al. (2011).
430. Campos et al. (2015).
431. Alibhai, Buehren, and Papineni (2015).
432. Croke, Goldstein and Holla (2017).
433. Gennari, Arango, and Hidalgo (2015).
434. Brenton et al. (2013).
435. Brenton et al. (2013).
436. Croke et al. (2018).
437. Brenton et al. (2013).
438. Cadot et al. (2015).
439. Atkin, Khandelwal, and Osman (2014).
440. Networking capital can be understood as the ability for a firm to draw on social and professional networks to gain access to information and business opportunities that can improve its productivity.
441. Brenton et al. (2013).
442. International Trade Centre (2015).
443. McKinsey Global Institute (2016).
444. Ferraz, Finan, and Szerman (2016).
445. International Trade Centre (2014).
446. South Africa is one example where government procurement rules include preference points and subcontracting requirements for contracts above a certain threshold to promote black economic empowerment, including female-owned micro and small businesses.
447. RSA National Treasury (2017).
448. Valerio, Parton, and Robb (2014).
449. Campos et al. (2015).
450. World Bank - Infodev (2016).
451. Banerjee et al. (2015b).
452. Hussam, Rigol, and Roth (2016).
453. McKenzie (2017).
454. Fafchamps and Woodruff (2016).
455. McKenzie (2017).
456. Bardasi et al. (2017).
457. Valerio, Parton, and Robb (2014).
458. McKenzie and Woodruff (2013).
459. Bardasi et al. (2017).
460. Anderson, Chandy, and Zia (2016).
461. Berge et al. (2012).
462. Paryavi, Campos and Santos (2018).
463. Paryavi (2016).
464. Diwan et al. (2014).
465. One example of a business training program delivered via SMS is the Business Women service developed by the Cherie Blair Foundation, in partnership with Exxon Mobile Foundation and Nokia, which reached over 100,000 women in Indonesia, Nigeria, and Tanzania.

