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Monitoring the effects of Ethiopia's Homegrown Economic Reforms:

Evidence from an Urban High-Frequency Survey (UHFS)

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EXECUTIVE SUMMARY

Ethiopia has registered rapid and sustained growth over the past two decades but economic growth over the last decade translated into strong household consumption growth, especially in urban areas. To sustain the growth of the past decade, Ethiopia must overcome emerging challenges and create new opportunities. To overcome some of the macroeconomic and sectoral challenges that constrain sustained growth—including macroeconomic imbalances in the form of exchange rate overvaluation and high inflation, shortage of foreign currency, structural bottlenecks related to public infrastructure, constraints in the business climate and competitiveness, and labor market challenges—Ethiopia has embarked on an agenda to implement "Homegrown Economic Reforms (HGER)". The reforms seek to rebalance the economy from a state-driven to a more private sector-driven model. Despite recent economic challenges, the government continues its ambitious agenda of reforms and recently announced a continuation of the HGERs, as HGER 2.0.

This report provides evidence of the awareness and effectiveness of the reform package based on data collected through an Urban High-Frequency Survey (UHFS). The report assesses the awareness and level of support of the broader HGER agenda and specific structural or sectoral reforms. It provides evidence on the perceptions of households about current and future conditions of the country and analyzes changes in the quality of service delivery related to the energy sector, telecommunications sector, and the business investment climate. The UHFS reaches urban households for two main reasons. First, the set of economic reforms introduced in Ethiopia over the last few years, though trickling down to all of Ethiopia, are likely to be felt more directly in urban areas. Second, urban areas are more likely to have phone connectivity, which is a prerequisite for the high-frequency aspect of the UHFS as it relies on reaching people over the phone. The results of the UHFS, therefore, aim at contextualizing the effects, both positive and negative, of reforms on the lives of urban households. The survey sampled 3,000 households in urban areas, representative of Addis Ababa, major, medium, and small cities.

Overall, there is very low awareness and knowledge about the HGERs. Only 20 percent of urban residents are aware of the Government's HGER agenda, with a higher share in small and medium towns than in Addis Ababa. In Addis Ababa, only 10 percent of residents are aware of the HGER. Of those who are aware, 43 percent are knowledgeable about the contents and purpose of the HGER agenda. About 60 percent of those who are aware of the reform agenda also show support.

Yet, of those who are aware, 85 percent perceive that the HGER will improve Ethiopia's economic situation. Households with better awareness about the HGERs are headed by men, have educated members, are asset wealthy, and have members in a leadership position or membership in government organizations.

The UHFS focused specifically on three sets of reforms, implemented under the HGER: (i) energy tariff reform; (ii) Telecom sector reform; and (iii) Business investment reform.

Energy tariff reform

Electricity demand has grown continuously in Ethiopia for the past 20 years. Future energy demand is projected to increase dramatically because of rapid growth in population and urbanization. However, the power sector is still characterized by low access and low-quality services. UHFS findings show that less than half of urban households perceive that the electricity supply is good for frequent power interruptions for those households connected to the grid. Expanding electricity access and securing reliable energy services are thus fundamental to ensure that Ethiopia meets its growth and poverty reduction goals but low access rates and lack of quality of service are directly and indirectly related to financial challenges in the Ethiopian power sector. To address these challenges, the Government of Ethiopia (GoE) has made major investments in the power sector under the National Electrification Program (NEP II) and the Power Sector Reform bill. This includes, among other things, the implementation of a sustainable financing model aiming at restoring cost recovery through tariff adjustments.

Urban Ethiopians show relatively low awareness about the electricity tariff reform but support to the reforms, and its perceived impacts are relatively high. Roughly 44 percent of households support the electricity tariff adjustment by GoE. Moreover, about half of the households (61 percent in Addis Ababa) are willing to accept additional increases in electricity tariffs if the quality and reliability of the electricity supply are improved. About three-fourths of the households also state that the government should increase electricity prices so that the utility can invest in extending electricity connections to people in rural areas as well. Only 25 percent state that the government should keep electricity prices low for people living in cities and towns. About half of the households indicate that the quality and reliability of electricity improved after the tariff adjustment in October 2021, with this share increasing to 56 percent in November 2022. The perceived impacts related to improved quality and reliability are more pronounced among residents in Addis Ababa.

Telecom sector reform

Across the world, mobile connectivity and mobile money are shown to have positive impacts on welfare, reflecting the importance of the telecom sector reform in Ethiopia. Yet, Ethiopia lags behind its peers in the provision of telecom service, necessitating GoE to endorse reforms in the sector. Urban households experience mobile network challenges with network connectivity; about half of all households experience a drop in calls in the last seven days prior to the survey based on UHFS findings. As one of the last countries with a state-owned telecom networks and services provider monopoly—Ethio Telecom—the GoE decided to partly liberalize the Ethiopian telecom sector to offer modern and high-quality services at globally competitive prices by providing additional network licenses to improve phone and internet services. Under the telecom sector reform, the GoE decided to award two new telecom operator licenses, hereby introducing competition in the telecom sector for the first time. The reform involves additional network licenses to improve phone and internet services. Given the high potential of ITC in boosting economic growth, the reform would contribute to poverty reduction. The new telecom service provider —Safaricom Ethiopia— started operation in November 2022.

Although awareness about the telecom sector reform is low, there is strong support. UHFS findings show that only around 30 percent of urban residents are aware of the telecom sector reform, with a relatively higher share in Addis Ababa and a

lower proportion in small towns. Among those who know about the reform, about 80 percent supported it. Moreover, about 28 percent of urban households expected that the telecom sector reform would improve the quality of services. Mobile phone use patterns based on UHFS show low use of mobile phones for financial purposes. The majority of households use mobile phones for calling, browsing the internet, and texting. However, the use of mobile phones for financial transactions is low; less than 15 percent use mobile phones for making or receiving payments, with the share of households being the lowest for medium towns. Mobile phones are the main access point to the internet in Ethiopia with close to 100 percent of households using their mobile phones to access the internet.

Business investment reform

Although Ethiopia's ease of doing business score has shown improvement over the years, the country ranks 159th out of 190 countries in the ease of doing business ranking. To remove bottlenecks that constrain businesses and enhance institutional capacity, the ease of doing business reform focuses on addressing challenges related to business licensing and registration procedures, logistics and power service provisions, policy and regulatory frameworks, support systems for industrial parks, and tax and customs administration. The GoE endorsed the revision of the investment law and amendment to several legislations as part of the business reforms.

Starting a business in urban Ethiopia seems to be a challenge. UHFS data show that only 16 percent of households perceive that it was easier to start a business compared to the previous year. Only one-third of the households also indicate that it is easy to get a business license, the share being lower in Addis Ababa (26 percent) compared to small towns (34 percent). There is low awareness of the business or investment reform with only 10 percent of urban residents aware of the reforms to the business environment.

Households' economic outlook

Ethiopia has recently been grappling with multiple and overlapping development challenges—inflation, conflict, political instability, and climate shocks—that threaten to reverse decades of development gains. Households are affected by these challenges. Households rank inflation and political instability as the most important economic problems facing Ethiopia. Nearly one-third of households ranked inflation as the most important challenge in the country, reflecting the recent surge in food and non-food prices. Moreover, about one-quarter of urban households ranked political instability as the most important challenge. Management of the economy appears to be another important development challenge.

Households perceive the current conditions in the country as negative, with residents in Addis Ababa more negative than residents in small towns. Yet, Ethiopians are very optimistic about their future. Only 15 percent of households rate Ethiopia's current general condition as good in October 2021, but this increased to 24 percent in November 2022. Ethiopians are also negative about the economic and employment conditions in the country but, surprisingly, more than 75 percent of the households believe that Ethiopia's future general and economic conditions will be good with optimism about better economic conditions in the future more widespread in Addis Ababa.

Urban residents are particularly pessimistic, and increasingly so, about their current household's financial situation or personal living conditions but show optimism about their prospects. Only one-third of households believe that the current financial conditions of their household are good in October 2021 with a high prevalence of negative perceptions in Addis Ababa compared to small towns. The proportion further declined to 22 percent in November 2022. Yet, about 80 percent of households believe that their households' future financial condition will

improve in October 2021, with a decrease to 72 percent in November 2022.

Overall, the results in this report show that there is low awareness of the HGER agenda but conditional on awareness, the level of support is relatively high. The HGER is the GoE's flagship economic program, one in which a lot of effort, time, and money is invested. Understanding to which extent the HGER pays off with respect to awareness is important. A citizenry that is well aware and knowledgeable about the economic reform agenda in the country, is also one that is more likely to request for positive outcomes of these reforms or understand short-term challenges they may face to reap longer-term benefits. In addition to the HGER "brand", it is important to understand how awareness of the overall reform agenda (the brand) is linked to awareness of the specific sectoral reforms.

Going forward, increased attention on economic reforms and continued efforts in the energy sector, telecom sector, and enabling the business environment can have strong pay-offs. This can be achieved by (i) further investing in the energy grid and to bring utilities on a path to cost recovery can improve electrification to currently underserved areas and improve utility performance; (ii) improving digitalization by improving the accessibility and quality of telecom services and removing restrictions in the operation of digital financial services as well as removing limitations on investment in independent cell tower companies; and (iii) strengthening the private sector and liberalizing the economy.

1. Introduction

Ethiopia has registered remarkable, rapid, and sustained growth over the past two decades. Being home to about 117 million people (2021), Ethiopia is the second most populated nation in Africa (World Bank, 2022e). It has been one of the fastest-growing economies in the world over the period 2000-2008 and is still the fastest-growing economy in Africa. Overall, growth in the country was strong over the past two decades, particularly before the COVID-19 pandemic and the conflict in the North.

The fast economic growth over the last decade translated into limited household consumption growth (World Bank, 2020a). Between 2011 and 2016, Ethiopia's economy continued to grow rapidly, with an annual GDP growth rate of over 9 percent, accompanied by a decrease in the national poverty rate from 30 percent to 24 percent over the same period.[1] Yet, consumption for the bottom 15 percent of the population did not grow and, overall, the extent to which growth in Ethiopia translates into poverty reduction is low compared to structural peers. A one percent increase in per capita GDP reduces poverty by only 0.33 percent.

Despite the fast economic growth, the economy has encountered several macroeconomic and sectoral challenges that constrain sustained growth and ensure shared prosperity. The wide-ranging structural challenges the country faces imply that economic growth may not be sustained at the same rate. For instance, macroeconomic imbalances in the form of exchange rate overvaluation and high inflation hinder some growth (Ayele, 2022; Woldie & Siddig, 2019; World Bank, 2022a). A long-standing debt and a severe shortage of foreign currency are among the chronic challenges that could slow Ethiopia's growth momentum (World Bank, 2022a). Structural bottlenecks related to poor public infrastructure also deter growth by limiting the private sector's participation (Debebe & Bessie, 2022; Desalegn & Solomon, 2020). Although the country has a fledging private sector, the constraints in the business climate and competitiveness hinder its growth and job-creation ability (World Bank, 2022e). Moreover, there are huge labor market challenges, particularly in urban areas (Wieser & Tesfaye, 2021). The country's growing workforce (with roughly 2 million persons reaching working age per year) puts pressure on the absorption capacity of the labor market. This urges the need for improving current jobs while creating sufficient new jobs. With the observed trends, there is some pessimism that the country would not attain the aspired goal to be a middle-income country by the year 2025.

[1] 2016 is the year that corresponds with the latest household expenditure survey used for poverty analysis and monitoring in the country.

Ethiopia has been pursuing a "Homegrown Economic Reforms (HGER) Agenda" to continue its path of strong economic growth and poverty reduction. The HGER process, which was initiated in 2019, has primarily targeted addressing the fundamental macroeconomic imbalances that the economy is facing, tackling structural bottlenecks that hamper the economy's competitiveness and productivity, and diversifying the sources of economic growth and job opportunities across diverse sectors of the economy (World Bank, 2022a). The reforms seek to rebalance the economy from a state-driven to a more private sector-driven model to sustain high economic growth rates and accelerate job creation. This reform package includes, among others, (i) energy tariff reforms to put the energy utility on a path to cost-recovery, (ii) a revision of the investment code to enable private sector participation in more sectors of the economy and improve the business environment and expand access to credit to the private sector, (iii) full or partial privatization of selected state-owned enterprises, and liberalization of the telecom sector. A gradual process of liberalization has begun in some sectors, including logistics and telecommunications, marking an important shift away from the largely state-led development pursued in recent decades. The Government of Ethiopia (GoE) is currently updating the HGER Agenda —an extension to its initial phase named the HGER 2.0—which aims at liberalizing the retail market and implementing a floating exchange rate system.

The HGER provides the opportunity to unlock Ethiopia's economic potential. Given that the country achieved fast and sustained growth over the past decades through significant strides in infrastructure and human capital, there is a need to leverage these platforms for private sector development. Most importantly, this should be tailored to generate high-quality jobs, sustain economic growth, and create fiscal space for further public investments in infrastructure, human capital, and building institutions. However, this is not an easy task: it demands overcoming emerging challenges and creating new opportunities. Overall, sustaining the high growth of the past decade requires correcting emerging macroeconomic imbalances, easing structural bottlenecks, and creating new opportunities and sources of growth. Moreover, there is a need to upgrade the policy and institutional frameworks to take success to the next level. For instance, the macroeconomic policy framework needs to be upgraded to enable the development of a modern and stable financial system. The institutions also need to be efficient and transparent to support the modern economy that the country is aspiring to build.

Following the HGER process, the GoE prepared a long-term development plan, the first of its kind in Ethiopia's development planning history. The ten-year development plan lays a long-term vision of making Ethiopia an "African Beacon of Prosperity" by creating the necessary and sufficient conditions that would unlock Ethiopia's growth and development potential across the diverse sectors of the economy. The government's "Ten-Year Perspective Development Plan" (2021-2030), which supplements the existing vision for the HGER agenda, drives Ethiopia's ambition to become a middle-income economy that delivers shared and sustained prosperity.

How much will the HGERs contribute toward creating a conducive business environment (ease of doing business), poverty reduction, and inclusive growth? The country has been grappling with a multitude of challenges in its development path as well as the multiplier effects of the conflict in Tigray and insecurity in several other parts of the country, the COVID-19 pandemic, prolonged drought, and desert locust infestations, and escalating inflation rates. These events constrain the country's economic growth and poverty reduction efforts. Amidst these overlapping development challenges the country has recently faced, the HGERs aim at reducing poverty in the country on the condition that the diverse structural and sectoral reforms are implemented in earnest.

This report provides evidence of the awareness and effectiveness of the reform package that GoE is currently implementing based on data collected through an Urban High-Frequency Survey (UHFS). The report assesses the perception of individuals about current and future conditions of their country and households, and the awareness about and level of support for the HGERs among Ethiopians living in cities and towns. The focus on urban areas was chosen for two main reasons. First, the set of economic reforms introduced in Ethiopia over the last few years, though trickling down to all of Ethiopia, are likely to be felt more directly in urban areas. Second, urban areas are more likely to have phone connectivity, which is a prerequisite for the high-frequency aspect of the UHFS as it relies on reaching people over the phone. The report focuses on three sets of reforms: (i) Electricity tariff adjustment to improve cost recovery and improve quality of service; (ii) Telecom sector reform which would improve the quality of mobile connectivity and internet use; and (iii) Business reform which would influence business operations and labor market outcomes. These reforms would impact poverty by improving jobs, incomes, financial access, and business employment in urban areas. Yet, some of the reforms may not shift household's living conditions immediately and their notable effects on households are long term.

The remainder of this report is organized as follows. The next section provides an overview of the methodology—data, sampling design, and analytical methods. Section three presents the socioeconomic characteristics of the sample focusing on demographic characteristics, education, housing, basic amenities, income sources, and labor market outcomes. Section four discusses recent developments and households' perception of development challenges the country is facing and their household. Section five focuses on households' perception of the overall homegrown economic reform agenda. Sections six to eight connect the three structural or sectoral reforms to households. Section nine concludes.

2. Data and Methodology

To track the impact of the reforms, the World Bank implemented an Urban High-Frequency Survey (UHFS), with generous support from the Ethiopia Reform Support Multi-Donor Trust Fund. The UHFS includes a baseline survey of about 3,000 sampled households located in urban areas in Ethiopia. The survey focuses, among other things, on demographic and socio-economic characteristics of households, labor market participation and outcomes, income and consumption expenditures, citizen engagement, and households' perceptions of the ongoing reforms. The UHFS includes a baseline survey of about 3,000 sampled households located in urban areas in Ethiopia. The interviews are administered using a CAPI solution installed on tablets, enabling the field teams to collect and transmit data from the field to a cloud-based server via the mobile phone network, thus allowing near real-time tracking of the data collection. The respondent of the survey was the household head. If the household head was permanently unavailable or not available after several attempts to contact him or her, the enumerator could complete the survey with another eligible household member (individuals 18 years old or older in this case). Following the face-to-face baseline survey, three quarterly follow-up surveys with the same households were conducted by phone. The phone surveys follow a structured questionnaire and respondents' answers are coded in real-time in a structured data capture form. The questionnaire for the follow-up phone surveys is a subset of the modules used for the baseline questionnaire and each round included a few questions specific to new reforms implemented in the periods preceding the phone survey. The baseline survey was conducted between October 26 and December 6, 2021, and a total of 3,000 urban households were successfully interviewed. The first phone follow-up survey was conducted between March 9 and April 1, 2022, and collected data from 2,633 households (88 percent of the planned 3,000 households) with average attrition of 12 percent. The second phone follow-up survey was conducted between July 4 and July 27, 2022, covering 2,436 households. The third follow-up survey was conducted between October 31 and November 27, 2022, covering 2,275 households. The panel data used for the final analysis is adjusted for sample attrition and the adjusted sampling weights are used (see Annex A for the sampling weights calculation).

Sampling design

The sample for this project includes 3,000 urban households across 300 enumeration areas (EAs). The study areas encompass major, medium, and small cities in the regions of Amhara, Benishangul-Gumuz, Dire Dawa, Somali, Gambella, Harari, Oromia,

and SNNPR. Given the size of Addis Ababa, the capital is considered a separate sampling domain, alongside major, medium, and small cities. The ranges defining the size of cities are (i) small towns, up to 40,099 inhabitants; (ii) medium towns, from 40,100 to 100,000 inhabitants; and (iii) major towns, above 100,000 inhabitants. The sample of households is selected in two stages, with 300 Enumeration Areas (EAs) in the first stage and 10 households per EA in the second stage. In the first stage, consistent with the Urban Employment and Unemployment Survey (UEUS), 4 survey domains (small towns, medium towns, major towns, and Addis Ababa) were selected. The domains were considered explicit sampling strata. The 300 EAs were allocated into these sizes in approximate proportion to their estimated population raised to the power of 0.25. The list of all EAs is used as a sample frame and their estimated population as a Measure of Size (MoS). A sample of EAs was selected with Probability Proportional to Size (PPS). In the second sampling stage, 10 households were selected in each EA using PPS. In each sampled EA, three additional households were sampled to serve as replacement households. As part of the data collection phase, each household was visited at least 3 times before replacing a household from the list of replacements. The sampling design is largely drawn based on the Urban Employment and Unemployment Survey (UEUS). See Annex A for details of the sampling design.

Methods of data analysis

Descriptive statistics and econometric analysis

The analysis is based on descriptive statistics and multivariate probit. Various descriptive statistics methods are utilized to characterize urban households in terms of their socioeconomic characteristics and to present evidence regarding the perception and awareness of the HGERs. We show trends for the different indicators whenever we have data from the four rounds. Probit regression is used to analyze the determinants of households' awareness of the HGERs and their perception of the economic conditions in the country and that of their households.

SWIFT model

An innovative survey-to-survey imputation approach was used to construct expenditure quintiles for 2021. The imputation approach uses the technique developed in the Survey of Well-being via Instant and Frequent Tracking (SWIFT) approach (World Bank, 2022d). With SWIFT, a formula that connects consumption and poverty correlates such as household demographics, household ownership of durable goods, housing quality, and employment status of the household members is created based on the household consumption survey. Then this model is used to impute consumption for households in the SWIFT survey, of which the consumption expenditure quintiles are constructed. Annex B provides a detailed discussion of the method.

3. Socioeconomic Characteristics

This section provides descriptive statistics on the socioeconomic and demographic characteristics, housing conditions, income sources, and labor market outcomes of urban households.

Demographic characteristics and education

There is a considerable difference in household composition and demographics between Addis Ababa and small towns. Female-headed households are more common in Addis Ababa and major towns than in small towns. Moreover, more households in small towns have a married household head than in Addis Ababa. The smaller the town, the larger the size of the household with small towns having one additional household member, on average, compared to Addis Ababa (see Table C1 in Annex C). Looking at the household composition, small towns have more children (under 14 years of age) than larger towns. The average demographic dependency ratio (0-14 and 65+ per 15-64) for urban Ethiopia was 85 and higher for small towns than in Addis Ababa.

Educational attainment varies drastically across town sizes. More than half of the household heads in Addis Ababa and major towns have secondary education or above (see Table C1 in Annex C). Yet, in small and medium towns, more than 50 percent of households have heads with only primary education or less. In Addis Ababa, over 50 percent of the household heads have completed secondary or above but for small towns, this is only 42 percent. This is even more pronounced for household members. The same pattern holds for the education level of individuals. In Addis Ababa, more than 50 percent of the household members have secondary education or above. The figure is close to 40 percent in medium towns and small towns.

Housing, basic amenities, and income sources

Quality of housing and access to basic amenities vary across city sizes. Only 41 percent of households in Addis Ababa own their dwelling while this share is double for small towns (see Table C1 in Annex C). The quality of the flooring is better for larger towns with a quarter of households living in houses with parquet wood or tiles floors compared to 15 percent in small towns. Urban households also tend to have access to improved water sources and sanitation facilities. Access to and use of improved sanitation facilities such as flush toilets and pit latrines ventilated (according to the UNICEF WASH ladder) is higher in Addis Ababa than in small towns. About 90 percent of the households have access to improved water sources (i.e., tap inside the house, private/ shared tap in the compound, water from kiosks/ retailers, protected well or springs, and rainwater).

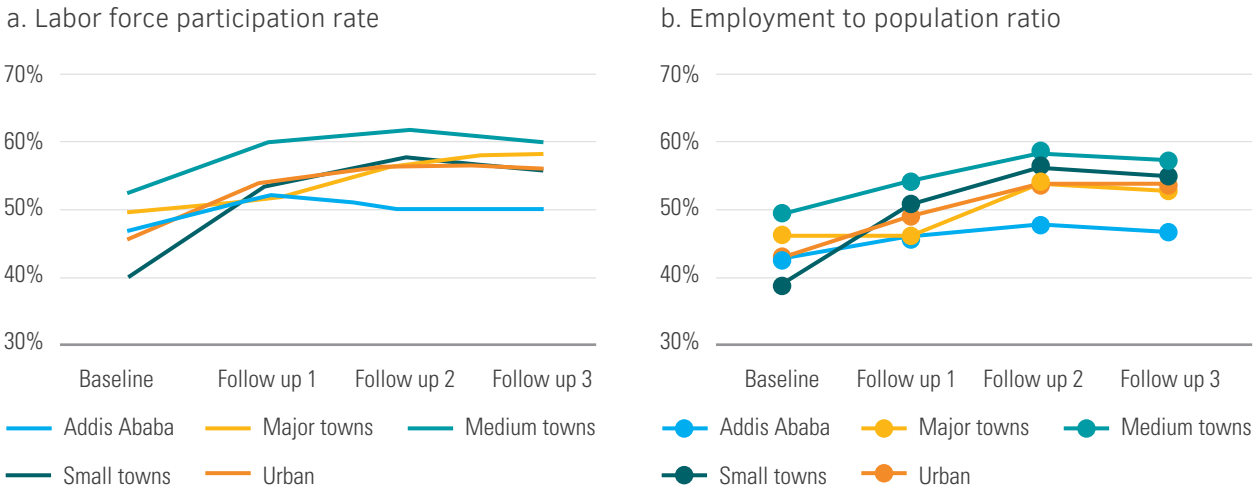
There are large differences between Addis Ababa and small towns: 94 percent vs. 84 percent. While electricity is the source of lighting for 97 percent of the households, only 29 percent use electricity for cooking with a stark difference by city size: 72 percent in Addis Ababa vs. 9 percent in small towns.

The main source of income in urban areas is salaries and wages. One-third of urban households earn their income from wages or salary (see Table C2 in Annex C). There are, however, important differences across city sizes. For example, transfers (60 percent of which are from social assistance and 40 percent from remittances) are an important source of income in Addis Ababa, while household business in trade appears to be an important source of income in major and medium towns. In small towns, family farms (crop and livestock production), trade, and casual wages, sources from which lower incomes are typically generated, are the main sources of income. Overall, medium and small towns have more diversified livelihood or income sources than Addis Ababa and small towns.

Labor market outcomes

Labor market indicators based on UHFS help understand the trends in labor market outcomes between October 2021 and November 2022 and show that urban labor market outcomes improve but remain modest. The labor force participation rate (LFPR)—the share of working-age (14 to 64 years of age) individuals who participate in the labor force (i.e., are either employed or unemployed)—has increased from 45 percent during the baseline (October 2021) to 56 percent during follow-up 3 (November 2022). The share of employed working-age household members was 43 percent in the baseline and increased to 53 percent during follow-up 1 (March 2022) and further to 50 percent in follow-ups 2 and 3 (Figure 1). The results of the 2020 Urban Employment Unemployment Survey (UEUS) show that the labor force participation rate and the employment-to-population ratio were 61 and 50 percent, respectively, showing slightly declining rates compared to the previous five years (CSA, 2020). There are differences in employment rates across city sizes: employment rate was higher in major and medium towns. The employment rate increased in all city sizes between the baseline and the follow-up surveys. Overall, the increasing employment-to-working age population ratio (EWPR) and labor force participation rate imply that the urban labor market of Ethiopia mimics a typical labor market of a low-income country.

Figure 1: Labor force participation and employment rate



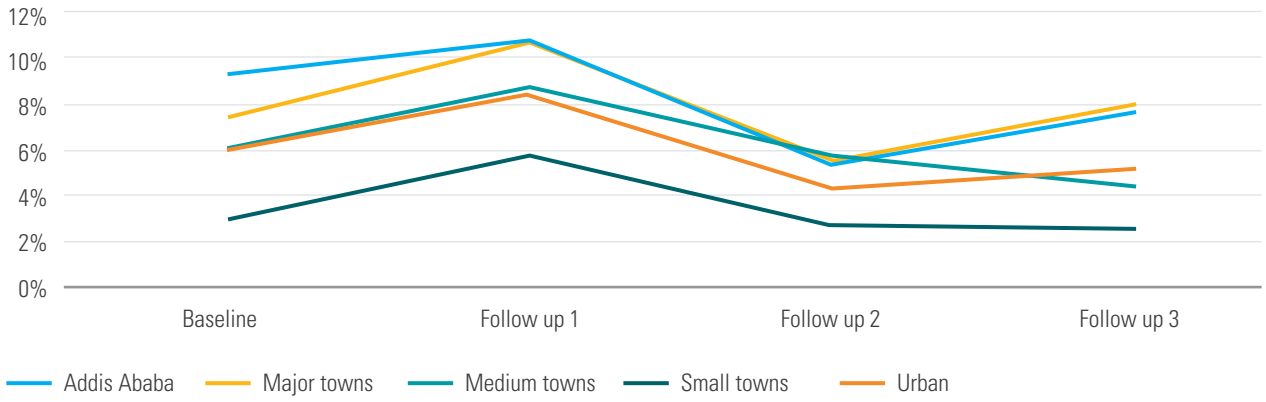
Source: World Bank Staff based on UHFS 2021/22.

Note: Employed individuals are those who (i) are engaged in any productive activity or work for at least 1 hour during the seven days before the survey period, or (i) who had regular jobs or business to return to but were temporarily absent from work (irrespective of the type, quality, or formality of the work or job).

Urban unemployment decreases with city size. Consistent with other survey findings, the unemployment rate in Addis Ababa is higher than in other urban areas. The UHFS data show that unemployment rates increased from baseline to follow-up 1 but dropped in follow-up 2 and then continued to rise during follow-up 3 (Figure 2). There are differences in the unemployment rate by city size: while unemployment is higher in Addis Ababa, it is relatively lower in small towns. Overall, there was no clear pattern of un unemployment rate between October 2021 and November 2022.

Jobs in the service sector dominate wage employment in urban areas. The UHFS data show that jobs in the service sector dominate urban employment (Figure 3). There were no significant shifts in employment during the survey period. The data further show that the importance of agriculture in urban employment decreases with city size. Moreover, jobs in the industry sector are relatively higher in bigger cities. Data from the recent labor force survey (LFS 2021) show that the service sector has driven job creation nationally while employment in the industry sector remains an urban phenomenon over the last two decades. The findings are consistent with the evidence that, although the structure of employment in urban Ethiopia has remained unchanged over the past five years, there was a rising employment share in the services sector in recent times (Wieser & Tesfaye, 2021).

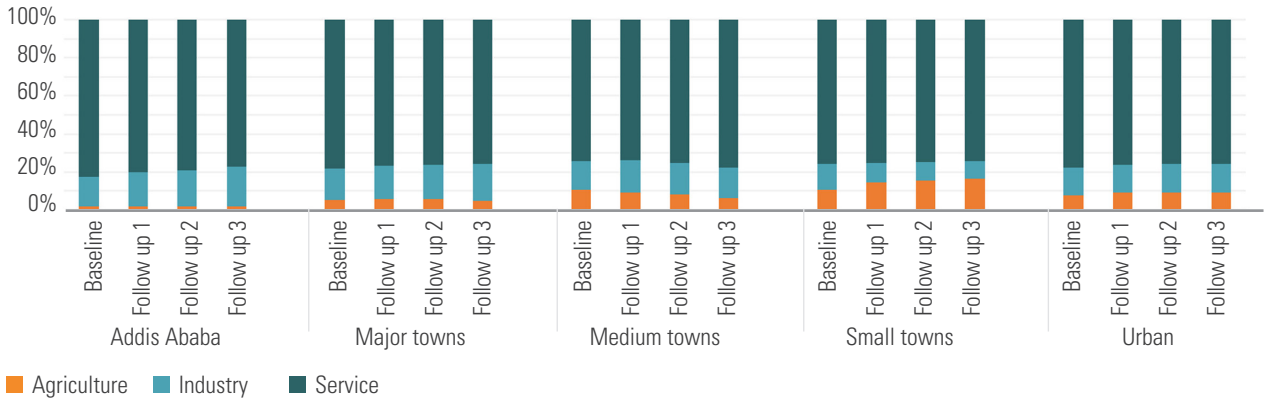
Figure 2: Unemployment rate



Source: World Bank Staff based on UHFS 2021/22.

Note: The relaxed definition of unemployment which measures unemployment in relation to without work and availability for work is used. Based on this definition, an individual is unemployed if she/he had no work but was available for work. This is the national definition used by the Ethiopian Statistics Service in the UEUS (CSA, 2020).

Figure 3: Sectoral composition of employment



Source: World Bank Staff based on UHFS 2021/22.

There is net job growth driven by the service sector and small towns. Overall, the net job growth between baseline and follow-up 3 is about 726,000 (Table 1). Of this, the service sector contributed 63 percent followed by agriculture (22 percent). Looking at the spatial distribution of job growth, small towns have contributed the most to the net job growth (76 percent) followed by medium towns (19 percent). The UHFS results suggest that the service sector has become more important in small towns (in addition to the agriculture sector) and medium towns in terms of job creation. The industry sector was the most important contributor to job growth in Addis Ababa, driven by construction. While the contribution of agriculture to job growth decreases with city size, that of the industry sector tends to decrease with city size. Furthermore, the data show that wage jobs and private sector formal wage jobs account for 36 and 10 percent of the total jobs created, respectively.

Self-employment is the most important form of employment in urban Ethiopia. When looking at more detailed types of employment, self-employment tends to be the main employment pathway for more than a third of urban households (Figure 4). However, there are differences by city size. In Addis Ababa, the private sector employs more than half of the workers. But in other city types, self-employment is the dominant form of employment accounting for between 36 – 46 percent of workers. Across all rounds and city types, more than 70 percent of the self-employed are engaged in the service sector. In small towns, the public sector is the second major employer following self-employment but contributes almost the same as the private sector to employment in major and medium towns. The distribution of employment between the public and private sectors does not seem to have changed between the baseline and the final follow-up.

Table 1: Net job changes by city size and sector

	Addis Ababa		Major towns		Medium towns		Small towns		Urban	
	Baseline	Change	Baseline	Change	Baseline	Change	Baseline	Change	Baseline	Change
Agriculture	18,481	529	71,768	(9,768)	99,771	(32,186)	205,701	197,743	395,721	156,318
Industry	167,401	67,542	210,510	35,394	143,193	32,905	253,283	(22,082)	774,387	113,759
Service	882,210	(19,991)	1,006,721	(39,930)	702,191	137,567	1,436,489	378,868	4,027,611	456,514
Total	1,068,092	48,080	1,288,999	(14,304)	945,155	138,286	1,895,473	554,529	5,197,719	726,591

Source: World Bank Staff based on UHFS 2021/22.

Notes: The change in jobs is calculated as the difference in the number of employed in follow-up 3 (November 2022) and baseline (October-December 2021). Numbers in parentheses show a decrease in jobs.

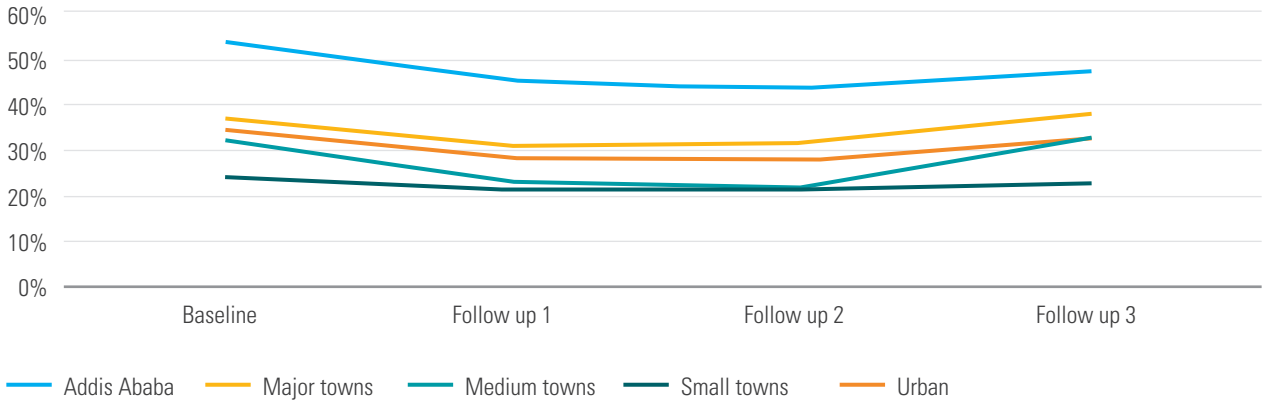
Figure 4: Employment pathways by city size

Source: World Bank Staff based on UHFS 2021/22.

Formal employment—defined by the Ethiopia Statistics Service as working for a licensed enterprise or one that maintains a book of accounts—is not common in urban areas, reflecting the importance of informality. Regular wage employment, especially in the formal sector, is the kind of employment that is strongly related to rising living standards. However, informality is still high in urban labor markets. UHFS data show that only 29 percent of the wage-employed workers were employed in the formal sector during the baseline and the share increase to 33 percent during the final follow-up (Figure 5). Employment in the formal sector decreases with city size: it is relatively higher in Addis Ababa and lower in small towns. There is not much change in (in)formality between the baseline and follow-up 3 with some difference by city size. Employment in the formal sector has decreased in Addis Ababa while there is no significant change in the other city types.

Average hours of work differ by city size. The total hours of work in productive activities per week were on average lower in small towns than in the other city sizes in the baseline (Figure 6, left panel). However, they tend to decrease in the first follow-up and then increase again in follow-up 3. An exception is for Addis Ababa where the average hours worked have been decreasing between October 2021 and November 2022.

Figure 5: Formal employment status

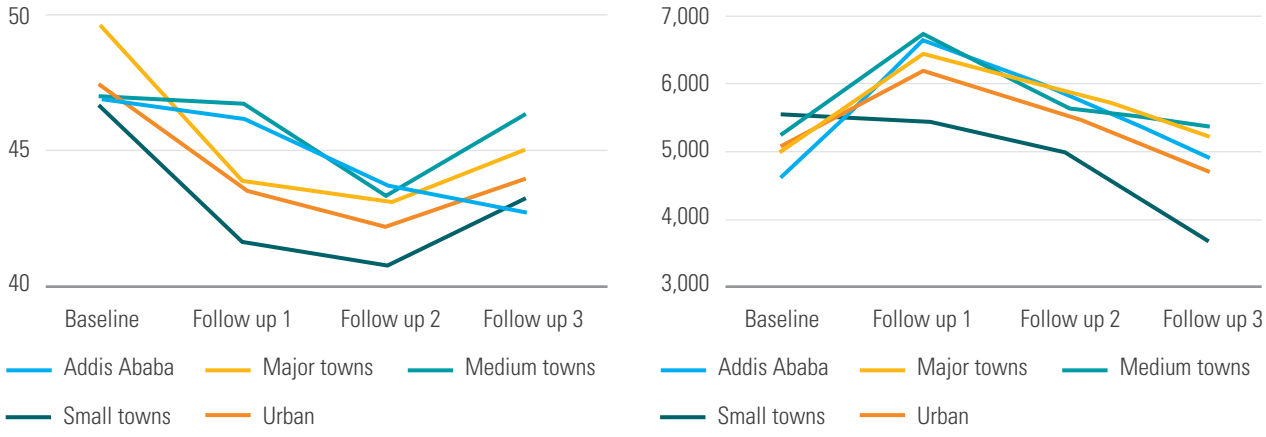


Source: World Bank Staff based on UHFS 2021/22.

Figure 6: Hours of work and monthly wages by city size

a. Hours of work per week

b. Monthly wages (Birr)



Source: World Bank Staff based on UHFS 2021/22.

Notes: Monthly wages are expressed in November 2022 values using the regional CPI deflator.

Wages are highly volatile and also different by city size. The results show high volatility of wages especially in urban areas. Average monthly wages (in October 2021 values) increased between October 2021 and March 2022 across all city types (Figure 6). They tend to decrease then after until November 2022 in all city types. However, there is no evidence that wages adjust to inflation during the same period. Surprisingly, average monthly wages were the smallest in Addis Ababa and the highest in small towns during October – December 2021 (Figure 6). However, there appear to be large wage gaps between small towns and bigger cities in November 2022, the average monthly wage being the lowest in small towns and higher in major and medium towns.

Average monthly wages were the **smallest** IN ADDIS ABABA

Average monthly wages were the **highest** IN SMALL TOWNS

4. Recent Developments and Households' Economic Outlook

This section discusses the recent development facing Ethiopia and the perception of individuals about the development challenges the country faces, the household's current and future economic conditions, and individuals' engagement in social services. The results are important to understand urban households' (i) reflection on contemporary challenges the country and their households face and (ii) the level of their participation in and contribution to the efforts that are being exerted to improve the provision and quality of basic services at the grass root level.

Challenges facing Ethiopia

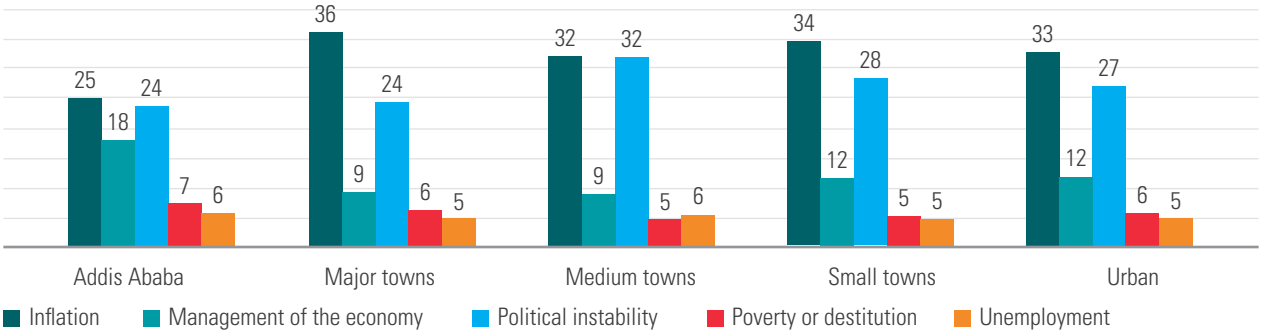
Ethiopia has recently been grappling with multiple and overlapping development challenges that threaten to reverse decades of development gains. The country has been grappling with a multitude of challenges in its development path as well as the multiplier effects of the conflict in Tigray and insecurity in several other parts of the country, the COVID-19 pandemic, prolonged drought, and desert locust infestations, the global impact of the war in Ukraine, and escalating inflation rates. These shocks constrain the country's economic growth and poverty reduction efforts. The first part of this chapter discusses these challenges organized into COVID-19, conflict, and market shocks.

Market shocks

Inflation is among the most important economic problems Ethiopians face. Nearly one-third of households ranked inflation as the most important challenge in the country (Figure 7). Since early 2017, general inflation in the country witnessed a persistent upward trend, reaching 37 percent in May 2022, but declined to 35 percent in November 2022. Food inflation remains above 40 percent between February and May 2022, then dropped to 34 percent in November 2022 (Figure 8). The primary contributors to the high inflation in the country were food prices – bread, cereals, oils and fat have contributed to about 60 percent of food inflation. However, non-food inflation increased between February 2022 (23 percent) and November 2022 (35.6 percent), mainly driven by (i) housing, water, electricity, gas, and other fuels, (ii) furnishings, household equipment, and routine maintenance, and (iii) clothing and footwear (World Bank, 2022b). The surge in prices seems to have coincided with the escalation and spread of the armed confrontation in Tigray and neighboring regions (World Bank, 2022c). Though a peace agreement was signed between GoE and the Tigray People's Liberation Front (TPLF) in November 2022, conflict in different parts of the country continues and with the war in Ukraine, inflation is expected to continue increasing, putting pressure on the

purchasing power of households. Following the rice in domestic fuel prices in December 2021, the government started implementing a phased and targeted fuel subsidy scheme in July 2022 to reduce some of the pressures on Ethiopian households. Evidence shows that fuel subsidies are regressive implying that they are not well-targeted and benefit the rich more than the poor (Mesfin & Gao, 2020). Moreover, they are very costly and increase fiscal pressures for the GoE. The plan was to remove the subsidy in a year's time through quarterly price adjustments for private consumers and within five years with biannual price adjustments for public transport providers. The government subsidy is expected to phase out as of July 2023. From the supply side, the main drivers of inflation include the low marketable surplus in grains, increasing regional price dispersions, lack of regional market integration, and disruptive events such as conflict that affect spatial market integration (Tamru et al., 2022). Inflation is perceived to be an economic challenge across all strata of society with no difference in perception between the poorest and the richest.

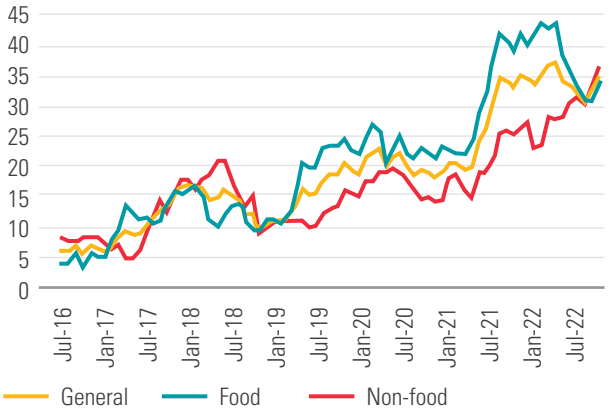
Figure 7: Main challenges facing Ethiopia (percent that ranked a problem first)



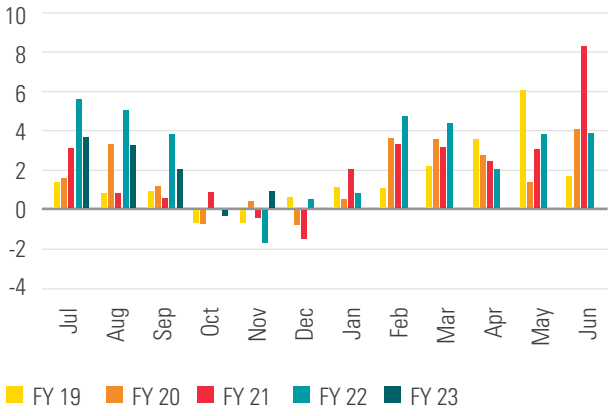
Source: World Bank Staff based on UHFS 2021/22.

Figure 8: Consumer Price Index and Monthly food inflation, percent change

a. Consumer Price Index, year-on-year percent change



b. Monthly food inflation, percent change



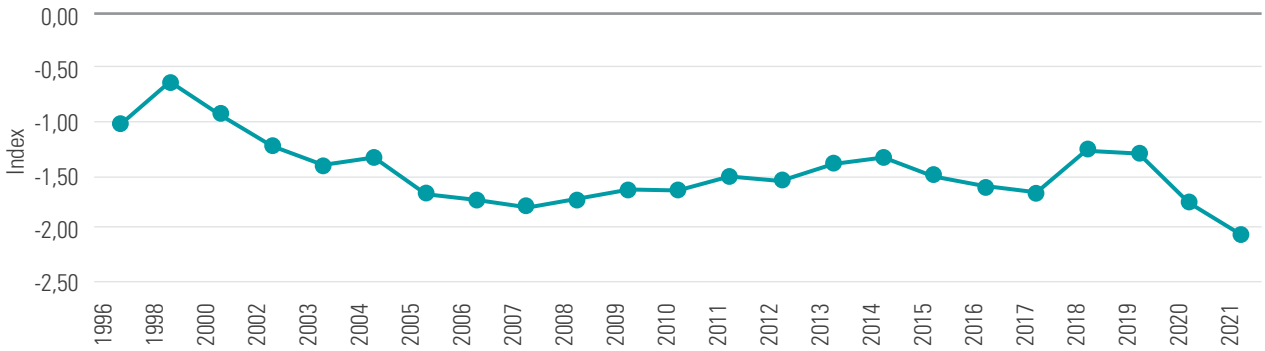
Source: World Bank Staff based on ESS CPI data.

Conflict

Households also perceive political instability as an important challenge. UHFS findings show that 27 percent of urban households perceived political instability as the most important challenge in the country (Figure 7). This is likely driven by the different conflict events and insecurity in several parts of the country since 2018. In the last four years, there has been sporadic ethnic and political violence and the war in the North that started in November 2020. Data from the World Governance Indicators (WGI) show that the political instability index[2] has deteriorated since 2018 (Figure 9). The recent value for the political stability index in 2021 is -2.07 points, far below the world average (based on 194 countries) of -0.07 points, indicating a high level of political instability in Ethiopia. Political instability was expected to remain high in 2023, given uncertainties about the peace agreement with TPLF and conflict events in other parts of the country.

The conflict in the northern part of the country destroyed livelihoods and led to an alarming demand for humanitarian aid. Conflicts in various parts of Ethiopia undermine the economic and social development progress the country has achieved in recent years. The most notable is the conflict that erupted in November 2020 in the Tigray regional state and later expanded to the neighboring Amhara and Afar regions throughout 2021. The conflict commenced at the peak of the main agricultural season (*Meher*) before many households harvest their crops. It has resulted in an estimated loss of over 90 percent of the crop harvest and about 15 percent of the region's 17 million livestock. Given that the majority of Tigrayans (80 percent) depend on subsistence agriculture, the loss of their harvest (in 2020) and production inputs (and missing the 2021 season) has severely impacted their food security and nutrition (FAO, 2021). Further expansion of the conflict to the neighboring regions of Amhara and Afar has caused high levels of food insecurity, gender-based violence, limited access to services, and the destruction of the local economy. It continued to cause the death of tens of thousands, causing large-scale displacements, and vast humanitarian needs in northern Ethiopia (ECHO, 2022). As of June 2021, about 5.5 million people in Tigray and neighboring Afar and Amhara (nearly 93 percent of the population in northern Ethiopia) were in high acute food insecurity (IPC,

Figure 9: Political stability and absence of violence/terrorism index



Source: World Bank Staff based on Worldwide Governance Indicators (WGI).
Note: The index ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance.

[2] The index of political stability and absence of violence measures the likelihood of violent threats to, or changes in, government, including terrorism based on indices are based on 352 individual variables measuring perceptions of governance, drawn from thirty-seven separate data sources constructed by thirty-one organizations.

2021) and the number of food insecure people with acute humanitarian needs increased to 13 million in May 2022 (WFP, 2022). The conflict has also been an important contributor to current inflation and future expected inflationary pressures. The negative impacts of the conflict are reinforced by recent movements in international prices such as that of oil and wheat. In November 2022, the federal government of Ethiopia and leaders of the TPLF have signed a peace agreement as a political solution to end two years of the devastating war. While the two-year conflict inflicted human suffering, the peace talks to end the war serve as a first step to a long road recovery.

The war in Ukraine has aggravated the already high inflation in the country. The crisis that resulted from the war in Ukraine compounded the international price movement by driving food prices higher and destabilizing global food markets. With the world heading towards a historic food price crisis as global price indices are recorded high due to the war in Ukraine, this was expected to exacerbate the already high food insecurity and hunger situation in Ethiopia (World Bank, 2022). This is primarily because Ethiopia is in the global top 10 list of food price inflation. The impacts of the supply disruptions and higher food prices due to the war in Ukraine are mediated through commodity channels because Ethiopia is among the largest importers of cereals, cooking oil, fertilizers, and fuel, indicating the significant impact of the supply disruptions from Russia and Ukraine on the country's agricultural and food markets. A recent study shows that the poverty headcount rate increased by 3.8 percent in Ethiopia (equivalent to an increase in the number of poor people by about 4.26 million) due to the war in Ukraine and the global crisis driven by the increase in fertilizer and fuel prices (Diao et al., 2022). The increase in poverty is due to the negative effects of the war (through increased prices) on GDP (a decrease of 1.6 percent) and agricultural GDP (a decrease of 2.5 percent). The war-induced increase in the prices of petroleum, wheat, edible oils, fertilizers, and metal products was accompanied by a negative effect on the service sector, followed by agriculture, and a moderate impact on the industry sector (Tamru & Gebrewolde, 2022). The impact of the price shock on income loss was more pronounced among the urban rich (27 percent) compared to the urban poor. However, the impact was higher for the rural poor than for the urban poor.

Ethiopia's elimination from the United States' (US) African Growth and Opportunity Act (AGOA) has implications for growth and employment. Ethiopia's eligibility for AGOA was revoked in January 2022 due to the armed conflict in Tigray and neighboring regional states and the unaddressed humanitarian crisis in the northern part of the country. The termination of Ethiopia's eligibility is expected to impact its economy, already under strain from the rising cost of the war. The adverse impacts could be on its exports to the US market—an important market for Ethiopia's exports of textile and apparel, coffee, and footwear—and manufacturing activities in the industrial parks (IPs). Textiles and apparel and footwear account for more than 95 percent of Ethiopia's exports through AGOA. The share of Ethiopia's exports to the US under AGOA was 45 percent in 2020 and stood at around half in 2021 (US$245 million). Ethiopia's tariff-free access to US markets under AGOA has been an important factor in attracting garment sector FDI and a rapid increase in garment sector exports to the US since 2015. Ethiopia's loss of AGOA eligibility is expected to reduce the competitiveness of its exports in the US market because the imposition of tariffs would raise prices. The loss in export revenue from textiles, garments, and footwear due to the AGOA suspension is estimated at US$ 37 million a year, equivalent to 1 percent of the total FY21 export earnings. Since the start of Ethiopia's IP program in 2014, the share of the US market for Ethiopia's exports of textiles and garments increased from 14 to nearly

The loss in export revenue from textiles, garments, and footwear due to the AGOA suspension is estimated at

US$ 37 million a year

70 percent. The impact on the country's nascent manufacturing industry could be significant as it could adversely affect firms in IPs and deter new firms from investing in Ethiopia. Estimates show that the withdrawal of AGOA access would result in a loss of about 56,000 jobs in the IPs, the effect being more severe among young women employees involved in the textile and garment sector (World Bank, 2021).[3] Experience from other countries (e.g., Madagascar) demonstrates that Ethiopia's suspension from AGOA could affect supply chains linked to other African countries, thereby potentially undermining regional integration.

Management of the economy appears to be another important development challenge. The UHFS results show that 12 percent of the households perceive the management of the economy as an important challenge (Figure 7). It seems to be a bigger concern in Addis Ababa (18 percent) compared to other cities. However, unemployment and poverty were not perceived as more critical issues. While 11 percent of the poorest perceive the management of the economy as a development challenge, only 7 percent of the richest perceive it as a challenge. Surprisingly, there is also no difference between the rich and the poor regarding the perception of poverty and unemployment as critical development challenges in urban areas.

The COVID-19 pandemic

The COVID-19 pandemic is likely to reverse the hard-won poverty reduction gains achieved in the past years. The COVID-19 pandemic that has reshaped the global economy and the daily lives of people across the world was predicted to lead to large declines in growth across countries. The World Bank's most recent Poverty and Shared Prosperity Report shows that the pandemic pushed more than 70 million people into extreme poverty in 2020 alone, leading to an increase in global poverty to 9.3 percent from 8.4 percent in 2019 (World Bank, 2022b). Like the rest of the world, Ethiopia has been experiencing the unprecedented social and economic impact of the pandemic. Ethiopia's real gross domestic product (GDP) growth slowed down in FY2019/20 and further in FY2020/21 due to COVID-19, with growth in industry and services easing to single digits and no significant impact on agriculture. At the micro level, the most explicit impact of the crisis on the welfare of households and individuals is the loss of income due to disruptions of employment and transfers over and above the direct impacts on health (Harris et al., 2021; Yimer et al., 2020). Findings from a COVID-19 High-Frequency Phone Surveys (HFPS) that utilized a Survey of Well-being via Instant and Frequent Tracking (SWIFT) methodology show that the share of people below the 23.5th percentile line (poverty line that coincides with the recent poverty headcount rate in the country) increased by 11.2 percent between 2019 (pre-COVID) and November 2020 (Wieser et al., 2020). The share in urban and rural areas increased by 33.2 and 9.4 percent, respectively. The much larger relative increase in poverty in urban areas reflects the larger adverse effects of the pandemic on employment and income in urban areas. Despite the much smaller pace of increase in poverty in rural areas, the sheer size of the rural population combined with higher poverty rates means that the increase in the absolute number of poor was much higher in rural areas. However, the results from the UHFS show that urban households do not perceive COVID-19 as an important challenge as only 0.8 percent of the households ranked it as the first important development challenge.

[3] In 2019/20, the Government run parks accounted for 70 percent of Ethiopia's textile and garment exports and employed 56,300 workers. If productivity is assumed to be the same across IP and non-IP firms, then there are approximately 80,400 workers in Ethiopia that directly work on textile and garment exports. Taking the 70 percent of exports that go to the US, the number of jobs affected would be approx. 56,000 workers.

Climatic shocks

Climate variability, extremes, and other related shocks pose serious threats to the livelihoods of several communities in Ethiopia. Ethiopia is vulnerable to climate change variability and extremes including droughts, flooding, water scarcity, and increased incidence of pests, affecting the agriculture and health sectors. A prolonged severe drought, following three consecutive failed rainy seasons since late 2020, has affected nearly 11.8 million people living in the lowland areas of Afar, Oromia, SNNP, Southwest, Somali regions, and Dire Dawa City Administration (OCHA, 2023). The drought impacted rural livelihoods including both livestock (due to lack of pasture and water) and crop production and has led to a 20 percent increase in severe acute malnutrition among children (UNICEF, 2022). About half of the pastoral households have per capita expenditures below extreme poverty (based on the $2.5 per capita per day 2017 PPP). The adverse impacts of the drought forced many families to leave home without any job opportunities and heightened the need for emergency food assistance in the affected regions. The increased occurrences of pests and diseases linked to climate change have affected rural livelihoods. The country experienced two invasions of desert locusts in 2020. The first invasion which spread from Yemen to Ethiopia is reported to have damaged over 200,000 hectares of cropland and almost 8,000 hectares of grazing lands in 180-240 woredas of Afar, Somali, and Harari regions. The second invasion, which started in late September and peaked in October to November 2020, is reported to be the worst locust invasion and destroyed crops, grazing lands, and trees (Ilukor & Gourlay, 2021). Another study shows that the desert locus has caused about 50 percent damage to pasture in the areas around Somali and Eastern Oromia (MoA et al., 2020). The study further shows that the desert locust caused an estimated cereal loss of more than 3.5 million quintals, affecting more than 806,000 farming households, almost 200,000 hectares of cropland, and 1.35 million hectares of pasture and browse. The locust outbreak has affected the food security of millions of people, compounding the already bleak food security situation in the country. The results from the UHFS show that climate change is not an important challenge as only 0.5 percent of the households from only small towns ranked it as the first important development challenge.

Economic sentiments

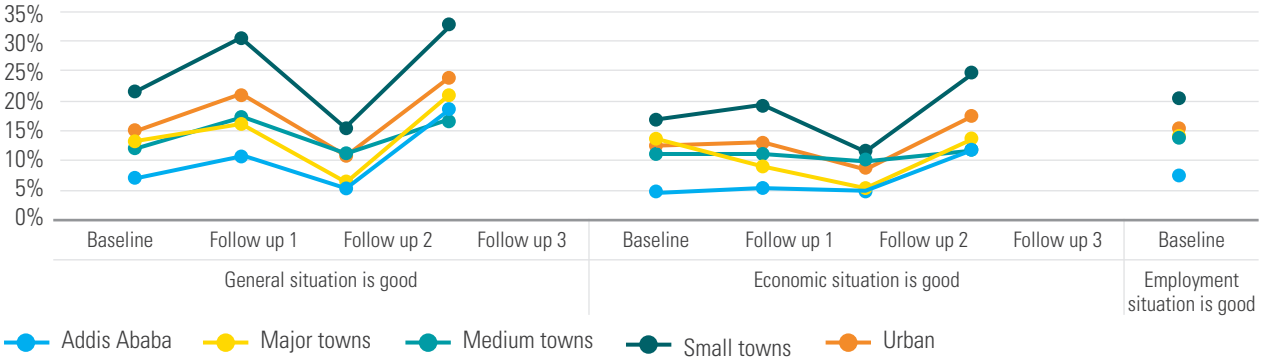
The UHFS collects information regarding households' perceptions of the general, economic, and employment situation (current and future) of their household and the country. These questions help to understand how urban households assess Ethiopia's and their household's situation.

Situation in the country

Perceptions of the current situation in the country are negative and volatile. In October/December 2021, only 15 percent of households perceive Ethiopia's situation in general as good. This increased to 21 percent in the follow-up survey in March 2022, decreased to 11 percent in July 2022, and again increased to 24 percent in November 2022. The result is mainly driven by small towns where a larger share of households perceives the general situation as good compared to Addis Ababa and other city sizes (Figure 10). Negative assessments of the country's current conditions are more common among households in Addis Ababa than in small towns. There is an unambiguous difference between Addis Ababa (7 percent) and small towns (21 percent) regarding the perception of the current general situation of the country during the baseline. This could be due to differences in exposure to price risks where urban consumers in Addis Ababa (as net buyers) are more likely to face the brunt of ever-increasing inflation than those in small towns. Until June 2021, the food inflation in Addis Ababa was above the national average (see Figure C.1 in Annex C). It is also increasing recently and took over the national average in November 2022. There are also negative perceptions about the economic and employment conditions in the country (Figure 10) with only 15 percent of urban Ethiopians indicating that the employment situation is good.

There is a significant change in perception among urban households. While 71 percent of

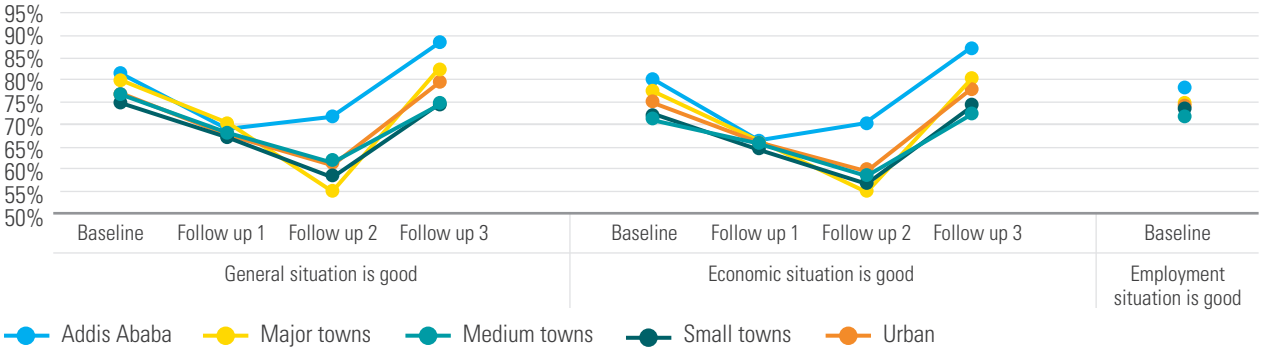
Figure 10: Perception of Ethiopia's current situations



Source: World Bank Staff based on UHFS 2021/22.

Note: The follow-up surveys did not include questions on the employment situation.

Figure 11: Perception of Ethiopia's future situations



Source: World Bank Staff based on UHFS 2021/22.

Note: The follow-up survey did not include questions on the employment situation.

the households do not change their perceptions of current country conditions between baseline and follow-up 3, (66 and 5 percent keep on having negative and positive perceptions, respectively), 29 percent change their perceptions (driven by negative to positive perceptions (19 percent)). Households that have more members with post-secondary education are less likely to change perceptions. On the contrary, the likelihood of changing perceptions of current general and economic situations from positive to negative (between baseline and follow-up 3) is higher among households with public wage employment and living in major and medium towns, whereas households with wage employment than in public, private, or self-employment are more likely to change their perceptions of current general and economic situations from negative to positive.

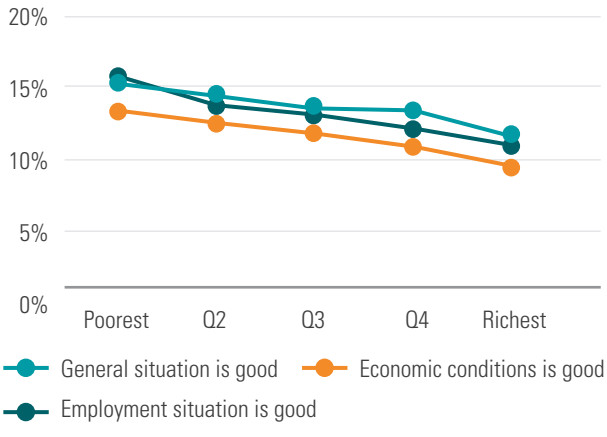
Despite negative perceptions of the current situation in the country, households are surprisingly optimistic about Ethiopia's future. During the baseline survey, more than 75 percent of households believe that Ethiopia's future in general and economic conditions will be good. This share dropped during follow-ups 1 and 2 but again increased in follow-up 3. Optimism about rosier economic conditions in the future is more widespread among residents in Addis Ababa (Figure 11). However, the positive perception seems to decline during the follow-up survey in all city sizes except in large towns. This could be due to a deterioration in the economic conditions in the country over time due to inflation that is compounded by conflict events in the country and the war in Ukraine. Moreover, the continuous removal of fuel subsidies which lead to an increase in fuel prices, affecting transportation during 2022 could have affected urban households. Although there are only baseline data, nearly 75 percent of the households are optimistic about the employment situation in the country with no stark difference across city sizes.

There is a tendency that poorer households think slightly more optimistically than richer households about Ethiopia's current situation or economy. The percentage of people who think Ethiopia's current general situation, economic conditions, and employment situation are good decreases with welfare (Figure 12). This reflects that the poor are more positive about the country's current condition than the rich, possibly related to the fact that it cannot get much worse for them. Moreover, the poor are more optimistic than the rich as indicated by the decrease in the share of people that perceive Ethiopia's future general situation, economic condition, and employment situation to be good.

There is a positive correlation between awareness and support of the HGERs and a positive perception of Ethiopia's current and future general situation and economic conditions. Results from the probit regression (Figure 13) show that those who are aware of and support the HGERs are more likely to have positive perceptions of Ethiopia's current and future economic conditions. Overall, households with more educated members have negative perceptions about current general and economic conditions in the country. Households that have financial accounts and are credit constrained are optimistic about the future economic conditions of the country. The econometric model results further show that households with memberships in informal groups or local administrative positions have negative perceptions but are optimistic about future economic conditions. While households with members employed in public sectors are both positive about current economic conditions and optimistic about future economic conditions, those with members employed in private sectors or self-employment are less optimistic.

Figure 12: Perception of Ethiopia's current and future situations by welfare quintiles

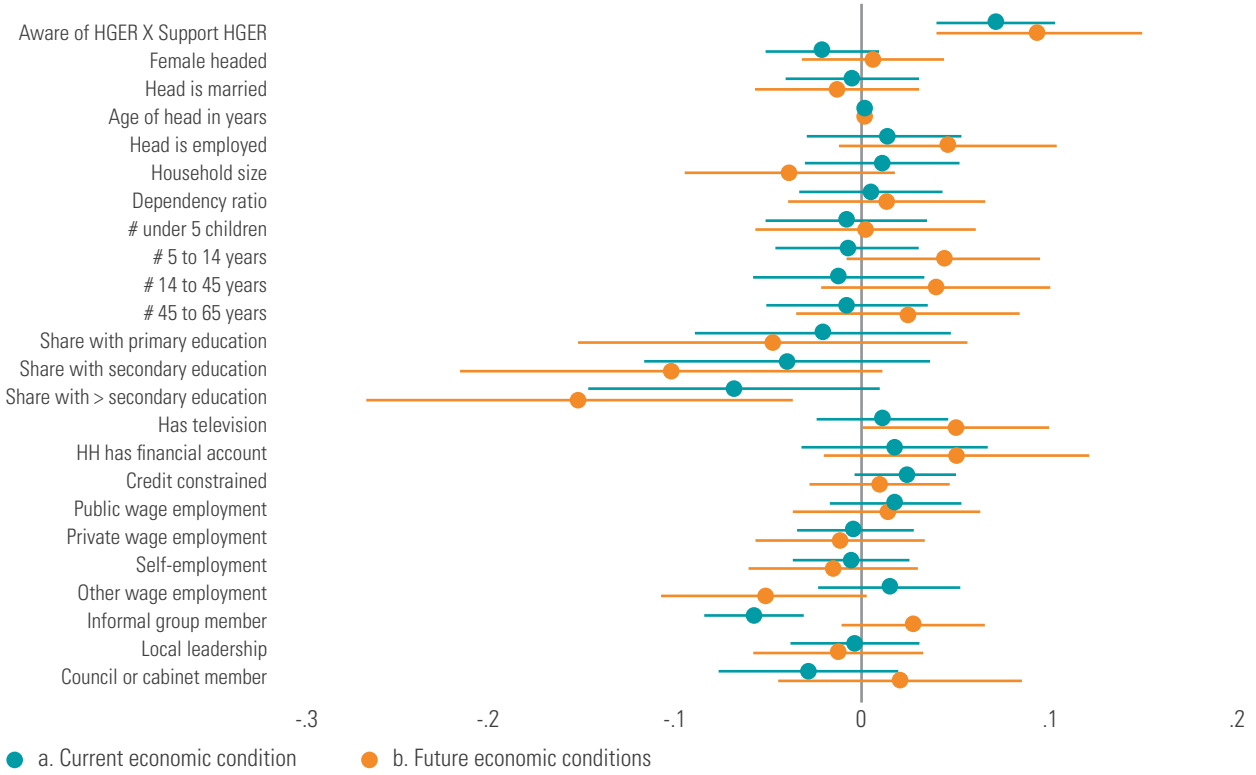
a. Current country conditions



b. Future country conditions

Source: World Bank Staff based on UHFS 2021/22.

Figure 13: Determinants of perception of country economic situations

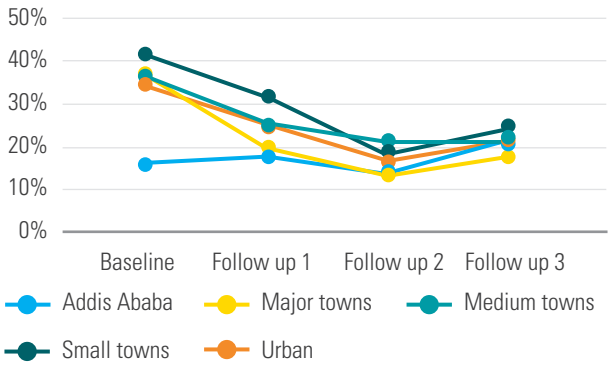


Source: World Bank Staff based on UHFS 2021/22.

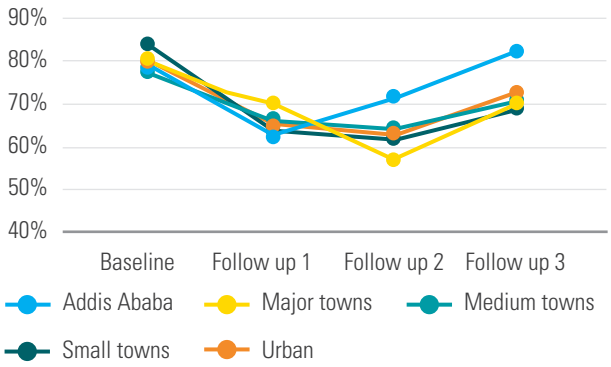
Notes: Average marginal effects estimate after probit are reported. Other controls include housing and basic amenities, asset index, and city size fixed effects.

Figure 14: Perception of household's current financial conditions

a. Current household financial condition is good



b. Future household financial condition will be good



Source: World Bank Staff based on UHFS 2021/22.

Situation in the household

Recent crises seem to be reflected in urban residents' perceptions about their current household situation or personal living conditions. Only one-third of the households perceive their current financial situation as good during the baseline with a higher prevalence of negative perceptions in Addis Ababa (17 percent) compared to small towns (41 percent). The proportion declined to 25 percent in follow-up 1 (except for Addis Ababa) and further to 17 percent during follow-up 2 and increased to 22 percent in follow-up 3 (Figure 14). A large majority (about 80 percent) believe that their households' future financial condition will be improved during the baseline, with no considerable difference across city sizes. The proportion decreased during follow-ups 1 and 2 (except for Addis Ababa) but increased during follow-up 3.

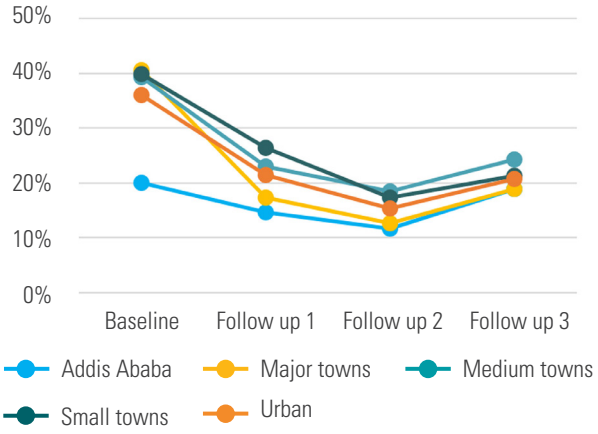
While only one-third of households perceive that food is currently affordable, optimism about the future supply of food is high. Only around one-third of households report that the affordability of food (food prices) is good (Figure 15). Urban households in Addis Ababa are more pessimistic than those in small towns. Although inflation, food inflation in particular, has been surging, about 58 percent of households believe that food would be more affordable in the future than it is now.

Positive perception about current household conditions increases with welfare except for food affordability. The analysis of perceptions of current household financial conditions and electricity supply increases with welfare, implying that the rich are more positive about their current household conditions than the poor (Figure 16). There is no difference in the perception of food affordability by welfare. There is also no considerable difference in perception about future financial conditions and electricity supply by welfare level. However, the poorest are more optimistic about future food affordability than the richest.

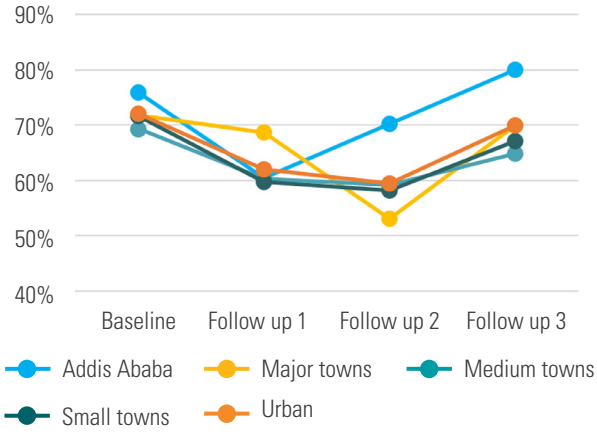
About 58% in Addis Ababa more pessimistic than small towns

Figure 15: Perception of household's current and future food affordability

a. Current food affordability is good



b. Future food affordability will be good



Source: World Bank Staff based on UHFS 2021/22.

Figure 16: Perception of household's current conditions by welfare quintiles

a. Current household conditions

b. Future household conditions

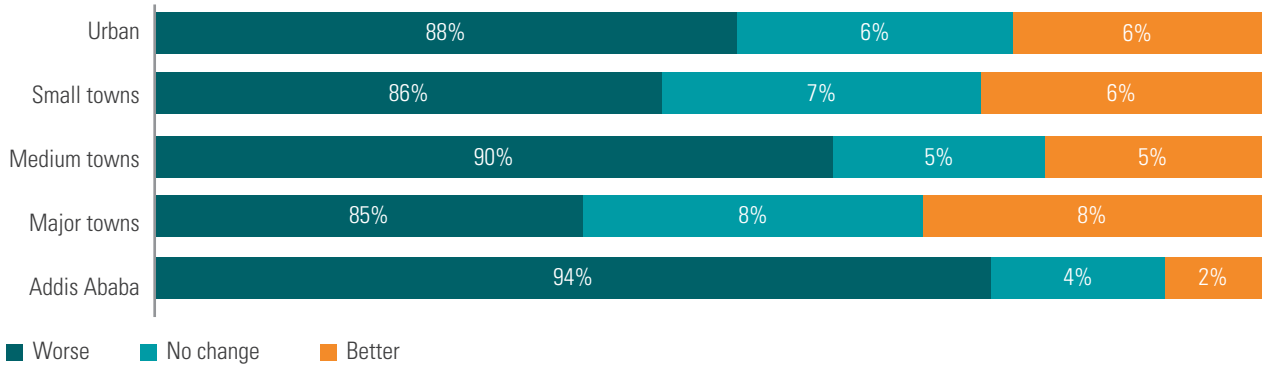
Source: World Bank Staff based on UHFS 2021/22.

Households' perception of changes in their overall standard of living is pessimistic. Almost 9 out of 10 households perceived their overall standard of living to have deteriorated in the last 12 months before the baseline. Households in Addis Ababa are more pessimistic about their current living conditions compared to 12 months ago. Although there are differences across city sizes, only 6 percent of households indicated that their household condition is better than 12 months ago (Figure 17). The share of households that state that their standard of living has improved decreased in the follow-up survey across all city sizes. Overall, households became more pessimistic about their standard of living between the baseline (88 percent) and follow-up (93 percent). Households that have more educated and employed members are less pessimistic about their standard of living.

Media objectivity and bias

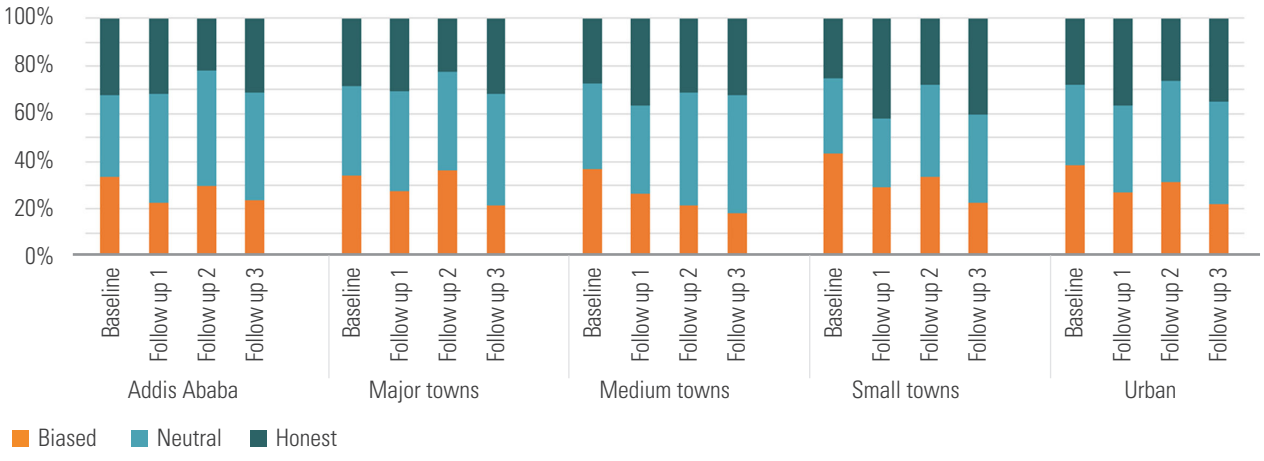
There is diverse perception by urban households regarding the media. More than one-third of urban households perceive that the media is biased when reporting government policies and achievements. The UHFS data show that the proportion of urban households that report that the media is biased decreases between the baseline and follow-up 3, accompanied by an increase in the proportion that perceived that the media is honest or that are neutral in their perception (Figure 18). Data from the WGI show that the voice and accountability index—perceptions of the extent to which a country's citizens can participate in selecting their government, as well as freedom of expression, freedom of association, and a free media—has decreased between 2020 and 2021 in Ethiopia (Figure 19).

Figure 17: Perception of households' change in the standard of living



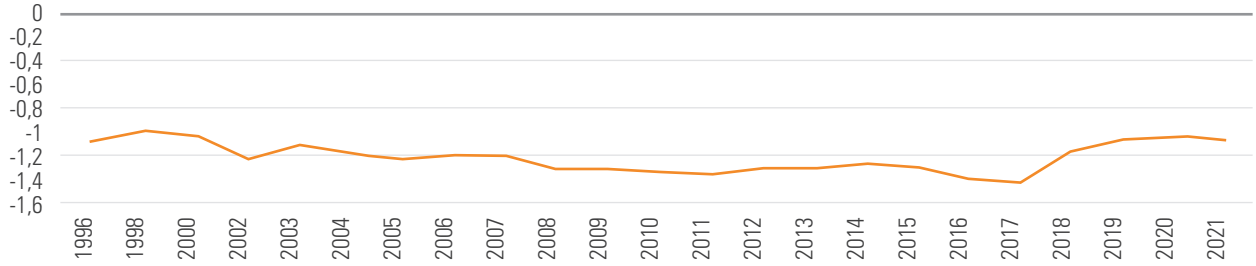
Source: World Bank Staff based on UHFS 2021/22.

Figure 18: Perception of media objectivity and bias



Source: World Bank Staff based on UHFS 2021/22.

Figure 19: Voice and accountability



Source: World Bank Staff based on Worldwide Governance Indicators (WGI).

Note: The estimate of voice and accountability (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance).

Citizen engagement

There is little engagement of citizens in basic service provision efforts in urban Ethiopia. Public service delivery is crucial to improve the living conditions of citizens. To enhance decentralized public service delivery to the poor, the GoE and development partners have embarked on a new mechanism, known as Protection of Basic Services (PBS) since 2006 (IRDI, 2022). The PBS supported Ethiopia's progress towards the improvement of basic service delivery in the health, education, agriculture, and water and sanitation sectors.[4] Although there are well-structured governmental and legal frameworks, there is little engagement of citizens at the grassroots level and little awareness of duties, rights, responsibilities, and roles among service providers and users. The UHFS data shows that the common means of engagement in improving the provision and quality of services include talking to neighbors and friends (51 percent) while discussions with responsible community committees are less common (Table 2). Moreover, contributions in terms of materials, labor, and money and filing complaints with kebele or woreda offices are reported by a few households.

Table 2: Participation in actions to improve basic service provision and quality

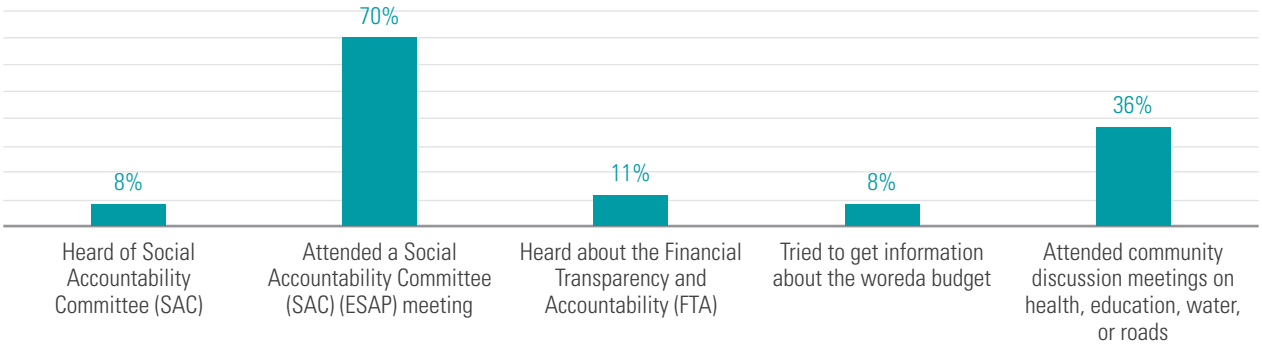
Means of engagement	Addis Ababa	Major towns	Medium towns	Small towns	Urban
Talk to neighbors and friends	51%	46%	49%	56%	51%
Talk to community leaders	40%	32%	42%	44%	40%
Talk to the responsible community committee (PTA, Health committee, water or irrigation committee, rural roads committee, food security task force)	29%	22%	28%	28%	27%
Contribute materials to help build community project	25%	10%	12%	11%	14%
Contribute labor to build a community project	32%	15%	20%	20%	21%
Contribute money to build a community project	43%	29%	28%	26%	30%
File a complaint with the kebele administration	22%	22%	21%	23%	22%
File a complaint with the woreda grievance redress office	20%	11%	10%	13%	13%

Source: World Bank Staff based on UHFS 2021/22.

[4] This is done at the local level by supporting the block grant transfers to regions and woredas followed by Enhancing Shared Prosperity through Equitable Services (ESPES) program and it's Additional Financing (ESPES-AF). The two successive programs also aimed to strengthen accountability systems at the decentralized levels by supporting capacity developments in public finance management and implementation of citizen engagement initiatives. Both PBS and ESPES programs have Citizen Engagement sub-components, namely, Financial Transparency and Accountability (FTA), Social Accountability (SA) and Grievance Redress Mechanism (GRM). https://www.mofed.gov.et/programmes-projects/fta/

Awareness of key community service provision-related committees and platforms is low, but participation is relatively high. One of the innovative approaches to improve basic social service delivery is the Social Accountability Committee (SAC). The purpose of the SACs was to improve governance, accountability, and democratic values and practices among grassroots communities. SACs were established to solve problems faced by citizens at the community level (kebele or woreda) and to promote the spillover of democracy, good governance, and public accountability issues at the grassroots level.[5] Social Accountability Committees (SACs) have served as a participatory tool for local governance and social accountability and led to substantial improvements in social outcomes. According to our data, only 8 percent heard about SACs (Figure 20). The main sources of information about SACs are kebele officials, service providers, and woreda officials. However, among those who heard about SACs, participation in SAC meetings is high. Likewise, only 11 percent heard about Financial Transparency and Accountability (FTA). The FTA is a mechanism to improve transparency and accountability around public budget processes (budget preparation, allocation, execution, and audits) at the federal, regional/city administration, and woreda administration levels. This is done by developing various tools such as budget and expenditure templates, budget literacy training manuals, procurement, and audit templates, media disclosure, and other traditional and cultural mechanisms. UHFS results show that the main source of information about FTA includes service providers, woreda officials, and kebele officials. Moreover, the data show that households often do not try to get information about the budget of their woreda. There is also less attendance by urban households at community discussions on issues related to health, education, water, and roads.

Figure 20: Awareness of community service provision related committee



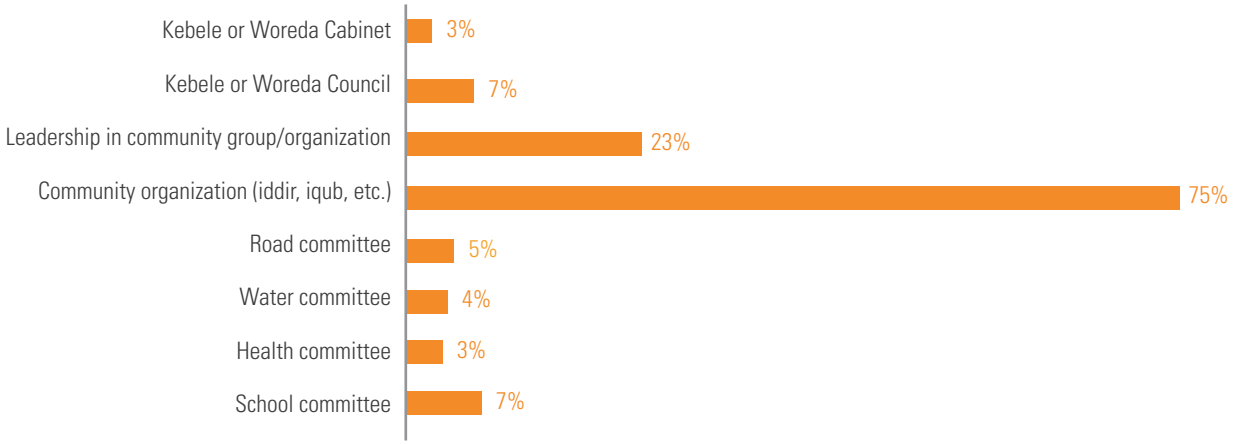
Source: World Bank Staff based on UHFS 2021/22.

[5] SAC at Bishoftu and Bahir Dar towns have played a significant role in organizing interface meetings between the service providers and service users. As a result, service providers have been improving provisions of social services delivery. Different organizations have been sharing experiences from the SACs, especially SACs located in Bishoftu town. https://participedia.net/case/5809

Participation in community organizations is high. Participation in community organizations and local-level administrations is not only an important means of information and finance, it also helps to improve citizens' capacity of engaging in public management affairs. About 75 percent of urban households tend to be a member of community organizations such as *iqub*, *idir*, and *mahiber*.[6] Moreover, about 23 percent have a leadership position in these community groups (Figure 21). Nonetheless, participation in different community committees (such as school, health, road, and water) is low (below 10 percent). Only a few households report membership in the kebele or woreda cabinet and council.

About 75% of member organizations tend to be a member of organizations such as *iqub*, *idir*, and *mahiber*

Figure 21: Participation in community committees, organizations, and leadership



Source: World Bank Staff based on UHFS 2021/22.

[6] These are common informal social institutions or community-based social (and religious) originations in Ethiopia. Such groups are often created to help their members in a broader spectrum of activities and mutual assistance, e.g., organize burial ceremonies (*iddir*) and pool funds (*iqub*).

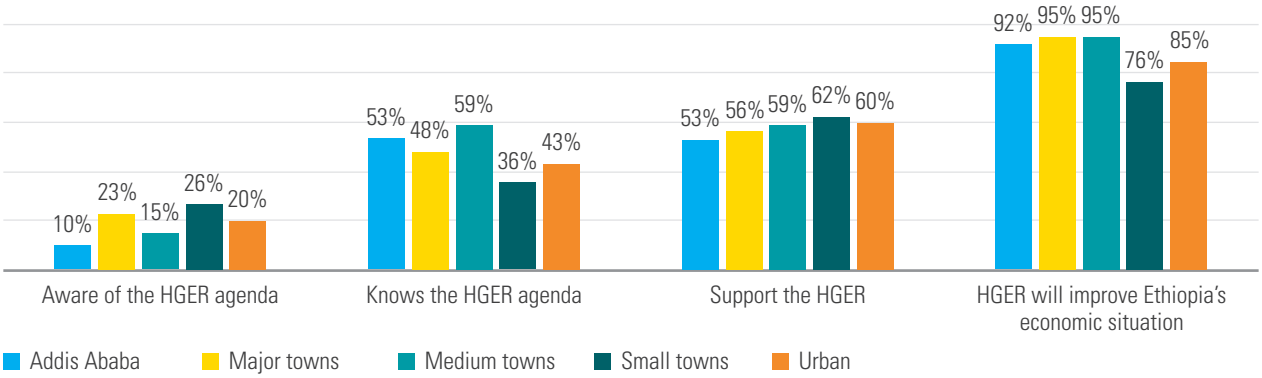
5. Perceptions of the HGER Agenda

This section presents the results on the perception and awareness of the HGERs and their support. We first look at the awareness, knowledge, support, and perceived impacts of the HGER agenda.

The HGER process has primarily targeted addressing the fundamental macroeconomic imbalances that the economy faced, tackling structural bottlenecks that hampered the economy's competitiveness and productivity, and diversifying the sources of economic growth and job opportunities across diverse sectors of the economy. The objectives of the reforms are to rebalance the economy from a state-driven to a more private sector-driven model to sustain high economic growth rates and accelerate job creation. This reform package includes, among others, (i) energy tariff reforms to put the energy utility on a path to cost-recovery, (ii) a revision of the investment code to enable private sector participation in more sectors of the economy and improve the business environment and expand access to credit to the private sector, (iii) full or partial privatization of selected state-owned enterprises, and liberalization of the telecom sector. This report focuses on these three sectoral reforms, and it seeks to investigate the awareness and level of support of urban households of the reforms, perceived impacts, and distributional impacts of the reforms.

Overall, there is low awareness and knowledge about the HGERs, but high support conditional on awareness. Only 20 percent of respondents are aware of the HGERs that aim at reforming Ethiopia's economy (Figure 22). The share is surprisingly higher in small (26 percent) and major towns (23 percent) while only 1 in 10 respondents in Addis Ababa is aware of the HGER agenda. Of those who are aware of the HGER agenda, 43 percent are knowledgeable about the HGERs (i.e., are well informed about the agenda). Given that the HGER is the flagship economic program of the current government, the low awareness and knowledge about the agenda is surprising. About 60 percent of those that are aware of the HGER support the same. Likewise, around 85 percent of the urban residents who are aware of the HGER agenda perceive that HGER will improve Ethiopia's economic situation. There is a considerable difference between Addis Ababa and other city sizes in the level of awareness, support, and perceived impacts of the HGERs (Figure 22). The low shares in Addis Ababa could be due to low levels of participation in local government structures such as woreda or kebele council and cabinets, which are important sources of information about the HGER.

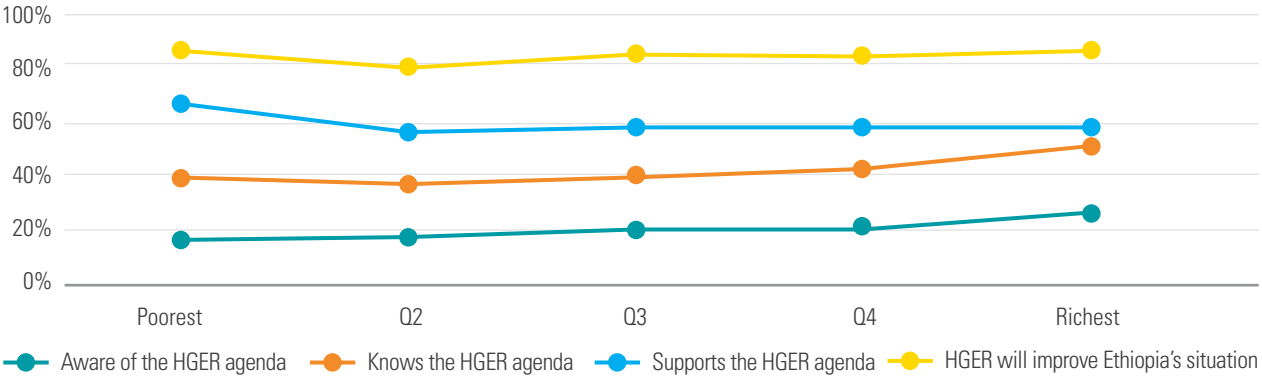
Figure 22: HGER: Awareness, support, and perceived impacts



Source: World Bank Staff based on UHFS 2021/22.

Note: Respondents were asked the following questions (i) Awareness: Are you aware of the Government's Homegrown Reform Agenda (the reforms aimed at reforming Ethiopia's economy)? (ii) Knowledge about the HGER agenda: What do you think the Homegrown Reform Agenda is about? (iii) Support the HGER (conditional on awareness): In general, how do you rate your support for the Homegrown Economic Reforms (HGER)? The statistics for knowledge, support, and perceived impacts are reported only for those who are aware of the HGER. Different versions of the figure are provided in Annex C (see figure C.2).

Figure 23: Awareness, support, and perceived impacts of HGER by welfare quintiles



Source: World Bank Staff based on UHFS 2021/22.

While the richest are more aware and knowledgeable, the poor are more supportive of the HGER agenda. Figure 23 shows whether there is any difference in awareness or knowledge about the HGER agenda by welfare level. About 16 percent of the poorest households are aware of the HGER agenda, of whom 40 percent know its content. Poorer households have less awareness or understanding of the HGER agenda compared to better-off households, which is also reflected in the higher expectation among richer households toward the HGER. However, the poorest households tend to have a relatively higher level of support for the HGER agenda than the richest, although there is no significant difference regarding the perceived impacts of the agenda to improve the country's situation.

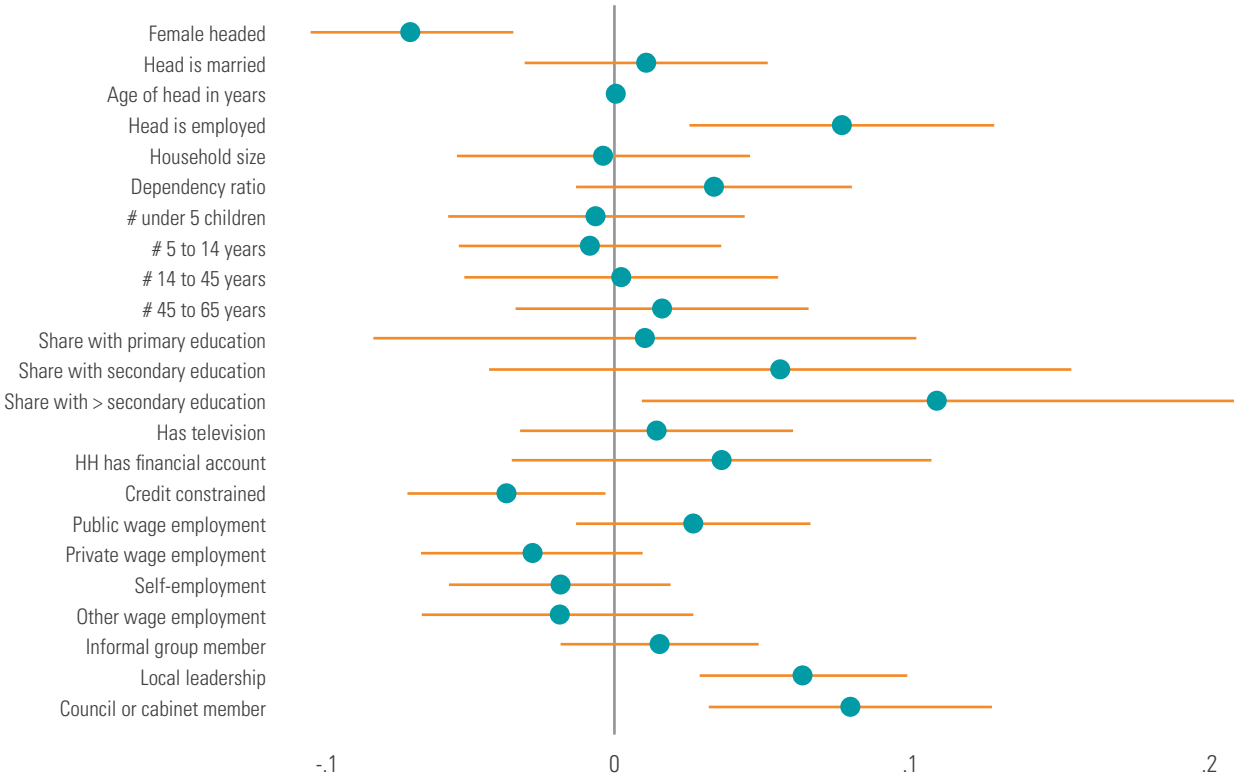
Demographics, wealth, and social capital are important determinants of households' awareness of the reforms. The results from the probit regression show that households with male and employed heads are more likely to be aware of the HGER agenda in general (Figure 24). The likelihood of awareness of the HGER also increases with the share of household members with more than secondary education. The other important determinants of awareness about the HGER agenda include having a leadership position in social groups and membership in

government positions such as council or cabinet. The results suggest that the probability of awareness of the reform agenda increases with education and membership in local government positions that could be the main source of information about the economic reforms.

Overall, the results in this section show that there is low awareness of the HGER agenda but conditional on awareness, the level of support is relatively high. The HGER is the GoE's flagship economic program, one in which a lot of effort, time, and money is invested. Understanding to which extent the HGER pays off with respect to awareness is important. A citizenry that is well aware and knowledgeable about the economic reform agenda in the country, is also one that is more likely to request for positive outcomes of these reforms or understand short-term challenges they may face to reap longer-term benefits. For example, UHFS results show that those households aware of HGER, perceive that the HGER can improve economic conditions in the country. Based on results of UHFS, more outreach efforts by GoE are needed to ensure Ethiopians are aware of the HGER agenda, their purposes, and consequences (positive and negative). This can be achieved by using communications channels most used by Ethiopians, such as social media campaigns or TV.

In addition to the HGER "brand", it is important to understand how awareness of the overall reform agenda (the brand) is linked to awareness of the specific sectoral reforms. The next three sections provide detail evidence of the link between the structural (sectoral) reforms under the HGER agenda—electricity tariff adjustment, telecom sector reform, and business investment reform—and households' service use patterns and quality of services. They also focus on establishing the perceived impacts of urban households regarding the different sectoral reforms in relation to service access and quality.

Figure 24: Determinants of awareness of the HGER agenda



Source: World Bank Staff based on UHFS 2021/22.

Notes: Average marginal effects from probit regression are reported. Other controls include housing and basic amenities, asset index, and city size fixed effects.

6. Energy Tariff Reform

This section provides evidence of the link between the electricity tariff adjustment and households' electricity service use patterns and service quality. It also provides evidence of the awareness and support of the electricity tariff adjustment and the perceived impacts of the tariff reform on electricity service quality.

The need for the energy tariff reform

Expanding electricity access and securing reliable energy services are fundamental to ensure that Ethiopia meets its growth and poverty reduction goals. The electricity sector is a key priority for the country's socio-economic growth. While electricity demand has grown continuously in Ethiopia for the past 20 years, future demand is projected to increase dramatically because of rapid growth in population and urbanization. However, the power sector is still characterized by low access and low-quality services. Among the key quality issues of the power sector are frequent scheduled and unscheduled power interruptions, transmission problems (i.e., electricity loss or leakage), and backward maintenance systems and technology (Hassen et al., 2022). According to the World Bank Global Electrification Database from "Tracking SDG 7: The Energy Progress Report", access to electricity—the percentage of the population with access to electricity—has increased between 2018 (44.9 percent) and 2020 (51.1 percent), indicating that about half of the population does not have access to electricity (Hassen et al., 2022). The low access rates and lack of quality of service are directly and indirectly related to financial challenges in the Ethiopian power sector. Revenue collected from the sale of electricity is the main source of funds for electricity infrastructure projects and maintenance and replacement. However, existing tariffs in Ethiopia are among the lowest in Africa and are far below the cost of electricity generation (Hassen et al., 2022), implying that tariff revenues were not enough to cover operating expenses in the sector. Poor electricity service delivery and the difficulty to increase the generation capacity to keep up with rising demand could be attributed to a lack of full-cost recovery.[7] The power sector is overall characterized by poor financial performance (e.g., accumulated debt, inappropriate tariff setting), operational and administrative inefficiencies, and weak institutional and regulatory frameworks over and above the abovementioned corporate governance problems (Pappis et al., 2021).

[7] https://www.esi-africa.com/industry-sectors/energy-efficiency/research-electricity-tariff-rises-in-ethiopia-how-households-cope/

Electricity tariff adjustment

To address these challenges, the GoE has been making major investments in the power sector under two energy policy programs: the National Electrification Program (NEP II) and the Power Sector Reform bill. The NEP aims to achieve 100 percent electrification by 2025 through on-grid (65 percent) and off-grid (35 percent) solutions (Pappis et al., 2021). This is motivated by the country's ambition to be the regional energy hub given its abundant supplies of renewable energy sources such as hydroelectric, wind, solar, and geothermal. To achieve this goal, the power sector needs to allow strong participation of the private sector in off-grid projects. In this regard, the government has been encouraging independent power producers (IPPs) and public-private partnerships (PPPs) in the electricity sector. Ethiopia has also engaged with several development partners to maximize its installed capacity, and the government is pursuing public-private partnerships and encouraging private sector participation in the electricity sector. The Power Sector Reform bill cited weak institutional capacity and insufficient human capacity, large debt, and high load-shedding as other key challenges to address the need to increase installed capacity (Pappis et al., 2021). However, it also outlines solutions, including the strengthening of institutions, regulatory frameworks, and restructuring of the sector, as well as the development of a contractual framework to reform electricity tariffs. The time for the reform covers July 2019 – December 2020.

Under the new tariff trajectory, electricity pricing was restructured from Increasing Block Tariffs (IBT) to Volume Differentiated Tariffs (VDT). The other reform related to implementing a sustainable financing model targets restoring cost recovery through tariff reforms. The tariff reform involves a minor price increase for the first 12 months, followed by a steeper increase for the following 36 months. Customers consuming fewer than 50kWh of electricity per month (probably low-income households with low electricity needs) did not experience a change in electricity prices. Households that consume more electricity experience higher costs of electricity per kWh. Table 3 presents the existing tariffs alongside the proposed final tariff structure, as it stands after four iterations of tariff increases. The first iteration of tariff increases took place in 2018, and the final iteration took place in 2021. Moving from an IBT towards a VDT structure means that heavily using consumers will no longer be subsidized implicitly. Under the IBT structure, all consumers benefiting from subsidies – for example, a consumer in block 4 (201 to 300 kWh) would receive the cumulative subsidies of the first three blocks in addition to the block 4 subsidies. Under the VDT system, extremely low-income consumers (corresponding to those who are consuming in block 1) will not have any reduction in their subsidy level. Heavy users, however, will see sharp reductions in subsidies. Users in block 4 will pay the assumed cost of production of ETB 2 per kWh, while those consuming in blocks 5, 6, and 7 will pay above the cost of production to cross-subsidize those in blocks 1, 2, and 3.[8] In relation to the electricity tariff adjustment, the sector managed to improve financial sustainability by increasing the average tariff to cost reflective level and revenue from electric power sales between 2020 and 2022.

[8] Under the final tariff structure there will be no change to block 1 pricing, and so the subsidy level remains the same. 75% of the cost increase for the second block will be subsidized, and 25% of the cost increase for the third block will be subsidized. The fourth block will be charged at the cost of service. The fifth, sixth and seventh blocks will subsidize 10%, 15%, and 75% of the total required subsidy amount, respectively.

Table 3: Existing and revised electricity tariff structures in Ethiopian Birr

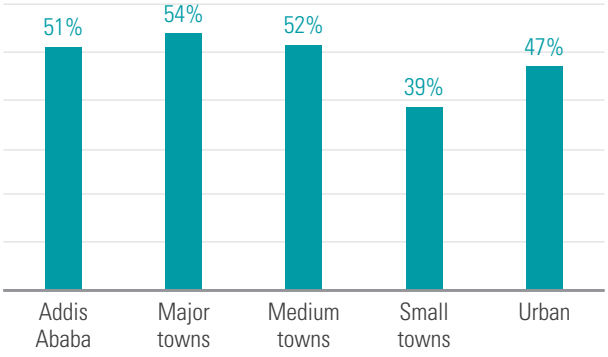
	Consumption range (kWh)						
	0-50	51-100	101-200	201-300	301-400	401-500	>500
Existing tariff	0.273	0.356	0.499	0.550	0.567	0.588	0.694
	0.273						
	0.767						
	1.625						
Proposed final tariffs	2.000						
	2.200						
	2.405						
	2.481						

Source: Ethiopian Electric Power (EEP) and Ethiopian Electric Utility (EEU).

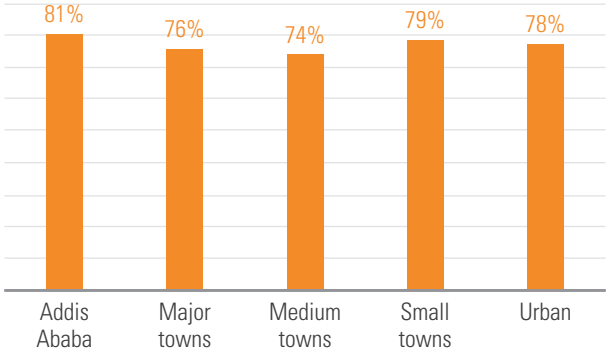
Note: Prices are in Ethiopian Birr, and the proposed final tariff structure represents the structure after the full four-year tariff reforms have been completed.

Figure 25: Perception of household's electricity supply

a. Electricity supply is good



b. Electricity supply will be good



Source: World Bank Staff based on UHFS 2021/22.

Electricity supply and service quality

Less than half of urban households perceive that the electricity supply is good with a stark difference by city size. Except for small towns, more than half of the households in Addis Ababa and other cities perceived that the electricity supply was good during the baseline (Figure 25). However, the share of households that perceive electricity supply will be good in the future is 78 percent.

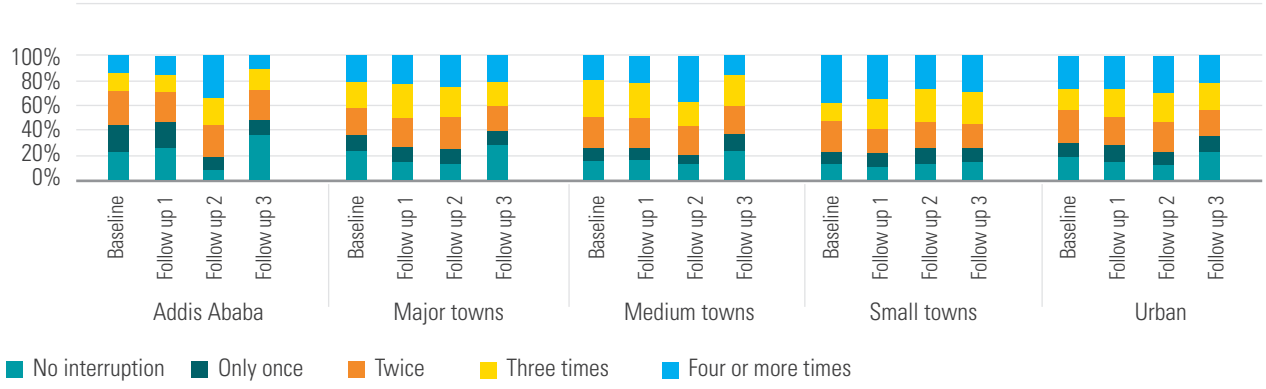
Electricity reliability is a further challenge, with households that are connected to the grid experiencing frequent interruptions. Unreliable electricity could result in disruptions to production, reduced profitability, and increased costs. The share of households that use electricity for lighting is about 97 percent, with no difference across city sizes. About 30 percent of urban households use electricity for cooking, with electricity a major source of fuel for cooking in Addis Ababa (72 percent) but less so in small towns (10 percent). Electricity interruption is common in medium and small towns (Figure 26). About 70 percent of the households experience electricity interruptions twice or more per week in the baseline and the share decreased to 65 percent in follow-up 3. However, the results show an increase in electric power interruptions between March 2022 and July 2022. There is an increase in the share of households that report no electricity interruptions

from 18 percent to 24 percent between baseline and follow-up 3. The largest improvement in electricity service is in Addis Ababa.

Analysis of energy use patterns shows that urban households still rely on solid fuel sources for cooking, with a stark difference across city sizes. Around 70 percent of the urban household use solid fuel (dung, crop residues, wood, charcoal, or coal) driven by wood (45 percent) and charcoal (24 percent) whereas only 30 percent use non-solid fuel (mainly electricity – 29 percent). Solid fuel use decreases with city size. About 73 percent of Addis Ababa residents use non-solid fuel (driven by electricity) compared with 9 percent in small towns. Regarding cooking stove use pattern, about half of the urban households have a cooking stove (kerosene, butane gas, biogas, or electric) and 44 percent own an electric stove. Cooking stove ownership decreases with city size (e.g., 85 percent of households in Addis Ababa use electric stoves compared with 20 percent in Small towns). The low use rate of electricity for cooking and the adoption of electric stoves could reflect the high cost of electricity.

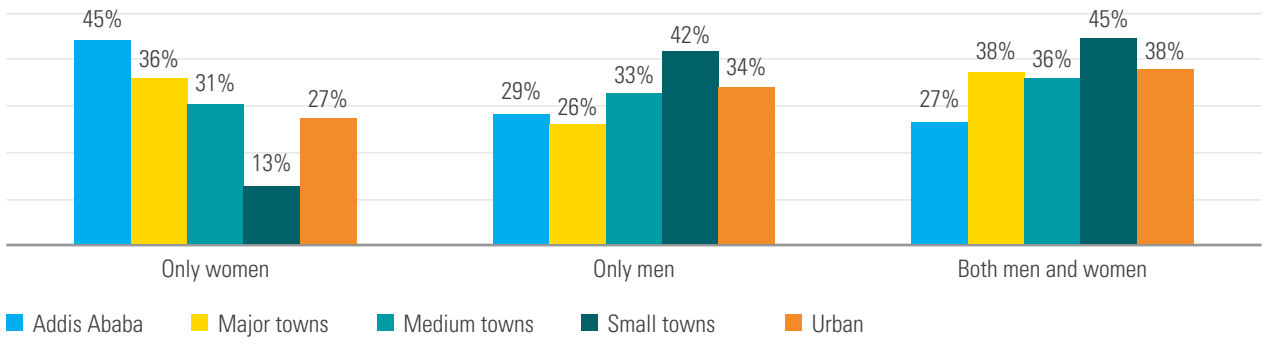
Gender is important in household energy use decisions. In terms of intra-household decision-making power concerning energy use, gender is an important factor. Men are more likely to make energy use decisions in most households. However, women are likely to make energy use decisions in Addis Ababa and major towns. Men are more likely to make energy use decisions in medium towns and small towns. Women are more likely to make energy use decisions in women-headed households, whereas men are more likely to make energy use decisions in male-headed households. Only women make energy use decisions mostly in Addis Ababa. In other city types, men and women jointly make energy use decisions (Figure 27). As discussed below, the gender of the energy use decision maker is an important factor in supporting the electricity tariff adjustment.

Figure 26: Frequency of electric power failure or interruptions per week



Source: World Bank Staff based on UHFS 2021/22.

Figure 27: Energy use decision-making by gender



Source: World Bank Staff based on UHFS 2021/22.

Reform awareness and support

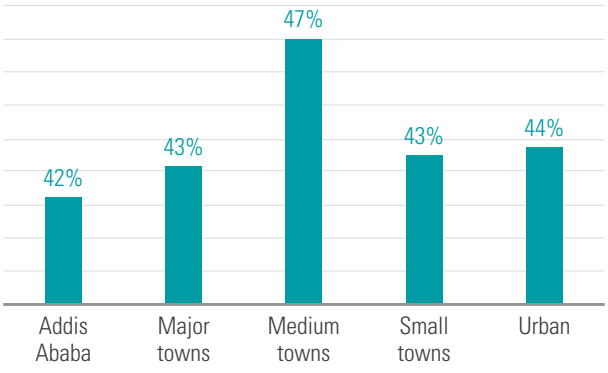
There is relatively large support for the electricity tariff reform. As discussed earlier, since December 2018 the GoE continued the implementation of reforms in the energy sector to improve efficiency and cost recovery while protecting the poor. To improve the quality of electricity services, the GoE embarked on tariff reform by revising the existing tariff rate structure to achieve cost recovery and help incentivize private sector participation in the power market. Results from the UHFS show that 44 percent of the households support the electricity tariff adjustment by the government (Figure 28). The support for electricity tariff adjustment is not determined by demographic characteristics, however, households with membership in local administration and informal groups are more likely to support it. Households, where energy use decisions are made either by women alone or men alone, are less supportive of the reform. There is no significant difference between the poor and the rich regarding tariff adjustment. Moreover, about half of the households (61 percent in Addis Ababa) are willing to accept additional increases in electricity tariffs if the quality and reliability of the electricity supply are improved. About three-fourths of the households state that the government should increase electricity prices so that the utility can invest in extending electricity connections to people in rural areas as well with no considerable differences by welfare quintiles (75 percent for the poorest vs. 80 percent for the richest). There are, however, considerable differences across city types with 84 percent in Addis Ababa supporting higher electricity prices compared to 65 percent in small towns. Only 25 percent of households state that the government should keep electricity prices low for people living in cities and towns.

About ¾ of households extending electricity connection in rural area

Perceived impacts on households

The perceived impact of the tariff reform on quality and reliability is low. About half of the households indicate that the quality and reliability of electricity improved after the tariff adjustment from October to December 2021 (Figure 29). The share increased to 53 percent in the first follow-up (March 2022) before decreasing to about 45 percent during follow-up 2 (July 2022) and then increasing again to 56 percent in follow-up 3 (November 2022).

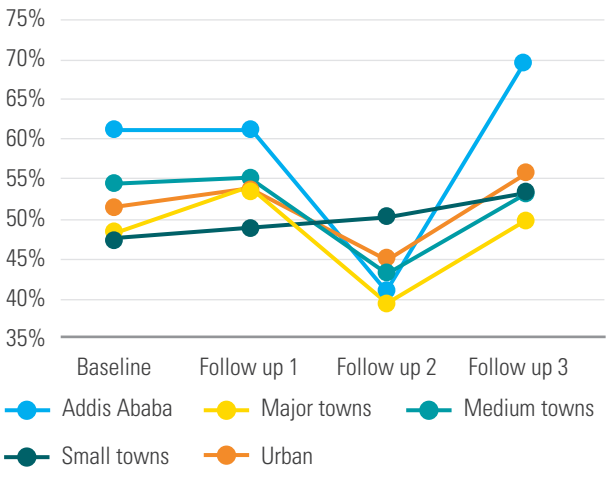
Figure 28: Support for electricity tariff adjustment by city size



Source: World Bank Staff based on UHFS 2021/22.

Note: Respondents were asked: The GoE has increased the electricity tariffs to improve the quality and reliability of electricity. Do you agree with the tariff adjustment?

Figure 29: Perceived impacts of the Electricity tariff adjustment by city size

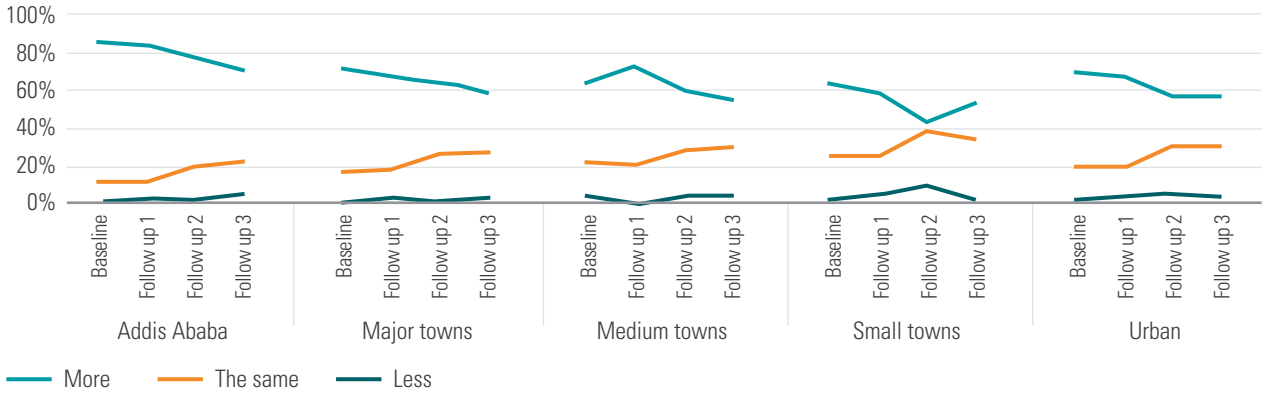


Source: World Bank Staff based on UHFS 2021/22.

Urban households perceived that the electricity tariff has not increased after the reform. About 70 percent of the urban households perceived that they have paid more for electricity compared to one year ago, with considerable differences across city types. There is a sharp decrease in the proportion of households reporting that payment for electricity has increased compared to one year ago except for small towns where there was an increase in the share between follow-up 2 and follow-up 3 (Figure 30). This is accompanied by an increase in the proportion of households that perceived that the amount they have paid for electricity has remained the same (30 percent) or decreased (4 percent) over time during the last year. Further analysis of the perceived changes in electricity price by expenditure quintiles shows that there was no significant difference between the poor (69 percent) and the rich (64 percent) in the perception of an increase in electricity prices after the adjustment however the difference was not significant.

The electricity tariff adjustment led to a small reduction in households' electricity consumption. Although the UHFS data show that households did not perceive an increase in electricity price after the tariff adjustment, existing studies show that the reform reduced consumption. A recent study examines the effect of the new tariff on urban households' electricity consumption and demonstrates that electricity consumption decreased by a small amount after the introduction of tariff reform (Hassen et al., 2022).[9] The study finds that prepaid customers reduced their electricity consumption by about 22 kWh per month in the post-tariff-adjustment periods, equivalent to about 10 percent of electricity expenditure and 14 percent of daily consumption. The study further demonstrates that there was a brief drop in electricity consumption between the end of 2018 and the middle of 2019, the period that coincides with the first increment of the electricity price hike. The results show that households initially responded to the increase in electricity prices by reducing consumption, although consumption rebounded by the middle of 2019. By the beginning of 2020, households' electricity consumption even reached levels that are more than 60 percent higher than in 2015. After hovering below 150 ETB/kWh a month over the entire pre-reform period, household expenditure increased to more than 200 ETB/kWh a month following the reform in 2019. Then, it began to increase again in mid-2019 when electricity consumption returned to its pre-tariff hike level, before jumping once more in late 2019 during the second price hike (Hassen et al., 2022).

Figure 30: Perceived changes in electricity tariff or price after the reform



Source: World Bank Staff based on UHFS 2021/22.

[9] The study used panel survey data from about 2000 urban households that spans six years of electricity consumption data from the utility company and the Ethiopian Multi-Tier Framework (MTF) of electricity access survey in Ethiopia administered by the World Bank in 2016 as a baseline.

The tariff increases had a disproportionately high negative effect on low-income households. Results from the Ethiopian Socioeconomic Survey show that the real monthly electricity expenditure has increased between 2019 (pre-tariff adjustment) and 2022 (post-tariff adjustment) by 33 percent; the growth rate being higher for poor households (77 percent) than the rich (28 percent). Overall, the results show that the modest gradual tariff increases deployed in the country facilitate the government's efforts to raise revenues from the electricity sector. Moreover, the study shows that this can be achieved without substantially reducing household electricity consumption.

Though GoE has come a long way in reforming its energy sector, more efforts are needed to accelerate electrification with investments in network and connections and to bring utilities on a path to cost recovery. This can be achieved by accelerating the delivery of electricity access to currently underserved areas and by further reforming the tariff structure to improve utility performance without hurting the poor. In-depth distributional analysis is needed to ensure changes in the tariff structures do not negatively impact the poor's access to electricity or affordability of energy to them.

7. Telecom Sector Reform

This section provides evidence of the link between the sectoral reforms under the HGER agenda and households' service use patterns and quality of services. It focuses on establishing the perceived impacts of urban households regarding the different sectoral reforms in relation to service access and quality.

The need for the telecom sector reform

Mobile connectivity and mobile money are shown to have positive impacts on welfare, reflecting the importance of the Telecom sector reform in this regard. A decade after mobile phones began to spread in Africa, they have become commonplace even in the continent's poorest countries. The dramatic increase in access to and use of mobile telephony in SSA over the past decade has attracted many studies that demonstrate mobile connectivity and mobile money as important contributors to poverty reduction in Sub-Saharan Africa (Aker & Mbiti, 2010; Miyajima, 2020; Suri & Jack, 2016). Mobile phone ownership is shown to boost participation in markets (Minten et al., 2016; Tack & Aker, 2014) and off-farm employment (Sekabira & Qaim, 2017; Wieser et al., 2019) by facilitating greater and more affordable access to information. Most of all, mobile phones have made a highly recognized and innovative contribution through the introduction of mobile money—an innovation that has been critical to increasing financial inclusion by providing an alternative to traditional financial services, allowing quick and affordable cashless transactions and secure income payments, and accessing borrowing and saving, among others (Suri, 2017). The other benefits of mobile money include improving trade, private sector credit (Sawadogo & Wandaogo, 2021), facilitating peer-to-peer remittance (Ahmad et al., 2020; Munyegera & Matsumoto, 2016), and enhancing savings behaviors (Batista & Vicente, 2020; Loaba, 2022). Mobile phones also help with informal risk sharing by reducing the cost of sending remittances between family and friends and protecting households from financial and natural shocks (Koomson et al., 2021; Suri & Jack, 2014). The telecom sector reform in Ethiopia that aims at improving mobile phone service quality and connectivity is expected to promote the use of digital money (e.g., mobile money) with ultimate effects on households.

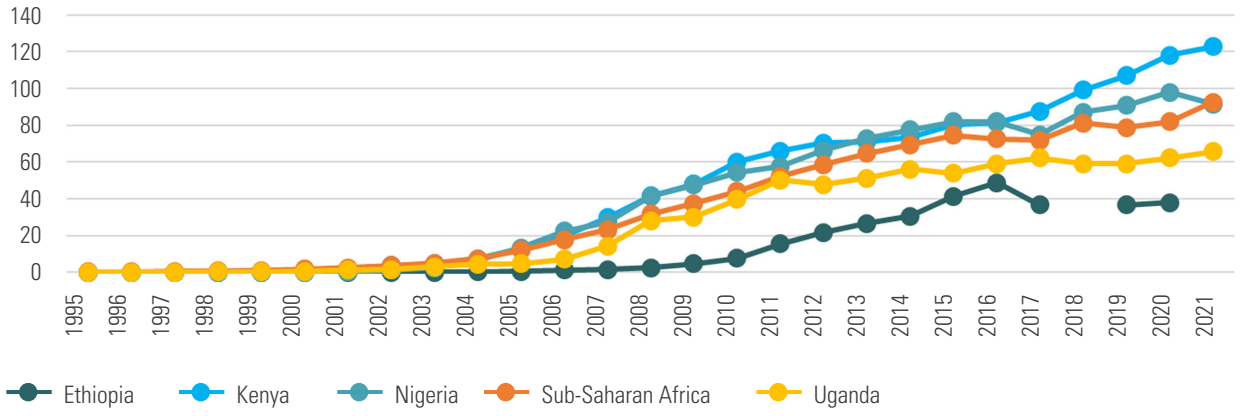
Ethiopia lags behind its peers in the provision of GoE telecom service, necessitating GoE to endorse reforms in the sector. Despite the strong evidence of the positive impacts of mobile connectivity and mobile money on welfare, Ethiopia lags far behind its peers in mobile connectivity. The mobile-cellular subscription (per 100 people) has steadily increased since 2000 in SSA including Ethiopia. However, Ethiopia lags behind SSA countries (e.g., Uganda, Kenya, Nigeria)

in the use of mobile phones measured by the number of mobile cellular subscriptions (Figure 31). The observed gaps could be because the other countries have multiple operators unlike Ethiopia with just one operator. In 2020, the mobile cellular subscriptions (per 100) were 37, showing the relatively lower digital penetration in the country. Although Ethio Telecom has succeeded in reducing tariffs by about 50 percent culminating in an increase in voice and data traffic, the average price of 1 GB of mobile data is USD 2.44, suggesting costly service. Limited telecom service coverage, costly access, poor quality, and lack of local content and services in the telecom sector are becoming a binding constraint to private sector development and firm growth. As Ethiopia moves to a more liberalized market environment, it needs to develop the appropriate enabling environment and a competitive market to sustain the country's growth, attract foreign and domestic investment, and ensure proper representation of the interests of consumers, investors, and government. Thus, access to information and communication is at the core of the inclusive economic development agenda, which promotes improved global connectivity, better service efficiency, and enhanced innovation and technology adoption.

Telecom sector reform description

Being one of the last countries with a state-owned telecom networks and services provider monopoly, the GoE decided to partly liberalize the Ethiopian telecom sector to offer modern and high-quality services at globally competitive prices. The development of the telecoms sector is critical to meeting the country's inclusive development aspirations. This can be achieved by improving the enabling environment and establishing a competitive market. With this thrust, the GoE endorsed four broad areas of telecom reform in September 2018 to improve service delivery: (i) the introduction of an independent sector regulator; (ii) the restructuring of Ethio Telecom between infrastructure and services arms, in response to the reformed market; (iii) partial privatization of Ethio Telecom (up to 49 percent private ownership); (iv) and reform of Ethiopia's telecom market structure, with emphasis on the introduction of new full-service telecom operators. As part of the partial privatization of the telecom sector, Ethiopia did accept one offer from a consortium led by Safaricom, the biggest operator in neighboring Kenya, which has one of Africa's most sophisticated telecoms sectors. The initial plan to issue licenses

Figure 31: Mobile cellular subscriptions (per 100 people)



Source: World Development Indicators (WDI).

[9] The study used panel survey data from about 2000 urban households that spans six years of electricity consumption data from the utility company and the Ethiopian Multi-Tier Framework (MTF) of electricity access survey in Ethiopia administered by the World Bank in 2016 as a baseline.

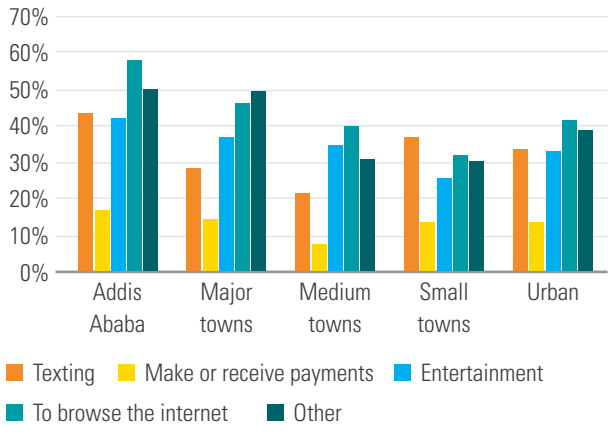
was set for March 2020 but was delayed due to parliamentary elections and recent developments and fast-moving macroeconomic changes. The licensed firm—Safaricom Ethiopia—started operation only recently with a pilot in Dire Dawa, and it continued switching on its network and services in other cities as of November 2022. The opening of the telecom market to private sector competition and foreign investment is expected to bring lower prices, higher quality of service, and more choices for consumers. The participation of the private sector is thought to foster competition in mobile communications, internet, and other telecom services and ultimately lead to increased investment in infrastructure and services, increased choice, and innovation for consumers, and better, more affordable service. It will also help Ethiopian firms compete internationally if they pay lower prices for digital services at home. The reform will also lay the foundations for Ethiopia's future digital transformation. According to the first National Digital Transformation Strategy for Ethiopia (FDRE, 2022), agriculture, tourism, manufacturing, and IT-enabled service sectors are the primary beneficiaries of Ethiopia's digital revolution.

Mobile phone ownership and use pattern

Mobile phone use pattern analysis shows low use of mobile phones for financial purposes. Mobile phones have transformed the lives of hundreds of millions for whom they were the first, and often the only, way to connect with the outside world. Mobile money services, which enable people to send cash straight from their phones, have in effect created personal bank accounts that people can carry in their pockets (Suri & Jack, 2016). Since the UHFS targets urban households that own a functioning mobile phone at the household level, mobile phone ownership is high across city sizes. The majority of households use mobile phones for calling, browsing the internet, and texting (Figure 32). The share of households using mobile phones for browsing the internet and entertainment (to play games or entertain the kids) decreases with city size. However, the use of mobile phones for financial transactions is low as less than 15 percent use mobile for making or receiving mobile payments, with the share of households being the lowest for medium towns. The share of households using mobile phones for other purposes such as reading books, calculators, and alarms is higher in Addis Ababa and major towns than in smaller cities.

Urban households experience mobile network challenges with network connectivity higher in Addis Ababa. About half of all households experience a drop in calls in the last seven days prior to the survey in major, medium, and small towns (Table 4). Overall, there is no significant difference in the average number of phone calls made in a week between households who experienced call drops and those who did not during the same period.

Figure 32: Mobile use patterns in urban Ethiopia



Source: World Bank Staff based on UHFS 2021/22.

Table 4: Mobile call and network-related challenges

	Addis Ababa	Major towns	Medium towns	Small towns	Urban
Call drop experience in a week	30%	51%	53%	56%	49%
Number of fails in a week	6	7	5	8	7
Number of fails to number of calls made	18%	23%	21%	22%	22%
Experience mobile network unavailability	33%	47%	46%	51%	46%

Source: World Bank Staff based on UHFS 2021/22.

Urban households experienced dropped calls once per day, and it is equivalent to 22 percent of the total calls made. About 46 percent of households experienced an unavailable phone network, and this occurred 5 times in the past 7 days on average. Mobile network unavailability appears to be a more common challenge in small towns than in Addis Ababa. Moreover, 46 percent of the households report experiencing network error messages, about 6 times per week. With the recent expansions in the coverage and quality of network services (e.g., the introduction of 5G network in the country as of May 2022), network quality improvements are expected. Moreover, the telecom sector reform that involves the provision of an additional license for a new firm and improvement in the quality of the network by Ethio Telecom is expected to contribute to improvement in the quality of the service.

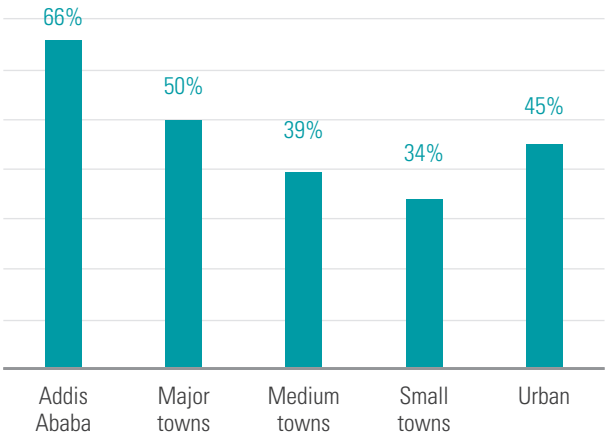
The internet use rate of urban households is low at only 45 percent. Internet use is growing across much of sub-Saharan Africa, but most are still offline. While there is no evidence at the household level, the internet use rate at the individual level is 17 percent in 2021, lagging behind other comparator countries: 40 percent in Kenya (2021) and 26 percent in Uganda (2021). There is a considerable difference in internet use rates at the household level between Addis Ababa and small towns (Figure 33), with Addis Ababa residents twice as likely (66 percent) to use the internet compared to small towns (34 percent).

Mobile phones are the main access point to the internet. For households using the internet, close to 100 percent of households use their mobile phones to access the internet across all city sizes. Few people access the internet through a private home connection, particularly in smaller towns. Only 16 percent of households in Addis Ababa use the internet through a home connection and only 1 percent in small towns. Wi-Fi hotspots from hotels are another important access point to the internet, particularly in large, medium, and small towns (Figure 34). Nearly all households with internet access use it for voice or messaging (WhatsApp, Skype, Viber, Telegram, Facebook, etc.) and just over half use it for following the news (local news, national headlines, technology announcements, sports).

Financial access and digital finance use

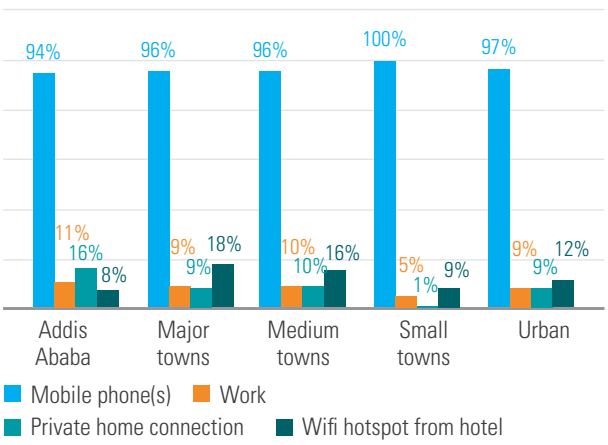
Ownership of a financial account is high in urban Ethiopia. One of the prominent importance of mobile phones and internet use is that it leads to increased financial access and inclusion (Ahmad et al., 2020). Most urban households (93 percent) have financial accounts, mainly bank accounts. This indicates that the majority of banking is done traditionally via bank accounts. On the other hand, mobile banking is only practiced by 17 percent of urban households, but

Figure 33: Internet use in Urban Ethiopia



Source: World Bank Staff based on UHFS 2021/22.

Figure 34: Sources of internet for households that use the internet



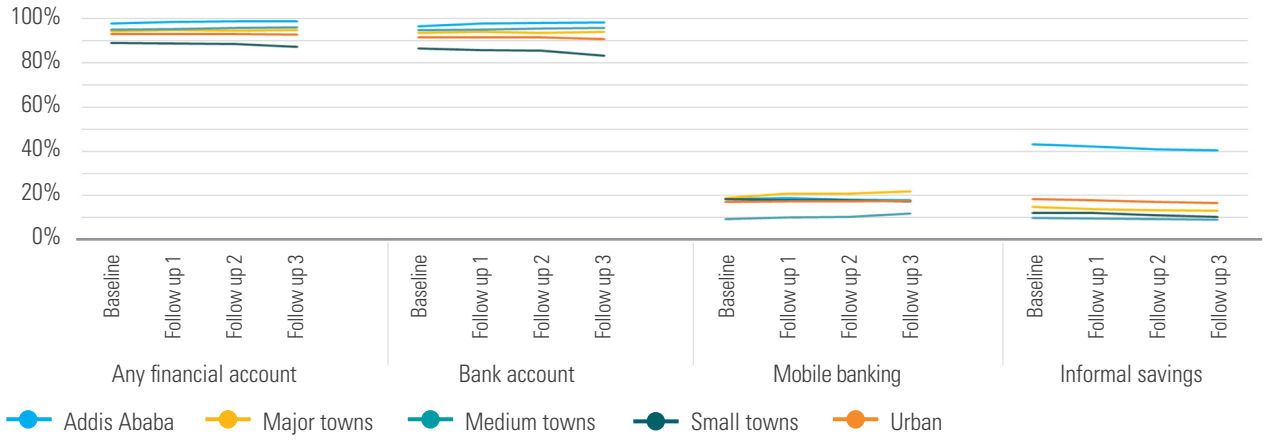
Source: World Bank Staff based on UHFS 2021/22.

internet banking is not commonly used by urban households (Figure 35). Mobile banking usage is higher among individuals with post-secondary education and who are employed (especially employed formally and in the service sector) (Table C3). The low adoption of mobile banking could be due to challenges Banks and Financial Institution face in facilitating mobile banking transactions such as security, fraud, and identity theft issues. Another big challenge for banks could be the lack of common technology standards for mobile banking and interoperability issues. Relatedly, the type of device owned by clients could also matter. From the demand side, the lack of awareness and understanding of the benefits provided by mobile banking (Tesfa, 2019). Another important evidence is the high prevalence of informal savings in urban areas, mainly Addis Ababa. Overall, there has been no change in financial account ownership and use of financial services between October 2021 and November 2022.

Reform awareness and support

There is less awareness about the telecom sector reform but there is strong support for sectoral reform. As discussed above, the telecom market in Ethiopia was a monopoly dominated by Ethio Telecom, a state-owned service provider, until the government decided to award a license to a new telecom operator. Evidence based on UHFS shows that only around 30 percent of the urban residents are aware of the telecom sector reform, with a relatively higher share in Addis Ababa and a lower proportion in small towns (Figure 36). The

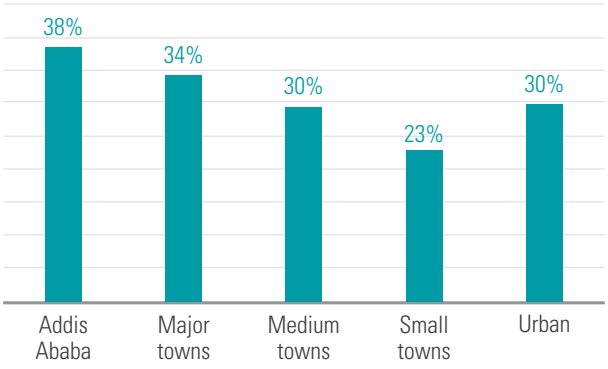
Figure 35. Financial accounts ownership by type and city size



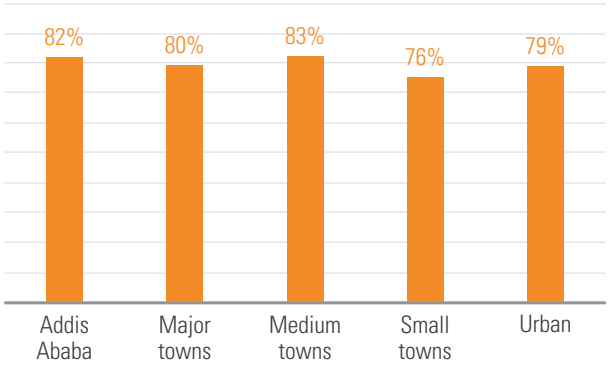
Source: World Bank Staff based on UHFS 2021/22.

Figure 36: Ethio Telecom reform awareness and support

a. Aware



b. Aware and support

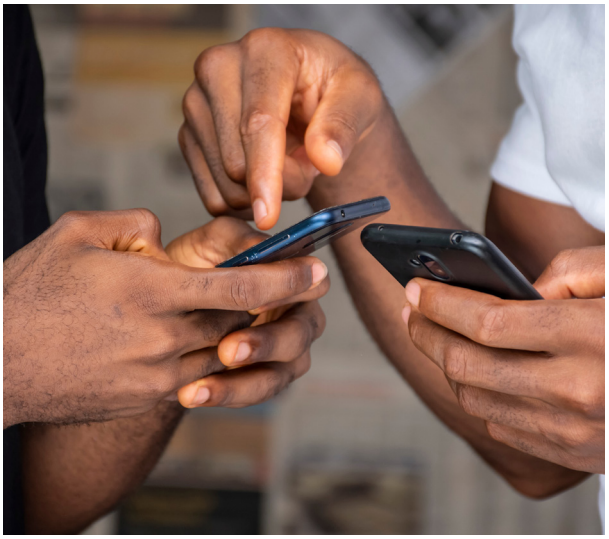


Source: World Bank Staff based on UHFS 2021/22.

Note: Respondents were asked: (a) Awareness: The Government has decided to introduce two additional telecom operators (in addition to Ethio-telecom). Are you aware of this?, (b) Support for those who are aware: Do you agree with introducing these additional telecoms licenses?

follow-up surveys asked if households are aware of any telecom service provided apart from Ethio Telecom. The results show an increase in the share of households that report knowing another telecom service provider between follow-up 1 (9 percent) and follow-up 3 (29 percent) across all city sizes, which coincides with Safaricom starting operations (and advertising) in Ethiopia. There is however strong support for the reform. Among those who know about the reform, about 80 percent support the same.

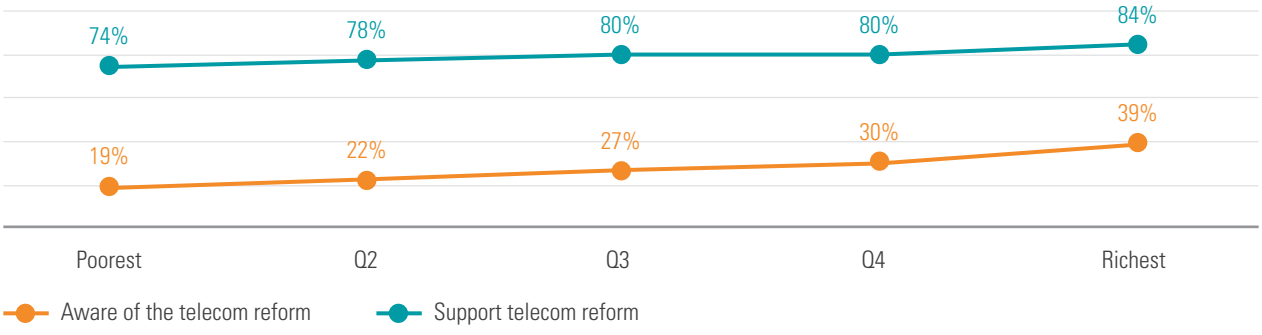
The richest households were significantly more aware of and supportive of the reform compared to the poorest (Figure 37). On average, 28 percent of households are aware of the telecom reform. Richer households are significantly more aware of the reform; 39 percent of the richest households are aware of it compared to 19 percent of the poorest group. It is noteworthy that most households (80 percent) support the reform, which implies that even those households who are not aware of the reform, answered that they are supportive. The richest households were significantly more supportive of the reform compared to the poorest group (84 percent vs 74 percent).



Perceived impacts on households

The telecommunication sector reform would generate welfare gains by reducing service prices and increasing users. Findings from a microsimulation analysis that utilized data from the 2015/16 Household Consumption Expenditure Survey (HCES) show that a reform scenario that dilutes the market share of the state-owned monopoly to 45 percent would lead to a reduction in the price of mobile services of 25.3 percent, an increase in new users of 4.6 million, and a welfare gain of 1.4 percent among all consumers (Rodriguez-Castelan et al., 2022). The study further shows that poverty rates would decline by 0.31 percentage points, of which 0.22 percentage points will be for current consumers and 0.09 percentage points for new users. However, the results show that income inequality would increase by 0.23 Gini points, primarily because better-off consumers are more likely to reap the benefits of greater competition. The results overall highlight the positive welfare impacts of the telecom reform among urban households.

Figure 37: Awareness and support of the telecom reform by welfare quintiles

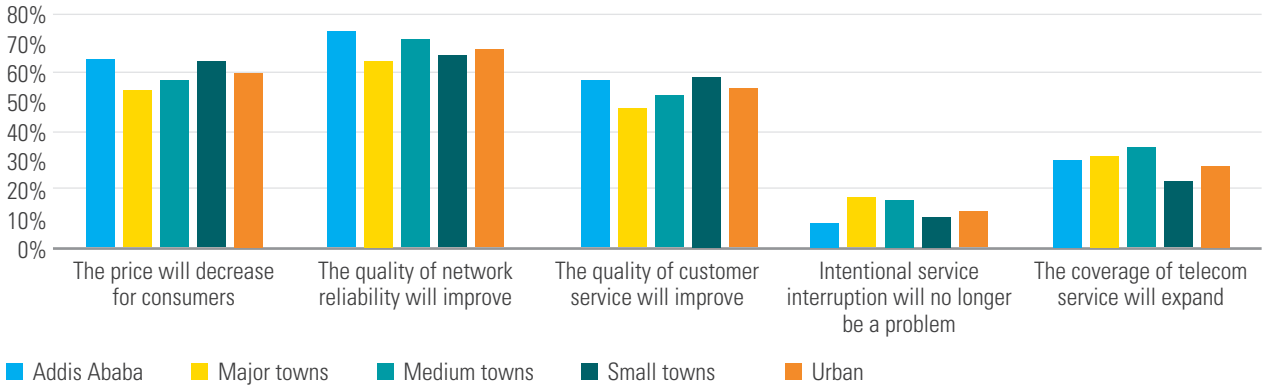


Source: World Bank Staff based on UHFS 2021/22.

Urban households believe that the telecom sector reform improves the quality of services. The main challenges households face in relation to telecom services include lots of interruptions in the network that cause a high number of call failures. With new additional operators in the telecom sector, there is a great hope that the quality of network reliability will be improved, the price will decrease for consumers, and the quality of customer service will be improved (Figure 38). About 28 percent of the urban residents also believe that the reform helps to expand the coverage of telecom services.

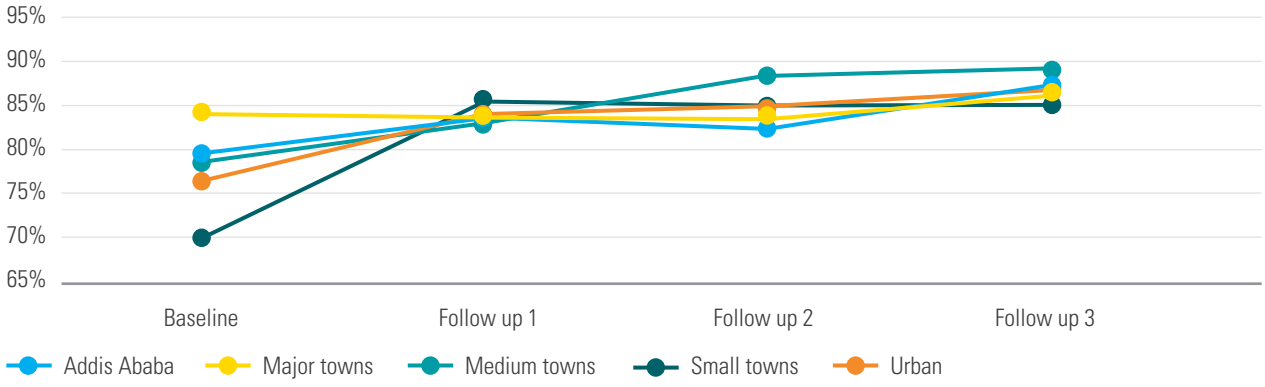
A large majority of urban households are happy with the price and service of Ethio Telecom. The results also show that a high share of urban households (77 percent) is happy with the price and service of Ethio Telecom (Figure 39). The figure even increased to 84 percent during follow-up 1 and further to 87 percent during follow-up 3. Overall, there is an increase in the share of households that are happy with the price and service of Ethio Telecom over the survey period (between baseline and follow-up 3). While this could be due to the continuous effort of Ethio Telecom to bring innovations, new services and packages (e.g., Telebirr), and introduce new tariffs on its services even before the reform, the anticipated competition in the telecom market could have played a role. The company has been continuously reducing the costs of mobile internet, voice call, SMS and broadband internet services. The adjustment in tariff rates and improving the quality of services are believed to promote the proliferation of technology in the country and boast business and growth in the country.[10]

Figure 38: Perceived impacts of the telecom sector reform



Source: World Bank Staff based on UHFS 2021/22.

Figure 39 : Percentage of households that are happy with the service and price of Ethio Telecom



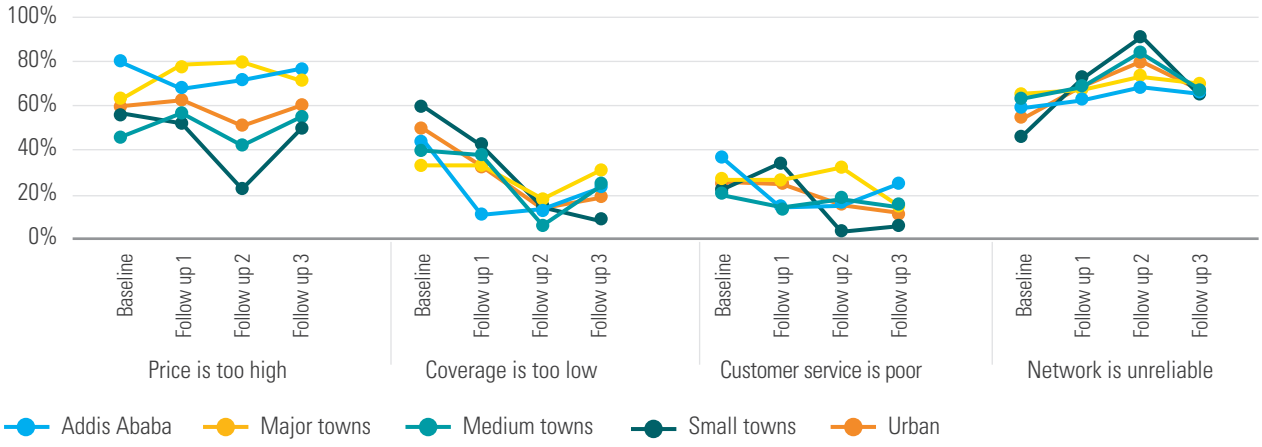
Source: World Bank Staff based on UHFS 2021/22.

[10] https://www.ezega.com/News/NewsDetails/6533/Ethio-Telecom-Announces-Major-Reduction-on-Internet-Voice-Call-SMS-Rates

For those dissatisfied with Ethio Telecom, high prices, unreliable network, and low service coverage are the main reasons. About 23 percent are not happy with the service and price of Ethio Telecom. Among the main reasons for dissatisfaction include high prices, unreliable networks, and low service coverage (Figure 40). The UHFS results show that low coverage and poor customer service became less important over time. However, the unreliable network appears to be an important challenge across all city sizes. There seems to be no difference in the perception of high price as a reason but with a difference across city sizes. For Addis Ababa and small towns, the high price of telecom service appears to be less important over time. Yet, it tends to be an important reason for dissatisfaction for households in major and medium towns.

Opening the telecom sector to competition was an important step by the GoE to liberalize the telecom sector but more remains to be done. Improving digitalization cannot only foster economic growth, it can also improve the lives of the poor. Yet, important telecom reforms to further attract private sector investment and operational expertise to improve the accessibility and quality of telecom services remain outstanding. Removing restrictions in the operation of digital financial services—encouraging Ethio Telecom to compete on equal terms with the new market entrants—and removing limitations on investment in independent cell tower companies can improve innovation, investment in the market, attract strategic investments in Ethiopia, and speed up the network roll out, particularly in rural areas. UHFS results show that households believe that the telecom sector reform has the power to improve the quality of services and further investing and liberalizing into the telecom sector could overcome Ethiopians' challenges by reducing high prices, improving the reliability of the network, and improving service coverage.

Figure 40: Reasons for dissatisfaction with Ethio Telecom services



Source: World Bank Staff based on UHFS 2021/22.

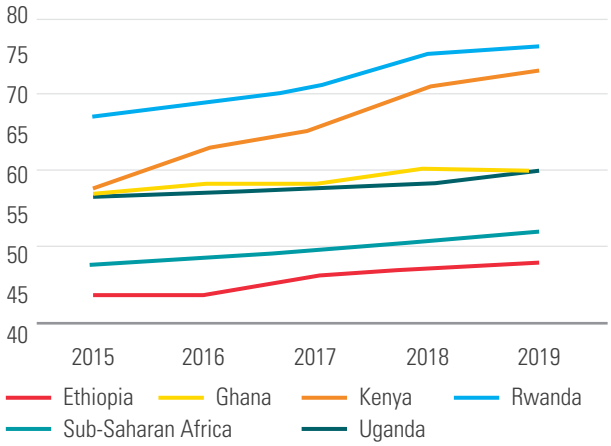
8. Business Investment Reform

This section provides evidence of the ease of doing business reform by highlighting the need for such a reform and the reform process. It also discusses the of prevalence of business ownership and support services and households' awareness of the business reform.

The need for business reform

Ethiopia's ease of doing business score has improved but remains low. Although Ethiopia's ease of doing business score has shown improvement over the years - increasing from 43.8 points in 2016 to 48 points in 2020 (Figure 41), this has not been big enough to lead to improvements in the country's global ranking (World Bank, 2020a). In 2019 and 2020, Ethiopia stood at 159th out of 190 countries in the ease of doing business ranking, and 168th in the ease of starting a business with a score of 71/7Moreover, Ethiopia's global ease of doing business score and ranking is relatively poor even compared to other Sub-Saharan African countries like Rwanda, Kenya, Uganda, and Ghana (Figure 41), suggesting ample room for improvement and the opportunity to learn from the experiences of its close neighbors. In general, Ethiopia's business environment is not conducive to starting and operating businesses, and it is a serious bottleneck for the growth of the private sector (Debebe & Bessie, 2022). In order to purge these problems, the HGER agenda underlines the speeding up of ongoing reforms of easing constraints to doing business as one major area of its reforms. The structural reform pillar of the HGER agenda aims to remove bottlenecks that constrain businesses and enhance institutional capacity. The ease of doing business reform focuses on addressing challenges related to business licensing and registration procedures, logistics and power service provisions, policy and regulatory frameworks, support systems for industrial parks, and tax and customs administration. The Ethiopian Investment Commission (EIC) has been implementing business reforms since July 2019.

Figure 41: Ease of doing business score



Source: World Bank staff based on Worldwide Development Indicators (WDI)
Note: Ease of doing business score (0 = lowest performance to 100 = best performance)

The ease of doing business reform

The GoE endorsed the revision of the investment law and amendment to several legislations as part of the business reforms. Following the 2018 change in administration, the Ethiopian government undertook some reform measures in the economic arena, one of which was the revision of the investment law. More than 10 legislations were revised and amended to ensure the proper implementation of the ease of doing business reform. The legislations revised or amended include commercial code, commercial registration and business licensing, and Value Added Tax (VAT) proclamation, among others. The Investment Proclamation No. 1180/2020 was issued, repealing the previous one. The adoption of Investment Regulation No. 474/2020 soon followed replacing its preceding counterpart. The rationale for the reforms includes the need to strengthen the private sector's role in the economy; modernize the investment administration system by consolidating relevant laws; increase inward investment by addressing investment-related challenges; and establish effective and transparent grievance handling procedures for investors. The reforms will address prioritized policy, regulatory and administrative reforms that lower unjustified costs, increase investment, business formation, and greater productivity. The overall goal of these reform measures is to create a conducive environment for starting and running businesses in Ethiopia by reducing the structural bottlenecks that would improve Ethiopia's ease of doing business ranking and enhance private sector growth. At the micro level, these reform measures and the resulting improvements will have important implications in promoting domestic investment and helping businesses to flourish.

There is good progress concerning the business reforms. Since the launch of the HGER agenda, the Ethiopian Investment Commission (EIC) has been taking several reform measures toward improving Ethiopia's ease of doing business. Among others, EIC's reform measures include improving the different components of the ease of doing business such as starting a business, dealing with construction permits, paying taxes, trading across borders, getting electricity, getting credit, and registering property. The limited number of reforms in terms of ease of paying taxes and trading across borders (customs) and/or problems in widely communicating reforms undertaken in these areas can be indicated as one limitation. The major reforms implemented so far include the introduction of the electronic single window system, e-payment/e-filing system, and reducing the frequency of VAT-filling. In areas of starting a business, there is a reduction in the number of procedures required to start a business by introducing a single standardized application form for multiple services. The other achievement so far is the reduction in the number of business licensing categories from 1352 to 519. An online trade registration and license service is launched to make investment and licensing services more accessible and efficient. However, there is no evidence regarding the progress in terms of improving the time it takes to get VAT refunds or the number of hours spent paying taxes. Although the introduction of e-filling and e-payment systems can be considered a major improvement, there is still a need to upgrade the system and make it smooth for taxpayers. In order to improve access to credit, there is a reform in the loan supply system and expanding access to credit information systems that allow online services.

In general, however, with some of the reform measures still underway, the EIC has made important progress in terms of improving Ethiopia's business environment. If these reform measures are widely communicated and fully implemented, Ethiopia's ease of doing business ranking is likely to improve in a meaningful way.

Ease of doing business

Despite the progress in improving the ease of doing business, starting a business in urban Ethiopia seem to be a challenge. As discussed earlier, the ease of doing business reform focuses on alleviating structural bottlenecks that hamper business growth and private sector participation. In this regard, the reform targets reducing lengthy procedures required to secure business registration and licensing, pay taxes, and get access to credit. Therefore, the reform is expected to ease starting of a business. The UHFS data show that only 16 percent of the households perceive that it was easier to start a business during the baseline (October to December 2021) than the previous year (Table 5). Although the difference is not stark, starting a business is reported to be more difficult in Addis Ababa than in small towns. Only one-third of the households also indicate that it is easy to get a business license, the share being lower in Addis Ababa (26 percent) compared to small towns (34 percent).

Non-farm business ownership

Business ownership is expected to increase with business reforms, but business ownership is low. Only 18 percent of the households report owning at least one non-farm enterprise in October 2021; the share increased to 22 percent in November 2022. Statistics from comparators!!! Non-agricultural business ownership was lowest in Addis Ababa (5 percent during the baseline but increased to 15 percent during follow-up 3). A larger share of households in medium towns owns non-farm enterprises (33 percent) followed by those in large towns (22 percent) during the baseline. Consistent with this, households in medium towns have a larger share of working-age household members employed in non-farm enterprises. The low prevalence of business enterprises in Addis Ababa could be associated with the difficulty of opening a business and getting a business license than in small towns, implying the higher availability of wage employment. This also reflects the low score of starting a business in Ethiopia as compared to the comparator economies including Kenya and Rwanda.

Business support advisory services and the use of mobile phones for business communication are also low. Business support services facilitate business transactions and the functioning of businesses, thereby contributing to productivity

Table 5: Business ownership and support services

	Addis Ababa	Major towns	Medium towns	Small towns	Urban
Household owns at least 1 non-farm enterprise	5%	22%	33%	16%	18%
Easy to open a business than last year	15%	14%	14%	18%	16%
Easy to get a business license	26%	36%	32%	34%	33%
Received business support advisory services	1%	5%	4%	2%	3%
Member of business association/networking	1%	6%	4%	3%	3%
Mobile phone use for business communications	14%	23%	34%	22%	22%

Source: World Bank Staff based on UHFS 2021/22.
Note: The results are based on the baseline data.

and profitability. Moreover, the use of technology (e.g., mobile phones) for business communications and business networking are an important source of business information. Receipt of business support advisory services is also very low at 3 percent (Table 5). Only 4 percent of the households mention that they are a member of formal business associations and networking forums. The use of mobile phones for business communication is also low at 22 percent. Again, the use rate is the lowest in Addis Ababa (14 percent). Overall, there is a low level of business support and use of ICT in business operations, indicating the low level of non-farm enterprise ownership in urban Ethiopia.

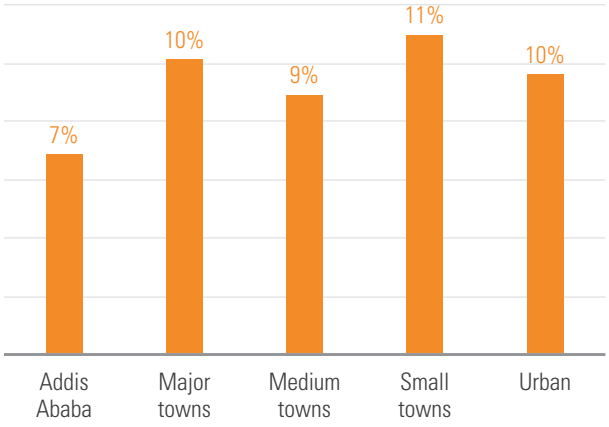
Constraints to non-farm business operations include inflation, insecurity, and access to finance. Inflation, limited access to finance (e.g., difficulty borrowing from family, friends, or formal financial institutions; high interest rates; complicated bank loan procedures i.e., too many forms or not correct documentation), and insecurity appear to be the major constraints in urban areas. However, the importance of these challenges is different across locations. For businesses in Addis Ababa, limited finance access, inflation, and insecurity are important business constraints. Inflation followed by limited access to finance appears to be an important challenge in major and medium towns. In small towns, limited access to finance and inflation are important challenges. Moreover, access to electricity and water tend to be constraints for business operations in small towns.

Business reforms awareness

There is very low awareness of the business or investment reform. The GoE approved new Investment and Privatization proclamations, fostering competition, and facilitating private sector participation in several sectors. Only 10 percent are aware of the reforms to the business environment including the new Investment Proclamation and the new Commercial Code (Figure 42), reflecting the government's lack of communication of reforms. The share of households that are aware of the business environment reform is slightly lower in Addis Ababa (7 percent) and higher in small towns (11 percent). Results from the econometric analysis show that households with male heads and heads with leadership positions are more likely to be aware of the business environment reforms.

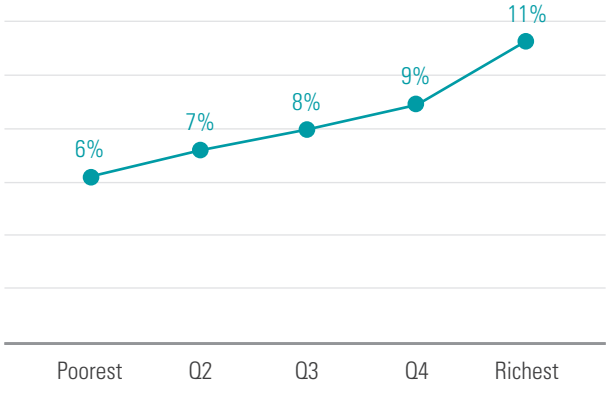
Richer households are more likely to be aware of the reform compared to poorer households. The awareness of the business environment reforms differs by poverty levels (Figure 43). Overall, only 9 percent of households were aware of the business environment and richer households are likely to be more aware of the reform than poorer households.

Figure 42: Business reform awareness



Source: World Bank Staff based on UHFS 2021/22.

Figure 43: Awareness of the business reform by welfare quintiles



Source: World Bank Staff based on UHFS 2021/22.

Important steps have been undertaken in improving Ethiopia's business environment, yet, further efforts strengthening the private sector and liberalizing the economy are needed. Improving the enabling environment for private sector and improving Ethiopia's business climate can be support households in starting businesses and improving business ownership, which a currently a hindrance as results from UHFS have shown. Moreover, strengthening the awareness of reforms in improving the business environment can support the GoE in its efforts to attract domestic and international resources.

9. Conclusions

While Ethiopia began the decade with strong economic growth prospects and significant gains in poverty reduction, the socioeconomic situation for households seems to have deteriorated in the last two to three years. Ethiopia has registered rapid and sustained growth over the past two decades, accompanied by significant poverty reduction. The national poverty rate decreased from 30 percent in 2011 to 24 percent in 2016. Poverty decreased from 26 percent in 2011 to 15 percent in 2016 in urban Ethiopia, an 11 percentage-point decrease. In rural areas, however, poverty only decreased by four percentage points, from 30 percent in 2011 to 26 percent in 2016. Moreover, the extent to which growth translates to poverty reduction—the poverty-elasticity of growth—was low at around -0.33 between 1997 and 2016. The low pace of poverty reduction in rural areas and poverty elasticity limited the inclusiveness of growth. Looking ahead, Ethiopia aims to reach lower-middle-income status by 2025, yet the economy has encountered several macroeconomic and sectoral challenges in terms of sustaining growth and ensuring shared prosperity. Ethiopia has been grappling with multiple and overlapping development challenges that threaten to reverse decades of development gains. Since 2020, the country had to contend with a multitude of shocks, including escalating inflation rates, the COVID-19 pandemic, climate-changed induced droughts, pests and diseases, desert locus infestations, as well as conflict and insecurity in several parts of the country, most pronounced in a 2-year long war in Tigray region, and negative consequences from the war in Ukraine. The combination of these events has left no part of the country untouched and exacerbated the country's many development and poverty challenges.

Ethiopia is continuing its "Homegrown Economic Reforms (HGER) Package" to continue its path of strong economic growth and poverty reduction. To sustain the growth of the past decade, Ethiopia must overcome emerging challenges and create new opportunities. Moreover, there is a need to upgrade policy and institutional frameworks with the HGERs primarily addressing the fundamental macroeconomic imbalances, tackling structural bottlenecks that hampered the economy's competitiveness and productivity, and diversifying the sources of economic growth and job opportunities across diverse sectors of the economy. The reforms seek to rebalance the economy from a state-driven to a more private sector-driven model to sustain high economic growth rates and accelerate job creation. This reform package includes, among others, (i) energy tariff reforms to put the energy utility on a path to cost recovery, (ii) a revision of the investment code to enable private sector participation in more sectors of the economy and improve the business

environment and expand access to credit to the private sector, (iii) full or partial privatization of selected state-owned enterprises, and liberalization of the telecom sector. This report provides evidence of the awareness and effectiveness of the reform package that the GoE is currently implementing based on data collected through an Urban High-Frequency Survey (UHFS). The report assesses the socio-economic characteristics, the awareness and level of support of the HGERs, and the perception of individuals about the current and future conditions of their country and households.

Inflation and political instability stand out among the most important economic problems facing Ethiopia that the government should address. Nearly one-third of households ranked inflation as the most important challenge in the country, reflecting the surge in food and non-food prices in the country during the last five years. With the ongoing conflict in different parts of the country and the war in Ukraine, inflation is expected to continue to be a development challenge. Moreover, about one-quarter of the urban households ranked political instability as the most important problem. In the last four years, there has been sporadic ethnic and political violence and the war in northern Ethiopia that erupted in November 2020. Management of the economy appears to be another important development challenge, while unemployment and poverty were not perceived as important issues.

There is a negative perception of the current conditions in the country. However, people are very optimistic about the future. Only 15 percent perceive that Ethiopia's current general condition is good during October 2021, increased to 24 percent in November 2022 mainly driven by small towns. The overall negative perception could be due to the ongoing insecurity issues throughout the country and drought shocks that devastate livelihoods and pose threats to food systems and unacceptably high inflation that is affecting the urban population. There is a more negative perception in Addis Ababa than in small towns. This could be due to differences in exposure to price risks where urban consumers in Addis Ababa (as net buyers) are more likely to face the brunt of ever-increasing inflation than those in small towns. There are also negative perceptions about the economic and employment conditions in the country. More than 75 percent of the households believe that Ethiopia's future general and economic conditions will be good. Optimism about better economic conditions in the future is more widespread among residents in Addis Ababa. There is also a significant change in perceptions among urban households. While 71 percent of the households do not change their perceptions of current country conditions, 29 percent change their perceptions (driven by negative to positive perceptions). Households that have more members with post-secondary education are less likely to change perceptions.

Urban residents are pessimistic about their current household situation or personal living conditions but show optimism about their future. Only one-third of households believe that the current financial conditions of their households are good in October 2021 with a high prevalence of negative perceptions in Addis Ababa compared to small towns; the proportion declined to 22 percent in November 2022. A large majority (about 80 percent) believe that their households' future financial condition will improve

in October 2021, with no considerable difference across city sizes. However, the share decreased to 72 percent in November 2022. About 36 percent report that the affordability of food (food prices) was good in October 2021, with a high prevalence of negative perceptions about food affordability in Addis Ababa than in other city types. In November 2022, only 21 percent perceive that food affordability was good, with no stark difference across city types. Overall, the negative assessment of urban households about their household's living conditions and country economic conditions reflect their concerns on rising prices, deteriorating living standards, concerns with peace and security, and challenges in the labor market. The relatively high optimism about future country and household conditions, on the other hand, showcases households' positive attitudes towards economic prospects going forward.

There is low awareness and knowledge about the HGERs, but a high level of support conditional on awareness. Only 20 percent of urban residents are aware of the GoE's HGERs. The share is higher in small and major towns than in Addis Ababa. Of those who are aware, 43 percent are knowledgeable about the HGERs (well informed about the agenda). Although awareness is low in Addis Ababa, knowledge about the HGER agenda appears to be relatively higher than in small towns. About 60 percent of those who are aware of the reform agenda also show support. In relation to this, about 85 percent of the urban residents perceive that the HGER will improve Ethiopia's economic situation. Households with better awareness about the HGERs are those headed by men, have educated members, are asset wealthy, and have members in a leadership position or membership in government organizations. Given that the HGER is the flagship economic program of the government, awareness of reforms could be strengthened by providing more frequent information to households through accessible media and other platforms such as local organizations. This is particularly important as the government is launching HGER 2.0.

There is also higher support for the electricity tariff reform and its perceived impacts. UHFS findings show that 44 percent of households support the electricity tariff adjustment by the government. Moreover, about half of the households (61 percent in Addis Ababa) are willing to accept additional increases in electricity tariffs if the quality and reliability of the electricity supply are improved. About three-fourths of the households also state that the government should increase electricity prices so that the utility can invest in extending electricity connections to people in rural areas as well. There are, however, considerable differences across city types: 84 percent in Addis Ababa vs. 65 percent in small towns. Only 25 percent state that the government should keep electricity prices low for people living in cities and towns. About half of the households indicate that the quality and reliability of electricity improved after the tariff adjustment in October 2021. The share increased to 56 percent in November 2022. The perceived impacts related to improved quality and reliability are more pronounced among Addis Ababa residents.

Although awareness about the telecom sector reform is low, there is strong support. The telecommunication market in Ethiopia was a monopoly dominated by Ethio Telecom, a state-owned service provider. However, the new Communications Proclamation passed in June 2019 created the basis for a more liberalized market environment. Under the telecom sector reform, the GoE decided to award two new telecom operator licenses, hereby introducing competition in the telecom sector for the first time. The reform involves additional network licenses to improve phone and internet services. Given the high potential of ITC in boosting economic growth, the reform would contribute to poverty reduction. The new telecom service provider —*Safaricom Ethiopia*—started operation in November 2022. UHFS findings show that only around 30 percent of urban residents are aware of the telecom sector reform, with a relatively higher share in Addis Ababa and a lower proportion in small towns. Among those who know about the reform, about 80 percent supported it. Moreover, about 28 percent of urban households perceived

that the telecom sector reform would improve the quality of services.

There is low awareness of the business or investment reform. The GoE approved new Investment and Privatization proclamations, fostering competition, and facilitating private sector participation in several sectors. Only 10 percent of urban residents are aware of the reforms to the business environment including the new Investment Proclamation and the new Commercial Code. The share of households that are aware of the business environment reform is slightly lower in Addis Ababa (7 percent) and higher in small towns (11 percent). Results from the econometric analysis show that households with male heads and heads with leadership positions are more likely to be aware of the business environment reforms. While there is evidence of improved progress in the ease of doing business reform, the UHFS data show the difficulty of starting a business and getting a business license in urban Ethiopia which reflects a low level of business ownership. The challenge is more severe in Addis Ababa than in small towns.

Overall, the results of this report show that there is low awareness of the HGER agenda but conditional on awareness, the level of support is relatively high. The HGER is the GoE's flagship economic program, one in which a lot of effort, time, and money is invested. Understanding to which extent the HGER pays off with respect to awareness is important. A citizenry that is well aware and knowledgeable about the economic reform agenda in the country, is also one that is more likely to request for positive outcomes of these reforms or understand short-term challenges they may face to reap longer-term benefits. In addition to the HGER "brand", it is important to understand how awareness of the overall reform agenda (the brand) is linked to awareness of the specific sectoral reforms.

Going forward, increased attention on economic reforms and continued efforts in the energy sector, telecom sector, and enabling the business environment can have strong pay-offs. This can be achieved by (i) further investing in the energy grid and to bring utilities on a path to cost recovery can improve electrification to currently underserved areas and improve utility performance; (ii) improving digitalization by improving the accessibility and quality of telecom services and removing restrictions in the operation of digital financial services as well as removing limitations on investment in independent cell tower companies; and (iii) strengthening the private sector and liberalizing the economy.

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ANNEX A | Sampling design and weights

Sampling design

The sample for this study includes 3,000 urban households across 300 enumeration areas (EAs). The study areas encompass major, medium and small cities in the regions of Amhara, Benishangul-Gumuz, Dire Dawa, Somali, Gambella, Harari, Oromia and SNNPR. Given the size of Addis Ababa, the capital is considered a separate sampling domain, alongside major, medium and small cities. The ranges defining the size of cities are: (i) Small towns, up to 40,099 inhabitants; (ii) Medium towns, from 40,100 to 100,000 inhabitants; (iii) Major towns, above 100,000 inhabitants. The sample of households is selected in two stages, with 300 Enumeration Areas (EAs) in the first stage and 10 households per EA in the second stage. In the first stage, consistent with the Urban Employment and Unemployment Survey (UEUS), 4 survey domains (small towns, medium towns, major towns, and Addis Ababa) were selected. The UEUS is a labor force survey that is collected annually or every other year, and it is a household survey representative for two strata: major urban centers and other urban centers. The domains were considered explicit sampling strata. The 300 EAs were allocated into these sizes in approximate proportion to their estimated population raised to the power of 0.25. The list of all EAs is used as a sample frame and their estimated population as a Measure of Size (MoS). A sample of EAs was selected with Probability Proportional to Size (PPS). Table A.1 summarizes the main parameters of the household sample. Column (2) gives the estimated population of each size and columns (3) and (4) the number of EAs and households in the sample. Columns (6) to (8) give the standard errors anticipated for the three key indicators – the poverty rate, the unemployment rate, and the percentage of wage employment. The Anticipated Standard Errors are estimated assuming the actual design effects of previous surveys (UEUS for unemployment rate and wage employment and HCES for poverty rates).

Table A.1: Main parameters of the household sample

	Sample Size			Anticipated Standard Errors		
Size	Estimated urban population	Number of EAs	Number of HHs	Poverty rate	Unemployment rate	Wage employment
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1 Small Towns	3,862,316	60	600	3.7%	2.9%	7.4%
2 Medium Towns	3,367,112	80	830	2.0%	2.5%	3.6%
3 Major Towns	5,121,207	84	810	3.2%	3.2%	4.6%
4 Addis Ababa	3,618,839	76	760	2.5%	1.9%	3.1%
Total	15,969,474	300	3,000	1.4%	1.4%	2.2%

In the second sampling stage, 10 households were selected in each EA. The probability P_{hij} of selecting a household in segment h_{ij} of EA h_i of size h is given by

$$P_{hij} = \frac{k_n n_{hi}}{n_h} \frac{s_{hi}}{s_{hi}} \frac{m_{hij}}{M_{hij}}$$

where k_k is the number of EAs in the domain's (or stratum) sample, n_{hi} is the estimated population of the EA, N_h is the estimated population of the domain (or stratum), s_{hi} is the number of segments listed in the EA (normatively always 2, or 1 if the EA is not segmented), m_{hij} is the number of households visited in the EA (normatively always 10), and M_{hij} is the total number of households listed in the EA. To obtain unbiased estimates from the sample, the information reported by the household needs to be affected by a sampling weight (or raising factor) w_{hij} equal to the inverse of its selection probability p_{hij} ($w_{hij} = 1/p_{hij}$). In each sampled EA, three additional households were sampled to serve as replacement households. As part of the data collection phase, each household was visited at least 3 times before replacing a household from the list of replacements.

Sampling weights

To obtain unbiased estimates from the sample, the information reported by households needs to be adjusted by a sampling weight. To construct the sampling weights, we estimated the inverse probability of selection of households. The sampling procedure mimicked the one used by the Central Statistical Authority of Ethiopia (CSA) to collect their Urban Employment Unemployment Survey (UEUS). The UEUS is a labor force survey that is collected annually or every other year, and it is a household survey representative for two strata: major urban centers and other urban centers. As a result, these households were to be representative of Addis Ababa, major cities, medium-sized cities and small cities, as defined by the CSA. These four domains define the strata of our sampling strategy, which was based on the following stratified three-stage cluster design:

1. Primary sampling unit: 46 towns compose the first stage of clustering. These were randomly selected from the sampling frame and stratified by town size;

2. Secondary sampling unit: 300 EAs form the second stage of clustering. These were randomly selected and stratified by town size;

3. Tertiary sampling unit: 4,500 households (3,000 primary and 1,500 replacement) form the third stage of clustering, whereby 15 households were randomly selected from each sampled EA. The inclusion criteria for households are mobile phone ownership and passing Laterite's COVID-19 screening.

The steps below outline the method used to construct the sampling weights based on the sampling strategy for the UHFS study:

1) Calculate the probability of selecting a small, medium or large town from Amhara, Oromia, SNNP, Somali, Afar, Benishangul-Gumuz, Gambella, Harari, and Dire Dawa regions.

2) Calculate the probability of selecting enumeration areas from small, medium, and large towns.

3) Calculate the probability of selecting a household from an enumeration area.

4) Calculate the inverse probability from the values generated in steps 1-3 to give the weights.

5) Multiply the three weights (town, enumeration area, household) obtained in step 4 to construct the final sampling weight.

6) Trim weights by replacing the top 2.5 percent of the observations with a 97.5 percentile cut-off points.

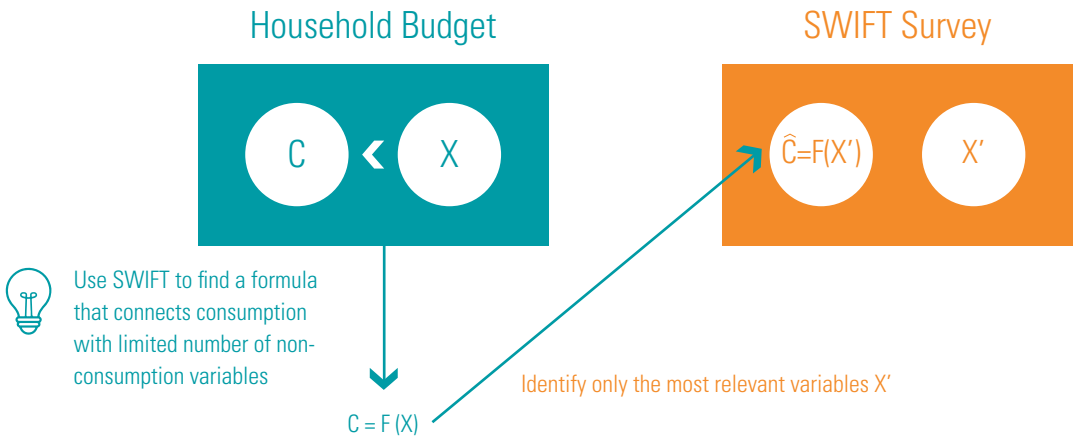
To derive attrition-adjusted weights for all households for the phone survey, we ran a logistic response propensity model based on characteristics of the household head (age, gender, and education – all time invariant characteristics). These weights were trimmed by replacing the top 2.5 percent of the observations with a 97.5 percentile cut-off points.

ANNEX B | SWIFT Methodology

The standard SWIFT approach has been proved to be able to estimate the poverty rate precisely in many countries (Yoshida et al., 2015). However, it often underestimates a surge of poverty during economic downturns due to the inclusion of slow-changing indicators like asset ownership (Yoshida et al., 2021). While asset ownership is highly correlated with household expenditure/income during times of stable economic growth, the correlation weakens during times of crisis when poverty surges. Due to the lack of active second-hand markets, households cannot easily sell many of their assets during a crisis, even when household income declines substantially. Therefore, households may own items that are correlated with higher expenditure than their current lived poverty. As a result, the standard SWIFT model underestimates poverty during economic downturns.

A modified approach, SWIFT Plus, was recently developed to overcome the standard SWIFT model's underestimation of poverty during severe economic downturns. While a standard SWIFT model selects indicators highly correlated with household expenditure/income, SWIFT Plus selects indicators that quickly reflect current economic conditions, even though they are only moderately correlated with household expenditure/income. Specifically, SWIFT Plus includes dummies for the purchase of specific items, such as meat or clothing. Households tend to stop purchasing these items when their income declines but resume purchasing them once their income recovers. SWIFT Plus also includes economic sentiments, food security indicators, and employment conditions, all of which can change quickly depending on the economic conditions. It also uses time-invariant (or slowly changing) poverty correlates in addition to the above-mentioned time-variant (quickly changing) poverty correlates. The different set of indicators makes SWIFT Plus more sensitive to short-term changes.

Figure B.1: Survey-to-Survey imputation approach using SWIFT



C: Consumption.

X: All the available variables collected in the consumption survey, normally more than hundred.

X': Among X, only those variables which were detected by the model as "relevant variables" for predicting consumption. Normally 15-30.

$\hat{C} = F(X')$: Predicted consumption

Source: World Bank (2018).

The SWIFT model is developed assuming the relationship between household income or expenditure and poverty correlates is linear and that there is an error in projection. The following equation shows this relationship

$$ln\, y_h = x_{h'}\beta + v_h$$

where $ln\, y_h$ refers to a natural logarithm of household income or expenditure of household h, x_h is a (k × 1) vector of coefficients of poverty correlates of household h, β is a $(k \times 1)$ vector of coefficients of poverty correlates, k is a number of variables, and v_h is a projection error. In principle, SWIFT estimates the linear formula by regressing the natural logarithm of household income or expenditure on a set of poverty correlates in household survey data that includes both household income/expenditure and poverty correlates. The regression model becomes a formula, with which household expenditure or income will be projected into a dataset that has only poverty correlates.

In this analysis, the consumption estimation model was constructed from the 2015-2016 Welfare Monitoring Survey (WMS) using SWIFT Plus approach. As 2021 urban high frequency survey only includes urban areas, 20 imputations per household were conducted, and the poverty estimate was calculated with the simple mean of the 20 poverty estimates from each imputation. Household size normally correlates with the consumption strongly, but as the number in 2021 was not comparable with those of 2015, reweighting using maxentropy has been conducted to match the household size of two surveys. A household survey dataset is split randomly into 10 subsamples. Each of these subsamples is called a "fold." A consumption model is estimated from nine folds by running a stepwise Ordinary Least Square (OLS) regression. The nine folds used for developing a model are known as "Training Data". After a model is selected, household expenditure or income data is projected using the model in the remaining fold, and a poverty rate and mean squared errors (MSEs) are estimated with the projected data. At the cross-validation stage, we project household expenditure or income data assuming the error term and regression coefficients follow normal distributions.

The SWIFT modelling process includes multiple steps to improve the ability of the formula to project household income or expenditure by adjusting the coefficients (β) and estimating the distribution of both the coefficients and the projection errors. To detect "overfitting" of the model – that is, the model performing well within the sample used for the model construction but performing poorly outside the dataset – cross-validation analysis is conducted. The cross-validation approach separates data used for developing the model from those used for evaluating the model fitness. More specifically, suppose $\hat{\beta}$ is a vector of estimated coefficients and $\hat{\sigma}^2$ is an OLS estimator or error variance. We first draw a random value x from a chi distribution with a degree of freedom, $(N - k)$, where N refers to the total sample size and k refers to the number of variables selected by the stepwise regression procedure and calculate $\tilde{\sigma} = \hat{\sigma}(N\text{-}k)/x$. We then draw $\tilde{\beta}$ from a normal distribution of $(\hat{\beta}, \tilde{\sigma}\,(X'X)^{-1})$where X is a $(N \times k)$ matrix of $(x_{1,\ldots,}x_{h,\ldots,}x_N)$'. Finally, we draw a simulated household expenditure or income for household h, from a normal distribution of $(X\hat{\beta}, \tilde{\sigma}\, I_{N*N})$where I_{N*N} refers to an $(N \times N)$ identity matrix. This simulation process is repeated for all household typically twenty times. MSE is calculated in testing data by taking the average of the sum of squared differences between the real and estimated household expenditure or income.

This analysis is repeated 10 times, each of which uses a different fold as testing data to test the performance in terms of mean squared errors and the absolute value of the difference between the projected and actual

poverty rates. This test detects the over-fitting problem because all testing statistics are calculated from out-of-sample. SWIFT creates 10 folds. This cross-validation exercise is conducted to determine the optimal threshold of the p-value for the stepwise regressions. For a specific p-value, the cross-validation exercise is done and produces the two testing statistics. The exercise is repeated for different levels of p-value, usually between 0.1 percent and 10 percent. The optimal p-value is selected based on the MSE and the absolute value of the difference between the projected and actual poverty rates. Using 2015-2016 WMS urban data, the p-value of 0.015 was selected. The final model is used to project household expenditure or income for all households 20 times following the procedure presented above. For more details, please refer to Yoshida et al. (2015). The estimated model is presented in Table B.1 with summary statistics of each variable in 2015 and 2021.

Table B.1 SWIFT 2015-2016 urban model

Variables	Coef.	Std. Err.	[95% Conf.	Interval]	Mean (2016)	Mean (2021)
Region dummies						
Afar	-0.13	0.03	-0.19	-0.07	2%	1%
Oromia	-0.11	0.02	-0.14	-0.08	31%	32%
SNNP	-0.09	0.02	-0.12	-0.05	16%	15%
Gambella	-0.10	0.03	-0.16	-0.04	1%	1%
Harari	-0.13	0.04	-0.20	-0.06	1%	1%
Addis Ababa	-0.40	0.02	-0.43	-0.37	19%	22%
Household demographics						
Household size	-0.26	0.01	-0.29	-0.24	3.67	3.60
Household size^2/100	1.16	0.10	0.97	1.35	0.18	0.16
Head age	0.00	0.00	0.00	0.00	39.40	40.05
Head is married	0.08	0.01	0.06	0.10	59%	67%
Head is literate	0.11	0.02	0.08	0.15	77%	83%
Proportion of members with primary education	-0.17	0.03	-0.22	-0.12	75%	75%
Proportion of members with secondary education	0.21	0.02	0.17	0.25	37%	39%
Housing conditions						
Has bathtub/shower room	0.10	0.01	0.07	0.12	25%	49%
House is owned by households	0.12	0.01	0.10	0.15	39%	54%
Number of rooms	0.05	0.01	0.04	0.06	1.94	2.32
Roof is made of wood & mud	-0.20	0.03	-0.26	-0.13	1%	0%
Floor is made of mud	-0.06	0.01	-0.08	-0.03	57%	38%
Cooking stove is traditional and removable one	-0.05	0.01	-0.07	-0.03	38%	36%
toilet1	0.08	0.02	0.05	0.12	9%	24%
Use flush toilet	-0.08	0.02	-0.11	-0.04	16%	11%
Owns electric stove	0.08	0.01	0.05	0.11	28%	45%
Owns butane	0.05	0.01	0.02	0.08	12%	9%
Asset ownership						
Owns car	0.22	0.04	0.15	0.30	2%	2%
Owns tv	0.14	0.01	0.12	0.17	54%	71%
Owns commercial car	0.34	0.05	0.25	0.44	1%	2%
Owns jewels	0.09	0.01	0.07	0.11	35%	40%
Owns mattress	0.10	0.02	0.06	0.15	94%	99%
Owns fridge	0.11	0.01	0.08	0.14	20%	35%
Consumption dummies						
Consumed eggs in the last 7 days	0.05	0.01	0.03	0.08	27%	50%
Consumed sugar in the last 7 days	0.08	0.01	0.05	0.11	81%	74%
Consumed liver in the last 7 days	0.13	0.03	0.08	0.18	6%	10%
Consumed cereals in the last 7 days	0.21	0.03	0.15	0.26	96%	85%
Consumed milk in the last 7 days	0.04	0.01	0.01	0.06	33%	52%
Consumed green vegetables in the last 7 days	-0.05	0.01	-0.07	-0.03	59%	71%
Consumed meat in the last 7 days	0.17	0.01	0.15	0.20	44%	45%
Food security						
Suffered from the food shortage in the last 12 months	-0.20	0.03	-0.25	-0.15	4%	17%
Employment						
Proportion of HH members engaged in productive work in the last 7 days	0.15	0.02	0.12	0.19	65%	48%
Proportion of HH members who are employed	0.07	0.02	0.04	0.11	32%	27%
Intercept	9.85	0.05	9.75	9.95		

Source: World Bank Staff calculations based on HCES 2015 and UHFS 2021/22.

ANNEX C | Descriptive Statistics

Table C.1: Demographic characteristics and education

	Addis Ababa		Major towns		Medium towns		Small towns		Urban	
	Baseline	Follow up 3	Baseline	Follow up 3	Baseline	Follow up 3	Baseline	Follow up 3	Baseline	Follow up 3
Demographics:										
Female headed	48%	46%	42%	41%	37%	38%	18%	20%	32%	33%
Married head	62%	58%	73%	72%	79%	77%	85%	85%	77%	75%
Age of head	45.7	45.8	41.7	41.6	39.1	38.5	40.5	40.9	41.6	41.6
Household size	4.2	4.2	4.3	4.4	4.3	4.3	5.2	5.4	4.6	4.7
Dependency ratio	0.57	0.59	0.74	0.75	0.74	0.78	0.92	1.01	0.78	0.82
Education of head:										
No education	17%	20%	17%	18%	20%	22%	20%	23%	18%	21%
Primary incomplete	21%	21%	24%	22%	29%	26%	24%	21%	24%	22%
Primary complete	9%	8%	9%	10%	8%	8%	10%	9%	9%	9%
Secondary incomplete	16%	16%	18%	17%	16%	16%	18%	18%	17%	17%
Secondary complete	15%	14%	7%	7%	4%	4%	3%	2%	6%	6%
Post-secondary	22%	22%	26%	26%	23%	25%	25%	27%	24%	25%
Education of members:										
No education	7%	8%	8%	9%	8%	9%	9%	10%	8%	9%
Primary incomplete	27%	28%	34%	32%	42%	40%	41%	41%	37%	36%
Primary complete	9%	9%	9%	9%	9%	8%	10%	9%	9%	9%
Secondary incomplete	22%	22%	22%	22%	19%	20%	20%	20%	21%	21%
Secondary complete	13%	11%	7%	8%	5%	5%	3%	3%	6%	6%
Post-secondary	22%	23%	21%	21%	18%	18%	17%	16%	19%	19%

Source: World Bank Staff based on UHFS 2021/22.

Note: Education statistics is for all household members including the head.

Table C.2: Housing, basic amenities, and income sources

	Addis Ababa	Major towns	Medium towns	Small towns	Urban
Housing and basic amenities:					
Household owns the dwelling	41%	56%	58%	80%	63%
Floor made of parquet wood or tiles	25%	26%	20%	15%	21%
Roof made of corrugated iron sheet or concrete/cement	100%	99%	99%	97%	98%
Wall made of bricks or blocks-plastered with cement	28%	24%	10%	9%	16%
Overcrowding	15%	13%	17%	15%	15%
Improved sanitation facility	80%	61%	60%	60%	64%
Improved drinking water source	94%	92%	97%	84%	90%
Electricity for lighting	99%	97%	97%	96%	97%
Electricity for cooking	72%	34%	20%	9%	29%
Income sources:					
Salaries and wages	36%	38%	27%	32%	33%
Casual wages	14%	16%	23%	15%	16%
Family farms	2%	7%	8%	22%	12%
Household business - manufacturing	3%	2%	2%	2%	2%
Household business - trade	13%	20%	27%	22%	20%
Rents	10%	6%	5%	2%	5%
Transfers	20%	10%	6%	5%	9%
Others	2%	2%	2%	1%	2%

Source: World Bank Staff based on UHFS 2021/22.

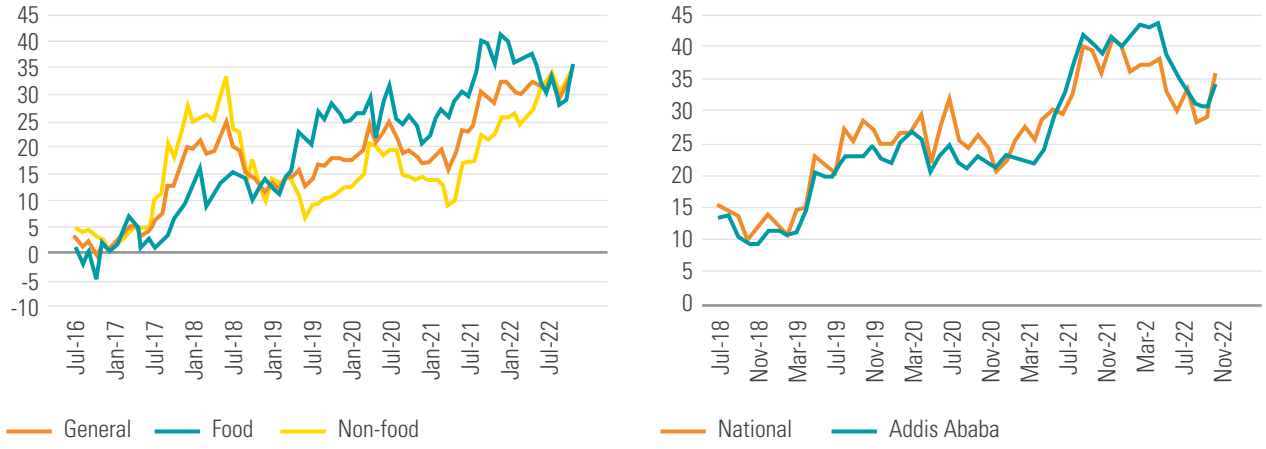
Table C.3: Mean comparison of individual demographic characteristics by mobile banking usage status

	Use mobile banking		Mean difference test
	No	Yes	
Gender (1= male)	44%	64%	***
Age	31	33	***
Employed	43%	62%	***
Agriculture	7%	3%	***
Industry	16%	12%	*
Service	78%	85%	***
Formal	34%	59%	***
Informal	28%	14%	***
No education	2%	0%	***
Primary incomplete	24%	8%	***
Primary complete	10%	4%	***
Secondary incomplete	26%	15%	***
Secondary complete	8%	11%	**
Post-secondary education	18%	61%	***

Source: World Bank Staff based on UHFS 2021/22 (baseline).

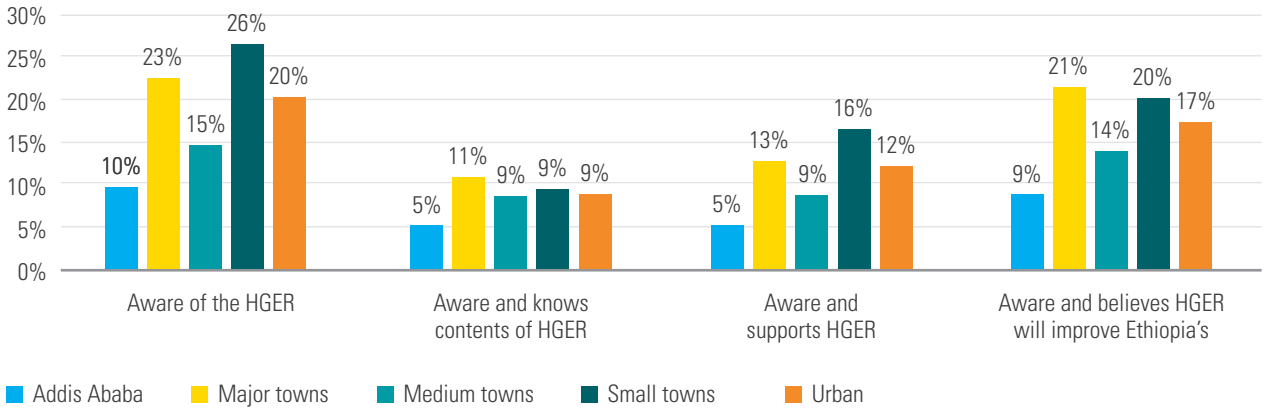
Note: ***p<0.01, **p<0.05, *p<0.1.

Figure C.1. Consumer price index, year-on-year percent change for Addis Ababa



Source: World Bank Staff based on ESS CPI data.

Figure C.2: HGER: Awareness, support, and perceived impacts



Source: World Bank Staff based on UHFS 2021/22.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