Banking on Conflict: Managers and Organizational Design*

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Abstract

This paper investigates how the internal structure of organizations reflects multiculturalism and how shocks that amplify ethnic conflict affect their organizational design. We develop a theoretical model illustrating how conflict increases communication and information acquisition costs, thereby influencing organizational design. To test the model's predictions, we construct a novel panel dataset on the internal organization and management practices of Ethiopian bank branches, combined with detailed data on branch managers' ethnicity, banks' dominant ethnicity, city demographics and conflict. Using variation in exposure to violent ethnic conflict, we causally estimate how bank-level exposure to such conflict affects branch-level organizational design. We find that greater exposure to conflict at the bank level induces branches to hire managers who share the city's dominant ethnicity rather than the headquarters', and to implement a number of complementary changes to address the incentive problem this creates. These organizational changes allow banks to sustain lending performance, adjusting loan size and screening intensity without increasing default rates. Our results uncover a general mechanism by which diverse organizations navigate polarization, trading off local knowledge against higher internal communication costs.

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1 Introduction

A key role of organizations is to gather and communicate information to make decisions. As Garicano (2000) points out, internal communication between the units of an organization enables the specialized acquisition and use of knowledge. This creates a natural trade-off between communication costs and knowledge acquisition: tailoring an organization to fit local needs improves the utilization of specialized knowledge but raises internal communication and coordination costs. As a result, the optimal design of an organization can vary depending on supply factors (e.g., elements shaping the organization's ability to process and communicate information) and demand-side factors (e.g., variables affecting the need for local-specific information). The role of these elements can be exacerbated by the presence of diverse groups within an organization or country and conflict between those groups, which may alter the optimal organizational structure. We examine these issues in the context of the banking sector – an ideal setting given its reliance on information and its comparative advantage in gathering and processing data to screen and monitor customers.

Over the last decade, we have been collecting a novel dataset to study this issue, adapting the methodology of Bloom and Van Reenen (2007) to measure the management practices and organizational structure of bank branches in Ethiopia, and to construct a panel over a long horizon. We also collect data highlighting a distinctive feature of banking in Ethiopia: banks are strongly associated with specific ethnic groups, as reflected in their leadership and dominant language (Regasa, Fielding, & Roberts, 2022). In such contexts, banks operating in areas populated by other ethnic groups must choose between hiring better-informed local managers (aligning with demand factors) and less-informed coethnic managers who facilitate better communication within the bank (aligning with supply factors). To formalize this intuition, we develop a theoretical model, inspired by Garicano (2000), that captures the trade-offs banks face when determining a branch's organizational structure in this setting.

The empirical identification of how banks respond to changes in these demand and supply factors is challenging, as it requires variation exogenous to both bank-level and local conditions. To address this, we focus on a source of variation that affects the costs of information acquisition and communication within banks, without directly influencing local conditions. Specifically, we study the causal effect of banks' exposure to ethnic conflict in Ethiopia. To isolate the causal effect of conflict from local economic fluctu-

ations, we exploit variation in exposure to ethnic conflict through a bank's branch network – abstracting from local conflict – over time to study its polarizing effects (Hjort, 2014; Korovkin & Makarin, 2023; Rohner, Thoenig, & Zilibotti, 2013). Using our panel data, we track 16 banks operating 998 branches over time, spanning the periods before and after the onset of conflict. This approach allows us to analyze within-branch variation over time, examining how changes in bank-level exposure to conflict influence branch-level organization and lending outcomes.

To further validate our findings, we exploit the sudden historic migration of the Beta Israel (Ethiopian Jews) to Israel between 1980 and 1991 as a source of quasi-exogenous variation. Prompted by political instability, famine, and Israel's Law of Return, this migration triggered significant demographic shifts in northern Ethiopia, intensifying resource competition among the remaining groups. These tensions, exacerbated by the contentious Amhara-Tigray border drawn in 1992 in the same area, contributed to the recent Tigray conflict and subsequent disputes (Nyssen & Demissie, 2023). This quasi-experimental event induced a quasi-exogenous rise in local conflict in the recent civil war, which we leverage to validate our findings on the effect of bank-level exposure to conflict on branch-level outcomes.

Our theoretical model, inspired by Dessein (2002) and Garicano (2000), examines the optimal organizational design of a bank branch that evaluates prospective loans. In cities where the local population is not coethnic with the bank, headquarters face a trade-off in selecting the branch manager (BM). It can hire a manager of the same ethnicity as the bank, a bank-coethnic manager, who communicates truthfully but is less skilled at assessing loan quality, or a manager who shares the city's dominant ethnicity, a city-coethnic manager, who excels at assessing local borrowers but may provide biased information favoring members of their ethnic group. We view violent ethnic conflict as shaping the relative importance of these two factors – with exposure to conflict making it more difficult for a bank-coethnic manager to acquire information and making a city-coethnic manager more biased towards their own group. The optimal choice of manager ethnicity depends on the relative importance of these two factors. We then extend the model to allow the bank to change the composition of its managers either by relocating managers across its branch network or by hiring managers directly from the labor market. This allows us to consider a scenario where, particularly when hiring a manager who is not coethnic with the bank, the bank can manage these tensions by reallocating known managers.

To test the predictions of the theoretical model, we compare the effect of ethnic conflict on branches

operating in cities that are not coethnic with the bank–locations where hiring a manager coethnic with both the bank and the city is not possible–with branches operating in cities that are coethnic with the bank. The latter group serves as a placebo in which, as predicted by our model, conflict should not directly affect branch-level organization. In non-bank-coethnic cities, we first document a striking empirical fact: before the conflict, the vast majority of managers were coethnic with the bank, while only a small minority were coethnic with the city. After the conflict, however, the pattern reversed – a minority were coethnic with the bank, and the majority were coethnic with the city. According to the model, this shift suggests that before the conflict, unbiased internal communication was the primary concern, whereas after the conflict, the value of local information increased relative to unbiased communication.

To identify the causal impact of ethnic conflict on organizational design, we construct a branch-level exposure measure based on *violent* ethnic conflicts occurring elsewhere in the bank's branch network – i.e., not near the branch itself. By excluding conflicts near the branch, we can separate the effect of ethnic conflict within the organization from the direct economic disruptions that local violence causes. We then test robustness by first adding city-time fixed effects, which compare branches within the same city-year, and separately explicitly controlling for the intensity of conflict near the branch itself. Together, these steps ensure that our coefficients capture bank-level organizational responses rather than shifts in local credit demand or migration.

Empirically, we report three main findings. First, branches located in cities not coethnic with their parent bank respond to conflict by clearly shifting their managerial composition. A one-standard-deviation increase in bank-level conflict exposure makes branches 12.9 percentage points more likely to hire a manager coethnic with the local city population and 22.7 percentage points less likely to employ a bank-coethnic manager. This reallocation suggests that, under heightened polarization, the advantages of local knowledge outweigh concerns about communication bias with headquarters. In contrast, in cities where banks and local populations are coethnic, we find no significant change in managerial ethnicity, highlighting the role of ethnic distance in driving these organizational responses.

Second, we study how branches manage the incentive problem that is created by hiring a manager that is not coethnic with the bank. We first examine where these new managers come from, and see that these new managers are reallocated from other branches of the bank, rather than newly hired from the external market. In line with these findings, these new managers also have longer tenures with the bank

and are relatively older. This suggests that banks actively try to manage this more tenuous relationship with a non-coethnic manager by ensuring they have a long-term relationship with these managers. These changes are, again, isolated to branches in cities which are not coethnic with the bank. To further reduce these incentive problems these branches also improve their management practices related to monitoring branch employees' performance.

Finally, we look at lending activities of the branch. We see that branches in cities not coethnic with the bank expand the area in which they serve customers, whereas branches in cities coethnic with the bank reduce the size of this area in response to bank-level violent conflict. We further find that banks adjust their lending strategies in both bank-coethnic and non-bank-coethnic cities, but in distinct ways. In coethnic cities, banks exposed to higher conflict shift towards safer loans, characterized by larger average loan sizes, stricter collateral requirements, and lower default rates. In non-coethnic cities, these banks reduce the number of loans and increase loan sizes, potentially indicating enhanced borrower screening efforts. Taken together, these patterns suggest that banks respond to conflict by emphasizing collateral in coethnic cities and enhancing borrower screening in non-coethnic cities.

As described, we validate the results using an instrument based on historical proximity to cities with sizable Beta Israel (Ethiopian Jewish) communities. Specifically, we use the share of banks' branches located near these cities to construct a bank-level instrument. This historical geography strongly predicts subsequent changes in bank-level exposure to ethnic conflict during 2018–2022 but is plausibly unrelated to contemporaneous branch organizational choices except through conflict. Focusing on the results relating the managerial ethnicity and manager characteristics, where we have the most power, these IV estimates corroborate our main findings.

The first contribution of this paper is to show how organizations manage ethnic diversity, and how they reorganize in response to a shock polarizing differences between groups – violent ethnic conflict. These results highlight firms as connecting the macroeconomic literature suggesting ethnic diversity hinders economic growth (Alesina & La Ferrara, 2005; Ashraf & Galor, 2013; Easterly & Levine, 1997; Ferrara, 2003; Miguel & Gugerty, 2005) and the microeconomic literature highlighting the often negative effects of diversity – especially following ethnic conflict – on individual interactions (Hjort, 2014; Lang, 1986; Lazear, 1999) and investment decisions (Fisman, Paravisini, & Vig, 2017; Fisman, Sarkar, Skrastins, & Vig, 2020; Hjort, 2021). Our results suggest that conflict increases the relative importance of acquiring

information from external clients compared to communication within the firm, potentially by changing the level of trust between groups (Rohner et al., 2013). More broadly, our results highlight novel evidence of a channel through which firms are motivated to be diverse – cultural proximity between employees and customers. A recent literature instead highlights the value of homogeneity within organizations in terms alignment of values (e.g., Espinosa & Delfino, 2024; Spenkuch, Teso, & Xu, 2023) and political views (e.g., Colonnelli, Neto, & Teso, 2022; Fos, Kempf, & Tsoutsoura, 2022), as well as the observed (preference for) ethnic homogeneity in other settings (Fietz & Schmeißer, 2024; Hellerstein & Neumark, 2008).

I want to rewrite this when we have the model to highlight that our findign is surprising. The second contribution of this paper is to highlight organizations' endogenous responses to this shock polarizing differences between groups. We show that as banks hire outgroup managers, they implement a number of complementary changes to address the incentive issue this creates. Our results related to manager reallocation suggest that when hiring outgroup employees a long-term relationship can substitute for ethnic proximity. We then provide further evidence that branches implement practices to better track performance, and add layers to their internal hierarchy which is shown to address corruption (Skrastins & Vig, 2019) and reduces the importance of soft information (Liberti & Mian, 2008). Branches also shift to fewer, larger loans which presumably allows for more intense screening of the quality of the project, which they locate in a larger geographic range. Closely related to these results are the, descriptive, results in (Rasul & Rogger, 2015) showing a negative correlation between ethnic diversity and management practices in the Nigerian public service. Overall, our results highlight that organizations adopt different organizational structures to respond to changes in frictions between ethnic groups.

The third contribution of this paper is to extend the World Management Survey (WMS) framework by Bloom and Van Reenen (2007) to measure management practices in banks, and apply this to a setting where management practices are relatively understudied in large firms: sub-Saharan Africa. While the WMS has been widely applied across manufacturing, education, civil service, health care, and private equity (Bloom, Eifert, Mahajan, McKenzie, & Roberts, 2013; Bloom, Lemos, Sadun, & Van Reenen, 2015, 2020; Bloom, Propper, Seiler, & Van Reenen, 2015; Bloom, Sadun, & Van Reenen, 2015; Rasul & Rogger, 2018), evidence on management practices in banks is limited. Within the literature on management practices, a limited literature has focused on the choice of the *combination* of management practices a firm

employs (Bloom, Sadun, & Van Reenen, 2016; Lemos & Scur, 2019). This project contributes novel insights to the literature on management by design versus technology (Bloom et al., 2016) by demonstrating how banks use specific management practices to cope with polarization and changes to incentives within their organization. Our finding of an increased focus on performance-related management practices complements recent results suggesting pay-for-performance contracts can neutralise managerial taste-based biases (Ahmadi, Clochard, Lachman, & List, 2025). Taken together, our findings highlight that in polarized societies, firms may increase customer diversity in their workforce as a strategy to maintain information flow, but this requires complementary investments in monitoring and incentive alignment. This suggests an under-appreciated mechanism through which conflict can impact credit access and resource allocation in the economy.

The remainder of this paper is structured as follows. Section 2 presents the theoretical framework and outlines the institutional context. In Section 3, we describe the data, our empirical testing strategy for the theoretical predictions, and the quasi-experimental variation in conflict stemming from the Beta Israel migration. Section 4 then details the empirical model and the main results. Section 5 discusses what alternative mechanisms might explain our results. Finally, we discuss and interpret our findings in Section 6.

2 Theoretical Framework and Institutional Setting

Here, we develop a theoretical model of a bank lending to local customers through a bank branch in the spirit of Dessein (2002) and Alonso, Dessein, and Matouschek (2008). Appendix F formalizes this model. The bank (principal) makes lending decisions by hiring a branch manager (agent), who observes a signal of the (binary) quality of potential loans which is correct with probability $q > 1/2$. The branch manager then communicates this signal to the headquarters, truthfully when they believe the loan is high quality, but reporting that the loan is high quality when it is in fact low quality with probability $p(b)$ as a function of the bias b, reflecting private benefits of lending.

The key innovation of this model is that we consider a bank affiliated with a specific (ethnic) group, but that the city's population is of a different (ethnic) group. Evidence from Fisman et al. (2017) and Fisman et al. (2020) suggests that this creates a trade-off for the bank: it can hire a manager coethnic with

the city, or with the bank itself. We interpret this choice as analogous to centralization versus delegation in (Dessein, 2002) and (Alonso et al., 2008): Appointing a bank-coethnic manager resembles centralization, with lower bias (we assume for simplicity $b_B = 0$) but weaker local information ($q_B < q_C$); choosing a city-coethnic manager resembles delegation, leveraging superior information (q_C) at the cost of higher in-group bias ($b_C > 0$). The main decision problem for the bank is thus the manager's ethnicity, or more generally a combination of q and b: If the quality of a city-coethnic manager is sufficiently more accurate relative to the possible cost of the bias, the bank hires a city-coethnic manager. Otherwise, it appoints a bank-coethnic manager.

To model the effect of ethnic conflict, we make the following assumptions based on insights from Fisman et al. (2020); Hjort (2014); Rohner et al. (2013). Ethnic conflict (γ) polarizes differences between groups, and thus changes both b_C and q_B, but does not affect q_C as both the borrower and manager are of the same ethnicity in this case. Specifically, $b_C = f(\gamma)$ with $f'(\gamma) > 0$, and $q_B = g(\gamma)$ with $g'(\gamma) < 0$. This means that the effect of ethnic conflict on the choice of the branch manager's ethnicity is an empirical question: If conflict increases the bias of a city-coethnic manager more quickly than it worsens the ability of a bank-coethnic manager to acquire information, it shifts the bank towards choosing bank-coethnic managers. If not, conflict shifts the bank towards hiring city-coethnic managers. Figure 1 illustrates these comparative statics.

We hypothesize that the bank can make a number of complementary adjustments to the organizational structure to change b and q. First, the effective bias b may be reduced by hiring managers with a longer tenure with the bank, but this should be achieved through reallocations to avoid managers developing strong attachments with local borrowers (increasing b). Moreover, increasing the number of the layers in organizational hierarchies (Skrastins & Vig, 2019) and improving performance management practices may decrease the bias b. These organizational adjustments are complementary adaptations that we examine empirically in Section 4.

The main testable implication of the model is that greater exposure to ethnic conflict shifts the balance between the ability of a bank-coethnic manager to acquire information and a city-coethnic manager's willingness to communicate truthfully, changing the optimal choice of the manager's ethnicity. Importantly, this effect is only relevant when the bank's and city's predominant ethnicity differs; when they are the same conflict should not be expected to affect the optimal choice of manager ethnicity. The additional

implication is that if conflict results in hiring city-coethnic managers, it should also result in the adoption of complementary organizational practices to mitigate the resulting bias b, such as reallocation of trusted managers, longer bank tenure, and stronger performance monitoring.

2.1 Banking in Ethiopia

Ethiopia is a diverse country, home to more than 90 distinct ethnic groups. The largest groups are Oromo (31%) and Amhara (30%), followed by Somali (6%) and Tigray (6%). Ethnicity is highly salient, discernible through outward appearance and naming conventions (Abbay, 2004). This ethnic diversity is mirrored in the country's federal structure, established in 1992 following the end of military rule. The states home to the largest ethnic groups—including Oromiya, Amhara, Somali, and Tigray—are characterized by significant ethnic homogeneity, with over 85% of the population within each region belonging to a single ethnic group.[1] Appendix Figure C.1 provides further detail on the limited ethnic diversity at the local level in Ethiopia. Figure 2 illustrates a map of Ethiopia, with regional names that generally align with the predominant ethnicity.

The Ethiopian banking sector was tightly regulated and dominated by state-owned institutions until the early 1990s, with the government exercising substantial control over credit allocation and the spatial distribution of branches. Under military rule, banking services were centralized, and financial inclusion was low, especially in rural areas. Following the military regime's collapse in 1991 and the subsequent economic reforms, the sector underwent gradual liberalization, allowing for the establishment of private banks. Although foreign entry was prohibited, a significant number of privately owned domestic banks emerged. Many of these banks initially operated within their home regions, serving ethnic constituencies or regions closely associated with their founding members. Over time, however, as competition increased and the banking sector expanded, these institutions began establishing branches outside their regions. This growth has been especially pronounced in recent years, with the number of branches more than tripling from 3,300 in 2015 to 11,300 in 2024.[2]

However, the banking sector in Ethiopia continues to reflect the country's multiculturalism, with

[1] Based on 2007 IPUMS data, based on the most recent census available, 96% of the population of Tigray is Tigrayan, 91% of the population from Amhara is Amhara and 88% of the population of Oromia is Oromo.

[2] https://nbe.gov.et/wp-content/uploads/2024/08/2023-24-Second-Quarter-Report-1.pdf

strong associations between banks and specific regions or ethnic groups. This is evident in naming conventions, such as the "Commercial Bank of Oromiya" and "Amhara Bank," as well as in decisions about branch locations (Regasa et al., 2022), the ethnicity of C-suite executives and employees, and the predominant language used within banks. When operating in areas where different languages and cultures are predominant, this results in the trade-off our theoretical model formalizes: a bank can prioritize effective local information acquisition by hiring a city-coethnic manager, or it can emphasize better communication with headquarters by employing a bank-coethnic manager.

2.2 Conflict in Ethiopia

After an extended period of relative peace and high economic growth rates between 2000 and 2020, ethnic clashes and political instability have become significant challenges for Ethiopia. The escalation of tensions in 2020, marked by the breakdown in relations between the federal government and the Tigray People's Liberation Front (TPLF), triggered the Tigray War. This severe conflict, which resulted in an estimated 300,000 to 800,000 fatalities, unfolded across multiple fronts, including battles between Addis Ababa and the Tigray region in northern Ethiopia, as well as within Tigray itself. Following the Tigray conflict, instability spread to other regions, particularly Oromiya, where violence involved the Oromo Liberation Front (OLF), and Amhara, where conflict involved Fano, an Amhara youth militia.

Appendix Figure E.1 illustrates the distribution of conflict across Ethiopia during this period. Between 2015 and 2019, the number of fatalities from ethnic conflict was relatively low and geographically dispersed. However, this pattern changed dramatically with the outbreak of the Tigray conflict in November 2020. Conflict intensity initially surged in northwestern Ethiopia, concentrated within Tigray. In 2021, the TPLF launched an offensive toward Addis Ababa, resulting in a high density of violence along the corridor between Mekele, the capital of the Tigray region, and Addis Ababa. The Tigray conflict largely subsided by the end of 2021, but new conflicts erupted in Oromiya, involving the OLF, and more recently in Amhara, driven by Fano.

This conflict presents a suitable context for our analysis for several reasons. First, there is substantial variation in conflict intensity across both time and space, with some regions experiencing severe violence while others remained relatively insulated. Second, conflict involves a number of ethnic groups making it

unlikely our effects are driven by reorganization of banks associated to a specific ethnic group or operating in a specific region.

Importantly for our analysis, the outbreak of the conflict in 2020 was unexpected, especially at the time we finished our data collection in 2018. This strengthens the plausibility of exogeneity in the conditions of banks and branches relative to the conflict they experienced. The conflict was difficult to foresee due to the political transition preceding the conflict. The current prime minister assumed power in 2018 as part of a transitional government, signaling a policy shift from federalism to nationalism. This transition was marked by significant reforms, including the exclusion of the TPLF – the dominant political movement in Tigray – from the ruling coalition in late 2019. This resulted in a large mismatch between the TPLF's significant military and reduced political power creating conditions conducive to future conflict Morelli, Ogliari, and Hong (2024). These political developments transformed Ethiopia's environment from one of high growth and relative stability in 2018 to a period characterized by rising ethnic tensions and widespread conflict by 2020.

3 Data and empirical strategy

3.1 Data

We use two main datasets to analyse the effects of conflict on banks, and several complementary sources of data. The first is a novel branch-level panel dataset that we collected, covering the period before and after the onset of the conflict. This dataset is based on a new survey of management practices we developed, adapting the World Management Survey (WMS) to measure management practices relevant to bank branches. The second dataset provides detailed information on conflict events in Ethiopia – including the location, date, and actors involved – collected continuously by the Armed Conflict Location & Event Data Project (ACLED).

The branch-level dataset was constructed using a questionnaire we developed based on the WMS (Bloom & Van Reenen, 2007), customized to reflect bank operations and lending activities. The adapted questionnaire covers four dimensions of management—performance, lean, target, and people manage-

ment—each evaluated on a five-point scale, from one (worst practice) to five (best practice).[3] Each dimension is assessed using open-ended interviews combined with a structured scoring framework to ensure comparability across branches. We aggregate these scores into (i) an overall management score and (ii) four composite indices for each management dimension, computed as the mean of normalized question-level scores. To enhance reliability, we use open-ended responses and a double-scoring procedure to minimize enumerator bias and improve the quality of data collection. Appendix D describes the survey procedure in detail. The survey also includes targeted questions on branch organization, managerial autonomy, and lending practices. Table 2 presents summary statistics for the main variables used in the analysis. Appendix Tables D.1 and D.2 report descriptive statistics for branches' organizational characteristics and lending activities by survey wave, respectively. Appendix D provides further details on survey design and implementation.

These interviews are conducted with the branch manager, i.e., the most senior manager present at the branch. Because ethnicity is highly salient in Ethiopia and influences social and economic interactions, we use the interview setting to infer each manager's ethnicity. Ethnicity is identified using multiple indicators – the manager's region of birth, accent, spoken languages, and name – and determined jointly by two interviewers: the primary interviewer and an observer. Appendix Table C.3 reports the distribution of manager ethnicities for 2018 and 2022.

A key step in our analysis is to identify the ethnic affiliation of banks and cities. Ethiopia is particularly well suited for this task because of its distinctive naming conventions, which generally follow the format "personal name" followed by "father's personal name." Strictly speaking, surnames are not used, and naming practices vary by region (Fessha, 2016; Gebre, 2010; Kefale, Kamusella, & Van der Beken, 2021). To determine the ethnicity of banks, we collect data on the ethnic background of each bank's CEO and board members and assign the bank to its dominant ethnicity. We identify the ethnicity of cities using the Murdock Ethnographic Atlas. Combined with the manager-level information from our survey, this procedure yields consistent measures of ethnicity for banks, branch managers, and cities. The distribution of these ethnicities is reported in Appendix C.

Next, we combine these branch-level data with georeferenced conflict events from ACLED. This source provides detailed, continuously updated information on violent events, including their date, location

[3] See Table 1 for the full list of questions.

(latitude and longitude), number of fatalities, and the actors involved (for example the national army, specific armed groups or specific groups of civilians). We use data for Ethiopia covering 2015–2022 for our main analysis.

Having identified the ethnic affiliation of each branch manager, we next link conflict events to banks through their ethnic composition and geographic footprint. This requires two steps. First, we match each conflict event to the ethnic groups involved, using information on actors from the Ethiopia Peace Observatory, a special project run by ACLED. Second, we map each bank branch to its geographic location and identify whether it lies close to a conflict event.[4] A branch is considered exposed if the distance between its city and a conflict event is less than 20 kilometers.[5] We discuss the exact definition of our conflict variables for the analysis in section 4.

3.2 Quasi-experimental variation in conflict

The Beta Israel, commonly known as Ethiopian Jews, experienced significant migration to Israel during the 1980s and early 1990s. This movement was marked by notable operations such as Operation Moses in 1984 and Operation Solomon in 1991, where tens of thousands were airlifted to Israel. The migration was driven by a combination of factors, including political instability and famine in Ethiopia, as well as the Israeli government's Law of Return, which grants Jews worldwide the right to immigrate to Israel. The exodus of the Beta Israel community led to notable demographic shifts in their home region within Ethiopia.

The border between the Amhara and Tigray regions, from which the Beta Israel departed, has been contentious and shifting for over 300 years. These most recent shifts took place in 1992, when Ethiopia's ethnographic regional boundaries were drawn following the fall of the military regime. During these negotiations, dominated by the Tigray People's Liberation Front (TPLF), the border shifted south, encompassing part of the area recently vacated by 40,000 Beta Israel (Nyssen & Demissie, 2023).

In recent years, these disputed borders have continued to fuel tensions. The exclusion of the TPLF from Ethiopia's governing coalition in 2018 brought these long-standing grievances to the surface. The

[4] We determine city locations based on publicly available data and manually verify these locations using Google Maps.

[5] In Appendix B we test the robustness of our results to this distance cutoff, to alternative weighting schemes for conflict intensity (fatality counts vs. number of fatal events), and to using the 2022 branch network instead of the 2018 branch network used in the main specification.

contested borders played a key role in the Amhara regional army's involvement in the Tigray conflict, as well as the subsequent civil war, since 2023, involving Amhara militias, who feared that territory they had gained might be returned to Tigray as part of a peace agreement (Nyssen & Demissie, 2023). This historical boundary shift concentrated disputed territories around the former Beta Israel settlements, which later became focal points of interethnic conflict and form the basis of our instrumental variable.

This is an ideal instrument for several reasons. First, banks were unlikely to anticipate the political and demographic changes tied to the conflict when we collected the first wave of data in 2018, ensuring the exogeneity of the instrument. Second, the conflict is driven by broader political and ethnic tensions and is unlikely to be influenced by bank-level or branch-level decisions, thereby minimizing the risk of reverse causality. Finally, the instrument focuses specifically on conflicts involving Tigray and Amhara groups, excluding conflicts involving other ethnicities. This design allows us to test the robustness of our results by isolating the effects of a subset of conflicts, ensuring that our findings are not driven by broader or unrelated ethnic tensions.

To study these cities, we extract data on the location of the main cities from which the Beta Israel departed Kaplan (1992). We then match this to bank branches and banks using the cities in which they are located. We extend the area we consider as Beta Israel to include all cities within 100 kilometers of this area. Beta Israel Exposure, our main instrumental variable, is defined as the share of bank b's branches within 100 km of any Beta-Israel origin city.

4 Empirical model and results

4.1 Descriptive results

Before turning to the causal analysis in this paper, we first analyse in a simple first-difference framework how the ethnicity of managers in cities coethnic with the bank, and in cities not coethnic with the bank, changes from 2018 to 2022. To do so, we use our panel data over two time periods ($t = 1, 2$) for branches (i) located in cities (c), which are part of banks (b) and situated within regions (r). We estimate the following regression model:

$$Y_{itbc} = \alpha + \beta_1 \texttt{I[t=2022]} + \beta_2 \texttt{non\_BCC}_{bc} + \beta_3 \texttt{non\_BCC}_{bc} \cdot \texttt{I[t=2022]} + \varepsilon_{itbc}$$

Here, Y_{itbc} is the dependent variable representing an outcome of interest related to branch organization. `I[t=2022]` is a dummy variable equal to 1 in the second time period ($t = 2022$) and 0 otherwise. $\texttt{non\_BCC}_{bc}$ is an indicator variable equal to 1 if the branch's city is not coethnic with the bank and 0 if it is coethnic. The interaction term $\texttt{non\_BCC}_{bc} \cdot \texttt{I[t=2022]}$ captures the differential effect of being in a non-bank-coethnic city during the second time period.

Figure 5 reports the results from this exercise. These findings suggest that a widespread shift from hiring bank-coethnic managers to city-coethnic managers has occurred. This shift is particularly pronounced in cities that are not coethnic with the bank. Although this might suggest that the relative importance of matching the ethnicity of local customers has increased relative to matching the managers' ethnicity with that of the bank, there are a wide range of reasons why this change might have happened. The remained of this section focuses on identifying the causal effect of the exposure to ethnic conflict on branch-level organisation.

4.2 Defining network-level exposure to conflict

Our data allows us to measure both (i) a branch's local exposure to nearby conflict and (ii) a bank's network exposure to conflict involving its own ethnic group. Our main measure of interest captures the latter – exposure to conflict involving a bank's ethnic group elsewhere in its branch network, using the 2018 (pre-conflict) branch network. For bank b, we define:

$$\texttt{conflict\_intensity}_{ibt} = \frac{1}{C_b - 1} \sum_{e \in \mathcal{E}_t} \underbrace{I[\text{ bank\_ethnicity\_conflict}]_{be} \times \text{ fatalities}_e}_{\text{Fatalities from conflict involving the banks' ethnicity}} \times \underbrace{I[\text{distance\_branch\_network}_{be} < 20]}_{\substack{\text{A city with a branch of bank } b \\ \text{is within 20km from event } e}} \times \underbrace{I[\text{distance}_{ie} > 20]}_{\substack{\text{The city of branch } i \text{ is further} \\ \text{than 20km from the conflict}}}, \tag{1}$$

where C_b is the number of cities in which the bank has branches i, $\mathcal{E}_t$ represents the set of conflict events in period t, $I[\text{bank\_ethnicity\_conflict}]_{be}$ is an indicator that takes the value 1 if event e involves the bank's own ethnic group, and 0 otherwise. fatalities_e is the number of fatalities resulting from conflict event e. $\text{distance\_branch\_network}_{be}$ is the shortest distance from any branch in bank b's network to event e. Finally, distance_{ie} is the distance from branch i to conflict event e in kilometers. To fit the structure of the panel data, we match conflict from 2015 to 2018 to period 1, and conflict from 2019 to 2022 to period 2.

Additionally, to capture local conflict through the variable defined for branch i in city c, we define:

$$\texttt{local\_conflict\_intensity}_{it} = \sum_{e \in \mathcal{E}_t} \underbrace{\text{fatalities}_e}_{\substack{\text{Number of fatalities} \\ \text{from event } e}} \times \underbrace{I[\text{distance}_{ie} < 20]}_{\substack{\text{The city of branch } i \text{ is less} \\ \text{than 20km from the event } e}}, \tag{2}$$

Figure 7 depicts the distribution of the variable $\texttt{conflict\_intensity}_{ibt}$ over two time spans: 2015–2018 (the years leading up to our first branch survey) and 2019–2022 (the years leading up to the second wave). See Equation 1 for details. In the first period, most banks experienced an average of fewer than five conflict-related fatalities per branch, with occasional outliers between 12 and 15 fatalities. By comparison, in the second period, conflict exposure increased significantly, exhibiting two pronounced peaks near 8 and 16 fatalities and raising the average to approximately 13 fatalities per branch.

4.3 Analysis

We conduct our empirical analysis in two steps. First, we estimate a two-way fixed-effects model to examine within-branch effects of exposure to ethnic conflict through the bank network on branch-level outcomes.[6] Next, we use exposure to Beta Israel cities as an independent variable in a reduced-form specification to assess the robustness of our findings.

Our theoretical framework implies that branches' optimal decision of the managers' ethnicity should change when the local customers' ethnicity differs from the dominant ethnicity of the bank - so in cities not coethnic with the bank. Instead, conflict should have no effect on the choice of manager ethnicity in

[6] Because we have two periods, this is equivalent to a first-difference specification, avoiding concerns about negative weights in staggered-adoption settings (Callaway & Sant'Anna, 2021).

cities where the dominant ethnicity is the same as the bank's. Therefore, our analysis focuses on branches located in cities that are not coethnic with the bank, and we use branches located in cities coethnic with the bank as a placebo. This design isolates changes unrelated to customers' ethnicity – such as common organizational responses to conflict – and focuses on those affecting branches that serve customers who are not coethnic with the bank.

In our empirical specification, we consider a balanced panel over two time periods $t \in \{1, 2\}$ for branches indexed by $i \in \{1, \ldots, N\}$. These branches are located in cities $c \in \{1, \ldots, C\}$, and are part of banks $b \in \{1, \ldots, B\}$.

$$Y_{itbc} = \beta_1 \, \texttt{conflict\_intensity}_{itb} + \gamma_i + \lambda_t + \varepsilon_{itbc}, \tag{3}$$

where Y_{itbc} represents branch-level outcomes such as manager ethnicity or management practices. We cluster standard errors at the branch level, and include both branch (γ_i) and time (λ_t) fixed effects.[7]

Regression 3 exploits branch and time fixed effects to isolate how within-branch changes in exposure to violent ethnic conflict through the branch network drive variation in Y_{itbc}. By netting out time-invariant branch heterogeneity and common period shocks, it yields an estimate of the causal effect of conflict intensity on our outcomes, under the assumption that no other time-varying factors drive both conflict exposure and branch organization.

The main threats to identification are time-varying confounders that simultaneously influence conflict intensity and our outcomes. As a robustness check, we re-estimate 3 with city-time fixed effects ($\lambda_{c,t}$) and controlling for the intensity of local conflict.[8]

Finally, to explicitly test whether bank-level exposure to conflict affects branches in coethnic and

[7] In 2022, we re-interviewed 998 of the original 1,851 branches that were interviewed in 2018. In Appendix G we discuss the reasons for this attrition in detail, and show that in cities not coethnic with the bank, attrition is not predicted by the change in network-level exposure to ethnic conflict. We therefore treat this as a balanced panel in the subsequent analysis.

[8] Specifically, $Y_{itbc} = \beta_1 \, \texttt{conflict\_intensity}_{itb} + \beta_2 \, \texttt{local\_conflict\_intensity}_{itb} + \gamma_i + \lambda_t + \varepsilon_{itbc}$,

non-coethnic cities differently, we estimate the following interaction specification:

$$
\begin{aligned}
Y_{itbc} = \beta_1 \, \texttt{conflict\_intensity}_{itb} + \\
\beta_2 \, \texttt{conflict\_intensity}_{itb} \cdot \texttt{I[non\_bank\_city\_coethnic]}_{bc} + \\
\gamma_i \; + \; \lambda_{t,ce} \; + \; \varepsilon_{itbc},
\end{aligned}
\tag{4}
$$

We include bank-coethnic $\times$ time fixed effects ($\lambda_{t,\text{ce}}$), which absorb any conflict related changes between branches in coethnic relative to non-coethnic cities. Throughout the results section, we report the p-value for testing the null hypothesis that $\beta_2 = 0$, which implies that conflict exposure has the same effect on branches in coethnic and non-coethnic cities.

The remainder of this section presents two-way fixed effects estimates for four categories of branch-level outcomes: manager ethnicity, manager reallocation, management practices and internal hierarchy, and lending activities. We also show this is not driven by a greater reliance on either local staff or managers. We then provide a separate IV analysis leveraging variation in proximity to Beta Israel cities, showing that our findings on managers' ethnicity are robust to this alternative identification strategy.

4.4 Ethnic Conflict and Manager Ethnicity

Our model predicts that polarization increases the two frictions in our model - both cross-ethnic information acquisition and communication become more costly. Figure 5 shows that between 2018 and 2022, banks shifted towards hiring managers coethnic with the city they work in, instead of managers coethnic with the bank. Here, we study whether this change is driven by branches' exposure through the branch network to violent ethnic conflict.

We find strong empirical support for a causal effect of network-level exposure to ethnic conflict on the choice to hire a city- rather than bank-coethnic manager. As shown in Figure 8, Panel A confirms that branches in coethnic cities exhibit no significant change in manager ethnicity following increased conflict exposure. Panel B shows a large, statistically significant shift in manager ethnicity in cities not coethnic with the bank. Our main specification – columns (1) and (4) – shows that in these cities a one standard-deviation increase in bank conflict intensity (1.059 log-points) raises the share of city-coethnic managers by 9.1 percentage points (p.p.) (a 48% increase over the 2018 mean of 18.5%), and lowers the

share of bank-coethnic managers by 14.7 p.p. (a 19% drop from 77.0%). This result is mostly robust to controlling for either city-time fixed effects, or controlling for the intensity of local violent conflict. We find that this reorganization is significantly *different* between cities coethnic with the bank versus cities that are not across all but one set of estimates. Only in column (2) is the difference marginally insignificant at conventional significance levels. We also show, in appendix Tables B.1, B.2, B.3 and B.4 that the results are robust to changing the distance we use to match conflict to cities to either 15 or 25 kilometers, to excluding the large, state-owned bank, CBE or to excluding branches in Addis Ababa.[9]

Interpreted through the lens of our theoretical model, these findings suggest that network-level exposure to ethnic conflict disproportionately increases the cost of acquiring information from non-coethnic customers, relative to the incentive distortion that arises when employing a city-coethnic manager – in cities not coethnic with the bank. In contrast, in bank-coethnic cities, banks do not adjust the ethnicity of the branch manager.

We hypothesize two reasons why the first friction – information acquisition – responds more strongly to conflict exposure. First, banks can make a number of complementary organizational adjustments to mitigate the incentive bias associated with employing city-coethnic managers, as we detail in the following subsections. Second, internal communication within the bank may be more formalized and less reliant on the transmission of soft information than interactions with customers about potential loans. As a result, polarization is likely to impair inter-ethnic communication with customers more severely than coordination among bank employees of different ethnicities.

4.5 Who are these managers?

We have established that branches adjust the ethnicity of their managers in response to conflict exposure. We now ask who these new managers are—specifically, whether they are reallocated within the bank or newly hired, and how their experience compares with other managers. Because conflict induces branches to appoint city-coethnic managers, understanding whether these managers are redeployed insiders or external hires speaks directly to whether the relevant mechanism to these changes in managers' ethnicity is changes in biases or information acquisition.

[9] For the last robustness check, we still include Addis Ababa in our calculation of our measure of network-level conflict exposure.

To study the source of new managers, we use the 2022 cross-section of our survey. We define four variables: (i) a dummy indicating whether the manager joined the bank after the outbreak of conflict (in 2021 or 2022); (ii) a dummy for whether the manager joined the branch after the outbreak of the conflict (in 2021 or 2022); (iii) a `reallocated manager` indicator equal to one if the manager joined the branch after but the bank before the outbreak of the conflict; and (iv) a `new manager` indicator equal to one if the manager joined both the branch and the bank after the outbreak of the conflict. We cannot identify promotion timing directly, since we only observe employment duration at the branch and bank, not the year of managerial appointment. We estimate the following cross-sectional model:

$$Y_{ibc} = \beta_1 \, \texttt{conflict\_intensity}_{ib} + \varepsilon_{ibc}, \tag{5}$$

We find that, in response to conflict, branches in coethnic cities tend to hire new managers who are entirely new to the bank, whereas branches in non-coethnic cities recruit managers reallocated from other branches. Figure 9 shows that, in non-coethnic cities, a one unit increase in conflict exposure raises the probability of employing a reallocated manager by about 6.0 percentage points. Taken together, the results indicate that, in non-coethnic cities, conflict leads branches to appoint city-coethnic managers reallocated within the organization, while branches in coethnic cities hire externally. This pattern is consistent with a strategy in which the bank limits potential lending bias by assigning non-bank-coethnic managers with whom it already has a pre-existing institutional relationship.

Building on this finding, we examine whether conflict-exposed branches appoint non-coethnic managers with longer bank-specific tenure. We compile a short manager profile including tenure at the bank, tenure at the branch, age, education, and gender. Using our panel, we re-estimate specification 3 for each characteristic separately for coethnic and non-coethnic cities. Table A.3 shows that, in non-coethnic cities, conflict exposure is associated with appointing managers who have longer tenure at the bank but not at the branch, and who are older. We find no conflict-driven change in education – presumably as over 99% of managers hold university degrees – and only modest changes in gender composition.

In sum, branches exposed to conflict appoint city-coethnic managers to improve information acquisition from local borrowers, but they do so by reassigning experienced insiders rather than hiring externally. This pattern suggests that banks manage the incentive costs of employing city-coethnic managers

by selecting trusted employees with whom they already have long-term relationships.

4.6 Branch-level organization

Another channel through which the bank may mitigate the incentive problems created by employing a city-coethnic rather than a bank-coethnic manager is the branch's internal organization. To examine this, we study whether conflict exposure affects either (i) our measure of management practices or (ii) the number of hierarchical levels within the branch. From our survey, we construct an overall management index and four sub-indices: lean operations, performance monitoring, target setting, and people management.[10] As a measure of organizational depth, we use the log of the number of hierarchical layers in the branch, winsorized at the 99th percentile to limit the influence of outliers. We include this measure because steeper hierarchies have been shown to reduce managerial corruption in large banks (Skrastins & Vig, 2019). Using our panel data, we estimate regression 3, and report the results in Figure 11.

Branches in non-coethnic cities somewhat improve their overall management score by roughly 0.065 standard deviations, compared with 0.126 standard deviations in coethnic cities; a somewhat larger increase for branches coethnic with the bank. The difference is mainly driven by lean and target management practices, which rise more in coethnic cities. Although not significantly different across the two groups, performance management practices increase only in cities that are not coethnic with the bank. The two questions underlying this sub-index ask whether branch performance is appropriately tracked and reviewed with sufficient frequency, suggesting that branches strengthen performance monitoring to offset incentive misalignment when the manager is not bank-coethnic.

Finally, we find a small and statistically insignificant increase in the number of hierarchical layers in branches located in non-coethnic cities. This provides weaker but complementary evidence that branches adopt slightly steeper hierarchies to improve information flow and reduce potential bias when managers are locally coethnic.

[10] These are calculated as the mean over the elements of each index, after normalizing each element to have a mean of zero and unit variance in 2018

4.7 Branch-level lending activities

We next examine how network-level exposure to conflict affects branches' lending behavior. Figure 12 reports estimates from specification 3 for outcomes related to lending and branch operations.

We begin with branches' operational radius: the geographic area from which they attract borrowers. Following conflict exposure, branches in coethnic cities reduce their geographic reach, while those in non-coethnic cities expand it. This divergence suggests that managers who share the local majority ethnicity are better able to serve a wider market than their non-coethnic predecessors.

Turning to credit supply, branches in non-coethnic cities issue fewer but larger loans. Rather than lowering monitoring costs, this pattern likely reflects a flight-to-quality, with banks rationing credit to a small set of well-known or safer borrowers – potentially allowing them to rely less on soft information. Conflict does not significantly affect lending rates, collateralization, or default rates in these locations. In contrast, branches in coethnic cities expand overall lending volumes while moving toward safer lending—tightening collateral requirements and lowering default rates.

Taken together, these patterns imply that coethnic branches maintain lending activity during conflict by leveraging local trust networks while managing risk through higher collateral. Non-coethnic branches, facing greater informational frictions, contract lending and concentrate credit in a smaller set of large, more easily monitored loans. This heterogeneity in lending responses mirrors the organizational adjustments described above: coethnic branches capitalize on informational advantages, whereas non-coethnic branches adapt through tighter control and selective engagement.

4.8 Robustness using exposure to Beta Israel Cities

To validate our main results, we exploit a historical source of variation based on banks' proximity to Beta Israel cities – areas that became increasingly prone to ethnic conflict following the decline of Tigrayan influence in the federal government (see Section 3). Specifically, we compute the share of each bank's branches located within 100 kilometers of historically significant Beta Israel cities and interact this measure with a post-2018 indicator to capture the rise in conflict over time.

Formally, for each bank b, we define:

$$\texttt{share\_branch\_beta\_100}_b = \frac{\frac{\sum_{c \in \mathcal{C}_b} I[\texttt{Beta\_Israel\_100}_i]}{N_b}}{\max_{b' \in \mathcal{B}} \left(\frac{\sum_{c \in \mathcal{C}_{b'}} I[\texttt{Beta\_Israel\_100}_{ic}]}{N_{b'}} \right)},$$

where N_b is the total number of branches operated by bank b, $\mathcal{C}_b$ is the set of branches for bank b, and $I[\texttt{Beta\_Israel\_100}_i]$ is an indicator for whether branch i is within 100 kilometers of a Beta Israel city. The resulting index is normalized to range from 0 to 1 and is interacted with a post-conflict dummy to construct a time-varying instrument for conflict exposure. We use this instrument in a reduced-form IV version of specification 3, replacing $\texttt{conflict\_exposure}_{it}$ with $\texttt{share\_branch\_beta\_100}_b \times I[t = 2022]$.

Figure 13 presents the results for managers' ethnicity and CV characteristics. Consistent with our baseline estimates, we find no significant effects in bank–coethnic cities. In contrast, in non–bank-coethnic cities, instrumented variation in exposure leads to a marked decline in the probability of appointing a bank-coethnic manager and a corresponding rise in the probability of appointing a city-coethnic manager. These results reinforce our main finding that banks increasingly rely on locally coethnic managers when exposed to higher conflict risk. The instrumented estimates also qualitatively confirm that these managers tend to have longer tenure within the bank and are, on average, older.

Figure 14 reports the corresponding results for branch-level lending. The pattern mirrors that in our baseline specification. In coethnic cities, exposure to Beta Israel cities is associated with larger average loan sizes, higher collateral requirements, and lower default rates—consistent with a shift toward safer, collateral-backed lending. In non-coethnic cities, banks reduce overall lending activity and collateralization, while average loan sizes rise modestly. Although the total number of loans and lending rates are not significantly affected, the estimates suggest a contraction in lending intensity outside coethnic markets.

Overall, these findings closely align with those obtained using the direct conflict measure and support a causal interpretation. The consistency of both organizational and lending responses across specifications strengthens the conclusion that ethnic conflict fundamentally shapes how banks adapt their internal structures and credit strategies in polarized environments.

5 Mechanism tests

To interpret our results, we have so far focused on the branch manager's role in the loan application process and her central position in communicating information about potential borrowers to headquarters. However, branch managers perform multiple functions within the organization: they not only assess and transmit information about loans but also supervise employees and attract customers to the branch. Ethnic conflict may therefore affect not only the organization's internal allocation of managers but also managers' own preferences—or wage requirements—for living in specific cities. In this section, We focus on three alternative channels in turn: (i) frictions with local employees, (ii) customers' preferences for coethnic managers, and (iii) managers' own location preferences.

5.1 Managers' ability to work with local employees

So far, our discussion has emphasized branch managers' role as intermediaries who communicate information about potential loans to headquarters. Yet managers also perform a second core function: supervising employees and coordinating day-to-day operations within the branch. Ethnic conflict could therefore affect not only communication with headquarters but also the relationship between managers and their subordinates. In this subsection, we consider this alternative channel. This channel could, in principle, operate in two ways. First, a bank-coethnic manager may find it harder to communicate effectively with local employees, leading to a noisier signal of loan quality. Because this is difficult to distinguish empirically from our main mechanism, we do not focus on it further. The second possibility is that the manager acts as a bridge between loan officers and headquarters, a role that depends on how the manager balances loyalty to each side. We explore this idea through the framework in Li, Li, Mukherjee, and Vasconcelos (2025).

Li et al. (2025) analyze a three-layer organizational hierarchy consisting of a principal, a manager, and an agent. In their framework, the manager's loyalty is divided between the principal and the agent, and performance depends on the balance of these loyalties relative to the manager's ability. When a manager is too loyal to the principal, agents exert little effort because their interests are ignored; when too loyal to the agent, the principal discounts the manager's recommendations. Only for intermediate levels of loyalty to both sides does the hierarchy function – outside this range the agent or principal will not participate at all.

In our setting, the principal corresponds to headquarters, the branch manager to the manager, and either loan officers or local customers to the agents. This framework suggests three possible types of managerial appointment. The bank may hire (a) a bank-coethnic manager, who is highly loyal to the headquarters but less aligned with employees and clients; (b) a city-coethnic manager, who is highly aligned with local employees and customers but less trusted by headquarters; or (c) a manager coethnic with neither the bank nor the city, whose intermediate loyalties may sustain both upward and downward incentives. If this mechanism were central, we would expect conflict to increase the probability that branches are run by managers who are neither bank- nor city-coethnic, especially where the share of local employees is high.

We thus test this mechanism using two complementary analyses, finding some empirical support for this mechanism. First, we examine whether exposure to ethnic conflict through a bank's branch network increases the probability that a branch is managed by someone coethnic with neither the bank nor the city. Table 3 shows that a one-standard-deviation increase in conflict exposure raises this probability by about 5 percentage points, significant at the 1 percent level. Second, we explore heterogeneity by the baseline share of local employees in 2018, which proxies for initial alignment between managers and local staff. Table 4 shows that the estimated effect is slightly larger in branches with a higher share of local employees, although the difference is statistically insignificant.

Together, these results suggest that, when exposed to ethnic conflict, some banks appoint managers who are ethnically distinct from both the bank and the local population. This pattern is consistent with the idea that moderate alignment – neither fully with headquarters nor fully with local employees – can help maintain effective communication and motivation within the hierarchy when polarization increases. However, these results are not driven by areas with a high share of local employees which we would expect if this was the dominant mechanism explaining our results.

5.2 Customers' demand for a coethnic manager

A related mechanism concerns the relationship between branch managers and customers. Conflict may erode customers' trust in loan officers or managers who do not share their ethnicity, thereby affecting demand for credit and shaping banks' staffing choices. Interpreted through the model of Li et al. (2025), this

mechanism mirrors the employee-loyalty channel discussed above: just as alignment with subordinates can facilitate effort within the branch, alignment with customers can influence effort in loan application and repayment. If this channel were important, the effect of conflict on managerial selection should depend on the availability of alternative lending options for customers—particularly competition from banks that are coethnic with the local population.

We examine this hypothesis by testing for heterogeneity in the relationship between conflict exposure and managerial ethnicity along three dimensions of local competition. (i) Coethnic competitor: whether the city contains a branch of a bank coethnic with the city's dominant ethnic group, which provides customers with a salient outside option. (ii) Many branches in the city: whether the number of bank branches in the city in 2018 is above the sample median. (iii) Many perceived competitors: whether the branch manager reported an above-median number of competitors in 2018. Table 5 shows that none of these dimensions significantly moderates the relationship between conflict exposure and managerial ethnicity, either in bank-coethnic or non-bank-coethnic cities.

Taken together, these results provide little evidence that variation in local competition or customers' outside options explains our main findings. If conflict primarily affected customer trust, we would expect the organizational response to be strongest where customers had access to nearby coethnic competitors. Instead, the absence of such heterogeneity supports the interpretation that banks' changes in the composition of their branch managers were driven by internal organizational considerations rather than by changes in customer demand.

5.3 Managers' preferences for specific locations

In this section, we interpret changes in the managerial composition of banks as the result of bank-level optimization rather than individual relocation preferences. Nonetheless, managers may choose to move across cities for reasons unrelated to the bank's optimization problem—for instance, push factors such as local insecurity or pull factors such as returning to one's hometown. Although our conflict measure is constructed to abstract from the intensity of local conflict, it could be (and indeed is) positively correlated with it. In this section, we explore the channels through which such self-selection or security concerns may drive these results, and conduct a set of empirical tests to alleviate these concerns.

First – and descriptively – Ethiopian organizations, and banks in particular, are highly hierarchical with most decisions being made in the top layers of the organization. This means that, although managers may wish to relocate, personnel assignments, including branch manager postings, are typically decided at headquarters with limited scope for voluntary transfers. This institutional feature makes it credible that the observed shifts in managerial placement reflect organizational rather than individual decisions. This – in combination with the volatile conditions in Ethiopia in this period due to the conflict - also explains why these changes take place relatively quickly – i.e. in one to two years from the onset of the conflict.

Turning to the empirical analysis, we first examine whether a heightened general risk of conflict against individuals who are not coethnic with the city population could be driving our results. Our main estimates (Figure 8) remain robust to the inclusion of city–time fixed effects and to direct controls for local conflict intensity. This pattern suggests that two bank branches – both operating in cities with a different dominant ethnicity than the banks' – make different managerial choices due to their differential exposure to conflict involving their own ethnic group elsewhere in the branch network. Moreover, if fear of local violent conflict were the primary driver, these controls would be expected to substantially attenuate our coefficients; yet, they do not.

Next, we examine whether exposure to ethnic conflict through the branch network affects the share of employees born in the city and whether managers are born in the same region as the branch. If managers were relocating for safety or personal reasons, both measures would be expected to increase with conflict exposure. Instead, Appendix Table B.5 shows that both the probability a manager is locally born and the share of local employees, if anything, decline with greater exposure to ethnic conflict through the

branch network, although the estimates are statistically imprecise. These patterns are inconsistent with self-selection motives and instead point to bank-driven reallocations within the internal labor market.

Of course, the threat of conflict may be directed specifically at individuals – and thus managers – of particular ethnicities, such as those associated with a given bank. In this case, city–time fixed effects or controls for overall local conflict intensity would not capture the relevant variation, as they affect branches affiliated with different ethnic groups differently, even when both banks are non-coethnic with the city. To test for this possibility, we directly control for local conflict involving the bank's own ethnic group, and show our main results are robust to including these controls controls, indicating that localized threats to bank-coethnic individuals do not explain the observed reallocation patterns. In fact, if anything, higher levels of local conflict involving the bank's ethnic group slightly increase the probability of appointing a bank-coethnic manager (significant at the 10 percent level) and marginally reduce the likelihood of hiring a city-coethnic manager. This pattern runs counter to what we would expect if heightened physical risk to bank-coethnic managers were driving the results, and instead reinforces our interpretation of a bank-level organizational response rather than one motivated by personal security concerns.

A related concern is that our results may reflect perceived rather than actual risk – specifically, that exposure to conflict involving the bank's ethnic group elsewhere in the country heightens managers' fear of being targeted, even if the local threat of violence remains unchanged. While this mechanism is plausible in principle, the data do not support it as the main driver of our findings. When we redefine conflict exposure to include only events involving both the bank's and the city's ethnic groups – a measure that should best capture situations where fear of violence targeting the bank's ethnic group is directly relevant – we obtain smaller and statistically insignificant coefficients. If perceptions of ethnic targeting against the bank's group were the dominant mechanism, we would expect the opposite pattern: stronger effects precisely when both groups are involved in conflict. The weaker association under this definition therefore suggests that perceived personal risk to bank-coethnic managers is unlikely to account for the organizational adjustments we observe.

6 Discussion

This paper shows that political conflict reshapes the internal organization of financial intermediaries in economically meaningful ways. Using new branch-level data on Ethiopian banks, we demonstrate that rising ethnic conflict alters the cost of acquiring and communicating soft information, leading banks to move toward hiring locally coethnic managers while simultaneously strengthening performance monitoring and relying more heavily on experienced insiders. These adjustments help maintain lending performance despite a sharp rise in informational frictions.

The results speak directly to core questions in financial intermediation. A central task of banks is to produce, aggregate, and act on soft information. Classic models highlight a trade-off between delegation to informed local agents and centralized control to mitigate bias. We show that political conflict shifts this trade-off: it worsens cross-ethnic communication with clients relative to cross-ethnic communication within the organization. Banks respond by reorganizing who gathers information and how that information is disciplined, showing that organizational design is an active, flexible margin through which intermediaries absorb political shocks.

Our findings also contribute to the growing literature on how political polarization and identity shape financial decisions. While prior work focuses on loan outcomes or investor behavior, we show that political divisions are reflected inside the bank: they change the structure through which information flows and decisions are made. This mechanism complements theories of financial contracting under asymmetric information by highlighting how the production of information itself becomes politicized. The fact that these responses are concentrated in branches serving customers of a different ethnicity than the bank underscores the central role of identity in soft information environments.

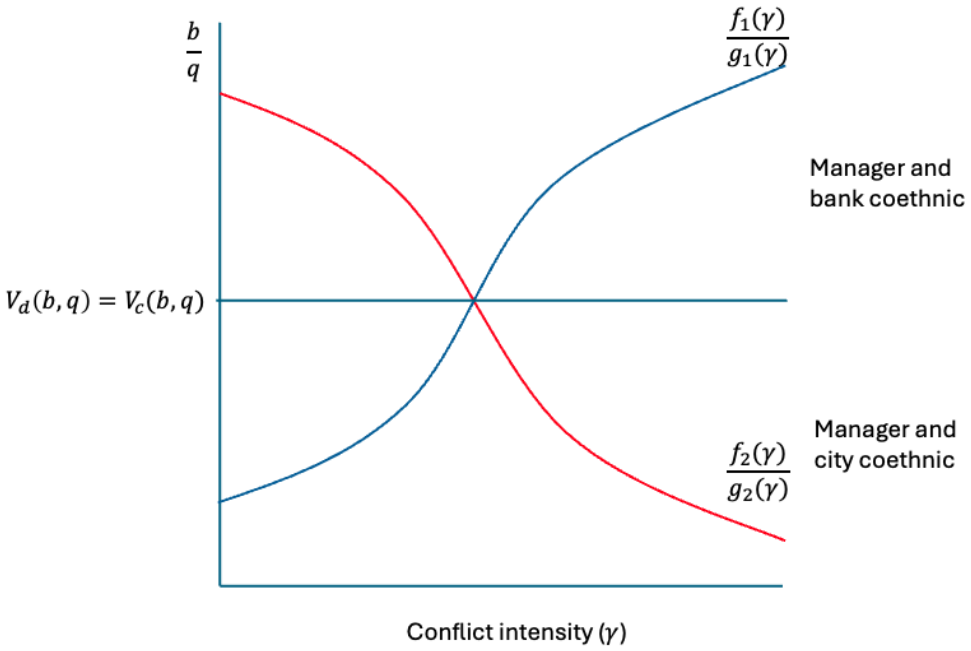
Importantly, banks do not rely on a single adjustment. Conflict-exposed branches adopt bundles of organizational changes: reassigning trusted insiders, lengthening managerial tenure, increasing performance monitoring, and in some cases modestly deepening hierarchy. These complementary responses map naturally into the model's prediction that delegation under higher bias requires stronger incentive alignment and oversight. This illustrates how organizational technology – who holds authority, how they are monitored, and how they fit into the hierarchy – adapts endogenously to shifts in political risk.

Although Ethiopia provides a stark setting, the mechanism is general. Many banking systems oper-

ate across politically salient identity lines – linguistic, ethnic, religious, or partisan (e.g., partisan lending biases in the U.S. or ethnic frictions in South Asia). As geopolitical tensions intensify globally, similar frictions arise when headquarters and loan officers do not share identity with local borrowers. Our framework suggests a broader principle: political polarization affects financial intermediation not only through macro channels, but also by changing the internal architecture through which information is produced and aggregated.

Overall, this paper highlights a new mechanism linking geopolitical shocks to capital allocation. Conflict does not merely change repayment risk or credit demand; it changes the optimal internal organization of the intermediary. Banks, thus adapt their internal structures to preserve information flows and lending performance. These findings shed light on the microfoundations of resilience in financial systems confronted with rising political polarization.

Figure 1: Key model tradeoff

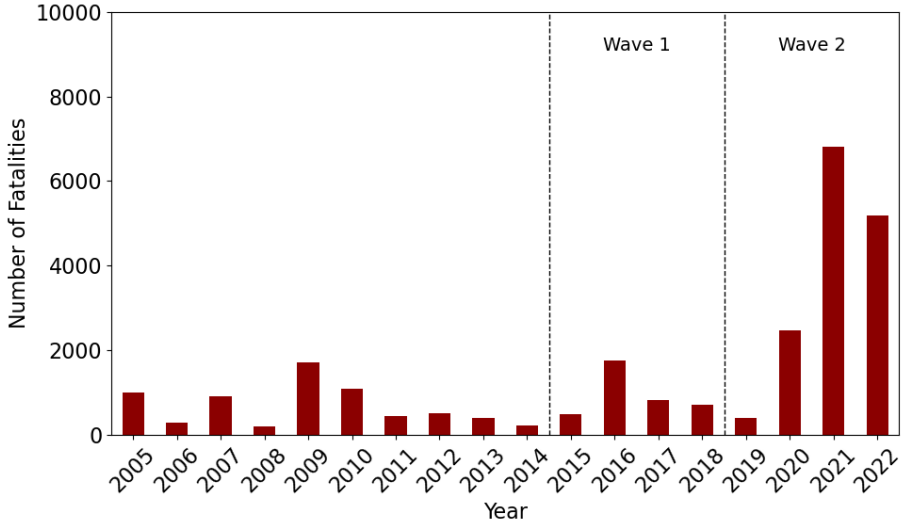


Notes: This figure illustrates the key trade-off the headquarters face. The horizontal line depicts where the value of hiring a city-coethnic manager $V_d(b,q)$ as a function of b and q is equal to the value of hiring a bank-coethnic manager $V_c(b,q)$. The two lines depict alternative ways with which conflict might affect the value of hiring a city-coethnic versus bank-coethnic manager. The blue line, $\frac{f_1(\gamma)}{g_1(\gamma)}$ depicts the situation where conflict decreases the bias of a city-coethnic manager relative to the loss in information acquisition of a bank-coethnic manager. In this case, conflict increases the reliance on bank-coethnic managers. The red line, $\frac{f_2(\gamma)}{g_2(\gamma)}$ depicts the opposite scenario resulting in a reversal of the effect of conflict on managerial assignment.

Figure 2: Regions of Ethiopia

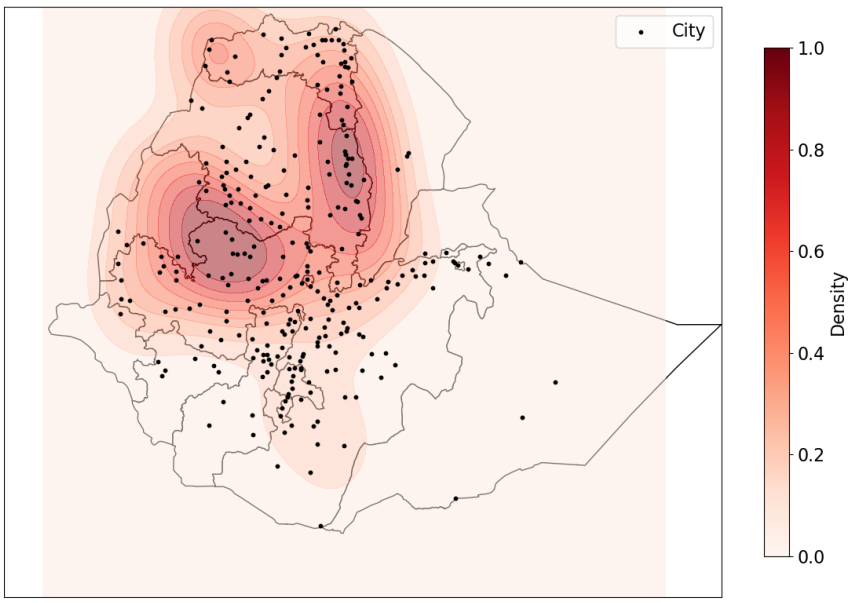
Notes: This figure displays the twelve regions in Ethiopia and two administrative councils, Addis Ababa and Dire Dawa. To ensure regions stay the same over time in our analysis, we combine Central Ethiopia, South West Ethiopia, South Ethiopia and Sidama into the Southern Nations, Nationalities and Peoples' Region (SNNPR). This region was split into four between 2020 and 2023, and remains one of the most ethnically diverse regions of the country.

Figure 3: Ethnic conflict over time



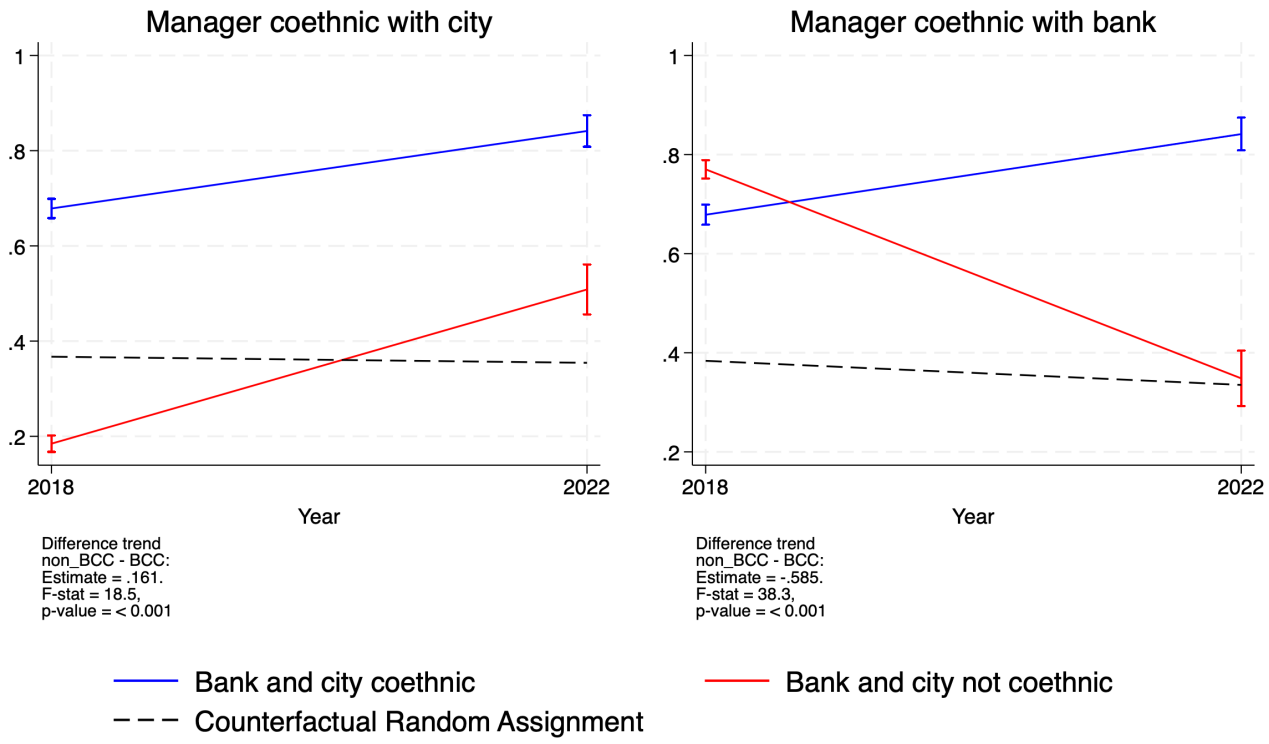
Notes: This figure displays the number of fatalities from ethnic conflict in Ethiopia over time. The variable on the y-axis includes all fatalities from conflict involving at least one ethnic group in the ACLED database. This figure uses all events in the ACLED dataset.

Figure 4: Ethnic conflict over space



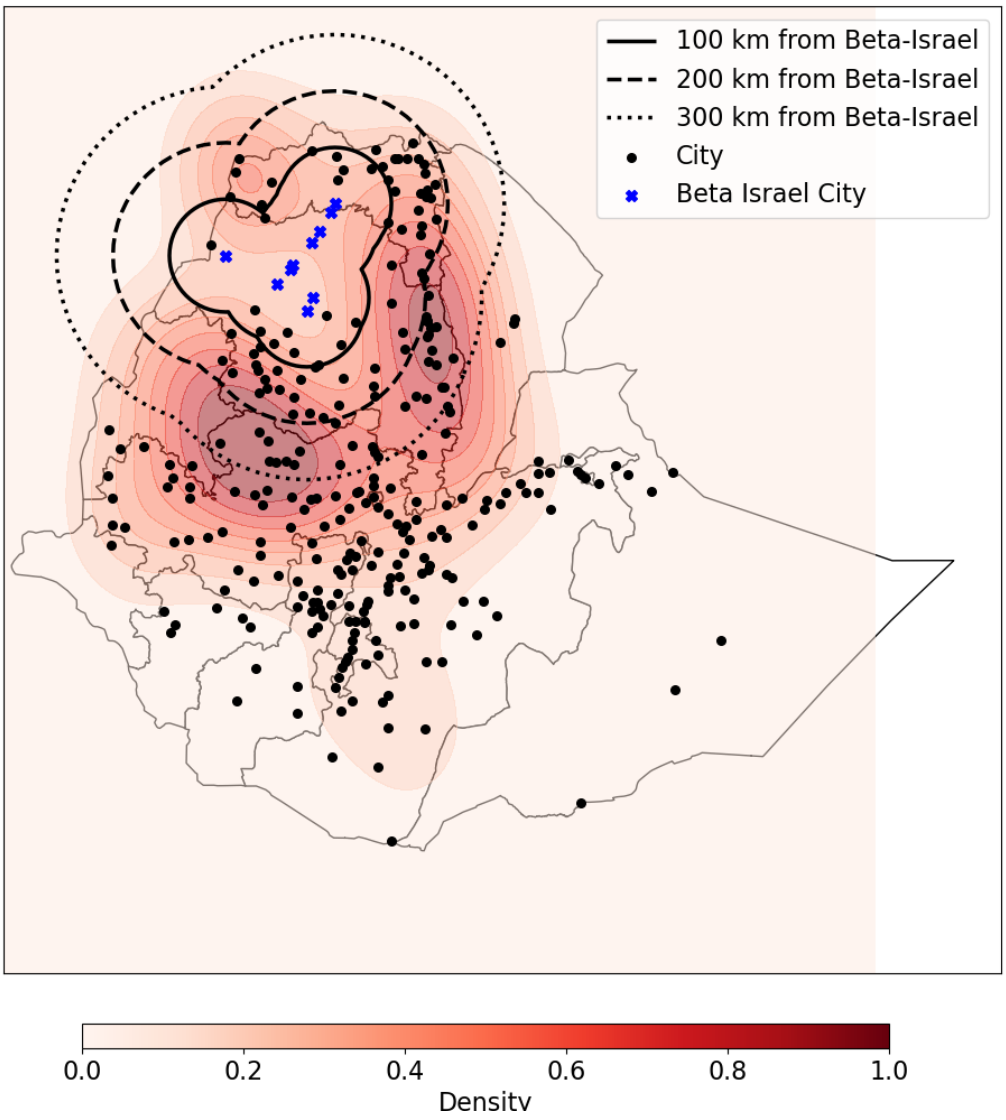
Notes: This map displays the lethality-weighted spatial intensity of ethnic conflict in Ethiopia from January 1, 2019 through December 31, 2022. Shaded areas are a continuous kernel-density estimate of conflict events, weighted by reported fatalities and linearly scaled for the colorbar. Black lines denote regional boundaries; black dots mark major cities. Moving clockwise, the high-intensity conflict in the west is concentrated in Oromiya, primarily involving the Oromo Liberation Army. In the northwest, the conflict involves Tigray and Amhara militias, while in the north, it is predominantly driven by clashes between the government and its allies and the Tigray People's Liberation Front.

Figure 5: Changes in organizational structure over time



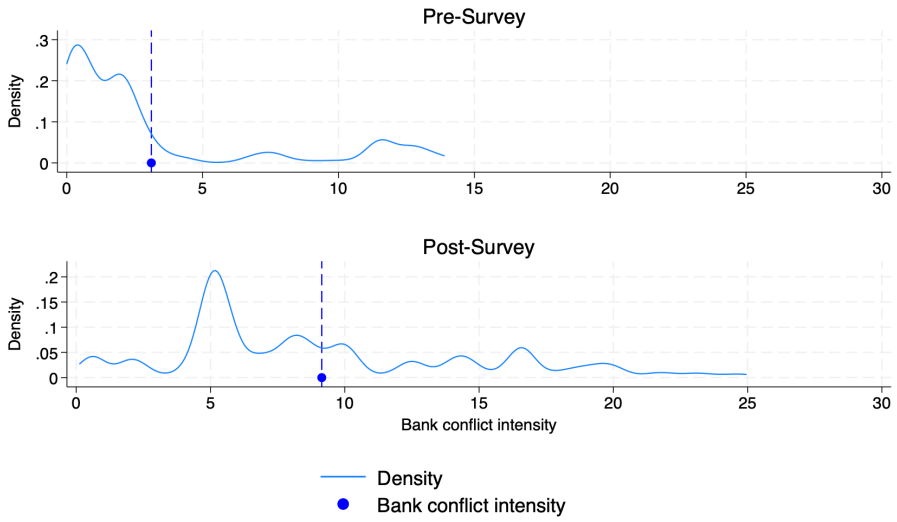
Notes: This figure presents the changes in organizational structure over time for three main outcome variables: An indicator for the manager and bank being coethnic and an indicator for the manager and city being coethnic. These figures present the changes in unconditional means for these outcomes, separately for branches operating in cities coethnic with the bank (bank coethnic city) and for branches operating in cities not coethnic with the bank (non bank coethnic city.) Finally, for the coethnicity variables we report the expected share of coethnic managers if the same sample of managers in terms of ethnic composition were to be randomly assigned to bank branches. We conduct this exercise 200 times and report the average of these simulations.

Figure 6: Beta-Israel Cities and Conflict



Notes: This figure displays the distribution of conflict events and the locations of Beta Israel cities in Ethiopia. Beta Israel cities are marked in red, while other cities are marked in black. The contours indicate distances of 100 km, 200 km, and 300 km from the nearest Beta Israel city, with the 100 km contour represented by a solid black line, the 200 km contour by a dashed black line, and the 300 km contour by a dotted black line. The density plot shows the weighted distribution of fatalities from ethnic conflict between 2015 and 2022, with darker regions representing higher densities. The map uses the Web Mercator projection (EPSG:3857) for accurate distance calculations.

Figure 7: Distribution of bank-level conflict exposure over time



Notes: This figure displays the distribution of the variable `Conflict_Intensity` from Equation 1 for two periods: 2015–2018 (top panel) and 2019–2022 (bottom panel). Each panel shows a kernel density (Gaussian, bandwidth 0.5) of `Conflict_Intensity` across our sample of branches, along with the mean value of `Conflict_Intensity` for that period.

Table 1: Survey Indicators

(1) Indicator	(2) Objective	(3) Measure
	1 Lean Management	
1.1	Introduction of new management techniques	Tests whether operational efficiencies have been introduced and why
1.2	Good use of human resources	Tests whether incoming demand is segmented appropriately and the efficiency at matching supply and demand of skills
	2 Performance Management	
2.1	Performance tracking	Tests whether performance is tracked using meaningful metrics and with appropriate regularity
2.2	Review of performance	Tests whether performance is reviewed with appropriate frequency and communicated with staff
	3 Target Management	
3.1	Target balance	Tests whether targets cover a sufficiently broad set of metrics
3.2	Target interconnections	Tests whether targets are tied to company objectives and how well they cascade down the organization
	4 People Management	
4.1	Building a high performance culture	Tests whether good performance is rewarded proportionately
4.2	Making room for talent	Tests whether the branch is able to deal with underperformers

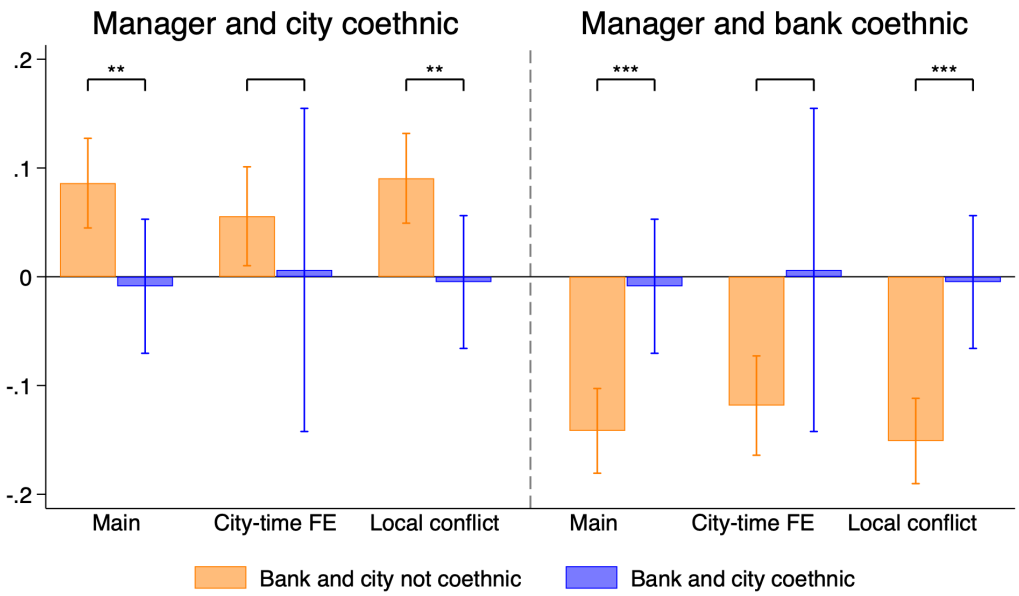
Notes: This table illustrates our survey's section on management performance. To measure good managerial practices, we evaluate them along four main categories, i.e., lean management, performance management, target management, and people management. Each category is scored on two dimensions on a scale from 1 (bad practice) to 5 (good practice). Our final management performance index is calculated by standardizing each of the eight resulting scores and by taking their unweighted average. Each of the sub-indices is calculated in the same way using a combination of two metrics (respectively, the lean, performance, target and people management practices).

Table 2: Summary statistics of analysis variables

	N	Mean	Std. Dev.	Min	Max
Bank coethnic manager	1,958	0.65	0.48	0.00	1.00
City coethnic manager	1,958	0.54	0.50	0.00	1.00
Management score	1,957	-0.01	0.70	-1.99	2.00
Levels branch hierarchy	1,942	3.78	1.38	1.00	9.00
Branch employees	1,951	17.57	10.04	3.00	110.00
Branch operational distance	1,700	6.80	4.85	0.05	50.00
Lending rate	1,637	0.15	0.02	0.10	0.20
Ln Number Loans	1,510	2.43	1.35	0.00	8.52
Ln loan size	1,506	13.29	3.77	0.00	17.86
Collateral	1,449	0.95	0.19	0.50	1.50
Share loans defaulting	1,578	0.07	0.14	0.00	1.00

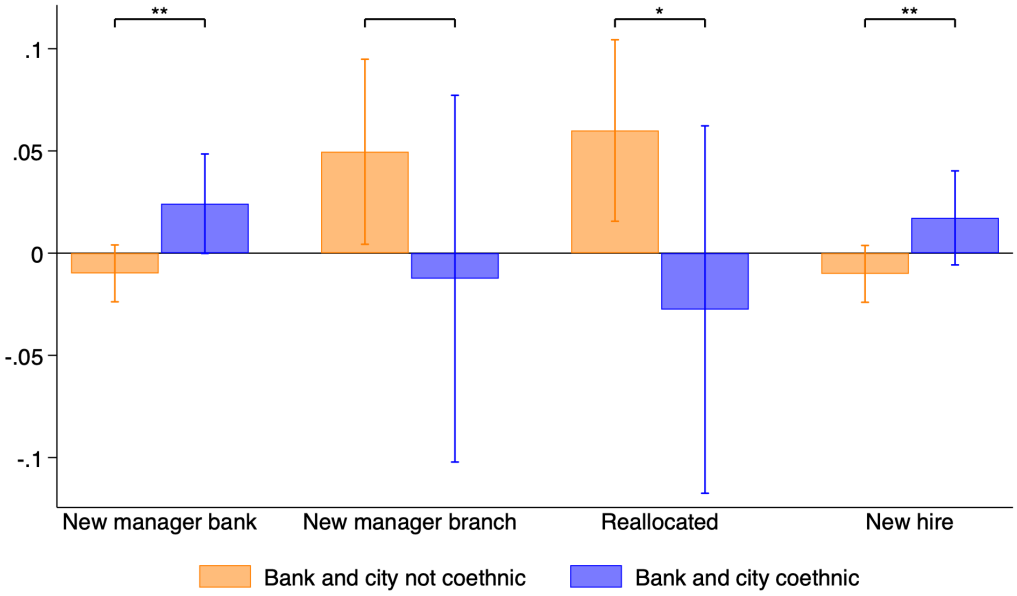
Notes: This table provides summary statistics of the main analysis variables based on the branch survey. Bank coethnic manager and city coethnic manager are dummy indicators for whether respectively the manager and bank, or the manager and city are coethnic. Management is the mean of the normalised management scores. Levels branch hierarchy is the number of levels between the branch manager and the lowest level employee in the branch. Branch employees is the number of employees in the branch. Branch operational distance is the maximum distance at which a branch services customers in kilometers. Collateral percentage is the typical level of collateral on a loan given out as a share of the total loan size Ln Number Loans is the log number of loans, Ln loan size is the log of loan size expressed in ETB 1000, lending rate percentage is the average lending percentage on the past 10 loans given out. Share default is the share of loan default on loans given out in the past year. We report the number of observations, the mean, standard deviation, minimum and maximum of these variables.

Figure 8: Bank-level exposure to ethnic conflict and branch manager ethnicity



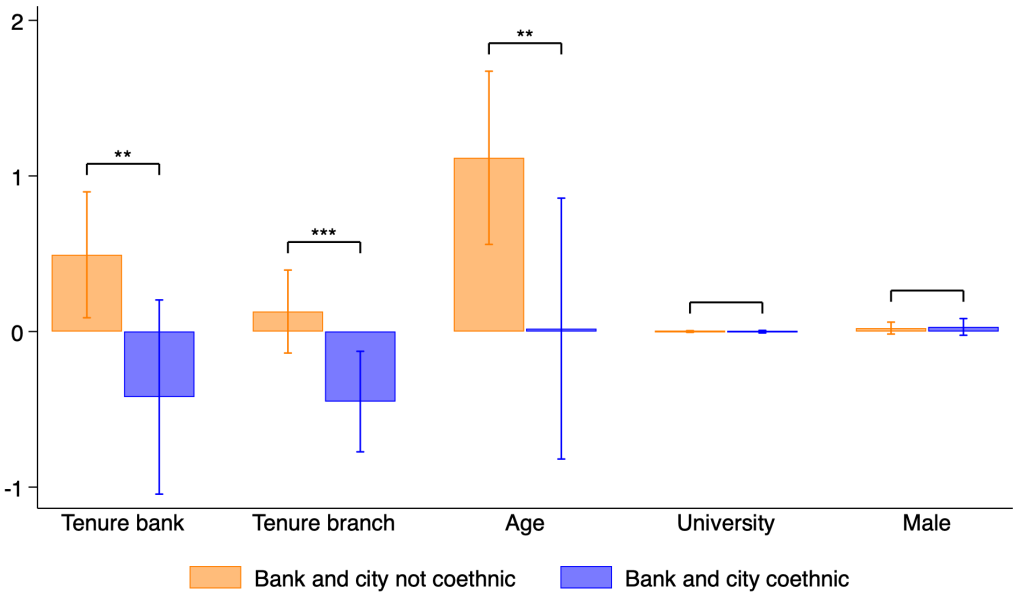
Notes: This figure reports the results from estimating equation 3. The dependent variable is an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (columns 1–3) or with the ethnic group associated with the branch's bank (columns 4-6). Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). Standard errors, clustered at the branch level, are reported in parentheses. The reported significance level is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities based on equation 4. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Figure 9: Bank-level exposure to ethnic conflict and manager reallocation



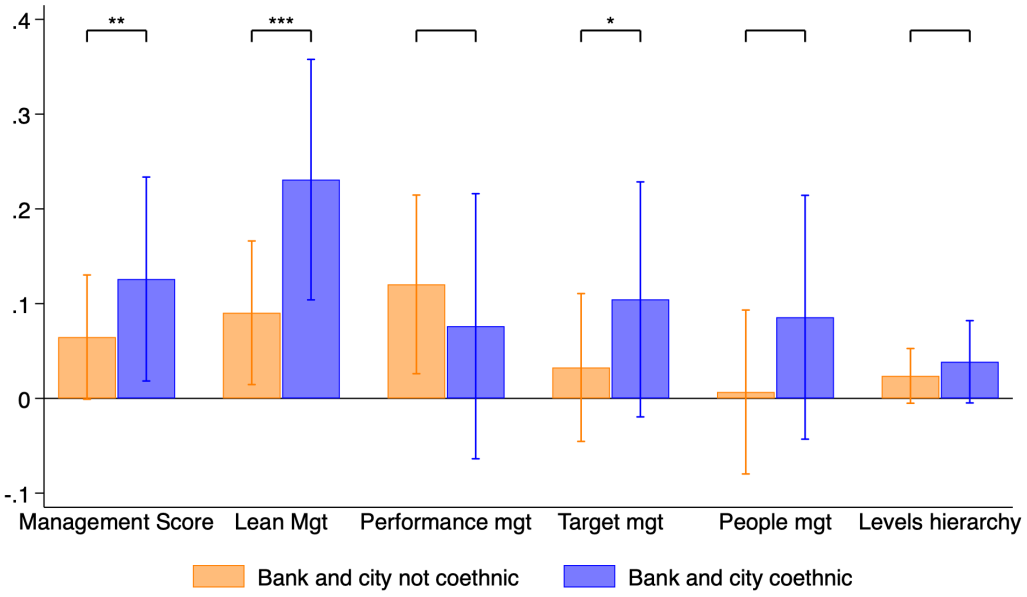
Notes: This figures uses only data collected in 2022 to estimate equation 5. The four outcome variables are (1) an indicator whether the manager joined the bank in 2021 or 2022 (after the outbreak of conflict in November 2020), (2) whether the manager joined the branch in 2021 or 2022, and whether conditional on joining the branch in 2021 or 2022 they were (3) reallocated from a different branch of the same bank or (4) joined the bank as a new employee in 2021 or 2022. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. Standard errors, clustered at the branch level, are reported in parentheses. Statistical significance of the difference between the two coefficients is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. Appendix Table A.2 reports the numeric results.

Figure 10: Bank-level exposure to ethnic conflict and manager characteristics



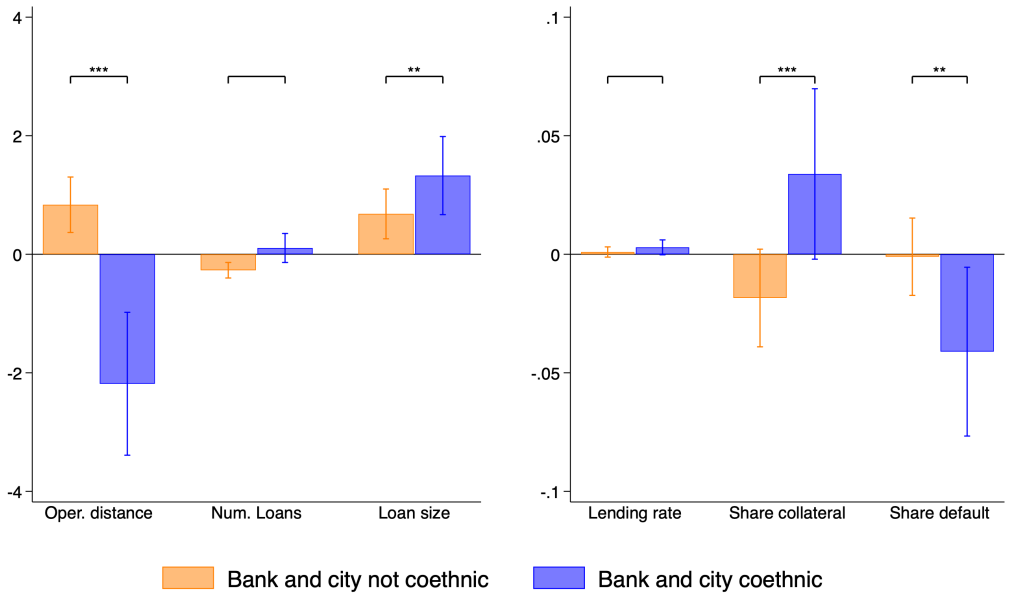
Notes: This figure reports the results from estimating equation 3. This table focuses on five outcome variables (1) the manager's tenure at the bank in years, (2) the manager's tenure at the branch in years, (3) the age of the manager in years, (4) whether the manager has a university degree (BA or MA), and (5) whether the manager is male. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). 95% confidence intervals, with standard errors clustered at the branch level, are reported. The reported significance level is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities based on equation 4. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. Appendix Table A.3 reports the numeric results.

Figure 11: Bank-level exposure to ethnic conflict and management practices



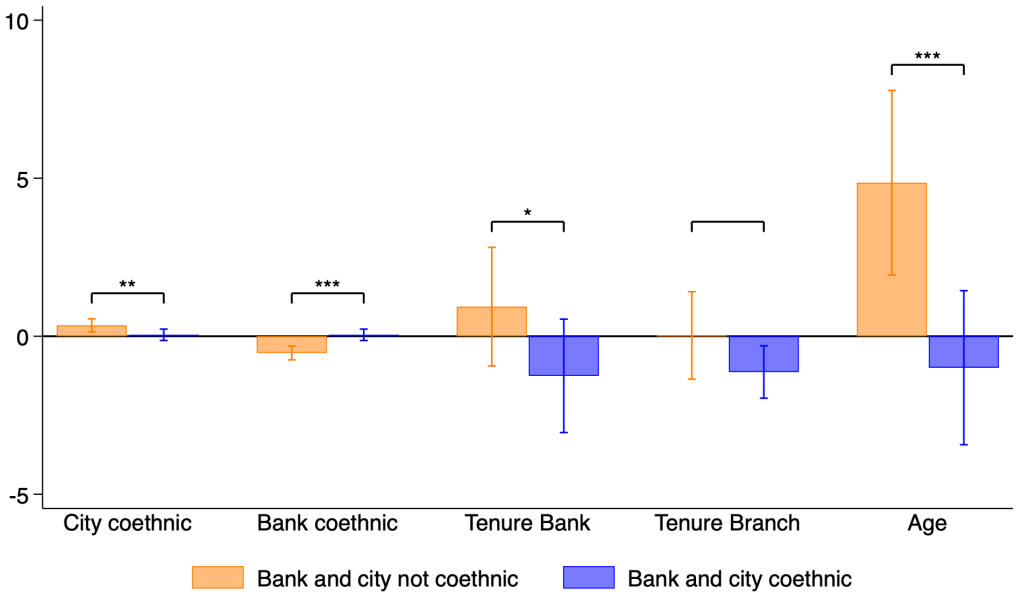
Notes: This figure reports the results from estimating equation 3. The dependent variables are the management score, the mean of all eight normalised management scores, and the performance, people, lean and target management score which are the means of the two normalised management scores of each of these subsets of the questionnaire, and the log of the number of levels in the branch's internal hierarchy winsorized at the 99% level. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). 95% confidence intervals, with standard errors clustered at the branch level, are reported. The reported significance level is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities based on equation 4. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. Appendix Table A.4 reports the numeric results.

Figure 12: Bank-level exposure to ethnic conflict and lending outcomes



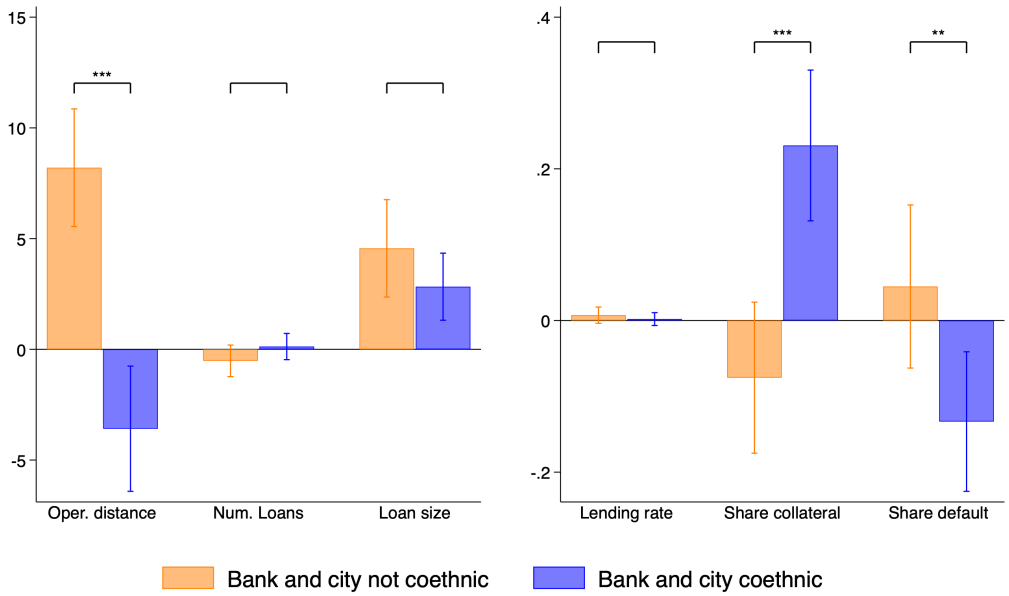
Notes: This figure reports the results from estimating equation 3. The dependent variables are the operational distance of the branch, i.e. how far away from the branch it serves customers, the log of the number of loans the branch has outstanding, the log of the average size of outstanding loans, the lending rate on a typical loan,the percentage of collateral on a typical loan and the share of loans that default. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). 95% confidence intervals, with standard errors clustered at the branch level, are reported. The reported significance level is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities based on equation 4. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. Appendix Table A.5 reports the numeric results.

Figure 13: Share of branches near Beta-Israel cities and branch manager ethnicity



Notes: This figure reports the results from estimating equation 3 using Beta Israel exposure instead of our measure of conflict exposure. The dependent variables are an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (column 1), or the ethnic group associated with the branch's bank (columns 2). The remaining columns use as dependent variables the managers tenure in the bank (column 3), in the branch (column 4) and the managers' age (column 5). Beta Israel Exposure is the share of branches within 100km of a historic Beta Israel city. 95% confidence intervals, clustered at the branch level, are reported. The reported significance level is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities based on equation 4. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. Appendix Table A.6 reports the numeric results.

Figure 14: Share of branches near Beta-Israel cities and lending activities



Notes: This figure reports the results from estimating equation 3 using Beta Israel exposure instead of our measure of conflict exposure. The dependent variables are the operational distance of the branch, i.e. how far away from the branch is serves customers, the log of the number of loans the branch has outstanding, the log of the average size of outstanding loans, the lending rate on a typical loan,the percentage of collateral on a typical loan and the share of loans that default. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. Beta Israel Exposure is the share of branches within 100km of a historic Beta Israel city. 95% confidence intervals, clustered at the branch level, are reported. The reported significance level is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities based on equation 4. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$. Appendix Table A.7 reports the numeric results.

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Table 3: Bank-level exposure to ethnic conflict and branch manager ethnicity

	(1) Bank and city coethnic	(2) Bank and city not coethnic
Bank Conflict Intensity	0.009	0.056***
	(0.031)	(0.015)
Branch FE	Yes	Yes
Time FE	Yes	Yes
2018 Mean dep. var	0.322	0.045
p-value		0.177
N	447	532

Notes: The dependent variable is an indicator that equals 1 when a branch's manager is co-ethnic with neither the nor with the ethnic group associated with the branch's bank. Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). Column (1) restricts the sample to branches in cities coethnic with the bank, while column (2) focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table 4: Bank-level exposure to ethnic conflict and branch manager ethnicity

	Bank and city not coethnic			Bank and city coethnic		
	(1) Manager coethnic with bank	(2) Manager coethnic with city	(3) Manager coethnic with neither	(4) Manager coethnic with bank	(5) Manager coethnic with city	(6) Manager coethnic with neither
Bank conflict intensity	-0.115***	0.080***	0.035*	-0.015	-0.015	0.015
	(0.027)	(0.028)	(0.021)	(0.037)	(0.037)	(0.037)
I[High Local Employees] ×	-0.043	0.010	0.033	0.013	0.013	-0.013
Bank conflict intensity	(0.029)	(0.029)	(0.023)	(0.039)	(0.039)	(0.039)
2018 Mean dep. var	0.738	0.207	0.055	0.665	0.665	0.335
N (Branches)	532	532	532	447	447	447

Table 5: Bank-level exposure to ethnic conflict and branch manager ethnicity

	Panel A: Branches in Bank-Coethnic Cities	
	Coethnic manager	
	(1)	(2)
Main conflict	0.009	0.038
	(0.036)	(0.034)
Many competitors × Main conflict	-0.041	
	(0.039)	
High perceived comp. × Main conflict		-0.116***
		(0.039)
Branch FE	Yes	Yes
Time FE	Yes	Yes
2018 Mean dep. var	0.678	0.678
N (Branches)	447	447

	Panel B: Branches in Non-Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
	(1)	(2)	(3)	(4)	(5)	(6)
Main conflict	0.103**	0.102***	0.065**	-0.168***	-0.151***	-0.141***
	(0.044)	(0.026)	(0.026)	(0.041)	(0.026)	(0.025)
City-coethnic comp. × Main conflict	-0.020			0.030		
	(0.043)			(0.040)		
Many competitors × Main conflict		-0.032			0.019	
		(0.029)			(0.028)	
High perceived comp. × Main conflict			0.042			-0.002
			(0.029)			(0.028)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	0.184	0.184	0.184	0.771	0.771	0.771
N (Branches)	532	532	532	532	532	532

Notes: The dependent variable is an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (columns 1–3) or with the ethnic group associated with the branch's bank (columns 4-6). Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

A Tables with main results

Table A.1: Bank-level exposure to ethnic conflict and branch manager ethnicity

	Panel A: Branches in Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity	-0.009	0.006	-0.005	-0.009	0.006	-0.005
	(0.031)	(0.076)	(0.031)	(0.031)	(0.076)	(0.031)
Local conflict intensity			0.022*			0.022*
			(0.014)			(0.014)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.678	0.678	0.678	0.678	0.678	0.678
N (Branches)	447	372	447	447	372	447

	Panel B: Branches in Non-Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
Bank Conflict Intensity	0.086***	0.056**	0.091***	-0.142***	-0.118***	-0.151***
	(0.021)	(0.023)	(0.021)	(0.020)	(0.023)	(0.020)
Local conflict intensity			-0.021			0.043***
			(0.014)			(0.015)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.184	0.184	0.184	0.771	0.771	0.771
p-value	0.012	0.530	0.011	0.000	0.113	0.000
N (Branches)	532	464	532	532	464	532

Notes: The dependent variable is an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (columns 1–3) or with the ethnic group associated with the branch's bank (columns 4-6). Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table A.2: Bank-level exposure to ethnic conflict and manager reallocation

	Panel A: Branches in Bank-Coethnic Cities			
	New manager bank	New manager branch	Reallocated employee	New hire
	(1)	(2)	(3)	(4)
Bank Conflict Intensity	0.024*	-0.012	-0.030	0.017
	(0.012)	(0.046)	(0.045)	(0.012)
Mean dep. var	0.034	0.396	0.369	0.027
N (Branches)	446	445	445	445
	Panel B: Branches in Non-Bank-Coethnic Cities			
	New manager bank	New manager branch	Reallocated employee	New hire
	(1)	(2)	(3)	(4)
Bank Conflict Intensity	-0.010	0.050**	0.060***	-0.010
	(0.007)	(0.023)	(0.023)	(0.007)
Mean dep. var	0.017	0.361	0.346	0.015
p-value	0.017	0.624	0.086	0.046
N (Branches)	529	529	529	529

Notes: This table uses only data collected in 2022. The four outcome variables are (1) an indicator whether the manager joined the bank in 2021 or 2022 (after the outbreak of conflict in November 2020), (2) whether the manager joined the branch in 2021 or 2022, and whether conditional on joining the branch in 2021 or 2022 they were (3) reallocated from a different branch of the same bank or (4) joined the bank as a new employee in 2021 or 2022. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table A.3: Bank-level exposure to ethnic conflict and manager characteristics

	Panel A: Branches in Bank-Coethnic Cities				
	Tenure in bank	Tenure in branch	Age of manager	University degree	Male manager
	(1)	(2)	(3)	(4)	(5)
Bank Conflict Intensity (15km)	-0.421	-0.450***	0.005	-0.001	0.030
	(0.318)	(0.164)	(0.425)	(0.004)	(0.027)
Branch FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	6.857	2.387	33.897	0.993	0.868
N	447	447	447	447	447
	Panel B: Branches in Non-Bank-Coethnic Cities				
	Tenure in bank	Tenure in branch	Age of manager	University degree	Male manager
Conflict Main	0.493**	0.128	1.082***	0.000	0.022
	(0.206)	(0.136)	(0.283)	(0.003)	(0.019)
Branch FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	6.842	2.359	33.536	0.987	0.865
p-value	0.012	0.003	0.049	0.880	0.300
N	532	532	532	532	532

Notes: This table focuses on five outcome variables (1) the manager's tenure at the bank in years, (2) the manager's tenure at the branch in years, (3) the age of the manager in years, (4) whether the manager has a university degree (BA or MA), and (5) whether the manager is male. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the t-test that the parameter estimates for branches in bank-coethnic cities (Panel A) and in non bank-coethnic cities are the same. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table A.4: Bank-level exposure to ethnic conflict and management practices

	Panel A: Bank-City Coethnic					
	Management score	Lean management	Performance management	Target management	People management	Levels branch hierarchy
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity	0.126**	0.231***	0.077	0.104*	0.086	0.039*
	(0.055)	(0.065)	(0.071)	(0.063)	(0.065)	(0.022)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	-0.305	-0.223	-0.087	-0.509	-0.402	1.491
N	447	447	447	447	447	447
	Panel B: Not Bank-City Coethnic					
	Management score	Lean management	Performance management	Target management	People management	Levels branch hierarchy
Conflict Main	0.065*	0.090**	0.128***	0.033	0.007	0.024
	(0.033)	(0.039)	(0.047)	(0.040)	(0.044)	(0.015)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	-0.183	-0.143	-0.102	-0.333	-0.156	1.449
p-value	0.040	0.004	0.494	0.096	0.145	0.233
N	532	532	532	532	532	532

Notes: The dependent variables are the management score, the mean of all eight normalised management scores, and the performance, people, lean and target management score which are the means of the two normalised management scores of each of these subsets of the questionnaire, and the log of the number of levels in the branch's internal hierarchy winsorized at the 99% level. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). Panel A restricts the sample to branches in coethnic cities, while Panel B focuses on branches in non-coethnic cities. The regressions include branch and time fixed effects. Standard errors, clustered at the branch level, are reported in parentheses. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table A.5: Bank-level exposure to ethnic conflict and branch-level lending

	Panel A: Bank-City Coethnic					
	Operational distance	Log number of loans	Log average loan size	Average lending rate	Collateral percentage	Share loan default
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity	-0.219***	0.106	0.561***	0.003*	0.034*	-0.041**
	(0.061)	(0.124)	(0.136)	(0.002)	(0.018)	(0.018)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	0.774	2.182	4.509	0.146	1.010	0.050
N	447	447	447	447	447	447
	Panel B: Not Bank-City Coethnic					
	Operational distance	Log number of loans	Log average loan size	Average lending rate	Collateral percentage	Share loan default
Conflict Main	0.083***	-0.270***	0.237***	0.001	-0.018*	-0.001
	(0.024)	(0.067)	(0.086)	(0.001)	(0.010)	(0.008)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	0.752	1.930	4.529	0.148	0.998	0.046
p-value	0.000	0.109	0.011	0.174	0.003	0.046
N	826	616	610	734	536	652

Notes: The dependent variables are the operational distance of the branch, i.e. how far away from the branch it serves customers, the log of the number of loans the branch has outstanding, the log of the average size of outstanding loans, the lending rate on a typical loan,the percentage of collateral on a typical loan and the share of loans that default. Bank conflict intensity is the log intensity of bank-level exposure to conflict, excluding local conflict, defined in equation 1. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.201 (1.059). Panel A restricts the sample to branches in coethnic cities, while Panel B focuses on branches in non-coethnic cities. The regressions include branch and time fixed effects. Standard errors, clustered at the branch level, are reported in parentheses. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table A.6: Bank-level exposure to Beta-Israel cities and branch managers

	Panel A: Bank-City Coethnic				
	City coethnic manager	Bank coethnic manager	Tenure in the bank	Tenure in the branch	Age of the manager
Beta Israel Exposure	-0.769	-0.769	-8.925	-6.708**	-3.106
	(0.736)	(0.736)	(7.946)	(3.296)	(10.064)
Branch FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	0.687	0.687	6.782	2.253	33.774
N	380	380	380	380	380
	Panel B: Not Bank-City Coethnic				
	City coethnic manager	Bank coethnic manager	Tenure in the bank	Tenure in the branch	Age of the manager
Beta Israel Exposure	2.716***	-4.058***	7.357	0.076	37.019***
	(0.778)	(0.828)	(7.090)	(5.258)	(11.103)
Branch FE	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	0.180	0.773	6.908	2.374	33.583
p-value	0.001	0.003	0.126	0.275	0.008
N	516	516	516	516	516

Notes: The dependent variables are an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (column 1), or the ethnic group associated with the branch's bank (columns 2). Beta Israel Exposure is the share of branches within 100km of a historic Beta Israel city. Panel A restricts the sample to branches in coethnic cities, while Panel B focuses on branches in non-coethnic cities. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the t-test that the parameter estimates for branches in bank-coethnic cities (Panel A) and in non bank-coethnic cities (Panel B) are the same. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table A.7: Bank-level exposure to Beta-Israel cities and branch managers

	Panel A: Bank-City Coethnic					
	Operational distance	Log number of loans	Log average loan size	Average lending rate	Collateral percentage	Share loan default
	(1)	(2)	(3)	(4)	(5)	(6)
Beta Israel Exposure	-3.586**	0.125	2.828***	0.002	0.231***	-0.133***
	(1.437)	(0.300)	(0.773)	(0.004)	(0.050)	(0.047)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	7.740	2.182	12.722	0.146	1.010	0.050
N	447	447	447	447	447	447
	Panel B: Not Bank-City Coethnic					
	Operational distance	Log number of loans	Log average loan size	Average lending rate	Collateral percentage	Share loan default
Conflict Main	8.201***	-0.519	4.761***	0.007	-0.075	0.045
	(1.351)	(0.362)	(1.060)	(0.005)	(0.051)	(0.055)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
2018 Mean dep. var	7.517	1.930	12.691	0.148	0.998	0.046
p-value	0.000	0.171	0.141	0.458	0.000	0.014
N	826	616	610	734	536	652

Notes: The dependent variables are the operational distance of the branch, i.e. how far away from the branch it serves customers, the log of the number of loans the branch has outstanding, the log of the average size of outstanding loans, the lending rate on a typical loan,the percentage of collateral on a typical loan and the share of loans that default. Beta Israel Exposure is the share of branches within 100km of a historic Beta Israel city. Panel A restricts the sample to branches in coethnic cities, while Panel B focuses on branches in non-coethnic cities. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the t-test that the parameter estimates for branches in bank-coethnic cities (Panel A) and in non bank-coethnic cities (Panel B) are the same. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

B Robustness Test

B.1 Robustness to changing the matching of conflict to cities

To test the robustness of our results to the type of conflict we match, we vary the set $\mathcal{E}_{bt}$ in equation 1 by changing the set to all conflict within 15 and 25 kilometers of a branch of bank b. First, we consider matching only conflict within 15 kilometers of the city, for which we report the results relating to manager ethnicity in Table B.1. Next, we focus on conflict within 25km of the city, we report the results relating to manager ethnicity in Table B.2. Finally, we show that the results are not driven by CBE, the large, state-owned bank in Table B.3. The regressions for the other outcome variables are also robust to these tests, and will be reported in the online appendix. These tables show that results are not driven by the specific choice of distance we use to match conflict to cities. All results are similar both quantitatively and qualitatively, with coefficients shrinking as we increase the amount of conflict we match reflecting the variance of the independent variable.

Table B.1: Bank-level exposure to ethnic conflict and branch manager ethnicity - 15 kilometer radius

	Panel A: Branches in Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity (15km)	0.007	0.015	0.010	0.007	0.015	0.010
	(0.032)	(0.065)	(0.031)	(0.032)	(0.065)	(0.031)
Local conflict intensity			0.023*			0.023*
			(0.014)			(0.014)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.678	0.678	0.678	0.678	0.678	0.678
N (Branches)	447	372	447	447	372	447
	Panel B: Branches in Non-Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
Bank Conflict Intensity (15km)	0.086***	0.054**	0.090***	-0.144***	-0.119***	-0.153***
	(0.021)	(0.024)	(0.021)	(0.020)	(0.023)	(0.020)
Local conflict intensity			-0.020			0.042***
			(0.014)			(0.015)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.184	0.184	0.184	0.771	0.771	0.771
p-value	0.038	0.571	0.034	0.000	0.055	0.000
N (Branches)	532	464	532	532	464	532

Notes: This table replicates Table A.1 using a 15km instead of 20km radius to match ethnic conflict to bank branches in equation 1. The dependent variable is an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (columns 1–3) or with the ethnic group associated with the branch's bank (columns 4-6). Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.022 (1.080). Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table B.2: Bank-level exposure to ethnic conflict and branch manager ethnicity - 25 kilometer radius

	Panel A: Branches in Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity (25km)	-0.014	0.011	-0.009	-0.014	0.011	-0.009
	(0.029)	(0.085)	(0.029)	(0.029)	(0.085)	(0.029)
Local conflict intensity			0.022			0.022
			(0.014)			(0.014)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.678	0.678	0.678	0.678	0.678	0.678
N (Branches)	447	372	447	447	372	447
	Panel B: Branches in Non-Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
Bank Conflict Intensity (25km)	0.086***	0.060***	0.091***	-0.139***	-0.120***	-0.149***
	(0.020)	(0.023)	(0.020)	(0.019)	(0.023)	(0.019)
Local conflict intensity			-0.022			0.045***
			(0.014)			(0.015)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.184	0.184	0.184	0.771	0.771	0.771
p-value	0.005	0.574	0.004	0.000	0.138	0.000
N (Branches)	532	464	532	532	464	532

Notes: This table replicates Table A.1 using a 25km instead of 20km radius to match ethnic conflict to bank branches in equation 1. The dependent variable is an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (columns 1–3) or with the ethnic group associated with the branch's bank (columns 4-6). Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.022 (1.080). Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table B.3: Bank-level exposure to ethnic conflict and branch manager ethnicity - only private banks

	Panel A: Branches in Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity	0.005	0.020	0.008	0.005	0.020	0.008
	(0.040)	(0.077)	(0.040)	(0.040)	(0.077)	(0.040)
Local conflict intensity			0.020			0.020
			(0.015)			(0.015)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.673	0.673	0.673	0.673	0.673	0.673
N (Branches)	349	271	349	349	271	349
	Panel B: Branches in Non-Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
Bank Conflict Intensity	0.097***	0.082**	0.099***	-0.173***	-0.166***	-0.177***
	(0.035)	(0.038)	(0.035)	(0.035)	(0.039)	(0.034)
Local conflict intensity			-0.007			0.021
			(0.018)			(0.019)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.214	0.214	0.214	0.736	0.736	0.736
p-value	0.088	0.470	0.091	0.001	0.031	0.000
N (Branches)	401	358	401	401	358	401

Notes: This table replicates Table A.1 excluding the state-owned banks; i.e. branches of CBE and CBB. The dependent variable is an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (columns 1–3) or with the ethnic group associated with the branch's bank (columns 4-6). Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.022 (1.080). Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

Table B.4: Bank-level exposure to ethnic conflict and branch manager ethnicity - excluding Addis Ababa

	Panel A: Branches in Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity	0.021	-0.048	0.021	0.021	-0.048	0.021
	(0.043)	(0.112)	(0.043)	(0.043)	(0.112)	(0.043)
Local conflict intensity			0.004			0.004
			(0.014)			(0.014)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.659	0.659	0.659	0.659	0.659	0.659
N (Branches)	273	198	273	273	198	273

	Panel B: Branches in Non-Bank-Coethnic Cities					
	City coethnic manager			Bank coethnic manager		
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity	0.071*	0.041	0.073*	-0.170***	-0.150***	-0.173***
	(0.041)	(0.045)	(0.041)	(0.044)	(0.050)	(0.043)
Local conflict intensity			-0.034**			0.055***
			(0.015)			(0.016)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.182	0.182	0.182	0.764	0.764	0.764
p-value	0.401	0.452	0.380	0.002	0.399	0.002
N (Branches)	369	301	369	369	301	369

Notes: This table replicates Table A.1 excluding the branches in Addis Ababa. The dependent variable is an indicator that equals 1 when a branch's manager is co-ethnic with the ethnic group associated with the city (columns 1–3) or with the ethnic group associated with the branch's bank (columns 4-6). Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.022 (1.080). Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

B.2 The effect of conflict on employees being local

Table B.5: Bank-level exposure to ethnic conflict and local staff

	Panel A: Branches in Bank-Coethnic Cities					
	Manager born in region			Share local employees		
	(1)	(2)	(3)	(4)	(5)	(6)
Bank Conflict Intensity	-0.073	-0.179	-0.073	-0.059***	-0.081*	-0.054***
	(0.047)	(0.125)	(0.047)	(0.018)	(0.046)	(0.018)
Local conflict intensity			0.009			0.028***
			(0.022)			(0.009)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.421	0.421	0.421	0.556	0.556	0.556
N (Branches)	214	214	214	447	447	447
	Panel B: Branches in Non-Bank-Coethnic Cities					
	Manager born in region			Share local employees		
Bank Conflict Intensity	-0.060*	-0.050	-0.053	-0.014	-0.041***	-0.022*
	(0.035)	(0.042)	(0.036)	(0.012)	(0.013)	(0.012)
Local conflict intensity			-0.020			0.035***
			(0.026)			(0.008)
Branch FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	Yes	No	Yes
City-Time FE	No	Yes	No	No	Yes	No
2018 Mean dep. var	0.448	0.448	0.448	0.584	0.584	0.584
p-value	0.821	0.332	0.742	0.037	0.393	0.126
N (Branches)	250	250	250	532	532	532

Notes: This table shows the results of a regression on two measures of whether staff comes from the same region as the branch. Share local employees is the share of employees who were born in the same city as the branch, local manager is a dummy for whether the manager was born in the same region as the branch. Note that this question was added to the survey after around 500 branches were interviewed in 2018 resulting in a small sample size. Bank conflict intensity is the log intensity of bank-level exposure to conflict involving the bank's ethnic group, excluding conflict near the branch of interest, defined in equation 1. Local conflict intensity is the log of conflict intensity near the city as defined in equation 2. The mean (SD) of the within-branch change in log bank conflict intensity from 2018 to 2022 is 1.022 (1.080). Panel A restricts the sample to branches in cities coethnic with the bank, while Panel B focuses on branches in cities that are not. Standard errors, clustered at the branch level, are reported in parentheses. The reported p-value is for the test that the slope on bank conflict intensity is identical in bank coethnic and non bank coethnic cities. Statistical significance is denoted by * $p < 0.10$, ** $p < 0.05$, and *** $p < 0.01$.

C Ethnicity of banks, cities and managers

C.1 List of banks and bank-ethnicities

Table C.1: Distribution of banks by ethnic affiliations

Bank name	Bank ethnicity	Count	Share (%)
Abay	Amhara	81	8.1
Addis	Amhara	5	0.5
Awash	Oromo	101	10.2
BOA	Amhara	39	3.9
Berhan	Amhara	75	7.5
Bunna International	Amhara	47	4.7
CBB	Amhara	19	1.9
CBE	Amhara	211	21.2
CBO	Oromo	55	5.5
Dashen	Amhara	56	5.6
Debub	SNNP	17	1.7
Lion	Tigray	14	1.4
NIB International	SNNP	86	8.7
OIB	Oromo	76	7.6
United	Amhara	53	5.3
Wegagen	Tigray	59	5.9

C.2 Number of cities by ethnic group

Table C.2: Distribution of cities by ethnic group

City ethnicity	Count	Share (%)
Afar	6	0.6
Amhara	531	53.4
Benishangul-Gumuz	13	1.3
Oromo	295	29.7
SNNP	121	12.2
Somali	21	2.1
Tigray	7	0.7

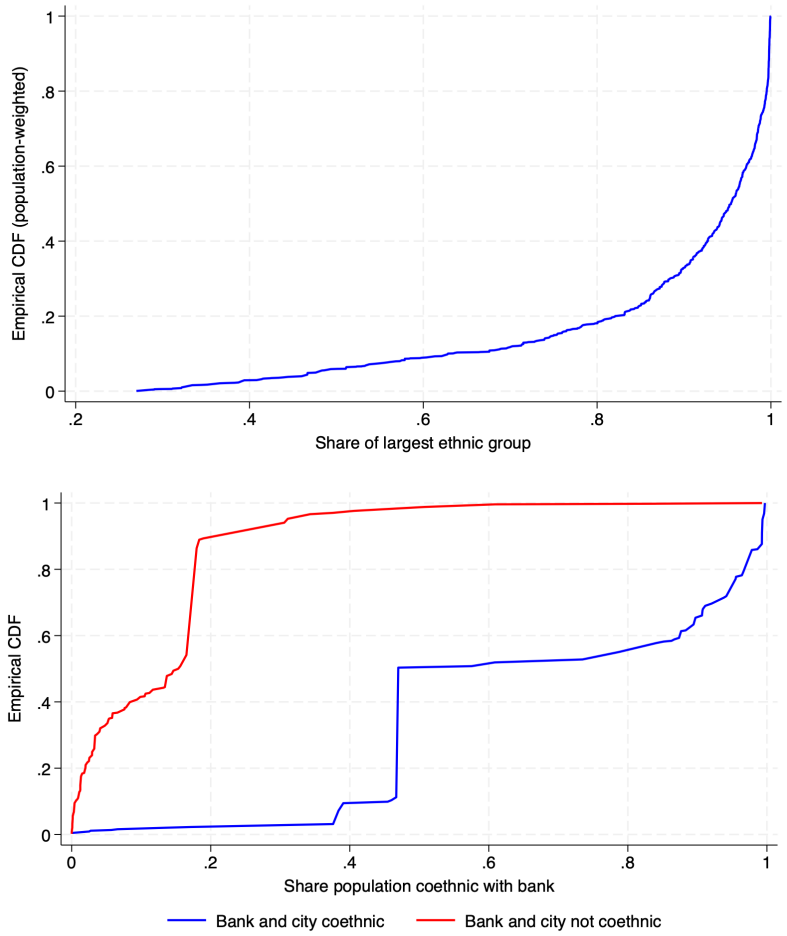
C.3 Number of managers by ethnic group by period

Table C.3: Distribution of branch managers' ethnicity by period

Manager ethnicity	Count Managers 2018	Share managers 2018 (%)	Count Managers 2022	Share managers 2022 (%)
Afar	1	0.1	6	0.6
Agew	0	0	8	0.8
Amhara	500	50.3	442	44.5
Benishangul-Gumuz	10	1.0	2	0.2
Oromo	291	29.3	386	38.8
SNNP	109	11.0	109	11.0
Somali	2	0.2	19	1.9
Tigray	81	8.1	21	2.1

C.4 Ethnic diversity at the local level

Figure C.1: Ethnic diversity in Ethiopia



Notes: This figure shows, in the top panel, the empirical CDF for the share of the population that belongs to largest ethnic group in each woreda – the smallest administrative unit – in Ethiopia. It shows that in over 80% of woredas over 80% of people belong to a single ethnicity. The bottom panel instead shows that share of the population in each zone (region in the case of Addis Ababa) in which a branch is located that belongs to the same ethnic group of the bank. The differences in administrative units used in this figure is based on how (im)precisely we observe the location of bank branches. This is based on 2007 IPUMS data and corresponding administrative boundaries.

D Management Practices Survey and Methodology

D.1 Scoring Management Performances

The concept of "good management practice" is often relative and contingent to a specific market or sector. However, international best practices in the banking sector have been widely studied, allowing the literature to reach a consensus on what constitutes a "good" practice. We evaluate and score management practices by defining the concept of "good" and "bad" practice and codifying it from 1 (worst practice) to 5 (best practice) across eight key dimensions. These practices are grouped into four areas: lean management, performance management, target management, and people management.[11]

The lean management section evaluates the efficiency of day-to-day operations (e.g., organization of the workflow, management of slack time, method of staff assignment to specific tasks, etc.) and assesses whether the branch has adopted recognized best practices. The performance management part measures how performance is tracked and reviewed (e.g., what KPIs are used, who oversees the performance review, how frequently the performance measures are revised, etc.). The target management section reviews the nature and scope of a branch's targets (e.g., the relative importance of financial targets compared to non-financial ones, how these targets are linked to performance measures, etc.) and assesses whether they align with the bank's objectives. Finally, the people management part tests whether good performance is appropriately rewarded and whether bad performance is sanctioned (e.g., adoption of an articulated appraisal system, use of a reward plan, presence of sanctions for underperformers, etc.).

An overview of these four sections is presented in Table 1. After the completion of the survey, we combine these scores to obtain a unique index of management practices. Since the scaling may vary across practices in the econometric estimation, we normalize the final scores to z-scores (i.e., mean zero and standard deviation one). To build our final management index, we take the unweighted average across all z-scores as our primary measure of overall management practice.

D.2 Responses Collection

The information content and precision of our management performance index crucially depend on the quality of the responses collected through our survey. For this reason, we structured our questions to allow respondents to provide accurate and unbiased answers. As pointed out by (Bertrand & Mullainathan, 2001), responses are typically biased by the presence of a scoring scale, which may prompt respondents to provide the interviewer's expected answer. Additionally, interviewers may have preconceptions toward the interviewed managers. Apart from these issues, many background factors correlated with management behavior may systematically bias survey data.

[11] Note, this section is taken directly from a previously circulated working paper (Gennaioli, Limodio, & Strobbe, 2019)

To counter these potential negative effects, we adopt a combination of strategies tested in the existing literature. First, we ensure accurate responses by conducting telephone surveys without informing managers that their answers will be evaluated against a scoring grid, allowing us to gather information about actual management practices. Second, we ask a series of open-ended questions (e.g., "What types of targets are set for the bank in general? What are the goals for your branch?") and record responses until an accurate assessment of management practices is possible. Third, to correct any inconsistent interpretation of responses, we ensure interviewers conduct a minimum number of training interviews during a pilot survey phase. Furthermore, since almost all our interviewers conducted over 40 interviews (with an average of 200 interviews per interviewer), we are able to control for interviewer fixed effects in a robustness section. Fourth, we adopt a double-scoring technique, where another interviewer silently listens and scores the responses provided during the interview. Finally, we collect information on a large set of manager characteristics (e.g., age, education, ethnicity, etc.) to control for potential confounders.

D.3 Manager Participation

The average duration of an interview was approximately 27 minutes. Interviews were conducted between January 2015 and February 2018 by locally recruited research assistants (RAs). The initial survey phase consisted of a pilot involving 265 branches, which allowed us to refine the survey and train interviewers. After this stage, we surveyed the universe of Ethiopian bank branches (3,232 in total). We achieved a relatively high response rate (59%, 1,911 branches) through specific strategies. First, the survey was introduced as a neutral exercise, avoiding discussion of the bank's financial position or individual branch accounts. This ensured that interviewers were blind to financial data and helped maximize participation. Second, questions focused on evident practices within the branch, enabling branch managers to provide reliable answers. Finally, endorsement and support from the World Bank and the National Bank of Ethiopia encouraged participation by emphasizing the initiative's importance and official backing.

D.4 Additional Data Collected

In addition to management practices, our survey collected extensive data on respondent and branch characteristics. The introductory section gathered baseline information about the branch (e.g., name, geographic location, number of employees, opening date) and the manager (e.g., age, gender, education, previous employment).

A second set of questions addressed the organizational nature of the branch (e.g., management structure, autonomy from headquarters) and operations (e.g., average loan size, collateral requirements, share of defaulted loans).

D.5 Summary statistics by wave

Tables D.1 and D.2 report summary statistics on the main analysis variables by survey wave for respectively organizational characteristics and characteristics related to lending activities.

Table D.1: Summary statistics of analysis variables by wave related to organizational outcomes

	N	Mean	Std. Dev.	Min	Max
Bank coethnic manager	1,958	0.65	0.48	0.00	1.00
First Wave (2018)	979	0.73	0.45	0.00	1.00
Second Wave (2022)	979	0.57	0.49	0.00	1.00
City coethnic manager	1,958	0.54	0.50	0.00	1.00
First Wave (2018)	979	0.41	0.49	0.00	1.00
Second Wave (2022)	979	0.66	0.47	0.00	1.00
Levels branch hierarchy	1,942	3.78	1.38	1.00	9.00
First Wave (2018)	979	3.60	1.58	1.00	9.00
Second Wave (2022)	963	3.96	1.11	1.00	9.00
Branch employees	1,951	17.57	10.04	3.00	110.00
First Wave (2018)	979	14.77	10.33	3.00	110.00
Second Wave (2022)	972	20.39	8.90	5.00	78.00
Lean management practices	1,957	-0.02	0.86	-2.37	1.95
First Wave (2018)	979	0.24	0.99	-2.31	1.95
Second Wave (2022)	978	-0.28	0.59	-2.37	1.95
Performance management practices	1,954	-0.01	0.86	-2.31	1.84
First Wave (2018)	979	0.19	0.95	-2.23	1.84
Second Wave (2022)	975	-0.22	0.70	-2.31	1.84
Target management practices	1,956	-0.00	0.80	-2.26	2.17
First Wave (2018)	979	0.04	0.93	-2.26	2.17
Second Wave (2022)	977	-0.04	0.65	-2.26	2.17
People management practices	1,956	0.01	0.87	-1.70	2.02
First Wave (2018)	979	0.18	1.08	-1.70	2.02
Second Wave (2022)	977	-0.16	0.54	-1.70	2.02

Notes: This table provides summary statistics of the main analysis variables based on the branch survey. Bank coethnic manager and city coethnic manager are dummy indicators for whether respectively the manager and bank, or the manager and city are coethnic. Levels branch hierarchy is the number of levels between the branch manager and the lowest level employee in the branch. Branch employees is the number of employees in the branch. Management is the mean of the normalised management scores. Lean, performance, target and people management are the mean of the normalized subsections of the survey. We report the number of observations, the mean, standard deviation, minimum and maximum of these variables.

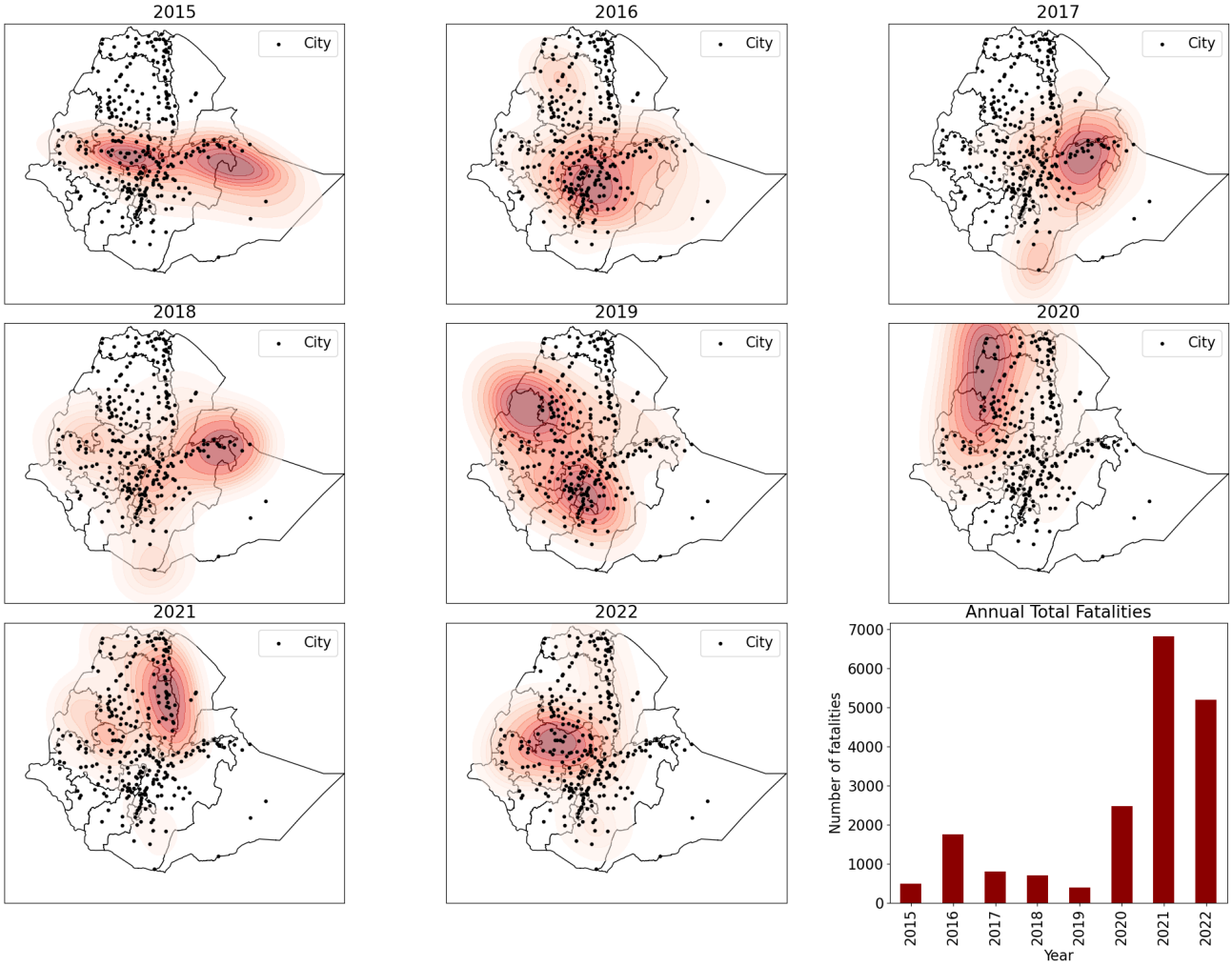
Table D.2: Summary statistics of analysis variables by wave related to lending activities

	N	Mean	Std. Dev.	Min	Max
Branch operational distance	1,700	6.80	4.85	0.05	50.00
First Wave (2018)	979	7.62	2.62	3.00	30.00
Second Wave (2022)	721	5.70	6.64	0.05	50.00
Lending rate	1,637	0.15	0.02	0.10	0.20
First Wave (2018)	979	0.15	0.02	0.10	0.20
Second Wave (2022)	658	0.15	0.02	0.10	0.20
Ln Number Loans	1,510	2.43	1.35	0.00	8.52
First Wave (2018)	979	2.05	1.27	0.00	6.01
Second Wave (2022)	531	3.14	1.18	0.00	8.52
Ln loan size	1,506	13.29	3.77	0.00	17.86
First Wave (2018)	979	12.70	4.54	0.00	17.86
Second Wave (2022)	527	14.37	0.65	13.30	16.12
Collateral	1,449	0.95	0.19	0.50	1.50
First Wave (2018)	979	1.00	0.19	0.50	1.50
Second Wave (2022)	470	0.83	0.13	0.50	1.00
Share loans defaulting	1,578	0.07	0.14	0.00	1.00
First Wave (2018)	979	0.05	0.09	0.00	1.00
Second Wave (2022)	599	0.09	0.20	0.00	1.00

Notes: This table provides summary statistics of the main analysis variables based on the branch survey by wave. Branch operational distance is the maximum distance at which a branch services customers in kilometers. Collateral percentage is the typical level of collateral on a loan given out as a share of the total loan size Ln Number Loans is the log number of loans, Ln loan size is the log of loan size expressed in ETB 1000, lending rate percentage is the average lending percentage on the past 10 loans given out. Share default is the share of loan default on loans given out in the past year. We report the number of observations, the mean, standard deviation, minimum and maximum of these variables.

E Ethnic conflict over time and space

Figure E.1: Ethnic conflict in Ethiopia



Notes: This figure illustrates the spatial distribution of fatalities due to ethnic conflict in Ethiopia over time. The map on the left presents the distribution of conflict fatalities as a Kernel Density Estimate (KDE) plot, with darker regions indicating areas of higher conflict density. Cities are plotted on the map, represented in black, as well as administrative boundaries of the regions presented in Figure 2. The bottom right bar plot shows the total number of conflict fatalities for each year, with the height of each bar corresponding to the total fatalities from ethnic conflict in that year.

F Theory

F.1 Model Setup

We develop a binary–state communication model adapted from Alonso et al. (2008), embedding the appointment choice between a bank-coethnic and a city-coethnic branch manager.

A project has fundamental quality $\theta \in \{0, 1\}$ with equal prior probabilities:

$$Pr(\theta = 1) = Pr(\theta = 0) = \frac{1}{2}.$$

If financed ($I = 1$), the principal (HQ) obtains a payoff

$$U_P = 2\theta - 1$$

otherwise $I = 0$ yields payoff 0.

Manager Types

The headquarters can appoint one of two possible managers:

$$i \in \{B, C\},$$

where B refers to a *bank-coethnic* manager and C to a *city-coethnic* manager.

Information. Manager i observes a private binary signal $s_i \in \{0, 1\}$ with precision

$$q_i = Pr(s_i = \theta), \qquad q_i \in \left(\frac{1}{2}, 1\right].$$

We assume that city-coethnic branch managers have better local information, so $q_C > q_B$.

Preferences and Bias. The agent's payoff is:

$$U_A = I\,(2\theta - 1) + b_i I,$$

where $b_i \geq 0$ represents a bias toward approving loans.

For notational simplicity, let us assume without loss of generality that $b_B = 0$ (bank-coethnic managers are perfectly aligned with HQ) and $b_C = b > 0$ (city-coethnic managers exhibit in-group preference).

Cheap-Talk Reporting. A type *i* manager sends a non-verifiable message $m_i \in \{0, 1\}$ to HQ, which decides whether to finance a project based on such information.

Bank-coethnic managers (B) truthfully report the observed signal about the quality of the investment project:

$$m_B = s_B.$$

In contrast, city-coethnic managers (C) may misreport $m_C = 1$ even when observing $s_C = 0$ due to their bias. Let $p(b)$ denote the probability of misreporting:

$$p(b) = Pr(m_C = 1 \mid s_C = 0),$$

which is a commonly observed, strictly increasing continuous function with the following features:

$$p(0) = 0, \qquad \lim_{b\to\infty} p(b) = 1, \qquad p'(b) > 0.$$

These assumptions reflect the fact that an unbiased branch manager (featuring $b = 0$) would truthfully report the signal she observes (i.e., $m_i = s_i$). However, as the magnitude of bias increases, the manager is increasingly likely to misreport the signal when it would imply no optimal investment. Instead, when observing $s_C = 1$, city-coethnic branch managers report their signal truthfully:

$$Pr(m_C = 1 \mid s_C = 1) = 1$$

Posteriors

The HQ updates its beliefs about the project quality according to Bayes' rule, so that:

$$Pr(\theta = 1 \mid m_B = 1) = q_B, \qquad Pr(\theta = 1 \mid_B m = 0) = 1 - q_B.$$

For the city-coethnic manager:

$$Pr(\theta = 1 \mid m_C = 1) = \frac{q_C + p(b)(1 - q_C)}{1 + p(b)}, \qquad Pr(\theta = 1 \mid m_C = 0) = 1 - q_C.$$

All four posteriors are strictly above (for $m_i = 1$) or below (for $m_i = 0$) the prior probability $Pr(\theta = 1) = 1/2$, ensuring messages are informative.

F.2 HQ's Optimal Investment Rule

Lemma 1. *Under either manager type $i \in \{B, C\}$, the headquarters finances the project if and only if $m = 1$.*

Proof. Since the expected return of financing a project based on the prior is equal to zero, implying no financing, the HQ invests if and only if the conditional expected payoff is positive:

$$\mathbb{E}[U_P \mid m_i] > 0 \quad \Longleftrightarrow \quad Pr(\theta = 1 \mid m_i) > \frac{1}{2}.$$

From the posteriors:
- For $m_i = 1$, both $Pr(\theta = 1 \mid m_i = 1) > 1/2$ for $i \in \{B, C\}$.
- For $m_i = 0$, both $Pr(\theta = 1 \mid m_i = 0) < 1/2$ for $i \in \{B, C\}$.

Thus, the HQ finances a project only when $m = 1$. □

Intuitively, even biased city-coethnic managers convey partially informative signals: a positive report is sufficiently credible relative to prior beliefs that the HQ is willing to fund the project, but a negative report is sufficiently damaging that the HQ prefers not to grant financing. The strict monotonicity of both q_i and $p(b)$ ensures no threshold reversal is possible.

F.3 Expected Payoffs

If HQ appoints a bank-coethnic manager, it finances the project iff $m_B = 1$, i.e. $s_B = 1$. The joint probabilities are:

$$\Pr(\theta = 1, m_B = 1) = \tfrac{1}{2} q_B, \qquad \Pr(\theta = 0, m_B = 1) = \tfrac{1}{2}(1 - q_B).$$

Expected payoff is:

$$U_B = \tfrac{1}{2} q_B \cdot (+1) + \tfrac{1}{2}(1 - q_B) \cdot (-1) = \frac{2q_B - 1}{2}. \tag{6}$$

Since $q_B > 1/2$, we have $U_B > 0$.

F.4 City-coethnic manager

If the HQ appoints a city-coethnic manager, it finances a project if $m_C = 1$. Using the joint probabilities above:

$$\Pr(\theta = 1, m_C = 1) = \tfrac{1}{2}[q_C + (1 - q_C)p(b)],$$
$$\Pr(\theta = 0, m_C = 1) = \tfrac{1}{2}[(1 - q_C) + q_C p(b)].$$

Expected payoff is:

$$\begin{aligned} U_C &= \tfrac{1}{2}[q_C + (1-q_C)p(b)] \cdot (+1) + \tfrac{1}{2}[(1-q_C) + q_C p(b)] \cdot (-1) \\ &= \tfrac{1}{2}[q_C + (1-q_C)p(b) - (1-q_C) - q_C p(b)] \\ &= \tfrac{1}{2}[(2q_C - 1) + p(b)(1-2q_C)] \\ &= \tfrac{1}{2}(2q_C - 1)[1 - p(b)]. \end{aligned} \tag{7}$$

Because $q_C > 1/2$ and $p(b) \in [0, 1)$, we have $U_C > 0$.

City-coethnic managers are more informed ($q_C > q_B$), which raises the base term $(2q_C - 1)/2$. But their bias introduces a misreporting probability $p(b)$, which scales down the effective value of that information by the factor $[1 - p(b)]$.

F.5 Main Appointment Result

Define:

$$\Delta(b) = U_C(b) - U_B.$$

HQ appoints a city-coethnic manager iff $\Delta(b) \geq 0$.

Proposition 1. *There exists a unique $b^* > 0$ such that:*

$$U_C(b) \geq U_B \quad \Longleftrightarrow \quad b \leq b^*.$$

Such a cutoff is generated by the optimal appointment rule such that the HQ appoints a city-coethnic manager if

$$p(b^*) \leq p^* \equiv \frac{2(q_C - q_B)}{2q_C - 1},$$

Proof. Since:

$$U_B = \frac{2q_B - 1}{2}, \qquad U_C(b) = \frac{[p(b) - 1](1 - 2q_C)}{2},$$

we solve $U_C(b^*) = U_B$:

$$[p(b^*) - 1](1 - 2q_C) = 2q_B - 1.$$

Because $1 - 2q_C < 0$:

$$p(b^*) - 1 = \frac{2q_B - 1}{1 - 2q_C}$$

so:

$$p(b^*) = p^* = \frac{2(q_C - q_B)}{2q_C - 1}.$$

Notice that $p^* \in (0,1)$, since $q_C > q_B$ and $q_B > 1/2$.

Existence and uniqueness of b^*.

Recall that $p(0) = 0$, p is continuous and strictly increasing, and $\lim_{b\to\infty} p(b) = 1$.

Let $\phi(b) := p(b) - p^*$, then $\lim_{b\to 0} \phi(b) = -p^* < 0$, whereas $\lim_{b\to\infty} \phi(b) = 1 - p^* > 0$

By continuity of $\phi(b)$the Intermediate Value Theorem implies the *existence* of a cutoff $b^* > 0$ such that $\phi(b^*) = 0$. Strict monotonicity of $p(b)$ implies that b^* is unique. □

This result formalizes the core trade-off of our model: when conflict is low and bias b is small, the HQ prefers appointing a city-coethnic branch manager because she has superior information ($q_C > q_B$). If conflict increases and raises b, misreporting becomes more prevalent, and the HQ optimally appoints a bank-coethnic branch manager.

The cutoff b^* depends positively on the informational advantage $q_C - q_B$. This is the rigorous foundation for the binary-organizational-choice statement used in the main text.

F.6 Appointment Rule

HQ selects the manager type that maximizes expected payoff:

$$\max\{U_B, U_C(b)\}.$$

Define the payoff difference:

$$\Delta(b) = U_C(b) - U_B.$$

The previous proposition gave the cutoff b^* such that $\Delta(b^*) = 0$.

Let us now restate the decision rule as follows:

Proposition 2. *HQ appoints a city-coethnic manager if* $b \le b^*$ *and a bank-coethnic manager otherwise. Equivalently:*

$$p(b) \le p^* \iff i = C, \qquad p(b) > p^* \iff i = B.$$

Proof. Immediate from Proposition 1 and the definition of $\Delta(b)$. □

This proposition fully formalizes the key binary choice described in Section 2: If a city-coethnic branch manager's bias is sufficiently low, her informational advantage dominates, and the HQ prefers them. If instead the bias is high, misreporting becomes too likely, and the HQ prefers appointing a bank-coethnic manager. This reproduces the logic of delegation versus centralization in Dessein (2002), but with the crucial twist that in this paper the bias is embedded in the choice of manager's ethnicity upon appointment, not in the decision-rights choice itself.

F.7 Comparative Statics with Respect to Conflict

Let us now explicitly describe the impact of ethnic conflict γ in our model. Let us define:

$$q_C = g_C(\gamma), \qquad q_B = g_B(\gamma), \qquad b = f(\gamma),$$

with:

$$g'_C(\gamma) = 0, \qquad g'_B(\gamma) \leq 0, \qquad f'(\gamma) > 0.$$

Thus, conflict makes city-coethnic managers more biased, and bank-coethnic branch managers less informed. The rationale behind our assumption that conflict does not affect city-coethnic branch managers' informativeness lies in the fact that we are evaluating the impact of non-local conflict on a branch, hence, conflict should not be expected to affect the quality of information.

We now characterize how conflict may shift the optimal managerial appointment decision through the benefit $\Delta(\gamma)$:

$$\Delta(\gamma) = U_C(g_C(\gamma), f(\gamma)) - U_B(g_B(\gamma)).$$

From expressions for U_C and U_B, one obtains:

$$\frac{d\Delta}{d\gamma} = -\frac{1}{2}[2g_C(\gamma) - 1]\, p'(f(\gamma))\, f'(\gamma) - g'_B(\gamma). \qquad (*)$$

By inspection of the above derivative, we can see that

(i). $-\frac{1}{2}[2g_C(\gamma)-1]p'(f(\gamma))f'(\gamma) < 0$, by increasing city-coethnic managers' bias, fiercer conflict might reduce HQ's willingness to appoint a city-coethnic branch manager.

(ii). $-g'_B(\gamma) \geq 0$, a more severe level of conflict generates a loss of bank-coethnic managers' informativeness, making them less attractive than city-coethnic ones in the eyes of the HQ.

There is, therefore, a fundamental tension: conflict simultaneously hurts both manager types, but in different ways.

Proposition 3. *Conflict increases HQ's preference for bank-coethnic managers (i.e., $\frac{d\Delta}{d\gamma} < 0$) if and only if:*

$$-\frac{1}{2}[2g_C(\gamma) - 1]p'(f(\gamma))f'(\gamma) < g'_B(\gamma).$$

Equivalently, when rewritten in terms of magnitudes:

$$\left|\tfrac{1}{2}[2g_C(\gamma) - 1]p'(f(\gamma))f'(\gamma)\right| > |g'_B(\gamma)|.$$

Proof. Directly from the sign of (*). □

Intuitively, conflict has *a negative effect* for city-coethnic managers: it raises their bias ($f'(\gamma) > 0$), increasing the likelihood of misreporting. At the same time, conflict worsens the information of bank-coethnic managers ($g'_B(\gamma) \leq 0$). This makes city-coethnic managers relatively more attractive.

Thus, the comparative static depends on whether bias amplification dominates (HQ switches toward bank-coethnic managers), or informational erosion is more severe (HQ switches toward city-coethnic managers). This is the tradeoff described by 1 in Section 2.

G Attrition

We interviewed 1,940 branches in 2018, of which 998 were re-interviewed in 2022. We study whether attrition between survey waves varies with changes in conflict exposure and whether this relationship depends on whether the branch's city is coethnic with the bank. For 95 branches, we cannot determine the exact location, so they are omitted from the analysis. Of the remaining branches, 979 were successfully re-interviewed, 137 required prior headquarters approval (and were not re-interviewed), 584 could not be contacted—typically due to outdated contact information—and 151 were confirmed closed.

We first regress an indicator for whether a branch appears in the 2022 survey on the change in network-level conflict exposure, separately for branches in bank-coethnic and non-coethnic cities. We then estimate an interacted specification combining both groups, and finally a simple regression on a dummy for bank–city coethnicity.

Panel A of Table G.1 shows that for branches in non-coethnic cities, changes in conflict exposure have a small and statistically insignificant effect on survey participation. In contrast, for coethnic cities, higher conflict significantly increases attrition. The pooled interaction model (column 3) confirms that the slope is significantly more negative for coethnic cities, while the coethnic-city dummy is positive but insignificant when entered alone—indicating no average difference in baseline attrition between the two types of branches.

Panel B of Table G.1 examines the channels of attrition. Greater conflict exposure raises the probability that a branch is closed by about 1.4 p.p. in cities not coethnic with the bank, with a much larger implied effect—around 20 p.p.—for coethnic cities. There is no systematic relationship between conflict exposure and the probability that a branch requires headquarters approval or cannot be contacted. Overall, attrition is limited and unrelated to conflict exposure in the cities not coethnic with the bank that drive our identification, suggesting that sample selection is unlikely to bias our main results.

Table G.1: Attrition and Reasons for Non-response

Panel A: Attrition				
	(1) Non-coethnic	(2) Coethnic	(3) Interaction.	(4) Coethnic dummy
Bank conflict exposure	-0.018	-0.119***	-0.018	
	(0.013)	(0.017)	(0.013)	
Bank coethnic city			0.036	0.029
			(0.023)	(0.023)
Bank coethnic city × Bank conflict exposure			-0.102***	
			(0.021)	
Observations	1031	820	1851	1851
R-squared	0.002	0.051	0.024	0.001

Panel B: Reasons for attrition			
	(1) Closed	(2) Requires HQ Approval	(3) No contact
Bank conflict exposure	0.014***	-0.015*	0.013
	(0.005)	(0.008)	(0.012)
Bank and city coethnic	-0.347***	0.020	0.075***
	(0.020)	(0.013)	(0.027)
Bank conflict x Bank and city coethnic	0.196***	0.009	-0.029
	(0.030)	(0.013)	(0.024)
Observations	1845	1845	1845

Notes: Panel A reports linear probability models of re-interview (wave 2), with columns (1) and (2) reporting the coefficient of a regression of the change on log network-level conflict exposure on the probability of re-interview on branches in non bank-coethnic and bank-coethnic cities, column (3) an interacted regression and column (4) a regression of the probability of re-interview on a dummy for whether the branch is in a bank coethnic city nor not. Panel B reports average marginal effects from a multinomial logit for the reasons for attrition: The branch is closed, required HQ approval to participate or cannot be contacted. Standard errors in parentheses; $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. We include all branches for which we determined the location from the 2018 sample. Standard errors are clustered at the branch level.

References

Abbay, A. (2004). Diversity and state-building in ethiopia. *African Affairs*, *103*(413), 593–614.

Ahmadi, M., Clochard, G.-J., Lachman, J., & List, J. A. (2025). *Toward an understanding of discrimination when multiple channels exist* (Tech. Rep.). National Bureau of Economic Research.

Alesina, A., & La Ferrara, E. (2005). Ethnic diversity and economic performance. *Journal of economic literature*, *43*(3), 762–800.

Alonso, R., Dessein, W., & Matouschek, N. (2008, March). When does coordination require centralization? *American Economic Review*, *98*(1), 145–79.

Ashraf, Q., & Galor, O. (2013). The "out of africa" hypothesis, human genetic diversity, and comparative economic development. *American Economic Review*, *103*(1), 1–46.

Bertrand, M., & Mullainathan, S. (2001). Do people mean what they say? implications for subjective survey data. *American Economic Review*, *91*(2), 67–72.

Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., & Roberts, J. (2013). Does management matter? evidence from india. *The Quarterly journal of economics*, *128*(1), 1–51.

Bloom, N., Lemos, R., Sadun, R., & Van Reenen, J. (2015). Does management matter in schools? *The Economic Journal*, *125*(584), 647–674.

Bloom, N., Lemos, R., Sadun, R., & Van Reenen, J. (2020). Healthy business? managerial education and management in health care. *Review of Economics and Statistics*, *102*(3), 506–517.

Bloom, N., Propper, C., Seiler, S., & Van Reenen, J. (2015). The impact of competition on management quality: evidence from public hospitals. *The Review of Economic Studies*, *82*(2), 457–489.

Bloom, N., Sadun, R., & Van Reenen, J. (2015). Do private equity owned firms have better management practices? *American Economic Review*, *105*(5), 442–446.

Bloom, N., Sadun, R., & Van Reenen, J. (2016). *Management as a technology?* (Vol. 22327). National Bureau of Economic Research Cambridge, MA.

Bloom, N., & Van Reenen, J. (2007). Measuring and explaining management practices across firms and countries. *The quarterly journal of Economics*, *122*(4), 1351–1408.

Callaway, B., & Sant'Anna, P. H. (2021). Difference-in-differences with multiple time periods. *Journal of econometrics*, *225*(2), 200–230.

Colonnelli, E., Neto, V. P., & Teso, E. (2022). *Politics at work* (Tech. Rep.). National Bureau of Economic Research.

Dessein, W. (2002, 10). Authority and communication in organizations. *The Review of Economic Studies*, *69*(4), 811-838.

Easterly, W., & Levine, R. (1997). Africa's growth tragedy: policies and ethnic divisions. *The quarterly journal of economics*, 1203–1250.

Espinosa, M., & Delfino, A. (2024). Value dissonance at the workplace. In *Academy of management*

proceedings (Vol. 2024, p. 14851).

Ferrara, E. L. (2003). Kin groups and reciprocity: A model of credit transactions in ghana. *American economic review*, *93*(5), 1730–1751.

Fessha, Y. T. (2016). *Ethnic diversity and federalism: Constitution making in south africa and ethiopia*. Routledge.

Fietz, K. M., & Schmeißer, A. (2024). *Racial peer effects at work: Evidence from worker deaths in brazil* (Tech. Rep.). The World Bank.

Fisman, R., Paravisini, D., & Vig, V. (2017). Cultural proximity and loan outcomes. *American Economic Review*, *107*(2), 457–492.

Fisman, R., Sarkar, A., Skrastins, J., & Vig, V. (2020). Experience of communal conflicts and intergroup lending. *Journal of Political Economy*, *128*(9), 3346–3375.

Fos, V., Kempf, E., & Tsoutsoura, M. (2022). *The political polarization of corporate america* (Tech. Rep.). National Bureau of Economic Research.

Garicano, L. (2000). Hierarchies and the organization of knowledge in production. *Journal of political economy*, *108*(5), 874–904.

Gebre, Y. (2010). Cultural contact and change in naming practices among the aari of southwest ethiopia. *Journal of African Cultural Studies*, *22*(2), 183–194.

Gennaioli, N., Limodio, N., & Strobbe, F. (2019). Branch management and firm credit.

Hellerstein, J. K., & Neumark, D. (2008). Workplace segregation in the united states: Race, ethnicity, and skill. *The review of economics and statistics*, *90*(3), 459–477.

Hjort, J. (2014). Ethnic divisions and production in firms. *The Quarterly Journal of Economics*, *129*(4), 1899–1946.

Hjort, J. (2021). Ethnic investing and the value of firms.

Kaplan, S. (1992). *The beta israel (falasha) in ethiopia: from earliest times to the twentieth century*. NYU Press.

Kefale, A., Kamusella, T., & Van der Beken, C. (2021). *Eurasian empires as blueprints for ethiopia: From ethnolinguistic nation-state to multiethnic federation*. Routledge.

Korovkin, V., & Makarin, A. (2023). Conflict and intergroup trade: Evidence from the 2014 russia-ukraine crisis. *American Economic Review*, *113*(1), 34–70.

Lang, J. (1986). *Bullion johannesburg: men, mines and the challenge of conflict*. Johannesburg: J. Ball.

Lazear, E. P. (1999). Culture and language. *Journal of political Economy*, *107*(S6), S95–S126.

Lemos, R., & Scur, D. (2019). The ties that bind: implicit contracts and management practices in family-run firms.

Li, H., Li, J., Mukherjee, A., & Vasconcelos, L. (2025). Managing loyalty in hierarchical organizations.

Liberti, J. M., & Mian, A. R. (2008). Estimating the effect of hierarchies on information use. *The Review of Financial Studies*, *22*(10), 4057–4090.

Miguel, E., & Gugerty, M. K. (2005). Ethnic diversity, social sanctions, and public goods in kenya. *Journal of public Economics*, *89*(11-12), 2325–2368.

Morelli, M., Ogliari, L., & Hong, L. (2024). Power mismatch and civil conflict: an empirical investigation. *Economic Policy*, *39*(117), 45–105.

Nyssen, J., & Demissie, B. (2023). Administrative and ethno-linguistic boundaries of western tigray (ethiopia) since 1683. *Journal of Maps*, *19*(1), 2257249.

Rasul, I., & Rogger, D. (2015). The impact of ethnic diversity in bureaucracies: evidence from the nigerian civil service. *American Economic Review*, *105*(5), 457–461.

Rasul, I., & Rogger, D. (2018). Management of bureaucrats and public service delivery: Evidence from the nigerian civil service. *The Economic Journal*, *128*(608), 413–446.

Regasa, D., Fielding, D., & Roberts, H. (2022). Ethnicity, banking and local economic development: evidence from ethiopia. *Journal of African Economies*, *31*(5), 409–440.

Rohner, D., Thoenig, M., & Zilibotti, F. (2013). Seeds of distrust: Conflict in uganda. *Journal of Economic Growth*, *18*, 217–252.

Skrastins, J., & Vig, V. (2019). How organizational hierarchy affects information production. *The Review of Financial Studies*, *32*(2), 564–604.

Spenkuch, J. L., Teso, E., & Xu, G. (2023). Ideology and performance in public organizations. *Econometrica*, *91*(4), 1171–1203.