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Bottlenecks to Private Sector Development in Sub-Saharan Africa: A Firm-Level Analysis

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Prepared by Razan Amine, Qianqian Zhang, Shushanik Hakobyan, Ankita Goel[1]

ABSTRACT: This paper analyzes the major bottlenecks to private sector development in sub-Saharan Africa using novel methods based on firm-level data. Employing both perception-based and proxy-based methodologies, we identify and measure seven key obstacles to development. Our findings reveal significant divergences between firms' perceptions and objective measures of business constraints. While firms frequently cite infrastructure deficiencies as their primary concern, our proxy-based analysis identifies corruption followed by financial constraints as the most severe impediments to firm growth. Furthermore, small and medium-sized enterprises face disproportionate challenges compared to large firms, especially regarding financial access and human capital limitations. These findings underscore the need for targeted, context-specific policy interventions that address the objective constraints facing different types of firms across diverse economic environments in sub-Saharan Africa.

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Contents

I. Introduction

Private sector development is a key driver of economic growth and job creation, with businesses playing a critical role in fostering structural transformation. However, firms in sub-Saharan Africa (SSA) region face persistent constraints that hinder their ability to expand, innovate, and compete in global markets. These obstacles include limited access to finance, inadequate infrastructure, regulatory inefficiencies, and governance challenges such as corruption and political instability. The result is a private sector that is often fragmented, dominated by informality, and unable to drive the sustained job creation and productivity gains needed to lift incomes and support inclusive growth. Addressing these constraints is critical for SSA countries seeking to diversify their economy, build economic resilience, and raise global competitiveness.

While previous research has identified these issues at the macroeconomic level, a comprehensive firm-level analysis is necessary to understand the specific constraints affecting businesses of different sizes and industries, and how they shape their investment and employment decisions. Rather than treating the private sector as a monolithic entity, this paper leverages firm-level data from the World Bank Enterprise Surveys (WBES) to systematically assess the major bottlenecks to private sector growth in SSA. By applying both perception-based and proxy-based measures, we aim to capture a comprehensive view of constraints faced by firms across 40 countries in the region. Such an approach allows us to disentangle the impact of subjective perceptions from objective structural challenges, providing a more nuanced understanding of the business environment in SSA.

Our study contributes to the literature along several important dimensions. First, while existing research often focuses on individual obstacles such as corruption or financial access, we systematically define and capture impediments to firm growth across several dimensions. Second, we employ both perception-based and objective proxy indicators for seven obstacles including financial constraints, inadequate infrastructure, lack of competition, weak business environment, inadequate labor education, corruption, and political instability, addressing potential biases in subjective assessments. Third, we utilize Principal Component Analysis (PCA) to construct indices that integrate multiple firm-level characteristics, providing more robust measures of each obstacle area. By employing this comprehensive approach across 40 SSA countries, we offer nuanced insights into how these obstacles uniquely affect SSA firms, contributing to the broader understanding of private sector development challenges in developing economies.

Our findings reveal that corruption and financial constraints are the most consistent impediments to firm development, although with heterogeneity both across countries and firm sizes. Our results also highlight the interplay between firm capabilities and the broader institutional environment, offering a granular picture of what holds businesses back and where policy efforts could have the greatest impact. Specifically, our analysis suggests that while broad-based improvements in governance and infrastructure are important to support the growth of all firms, a one-size-fits-all approach would likely be insufficient. In particular, small and medium-sized enterprises (SMEs) would benefit from near-term reforms expanding their access to finance and from longer-term investments in human capital and institutional capacity. Moreover, the disconnect between firm perceptions and objective constraints highlights the need for evidence-based policy interventions tailored to the realities of firms operating in different economic contexts. Our analysis suggests that policy credibility is just as important as policy design: in other words, reforms would need to not only address the right problems but also to aim at building investor confidence and encouraging private-sector-led growth.

Our analysis indicates that a thriving private sector requires not only removing immediate barriers to growth, but also fostering entrepreneurship, investment, and competitiveness in an increasingly complex global

economy. For SSA, this means recognizing the distinct needs of different types of firms, ensuring that reforms are well-designed, and addressing the trust gap that often exists between businesses and policymakers. While there has been progress in this direction, the persistence of key constraints that our study identifies highlights the need for a targeted, data-driven approach to private sector development. By shedding light on the specific challenges firms face, this paper aims to provide a stronger foundation for shaping reforms that deliver tangible results, which help businesses expand, create jobs, and contribute meaningfully to SSA's economic transformation.

II. Literature Review

Previous research has established the fundamental constraints to private sector growth in developing regions. EBRD (2016) identified political instability, corruption, and limited financial access as major barriers in the Middle East and North African region. Dollar and Mengistae (2005) demonstrate that regulatory burdens and corruption significantly undermine firm productivity, highlighting the imperative for governance reforms to foster an enabling business environment. Responding to identified constraints, most studies focus primarily on macroeconomic impacts of structural reforms in catalysing growth in developing economies: IMF (2019) demonstrates that governance, trade, and financial reforms can accelerate convergence rates by approximately one percentage point in low-income countries. Budina et al. (2023) further examine how comprehensive and well sequenced reform packages aimed at closing structural gaps relative to the frontier can drive sustainable growth in EMDEs, particularly when complemented by green policies.

Among the relevant literature, some underscore the importance of addressing structural deficiencies at the firm level, arguing that firm-level productivity represents a critical determinant of economic resilience and growth. Francis et al. (2020) show that disparities in total factor productivity (TFP), measured using WBES data, account for substantial cross-country income variation. They argue that enhanced firm-level productivity through targeted policies could help bridge these gaps and improve regional competitiveness.

The research focus on the African business environment reveals unique dynamics. Bigsten and Söderbom (2006) identify high-potential investments in African manufacturing but note that political instability remains a primary obstacle to efficient capital reallocation. Biggs and Shah (2006) emphasize the importance of informal networks in fostering resilience among SMEs in SSA, suggesting that private governance systems partially offset formal institutional deficiencies—a perspective particularly relevant in regions with weaker institutional frameworks.

The literature has also provided a nuanced look into different aspects of constraints: for example, access to finance consistently emerges as a major barrier to firm growth in SSA. Fowowe (2017) establishes a strong positive correlation between financial access and firm performance, with better access linked to higher productivity and profitability. These challenges are particularly acute for SMEs, which often lack the collateral or credit history needed to secure affordable financing. Improved financial inclusion is therefore essential for fostering firm growth, echoing arguments by the African Development Bank (2013) for interventions tailored to SSA firms' unique needs. Trust in financial institutions also plays a vital role in promoting financial inclusion: Beck et al (2007) find that countries with higher trust levels in financial systems experience greater financial sector outreach. Fafchamps and Gubert (2007) document how social networks substitute for weak financial systems in Madagascar, fostering trust-based relationships that support firm success while potentially creating exclusivity that limits broader market participation.

Stable macroeconomic environments and sound investment climates critically influence firm success. Eifert and Ramachandran (2005) emphasize the importance of stable policies for attracting investment, while Batra and Stone (2003) demonstrate that adequate infrastructure and strong governance directly enhance firm performance. Hallward-Driemeier et al. (2005) similarly highlight the productivity gains possible through regulatory reforms. Fisman and Svensson (2007) quantify corruption's impact, finding it can reduce firm growth by nearly 20 percent as resources are diverted to "grease payments" rather than productive investments.

More recent work by Fisman et al. (2024) examines corruption's impact on firm growth across developed and developing countries, finding particularly severe effects in countries with weak institutions, such as SSA countries. In these environments, firms face heightened challenges navigating bureaucratic processes without incurring significant costs, highlighting the need for stronger institutional frameworks to enhance firms' growth potential.

Beyond addressing institutional impediments, the literature on SSA shows that business training significantly impacts firm productivity. McKenzie and Woodruff (2013) show that well-designed training enhances managerial practices, directly affecting performance. In Togo, Campos et al. (2017) found that personal initiative training significantly improved entrepreneurial outcomes compared to traditional approaches, suggesting SSA firms might benefit from customized, psychology-based training that fosters innovation and resilience.

III. Data and Methodology

The primary data source for this study is the WBES, which covers a comprehensive set of firm-level data across 40 SSA countries from 2003 to 2023. The dataset comprises more than 40,000 firm-level observations, offering a rich repeated cross-sectional sample for analyzing business obstacles in the region. The survey includes 145 variables categorized into seven primary areas of obstacle: financial constraints, inadequate infrastructure, lack of competition, weak business environment, inadequate labor education, corruption, and political instability. These obstacles are measured using both perception-based metrics and proxy indicators derived from firm-level responses.

Data Collection and Sampling Methodology

The Enterprise Survey data for SSA were gathered through a comprehensive, stratified random sampling approach. Firms were categorized based on three criteria: sector, size, and geographic region within each country. This stratification aimed to ensure sufficient representation across different firm types and regional economies, enhancing the robustness and representativeness of the findings. Table A1 and Figure 1 represent the sample used in this analysis.

- **Firm Size**: Firms are classified into three categories based on the number of employees (Figure 2.1): small (5–19 employees), medium (20–99 employees), and large (100+ employees). This classification allows for the analysis of size-related variations in the challenges faced firms in the SSA context, such as access to resources, vulnerability to economic shocks, and reliance on informal financing channels.
- **Sectoral Coverage**: The survey covers both manufacturing and services sectors (Figure 2.2). The manufacturing category includes firms engaged in diverse subsectors such as textiles, food processing, chemicals, and machinery, while services encompass retail, hospitality, ICT, transportation, and repair services. However, sectors such as agriculture, public administration,

education, and healthcare were excluded, as the survey does not intend to cover government-owned companies and sectors that are highly regulated.

- **Geographical Representation**: Regional stratification ensures that the survey accounted for the economic diversity within SSA. Each country's sample was designed to capture urban and semi-urban areas, representing varying economic dynamics and infrastructural conditions.

Figure 1. Sample Size in Sub-Saharan Africa
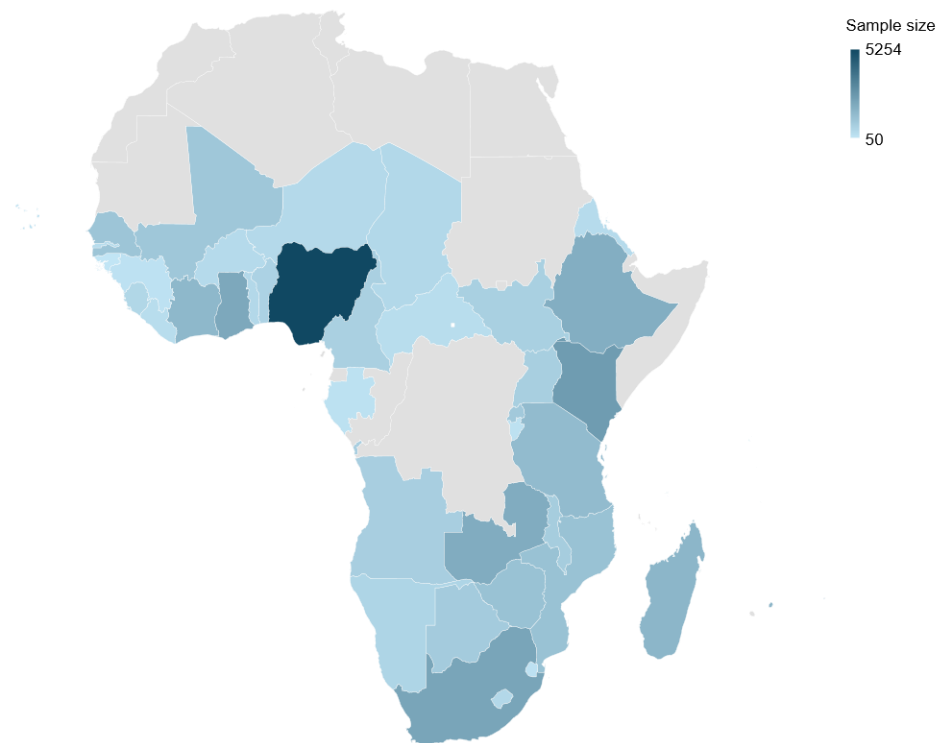
Figure 2.1. Firm Size by Resource Group
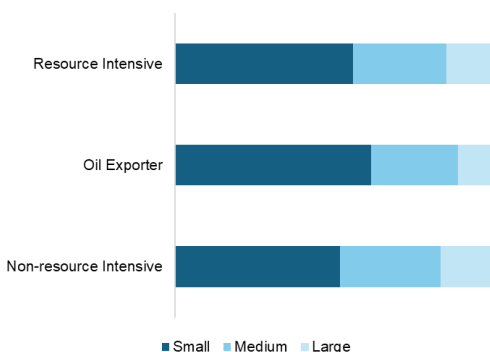
Figure 2.2. Firm Sector by Resource Group
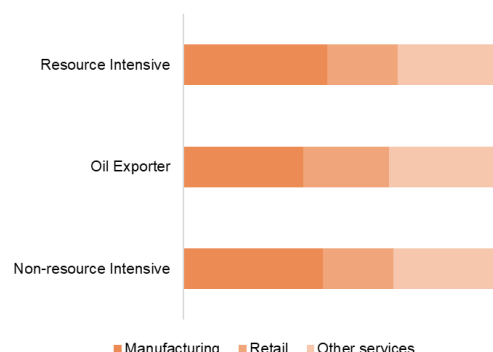
The sample size in SSA provides a diverse sample of firms, including a significant number of SMEs, which could serve as important drivers for private sector development. Table A4 outlines the categorization of SSA countries based on different resource groups. In non-resource and resource-intensive countries, other services primarily consist of hotels, restaurants, and construction. In both groups, the services sector carries significant

weight. In oil-exporting countries, services mainly include hotels, restaurants, and transportation. Figure A5 illustrates the composition of each country by firm size and sector.

Empirical Framework

To examine how various obstacles impact firm performance, we estimate the following empirical model:

$$Y_{\{i,c,s,t\}} = \alpha + \beta\, G_{\{i,c,s,t\}} + \gamma\, X_{\{i,c,s,t\}} + \lambda_{\{c,s,t\}} + \varepsilon_{\{i,c,s,t\}}$$

Where:

- i, c, s, t represent firms, countries, sectors, and years, respectively

- $Y_{\{i,c,s,t\}}$ is a measure of firm outcomes, including:

    1. **Exporter**: A binary variable equal to 1 if the firm exports 10 percent or more of its sales

    2. **Importer**: A binary variable equal to 1 if the firm directly imports inputs

    3. **Sales Growth**: The logarithmic growth rate of firm sales

    4. **Employee Growth**: Measured as growth between the survey year (t) and three years prior (t-3)

    5. **Total employee growth normalized by firm age**: The change in employment from foundation to current year, adjusted for firm age

- $G_{\{i,c,s,t\}}$ represents firm-specific obstacle variables, estimated in two separate models:

    1. **Perception-based obstacles**: Direct measures of firms' perceptions of constraints

    2. **Proxy-based obstacles**: Objective indicators constructed using PCA

- $X_{\{i,c,s,t\}}$ includes firm characteristics such as:

    o Firm age

    o Ownership structure (private vs. public)

    o Formality status

    o International recognition

    o Gender of top manager or owner

- $\lambda_{\{c,s,t\}}$ represents fixed effects, including:

    o Country fixed effects (C_c)

    o Sector fixed effects (S_s)

    o Year fixed effects (θ_t)

    o Interactions between country, sector, and year ($C_c * S_s, C_c * \theta_t, S_s * \theta_t$)

- $\varepsilon_{\{i,c,s,t\}}$ is the error term

The inclusion of multiple fixed effects and their interactions helps control for unobserved heterogeneity at the country, sector, and year levels. This approach addresses potential omitted variable bias arising from country-

specific regulatory environments, sector-specific technological requirements, and year-specific economic conditions. The interaction terms capture unobserved factors that vary by country-sector, country-year, and sector-year combinations, providing a robust framework for isolating the effects of firm-level constraints.

Measurement of Obstacles

A distinctive feature of our methodology is the use of two complementary approaches to measuring business obstacles:

Perception-Based Measures

These measures capture firms' subjective assessments of the constraints they perceive they face. In the WBES, firms rate various obstacles on a scale from "No Obstacle" to "Very Severe Obstacle." We employ PCA to group 15 original obstacles into seven composite indices representing distinct constraint areas:

1. **Financial Constraints**: Access to finance, cost of finance, collateral requirements;

2. **Inadequate Infrastructure**: Electricity, transportation, telecommunications;

3. **Weak Business Environment**: Regulatory burdens, administrative procedures, property rights;

4. **Informal Competition**: Competition from unregistered firms, unfair competitive practices;

5. **Inadequate Labor Education**: Skills availability, workforce education, training opportunities;

6. **Corruption**: Informal payments, bribery, rent-seeking behavior;

7. **Lack of Security**: Crime, theft, disorder, political instability.

This approach allows us to capture firms' subjective experiences of the business environment while reducing dimensionality and addressing multicollinearity concerns.

Proxy-Based Measures

To complement the perception-based measures and address potential self-reporting biases, we construct objective proxy indicators based on firm-level characteristics and market conditions. For example:

1. **Financial Constraints**: Measured by indicators such as access to bank loans, reliance on internal funds, availability of overdraft facilities, and collateral requirements;

2. **Inadequate Infrastructure**: Captured through electricity outages, water supply interruptions, transportation challenges, and internet connectivity issues;

3. **Weak Business Environment**: Reflected in time spent dealing with regulations, permit delays, and property ownership status;

4. **Informal Competition**: Proxied by reported competition from unregistered businesses and government ownership presence;

5. **Inadequate Labor Education**: Measured through workforce education levels, training provision, and skilled worker availability;

6. **Corruption**: Captured by reported bribe requests for various services;

7. **Lack of Security**: Reflected in security costs, losses due to theft, and crime-related disruptions.

These proxy measures are also combined into indices using PCA, providing objective counterparts to the perception-based indices.

Data Preparation and Index Construction

Preparing the dataset for Principal Component Analysis required extensive data cleaning and winsorization[1] procedures. Variables were carefully re-coded to address missing and erroneous values, standardizing binary variables and replacing coded missing values (e.g., -9, -8) with true missing values. To reduce the influence of extreme outliers, selected variables were winsorized at the 1st and 99th percentiles, ensuring robust principal components.

For each obstacle area, we applied PCA to specific groups of variables that conceptually relate to the constraint. This approach reduced multidimensional data into interpretable indices capturing the underlying structure of each obstacle area. The first principal component was used to generate a score representing each obstacle, which was then scaled to create a standardized index. This methodology allowed us to synthesize multiple dimensions into targeted indices that capture the primary characteristics of each constraint area. For instance, the Inadequate Infrastructure index incorporates variables measuring electricity reliability, power outage frequency and duration, private generator usage, water supply interruptions, and internet access. Similarly, the Financial Constraints index combines measures of working capital sources, reliance on internal versus external funding, availability of savings or overdraft facilities, and collateral requirements. This systematic approach to index construction provides a comprehensive framework for analyzing how various obstacles affect firm performance in SSA, enabling us to identify the most binding constraints and their differential impacts across country groups and firm sizes.

IV. Results

Perceptions

Figure 3.1. Top 3 Obstacles Reported, By Firm Size

Figure 3.2. Top 3 Obstacles Reported, By Income Group and Firm Size

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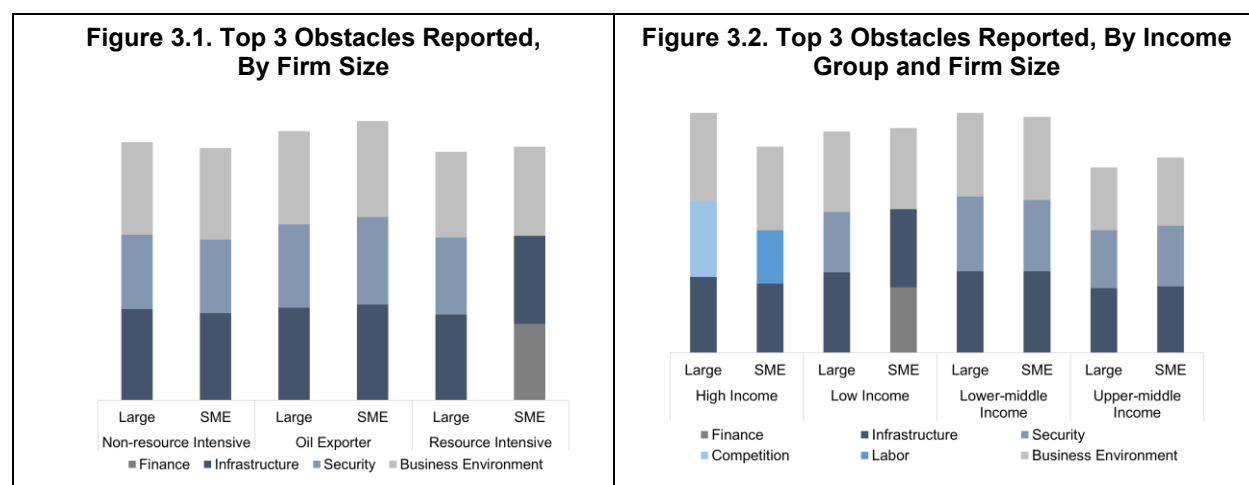
[1] A statistical technique used to limit extreme values in a dataset, particularly outliers. By replacing extreme values with more moderate values from the same end of the distribution, winsorization reduces the influence of outliers on statistical calculations.

Firm perceptions suggest broad consensus across countries and firm sizes regarding the primary obstacles to business development, with inadequate infrastructure, lack of security, and weak business environment emerging as the most commonly cited barriers (Figure 3.1). Interestingly, in resource-intensive countries, SMEs identify financial constraints as a more pressing challenge than security concerns. Some heterogeneity emerges when looking at country income levels: while lower-income countries emphasize financial constraints and security concerns as key obstacles, high-income countries highlight inadequate labor education and competition from the informal sector and government (Figure 3.2). These variations reflect underlying macroeconomic conditions and the differing private sector development environments across income groups.

Analysis of Perception-Based Measures

The perception-based regression results (Tables A2a-A2f) provide insights into how firms' subjective assessments of different obstacles relate to their actual performance. Unlike the proxy measures, which capture objective indicators, perception measures reflect firms' experiences and evaluations of the business environment. The analysis below examines each obstacle area individually, following the same structure used for the proxy-based results.

Regression analyses examining the relationship between perceived obstacles and firm sales growth reveal limited statistically significant associations—as seen in Table A2a, the significant results mostly suggest a potential self-selection bias in firms' responses. Specifically, firms that identify inadequate labor education as a major obstacle tend to exhibit higher sales growth. Similar patterns emerge in country-specific breakdowns (Table A2b-A2f), where oil-exporting countries' firms citing a weak business environment and large firms perceiving corruption as a key constraint are associated with stronger growth outcomes. However, in non-resource-rich countries, perceived inadequate infrastructure is negatively correlated with sales growth, underscoring the growth-limiting effects of infrastructure gaps in economies without significant resource exports. Among SMEs, perceptions of weak business environments and security concerns are linked to lower sales growth, highlighting the disproportionate vulnerability of smaller firms to governance and institutional challenges. Some highlights from each obstacle are discussed as below.

Perceived **financial constraints** show limited and inconsistent associations with firm performance. The lack of significant relationships between perceived financial constraints and sales growth may indicate that firms have adapted to longstanding financial limitations or that subjective assessments of financial access do not capture the objective severity of these constraints. Alternatively, firms may underreport financial obstacles or have adapted to chronic financing limitations, particularly in oil-exporting and non-resource-intensive countries, where perception and outcome correlations are weakest.

Perceptions of **corruption** as a major obstacle show mixed associations with firm performance —weakly associated with firm performance in the full sample but positively linked to growth in oil-exporting countries and among large firms. These counterintuitive findings may reflect political-economy dynamics in resource-rich settings, where navigating corruption can yield short-term advantages despite long-run inefficiencies.

Although often cited by firms as a constraint, perceptions of **informal competition** show limited correlation with performance indicators. Only in resource-intensive countries do these perceptions align with lower sales growth, suggesting context-specific visibility and salience of informality in undermining formal firm competitiveness.

Perceived **regulatory and administrative barriers** show contrasting results across contexts. In non-resource-intensive countries and among SMEs, these are linked to weaker sales growth. However, in oil exporters, firms

identifying such barriers often report higher growth—possibly reflecting survivorship bias or greater sensitivity among expanding firms.

Surprisingly, perceptions of **labor skill gaps** are often positively associated with firm growth, possibly reflecting increased demand for skilled labor among expanding firms.

Firms in non-resource-intensive economies that cite **infrastructure** as a constraint tend to show lower growth, consistent with physical capital gaps in these settings. However, in the full sample, perceived infrastructure obstacles show weak associations with outcomes, suggesting either adaptation or underreporting relative to objective measures.

Perceived **lack of security** is generally uncorrelated with firm performance, except among SMEs, where it is associated with lower sales growth. This highlights the disproportionate exposure of smaller firms to crime and instability, particularly in settings with weaker public security provision.

Synthesis of Perception-Based Findings

The perception-based analysis reveals several key insights:

1. **Limited significant associations**: Perception measures demonstrate fewer and sometimes counterintuitive associations. This suggests that firms' subjective assessments may not fully capture the objective factors influencing their performance.

2. **Counterintuitive positive relationships**: In several cases, perceived obstacles show positive associations with performance metrics, particularly regarding inadequate labor education and weak business environments in certain contexts. These findings may reflect reverse causality, where growing firms become more sensitive to constraints as they expand.

3. **Context-specific patterns**: The associations between perceived obstacles and firm performance vary substantially across country groups, reflecting how economic structures and institutional contexts shape firms' experiences of business constraints. Oil-exporting countries show particularly distinctive patterns.

4. **Firm size heterogeneity**: The relationships between perceived obstacles and performance metrics differ between large firms and SMEs, highlighting how business constraints are experienced differently depending on firm scale and resources. SMEs appear particularly vulnerable to certain perceived constraints, especially security concerns and weak business environments.

Proxies

Analysis of Proxy-Based Measures

The proxy-based regression results (Table A3a-A3f) provide more objective evidence of how different obstacles affect firm performance across SSA. Unlike perception-based measures, which may suffer from potential self-reporting biases, these proxy indicators can offer more robust insights into the structural challenges impeding private sector development in the region.

A comparison of regression results based on firm perceptions and objective proxy measures suggests that the actual barriers to business development often diverge from what firms identify as constraints (Table A3a). In terms of magnitude, corruption and financial constraints exhibit the most significant negative impact on sales growth among SSA firms, followed by informal competition as well as weak business environment. Financial constraints consistently hinder sales growth across different country groups, underscoring their widespread impact (Table A3b-A3f).

Financial constraints emerge as one of the most pervasive and significant impediments to firm performance across all country groups and firm sizes. For the full sample, these constraints are associated with sharp declines in sales growth[2], as well as lower probabilities of exporting, importing, and participating in global value chains. The impact is especially severe in oil-exporting countries, suggesting deep inefficiencies in financial intermediation despite the presence of resource wealth. SMEs appear particularly vulnerable, with financial constraints reducing employment growth by over 10 percent. These results underscore the condition of limited credit access, particularly for smaller firms operating in high-risk or underbanked markets.

Corruption poses the largest drag on firm growth among all obstacles, with sales growth reduced by nearly 31 percent in the full sample. It also impedes employment growth and innovation, confirming its systemic cost to productivity and private sector development. While this pattern holds for most countries, an outlier is oil exporters, where firms that report experiencing corruption see much higher growth, potentially reflecting rent-seeking dynamics or privileged access to public contracts. Still, for most firms—especially SMEs—corruption acts as a major constraint, diverting resources and distorting incentives.

Competition from informal firms and the public sector significantly hinders firm outcomes, particularly in resource-intensive countries. These firms face lower sales and employment growth, and reduced capacity utilization. The negative effects are less pronounced in oil-exporting and non-resource-intensive economies but remain relevant. Interestingly, firms facing high informal competition are more likely to import inputs—perhaps to differentiate products or escape informal pricing pressures. This reflects the imbalance of not leveling the playing field between formal and informal businesses.

Regulatory inefficiencies and administrative burdens weigh on firm competitiveness, particularly in non-resource-intensive countries. A weak business environment is associated with lower trade participation, especially for imports. While the impact on sales growth is relatively moderate, the cumulative effect on trade and innovation can undermine broader development goals. A somewhat paradoxical finding is the positive association between a weak business environment and capacity utilization in some settings—likely reflecting firm adaptation rather than genuine efficiency gains.

Human capital constraints significantly limit firm growth, particularly for SMEs. Firms reporting labor skill shortages experience lower sales growth and employee growth. The negative effect on innovation is also significant, especially for smaller firms that lack resources to provide training. However, in oil-exporting countries, the relationship turns positive, likely reflecting that skilled labor is concentrated in extractives, boosting those firms' performance.

Infrastructure-related challenges show mixed effects. Surprisingly, firms facing these constraints often report better outcomes—including higher sales, employee growth, and capacity utilization—suggesting that more resilient or better-performing firms—firms that manage to operate in areas with poor infrastructure—may be

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[2] To interpret the regression coefficients, for example, one unit increase in our composite financial constraint index is associated with a 15.6 percent decline in sales growth, given sales growth is in logarithmic growth rate of firm sales.

more productive and resilient than average. Alternatively, this result could indicate that infrastructure quality is unequally distributed, with better-performing firms locating in areas with superior infrastructure within countries. These firms may compensate for poor infrastructure with adaptive practices, such as logistics optimization or onsite power generation. While this resilience is encouraging, it should not obscure the need for infrastructure upgrades, especially in non-resource economies where infrastructure gaps are more binding.

The effects of **security challenges** on firm performance are nuanced. While crime and instability reduce capacity utilization, they are positively associated with sales and employment growth in some contexts—likely reflecting that only the most resilient or well-protected firms operate in high-risk areas. The positive link to innovation suggests that firms may develop adaptive strategies under security pressure. Nonetheless, SMEs remain particularly exposed, possibly reflecting the cost of insecurity without proper policing and justice systems.

The divergence in results between perception-based and proxy-based measures likely reflects differences in what each captures. Perception indicators are subjective and may reflect firms' broader sentiments or recent experiences, whereas proxy variables quantify more objective and standardized service conditions (e.g., frequency of power outages or transport times). Firms exposed to similar objective constraints may perceive them differently depending on their sector, performance, or adaptive capacity. Moreover, perception variables are more prone to endogeneity, as firm outcomes can influence reported perceptions, while proxy indicators are typically exogenous. Perception data may also suffer from survey bias or strategic misreporting, introducing noise that weakens correlations with firm performance. These differences underscore the importance of distinguishing between the two when analyzing firm-level constraints.

Synthesis of Findings

The proxy-based analysis reveals several key insights that extend beyond what firm perceptions alone would indicate:

1. **Financial constraints and corruption emerge as the most severe impediments to firm growth and performance across SSA**, with corruption showing the largest negative magnitude on sales growth (-30.8 percent). This finding highlights the critical importance of both financial sector development and anti-corruption measures for private sector growth.

2. **Obstacles have heterogeneous effects across country groups**, with oil-exporting countries showing distinct patterns, particularly regarding corruption and inadequate labor education. These findings suggest that natural resource endowments shape the institutional environment in ways that alter how specific obstacles affect firm performance.

3. **SMEs face disproportionate challenges** compared to large firms, particularly regarding financial constraints and inadequate labor education. This finding underscores the need for targeted policies to address the specific challenges facing smaller enterprises, which constitute the majority of firms in SSA.

4. **The varying effects of obstacles on different performance metrics** highlight the multifaceted nature of private sector development challenges. For instance, inadequate infrastructure shows mixed or even positive associations with some outcomes, suggesting complex adaptation mechanisms that merit further investigation.

These empirical findings provide a more nuanced understanding of the bottlenecks to private sector development in SSA than perception-based measures alone, highlighting the importance of addressing structural constraints through targeted policy interventions particular to country-specific conditions.

Component-Variable Analysis

To better understand the underlying mechanisms through which the identified business environment obstacles affect firm performance, this sub-section examines the constituent elements of each proxy-based obstacle index. Given that the indices were derived using PCA, which reduces multidimensional data into single summary measures, important variation across component variables may be obscured. To address this, we isolate and analyze the specific indicators within each obstacle category that exhibit the highest factor loadings in the PCA. These indicators represent the most influential contributors to the respective principal components and provide insight into the core impediments firms face. We further ensure that the variables examined are supported by adequate sample sizes to preserve the robustness and representativeness of the analysis.

Financial Constraints

Financial constraints remain a critical barrier to private sector development in SSA, with firm-level data capturing a broad range of financing challenges. Access to medium- and long-term finance on affordable terms is particularly limited, reflecting structural weaknesses in many SSA financial systems, including issues of scale, volatility, and liquidity constraints. These factors contribute to heightened perceptions of risk, restricting firms' ability to secure formal credit.

As shown in Figure 4.1, the reported percentage of SSA firms having a loan or line of credit with a financial institution during respective survey time is generally low, underscoring the extent of the credit gap. SMEs face particularly acute financing challenges, which significantly constrain their growth potential. A persistent disconnect between SMEs and formal financial channels forces them to rely on alternative financing mechanisms. As illustrated in Figure 4.2, SMEs consistently report greater financing obstacles in getting credit from banks than large firms, which is especially pronounced in oil-exporting countries. For SMEs, supplier and customer advances serve as a primary source of working capital, while informal borrowing—such as loans from relatives and friends—remains prevalent, particularly in oil-exporting economies. Notably, nonbank financial institutions, including microfinance providers, play a surprisingly limited role in financing working capital, suggesting potentially structural inefficiencies in the nonbank financial sector, insufficient market penetration, or restrictive lending conditions that fail to meet the needs of SMEs.

Figure 4.1. Firms With a Loan/Line of Credit with Financial Institutions (Percent of Firms)

Figure 4.2. How Firms Finance Their Working Capital Other Than Internal Funds
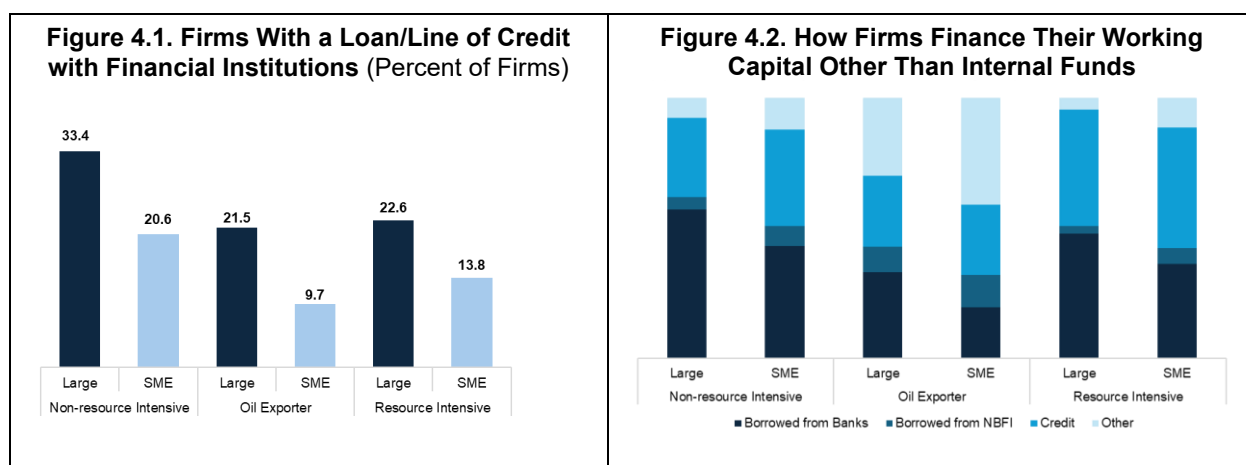
Firm-size advantages exist in navigating formal credit markets and possibly tighter credit conditions or weaker financial infrastructure. Figure 4.3 shows that large firms are significantly more likely than SMEs to have overdraft facilities, regardless of country groups. Figure 4.4, on the other hand, shows the reliance on personal loans to finance business activities, where SMEs rely far more on them than large firms do, especially in non-resource-intensive economies. This heavy reliance suggests a gap in access to formal credit, pushing smaller firms to resort to riskier or informal sources of financing. These findings highlight a dual challenge: SMEs not only struggle to obtain bank-based instruments like overdrafts, but also disproportionately shoulder financial risk through personal borrowing, with implications for both business growth and financial stability.

Figure 4.3. Firms Has Overdraft Facility

Figure 4.4. Outstanding Personal Loans Used to Finance Establishment's Business Activities
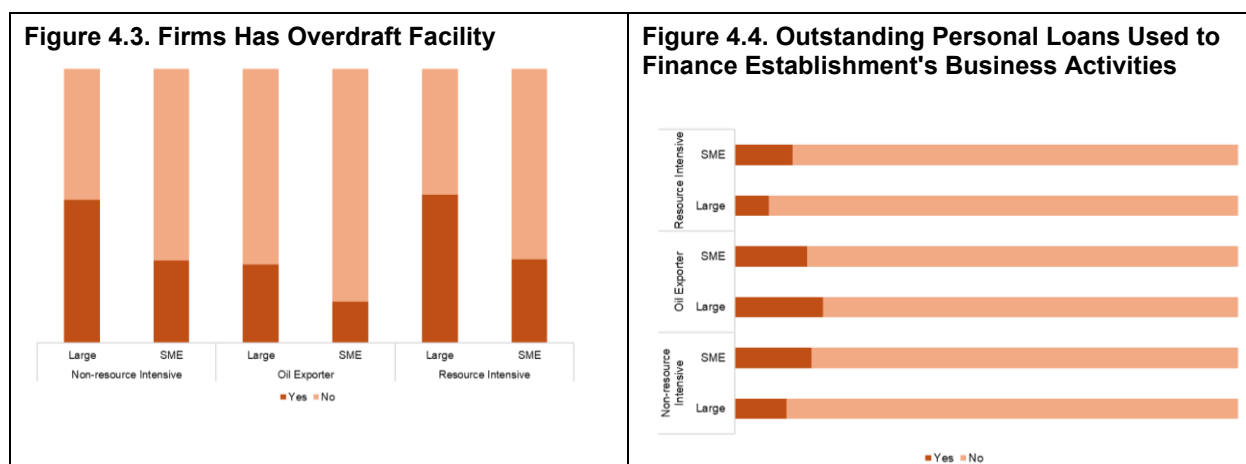
Financial access constraints are also reflective in the stringent requirements from financial institutions and the capacity constraints from firms' ability to have their financial statements certified. In particular, high collateral requirements (Figure 4.5)—especially prevalent in resource-intensive countries—continue to hinder credit access, affecting firms with limited asset bases and financial documentation. Figure 4.6 shows that SMEs face a significantly lower certification rate across all country groups. This could be because many SMEs lack consistent financial recordkeeping, making it difficult for banks to assess creditworthiness. Additionally, weak credit information systems and limited borrower histories compound the challenge. As a result, even when SMEs seek formal financing, they are often turned away due to insufficient documentation or perceived risk—highlighting the need for policy interventions that improve financial transparency, credit reporting infrastructure, and SME financial literacy.

Figure 4.5. Collateral Ratios

Figure 4.6. Financial Statements Checked and Certified by External Auditor in Last FY
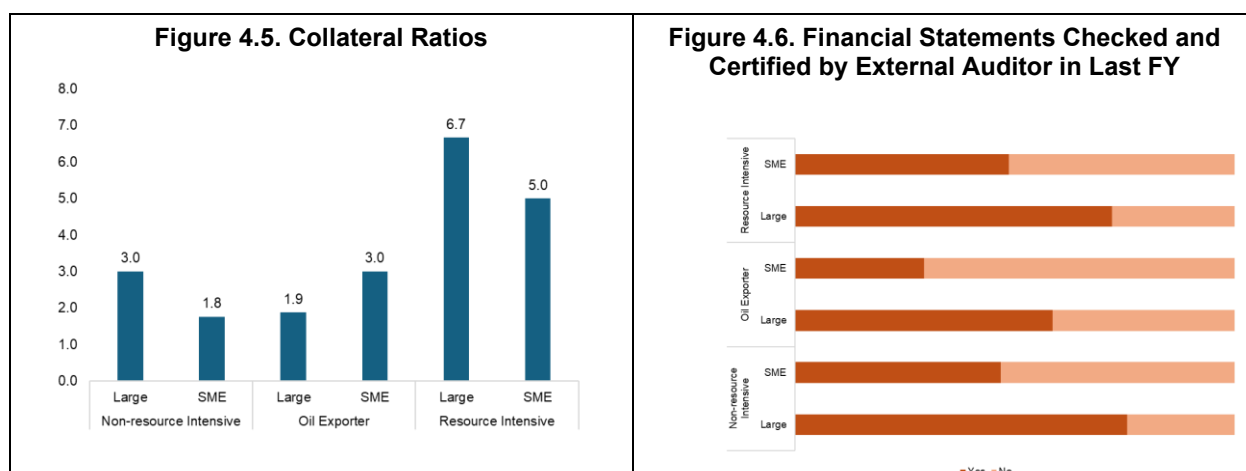
Corruption

Corruption—particularly in the form of bribes and informal gifts—is a hidden tax on firm activities and can disproportionately affects SMEs. These informal payments divert critical resources away from productive investment and undermine competitiveness, especially for firms already struggling to access credit and scale their operations. As seen in the panel charts below, the problem is especially acute in oil-exporting and resource-intensive economies in SSA, where rent-seeking behavior tends to be more entrenched.

Figure 5.1 shows that a consistently higher share of SMEs report being asked for informal payments during inspections compared to large firms. This points to a systemic vulnerability of smaller firms to petty corruption during routine regulatory interactions. SMEs, especially in oil-exporting economies, report paying up to 3.6 percent of their annual sales in informal payments as seen in Figure 5.2—double or more the burden faced by firms in non-resource-intensive economies. Large firms also face costs, but typically less than SMEs. Similar patterns are also observed when the firm intends to secure a contract (Figure 5.3), where corruption often becomes a barrier to entry, growth, and access to public procurement opportunities.

Figure 5.1. Gift/Informal Payment Requested in Any Inspections

Figure 5.2. Percent of Annual Sales Paid in Informal Payment (Average)
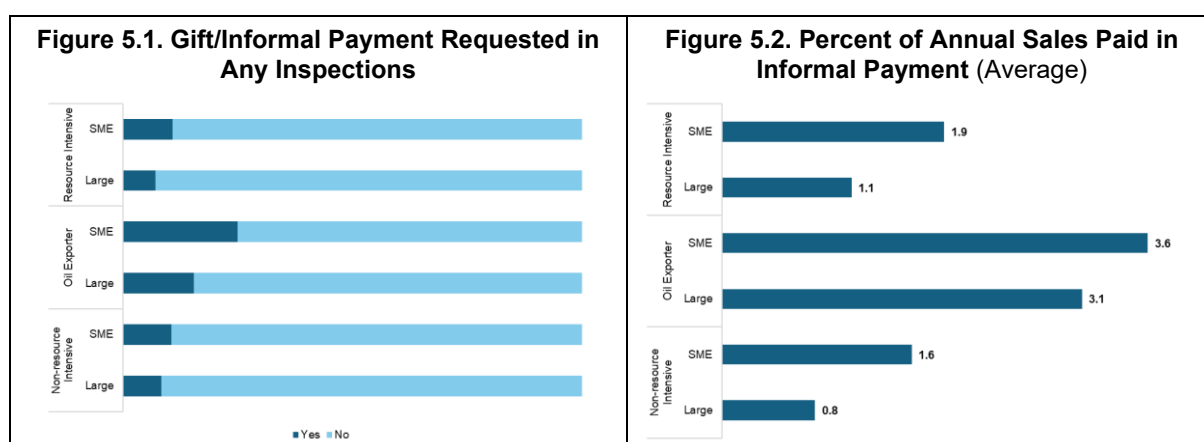
Figure 5.3. Percent of Value Establishment Pays in Informal Gifts to Government to Secure Contract

Category	Size	Value
Resource Intensive	SME	3.2
Resource Intensive	Large	2.1
Oil Exporter	SME	4.3
Oil Exporter	Large	5.0
Non-resource Intensive	SME	2.3
Non-resource Intensive	Large	1.4
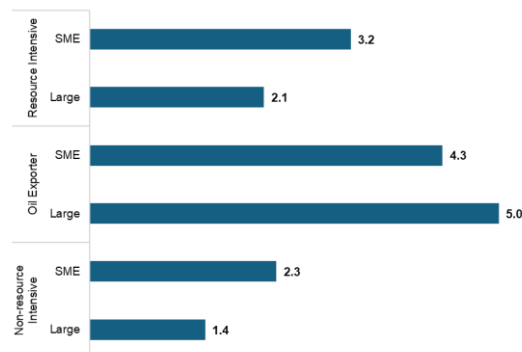
Informal Competition

The informal sector represents both a symptom and a driver of deeper structural weaknesses in the business environment. For formal firms—especially SMEs—competing with informal businesses means facing unfair competition from operators who evade taxes, bypass labor and safety regulations, and often undercut prices. This creates a distorted playing field, where compliance becomes a competitive disadvantage.

As seen in Figure 6.1, across all country types, a larger share of SMEs report being adversely affected by informal competition compared to large firms. Though, even among large firms, nearly half or more feel the impact of the informal sector, showing that this is not just a small-business problem. The pattern is consistent across all groups, suggesting this is a structural feature of many SSA economies. The heightened competition faced by SMEs may be attributed to the predominance of informal firms within the SME sector. Also, as shown in Figure 6.2, even among firms that are not majority state-owned, large private firms—particularly in oil-exporting countries—tend to have a higher incidence of government ownership. These enterprises may serve as vehicles for managing resource rents or exerting control over strategic production sectors. While this analysis does not extend to a formal assessment of state-owned enterprises, the findings suggest that public ownership in the private sector warrants further investigation given its potential implications for market competition and resource allocation.

Figure 6.1. Competition With Informal Firms

Legend: ■ Yes ■ No

	Large	SME
Non-resource Intensive		
Oil Exporter		
Resource Intensive		
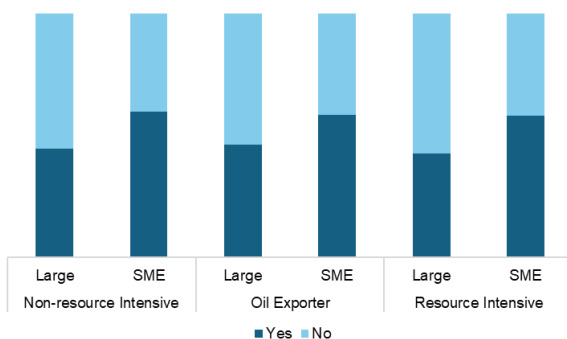
Figure 6.2. Percent Owned by Government
(Average)

Category	Large	SME
Non-resource Intensive	1.7	0.2
Oil Exporter	4.7	1.7
Resource Intensive	1.6	0.3
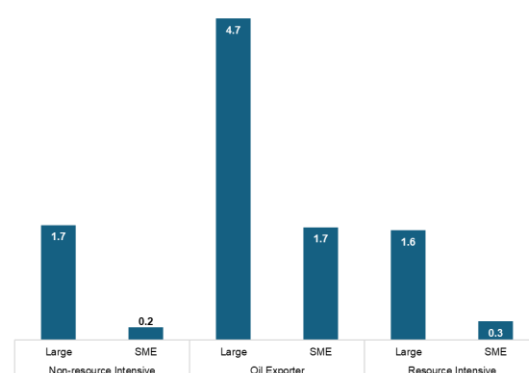
Weak Business Environment

A weak business environment here mostly captures the impact from restrictive and inconsistent policies, legislation, and regulations, which can include bureaucratic red tape, lengthy delays and complex procedures in obtaining necessary permits, and other administrative burdens. Such obstacles reduce competitiveness and constrain the private sector growth potential. In SSA, given the weak governance and lack of transparency in many countries, uncertainty regarding future policies also creates a risky environment that discourages long-term investment and cooperation.

As seen in Figures 7.1 and 7.2, a sizable share of firms' report having submitted applications for import and operating licenses in the past two years. However, SMEs face longer delays in processing times. These delays reflect inefficiencies in administrative processes and can be particularly costly for smaller firms with limited capacity to absorb disruptions. On the legal dispute processes, Figure 7.3 assesses perceptions of the judicial system's fairness and impartiality: across all country types, a larger share of SMEs distrusts the court system compared to large firms. This suggests that smaller firms feel more vulnerable in legal disputes, which can deter formalization, limit contract enforcement, and raise the perceived risk of investing or expanding operations. Lastly, on average, SMEs spend a higher share of management time dealing with regulations than large firms, particularly in oil-exporting countries (Figure 7.4). This administrative burden diverts resources away from core business operations like production, sales, or strategic planning, and disproportionately affects smaller firms with thinner staffing.

Regulatory and administrative burdens are a silent but powerful constraint on firm performance—especially for SMEs. These barriers raise operating costs, reduce competitiveness, and discourage formalization. The burden is particularly acute in oil-exporting and resource-intensive economies, where bureaucratic processes are slower and legal systems are less trusted.

Figure 7.1. Application Submitted for Import License (In Last 2 Years)

Figure 7.2. Application Submitted for Operating License (In Last 2 Years)

Figure 7.3. Court System is Fair, Impartial and Uncorrupted

Figure 7.4. Percent Time Spent by Management Dealing with Government Regulations
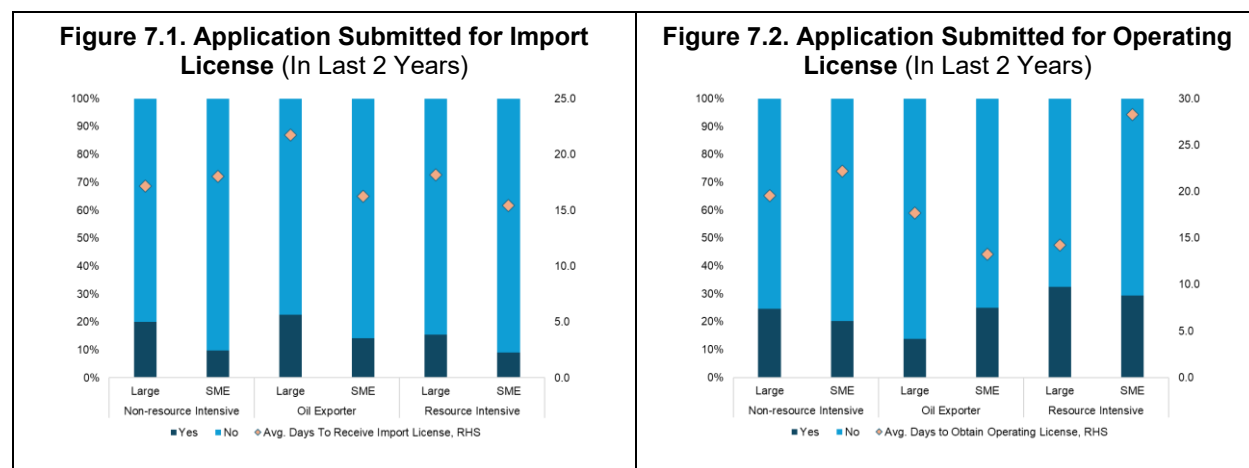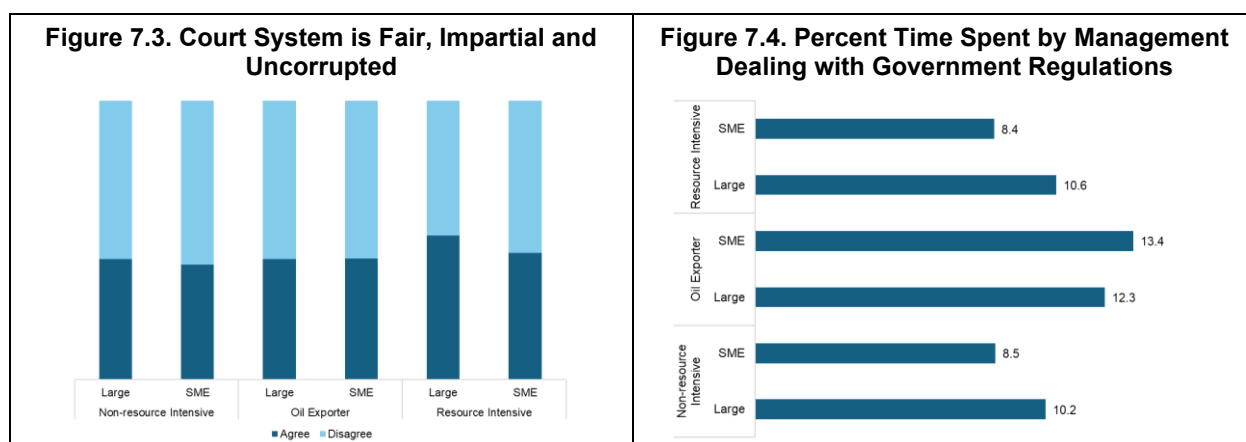
Inadequate Labor Education

Labor force limitations—particularly low education levels and lack of training opportunities—significantly hinder firm productivity and capacity to innovate. SMEs are usually disproportionately affected, facing constraints both in attracting skilled labor and in investing in workforce development.

As seen in Figure 8.1, SMEs consistently fall short of large firms in employees with completed high school education. In response, however, a significant share of firms—particularly SMEs—do not offer formal training to full-time employees (Figure 8.2). In all sectors, large firms are more likely to invest in training than SMEs, highlighting disparities in capacity to upskill workers and adapt to technological or market changes. The findings underscore the lack of targeted education and skills policies, including incentives for firms to provide training to better align education systems and labor market needs, and to close gender gaps. Addressing labor quality constraints is essential not only for firm growth but also for broader economic transformation across the region.

Figure 8.1. Completed High School Education in Last Fiscal Year (Percent of Full Time Employees, Average)

Figure 8.2. Formal Training Programs for Full-time Permanent Workers (Last Fiscal Year)
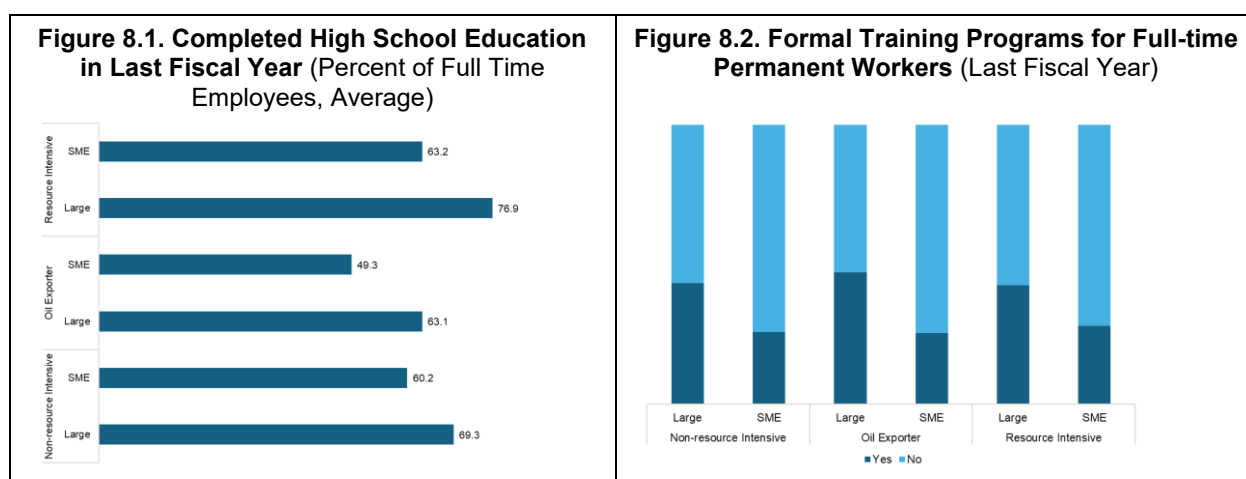
Inadequate Infrastructure

Inadequate infrastructure, both physical and digital, is a major bottleneck to firm performance. Infrastructural disadvantages could usually exacerbate inequalities—large firms can afford to insulate themselves from these disruptions given more resources available, while SMEs cannot. This could mean smaller firms are trapped in low-productivity equilibrium, reducing innovation and job creation across the broader economy.

As seen in Figure 9.1, frequent and prolonged power outages are a widespread issue across SSA: oil-exporting countries appear most affected, with SMEs experiencing up to 30 outages per month, leading to substantial sales losses. SMEs in oil-exporting countries lost over 15 percent of their annual sales due to outages—substantially higher than large firms or SMEs in other contexts (Figure 9.2). This highlights the acute vulnerability of smaller firms to infrastructure weaknesses, especially where backup systems (e.g., generators) are unaffordable.

On other hand, despite the widespread use of digital tools globally, a significant share of SMEs does not use email to communicate with clients or suppliers, particularly in non-resource and oil-exporting countries. The digital divide between large firms and SMEs remains evident and may reflect limited access to stable internet, digital skills, or formal business systems. A low percentage of firms—especially SMEs—have their own website, across all country types. This digital infrastructure gap limits online visibility, customer engagement, and participation in e-commerce or global value chains (Figure 9.3 and 9.4).

In sum, inadequate infrastructure is more than just an inconvenience—it is a structural constraint that undermines efficiency, growth, and formalization. For SMEs, it translates into a daily barrier to survival. Problems with power reliability, broadband access, and digital adoption could hinder private sector development, especially in fragile or resource-dependent economies.

Figure 9.1. Experienced Power Outage
(Last Fiscal Year)

Figure 9.2. Loss in Sales due to Power Outage
(Average, Percent Sales)

Figure 9.3. Communicate with Clients/Suppliers via Emails

Figure 9.4. Establishment has Own Website
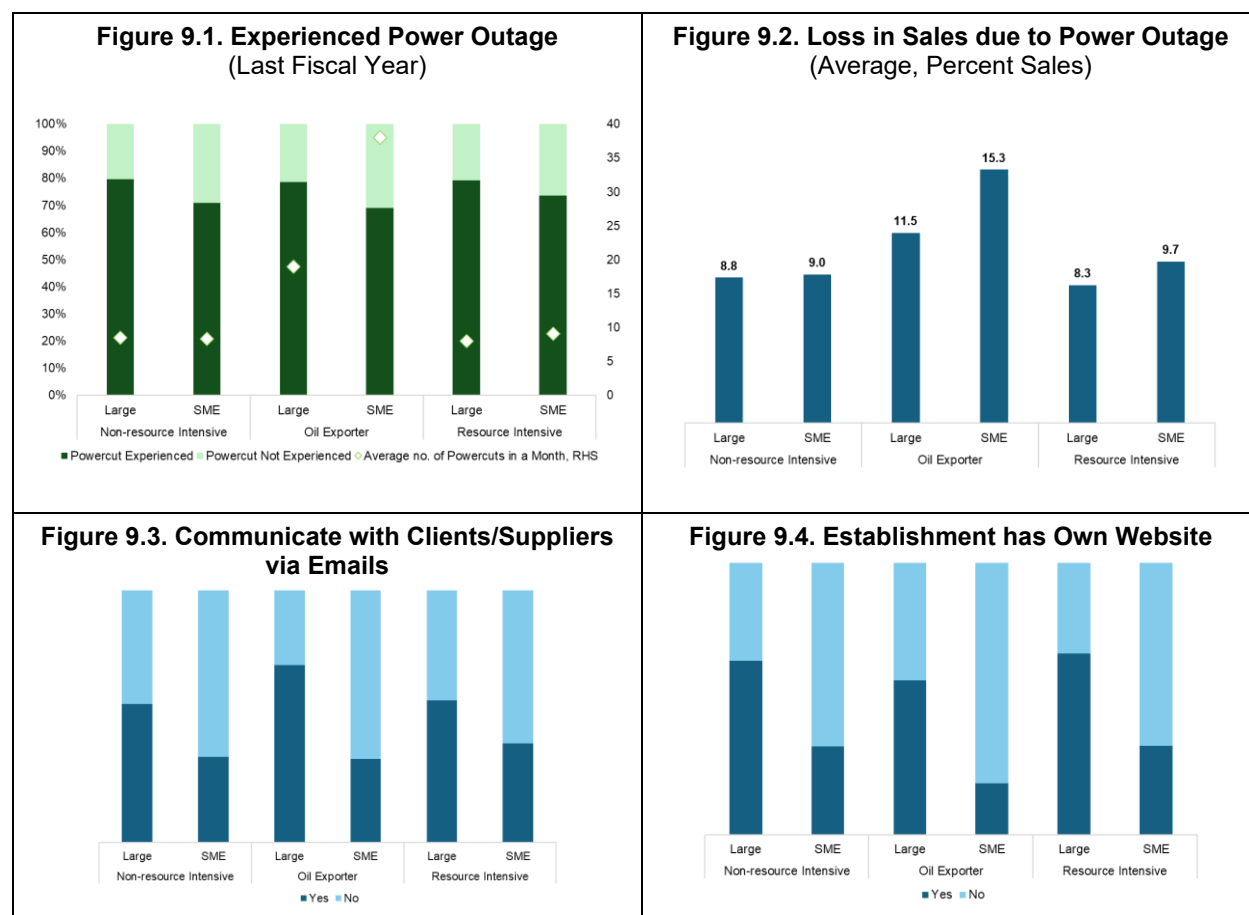
Lack of Security

Security risks can pose a direct and substantial threat to business viability. The need to self-fund private security, especially in fragile or under-policed areas, places an additional cost burden on businesses. As seen in Figure 10.1 and 10.2, a large share of firms across all sectors and sizes report paying for security services—more than half of both large firms and SMEs. Losses due to theft are particularly severe among SMEs, with firms in oil-exporting countries losing the most among all groups.

SMEs are especially vulnerable because they are less able to absorb losses or afford preventative measures, making them frequent targets of theft. The elevated theft-related losses in oil-exporting countries may reflect broader governance or enforcement weaknesses in these settings. Moreover, these risks deter investment, limit operating hours, and reduce incentives to formalize or expand. In extreme cases, persistent insecurity can push firms toward informality or even closure. Usually, these cases reflect improvements more than just policing—rather, weaknesses in law enforcement capacity, urban safety infrastructure, and fair legal recourse cause such insecurity. For the business environment to thrive, firms need not only markets and finance—but also the basic assurance that their property and operations are protected.

Figure 10.1. Establishment Paid for Security (Last Fiscal Year)

Figure 10.2. Experienced Loss in Sales due to Theft in Last Fiscal Year (Average Percent)
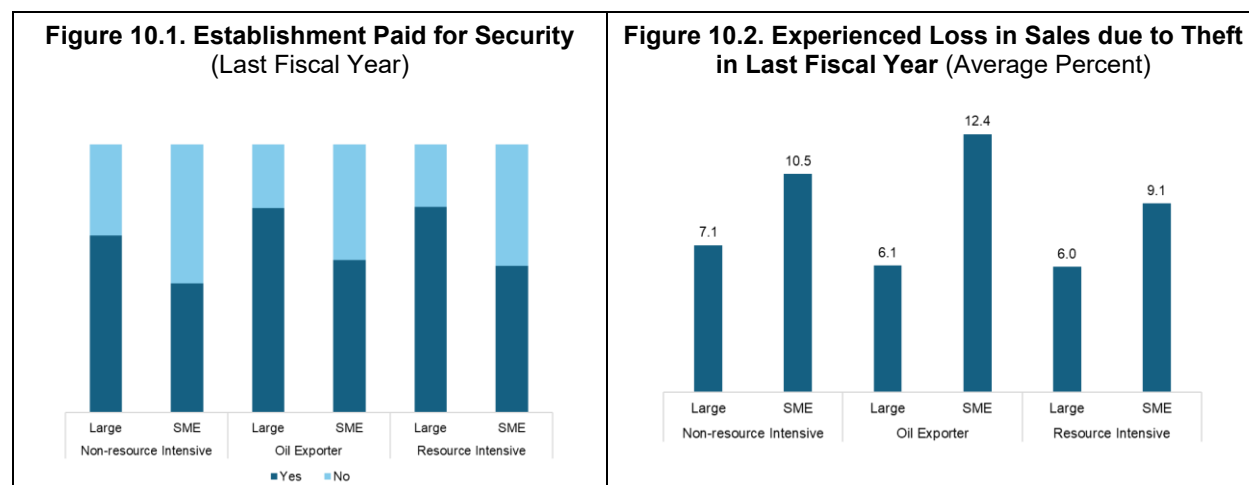
V. Concluding Remarks

This paper has examined the key bottlenecks to private sector development in SSA using firm-level data from the WBES across 40 countries. By employing both perception-based and proxy-based measures of business constraints, we provide a comprehensive analysis of how various obstacles affect firm performance.

Our findings reveal significant divergences between perception-based and proxy-based assessments of business constraints. While firms' perceptions show limited statistically significant associations with performance outcomes, our objective proxy measures identify financial constraints and corruption as the most severe impediments to firm growth in the region. Financial constraints negatively impact all measured outcomes, with particularly strong effects on sales growth, while corruption shows the largest negative magnitude on sales growth, nearly twice the impact of financial constraints. These findings underscore how these two constraints fundamentally undermine private sector development through reduced investment, distorted resource allocation, and diverted productive resources.

The impact of business constraints varies substantially across country groups, reflecting the heterogeneous economic structures within SSA. Resource-intensive countries face particularly severe challenges from informal competition, while non-resource-intensive countries show stronger negative relationships between infrastructure perceptions and firm performance, highlighting infrastructure gaps as especially binding in economies without significant resource revenues for public investment. Oil-exporting countries exhibit distinctive patterns, particularly regarding corruption and inadequate labor education, which appear positively associated with firm performance, suggesting that the unique institutional environments and economic structures in oil exporters may shape how firms interact with these obstacles. This may reflect how access to resource rents or state influence can offset some of the typical negative effects of these challenges.

Firm size is also an important determinant of the extent of business constraint effects. SMEs face disproportionate challenges compared to large firms, particularly regarding financial constraints and inadequate labor education. These findings highlight the vulnerability of smaller enterprises to structural and institutional obstacles, reinforcing the need for targeted policies that address the specific challenges facing SMEs, which constitute the majority of firms in SSA.

These empirical findings have several policy implications. First, our analysis suggests that addressing financial constraints and corruption would help foster private sector development in SSA. Enhancing financial inclusion could help alleviate the binding constraints of limited financial access. Particularly, by showing the micro-level frictions being symptomatic of deeper structural inefficiencies in financial intermediation in SSA, our analysis uncovers a broader macroeconomic paradox observed in many SSA countries: persistently high bank liquidity coexisting with limited credit to the real economy. Banks' reluctance to lend suggests that that reforms tackling SME access constraints could enhance the efficiency of financial intermediation, helping channel idle liquidity into productive investment. Similarly, our analysis finds a strong association between weaknesses in governance, transparency, and the scope of administrative discretion and reduced firm performance, suggesting that reforms tackling these issues could help support private sector development and growth. Second, given different country contexts, recognizing the distinct patterns observed across oil-exporting, resource-intensive, and non-resource-intensive economies is important. According to our analysis, in oil-exporting countries, addressing the institutional distortions arising from resource wealth may be particularly important, while in non-resource-intensive countries, infrastructure investments may yield greater marginal benefits for firm growth. Resource-intensive countries might benefit most from policies addressing informal competition and strengthening formal market structures. Addressing constraints due to informality could help ensure that informal firms do not gain unfair advantages by avoiding rules.

Third, our analysis suggests that SMEs are consistently more vulnerable to multiple constraints compared with larger firms. Thus, policy interventions aimed at addressing SMEs' tight financing conditions, heavy administrative burdens relative to capacity, and acute skills shortages could help support their ability to grow and innovate.

Fourth, the divergence between perception-based and proxy-based measures highlights the importance of distinguishing between subjective views of firms and objective indicators. Since firms' perceptions may not always accurately reflect the most binding obstacles to their performance, policies would need to combine both types of evidence when identifying and prioritizing constraints.

Several limitations of our study suggest directions for future research. The cross-sectional nature of the data limits our ability to establish causal relationships between constraints and firm outcomes. Longitudinal studies tracking firms over time could provide more robust evidence on how changes in business constraints affect firm performance trajectories. Additionally, exploring the interactions between different constraints could reveal

important complementarities and substitution effects that are not captured in our analysis of individual obstacle areas.

Despite these limitations, our study makes a significant contribution to understanding the bottlenecks to private sector development in SSA. By systematically analysing both subjective and objective measures of business constraints across a large sample of firms, we provide a nuanced picture of the challenges facing different types of enterprises in various country contexts. These insights can inform more targeted and effective policies to foster a dynamic private sector in the region, unlocking the potential for job creation, productivity growth, and sustainable economic development.

Appendix

Table A1: Enterprise Survey in the SSA region: Number of Firms Interviewed (n=41,334) and Levels of Stratification by Economy

Country	Stratification Level						
	Firm Size (no. employees)					Sector	Survey Year
	Total Firms	Small Firms	Medium Firms	Large Firms	Unidentified Size		
Angola	785	188	92	80	425	Other (785)	2006 (425), 2010 (360)
Burundi	157	77	29	12	39	Food (6), Retail and Textiles (3), Other (148)	2014 (128), 2015 (29)
Benin	647	73	46	31	497	Food (411), Retail and Textiles (236)	2004 (197), 2009 (150), 2010 (150), 2016 (150)
Burkina Faso	394	233	122	39	0	Retail and Textiles (32), Other (362)	2009 (394)
Botswana	890	352	195	83	260	Metal (133), Food (85), Motor vehicles (102), Other manufacturing (178), Retail and Textiles (124), Other (268)	2010 (268), 2023 (622)
Central African Republic	301	169	69	18	45	Metal (8), Food (77), Retail and Textiles (216)	2011 (150), 2023 (151)
Côte d'Ivoire	1536	921	399	216	0	Metal (274), Food (231), Motor vehicles (66), Other manufacturing (154), Retail and Textiles (342), Other (469)	2008 (467), 2009 (59), 2016 (293), 2017 (68), 2023 (649)
Cameroon	724	332	228	147	17	Metal (126), Food (120), Retail and Textiles (163), Other (315)	2009 (363), 2016 (361)
Cape Verde	156	72	62	22	0	Food (78), Retail and Textiles (78)	2009 (156)
Eritrea	358	210	130	18	0	Food (188), Retail and Textiles (170)	2009 (358)
Ethiopia	1852	456	494	407	495	Food (301), Retail and Textiles (343), Other (1208)	2006 (360), 2011 (395), 2012 (249), 2015 (788), 2016 (60)
Gabon	179	129	40	10	0	Retail and Textiles (12), Other (167)	2008 (179)
Ghana	2049	1170	415	118	346	Metal (123), Food (95), Motor vehicles (111), Other manufacturing (186), Retail and Textiles (255), Other (1279)	2007 (616), 2012 (23), 2013 (327), 2014 (370), 2023 (698), 2024 (15)
Guinea	150	93	48	9	0	Food (33), Retail and Textiles (117)	2016 (150)
Gambia	313	184	105	24	0	Food (164), Retail and Textiles (149)	2018 (151), 2023 (162)
Guinea-Bissau	50	0	0	0	50	Other (50)	2006 (50)
Kenya	2439	757	621	404	657	Construction (136), Metal (112), Food (160), Motor vehicles	2007 (657), 2013 (643), 2014 (138),

					(188), Other manufacturing (178), Retail and Textiles (227), Other (1438)	2018 (928), 2019 (73)
Liberia	301	221	56	24	0	Food (76), Retail and Textiles (127), Other (98)	2008 (150), 2017 (151)
Lesotho	451	241	129	81	0	Food (141), Retail and Textiles (169), Other (141)	2008 (151), 2016 (150), 2023 (150)
Madagascar	1600	703	444	232	221	Construction (239), Metal (106), Food (62), Motor vehicles (129), Other manufacturing (129), Retail and Textiles (248), Other (687)	2005 (221), 2008 (419), 2009 (26), 2011 (1), 2012 (3), 2013 (201), 2014 (326), 2022 (403)
Mali	1035	711	234	90	0	Metal (23), Food (23), Motor vehicles (64), Retail and Textiles (104), Other (821)	2007 (490), 2010 (360), 2016 (185)
Mozambique	1200	598	333	149	120	Construction (119), Metal (89), Motor vehicles (124), Other manufacturing (80), Retail and Textiles (280), Other (508)	2007 (599), 2018 (587), 2019 (14)
Mauritius	1576	810	474	199	93	Metal (175), Food (113), Motor vehicles (26), Other manufacturing (9), Retail and Textiles (181), Other (1072)	2005 (93), 2008 (343), 2009 (55), 2020 (732), 2023 (338), 2024 (15)
Malawi	833	170	192	188	283	Food (74), Retail and Textiles (76), Other (683)	2005 (160), 2009 (150), 2014 (304), 2015 (219)
Namibia	580	355	132	33	60	Metal (244), Food (161), Retail and Textiles (175)	2014 (437), 2015 (143)
Niger	426	186	101	14	125	Metal (46), Food (71), Motor vehicles (55), Retail and Textiles (129), Other (125)	2005 (125), 2009 (150), 2017 (151)
Nigeria	8411	1395	740	225	6051	Construction (149), Metal (174), Food (170), Motor vehicles (146), Other manufacturing (160), Retail and Textiles (381), Other (7231)	2005 (191), 2007 (2387), 2010 (3157), 2014 (2374), 2015 (302)
Rwanda	959	485	336	138	0	Metal (299), Food (323), Retail and Textiles (337)	2011 (229), 2012 (12), 2019 (248), 2020 (112), 2023 (291), 2024 (67)
Senegal	1107	697	209	86	115	Retail and Textiles (132), Other (975)	2007 (506), 2014 (459), 2015 (142)
Sierra Leone	511	352	116	43	0	Food (181), Retail and Textiles (198), Other (132)	2008 (150), 2017 (152), 2022 (91), 2023 (118)
South Sudan	738	643	85	10	0	Other (738)	2014 (738)

Eswatini	150	71	64	15	0	Food (75), Retail and Textiles (75)	2016 (150)
Seychelles	103	69	27	7	0	Food (21), Retail and Textiles (82)	2023 (103)
Chad	467	268	132	58	9	Food (232), Retail and Textiles (235)	2009 (150), 2018 (153), 2023 (164)
Togo	453	267	123	56	7	Food (171), Retail and Textiles (282)	2009 (155), 2016 (150), 2023 (148)
Tanzania	1413	835	351	175	52	Metal (118), Food (94), Motor vehicles (126), Other manufacturing (144), Retail and Textiles (118), Other (813)	2013 (704), 2014 (109), 2023 (600)
Uganda	762	460	238	64	0	Other (762)	2013 (640), 2014 (122)
South Africa	2154	796	730	508	120	Construction (121), Metal (46), Food (135), Motor vehicles (115), Other manufacturing (170), Retail and Textiles (458), Other (1109)	2007 (1057), 2020 (1079), 2021 (18)
Zambia	1924	942	608	255	119	Construction (80), Metal (123), Food (83), Motor vehicles (34), Other manufacturing (160), Retail and Textiles (188), Other (1256)	2007 (603), 2012 (41), 2013 (591), 2014 (88), 2019 (130), 2020 (471)
Zimbabwe	1200	402	400	398	0	Other (1200)	2011 (1200)

Source: World Bank Enterprise Surveys.

Note: The Enterprise Survey sample designs are based on stratified random sampling. More information can be found in http://www.enterprisesurveys.org/methodology.

Table A2a: Regression Results: Perceptions

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.00846***	-0.0198***	0.0112	-0.00466***	-0.0115
	(0.00215)	(0.00556)	(0.0127)	(0.00173)	(0.0153)
Inadequate Infrastructure	0.00390	0.0102	-0.0429***	-0.000481	-0.0242
	(0.00248)	(0.00742)	(0.0156)	(0.00167)	(0.0183)
Weak Business Environment	-0.00165	0.0186**	0.0179	-0.00178	0.0234
	(0.00268)	(0.00905)	(0.0168)	(0.00199)	(0.0196)
Informal Competition	-0.0130***	-0.00614	-0.00529	-0.00195	-0.00580
	(0.00201)	(0.00500)	(0.0118)	(0.00160)	(0.0140)
Inadequate Labor Education	0.0102***	0.00337	0.0484***	0.00514***	0.0531***
	(0.00185)	(0.00459)	(0.0113)	(0.00157)	(0.0133)
Corruption	-0.00260	0.0207***	0.0163	0.000406	0.0193
	(0.00209)	(0.00550)	(0.0125)	(0.00169)	(0.0147)
Lack of Security	0.00363	-0.000538	0.0145	0.00213	-0.0152
	(0.00229)	(0.00624)	(0.0140)	(0.00201)	(0.0165)
Constant	0.0675	0.427***	0.229	-0.330**	-4.039***
	(0.0739)	(0.103)	(0.487)	(0.157)	(0.495)
Observations	41,334	41,334	41,334	41,334	41,334
R-squared	0.450	0.301	0.164	0.565	0.252

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

Table A2b: Regression Results: Perceptions – Oil-Exporting Countries in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.0182**	-0.0193***	0.0223	0	-0.0593
	(0.00709)	(0.00591)	(0.0364)	(0)	(0.0496)
Inadequate Infrastructure	0.000730	0.00705	-0.0902	0	0.0742
	(0.0109)	(0.00715)	(0.0623)	(0)	(0.0767)
Weak Business Environment	-0.0306***	0.0115*	0.0448	0	0.162**
	(0.0111)	(0.00671)	(0.0558)	(0)	(0.0748)
Informal Competition	-0.0151**	0.00907*	0.111***	0	-0.0315
	(0.00690)	(0.00540)	(0.0356)	(0)	(0.0468)
Inadequate Labor Education	0.0430***	0.00765	-0.0208	0	0.0287
	(0.00576)	(0.00471)	(0.0322)	(0)	(0.0397)
Corruption	-0.0202***	0.0154***	0.0644	0	-0.0698
	(0.00714)	(0.00578)	(0.0397)	(0)	(0.0491)
Lack of Security	0.00532	-0.00584	0.0174	0	-0.0858
	(0.00835)	(0.00662)	(0.0462)	(0)	(0.0615)
Constant	0.297***	0.0316	1.462***	0	4.344***
	(0.0294)	(0.0222)	(0.151)	(0)	(0.226)
Observations	11,304	11,304	11,304	11,304	11,304
R-squared	0.396	0.181	0.261		0.338

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

Table A2c: Regression Results: Perceptions – Resource-Intensive Countries in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.0001	-0.0181	-0.0196	-0.00771*	-0.0235
	(0.00351)	(0.0122)	(0.0217)	(0.00395)	(0.0252)
Inadequate Infrastructure	0.00394	0.0260*	-0.0351	0.00131	-0.00390
	(0.00374)	(0.0145)	(0.0237)	(0.00339)	(0.0278)
Weak Business Environment	-0.00487	-0.00184	-0.000516	-0.00459	-0.00268
	(0.00415)	(0.0171)	(0.0261)	(0.00419)	(0.0292)
Informal Competition	-0.00329	-0.00775	0.0167	-0.000590	0.0142
	(0.00308)	(0.00977)	(0.0183)	(0.00318)	(0.0214)
Inadequate Labor Education	0.00422	-0.00509	0.0871***	0.00692**	0.0892***
	(0.00297)	(0.00913)	(0.0181)	(0.00286)	(0.0214)
Corruption	-0.00225	0.00420	-0.0239	0.000111	0.0260
	(0.00324)	(0.0107)	(0.0196)	(0.00356)	(0.0226)
Lack of Security	0.00441	0.000785	0.0408*	0.00629	-0.0291
	(0.00351)	(0.0115)	(0.0215)	(0.00424)	(0.0247)
Constant	1.228***	-0.175***	-0.589**	-0.000914	0.167
	(0.0472)	(0.0546)	(0.229)	(0.00634)	(0.264)
Observations	13,328	13,328	13,328	13,328	13,328
R-squared	0.158	0.286	0.086	0.541	0.192

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

Table A2d: Regression Results: Perceptions – Non-Resource-Intensive Countries in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.0111***	-0.0214***	0.0357**	-0.00362*	0.0164
	(0.00288)	(0.00705)	(0.0176)	(0.00213)	(0.0206)
Inadequate Infrastructure	0.00637*	2.33e-05	-0.0311	-0.00183	-0.0489*
	(0.00338)	(0.00881)	(0.0224)	(0.00195)	(0.0259)
Weak Business Environment	0.00761**	0.0426***	0.0330	0.000185	-0.00334
	(0.00349)	(0.0116)	(0.0244)	(0.00188)	(0.0289)
Informal Competition	-0.0218***	-0.00827	-0.0513***	-0.00407*	-0.0163
	(0.00285)	(0.00658)	(0.0174)	(0.00217)	(0.0202)
Inadequate Labor Education	0.00561**	0.00628	0.0296*	0.00550**	0.0285
	(0.00257)	(0.00629)	(0.0164)	(0.00248)	(0.0189)
Corruption	0.00190	0.0372***	0.0270	0.000984	0.0282
	(0.00295)	(0.00712)	(0.0183)	(0.00191)	(0.0212)
Lack of Security	0.00263	0.00195	-0.0118	-0.00135	0.00664
	(0.00317)	(0.00857)	(0.0203)	(0.00199)	(0.0237)
Constant	1.233***	0.350	1.226**	0.00468	1.708*
	(0.129)	(0.213)	(0.609)	(0.00784)	(0.885)
Observations	15,869	15,869	15,869	15,869	15,869
R-squared	0.414	0.325	0.120	0.584	0.155

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

Table A2e: Regression Results: Perceptions – Large Firms in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	0.00322	-0.0256*	0.00360	-0.000201	-0.0611
	(0.00631)	(0.0132)	(0.0316)	(0.000298)	(0.0397)
Inadequate Infrastructure	-0.00623	0.0325	-0.0573	-0.000164*	0.0533
	(0.00805)	(0.0203)	(0.0402)	(9.74e-05)	(0.0469)
Weak Business Environment	0.00189	0.0674**	0.0387	-0.000269*	0.0720
	(0.00833)	(0.0266)	(0.0436)	(0.000158)	(0.0513)
Informal Competition	-0.00814	-0.0236**	-0.00223	0.000201	-0.00754
	(0.00568)	(0.0120)	(0.0286)	(0.000234)	(0.0358)
Inadequate Labor Education	0.00267	0.0410***	0.0259	0.000260	0.0194
	(0.00582)	(0.0125)	(0.0296)	(0.000251)	(0.0371)
Corruption	-0.00656	0.000611	0.0598*	-0.000400	0.127***
	(0.00656)	(0.0152)	(0.0324)	(0.000391)	(0.0393)
Lack of Security	0.00996	-0.00692	-0.0380	0.00112*	-0.0655
	(0.00729)	(0.0174)	(0.0373)	(0.000577)	(0.0458)
Constant	-0.0378	1.525***	3.793***	-0.00161	6.290***
	(0.185)	(0.221)	(1.010)	(0.00199)	(1.106)
Observations	4,686	4,686	4,686	4,686	4,686
R-squared	0.140	0.249	0.113	0.955	0.191
Robust standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					

Table A2f: Regression Results: Perceptions – Small and Medium Firms in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee	(5) Sales Growth
Financial Constraints	-0.0109***	-0.0187***	0.0121	-0.00345**	0.00410
	(0.00241)	(0.00638)	(0.0145)	(0.00176)	(0.0172)
Inadequate Infrastructure	0.00639**	0.00119	-0.0441**	8.35e-05	-0.0367*
	(0.00270)	(0.00837)	(0.0176)	(0.00173)	(0.0204)
Weak Business Environment	-0.00121	0.00920	0.0274	-0.00285	0.0285
	(0.00308)	(0.0104)	(0.0195)	(0.00233)	(0.0226)
Informal Competition	-0.0140***	-0.00475	-0.0103	-0.000410	0.00960
	(0.00225)	(0.00579)	(0.0135)	(0.00166)	(0.0157)
Inadequate Labor Education	0.0124***	0.00387	0.0462***	0.00342**	0.0342**
	(0.00209)	(0.00523)	(0.0128)	(0.00140)	(0.0150)
Corruption	-0.00279	0.0263***	0.0127	-7.72e-05	0.00799
	(0.00232)	(0.00617)	(0.0141)	(0.00182)	(0.0163)
Lack of Security	0.00266	0.00542	0.0213	0.00326	-0.0143
	(0.00256)	(0.00705)	(0.0158)	(0.00227)	(0.0184)
Constant	0.149**	0.464***	2.770***	0.00538	4.219***
	(0.0761)	(0.0974)	(0.428)	(0.00699)	(0.460)
Observations	26,442	26,442	26,442	26,442	26,442
R-squared	0.136	0.349	0.075	0.541	0.169
Robust standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					

Table A3a: Regression Results: Proxy

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.00921***	-0.0566***	-0.121***	-0.0114***	-0.156***
	(0.00254)	(0.0124)	(0.0165)	(0.00316)	(0.0182)
Inadequate Infrastructure	0.00516**	0.00427	0.0322**	0.000683	0.0785***
	(0.00229)	(0.00503)	(0.0128)	(0.00223)	(0.0161)
Weak Business Environment	-0.00645***	-0.0786***	-0.0150	-0.00279	-0.0309**
	(0.00218)	(0.00477)	(0.0126)	(0.00182)	(0.0154)
Informal Competition	-0.00283	0.0306***	-0.0598***	-0.000330	-0.0807***
	(0.00258)	(0.00476)	(0.0123)	(0.00191)	(0.0153)
Inadequate Labor Education	0.00664***	-0.1000***	-0.101***	-0.00499***	-0.0817***
	(0.00257)	(0.00430)	(0.0130)	(0.00121)	(0.0161)
Corruption	-0.0154***	0.102***	-0.190***	-0.0126	-0.308***
	(0.00381)	(0.0320)	(0.0375)	(0.00818)	(0.0395)
Lack of Security	0.00581***	0.00579	0.0307***	0.000640	0.0215
	(0.00197)	(0.00393)	(0.0108)	(0.00109)	(0.0132)
Constant	0.0610	0.268***	0.0844	-0.340**	-4.313***
	(0.0741)	(0.0995)	(0.487)	(0.158)	(0.494)
Observations	41,334	41,334	41,334	41,334	41,334
R-squared	0.450	0.324	0.169	0.565	0.257

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

Table A3b: Regression Results: Proxy – Oil-Exporting Countries in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.0807***	-0.0495***	-0.0613	0	-0.346***
	(0.0150)	(0.0139)	(0.0725)	(0)	(0.103)
Inadequate Infrastructure	-0.0121*	0.00951*	-0.0751**	0	0.0806*
	(0.00631)	(0.00502)	(0.0324)	(0)	(0.0476)
Weak Business Environment	-0.000495	-0.0291***	0.00505	0	-0.00672
	(0.00614)	(0.00500)	(0.0318)	(0)	(0.0432)
Informal Competition	-0.0235***	0.00279	-0.0513**	0	-0.0272
	(0.00659)	(0.00402)	(0.0251)	(0)	(0.0345)
Inadequate Labor Education	0.0606***	-0.0928***	-0.124***	0	0.109**
	(0.00755)	(0.00767)	(0.0387)	(0)	(0.0510)
Corruption	0.144***	-0.0209	0.458	0	1.149***
	(0.0542)	(0.0435)	(0.281)	(0)	(0.389)
Lack of Security	0.00982**	0.00120	0.0171	0	-0.00627
	(0.00498)	(0.00352)	(0.0261)	(0)	(0.0327)
Constant	0.284***	0.0160	1.486***	0	4.030***
	(0.0317)	(0.0253)	(0.165)	(0)	(0.253)
Observations	11,304	11,304	11,304	11,304	11,304
R-squared	0.399	0.241	0.261		0.341

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

Table A3c: Regression Results: Proxy – Resource-Intensive Countries in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.00257	-0.0448**	-0.110***	-0.0169***	-0.107***
	(0.00332)	(0.0190)	(0.0216)	(0.00487)	(0.0228)
Inadequate Infrastructure	0.0112***	0.00547	0.0445**	-0.00406	0.130***
	(0.00373)	(0.0107)	(0.0211)	(0.00307)	(0.0252)
Weak Business Environment	-0.0107***	-0.0956***	0.0264	-0.00384	-0.0178
	(0.00345)	(0.00910)	(0.0206)	(0.00309)	(0.0248)
Informal Competition	0.000346	0.0495***	-0.106***	0.00201	-0.197***
	(0.00397)	(0.0104)	(0.0208)	(0.00280)	(0.0255)
Inadequate Labor Education	0.00314	-0.113***	-0.0763***	-0.00448***	-0.0752***
	(0.00389)	(0.00862)	(0.0209)	(0.00148)	(0.0257)
Corruption	-0.0257***	-0.00165	-0.217***	-0.0187	-0.349***
	(0.00543)	(0.0410)	(0.0467)	(0.0122)	(0.0498)
Lack of Security	0.000687	0.0139*	0.0568***	0.00212	0.0231
	(0.00297)	(0.00789)	(0.0174)	(0.00215)	(0.0201)
Constant	1.255***	-0.0222	-0.258	0.00992	0.785***
	(0.0473)	(0.0515)	(0.232)	(0.00702)	(0.264)
Observations	13,328	13,328	13,328	13,328	13,328
R-squared	0.159	0.303	0.092	0.542	0.201

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

Table A3d: Regression Results: Proxy – Non-Resource-Intensive Countries in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.00367	-0.0806***	-0.132***	-0.00458	-0.189***
	(0.00402)	(0.0172)	(0.0279)	(0.00388)	(0.0308)
Inadequate Infrastructure	0.00592*	0.000767	0.0661***	0.00499	0.0372
	(0.00324)	(0.00676)	(0.0193)	(0.00441)	(0.0230)
Weak Business Environment	-0.00557*	-0.0831***	-0.0484**	-0.00297	-0.0597***
	(0.00320)	(0.00719)	(0.0190)	(0.00328)	(0.0223)
Informal Competition	0.00926**	0.0291***	-0.0169	-0.00226	-0.00128
	(0.00362)	(0.00743)	(0.0198)	(0.00398)	(0.0234)
Inadequate Labor Education	-0.0117***	-0.0892***	-0.110***	-0.00860***	-0.123***
	(0.00389)	(0.00564)	(0.0187)	(0.00240)	(0.0228)
Corruption	-0.0126***	0.318***	-0.200***	0.00182	-0.334***
	(0.00438)	(0.0495)	(0.0690)	(0.00623)	(0.0667)
Lack of Security	0.00475	0.00397	0.00891	-0.000176	0.0326
	(0.00305)	(0.00643)	(0.0167)	(0.00192)	(0.0211)
Constant	1.239***	0.0614	1.215**	-0.00216	1.806**
	(0.127)	(0.203)	(0.602)	(0.00903)	(0.879)
Observations	15,869	15,869	15,869	15,869	15,869
R-squared	0.413	0.360	0.126	0.584	0.163

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

Table A3e: Regression Results: Proxy – Large Firms in SSA

| VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.00602	-0.0628**	-0.0876**	0.000868	-0.155***
	(0.00657)	(0.0277)	(0.0372)	(0.000893)	(0.0415)
Inadequate Infrastructure	0.00805	0.0498***	0.0984***	0.000159	0.177***
	(0.00595)	(0.0119)	(0.0316)	(0.000175)	(0.0401)
Weak Business Environment	0.000738	-0.0890***	-0.0503	5.46e-06	-0.0434
	(0.00584)	(0.0121)	(0.0308)	(7.94e-05)	(0.0392)
Informal Competition	-0.00709	0.0142	-0.0519*	-0.000261	0.0593*
	(0.00666)	(0.0117)	(0.0277)	(0.000200)	(0.0360)
Inadequate Labor Education	0.00926*	-0.0981***	-0.0251	-0.000112	-0.0327
	(0.00520)	(0.00875)	(0.0266)	(8.44e-05)	(0.0339)
Corruption	-0.0181	0.0367	-0.183*	-7.94e-05	-0.227**
	(0.0127)	(0.0929)	(0.102)	(0.000305)	(0.0974)
Lack of Security	0.0126*	0.0110	0.0249	0.000188*	0.0268
	(0.00659)	(0.0115)	(0.0301)	(9.89e-05)	(0.0377)
Constant	-0.0877	1.387***	3.240***	-0.00162	5.579***
	(0.185)	(0.316)	(1.012)	(0.00136)	(1.083)
Observations	4,686	4,686	4,686	4,686	4,686
R-squared	0.142	0.291	0.120	0.955	0.199
Robust standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					

Table A3f: Regression Results: Proxy – Small and Medium Firms in SSA

VARIABLES	(1) Exporter	(2) Importer	(3) Employee Growth	(4) Total Employee Growth	(5) Sales Growth
Financial Constraints	-0.00909***	-0.0663***	-0.108***	-0.0130***	-0.121***
	(0.00292)	(0.0152)	(0.0194)	(0.00384)	(0.0209)
Inadequate Infrastructure	0.00616**	-0.000503	0.0199	-0.00226	0.0423**
	(0.00264)	(0.00600)	(0.0150)	(0.00156)	(0.0190)
Weak Business Environment	-0.00707***	-0.0726***	-0.00530	-0.00168	-0.0381**
	(0.00249)	(0.00559)	(0.0147)	(0.00157)	(0.0179)
Informal Competition	0.00698**	0.00966*	-0.0269*	0.00103	-0.0441**
	(0.00290)	(0.00583)	(0.0155)	(0.00147)	(0.0189)
Inadequate Labor Education	0.00615*	-0.104***	-0.139***	-0.00250***	-0.126***
	(0.00359)	(0.00505)	(0.0178)	(0.000896)	(0.0217)
Corruption	-0.0154***	0.0866**	-0.195***	-0.0169	-0.283***
	(0.00443)	(0.0397)	(0.0444)	(0.0110)	(0.0470)
Lack of Security	0.00514**	0.00510	0.0271**	0.00101	0.0227
	(0.00211)	(0.00430)	(0.0120)	(0.000995)	(0.0146)
Constant	0.125	0.892***	2.491***	-0.0127	3.641***
	(0.0773)	(0.155)	(0.451)	(0.0345)	(0.487)
Observations	26,442	26,442	26,442	26,442	26,442
R-squared	0.135	0.364	0.079	0.542	0.173
Robust standard errors in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					

Table A4: PCA Eigenvalues for the Constraints

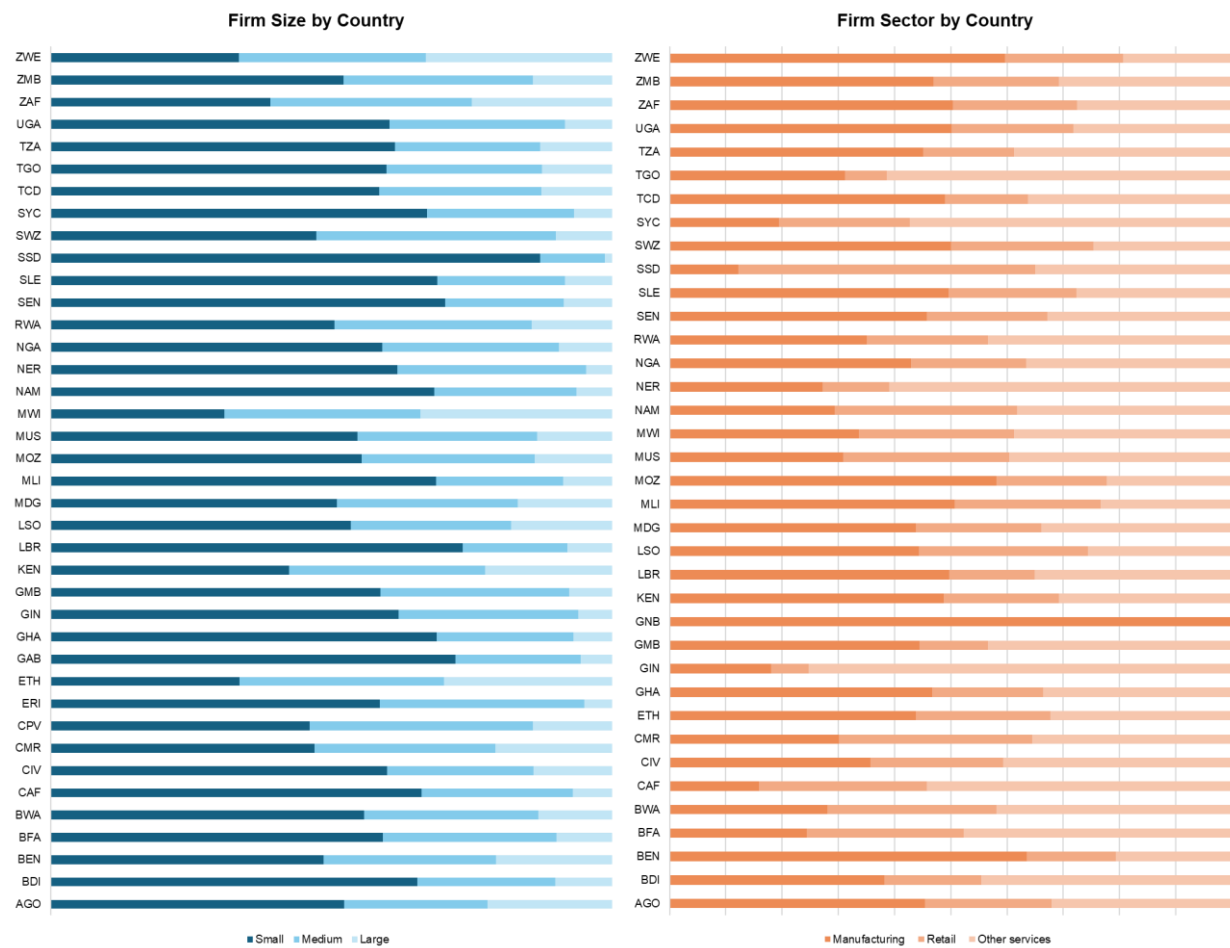| Component	Infrastructure	Business	Finance	Labor	Competition	Corruption	Security
PC1	3.27	2.73	6.60	2.54	1.02	2.83	1.51
PC2	2.06	2.06	4.51	1.55	0.98	0.11	1.00
PC3	1.97	1.75	2.15	1.00		0.06	0.92
PC4	1.84	1.62	1.78	0.85			0.57
PC5	1.32	1.37	1.62	0.75			
PC6	1.25	1.29	1.37	0.21			
PC7	1.05	1.16	1.22	0.10			
PC8	0.96	1.05	1.10				
PC9	0.91	0.98	1.01				
PC10	0.81	0.92	1.00				
PC11	0.76	0.82	0.94				
PC12	0.70	0.81	0.88				
PC13	0.64	0.72	0.86				
PC14	0.53	0.51	0.84				
PC15	0.46	0.45					
PC16	0.36	0.44					
PC17	0.34	0.39					
PC18	0.32	0.37					
PC19	0.26	0.31					
PC20	0.22	0.26					

Chart A1: PCA Scree Plots for the Constraints
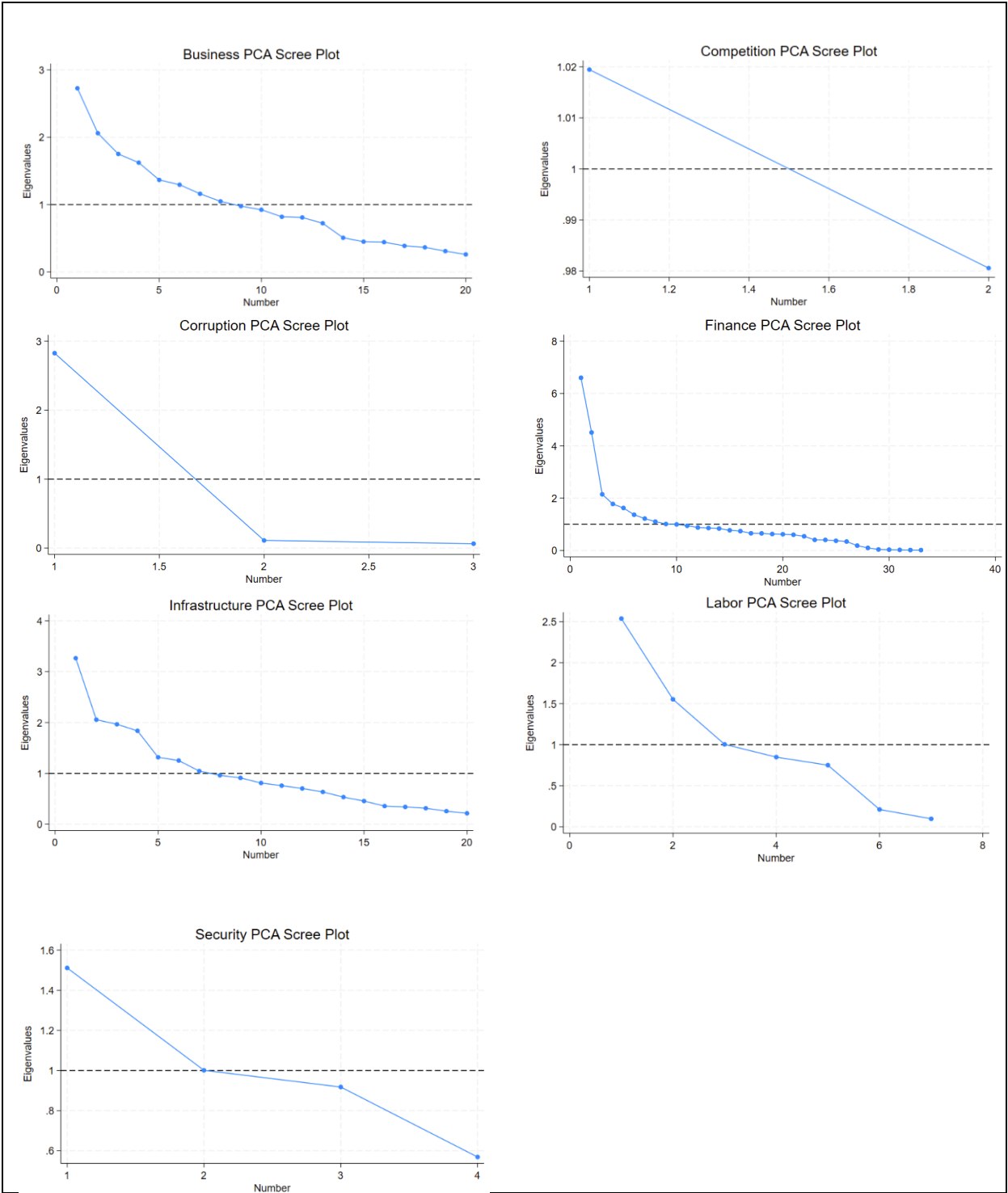
Table A5: Classification of SSA Countries by Resource Group and Income Group

Country	Resource Group	Income Group
Angola	Oil Exporter	Lower-middle Income
Burundi	Non-resource Intensive	Low Income
Benin	Non-resource Intensive	Lower-middle Income
Burkina Faso	Resource Intensive	Low Income
Botswana	Resource Intensive	Upper-middle Income
Central African Republic	Resource Intensive	Low Income
Côte d'Ivoire	Non-resource Intensive	Lower-middle Income
Cameroon	Oil Exporter	Lower-middle Income
Cabo Verde	Non-resource Intensive	Lower-middle Income
Eritrea	Non-resource Intensive	Low Income
Ethiopia	Non-resource Intensive	Low Income
Gabon	Oil Exporter	Upper-middle Income
Ghana	Resource Intensive	Lower-middle Income
Guinea	Resource Intensive	Lower-middle Income
Gambia, The	Non-resource Intensive	Low Income
Guinea-Bissau	Non-resource Intensive	Low Income
Kenya	Non-resource Intensive	Lower-middle Income
Liberia	Resource Intensive	Low Income
Lesotho	Non-resource Intensive	Lower-middle Income
Madagascar	Non-resource Intensive	Low Income
Mali	Resource Intensive	Low Income
Mozambique	Non-resource Intensive	Low Income
Mauritius	Non-resource Intensive	Upper-middle Income
Malawi	Non-resource Intensive	Low Income
Namibia	Resource Intensive	Upper-middle Income
Niger	Resource Intensive	Low Income
Nigeria	Oil Exporter	Lower-middle Income
Rwanda	Non-resource Intensive	Low Income
Senegal	Non-resource Intensive	Lower-middle Income
Sierra Leone	Resource Intensive	Low Income
South Sudan	Oil Exporter	Low Income
Eswatini	Non-resource Intensive	Lower-middle Income
Seychelles	Non-resource Intensive	High Income
Chad	Oil Exporter	Low Income
Togo	Non-resource Intensive	Low Income
Tanzania	Resource Intensive	Lower-middle Income
Uganda	Non-resource Intensive	Low Income
South Africa	Resource Intensive	Upper-middle Income
Zambia	Resource Intensive	Lower-middle Income
Zimbabwe	Resource Intensive	Lower-middle Income

Chart A2: Sample of SSA Countries by Firm Size and Firm Sector

Firm Size by Country

Firm Sector by Country

Small Medium Large

Manufacturing Retail Other services

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