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Grounds for growth? Institutional mechanisms of value chain upgrading in Ethiopia's coffee sector

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Abstract

Motivation: Agricultural commodity exports are important to many low-income countries. In recent years, domestic processing of commodities, the so-called "functional upgrading" of global value chains (GVCs), has been put forward as a favoured path to enhance economic development. Little attention has been paid, however, to national policies and institutions that may conflict with the development of specific and competitive domestic value chains.
Approach and methods: Adopting a case-study approach that draws on expert interviews and other data sources, we analyse how national institutional conditions affect the development of different Ethiopian coffee value chains from a mechanism perspective. Focusing on mechanisms supports causal reconstruction, and thereby the generalization of results.
Findings: Our detailed findings confirm and illustrate two main points: value chain development requires functioning markets. And functioning markets require institutions, the optimal design of which depends on the wider institutional, social, and political environment. The upgrading of the value chain requires coordination between multiple stakeholders and is easily undermined by inconsistent policy interventions and institutional structures. In Ethiopia, the goal of earning foreign exchange might be better served by support for value chain upgrading than by a ban on domestic trade in exporting quality coffee beans, which tends to undermine upgrading efforts.
Policy implications: For policy-makers, it is important to develop a coherent strategy for industrial and economic development and to design the institutional landscape accordingly. Taking into account trade-offs between different objectives can mean avoiding overly rigid interventions, such as the ban on export-quality coffee from the domestic market for the sake of achieving one objective. Generally, domestic upgrading of the value chains of abundant commodities is not necessarily the best path to economic development. Specifically, with pronounced economies of scale, the foreign currency generated by commodity exports may better be used to develop other sectors.

KEYWORDS
commodity markets, economic policies, institutional environment, mechanisms, value chain upgrading

1 | INTRODUCTION

Participation in global markets, and more specifically, in global value chains (GVCs) has become widely accepted as a vital precondition for economic development in the last decades (Nadeem et al., 2021). More recently, more specific ideas on the "upgrading" of GVCs have also attracted considerable attention among development practitioners (Gereffi, 2019). The GVC perspective is well aligned with "open-market industrial policy," which has replaced protectionist strategies with an attempt to integrate selected "domestic firms, industries, and sectors in regional and global capital and wealth chains" (Bulfone, 2023, p. 27). It has also been recognized that the development of competitive markets and value chains needs to be complemented by the development of well-suited "transaction-enabling and cost-reducing institutional arrangements" (Dorward et al., 2005), whereas different policies align with different types of economies or economic regimes and with different institutional environments (Nadeem et al., 2021). Industrial policy with its institutions "is an outcome of, and is highly intertwined with, specific political economy contexts" (Grumiller & Raza, 2025, p. 2). These institutional environments have, for example, been described as "business systems," which are established within national institutional contexts (Whitley, 1996), and vary in terms of their activities, resources, coordination, and control (Whitley, 1998, p. 449). From the GVC perspective, in contrast, "the main emphasis is on the organizational features of the chains," which are normally cross-national in nature (Gereffi, 1996).

Whitley (1996) has acknowledged that the national system and the GVC perspective could be integrated to inform comprehensive analyses of economic coordination systems. However, the relationship between national institutions and the effectiveness of GVC-related development strategies is under-researched (Kissi & Herzig, 2024; Sénquiz-Díaz, 2024). Much of the literature has, at best, only incidentally examined the role of the state and its institutions in GVC development (Mayer & Phillips, 2017). Additionally, many analyses of the relationship between institutions and development take a comparative long-term bird's eye view using broad institutional proxies (see, for example, Acemoglu et al., 2014). However, the success of GVC upgrading could rather depend on sector-specific policies and local public, semi-public, and private institutions, because "even if businesses possess valuable resources and the necessary dynamic capabilities, successful transformation may be impeded without sufficient support in their environment" (Beck et al., 2024, p. 2). Wollni et al. (2025) argue that the evaluation of voluntary sustainability standards (VSS) in agri-food value chains should consider the policy and market environments that influence the conditions under which VSS operate.

Against this background, we ask how specific national and local institutional environments and institutional arrangements (Davis & North, 1971) influence micro-level decisions and mechanisms for value chain upgrading, and how institutions thereby determine the effectiveness of different upgrading strategies in "latecomer industrialization processes" (Grumiller & Raza, 2025). We address this question through a case study of the Ethiopian coffee sector. To support the focus on strategies, actors, and mechanisms, we adopt the GVC perspective and combine it with the concept of strategic action fields (SAFs), rather than drawing on concepts of economic systems that focus on macro-institutional conditions (Fligstein & McAdam, 2015). The coffee sector is an appropriate focus for this study because coffee is an agricultural commodity that is commonly traded within GVCs. The coffee GVC is "additive" in that it is characterized by "a process of sequentially adding value to each stage of a resource-based value chain in terms of transforming the natural resource into higher-value intermediate goods that become inputs to final products" (Gereffi, 2019, p. 246); it is also global, as the sequential steps of value addition take place in different countries. Gereffi (2019, p. 247) proposes "functional upgrading by increasing the processing stages" as a development strategy for additive GVCs, especially for coffee-producing countries.

Kissi and Herzig (2024) are among the few to have analysed how factors related to governance that are external to GVCs impact the economic development of commodity value chains. They concentrated on Ghana's major cocoa value chain and identified the institutions that promote and hinder product and process upgrading. Their focus was on smallholder producers. From this perspective, price stabilization policies are "crucial for process upgrading because it reduces farmers' and sharecroppers' risk of facing volatile cocoa prices" (Kissi & Herzig, 2024). Pipkin and Fuentes (2017, p. 537) provide a review of selected case studies on GVC upgrading, where one of the three guiding questions is "in which local institutions, especially but not exclusively the agencies of the state, factor into processes of upgrading." Lima and Lee (2023) focus on the barriers to coffee value chain development in producer countries under the conditions of power asymmetries within the GVCs and institutional barriers in importing countries. Some studies analyse institutional prerequisites for upgrading from a more normative perspective in order to evaluate specific situations based on the derived criteria. Laibuni et al. (2017), for example, applied the UNDP capacity assessment approach (Wignaraja et al. 2006) to the Tea Value Chain in Kenya in that manner. Others, like Stolzenburg et al. (2019), address the question of country-specific characteristics and their impact on the effectiveness of GVC participation for economic development at a very general level. Similarly, Mayer and Phillips (2017) propose a framework for understanding the role of politics and states in the construction and maintenance of a GVC. Few studies address the relationship between institutions at different system stages and value chain upgrading on a mechanism level.

This article is structured as follows: Section one introduces the study and its objectives. Section two addresses the analytical approach, encompassing the conceptual framework and emperical concept. In section three, we discuss the policies of the Ethiopian coffee market and how the Ethiopian coffee industry is organized in terms of its stakeholders and marketing structures. Section four analyses the impact of private and public policies, institutions, and governance conditions on transactions and the choice of upgrading strategies at the different stages of these value chains. In section five, we determine the impact of these institutional conditions on the success of value chain upgrading . Our analysis of the mechanisms that support or prevent the adoption of strategies, and thus the transformation of institutions and fields, confirms the necessity of amalgamating the GVC perspective with that of economic systems in order to evaluate the requirements and potential of GVC upgrading strategies in contributing to domestic economic development.

2 | ANALYTICAL APPROACH

Using a single case-study design (Yin, 2018), we analyse the precise mechanisms through which institutions influence the upgrading strategies of private and public stakeholders in commodity markets and GVCs. Following a positivist qualitative research perspective, we focus on the "exploration of systems, processes, and changes" (Berkovich, 2018). Although limited to a single country and single product, our case study is process-oriented and comparative (Bartlett & Vavrus, 2017) as we discuss the role of institutional conditions separately for different Ethiopian coffee value chains, using a common conceptual framework. Our focus on mechanisms supports causal reconstruction, and thereby the generalization of results (Mayntz, 2004).

2.1 | Conceptual framework

Principally, institutions are the "rules of the game" (North, 1990) that define the incentives and sanctions that influence people's behaviour (Dorward et al., 2005). However, different institutions do not operate in isolation from one another. Institutional arrangements relate to the particular sets of rules and structures that govern particular contracts, while the institutional environment describes their context "which consists of general property rights, enforcement mechanisms and costs, expected human behaviours, power relations, communications infrastructure, and information flows" (Dorward et al., 2005, pp. 2–3). The institutional environment thereby establishes fields as "socially constructed arenas within which individuals or groups with differing resource endowments vie for advantage" (Fligstein, 2013, p. 41).

Fligstein (2013) has proposed the concept of strategic action fields (SAF) to guide systematic analyses of field structuring and the role of actors in producing the field. SAFs consist not only of individual agents and organizations, but also of governance units such as trade associations, which support compliance with field rules and the functioning of the system. At state level, public institutions have jurisdiction over aspects of the SAF (Fligstein & McAdam, 2011). SAFs can therefore be viewed "as parts of larger socio-technological systems, providing a meso-level perspective on transformation processes in institutionally complex, multi-level environments" (Beck et al., 2024, p. 3). As the concept also allows agency, power, and strategy to be incorporated into the analysis of field transformations (Kungl & Hess, 2021), it is well suited for our analysis. The SAF concept has been applied to analyse stakeholder interactions within value chains and business networks in the context of transformation processes before (Beck et al., 2024).

External shocks, changes in dependent fields, and macro-level events like cultural, economic, or legal changes within the wider sociotechnical system can destabilize SAFs. Under favourable conditions, this can encourage transformation, for example, through value chain upgrading. During transformation processes, established economic agents or "incumbents" may lose their advantages to new and smaller but more flexible "challengers" (Fligstein & McAdam, 2011). Incumbents are usually more powerful than challengers and often attempt to prevent transformation. Their interests and mutual dependencies can therefore create lock-ins (Goldstein et al., 2023), but incumbents can also act as crucial agents of change. Political regulation and collaboration among powerful actors can coordinate transformation processes (Beck et al., 2024). This understanding broadens the narrower concept of lead firms in the GVC literature. Lead firms are often on the buyer side of value chains, for example as large retailers. They have the power to specify the standards and qualities they expect from their suppliers (Fernandez-Stark & Gereffi, 2019).

We are further developing the understanding of value chains as SAFs by viewing their transformation through the lens of value chain upgrading. Value chain upgrading is generally understood as "moving into higher value-added stages" or activities, generating positive spillovers in technology and productivity (Gereffi, 2019; Marcato & Baltar, 2020). Initially, four different types of economic upgrading in GVCs have been distinguished: (1) process upgrading, whereby inputs are transformed more efficiently into outputs; (2) product upgrading, where economic actors move into more sophisticated product lines; (3) functional upgrading, where economic actors acquire new skills and capacities to engage in additional value chain stages such as further processing; and (4) chain upgrading, where economic actors move into new but related sectors (Humphrey & Schmitz, 2002; Kissi & Herzig, 2024; Marcato & Baltar, 2020). Some have described functional upgrading as moving from simple assembly activities to original equipment manufacturing, followed by developing own brands and designs, and using direct marketing channels (Fernandez-Stark & Gereffi, 2019). Although other upgrading variants have been named over time (Marcato & Baltar, 2020), they are rarely clearly distinguishable from the aforementioned four types. "Channel upgrading," for example, overlaps substantially with product upgrading (Addisie & Tebarek, 2022). Other conceptual extensions shift the focus away from the value chain and thus dilute the concept. In order to reduce the complexity of the discussion, we further concentrate on the broad classes of process, product, and functional upgrading, and exclude chain upgrading, as this would take us away from the coffee sector and our core topic.

2.2 | Empirical concept

Ethiopia is particularly well suited for our case study in the context of the SAF concept because, on the one hand, its coffee sector is characterized by a variety of different value chains and offers many opportunities for value chain upgrading. On the other hand, Ethiopia's government has not always supported such strategies in the past, instead designing its institutions and regulations to encourage the export of large quantities of green coffee beans to earn foreign currency. The resulting contradictions and tensions between groups and interests have caused many fundamental reforms in the Ethiopian coffee sector (Hagos, 2015). This provides a wealth of opportunities to observe the mechanisms that structure the coffee value chain system as SAF and determine the upgrading strategies of market participants during its transformation (see Figure 1).

The case study focuses on the introduction of the Alternative Marketing System (AMS) in 2018 as an external shock to Ethiopian coffee value chains. AMS offers new direct trading channels. Following the SAF concept, we

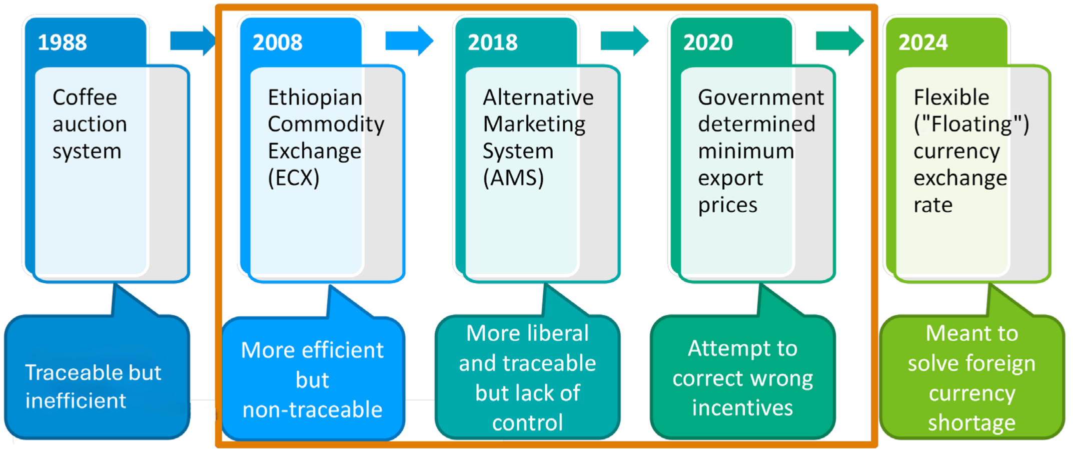

FIGURE 1 Major policy reforms affecting the Ethiopian coffee sector and study focus. *Source*: The authors.

examine the strategies pursued by the various stakeholders prior to this reform and attempt to learn how the institutional framework at that time influenced these strategies. We then analyse the reactions of the stakeholders to the reform and compare the initial situation with the situation after the introduction of the AMS. The SAF concept draws attention to the different and sometimes contradictory, strategies of various market participants. The focus on value chain upgrading in such a highly regulated field leads us to the coordinating role of the wider institutional environment.

A wide range of sources was used for the case study. As the Ethiopian coffee sector has been the subject of much research, policy debates, journalistic articles, and legal acts, the documents available for analysis were numerous and varied (see Appendix 1). We also collected data through 19 semi-structured interviews (see Appendix 2). Of these, 18 were conducted in October and November 2023 with experts and stakeholders from four government organizations, three of the largest coffee farmers' cooperative unions, five green coffee and roasted coffee exporting companies, two service-providing institutions, and two coffee associations in Addis Ababa. One interview was conducted in September 2023 with a small German importer of roasted coffee from Ethiopia in Hamburg. To gain more insight into the reluctant topic of informal coffee trade, we also conducted field observations at Mercato and Shola, both large open markets in Addis Ababa. The data and results of the analyses of these different sources were triangulated.

The interviewees provided information on "rules and norms, status differences, common practices, and behaviour patterns, event- and process-related information […] [and] quantitative information" (Vogel & Funck, 2018). Due to the focus on the interviewees as informants rather than "on themselves as subjects" (Vogel & Funck, 2018), due to the sensitivity of some topics and due to the multi-lingual research team, the analysis largely relied on interview reports (Vogel & Funck, 2018) rather than on content or thematic analysis of complete transcripts. The positivist analysis of the diverse data focused on conditions, experiences, and meanings that are shared and routinely used by the different stakeholders (Berkovich, 2018). The diverse information was compiled along the dimensions of the conceptual framework to generate a concise description of the Ethiopian coffee sector and the different Ethiopian coffee value chains within their institutional environment.

3 | THE CASE OF ETHIOPIA AND ITS COFFEE SECTOR

The agricultural sector plays a significant role in the Ethiopian economy. In fiscal year 2022/23, agriculture accounted for 32% of the Ethiopian gross domestic product (GDP). Coffee production represents approximately 5%

of the country's GDP, 10% of the total value of agricultural production and about 25–30% of total export earnings (ECTA, 2019). Ethiopia is the largest coffee producer in Africa and the world's fifth-largest exporter of Arabica coffee (Minten et al., 2019). In 2017, Ethiopia had 5.3 million coffee farmers (Tamru et al., 2021). Most of them are smallholder farmers with less than two hectares of land (Canwat, 2023), who consume a significant share of their coffee themselves. Those who consume only a negligible share of their typically larger output themselves can be defined as commercial farmers (Diro et al., 2021). Some certified commercial coffee producers in Ethiopia work with adjacent coffee-growing farmers through outgrower schemes. Outgrowers are the coffee farmers who are in a contractual relationship with a certified investor (UNIQUE, 2019).

Approximately 50% of the Ethiopian coffee harvest is sold on global markets, the remainder being consumed domestically (Meaza & Emagne, 2018). The three largest international trading houses are estimated to control 50% of the world's trade in green coffee, and they account for 95% of the green coffee export from Ethiopia. They are mainly interested in highly standardized medium qualities for which large quantities are reliably available. Currently, only a small share of Ethiopian coffee is traded as specialty coffee. The roasted coffee export share accounts for only 1% of the total coffee exports.

Ethiopian coffee has the potential to achieve high quality, but due to deficiencies in trading institutions and market infrastructure, even high-quality and specialty coffee is often sold below its market value (Handino et al., 2019). Multiple factors are considered in the assessment of export coffee quality in Ethiopia: geographical origin, post-harvest processing, certification, for example, organic or Fairtrade, coffee grade and coffee cupping tests (Tefera, 2022). Coffee from certain growing regions, production systems, and processing methods can be sold as specialty coffee. Some international buyers are interested in traceable coffee from specific production regions or even sub-regional locations, for which they are willing to pay higher prices (Mbakop et al., 2023). Different production systems are characteristic of different growing regions. Forest coffee accounts for 8–10% of the total, semi-forest coffee for 30–35%, cottage or garden coffee for 50–57% (Meaza & Emagne, 2018). Modern coffee plantations are growing up to 10% of the total coffee production (Moat et al., 2017).

Post-harvest treatment differentiates between sun-dried, unwashed or natural coffee on the one side and washed or wet-processed coffee on the other. Coffee beans that have not been dried on farm but are instead sold as red cherries for wet processing by farmers can realize premium prices on the international market. If farmers want to sell red cherries, the beans need to be transported to the washing stations within eight hours of being harvested and the coffee beans should be processed immediately. Currently, 70–80% of Ethiopian coffee is unwashed or sun dried. More recently, new processing methods and styles such as honey and anaerobic fermentation have been introduced (Kornman, 2023).

Ethiopia is also the largest exporter of organic and Fairtrade-certified coffee in Africa. However, the adoption of VSS certification in the country remains low, accounting for only 5% of exported quantities, with little growth in recent years (Minten et al., 2015). To participate in the VSS market, smallholders depend on cooperatives. Certification is costly, and a plethora of certifications are available and required for different markets, which are provided by different international certifying bodies (Mitiku, 2021).

3.1 | Ethiopian coffee market policies and their reforms

The Ethiopian government has historically relied on coffee revenue for its economic stability and this continues to be the case (Schäfer, 2016). In 2015, the Ministry of Agriculture established the Ethiopian Coffee and Tea Authority (ECTA), which is expected to improve the governance of the coffee sector in coordination with the agricultural regional bureaus (Sufian, 2020). The ECTA has identified low yields and export volumes, low export prices, and inefficiencies across the value chain as key challenges and aims at maximizing “Ethiopia's coffee export revenues while also increasing value chain incomes,” especially of smallholder farmers (ECTA, 2019).

As foreign currency is required for the import of raw and semi-finished goods like fuel and fertilizers and essential consumable goods (Tadesse et al., 2024), coffee exports are attractive for private traders. They gain foreign currency through these exports and subsequently use it to play out their monopoly power in markets for imported goods. This has led to coffee exporters being willing to pay higher prices for coffee locally, even accepting losses on the coffee trade, in order to make high profits on the import trade (Tamru et al., 2021). Additionally, the government prohibits the sale of export-quality coffee on the domestic market to improve the country's export performance. As a consequence, the wholesale prices of domestic coffee in Ethiopia are significantly higher than the export parity prices, even though most coffee sold on the local market fails to meet export-quality standards (Tefera, 2022). The resulting high attractiveness of informal domestic marketing channels and the use of storable dried coffee cherries as a saving instrument make smallholders reluctant to deliver wet-mill processed coffee, despite substantial quality premiums (Tamru & Minten, 2023).

In the face of these and other contradictions, the Ethiopian coffee sector has been subject to ongoing political reforms (see also Figure 1; for a comprehensive discussion, see Mas Aparisi, 2021). Before 2008, export coffee had to pass through daily auctions in Addis Ababa and Dire Dawa in order to be taxed (Kornman, 2019). Suppliers could not export their coffee directly and exporters could only buy coffee at the auction. At the auctions, traders were often able to insert their own coffee into the system, then re-buy it by outbidding all other traders, who, as a consequence, did not place competing bids anymore (Schäfer, 2016). Traders could then buy their own coffee at an undervalued price and so avoid higher taxes (Kornman, 2019). The old auction system was also characterized by high transaction costs, low enforcement of contracts, and delays in payments (Mbakop et al., 2023). Although the system was susceptible to price manipulation, it also allowed individual coffee batches to be traced from production to roaster (Kornman, 2019; Mbakop et al., 2023).

Since the beginning of 2009, the national auction system has been replaced by the Ethiopian Commodity Exchange (ECX). All suppliers were now required to bring their coffee to the ECX to bid against exporters in the auction, which settles prices upfront but uses a price flooring scheme that limits the value of coffee from dropping past a certain point (Hailemichael, 2022). Cooperative unions, state farms, and plantations of over 30 hectares were granted the right to bypass the ECX and export directly (Mbakop et al., 2023). They were still obliged to grade their coffee through the ECX, however. Initially, when the coffee was sold to the ECX, it was transferred to a bonded exchange warehouse and lost all traceability other than its regional designation and grade (Mbakop et al., 2023). This provoked criticism from exporters, foreign importers, and the donor community, which motivated new reforms. Temporarily, the ECX established the Direct Specialty Trade (DST) in 2010, holding monthly auctions for traceable specialty coffee. The coffee was sold by producers and local traders in individual lots with detailed certified information on "the grower, geographic origin, and cup profile." Pre-registered international buyers could here participate in cupping or coffee tasting sessions before bidding (Handino et al., 2019, p. 501). In 2011, after only 15 auctions, the platform stopped operating(Handino et al., 2019).

The 2018 Coffee Marketing and Quality Control Council of Minister Regulation (Federal Democratic Republic of Ethiopia, 2018) and some other directives from 2017 and 2018 then introduced major changes. The AMS now offers new direct trading channels like the Vertical Integration (VI) scheme. The government now also encourages Ethiopian businesses to engage in value addition for export (Yewondwossen, 2023). After the 2018 reform, all coffee for local consumption, except coffee sold in local open markets still passes through the ECX, but according to ECTA data, in 2021 and 2022 more than 80% of total coffee export was carried out via the AMS, which is favoured by suppliers and exporters for its flexibility with minimized third-party involvement. AMS is governed by ECTA, but, simultaneously, the ECX has the authority for self-governance of management, trading, warehousing, clearing and settlement (Hailemichael, 2022). The potential for conflict inherent in these institutional arrangements can be observed, for example, in the context of price policies (Yewondwossen, 2021).

In 2020, the government also issued a directive called the "Export Coffee Contract Administration" which instructs the ECTA to set a minimum export price for coffee. This measure targets coffee traders, who used to export coffee at a loss to earn more foreign currency (Tamru et al., 2021) and aims to create a "level playing field" for exporters transacting through ECX and VI (Hailemichael, 2022). The reference price has long been determined on a daily basis (Hailemichael, 2022) by taking the weighted average of the export prices in the ECX auction market on the same day. In 2024, however, the ECTA decided, in response to the liberalization of the foreign exchange market, to concentrate on international prices, more specifically, on the New York Arabica coffee price, and the prevailing exchange rate (Endale, 2024). The ECX also defines a certain leeway, initially of 5%. This allows market participants to negotiate and consider quality differentials during the transaction. When the ECX sought to increase tolerance to 10% in 2021, the ECTA feared that additional domestic price increases would further divert traders from the (formal) coffee export markets, and a conflict developed between the two authorities (Yewondwossen, 2021).

Another new directive has limited the amount of foreign currency that exporters can retain from their export earnings to 20%. The remaining earnings must be converted to Birr for local use. This directive has caused some dissatisfaction among exporters and provoked campaigns against the limit, which was then raised to 40%. The introduction of a competitive, market-based exchange system in July 2024 came too late to be considered in our analysis. Exporters are now also allowed to retain 50% of their foreign exchange (National Bank of Ethiopia, 2024). The new monetary reform has led to a devaluation of the previously overvalued currency.

3.2 | Ethiopian coffee market value chains

We differentiate chains by their structure and not by quality, brand, or certification. Figure 2 shows the complex network of Ethiopian coffee value chains, with arrows representing transactions. There are integrated chains as well as market- and state-regulated chains. Among stakeholders, the government, smallholders, and international traders are engaged in both types of chain (Table 1). The integrated chains, which are largely contractually regulated, are the commercial farmer chain and the farmer–cooperative–union chain. Market- and state-regulated chains are the farmer–supplier chain, the formal domestic supply chain, and the informal chains. All but the informal markets are highly regulated and coffee suppliers, domestic wholesalers, exporters and roasters all require

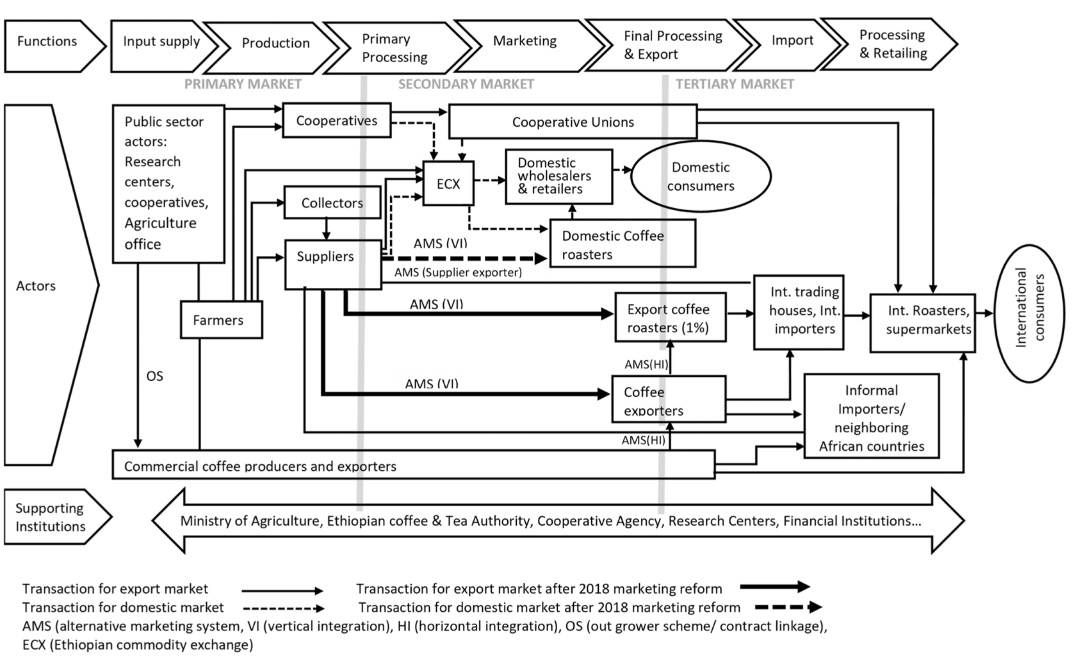

FIGURE 2 Mapping of Ethiopian coffee value chains. *Source*: Authors' own.

TABLE 1 Summary of results of the institutional analysis of Ethiopian coffee value chains.

Chain type	Stakeholder group	Initial strategy => aim	Success	Additional post-reform strategy	Success
Involved in both chain types	Government	Process upgrading for efficiency => export maximization for foreign currency	−/−−	Process upgrading for traceability => quality differentiation for higher prices	0/+
	Smallholders	Choose transactions (incl. informal) that best serve their short-term interests => financial liquidity	+/+	Process upgrading by development of/participation in new businesses => product upgrading, reliability and stability	0/(+)
	International traders	Exploit cheap offers from exporters for reliable standard qualities	+/−	Process and product upgrading via direct trade (AMS) => realize high prices on specialty market	0/+
Integrated chains	Cooperatives	Product upgrading via VSS => long-term relation to international buyers	+/−	Functional upgrading (roasting) => Capturing additional value added	0/−
	Commercial farmers, outgrower investors	Process and functional upgrading (primary processing) for traceability => Farm-specific quality for international market	(+)/+	Process upgrading (outgrower schemes, value chain integration) and product upgrading via investment and small-holder support	0/(+)
Market- and state-regulated chains	Private traders	Exploit short-term opportunities (incl. informal) to maximise margins	+/++	Process upgrading via vertical integration => market differentiation	0/(+)
	Roasters	Functional upgrading => Capturing additional value added	0/−	Product upgrading via processing high-quality beans and good technology	0/−−
	Domestic consumers	Choose transactions (incl. informal) that serve their short-term interests best	−−/−−	Pressure for better prices and quality (process and quality upgrading) of domestic VC	0/0

Notes: Strategy success **before/after** 2018. reform: --: unsuccessful, **−:** relatively unsuccessful, **+:** relatively successful, ++: successful, **0:** unavailable, (): restrictedly available.

special licences (Yusuf, 2024). Almost all transactions in the market- and state-regulated chains take place in both formal and informal forms, i.e., in compliance with and in disregard of rules and regulations.

Due to the prohibition of selling export-quality coffee beans in the large domestic market, the formal chain of domestic supply is a residual chain that handles left overs and beans that are below export quality. Informal chains have developed in response to this prohibition and to the heavy regulation of the formal coffee export trade. Their existence further restricts the development of an efficient domestic roasted coffee chain, as illicit coffee transactions limit the supply of beans available to roasters for their legal trade.

In all value chains, transactions occur in the primary, secondary and tertiary markets. In the primary market, most farmers sell their beans to a cooperative, in primary processing centres, or to collectors, or they transact with suppliers in first-level transaction centres. Here, inspectors from ECX regional labs assign samples of raw coffee bean grades based on visual inspection. Commercial coffee farmers with outgrower schemes and export coffee roasters with established links to coffee growers receive red cherry coffee or coffee with pulp from coffee growers at a place specified in their agreement (Federal Democratic Republic of Ethiopia, 2018).

The primarily processed beans are moved to the secondary market, where processed coffee beans are mostly sold to exporters through auctions at ECX or through a contractual agreement in the AMS. Pre-shipment evaluations of green coffee for export are now conducted by the ECTA's Coffee Liquoring Unit (CLU) in Addis Ababa. Leftovers from primary and secondary processing, as well as coffee beans that do not meet export standards, are bought by wholesalers.

In the tertiary market, exporters perform the final processing and transact with international buyers, while non-export-quality beans are sold to customers in the domestic market. The international market is largely a buyer or, more precisely, roaster-driven market, where roasters and their international traders "have shaped the terms of participation in the value chain" (Daviron & Ponte, 2005, p. 246). The observation that prices for Ethiopian standard-quality coffee "fail to adjust to the higher international coffee price" has, however, not only been attributed to market power of international buyers but also to "high transaction cost, inefficiency and presence of market power" in domestic transactions (Hundie & Biratu, 2022, pp. 3, 22).

4 | RESULTS ON STRATEGIES AND THEIR INTERACTION WITH THE INSTITUTIONAL ENVIRONMENT

The analysis of the data material described in Appendices 1 and 2 was guided by the idea that Ethiopian coffee value chains represent an SAF consisting of individual agents and organizations, as well as private governance units and public institutions. Using the example of the 2018 coffee market reform, we analyse the role of these actors in the creation and transformation of the field. We analyse their contribution to the upgrade strategies and their success. The following discussion of results by chain type and stakeholder group is guided by the three questions: (1) what objectives and upgrading strategies were initially pursued; (2) how these objectives and upgrading strategies were affected by the 2018 reform; and (3) how successful stakeholders were in achieving their objectives and coping with institutional change.

4.1 | General agents of the field

The government (1) has long focused on process upgrading to realize efficiency and transparency in international trade. For the sake of transparency and control, the government has long privileged cooperatives, making them almost the only entities able to establish direct, long-term relationships with international buyers. The lack of interest of the government in product and functional upgrading, or in developing the domestic coffee market, is due to its desire to maximize foreign currency earnings.

(2) When the government recognized the huge potential of product upgrading to increase added value, traceability became a complementary objective in the 2018 reform.

(3) Prioritizing coffee exports over meeting high domestic demand leads to much regulation and bureaucracy, and creates a plethora of rent-seeking opportunities. Rent-seeking opportunities for administrators undermine political efforts aimed at greater efficiency and transparency, as brokers use their relationships with officials "to exploit gaps and avoid regulations designed to ensure transparency and fair pricing" (Belay, 2024). The government then responds to the situation with even more regulations, which generate more rent-seeking opportunities. This vicious circle is an obstacle to upgrading Ethiopian coffee value chains.

Smallholders (1) benefit from informal trade and high coffee prices in domestic markets. They take advantage of the opportunities available to them by choosing the option that best serves their usually short-term goals in each case. Under weak public infrastructure, monitoring and control, this often means selling on the informal market or to unlicensed collectors. Product upgrading through the supply of higher quality coffee is mainly of interest for smallholders who benefit from successful cooperatives or from outgrower schemes.

(2) Very few smallholders manage to engage in process upgrading in order to create further upgrading opportunities themselves, for example, by establishing export businesses, which has only become possible since the 2018 reform. However, an increasing number of smallholders are benefiting from the fact that more private traders are willing to support them in product upgrading through various contractual arrangements since the 2018 reform.

(3) While smallholder farmers benefit from high domestic prices in informal markets, they simultaneously suffer from a lack of market and price transparency. This can be exploited to their disadvantage by private traders and has worsened with the weakening of the ECX during the partial market liberalization of 2018. Small farmers also suffer from a lack of capital and imperfect capital markets, insufficient transport infrastructure, and information asymmetries. These restrictions undermine smallholder attempts to autonomously exploit the new, post-reform opportunities for direct export.

International traders (1) have benefited from exporters who were willing to sell Ethiopian coffee at low prices on international markets in order to earn foreign currency. Other international traders, who were more interested in gaining direct access to specialty coffee from specific origins, and its producers were mainly deterred by the strict regulatory framework, which left little room for direct transactions between producers and international traders.

(2) Prior to the 2018 reform, international buyers had essentially given up on trade with specialty coffee from Ethiopia. Some of these buyers are now taking advantage of the new opportunities to establish direct trade relations in order to serve the growing global market for specialty coffee. Other large international traders who buy coffee in bulk to minimize transaction costs still prefer to work with specialized exporters, who source from suppliers or ECX.

(3) Quality-oriented international traders are willing to invest in process and product upgrading in Ethiopian value chains, which could provide them with a more reliable direct access to producers and better opportunities for quality differentiation. Key prerequisites for such investments, which could play into the government's new strategy, are a stable and supportive institutional framework and legal certainty. Large importers are negatively affected by the declining relevance of the ECX and its effective control of Ethiopian coffee markets. They complain about a loss of reliability in contractually guaranteed qualities and deliveries. If these traders experience deterioration in quality and reliability, they could leave the Ethiopian market, depending on the global coffee supply.

4.2 | Agents in integrated chains

Cooperatives and unions (1) have historically been able to exploit their economies of scale in their separate export-oriented value chains, including for VSS certification, as well as their advantageous image as representatives of small farmers' interests. Product upgrade has been their longstanding aim.

(2) Inefficient cooperatives have been put under competitive pressure with the AMS reform in 2018 and direct trading channels for suppliers. In response, cooperatives now strive additionally for functional upgrading. They

have begun to invest in roasting in order to increase the value added they can realize from direct export of VSS certified and uncertified coffee.

(3) The government's longstanding granting of special status to cooperatives has hurt their competitiveness, as internal governance problems have remained unaddressed. Among these problems is the inability to avoid free-riding by farmer members or to pay farmers upfront delivery, which makes farmers reduce their coffee supply even further. These problems and the lack of affordable capital now also undermine the new strategy of functional upgrading. Under increased competition, cooperatives must now upgrade their management processes in order to increase internal transparency and establish structures of mutual commitment. This would reassure international partners that the cooperatives act in the interests of smallholders. It would also motivate farmers to deliver their coffee cherries reliably and thereby enable further upgrading processes.

Commercial farms and outgrower investors (1) have been able to more easily establish their separate value chains and direct trade with international buyers since 2009. Since 2018, small commercial farms have been allowed to do so. This process of upgrading also motivates functional upgrading to install sufficient high-quality capacities for primary processing. Product upgrading complements these steps towards the appropriation of higher rents of trade and quality in international markets.

(2) Since 2018, exporters, who often have significant capital resources, have been allowed to operate their own processing facilities, which has led to increased engagement in outgrower schemes in the coffee sector. Outgrower investors take advantage of the opportunities offered by contract farming. These investors invest in process upgrading through value chain integration to reliably meet the demand of international buyers. Outgrower schemes can contract out problems of incomplete delivery experienced by cooperatives. Successful outgrower schemes can then gain a competitive advantage over other value chains, which do not provide sufficient quality incentives for smallholders.

(3) Investors need a licence in order to build contractual relationships with farmers and are legally required to process coffee from outgrowers into high-quality coffee and to pay prices that exceed local coffee prices. To meet these high demands, investors are concentrated in favoured locations, which can leave smallholders in other locations further behind. Capital shortage hinders investment in processing capacities and limits the extension of the outgrower scheme as well. For small commercial farms, it is also difficult to access international buyers, and public support in this respect is very limited. They could work together with other exporters, but this comes at the cost of additional bureaucracy. Other mediators extract high commissions. These conditions reduce the potential of the new AMS scheme to meet the international demand for location- or farm-specific coffee. However, the new opportunities and challenges spur new businesses, such as vertically integrated coffee development companies that help farms market their single-farm specialty coffee.

4.3 | Agents in market- and state-regulated chains

Private traders (1) encompass collectors, suppliers, exporters, as well as domestic wholesalers and retailers. They primarily exploit short-term opportunities, including informal trade and gaining access to foreign currency to realize huge margins with import trade. Domestic suppliers benefit from the scarce supply of coffee, and specifically of quality coffee, in the national market to the detriment of consumers. Suppliers sometimes support farmers with loans, and collectors, suppliers, and exporters sometimes pay their vendors in advance to stabilize coffee supply volumes. This reflects a modest form of vertical integration and process upgrading. Private traders are rarely interested in further upgrading, as they exploit market inefficiencies in the standard-quality export value chain, as well as in domestic supply, which are fuelled by dysfunctional institutions.

(2) Since 2018, the new option of direct trade has provided licensed suppliers and exporters with the principal opportunity to increase their margins through product upgrading and market differentiation. This was undermined by the lack of traceability until 2018 in the then almost unavoidable ECX system. Suppliers and exporters can now promote product upgrading more directly as supplier–exporters if they engage sufficiently in primary

processing, that is to say in functional upgrading of their own business. However, informal trade seems to have increased since the 2018 reforms due to less effective controls. There is still harmful competition for coffee from importers willing to export at a loss just to gain access to foreign exchange. At best, this problem will disappear with the new managed floating exchange rate system introduced in 2024 and with the increasing success of other stakeholders in product upgrading.

(3) Private traders have adapted to the strict trade restrictions on the domestic market and to the high value attached to foreign currency by establishing a comprehensive, nationwide network of wholesalers and retailers within the informal coffee value chain. Some of them engage in a low-level functional upgrading by investing in small hulling machines, for example. However, it is hardly possible to credibly signal the specific qualities of informally traded coffee beans, and private traders are unwilling to invest in the upgrading of the domestic value chains.

Roasters (1) contribute to functional upgrading by their very existence, yet they receive little support under the current system of export enforcement.

(2) Some exporters have invested in roasting for export after 2018, but they cannot compete with the huge international roasting corporations on the standard-quality market. They depend on a stable supply of specialty coffee and advanced processing technology, which must be imported.

(3) Functional upgrading via roasting is hindered by capital shortage, the unstable and unreliable supply of high-quality coffee, deficits in logistics, and a general scarcity of good-quality suppliers and business services. Roasters serving the domestic market are easily controllable and are not permitted to process export-quality coffee, which makes their business uninteresting for potential investors, such as exporters. They roast their leftover coffee with inefficient and qualitatively inadequate technology. Roasters therefore support product and process upgrading of the coffee value chain. Functional upgrading can induce positive dynamics along the whole value chain and additional technological and productivity spillover effects. However, a functioning domestic market, which is currently in the interests of no one but roasters and domestic consumers, would be crucial for roasters to become competitive, even on the international market.

Domestic consumers (1) depending on their economic situation either buy and consume low-quality coffee or invest time and money in finding export-quality coffee on informal markets. Smallholder coffee farmers often sell their high-quality beans and consume the remains.

(2) Domestic consumers also remain outside the focus of recent policy reforms. The government is still focusing on generating as much foreign currency as possible through exports without detours.

(3) Given the high price of coffee, domestic consumers are the real victims of Ethiopia's strictly export-oriented coffee sector policy. Consumers are adapting by switching to informal markets, but their demand could only work in the direction of product, process, and functional upgrading in an undisturbed domestic market, where consumers would reward gains in quality, price, and choice through their purchasing decisions.

4.4 | Synthesis

Table 1 summarizes the main results of the institutional analysis of stakeholder strategies within the Ethiopian coffee value chains. Reading from left to right, the columns showing the relative success of the strategies reveal that, prior to the 2018 reform, value chain participants had access to far fewer strategy options than afterwards. However, the likelihood of successfully realizing the strategies has not increased across the board, even though the upgrading strategies have benefited from the reform in many places. Regrettably, in some places the reform has also stabilized strategies that provide the wrong incentives against upgrading and for the realization of short-term profits.

Reading vertically, it can be seen that domestic consumers and roasters were in a weak position with regard to achieving their objectives before the reform and remain so after it. Cooperatives have lost strategic advantages due to a loss of privileges and lacking management capabilities for upgrading. International traders have lost advantages in the bulk market but gained opportunities in the trade of specialty coffee. Smallholders, commercial farmers, and outgrowers, as well as private traders, have gained the most and can exploit additional upgrading opportunities after the reform.

On closer inspection, the table also shows that efforts to realize functional or product upgrading directly without also tackling process upgrading are doomed to fail. Overall, we learn that in their attempts to adapt to changing policy requirements, different actors have developed strategies that are often incompatible with each other.

Stakeholder strategies along the non-integrated chains, which were politically favoured until at least 2018, generally do not support consistent upgrading regimes. In the non-integrated value chains, private traders win at the expense of other stakeholders. They exploit the short-term benefits offered by the informal market. Exporters also benefit disproportionately from their privileged access to foreign currency. They mainly seek to stabilize the supply of coffee beans but are often not overly interested in further process and product upgrading. Smallholders are similarly distracted from efforts at upgrading by the opportunities of informal trade and unfavourable infrastructure, support, and capital market conditions. The domestic supply chain also suffers from the ban on export-quality coffee, which demotivates upgrading and investment efforts. Consumers are forced into the informal market, thereby losing their sovereignty and efficacy. Until very recently, international traders have been deprived of opportunities for more direct engagement with the Ethiopian coffee market, and they are now offended by the increasing unreliability in terms of quality caused by weaker monitoring and control.

Stakeholders, who govern their own integrated value chain, strive for process and product upgrading to meet the demands of the international markets. However, before 2018, this strategy of value chain integration was legally severely restricted in order to prevent power imbalances in the coffee sector. This has protected cooperatives, who were then reluctant to engage in process upgrading and remained highly inefficient. Given the new competition from other integrated value chains, the cooperatives as long-term incumbents now strive for functional upgrading. However, the success of roasting and roasting businesses is at high risk due to the politically induced weakness of the domestic market, the resulting deficiencies of the domestic roasting value chain, and the competitive disadvantages on the international market. Since 2018, private investors in integrated value chains have been best placed to take advantage of the new opportunities as "challengers" (Fligstein & McAdam, 2011) by upgrading the entire value chain. Many of these challengers have long experience as traders and now act as crucial agents of change, thereby also creating new opportunities for smallholder farmers.

With increasing interest in quality, exporters and suppliers will become even more involved in process upgrading and could lobby effectively for more market-friendly institutions and a reduction in bureaucracy. The successful upgrading of Ethiopia's coffee value chains will make many intermediaries redundant, and transaction costs will decrease. These dynamics could be particularly significant because intermediaries and administrators are influential incumbents who tend to impede transformation, as their pivotal role in the existing field affords them numerous rent-seeking opportunities. Overcoming these lock-ins is necessary to put an end to informal and illegal trade and to turn, for example, the ECX back into an efficient trading platform. If the government were to acknowledge the many negative allocation effects of suppressing the domestic coffee market, it could also take on a strong coordinating role in the field through measures that explicitly support upgrading. This could greatly accelerate the field's transformation in favour of the long-term interests of quality-oriented traders, farmers, and consumers. Private traders could then specialize in either specialty or bulk coffee trading. In the medium and long term, at least, greater transparency that enabled upgrading of domestic coffee value chains could also serve smallholder farmers more than relatively high domestic prices in the informal market.

These opportunities are currently being undermined by incumbents who are exploiting the rent-seeking opportunities of the long-established export-oriented approach. They are also preventing transformation by cooperating with administrators for their own private interests and by lobbying politicians. If the government decides against taking on a coordinating role the upgrading the Ethiopian coffee value chains, there is a high risk that they will remain locked in a low-quality and low value-added regime. There is even a real risk that international traders might leave the Ethiopian market due to further loss of reliability as regards contractually guaranteed qualities and deliveries.

5 | DISCUSSION AND CONCLUSION

This article has systematically analysed the institutional mechanisms that support or prevent the adoption and successful implementation of upgrading strategies within the field of Ethiopian coffee value chains. These strategies of public and private stakeholders create and transform the field, as the adoption of strategies by stakeholders in the coffee value chain depends on the strategies of other market participants. The success of these strategies, in turn, depends on their alignment with the institutional environment created by the state and its administrations. The article thereby illustrates why domestic value chain upgrading not only requires forward-thinking and experienced entrepreneurs with sufficient resources, but also stable and reliable supportive institutions. It confirms that the GVC approach has to be combined with economic system perspectives to assess the potential of GVC upgrading strategies to contribute to domestic economic development.

More specifically, the results demonstrate the difficulty of transforming the field in Ethiopia through individual upgrading strategies under the current institutional conditions. Changing adverse institutions and restructuring value chains correspondingly through process upgrading is often the crucial first step in upgrading both product and functionality. However, reforms of industrial policies that do not address the fundamental problem, often rooted in macro institutions, frequently fail to solve problems of misallocation and bad incentives. Specifically, our analysis shows the huge inhibiting effects of Ethiopia's strict ban on domestic trade of export-quality coffee. Although the ban addresses an imbalance in the nation's foreign currency market, it also generates a substantial informal domestic coffee market. This distorts incentives and distracts resources away from upgrading efforts. This problematic macro policy has long been accompanied by a restrictive industrial policy that has restricted direct relationships with international buyers to cooperatives.

Policies aimed at supporting upgrading must be coordinated with the strategies and experiences of entrepreneurs and other value chain stakeholders. In particular, policy measures should not create incentives that distort coordination between these stakeholders. To ensure that upgrading promotes economic development, policies must simultaneously contribute to a coherent and economically consistent overall concept. Taking trade-offs between disparate objectives into account implies the avoidance of overly rigid interventions in pursuit of a particular goal, such as the prohibition of export-quality coffee from the domestic market. Instead, the export objective could be pursued without undermining the goal of functional upgrading of the domestic coffee value chain by placing more emphasis on improving production efficiency and developing appropriate infrastructure. However, depending on the general development strategy and its institutional conditions, some approaches commonly promoted for upgrading may well prove ineffective in supporting development in specific cases.

In order to address the question of how national and local institutional environments and institutional arrangements affect micro-level decisions and mechanisms for value chain upgrading, we have adopted a case-study approach and a field perspective in order to identify and explain concrete mechanisms. The identified concrete mechanisms confirm that national institutions should be taken into account wherever upgrading strategies are proposed, developed, or evaluated. However, the identified mechanisms only represent examples derived from a specific case. Future analyses should consider complementing this approach through comparative analyses of value chains and their development under different institutional conditions and in different national environments. By identifying crucial economic and institutional conditions necessary for effective upgrading, and how these must be considered when assessing comparability, our study paves the way for such comparative analyses.

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DATA AVAILABILITY

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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APPENDICES

APPENDIX 1 Data sources.

Type of data	Source of data/document
19 Expert and stakeholder interviews*	government organizations, cooperative unions, coffee trading companies, service providers, coffee associations
Coffee export and trade data of cooperative unions	Coffee farmers' cooperative unions Oromia, Sidama, and Yirgachefe
Coffee export and national trade data	Ethiopian Coffee and Tea Authority (ECTA), Ethiopian Commodity Exchange (ECX)
National export data for major commodities	National Bank of Ethiopia (NBE)
Field observation	Participatory observation of two major open markets (Merchato & Shola)
Legal and regulatory documents/ policy reform documents	FDRE (2008). Proclamation No. 602/2008: Coffee Quality Control and Marketing Proclamation. FDRE (2016). Cooperative Societies Proclamation of the Federal Democratic Republic of Ethiopia. FDRE (2017). Proclamation No.1051 /2017: Coffee Marketing and Quality Control Proclamation. FDRE (2018). Council of Ministers Regulation No. 433/ 2018: The Coffee Marketing and Quality Control Regulations. ECTA (2019). Comprehensive Ethiopian Coffee Strategy 2019 to 2033. FDRE (2019). Ten Years Development Plan: A Pathway to Prosperity 2021-2030. FDRE (2020). A Homegrown Economic Reform Agenda: A Pathway to Prosperity. Public Version. ECTA (2023). Directive No. 975/2023: Selling Graded and Value-Added Export Coffee in Foreign Currency Within Domestic Markets
Additional newspaper and internet articles	See the list of references; additionally (used as background information but not cited): Bogale, S. (2023, January 7). Premium coffee for local market, but with USD. *The Reporter*. https://www.thereporterethiopia.com/29506/ Bogale, S. (2023, April 22). Smuggling at an all-time high. *The Reporter*. (04/22). https://www.thereporterethiopia.com/33365/ Collins, T. (2021, November 5). Ethiopian coffee roasting company taps into strong domestic demand. *How We Made It in Africa*. https://www.howwemadeitinafrica.com/ethiopian-coffee-roasting-company-taps-into-strong-domestic-demand/131262/ Endale, A. (2021). Ethiopia is the sleeping giant in the global coffee industry. *Ethiopian Business Review*, *9*(100). https://ethiopianbusinessreview.net/ethiopia-is-the-sleeping-giant-in-the-global-coffee-industry/ Government condemns coffee traders for defaulting on vertical trading platform. (2024, March 11). *Capital*. https://capitalethiopia.com/2024/03/11/government-condemns-coffee-traders-for-defaulting-on-vertical-trading-platform Metekia, T. S. (2022, May 30). Fighting the illicit trade in Ethiopian coffee. *ENACT Observer*. https://enactafrica.org/enact-observer/fighting-the-illicit-trade-in-ethiopian-coffee Selalew, H. (2017). Flexible packaging: The big unmet demand. *Ethiopian Business Review*, *5*(51). https://ethiopianbusinessreview.net/flexible-packaging-the-big-unmet-demand/ Siemens, D. (2024, July 31). Ethiopia Single Farmer Project: The history and future. *Cafe Imports*. https://www.cafeimports.com/europe/blog/2024/07/31/ethiopia-single-farmer-project/

(Continues)

APPENDIX 1 (Continued)

Type of data	Source of data/document
Additional scientific reports, theses, and journal articles on coffee trade and institutional reforms in Ethiopia	See the list of references; additionally (used as background information but not cited): Alemu, D., & Berhanu, K. (2018, June). *The political economy of agricultural commercialisation in Ethiopia: Discourses, actors and structural impediments* (APRA Working Paper No. 14). Institute of Development Studies. https://hdl.handle.net/20.500.12413/13952 Amamo, A. A. (2014). Coffee production and marketing in Ethiopia. *European Journal of Business and Management*, *6*(37), 109–121. https://scispace.com/pdf/coffee-production-and-marketing-in-ethiopia-8f0mv6l1wd.pdf Ameyu, M. A. (2014, September). Assessment of factors affecting quality of Hararge Coffee (Coffea arabica L.) in Coffee Value Chain: A case study of Darolabu District, Eastern Ethiopia [Master's project, Van Hall Larenstein University of Applied Sciences]. http://bit.ly/4oePbZr Asefa, S., Mulugeta, W., Hadji, J., & Diro, S. (2016). Factors affecting farmers' coffee market outlet preference in Southwest Ethiopia: Survey result of coffee potential Districts of Jimma Zone. *Journal of Marketing and Consumer Research*, *23*, 11–22. https://core.ac.uk/download/pdf/234694126.pdf Belete, K. M. (2015). *The state of competition and the competition regime of Ethiopia: Potential gaps and enforcement challenges*. OSSREA. https://www.ossrea.net/images/state_of_competition_ethiopia.pdf Bernard, T., Abate, G. T., & Lemma, S. (2013). *Agricultural cooperatives in Ethiopia: Results of the 2012 ATA Baseline Survey*. IFPRI. https://hdl.handle.net/10568/153534 Gelan, A. (2020). *Opportunities of coffee value chain activities from farmers to local roasting companies: In the case of farmers Gomma woreda and selected local roasting companies in Addis Ababa*. [Master's thesis, Addis Ababa University, School of Commerce]. https://etd.aau.edu.et/items/03a86e52-08fa-47c0-a08e-577aa49897df Gelaw, F., Speelman, S., & van Huylenbroeck, G. (2016). Farmers' marketing preferences in local coffee markets: Evidence from a choice experiment in Ethiopia. *Food Policy*, *61*, 92–102. https://doi.org/10.1016/j.foodpol.2016.02.006 Hoebink, P., Ruben, R., Elbers, W., & van Rijsbergen, B. (2014, February). *The impact of coffee certification on smallholder farmers in Kenya, Uganda and Ethiopia*. CIDIN. https://scispace.com/pdf/the-impact-of-coffee-certification-on-smallholder-farmers-in-u92sw63jju.pdf Keeley, J. (2014). *Large-scale land deals in Ethiopia: Scale, trends, features and outcomes to date*. International Institute for Environment and Development. https://www.iied.org/12575iied Kodama, Y. (2007). New role of cooperatives in Ethiopia: The case of Ethiopian coffee farmers cooperatives. *African Study Monographs, Supplementary issue*, *35*, 87–108. https://core.ac.uk/download/288467492.pdf Korma, J. D. (2019, April). *Coffee (Coffea arabica L.) market chain analysis in Gololcha District, Ethiopia* [MSc thesis, Haramaya University]. https://afribary.com/works/coffee-coffea-arabica-l-market-chain-analysis-in-gololcha-district-ethiopia/read Wubie, D. (2024). The status and challenges of contract farming engagement in Gimbo District, Kafa Zone, South West Ethiopia People's Region, Ethiopia. *World Journal of Agricultural Science and Technology*, *2*(3), 76–89. https://doi.org/10.11648/j.wjast.20240203.12

* All but one (the German importer) located in Addis Ababa; refer to Appendix 2 for a detailed list of interviews.

APPENDIX 2 Institutions considered for expert and stakeholder interviews.

Institution types	Institutions/stakeholders	No. experts interviewed
Government organizations	Ethiopian Coffee and Tea Authority (ECTA)	3
	Ethiopian Commodity Exchange (ECX)	1
	National Bank of Ethiopia (NBE)	1
	Federal Cooperative Agency (FCA)	1
Coffee farmers' cooperative unions	Oromia coffee farmers' cooperative union	1
	Sidama coffee farmers' cooperative union	1
	Yirgachefe coffee farmers' cooperative union	1
Green coffee exporting companies	Daye Bensa Coffee	1
Green coffee supplier and exporting company	Burssa coffee PLC & Mulugeta Muntasha Eshet Coffee hulling industry	1
Green coffee and roasted coffee exporting companies	Dahab coffee exporter / Diamond Enterprise PLC	1
Roasted coffee exporting companies	Onekoo_Roaster	1
	Jalannera coffee export and coffee farm PLC	1
Service-providing institutions	Cooperative Bank of Oromia	1
	Fairtrade branch office	1
Coffee associations	Coffee Roasters Association	1
	Ethiopian Coffee Association (ECA)	1
German roasted coffee importer	Solino Coffee	1
Total number		**19**

Source: Expert and stakeholder interview