

The Demand for Extraterritoriality

Religious Minorities in Nineteenth-Century Egypt

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Abstract

The literature has long debated the role of European legal protection afforded to local religious minorities in the Middle East in explaining non-Muslims' prominence in trade and finance, and better socioeconomic status. European consuls could extend their extraterritorial privileges, provided and protected by concessionary agreements with the Ottoman Empire, to non-European non-Muslims. These protégés had the same status as Europeans in the region: subjects of European laws and consular courts. But this debate has largely focused on the Ottoman Empire's experience relying on qualitative evidence or court records. This paper provides novel evidence on the expansion of protégé populations using Egypt's individual-level population census samples of 1848 and 1868. We show that the protégé take-up was negligible among Coptic Christians (94% of Egypt's non-Muslims), and reached 10-20% among Jews and non-Coptic Christians, qualifying the protégés' impact in driving the local non-Muslims' economic fortunes. We then investigate the determinants of non-Muslims' demand for legal protection. Our evidence is inconsistent with the view that protégés were selecting into European jurisdictions to access better, more flexible rules for business organization. Instead, the findings support the significance of spatial and occupational networks with greater European presence, where contracting between Europeans was likely unavoidable, in driving the adoption of legal protection among locals. This evidence is consistent with the view that legal protection, by placing contracting parties under the same law and court system, reduced uncertainty in an environment where the co-existence of multiple legal systems created judicial chaos.

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1 Introduction

The socioeconomic superiority of local non-Muslim minorities relative to the Muslim majority in the Middle East is a longstanding phenomenon that dates back to the early medieval period (Saleh 2018).¹ During the nineteenth century, these disparities persisted or even widened. As non-Muslim minorities, mainly Jews, Levantine Christians, Armenians, and Ottoman Greeks, became more prominent in trade and finance, Muslims withdrew from these domains. In many urban centers of the Eastern Mediterranean, the socioeconomic disparities were potentially accentuated by the legal protection they secured from European missions. These Ottoman “capitulations” were concessionary agreements with the Western Powers that provided Europeans with extraterritorial legal privileges, and were later extended to native non-Muslim minorities. By becoming a protégé of a Western power, local non-Muslims became pseudo-European subjects, thereby receiving tax exemptions, placing themselves out of the local courts’ reach, and acquiring access to European laws.

While the protégés’ role in bolstering non-Muslims’ economic success in the Ottoman Empire has received considerable attention in the literature (Kuran 2004, Artunç 2015), the evidence on this thesis remains limited in two ways. First, it is either qualitative or based on Ottoman court records in which non-Muslim urban elites and protégés are over-represented. Hence, it does not enable us to understand the extent of legal protection among the region’s entire non-Muslim population. This is crucial for evaluating the role of legal protection in generating broad disparities. Second, the evidence is focused on the Ottoman Empire and thus overlooks the south Mediterranean where non-Muslim minorities had a fundamentally different historical experience from non-Muslims in the Ottoman “core.”² This leaves the question of how protégés fit in non-Muslims’ economic success in the Ottoman “periphery” largely understudied. This is

¹Saleh (2018) shows that Coptic Christians in Egypt were better off than Muslims by 969, as Copts shrank (via conversion to Islam) from 100% to a small yet better-off minority. Copts were more likely than Muslims to be white-collar workers (especially as mid-low bureaucrats) and artisans and less likely to be farmers and unskilled workers. These differences persisted through the nineteenth century.

²The Ottoman core describes the territories under the direct authority of the Ottoman administration in Istanbul: present-day Turkey, northern Greece, Macedonia, Bulgaria. The periphery refers to the autonomous and semi-autonomous provinces under the Mamluks and the early Arab Caliphates before they fell under Ottoman rule.

an important omission; Egyptian Coptic Christians (94% of non-Muslims in Egypt in 1848; 7% of the population) were among the largest non-Muslim minorities in the region, and Levantine Christians, Armenians, Ottoman Greeks, and Jews, who resided in the south Mediterranean, were among the largest non-Muslim groups. Within the south Mediterranean, Egypt also received significant European migration and investment during the nineteenth century, all organized under many different consular court systems, whose authority remained less checked by the local administration. In the twentieth century, certain urban non-Muslim elites in Egypt coalesced into an *haute bourgeoisie* (Tignor 1980, Artunç 2019). Educational and occupational gaps between Muslims and non-Muslims in Egypt persisted well until the mid-twentieth century (Saleh 2016). But whether European legal protection is responsible for the increase of these socioeconomic inequalities in Egypt is an open question.

This paper revisits the question of the access to legal protection by non-Muslim minorities in the Middle East by providing novel evidence from mid-nineteenth-century Egypt. As Egypt was an autonomous Ottoman province during this period before it fell under the British Occupation in 1882, the Ottoman capitulations applied to Egypt. The paper draws on a novel data source: Egypt's individual-level population census samples of 1848 and 1868 that were digitized by Saleh (2013). Unlike Ottoman court records, these censuses include everyone. The censuses include a wide range of information including most importantly religious affiliation, ethnicity, place of origin, occupational titles, and the protégé status. The paper has two objectives. The first objective is to document the empirical facts about the extent of the protégé take-up among Egypt's local non-Muslim minorities, and the religious and occupational composition of the protégés. This will enable us to understand the extent of the legal protection in accentuating the socioeconomic differences across religious groups.

The second objective is to examine the causes of the protégé take-up among Egypt's non-Muslim minorities. Here, we focus on two hypotheses. For one, the *legal quality* hypothesis explains the expansion of protégés as a flight from local laws to the more effective rules that the European legal systems provided for business organization. This view also implies a hierarchy among European jurisdictions; some countries' legal rules

might provide better or easier access to attractive enterprise forms than others. In contrast, the *legal uncertainty* hypothesis explains the demand for legal protection by its improvement of contractual credibility and reduction of transaction costs in an environment where multiple legal systems coexisted. All European residents in Egypt enjoyed extraterritorial rights. The European consular courts, applying the respective country's laws, had competence over commercial affairs involving their subjects. This legal framework led to a great deal of uncertainty, with more than 15 overlapping jurisdictions, about which law would apply to any contract. One way to grapple with this uncertainty was to become a protégé, which placed both contracting parties under the same law. Importantly, our period of study precedes the creation of Egypt's Mixed Courts in 1875 that were meant to address the legal pluralism issue.

The 1848 and 1868 census samples enable us to identify protégés, including both European immigrants and non-European-origin (non-Muslim) protégés who acquired the protégé status. We use ethnicity, name, and place of origin, in order to distinguish European immigrants from non-European protégés. We augment the samples by two over-samples of non-Muslims in Cairo in each of 1848 and 1868. We restrict our pooled sample to adult local non-Muslim³ men who reside in Cairo and Alexandria. We focus on these two cities, because they include almost all protégés.⁴

We first document the empirical facts about Egypt's protégés, finding that protégés were about 6% of the local non-Muslim population of Cairo and Alexandria, and this proportion remained unchanged in 1848–1868. The proportion of protégés was negligible among Coptic Christians, and 15% among Jews and non-Coptic Christians. The two groups constituted only 6% of Egypt's non-Muslim population. This suggests a limited role of legal protection in driving the socioeconomic disparities. We also show that protégés were mostly white-collar workers, and specifically workers in trade and finance. We thus interpret the inter-religious differences in the protégé take-up by the occupational differences between religious groups. Jews and non-Coptic Christians' so-

³According to the Egyptian censuses, they are not all "locals." Coptic Christians and Jews are Egyptians from the viewpoint of the censuses. Non-Coptic Christians (Levantine Christians, Armenians, Ottoman Greeks) are Ottoman non-Egyptian subjects.

⁴Cairo and Alexandria do not include all non-Muslims, though. The majority of Coptic Christians reside in rural provinces.

cioeconomic advantage came from trade and finance, where the protégé status presumably mattered; Copts' advantage stemmed from their over-representation in the mid-low bureaucracy and artisanship, where the protégé status was less beneficial.

We then turn to evaluating the two hypotheses in the context of the historical and econometric evidence. The findings are not consistent with the view that legal quality was an important determinant of acquiring legal protections. In most European countries, especially in 1848, incorporation was costly and required authorization from that country's government. While some European legal systems introduced important reforms, such as general incorporation statutes, between 1848 and 1868, these jurisdictions did not see any appreciable increase in the size of their protégé populations. If anything, protégés selected into polities whose laws got more restrictive and less open with respect to business organization. Other European jurisdictions, whose commercial laws remained stagnant and needed reform, continued to attract local non-Muslims into their ranks. The revealed preference of protégés did not display a tendency toward newer or more innovative commercial laws. Substantive differences between legal systems did not inform protégés' choice of law.

We do not observe the contractual relationships that existed between European immigrants and non-European non-Muslim protégés, which is what we ideally need in order to test the legal uncertainty hypothesis. However, we construct econometric evidence on the effect of each of the occupational and spatial networks with Europeans on the protégé take-up among native non-Muslim minorities. We measure the occupational networks by the proportion of European immigrants in the occupation, and the spatial networks by the number of European neighbors in the neighborhood. We first estimate an OLS regression where we control for year (and in the case of spatial networks, neighborhood) fixed effects.⁵ We then address the potential endogeneity of each of these two regressors by using a shift-share instrumental variable, where we restrict the analysis to 1868, and use an instrumental variable for the proportion of Europeans in each occupation in 1868 that is equal to the share of Europeans in that occupation out

⁵We are not able to control for occupation fixed effects when examining the impact of occupational networks, because the occupational distribution of European immigrants remained largely stable between 1848 and 1868.

of the total number of Europeans in 1848, multiplied by the increase in the total number of Europeans between 1848 and 1868. We then normalize this by the occupation size in 1868. We employ a similar IV strategy for the number of European neighbors.

Our preliminary findings come in support of the legal uncertainty hypothesis. The OLS estimates of the effect of occupational networks reveal that when the proportion of European immigrants in the occupation rises by one standard deviation, the probability of becoming a protégé among Egypt's non-European non-Muslim population is 50% higher relative to the baseline probability (3%). The 2SLS estimates show an even larger effect. We obtain similar results when we restrict the sample to non-Coptic Christians and Jews. The OLS estimates of the effect of spatial networks show that the probability that a local non-Muslim person becomes a protégé rises by 30 percentage points when the number of European neighbors increases from the minimum to the maximum value in the census sample. These results may be compatible with alternative interpretations, though, and we are currently investigating some of these interpretations (in progress).

The determinants and the evolution of socioeconomic gaps between the Middle East's non-Muslim minorities and its Muslim majority more broadly is a rich and extensive debate ([Tagher 1951](#), [Issawi 1981](#), [Courbage et al. 1997](#), [Saleh 2018](#)). A branch of this literature has also stressed occupational gaps and specialization, with religious minorities' dominance in trade, commerce, and finance in the nineteenth century ([Panzac 1992](#), p. 194; [Eldem 1999](#), p. 258). Our results qualify the narrative that legal privileges of non-Muslims were important drivers of non-Muslim minorities' growing significance in the region's economic life. Non-Muslim protégés in the Middle East acquired access to European law and consular courts through the extension of extraterritorial concessions originally provided to European residents in the Ottoman Empire by the capitulations, lopsided agreements that the empire signed with European powers. It was this corps of merchants that came to dominate Ottoman trade ([Masters 1992](#)). [Kuran \(2011\)](#) argues that protégés owed their economic fortunes to being able to use innovative European legal rules to organize their businesses. [Artunç \(2015\)](#) stresses the value of forum shopping the protégé status conferred, instead, but agrees with the broader view that protégés dominated Ottoman trade. But studies in this literature have

generalized from the Ottoman Empire's experience and by relying on court records. We contribute to this debate by taking up this question in the context of Egypt with granular census data. We show that while legal protection was more popular among occupations involved in trade and finance, the take-up is too modest and too concentrated among the non-Coptic population, to adequately explain non-Muslims' success in Egypt.

This article also contributes to the broader scholarship on the role of European involvement in the development of non-European countries. The impact of European intervention depended on whether colonizers set up inclusive or extractive institutions ([Acemoglu and Johnson 2001](#)). Much like other states with strong central governments, Egypt was not directly colonized (at least, not until the British occupation of 1882). But it was a semi-colonial country, still under Ottoman suzerainty and subject to unequal treaties, like the capitulations, with European powers. These treaties, like they did in Japan and the Chinese Empire, granted extraterritorial privileges to Europeans; the ensuing consular interference in circumventing local legal institutions led to political concern in these semi-colonial contexts, as well ([Anghie 2007](#), [Kayaoglu and Kayaoglu 2010](#)). In the Ottoman Empire and Egypt, however, these privileges were extended to include local populations. In the Ottoman Empire, capitulations had a real impact on the evolution of commercial law and affected the direction of legal reform ([Ahmad 2000](#), [Ağır and Artunç 2021](#)). This paper provides a different facet of capitulations and semi-colonial institutions by demonstrating how widely European privileges became available to local populations and how they made use of these institutions.

Our findings on choice of law also contribute to a rich literature that views some European legal regimes to be more conducive to productive economic activity than others. Laws can differ in the degree to which they provide protection to investors, the menu of legal forms of enterprise they offer to entrepreneurs, and the flexibility in contracting ([La Porta et al. 2008](#), [Guinnane et al. 2007](#)). This scholarship has provided cross-country comparisons, constructing indices of financial development and investor protection at aggregate levels. How people on the ground viewed these legal regimes and which they preferred is not as well-understood. The protégés' sorting into European legal regimes provides an unusual setting to better understand how people viewed and

valued different laws. Our census data provides an investigation of the entire protégé populations' revealed preferences and allow us to address choice of law questions more rigorously.

2 Historical Background

Egypt remained an autonomous vassal state of the Ottoman Empire until World War I. While Ottoman sovereignty waned and became nominal after the British occupation of Egypt in 1882, Ottoman treaties with European powers were binding on Egypt, as well. Most important of these were the capitulations, concessionary agreements that gave Europeans considerable privileges, including extraterritoriality across Ottoman provinces. Thanks to the capitulations, European citizens or subjects anywhere in the Ottoman Empire, including Egypt, had the right to use their own laws and be sued in their consular courts. In the eighteenth century, these extraterritorial privileges were extended to non-Muslim Ottoman subjects who were employed by European consuls, usually as interpreters, guards, and intermediaries. The “extraterritorial” privileges of such non-Muslim minorities were formally recognized—in fact, granted—by the Ottoman administration through imperial licenses called *berats*. At first, these locals were genuine consular employees who conducted business for the European missions. But as European foreign offices modernized and replaced locals with European staff, ambassadors and consuls started selling *berats* to local non-Muslims. This arrangement led to the emergence of a lucrative market for these licenses through which local religious minorities could become protégés of European powers and acquire extraterritorial rights ([Artunç 2015](#)).

Not naturalized European subjects, but enjoying European extraterritorial rights as native Ottomans, the protégés had a hybrid legal status. They could use their European status to contract under European laws and be sued in consular courts, placing them out of Ottoman courts' reach. As Ottoman subjects, they could also move any case to an Ottoman court, but still be represented by their European consul in these proceedings. The Ottoman administration found the protégé system to be challenging to its sovereignty and so promulgated a new law in 1863 to curb the growth of protégés. The

law of 1863 no longer recognized this hybrid status, requiring native Ottomans to be subject to Ottoman laws and courts unless they became naturalized as European subjects. Many protégés indeed pursued this route, obtaining European naturalization if possible. When this law failed, the Ottoman government followed up with a new nationality law in 1869 that tried to denaturalize any one with dual status ([Arminjon 1903](#), pp. 58–67, 86–87; [Hanley 2016](#), pp. 277–98).

From an institutional perspective, Ottoman laws applied in Egypt. This includes capitulations, their extension to local populations, and the law of 1863. In practice, Egyptian rulers, after 1849, grew more lenient with European powers, giving them even more privileges, and did not curb the dispensation of legal protection to local non-Muslims. The censuses suggest that the Egyptian authorities did not make a legal distinction between non-European protégés and European nationals; protégés were enumerated by their consuls and not by census takers, even in 1848. The supply of legal protection in Egypt remained intact for our period of interest.

3 Conceptual Framework

Legal Quality Legal quality describes a broader institutional thesis which views some legal rules more innovative or more conducive to economic activity than others. Many aspects of the law can be pertinent for economic activity: judicial independence, the flexibility afforded to business organization, quality of contract enforcement, or security of property rights. Substantive differences in these rules imply an ordering of legal systems; individuals will select into the legal jurisdiction that best fits their preferences, subject to other constraints. [Kuran \(2011\)](#) argues that historical institutions associated with Islamic law raised obstacles to economic development. Muslim entrepreneurs faced significant barriers to the corporation, had limited access to capital markets, could not exercise settling their estates under restrictive inheritance rules, and had to navigate a court system that systematically favored the political elite ([Kuran 2011](#), [Kuran and Lustig 2012](#), [Kuran and Rubin 2018](#)).

Legal protection offered an alternative for Egypt's non-Muslim minorities. By becoming protégés, they could acquire access to a set of laws involving lower transac-

tion costs for contracting and business organization. According to [Kuran \(2011\)](#), by the nineteenth century, innovations in European legal rules made businesses organization under European laws so much more effective than Ottoman law that the ranks of protégés proliferated in major urban centers. The exit option was also instrumental in the evolution of commercial law in the empire ([Ağır and Artunç 2021](#)).

The hypothesis that non-European non-Muslims became protégés to take advantage of better legal institutions yields two testable implications. First, if Egyptian law involved higher transaction costs for organizing modern enterprises, the take-up of legal protection should be more prevalent among occupations involved in entrepreneurship or finance; the participation of professionals (e.g. doctors, lawyers, clerks) or workers should be smaller. These protégés should also make use of better organizational forms that European laws provided, especially the corporation. Second, we should observe sorting of protégés among consular jurisdictions. The country with the most advanced commercial law should attract higher demand.

Legal Uncertainty Much like the Ottoman Empire, Egyptian commercial law in the nineteenth century was a patchwork of laws. In the absence of credible commitments, legal pluralism can lead to hold-up problems and reduce the credibility of all contracts ([Artunç 2014](#)). In Egypt, this multiplicity caused significant chaos. Since Egypt's commerce had substantial European presence, commercial disputes often involved Europeans. But, due to the capitulations, Europeans enjoyed extraterritorial privileges. This raises the question: which law applied in a commercial dispute? Consuls followed the practice of *actor sequitur forum rei*; defendants had to be sued in their consular courts under that country's law. Appeals to a consul's decision triggered a new hearing outside of Egypt, for instance, Constantinople for Great Britain, Aix for France, Ancona for Italy, Athens for Greece. This provided a distinct advantage to Europeans in their contracts with Egyptians. Even if the European partner lost the case in their consular court, they could appeal to a new court outside of Egypt, staffed by their fellow nationals, discouraging an Egyptian party from suing at all. The system was equally hectic for disputes involving two different European nationals. Forum shopping was rampant; in some cases, it could be facilitated easily by transfer of property to different nation-

als to precipitate a new action in another consular court. Facing 15 distinct consular jurisdictions, it was difficult to ascertain where any dispute would end up (Hoyle 1991, pp. 6–7).⁶ The consular court systems’ stranglehold on commerce was stifling trade to the extent that “no wise Egyptian [was] in partnership with a foreigner, nor [accepted] his surety.”⁷ Local non-Muslims were similarly unwilling to take loans from or lend to Europeans, or engage in other contractual agreements (M’Coan 1873, pp. 22–24).

Legal protection can provide an advantage in this environment. As the Egyptian administration recognized European jurisdiction over protégés, legal protection allowed local non-Muslims to contract with that country’s nationals or protégés under that country’s court system. This is distinct from legal quality; having access to a European legal jurisdiction has value because of its function as a credible commitment device, not because the law in question is “better” in some substantive way.

If non-European non-Muslims sought legal protection to reduce this uncertainty in contract enforcement, then protégé take-up should be higher in when such contractual arrangements are more likely to arise. Without data on specific contracts, we turn to spatial and occupational networks. As European presence in an occupation or social circle (for example, a neighborhood) rises, contractual arrangements with those Europeans also increase, making legal protection of those polities more attractive.

4 Data

4.1 Protégés in the Egyptian 1848 and 1868 censuses

To examine the determinants of the take-up of the protégé status and the choice of European consulate among Egypt’s local non-Muslim population, we employ Egypt’s 1848 and 1868 individual-level population censuses. These are among the earliest pre-colonial population censuses from any non-Western country, and the earliest in the Ottoman Empire, to include information on every household member including females,

⁶A contemporary legal scholar Demetriades writes, “[each] court applies a different law, and has a special procedure. . . . [The] parties to a contract . . . cannot tell, when they enter into the contract, before what jurisdiction they will have to plead in the event of any dispute, and according to what rules of law or procedure the question will be determined” (Demetriades 1891a, p. 148).

⁷Hoyle (1991), pp. 6–7, also citing *The Times*, 12 Feb. 1870.

children, and slaves. The two censuses were conducted under Muhammad Ali Pasha (1805–1848) and his grandson Khedive Ismail (1863–1879), respectively. They include a wide range of variables including location of residence down to the street address in cities, name, age, gender, religious affiliation, nationality, ethnicity (e.g., Armenian, Levantine, Greek, English), place of origin, relationship to household head, occupational title, dwelling ownership status (private owner, tenant, *waqf*, state ownership), and dwelling type (house, palace, hut, etc.) among other variables.

We employ two systematic⁸ nationally representative samples of around 80,000 observations in each of 1848 and 1868 that were constructed by Saleh (2013). For the purpose of this article, we restrict the sample to Cairo and Alexandria, where almost all protégés resided. The sampling rate is 8–10% in these two cities in each census year. We augment these systematic samples by two oversamples of non-Muslims in Cairo in each of 1848 and 1868, where 1 in 4 non-Muslim households are selected into the sample, excluding those non-Muslim households that appear in the systematic samples. Throughout the analysis we apply a personal weight that is equal to the inverse of the sampling probability. This takes into account both the difference in the sampling probability between Cairo and Alexandria in each of 1848 and 1868, and the higher sampling probability of non-Muslims in Cairo in 1848 and 1868. We further restrict the empirical analysis to non-European non-Muslim males who are aged at least above 15 years of age, with non-missing religious affiliation. In the occupational networks analysis, we further restrict the analysis to those with non-missing occupational title. In the spatial networks analysis, we restrict the analysis instead to those with non-missing coordinates.

The main outcome of interest is the protégé take-up among non-European non-Muslims. To construct this variable, we had to identify protégés of European consulates in the censuses. Furthermore, we had to distinguish Europeans, i.e. European nationals of a European polity of origin, from non-European protégés, i.e. Egyptian and non-Egyptian non-European nationals of a non-European polity of origin who acquired a

⁸The samples are constructed by stratification by province, and then selecting a page every x pages, and entering all the households that start on the page, from the beginning until the end of each province's census registers. The range of pages (x) is determined based on the target sample size, the number of pages, and the number of households that appear on a given page, in the province.

protégé status from a European consulate. We also examine a second outcome: the choice of European consulate among non-European protégés.

Protégés The population census samples enable us to identify protégés of European consulates: The 1848 population census decree dictated that protégés were to be “enumerated” by their European consulates, and not by the Egyptian census takers, and the same rule was applied in the 1868 census. No distinction is made in the decree between European-origin and non-European-origin protégés of European consulates. The default practice in compliance with this rule, is that the census takers recorded the name of the protégé household head, their street address, and their dwelling information, with a note that generally takes the form: “not enumerated in the census [because] the individual is a protégé of consulate *x*.” In this case, no further individual-level information is provided, and the household members are not recorded. However, census takers varied in the additional individual-level information that they recorded about protégés, implying that that they had some discretionary leeway in interpreting the decree. Therefore, to identify protégés, we first identified all individuals who are recorded to be protégés of European consulates. We then added to the universe of protégés all individuals with a European polity of origin, even if they are not explicitly recorded as protégés. The latter omission presumably arises because the census takers found the recorded information on ethnicity (e.g. French, English) sufficient to indicate the protégé status. Three remarks are in order. First, Persians are an important exception of our definition of protégés; according to the Egyptian censuses, Persians are protégés of the Persian consulate (*bilad al-‘ajam*) and thus not enumerated by the Egyptian census takers. However, we excluded them from our definition of protégés, because they are not under the legal protection of a European polity. Second, we included protégés of the U.S. consulate in our definition of protégés of European polities. Third, interestingly, we also find that 11% of the protégés in our sample are Muslims: these are mostly Algerian immigrants with Muslim names who are (self-)reportedly French protégés. We exclude Muslims from the analysis, because our focus is on the acquired protégé status among the local population. As far as we know, Muslims were not allowed to become protégés during this period.

European versus Non-European Protégés To further distinguish European and non-European non-Muslim protégés, we first employed the protégé’s place of origin and/or ethnicity,⁹ whenever they are available. For the vast majority of protégés, the two variables are missing though, and hence we had to rely on names. We classified as European-origin protégés, those with a European-sounding name, and as non-European-origin protégés, those with a non-European-sounding name. For a minority of protégés, we were not able to determine whether they are Europeans or not, because their names are neutral-sounding taking into account the Arabization of familiar foreign names by the Egyptian census takers. Examples include Musa (Moses), Youssef (Joseph), Yaqoub (Jacob), Dawoud (David). We thus dropped these unclassified protégés from the sample. It is generally not possible though to further classify non-European-origin protégés into Egyptians and non-Egyptians, because their names are often too similar to those of Egyptian Copts and Jews.

Religious Affiliation The censuses record the religious affiliation. When the variable is missing for protégés, we inferred the religious affiliation from the name. We are able to distinguish Jews, Copts, and non-Coptic Christians, except in a small number of cases. This variable enables us to examine the protégé take-up by religious group.

European Polity of Choice The Egyptian censuses record for the vast majority of non-European protégés their European polity of choice. We first standardized the European polities according to the political map of European polities in 1848 and 1868. We then homogenized the polities across the two censuses, in order to have comparable polities over time. For example, we aggregated the independent Italian states in 1848 to Italy in 1868. Similarly, we aggregated the Austrian Empire and the Hungarian Kingdom in 1848 to the Austro-Hungarian Empire in 1868.

⁹The nationality variable does not enable us to distinguish European and non-European protégés; by definition, all protégés are considered “outside the Egyptian government’s control” (i.e. foreigners). Not all foreigners are protégés of European polities, though: non-Egyptian Ottoman subjects such as Ottoman Greeks, Levantines, and Armenians, are foreigners or “outside the Egyptian government’s control,” yet they are not protégés, and are thus enumerated by the Egyptian census takers.

4.2 Data on Regressors

To test whether the demand for legal protection among non-European non-Muslims is driven by local non-Muslims' occupational and spatial networks with European immigrants, we measure both types of networks in the census samples.

Occupational Networks The censuses record the occupational titles for men. As we mentioned above, the occupational title is available for only a subset of protégés, though. Occupations are coded using the HISCO occupational code. We create three aggregate occupational groups: white-collar workers, artisans, and unskilled workers.¹⁰ This variable enables us to examine the protégé take-up by occupational group. Using HISCO occupational codes, we measure the occupational networks with European-origin protégés (henceforth, Europeans) among local non-Muslims by the proportion of Europeans in the 5-digit HISCO occupational code.

Spatial Networks To examine the effect of spatial networks with Europeans on local non-Muslims' demand for legal protection, we employ the street address. We use the coordinates of street centroids in Cairo and Alexandria that is constructed by [Lévêque and Saleh \(2018\)](#). The percentage of individuals with non-missing coordinates in the original geolocalization exercise is 79% in Cairo's systematic samples in each of 1848 and 1868, and 41% and 66% in Alexandria in 1848 and 1868, respectively.¹¹ The original geolocalization is not conducted for Cairo's oversamples. We thus impute the coordinates for street centroids in the systematic samples with missing coordinates, and for street centroids in the oversamples of non-Muslims in Cairo. To do so, we exploit the fact that the census registers follow a spatial order; census takers were enumerating individuals moving from one street to the next within the same urban quarter. We thus assign the coordinates of the individual in the nearest page in the same census register within the same urban quarter. This imputation results in increasing the percentage of individuals with non-missing coordinates to 100% in Cairo in each of 1848 and

¹⁰Recall that we restrict the sample to Cairo and Alexandria, and hence we do not observe farmers.

¹¹Geolocalization is done by matching street names to current streets in Google Maps, and is augmented by historical information on street locations. The lower geolocalization rate in Alexandria is because street names were more likely to change over time.

1868 (both in the systematic and oversamples of non-Muslims) and to 83% and 80% in Alexandria in 1848 and 1868, respectively. Using the coordinates of street centroids, we measure the spatial network with Europeans for each local non-Muslim in the sample by the number of their European neighbors within a radius of 250 meters.

4.3 Descriptive Statistics

Table 1 documents the religious and occupational composition of the non-European non-Muslim adult male population of Cairo and Alexandria in 1848 and 1868 by protégé status. We first note that protégés are only 6% of the non-European non-Muslim population of Cairo and Alexandria. The proportion of protégés among Coptic Christians is negligible, whereas the proportion of protégés reaches 15% among Jews and non-Coptic Christians; the two groups constituted only 6% of Egypt’s non-Muslim population. This suggests a limited role of legal protection in driving the socioeconomic disparities. We interpret the inter-religious differences in the protégé take-up by the occupational differences across religious groups. Unlike Jews and non-Coptic Christians, whose socioeconomic advantage stemmed from trade and finance, where the protégé status presumably mattered, Copts’ advantage stemmed from their over-representation in the mid-low bureaucracy and artisanship where the protégé status played less of a role. Consistent with this interpretation, we find that protégés are more likely to be white-collar workers, and in particular, workers in trade and finance.

Table 1: Religious and Occupational Composition of the Non-European Non-Muslim Adult Male Population of Cairo and Alexandria in 1848 and 1868 by protégé status

	Non-Protégés			Protégés			Diff
	N	Mean	SD	N	Mean	SD	
=1 if Coptic Christian	4233	0.51	0.50	299	0.00	0.05	-0.504***
=1 if non-Coptic Christian	4233	0.36	0.48	299	0.64	0.48	0.275***
=1 if Jew	4233	0.13	0.34	299	0.36	0.48	0.229***
=1 if white-collar	3549	0.45	0.50	107	0.62	0.49	0.171***
=1 if trade or finance worker	3549	0.29	0.45	107	0.53	0.50	0.246***
=1 if artisan	3333	0.36	0.48	105	0.27	0.45	-0.093*
=1 if unskilled worker	3333	0.16	0.36	105	0.08	0.27	-0.080**

Notes: The statistics are weighted by the inverse sampling probability of individuals. Sample is restricted to non-European non-Muslim men who are at least 15 years of age residing in Cairo and Alexandria. Sources: The 1848 and 1868 population census systematic samples, and the two over-samples of non-Muslims in Cairo in 1848 and 1868.

5 Historical and Econometric Evidence

5.1 Legal Quality

Our findings demonstrate that, at least in nineteenth-century Egypt, non-Muslim minorities were not becoming protégés to take advantage of differences in legal quality or gain access to the corporation. At the outset, it seems there is consistency; the take-up is stronger in trade and finance, and among non-Coptic non-Muslims, who were more likely to participate in these occupations. But digging deeper, we find several pieces of evidence that rule out legal quality. First, despite the presence of European jurisdictions, and the application of these rules in Egypt, we do not see a meaningful take-up of the corporation as an enterprise form. Before 1868, only six corporations were ever founded, three under British law, one under French law, and two under Egyptian law.¹²

For the second piece, we turn to the revealed preference of protégés. If legal quality is driving the demand for legal protection, there should be a higher take-up of protection from polities with laws that provide easier access to novel enterprise forms such as the corporation. Between the two census years, 1848 and 1868, only Great Britain (1857), the Netherlands (1863), and the United States enacted general incorporation. France introduced this legislation in 1867, just a year prior to the census; Spain and Prussia, a few years after (1869 and 1870, respectively). Austria-Hungary adopted general incorporation much later, in 1899. Greece did not introduce such statutes until after the 1950s (Bogart et al. 2010, p. 85; Guinnane et al. 2007, p. 692; Pepelasis 1959, pp. 195-6). Given the variation in business law reform across European powers and the U.S., we should expect higher selection into jurisdictions that enacted such reforms. That is, the expansion of protégés between 1848 and 1868 should be driven by increases in the number of British, Dutch, and American protégés.

Our census data show that this is not the case. Table 2 reports the selection of non-European protégés into different European jurisdictions. Between the two census

¹²Compagnie Universelle du Canal Maritime de Suez in 1856, Bank of Egypt Limited in 1856, Société Anonyme des Monts-de-Piété Egyptiens in 1860, Alexandria Ramleh Railway Company Limited in 1862, Anglo-Egyptian Bank Limited in 1864, and Société Anonyme des Eaux du Caire—the only other Egyptian company among these—in 1865. See *Annuaire de la finance Égyptienne* (1907) and *Statistique des sociétés anonymes par actions travaillant principalement en Égypte*.

Table 2: Polity Choice of the Non-European Protégé Population of Cairo and Alexandria by Census Year

	1848			1868			Diff
	N	Mean	SD	N	Mean	SD	
=1 if France	108	0.18	0.39	225	0.25	0.43	0.071
=1 if Greece	108	0.13	0.34	225	0.15	0.36	0.024
=1 if Italy	108	0.31	0.47	225	0.16	0.36	-0.158***
=1 if England	108	0.08	0.28	225	0.10	0.30	0.013
=1 if Austro-Hungarian Empire	108	0.19	0.39	225	0.07	0.25	-0.120***
=1 if Russian Empire	108	0.03	0.17	225	0.04	0.20	0.008
=1 if Spain	108	0.01	0.07	225	0.17	0.37	0.162***
=1 if Prussia	108	0.00	0.00	225	0.01	0.12	0.014**

Notes: The statistics are weighted by the inverse sampling probability of individuals. Sample is restricted to Cairo and Alexandria.

Sources: The 1848 and 1868 population census systematic samples, and the two over-samples of non-Muslims in Cairo in 1848 and 1868.

years, Spain and France registered substantial increases (although the increase is not statistically significant in the case of France). In 1848, almost nobody took up Spanish protection; in 1868, 17 percent of all protégés were under Spanish jurisdiction. The French share of non-European protégés increased from 18 percent to 25 percent. One might think, based on the higher share of occupations being in trade and finance, that this significant sorting into Spanish and French jurisdictions could be driven by more efficient or commerce-friendly legal rules in these laws. However, this could not have been the case. Company law in France did not change much in this period except the Acts of 1863 and 1867. The 1863 Law standardized the authorization process for the corporations and made them less ad hoc, but incorporation still required authorization. General incorporation statutes became law only in 1867. This reform, being so late, could not have been the driver of increases in French protégés in the 1868 census, whose counts were done before 1867. Before the 1867 Act, very few corporations were founded in France itself (Rochat 2018 p. 248, 260).

Spain did not introduce its substantial legal reform during our period of study, either. The first Spanish commercial code, enacted in 1829, did introduce general incorporation. This early introduction was early among all European powers, which at the time required a costly authorization procedure. However, the outbreak of a civil war, which lasted from 1833 to the early 1840s, and the economic crisis of 1845, which the govern-

ment blamed on speculative behavior and the crash of the stock market, put an end to this easy access to the corporate form. The subsequent 1848 Law reintroduced an ad hoc authorization process to form a corporation (or any company whose capital was divided into shares). Free incorporation was only restored in 1869, following the overthrow of the Spanish monarchy through a coup ([Martínez-Rodríguez 2018](#), pp. 301–03). There were almost no Spanish protégés reported in the 1848 census, when Spanish laws were uniquely liberal with free access to the corporation. In 1868, there was a remarkable increase in Spanish protégés despite Spanish commercial code being its most restrictive between 1848 and 1869. As a result, the increase in the Spanish share of protégés, specifically driven by higher take-up by Jews in Alexandria, cannot be explained by the “quality” of Spain’s commercial law.¹³ The likelier explanation is also more mundane; as Spanish trade expanded in the Levant, they turned to recruiting local non-European non-Muslims, especially the Sephardim, who were already prominent forces in the region’s finance and trade, to intermediate Spain’s trade ([Asuero 2007](#), p. 170).

Among the countries that did introduce general incorporation statutes between 1848 and 1868—Great Britain, the Netherlands, or the United States—the take-up of legal protection did not change much. The Netherlands and the United States had very few protégés. Those under British legal protection constituted less than 10 percent of all protégés; the increase in British protégés between the two censuses was modest and was not statistically significant. Non-European protégés did not turn to these jurisdictions with higher demand after the introduction of novel legal reforms that the literature stressed in distinguishing legal quality.

Despite the availability of the corporation in these legal regimes, other jurisdictions attracted a consistently higher share of protégés. Most significantly, Greece accounted for 12 to 14 percent of legal protections, despite Greek commercial law having significant issues at the time. Incorporation required state authorization, which remained a lengthy and costly process into the 1900s. The Greek commercial code was transplanted from France but the French civil law was left out. Instead, Byzantine law was the single source of all Greek civil law. Hence, the Greek commercial code lacked fun-

¹³Our census data show that, 55 percent of Spanish protégés in 1868 were Jewish; the rest were non-Coptic Christians.

damental provisions, even the basic definition of a company or joint ownership, and was filled with many anachronistic rules, such as archaic ceilings on interest rates, and other inconsistencies. The consequent confusion severely limited contract credibility and dependability of transactions (Pepelasis 1959, pp. 185–88, Ađır and Artunç 2021).

Overall, our findings are not consistent with legal quality being a significant determinant of legal protection of any polity. The corporation was costly even in most of the European countries in question, and when the access was made more open, those polities did not register an increase in protégés. But where the access was shut down, their protégé population picked up. Some polities continued to attract protégés despite maintaining commercial laws that arguably involved more transaction costs. At least in Egypt, between 1848 and 1868, non-European non-Muslims had different motives.

5.2 Legal Uncertainty

Our analysis of the census data provide more detailed evidence that suggest the importance of legal uncertainty in driving the spread of legal protection. While we do not observe the contractual relationships that local non-Muslims might have had with Europeans, which is what we ideally need to test the legal uncertainty hypothesis, we examine two types of networks in which these contractual relationships are most likely to emerge: occupational and spatial networks. Table 3 shows the occupational and polity composition of the European immigrant population in Cairo and Alexandria between 1848 and 1868. Two key patterns emerge. (1) The occupational distribution of Europeans remained largely stable between 1848 and 1868, with a majority in white-collar jobs, especially those related to trade and finance, followed by artisanal jobs. (2) The polity distribution of Europeans changed between 1848 and 1868, shifting from English immigrants to French and Italian immigrants. The proportion of Russians and Austro-Hungarians declined as well.

First, we examine whether non-European non-Muslims are more likely to become protégés if they work in occupations with a higher proportion of European immigrants. To address the potential endogeneity of this regressor, we employ a shift-share instrument where we restrict the analysis to 1868, and use an instrumental variable for the proportion of Europeans in each occupation in 1868 that is equal to the share of Euro-

Table 3: Occupational and Polity Composition of the European Population of Cairo and Alexandria by Census Year

	1848			1868			Diff
	N	Mean	SD	N	Mean	SD	
=1 if white-collar	237	0.49	0.50	231	0.54	0.50	0.055
=1 if trade or finance worker	237	0.30	0.46	231	0.30	0.46	0.009
=1 if artisan	233	0.41	0.49	220	0.28	0.45	-0.127***
=1 if unskilled worker	233	0.09	0.28	220	0.14	0.35	0.054*
=1 if France	530	0.11	0.31	1102	0.39	0.49	0.284***
=1 if Greece	530	0.20	0.40	1102	0.24	0.43	0.040*
=1 if Italy	530	0.11	0.31	1102	0.19	0.39	0.077***
=1 if England	530	0.35	0.48	1102	0.11	0.31	-0.241***
=1 if Austro-Hungarian Empire	530	0.13	0.34	1102	0.04	0.20	-0.087***
=1 if Russian Empire	530	0.06	0.23	1102	0.02	0.12	-0.041***
=1 if Spain	530	0.01	0.09	1102	0.01	0.10	0.002
=1 if Prussia	530	0.02	0.13	1102	0.01	0.07	-0.012*

Notes: The statistics are weighted by the inverse sampling probability of individuals. Sample is restricted to Cairo and Alexandria.

Sources: The 1848 and 1868 population census systematic samples, and the two over-samples of non-Muslims in Cairo in 1848 and 1868.

peans in that occupation out of the total number of Europeans in 1848, multiplied by the increase in the total number of Europeans between 1848 and 1868. We then normalize this by the occupation size in 1868. We are currently working on using the country of origin shares in the construction of the instrumental variable.

Table 4 reports the estimates of these OLS and 2SLS regressions where the dependent variable is a dummy variable =1 if a non-European non-Muslim individual is a protégé of a European consulate. The explanatory variable is the proportion of Europeans in that occupation. In the OLS regressions, we control for year fixed effects (i.e. a dummy variable for the 1868 census), in order to account for aggregate shocks to protégé take-up between 1848 and 1868. However, we are not able to include occupation fixed effects in the OLS regressions because the occupational distribution of European immigrants remained largely stable between 1848 and 1868. The 2SLS regressions are restricted to 1868 and hence we cannot include year or occupation fixed effects. We find that non-European non-Muslims are more likely to become protégés the higher the proportion of European immigrants in their occupation. According to the OLS estimates for the full sample of adult local non-Muslim men in column (1), we

find that an increase in the proportion of Europeans by one standard deviation ($=0.05$) is associated with an increase in the baseline probability of becoming a protégé ($=3\%$) by 50%. The 2SLS estimates in column (2) reveals an even stronger effect as the baseline probability of becoming a protégé doubles. Restricting the sample to non-Coptic Christians and Jews in columns (3) and (4) results in similar yet noisier estimates.

Table 4: Occupational Networks with Europeans and the Protégé Take-up among the Non-European Non-Muslim Population of Cairo and Alexandria

	All Non-Muslims		Non-Coptic Christians & Jews	
	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS
Prop. Europeans in occupation	0.30 (0.15)*	1.26 (0.58)**	0.31 (0.23)	1.41 (0.74)*
Year FE?	Yes	No	Yes	No
Obs (individuals)	3656	2036	1560	898
Clusters (Occupations)	145	104	109	79
R^2	0.01	0.04	0.01	0.04
Mean dep. var.	0.03	0.03	0.03	0.03
KP Wald F -stat	.	19.45	.	17.53

Notes: The dependent variable is equal to 1 if the individual is a protégé of a European consulate. The regressions are weighted by the inverse sampling probability of individuals. The 2SLS is conducted in 1868 only. Sample is restricted to the adult (≥ 15) male non-European non-Muslim population of Cairo and Alexandria with non-missing religious affiliation and occupational title. Sources: The 1848 and 1868 population census systematic samples, and the two over-samples of non-Muslims in Cairo in 1848 and 1868.

Second, we examine whether non-European non-Muslims are more likely to be protégés the higher the concentration of Europeans in their neighborhood (within a 250 meters radius). We employ a similar instrumental strategy, where we restrict the analysis to 1868 and use an instrumental variable for the number of European neighbors in a given neighborhood in 1868 that is equal to the share of European neighbors in that location out of the total number of Europeans in 1848, multiplied by the increase in the total number of Europeans between 1848 and 1868.

Figures 1 and 2 show the spatial distribution of European immigrants in each of Cairo and Alexandria in 1848 and 1868. The maps suggest that the spatial distribution of European immigrants witnessed some changes between 1848 and 1868 in each city. We exploit this fact in the empirical specification by controlling for neighborhood fixed

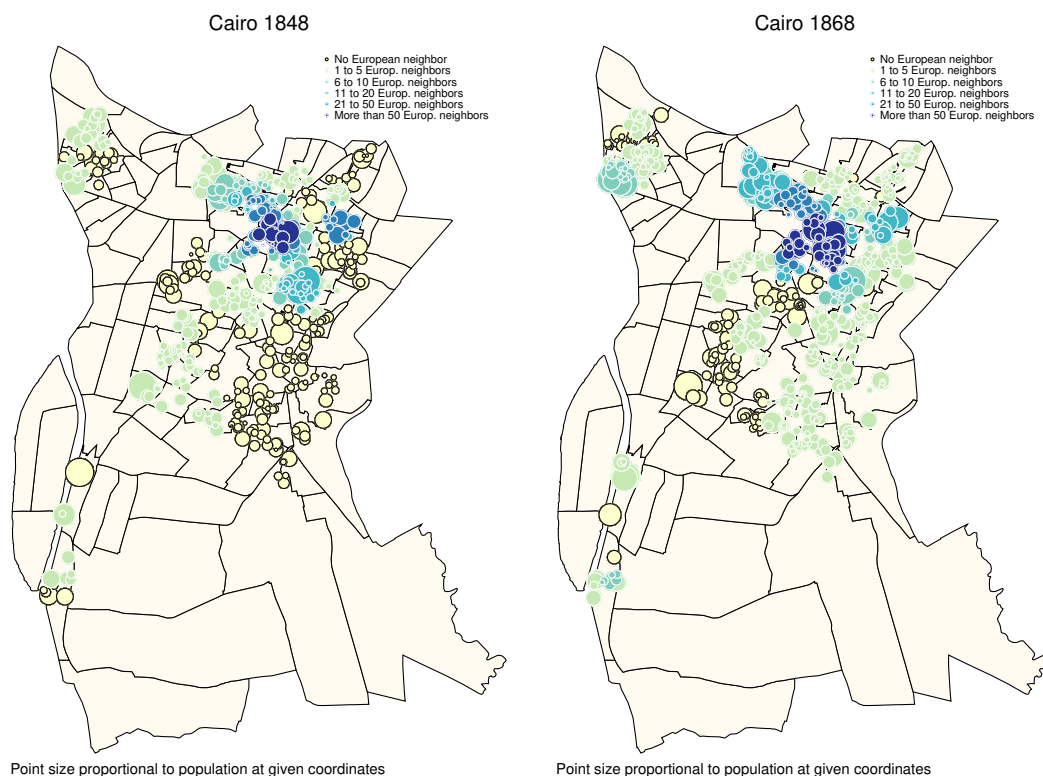


Figure 1: Spatial Distribution of European Immigrants in Cairo in 1848 and 1868

effects. This enables us to exploit the change in the number of European neighbors between 1848 and 1868 in a given neighborhood.

The results are shown in Table 5. Again, the dependent variable is a dummy variable =1 if a non-European non-Muslim individual is a protégé of a European consulate. The main explanatory variable here is the number of European neighbors within a 250-meters radius, normalized to lie between 0 and 1, with 0 being the minimum value in the sample, and 1 the maximum value. In the OLS regressions, we control for both year and neighborhood fixed effects. These account for aggregate shocks to the protégé take-up in 1848–1868, and for neighborhood time-invariant heterogeneity in the protégé take-up, respectively. The OLS estimates in column (1) reveal that an increase in the number of European neighbors from the minimum to the maximum value in the sample is associated with an increase in the probability of becoming a protégé by 30 percentage points. The 2SLS estimates in column (2) shows a larger effect. Restricting the sample to Jews and non-Coptic Christians results in similar yet noisy estimates, presumably because of the high concentration of these two groups in a small number of neighborhoods

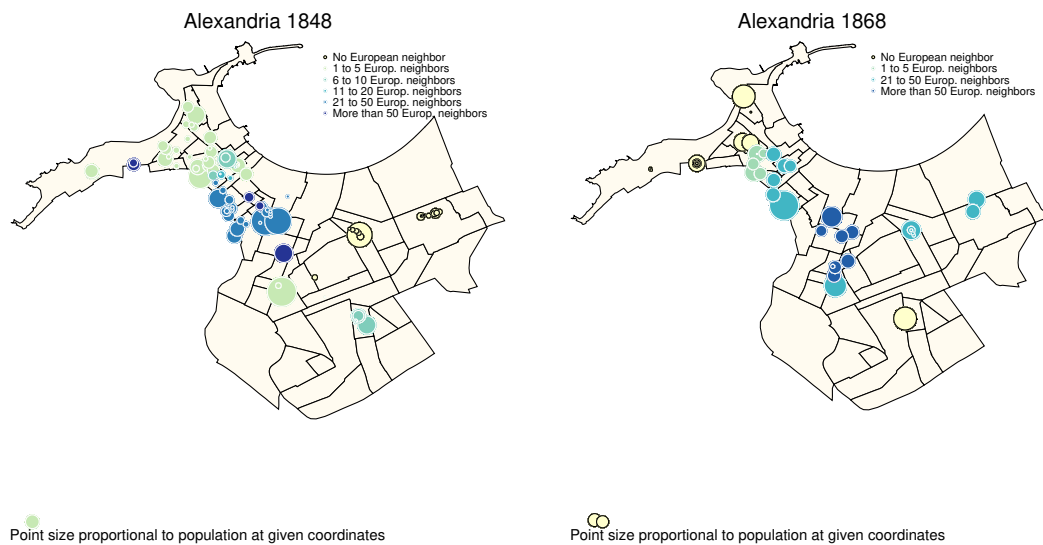


Figure 2: Spatial Distribution of European Immigrants in Alexandria in 1848 and 1868

in Cairo and Alexandria.

Overall, these results suggest that occupational and spatial networks with European immigrants are important drivers of the demand for the take-up of legal protection among local non-Muslim men. The results are consistent with the qualitative evidence. Contemporary reporting and scholarship found that locals were not willing to enter into contractual arrangements—whether partnerships, debt contracts, mortgages, or even bills of exchange—with Europeans due to the “absolute judicial chaos” that consular jurisdictions generated (Hoyle 1991, p. 7; Demetriades 1891b, p. 255; M’Coan 1873, pp. 22–28). These contractual arrangement would more likely need to arise within social and occupational networks. Our evidence shows that European presence in an occupation or a neighborhood drives up the probability of a non-European non-Muslim becoming a protégé. While this does not rule out alternative explanations, such as information dissemination or referral, the combination of qualitative evidence and our empirical analysis supports the view that non-European non-Muslims became protégés so that they could safely contract with Europeans.

Table 5: Spatial Networks with Europeans and the Protégé Take-up among the Non-European Non-Muslim Population of Cairo and Alexandria

	All Non-Muslims		Non-Coptic Christians & Jews	
	(1) OLS	(2) 2SLS	(3) OLS	(4) 2SLS
N. Europeans in 250m radius	0.30 (0.15)**	0.27 (0.14)**	0.39 (0.27)	0.28 (0.31)
Year FE?	Yes	No	Yes	No
Location FE	Yes	No	Yes	No
Obs (individuals)	4326	1945	1896	763
Clusters (Locations)	219	134	162	96
R^2	0.14	0.04	0.13	0.00
Mean dep. var.	0.06	0.06	0.06	0.06
KP Wald F -stat	.	13.07	.	4.26

Notes: The dependent variable is equal to 1 if the individual is a protégé of a European consulate. The regressions are weighted by the inverse sampling probability of individuals. The 2SLS is conducted in 1868 only. Sample is restricted to the adult (≥ 15) male non-European non-Muslim population of Cairo and Alexandria with non-missing religious affiliation, coordinates, and matched location between 1848 and 1868.

Sources: The 1848 and 1868 population census systematic samples, and the two over-samples of non-Muslims in Cairo in 1848 and 1868.

6 Conclusion

Capitulations were originally granted to promote trade and attract European enterprises to the Ottoman Empire. These concessions granted extraterritorial privileges to European residents, allowing them to contract and be litigated under their consular courts. But the proliferation of consular courts, with overlapping jurisdictions, caused considerable uncertainty about which law would apply and in which court a case would be heard. Legal pluralism posed a significant problem by creating transaction costs in the contractual environment and was only effectively resolved with a comprehensive reform: the creation of the Mixed Courts in 1875. Before the Mixed Courts, Egypt's non-Muslim minorities became protégés of European polities to reduce this uncertainty as contracting with the expanding European population in certain occupations had become inevitable. Until then, for non-European non-Muslims, the next best option was to place themselves under European jurisdictions. This allowed to more credibly contract with nationals and other protégés of that polity. Occupational and spatial networks

were critical determinants of how legal protection expanded. As Europeans became more prominent in an occupation or neighborhood, more local non-Muslims sought to become protégés.

Our evidence also demonstrates that we need to rethink how protégés fit into the larger debates in the Middle East's economic history. While we do not dispute the conclusions the literature has made about the Ottoman Empire, we show that those do not necessarily generalize to the rest of the Middle East. Egypt had a different institutional set up and different arrangements with colonial powers. At the outset, Egypt shared similar stylized facts: large disparities between Muslims and non-Muslims in socio-economic outcomes, Muslims' relatively weak participation in certain sectors. But the protégé population was too concentrated among non-Coptic non-Muslims to explain broad socioeconomic inequalities, its size too modest and members' occupations too varied to be the key determinant of the rise of the region's haute bourgeoisie. In some cases, foreign missions preferred to bring populations who were already prominent in the region's commercial life under consular protection in order to intermediate that country's trade.

References

- Acemoglu, D. and Johnson, S. (2001). The colonial origins of comparative development: An empirical investigation. *American Economic Review*, 91(5):1369–1401.
- Ahmad, F. (2000). Ottoman perceptions of the capitulations 1800–1914. *Journal of Islamic Studies*, 11(1):1–20.
- Anghie, A. (2007). *Imperialism, sovereignty and the making of international law*, volume 37. Cambridge University Press.
- Arminjon, P. (1903). *Étrangers et protégés dans l'Empire ottoman*, volume 1. A. Chevalier-Maresq & cie.
- Artunç, C. (2019). Religious minorities and firm ownership in early twentieth-century Egypt. *The Economic History Review*, 72(3):979–1007.
- Artunç, C. (2014). *Barrators, Berats, and Bandits: Economic Implications of Legal Rules in the Ottoman Empire and Egypt, 1600-1921*. PhD thesis, Yale University.
- Artunç, C. (2015). The price of legal institutions: the *Beratlı* merchants in the eighteenth-century Ottoman Empire. *Journal of Economic History*, 75(03):720–749.
- Asuero, P. M. (2007). The Spanish consulate in Istanbul and the protection of the Sephardim (1804–1913). *Quaderns de la Mediterrania* 1/4 *Cuadernos del Mediterraneo*, 88:169–178.
- Ağır, S. and Artunç, C. (2021). Set and forget? the evolution of business law in the Ottoman Empire and Turkey. *Business History Review*.
- Bogart, D., Drelichman, M., Gelderblom, O., and Rosenthal, J.-L. (2010). State and private institutions. In Broadberry, S. and O'Rourke, K. H., editors, *The Cambridge Economic History of Modern Europe: Volume 1, 1700–1870*, pages 70–95. Cambridge University Press, Cambridge.
- Courbage, Y., Fargues, P., and Mabro, J. (1997). *Christians and Jews under Islam*. Tauris London.
- Demetriades, D. (1891a). Administration of justice in the Levant I. *Jurid. Rev.*, 3:145.
- Demetriades, D. (1891b). Administration of justice in the Levant II. *Jurid. Rev.*, 3:245.
- Eldem, E. (1999). *French trade in Istanbul in the eighteenth century*, volume 19. Brill.

- Guinnane, T. W., Harris, R., Lamoreaux, N. R., and Rosenthal, J.-L. (2007). Putting the Corporation in its Place. *Enterprise and Society*, 8(3):687–729.
- Hanley, W. (2016). What ottoman nationality was and was not. *Journal of the Ottoman and Turkish Studies Association*, 3(2):277–298.
- Hoyle, M. (1991). *Mixed Courts of Egypt*. Brill.
- Issawi, C. P. (1981). *The Arab World's Legacy*. Darwin Press.
- Kayaoglu, T. and Kayaoğlu, T. (2010). *Legal imperialism: Sovereignty and extraterritoriality in Japan, the Ottoman Empire, and China*. Cambridge University Press.
- Kuran, T. (2004). The religious ascent of the middle east's religious minorities: The role of islamic legal pluralism. *Journal of Legal Studies*, 33:475–515.
- Kuran, T. (2011). *The long divergence: How Islamic law held back the Middle East*. Princeton University Press, Princeton.
- Kuran, T. and Lustig, S. (2012). Judicial biases in ottoman istanbul: Islamic justice and its compatibility with modern economic life. *Journal of Law and Economics*, 55(3):631–666.
- Kuran, T. and Rubin, J. (2018). The financial power of the powerless: socio-economic status and interest rates under partial rule of law. *Economic Journal*, 128(609):758–796.
- La Porta, R., Lopez-de Silanes, F., and Shleifer, A. (2008). The economic consequences of legal origins. *Journal of Economic Literature*, 46(2):285–332.
- Lévêque, C. and Saleh, M. (2018). Does Industrialization affect Segregation? Evidence from Nineteenth-Century Cairo. *Explorations in Economic History*, 67:40–61.
- Martínez-Rodríguez, S. (2018). A history of the corporation in spain in the twentieth century: towards europe. In Wells, H., editor, *Research handbook on the history of corporate and company law*, pages 299–321. Edward Elgar Publishing, Cheltenham.
- Masters, B. (1992). The sultan's entrepreneurs: The *Avrupa Tüccarıs* and the *Hayriye Tüccarıs* in syria. *International Journal of Middle East Studies*, 24(4):579–597.
- M'Coan, J. C. (1873). *Consular jurisdiction in Turkey and Egypt*. William Ridgway.
- Panzac, D. (1992). International and domestic maritime trade in the ottoman empire

- during the 18th century. *International Journal of Middle East Studies*, 24(2):189–206.
- Pepelasis, A. A. (1959). The legal system and economic development of greece. *Journal of Economic History*, 19(2):173–198.
- Rochat, J. (2018). Change for continuity: the making of the *société anonyme* in nineteenth century france. In Wells, H., editor, *Research handbook on the history of corporate and company law*, pages 244–68. Edward Elgar Publishing, Cheltenham.
- Saleh, M. (2013). A Pre-Colonial Population Brought to Light: Digitization of the Nineteenth-Century Egyptian Censuses. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 46(1):5–18.
- Saleh, M. (2016). Public Mass Modern Education, Religion, and Human Capital in Twentieth-Century Egypt. *Journal of Economic History*, 76(3):697–735.
- Saleh, M. (2018). On the Road to Heaven: Taxation, Conversions, and the Coptic-Muslim Socioeconomic Gap in Medieval Egypt. *Journal of Economic History*, 78(2):394–434.
- Tagher, J. (1998 [1951]). *Christians in Muslim Egypt: A Historical Study of the Relations between Copts and Muslims from 640 to 1922*. Oros Verlage, Altenberge.
- Tignor, R. L. (1980). The economic activities of foreigners in egypt, 1920–1950: from millet to haute bourgeoisie. *Comparative Studies in Society and History*, 22(3):416–449.