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The institutional legacy of the Ottoman Empire: Islamic rule and financial development in South Eastern Europe

Pauline Grosjean

University of San Francisco, Cowell 426, 2130 Fulton Street, San Francisco, CA 94117, United States

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ABSTRACT

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This paper uses a historical experiment – the occupation of South Eastern Europe by the Ottoman Empire – to shed light on the persistence of financial development. Interest-lending prohibition persisted under Islamic rule much longer than in the rest of Europe. The unique history and political fragmentation of the region allows investigating within-country effects, in six countries that were formerly only partly occupied by the Ottoman Empire. Former Islamic rule is consistently associated with lower contemporaneous formal financial development, both across and within countries. It is associated with a decrease in bank penetration by 10% across countries and 4% within countries. However, within country, the effect of the Ottoman Empire is confined to financial development. There is no association between former Ottoman rule, income, small and medium sized enterprise development or entrepreneurship. The effect is robust to controlling for a wide number of observable characteristics. Moreover, localities with Armenian, Jewish or Greek minorities, who were allowed to practice interest lending under Ottoman rule, have higher levels of bank penetration. By contrast, Islamic religion and trust in the financial system play no role in explaining such long-term persistence. *Journal of Comparative Economics* **39** (1) (2011) 1–16. University of San Francisco, Cowell 426, 2130 Fulton Street, San Francisco, CA 94117, United States.

1. Introduction

A large literature, since the seminal work of Acemoglu et al. (2001) has explored the long-term legacy of historical institutions and their effect on economic outcomes, in particular growth (Acemoglu et al., 2001, 2009) and financial development (La Porta et al., 1998; Djankov et al., 2003). The literature on legal origins has documented a strong relationship between legal and colonial origins and current financial development. This literature argues that a major influence of past institutions on financial development stems from the hysteresis of legal systems (Beck et al., 2003) and essentially focuses on cross-country variation. However, more recent work has pointed to the importance of local financial development, even within an integrated financial market and legal framework (Guiso et al., 2004, hereafter GSZ). This paper explores whether colonial origins have implications for financial development that go beyond the quality of legal systems. To do so, it investigates the effect of historical institutions not only across but also within countries.

E-mail address: pagrosjean@usfca.edu

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The analysis exploits the unique history and political fragmentation of South Eastern Europe and examines more particularly the long lasting effect of historical governance by an Islamic Empire: the Ottoman Empire. Interest-lending prohibition endured in the former Ottoman Empire way into the 19th century whereas the Catholic Church started relaxing interest-lending prohibition as early as in the 15th century in the rest of Europe (Bekar and Reed, 2003). Belated interest lending reform has been associated with stalled banking sector development in the former Ottoman Empire in the 18th and 19th century (Pamuk, 2004). The question remains whether such prohibition is still associated with weaker financial and real development.

Two particularly interesting dimensions of the Ottoman Empire are notable. Firstly, successor states' borders do not coincide with the borders of the former Empire. Even different localities within contemporaneous administrative regions were subject to Ottoman rule for different durations. Secondly, it was a very diverse Empire from the point of view of its religious and ethnic composition. In other words, it is possible not only to disentangle the effect of former Ottoman rule from the effect of contemporaneous institutions and legal framework at the country level but also from the impact of religion or ethnicity.

I use micro level data from the *Life in Transition Survey (LITS)*, a nationally representative survey implemented in 28 post-transition countries and Turkey in 2006, in order to investigate the financial and real legacies of the Ottoman Empire. This data contains very precise socio-economic information, namely on income and economic occupations. The proportion of households with a debit/credit card and a bank account is used as a measure of formal financial development. Precise respondents' localization data is combined to historical maps to create historical variables that reflect the duration of Ottoman control in each locality.

The results confirm that former Ottoman rule is associated with considerably lower contemporaneous formal financial development. On average, even controlling for a number of respondents' and localities' characteristics, former Ottoman rule is associated with a 10% decrease in bank penetration compared with the rest of Central, Eastern and South Eastern Europe. This result is in line with the legal origins literature, which documents a strong cross-country association between legal origins and financial development. More remarkably, the negative effect of former Ottoman rule on financial development persists, although attenuated, *within country*, in the countries that were only partly occupied by the Ottoman Empire, such as Croatia, Hungary, Montenegro, Romania, Serbia and Ukraine. Within a common national institutional and legal framework, former Ottoman rule is associated with a reduction in bank penetration by 4%, on average. The effect is robust to the inclusion of a wide number of observable individual and localities' characteristics that may be correlated both with Ottoman rule and financial development, such as urbanization, average education or income. The effect is also robust to the inclusion of administrative region dummies. The methodology proposed by Altonji et al. (2005) is used to calculate how much greater the influence of unobservable factors would need to be, relative to observable factors, to explain away the full negative relationship between Ottoman rule and financial development. It would require unobservable factors to be about 5–23 times greater than observable factors in cross-country regressions and 3–5 times greater in within-country regressions, making it unlikely that the estimate can be fully attributed to unobserved heterogeneity.

Although the former Ottoman Empire as a whole is poorer than the former Habsburg Empire or Prussia, the within-country legacy of Ottoman rule is limited to the financial sector, without any corresponding real effects, measured by household expenditures, small and medium sized private enterprise development or self-employment.

Several potential causality channels between Ottoman occupancy and financial developments are explored. There is no evidence that Islamic religion or beliefs and trust in the financial system play any role. However, formal finance is more developed in areas of the former Ottoman Empire with Armenian, Greek or Jewish minorities, which were not subject to interest-lending prohibition. Given the numerous changes in legal institutions since the fall of the Ottoman Empire, this suggests a very strong persistence of former Ottoman institutions on formal financial development.

This paper contributes to the literature on the role of history for financial and economic development. It follows the legal origins literature (La Porta et al., 1998), which discusses the origins and importance of legal rules for financial development. This paper extends existing literature by relying on within-country evidence and thus identifies some of the effects of history that go beyond legacies on formal rules and institutions. Furthermore, recent literature has shown that local financial development matters (GSZ), so that aggregate data for credit development at the country level – even within industries – may not capture all the relevant dimensions of financial development. This is not the first paper to use within-country evidence. Berkowitz and Clay (2005, 2006) explore the legacy of French and Spanish legal origins in 10 US states. However, state legislation in the US is rather influential on the legal system so that the direct legacy of states' legal origins on state legislation might still play a role. This paper exploits regional variations at an even more disaggregated level and in countries that are much more centralized than the US and makes use of both country and administrative regions dummies.

This paper also contributes, albeit more indirectly, to the literature on finance and development. The main finding of this paper is that within country, former Ottoman rule has a sizeable and negative effect on financial development. However, former Ottoman regions, within a country, do not have significantly lower levels of household income, regional GDP, small and medium sized enterprises development or entrepreneurship. Admittedly, the framework used in this paper does not make possible the identification of a causal effect of financial development on real outcomes. There are two main reasons for this. Firstly, former Ottoman rule may not influence real outcomes exclusively through finance. Secondly, available measures of income and regional GDP are post-tax and post-transfer measures and may thus be subject to an attenuation bias. Still, such a gap between financial and real legacies of former Ottoman rule contrasts with the existing literature that has found a strong association between financial development and economic growth within countries (GSZ; Jayaratne and