#### ARTICLE

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## Recent trends in Middle East economic history: Cultural factors and structural change in the medieval period 650–1500 (Part one)

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#### Abstract

Economic historians have returned in recent years to blaming the prolonged economic decline of the Middle East on cultural factors. At the root of the problem, as they see it, were economic institutions rendered inefficient by the religion of Islam and Islamic law, and they have used evidence from the Islamic medieval Middle East as support. This paper reviews the various strands of the argument and critically assesses its use of historical evidence. It concludes that the evidence does not support the postulate that cultural factors generated a dysfunctional Middle Eastern economic system and offers an alternative analysis. It shows that empirical evidence ignored by the cultural factors argument points to growth promoting structural change and corresponds to what we would expect based on economic theory.

### 1 | INTRODUCTION

Since 1980 there has been a rise in the number of publications by economic historians blaming the religion of Islam and Islamic-related cultural beliefs for the down-turn and long-term economic decline in majority-Muslim countries.<sup>1</sup> The argument is not new. It circulated widely among European rationalists and nationalists in the nineteenth century and is arguably best represented by the work of the Frenchman Ernest Renan (1823–1892). Renan referred to Muslims as illogical human beings, opposed to reason, unwilling to accept modern science, and to Islam as blocking development on all fronts. In a lecture at the Sorbonne on March 29, 1883, he said (Renan, 2011):

"Science is the soul of a society, because science is reason. It creates military superiority and industrial superiority" ... "This science is not Arab. Is it at least Muslim? Has Islam offered these rational [p. 16] discourses some protected assistance? In no way whatsoever! This beautiful movement of study is entirely the work of Persians, Christians, Jews, Harrānians, Ismāīlīs, Muslims internally rebelling against their own religion. From orthodox Muslims it received nothing but curses. States and races governed by

<sup>2 of 11</sup> WILEY

Islam are inferior, in decadence and intellectual sterility because they derive their culture and education from the religion alone."

Why is there a return to this trend now? There is no new historical evidence that could justify a return to the 19<sup>th</sup> century pseudo-scholarly reflections on medieval Islam, though there could be other reasons. The Arab Human Development Reports (AHDR) published by the United Nations, alerted the world to the perpetual poverty and persistent inability of the Middle East to fight underdevelopment.<sup>2</sup> It demanded reflection from economic historians. Islamic extremism may have played a role in reviving interest, but the most likely trigger of the cultural factors argument involving the Middle East was the economic history debate known as the 'Great Divergence'. The Great Divergence, a scholarly examination of the rise of the West and the failure of the 'rest', offered a special place to the Middle East and its inability to generate economic growth. The latest reincarnation of studying the economics of religion opened a venue to investigate the historical performance of Islam as an economy of religion and to represent and depict its dysfunctionality in sophisticated mathematical tools while probing old theories. As Rachel McCleary points out, associating religion with economics makes sense in that religion can be defined as a market phenomenon and religious activities as rational choices (McCleary, 2011). And the economics of religion comes with a long scholarly pedigree: Adam Smith in the eighteenth century and Max Weber in the nineteenth, the Nobel laureate Douglass North in the twentieth (Galliani & Sened, 2014).

In the first section of this article I discuss a selected number of publications using empirical evidence from the medieval Middle East to demonstrate inefficient economic performance and institutions. I argue that the way the cultural factors argument is using empirical evidence from the medieval Middle East is inaccurate and distorts its historical record. In the second and third sections I use economic theory and empirical evidence to show that the Middle East economy was powered by a series of changes to structural factors. I argue that these and other changes to the economy implemented by the Islamic state, led to measurable improvement in standards of living and demonstrable growth in economic indicators.

# 2 | CULTURAL FACTORS: INSTITUTIONS, ISLAMIC LAW AND MEN OF RELIGION

The first strand in the cultural factors argument is Avner Greif's studies of Middle East economic institutions based on a selected number of *Geniza* documents and their interpretation. Greif suggested that the letters attest to 'informal' institutions of social ostracism forcing cooperation by threatening to damage individuals' reputation' in a coalition rather than an anonymous and unrelated group of traders (Greif, 1989).<sup>3</sup> Unlike written law and courts, these 'informal' institutions as portrayed in the Judeo-Arabic traders' letters from the 11<sup>th</sup>-13<sup>th</sup> centuries were inefficient and failed to enforce contracts and resolve conflicts in the conduct of long-distance trade (Greif, 1993). Greif extended the Jewish medieval institutions to the Islamic Middle East, suggesting that Muslims and Jews shared a 'collectivist' mentality that was unfriendly to economic initiatives and impeded the potential of economic agents to exploit opportunities when they arose (Greif, 1994). For instance, Muslim traders with a 'collectivist' mentality could not exploit the opportunity offered by the expanding long-distance Mediterranean trade, that the Genoese traders, – who were 'individualists'- saw and acted upon (Greif, 2006). The theoretical framework used by Greif to implement his observations from the Jewish/Islamic evidence was Douglass North's theory of the centrality of property rights to institutions and in general to economic growth (Galliani & Sened, 2014).

Gregory Clark was the first economic historian to disagree with Greif, though not with the premise that Islamic economic institutions were dysfunctional and a cause of decline (Clark, 2007). Instead, Clark disputed the long-held assumption that the commercial revolution and the new long-distance trade stirred the stagnant European economy to growth. Long-distance trade did not contribute much to the GDP in pre-modern economies so that neither the failure of the Jewish and Muslims traders nor the success of the Genoese in long-distance trade and the entire

### LFV 3 of 11

construct built on them, are relevant to pre-modern economic rise. Europe's economic revival was due to changes in agriculture, manufacturing, human capital and division of labour (Persson, 1988 and Persson & Sharp, 2015).

A second rebuttal of Greif's thesis came from Edwards and Ogilvie (Edwards & Ogilvie, 2012). They questioned whether the documents Greif used said what he claimed they did. They accepted the premise that Islamic cultural beliefs had the power to jeopardize economic performance, but questioned whether the Geniza documents displayed 'informal institutions'. Edwards and Ogilvie pointed out that informal institutions were used by all traders all over medieval Europe in combination with formal ones. Their argument was strengthened by the recent publication of hundreds of court documents issued by judges demonstrating that Jewish traders used in fact written law and courts to resolve conflicts and enforce decisions (Ackerman-Lieberman, 2012, 2014). Nonetheless, Ackerman-Lieberman, a believer in cultural factors and the uniqueness of Jewish identity, denied the likelihood of 'symbiosis' between Jews and Muslims, thus restricting the impact of his findings to the Jewish community alone. In a recent book, Marc Cohen reversed the conclusion, showing that Jewish business law was indeed changed in accordance with Muslim law by no other authority than Maimonides (Cohen, 2017). The new business code came in response to changes in the economy of medieval Egypt and that of the Middle East which invited the involvement of Jewish traders. Cohen traced meticulously the business arrangements and legal clauses in the Geniza letters to corresponding clauses in Islamic law, and showed that Jews, who were disadvantaged by the current Jewish law, preferred, like Muslims, written law and courts. Since Jews regularly used Muslim courts to settle disputes and enforce decisions, pragmatism was the only answer and Jewish law had to be changed. As to the doubts regarding the symbiosis between Jewish and Islamic institutions, undeniable considering new evidence, they may have originated in Goitein's Mediterranean Society, where the use of court issued documents is scarce. That oversight was corrected in his later India book (Goitein & Friedman, 2008).

As for the argument that Islamic society was 'collectivist' rather than 'individualist', it is hard to find evidence to support it. The economic meaning of 'collectivist' and 'individualist' comes from cultural psychologists, and relates to the value placed on individuals' innovations by their society and the material remuneration provided by the state (Gorodnichenko & Roland, 2012). Greif based his claim on the interpretation of a single Arabic term, *umma*, attributed to Cahen, who did not use it. Instead *umma* appears in Von Grunebaum's entry in the *Cambridge History of Islam*, "The sources of Islamic civilization," without being associated with a 'collective' mentality (Greif, 1994; Von Grunebaum, 1977). On the other hand, there is evidence from the Middle East of society and the state rewarding individual achievements and of social and state's recognition of innovation (AI-Hasan & Hill, 1986; Brentjes & Morrison, 2010; Gutas, 1998). Translators, historians, physicians, philosophers, literati, scientists, mathematicians, and other private individuals were recognized and rewarded in monetary terms, employment, and social status (Ashtor, 1969). "Private" patronage of scholars specializing in the natural sciences took place at the court in Baghdad during the Abbasid Empire, with their activities being paid for by the court, a practice continued under the Ottomans (Brentjes & Morrison, 2010; Brentjes, 2009). It is hard to reconcile continued scholarly activity and the enduring status of intellectuals with decline or stagnation attributed to a 'collectivist' society.

The second strand in the cultural factors argument against Middle Eastern institutions explains the long-tern political stagnation by the dynamics between a small group of actors, the religious elites in Mamluk Egypt, and the rulers (Chaney, 2013). By means of a large database of Nile floods' records and popular uprisings, Eric Chaney linked the long-term lack of political change in medieval Egypt to deals contracted between the *ulamā*, religious leaders, and Mamluk rulers. Chaney concluded that with each economic crisis, men of religion enjoyed more favor, donations and appointments in return for support and legitimation they were willing to give to the rulers and to placating demand for change. With each economic crisis, autocratic institutions in the Middle East became more entrenched and political change less likely. Chaney also blamed religious scholars for blocking the progress of scientific investigation in medieval Islamic lands (Chaney, 2011). The *ulamā*' were willing to tolerate the rational sciences in the early centuries in the Middle East to advance conversion to Islam among the educated elites but once the process of conversion was completed, religious scholars turned against the natural sciences and forbade their study.

Chaney's claim that religious authorities managed to curtail scientific exploration or that they had the intention to do so, stands in contrast to recent work showing that the reverse was happening. Historians of Islamic sciences

4 of 11 WILEY

have long argued that the study of the natural sciences continued well beyond the tenth century in Islamic societies and that claims to the contrary are baseless (Brentjes & Morrison, 2010; Dallal, 2010). Innovations in Islamic sciences continued, enabling the diffusion of natural sciences, philosophy and medicine to medieval Europe (Vernet, 2016). Individuals regularly combined religion with science, as did Ibn Sina's praying in the mosque for divine guidance in solving a problem in logics and mathematics (Fancy, 2013; Lewis, 1974). As to Chaney's linkage of religious elites and lack of political change in Egypt, two observations are in order. The first, religious elites' behavior may be explained by other factors than the Nile flooding and collusion with the rulers. As Baber Johansen demonstrated in his study of property rights in Islamic law, land, which was previously used to provide salaries to the ulama' was taken away from its owners, confiscated by the government and instead given to the ulamā' with the expectation that they pay taxes (Johansen, 1988). The Hanafi jurists opposed the demand for taxes on the grounds that the land was previously used to provide income for them and they should not be liable for taxes now (Frantz-Murphy, 2007a, 2007b; Morimoto, 1981; Sijpesteijn, 2013). The second is the danger in conflating the evidence from the Mamluk period with political stagnation in the Middle East, this would be bias selection. Evidence from Egypt does not represent 'a Middle East economy'. In terms of economic history, Egypt is unique. It has a different geography, agricultural setting and climate that sets it apart from the rain fed agriculture of the Middle East and North Africa and explains its resources' organization unique pattern. Long-run autocratic rule in the Middle East needs a better argument than Nile floods and religious elites.

The work of Timur Kuran on Islamic institutions is a case by itself in terms of the sheer volume of publications and the claims it makes about a link between Islamic law and the economic decline of the Middle East.<sup>4</sup> If maintaining *shar<sup>c</sup>a* law prevents Muslim majority countries today from achieving economic progress, there is no evidence to suggest that such was the case in the medieval Middle East. Legal institutions, judges, witnesses, notaries and muftis, in their daily interaction with plaintiffs and applicants incorporated changes in the law with the use of legal opinions (*fatwā*, pl. *fatāwā*). Legal opinions granted at the request of a judge, based on law and previous cases were formal legal instruments (Masud, Messick, & Powers, 1996). The earliest extant collection of such *fatwā*s, was compiled in eleventh century Tunisia (ldris, 1961), with an early book on Islamic maritime law, both date from the same milieu and written in the same location (Khalilieh, 1998).

Finally, we need to remember that previous generations of economic historians of the medieval Middle East considered whether cultural factors were causes of economic decline and rejected the idea. Claude Cahen, for instance, did not believe that the commercial decline was caused by Islam or Islamic law: "Ni la religion, ni le Droit de l'Islam n'y sont pour rien" (Cahen, 1970). He criticized the mischaracterization of Islam as "fatalistic", explaining that commercial decline was the result of exogenous factors: the encroachment of Europe on Central Asian, Egyptian and North African resources and trade routes (compare Cahen, 1970 with Kuran, 2003). J.-Cl. Garcin attributed the economic decline of the Mamlūk period to the lack of a bourgeoisie, to the predatory behavior of the Mamlūk ruling class and to the scarcity of natural resources in the Middle East (Garcin, 1988). M. Cook, for his part, referred to the frequent invasions of the Middle East by armies and nomads and the excesses of military regimes (Cook, 1988). More recently, environmental causes, plagues and climate change, have received more attention as possible causes of economic decline (Bulliet, 2009; Ellenblum, 2012). The outbreaks of bubonic plague in the Middle East-the Justinian plague of the sixth-eighth centuries and the Black Death in the fourteenth-were exogenous factors with a long-term impact. Stuart Borsch has shown that the total revenue of the agricultural sector continued to decline after the initial onset of the Black Death, with long-term results, accounting for a decline of 58% in the agrarian GDP, which he measured in benchmark years of 1300, 1517 and 1596–1597 (Borsch, 2005). The purchasing power of rural Egyptian population in 1600 for instance, was 20% lower than in 1300. New research continues to ponder the power of natural causes in the decline of the economy of the Middle East in the Ottoman period (Mikhail, 2011; White, 2011). Changes in the flows of Iraq's main waterways, for instance, may have resulted in earlier deterioration of agriculture, attested to in other sources and expressed in decline in tax revenue (Christensen, 1993; Verkinderen, 2015). Changes in rural property structures and arrangements, may have affected levels of cultivation, crops and rural settlement (Campopiano, 2017). In the pre-modern Middle East, Roger Owen observed, the sweeping generalizations of the 'so-called 'decline' of the 1500–1800, were unsubstantiated by evidence: "The problem with this approach is that it rests on only the flimsiest basis in fact (Owen, 1993)."

# 3 | CHANGES IN STRUCTURES AND ECONOMIC GROWTH IN THE MEDIEVAL MIDDLE EAST

So far, I have examined empirical evidence from the Middle East that has been used by economic historians to argue for inefficient institutions that caused economic decline. Yet, a decline from what? There is no basis for comparison. In this section I argue that economic growth did indeed occur precisely in tandem with the very same Islamic institutions criticized above and in response to their arrangements. I use evidence from the Middle East to which I apply Douglass North's model of 'structure and change in economic history' to explain economic growth in the Middle East (North, 1981). North's model was used to account for medieval European growth and is widely used by economic historians (Greif, 2006; Persson & Sharp, 2015). North linked economic growth to three changes in structural factors: changes in property rights, changes in population levels and changes in division of labour. He did not mention the Middle East or Islamic institutions in his empirical section-his evidence comes from the ancient world, medieval Europe and the Industrial Revolution, but I will show that all three were present in the Middle East. The empirical data from the Middle East not only fits North's model but it also suggests that cultural factors had a positive effect on the trajectory of the economy in the Middle East.

The adoption and enforcement of individual property rights provide tremendous returns to the economy, including defense of landowners' investments in land, limits to 'free riders', minimization of transaction costs in property transfers and increased efficiency in factor markets.

Muslims in the Middle East did not initially enjoy individual property rights but that changed. It is unlikely that Arab society had individual property rights in Arabia. Their resources-herds and pasture-were held in common, but stirrings in the direction of property rights occurred early, arguably with the rise of the Meccan trade. The early Meccan elites, the 'predatory group' of the theory, began to experiment with property rights in response to the need to maximize and secure returns from trade and from booty acquired in raids.<sup>5</sup> On their entry to the Middle East, the Arabs encountered societies with individual property rights and most importantly, with various categories of property, rural and urban.<sup>6</sup> The first indication of the transition to individual property rights comes from early Islamic traditions on taxation (Ben Shemesh, 1965; Johansen, 1988). By the tenth century individual property rights over privately held agricultural land were codified in Islamic law and enforced by the courts (Johansen, 1988). At this juncture compliance with Islamic law occurred in all regions in the Middle East, North Africa and Central Asia in the hope that the state would protect gains by enforcing individual property rights (Gronke, 1986). Nonetheless, given the bifurcation of enforcement power between state and courts, and the differences among four schools of Islamic law, the effectiveness of enforcement varied. Study of legal documents related to property rights reveals for instance, that one of most the frequent property transactions involving individual property rights, waqf making-conversion of private property into an inalienable charitable foundation for the benefit of individual or the community-varied in terms of enforcement. Fatwās and other legal documents show that property endowed as waqf according to the Maliki rite in Muslim Spain and North Africa, was managed by mosque personnel who frequently abused it themselves or allowed community members to abuse it (Shatzmiller, 2001). Wagf endowment made according to Hanafi law, maintained the property under private management, and protected it from 'free riders' (North, 1981).

Since Malthus' time, it has been held that high population levels remain the main obstacle to sustained economic growth, and the main challenge to economic progress in contemporary societies (Abramitzky & Braggion, 2003; Galor & Weil, 2000; Persson & Sharp, 2015). North admitted that there is no theory of demographic change which adequately explains how to get to a low birth rate, but linked change in population levels, the second change on the list, to the transition to individual property rights in the following manner: a group living under common property regime has no incentive to limit births since increasing its numbers will boost the group's ability to share in the limited

## 6 of 11 WILEY

resources. Conversely, a group living in an exclusive property rights regime has an incentive to limit fertility so that the rate of return to its members' labour would increase (North, 1981). By linking it to property rights, groups, "would limit fertility by taboos, infanticide, and various other means in an attempt to keep the relationship between the population and the resource base constant" (North, 1981, 68, 85; Biller, 2000).

Little is known about population levels in Arabia before the Arab conquest of the Middle East, but demographers have made some preliminary suggestions applicable to the Middle East (Livi-Bacci, 2012; Massey et al., 1993). The Arabs may have had a high birth rate as intimated by the absence of property rights and growing population pressure depleting the resources. Once in the Middle East, the circumstances had changed. The Arabs succumbed to the plague recurrences in large numbers, as did the rest of the populace in the Middle East. Population levels, already low in the Middle East, continued to plummet and remained low in the long-run (Dols, 1974; Issawi, 1981; Musallam, 1983). The plague visited Egypt in 669, 673, 686, 688/689 and 699, Syria and Kūfa in 688/689, Basra in 706 and 716/717, Iraq and Syria in 717, Syria in 725-726 and 733/734, Syria and Iraq in 734-735, 744/745 and Basra again in 749, 773-774 and 841-843, although some sources tend to conflate plagues and other epidemics (Dols, 1974; Morony, 2006). The archeological survey of Iraq by Adams showed that settlements in Iraq, the number of villages and towns, was halved during the last years of Sasanian rule, with decline in the size and intensity of agricultural cultivation, that may suggest a Malthusian equilibrium crisis there as well (Adams, 1965). Archeological survey of Egypt also concluded that cities and villages that prospered continuously from the fourth century to the seventh, disappeared. 12 out of the 16 towns were either abandoned, deserted or show signs of decline (Alston, 2001).

The importance of wars, famines and plagues, but in particular plagues, in maintaining a positive check on population growth is clear. The result was a long-term shortage of manpower and high wages in the Middle East (Pamuk & Shatzmiller, 2014), but European economic historians have ventured to suggest a pattern created by the Black Death plague that effectively lowered fertility rates and population levels for hundreds of years (Galor & Weil, 2000; Persson & Sharp, 2015; Van Zanden, 2011; Voitländer & Voth, 2013). In this narrative, the labour shortages that followed the Black Death in the fourteenth century made it possible for women to enter the labour market and earn wages. A European Marriage Pattern (EMP) was born, one in which women postponed marriage and delayed childbearing resulting in the low birth rate in Europe in the fifteenth and sixteenth centuries, keeping population levels low, and enabling economic growth (but see Dennison & Ogilvie, 2014). It was a shift in structures from a high fertility regime to a low one, and of great consequence to the economy. A similar argument based on evidence on women's employment and their property rights can be made for the Middle East.

The evidence of high wages in Iraq and Egypt satisfactorily explained by the impact of the Justinian Plague during 6<sup>th</sup>-8<sup>th</sup> centuries, and the prolonged low population levels, indicates labor shortages which facilitated the entrance of women into wage employment (Pamuk & Shatzmiller, 2014). At the same time, high wages also increased demand for luxury goods including fancy clothes which helped develop the textile industry and made women's participation in it indispensable (Shatzmiller, 2007). Individual property rights were extended to protect wages earned by women. A significant array of property rights given to women meant that patterns of generational transfer of property have changed and property was transferred along two separate lines, a male line and a female line. Women could inherit, receive, donate and bequeath wealth with no interference from family members. Equally telling was the presence in Islamic law of the permission to practice contraception within marriage (Musallam, 1983; Shatzmiller, 2013). B. F. Musallam answered the question as to why did Muslim jurists legalized contraception by explaining it as a social reaction to the horrors of the Black Death. Men and women wanted to limit the number of children because they suffered mental agony, the 'fear of bad times'. However, all the legal codes concerning contraception, as well as women's property rights preceded the Black Death as they date from the tenth century. The Black Death cannot explain these changes in the law but the Justinian Plague can. In fact, the social norms, later to become entrenched as legal provisions in the Islamic law, were created during the changes in the economy following the Justinian Plague, such as shortages in manpower supply and growth in demand for manufactured goods. Jurists not only protected the wife's rights to her wages but also felt the need to protect the wife's right to children by making birth control practice permissible only with her consent. The practice of contraception with a slave woman, who did not have property

## LEY 7 of 11

rights, was permissible without her consent. How effective these contraceptives is a different matter, they may not have been more effective than various other means suggested by North, but as claimed by Musallam, Islamic law provided legal coverage for population control. Under the impact of change in economic structures, patterns of marriage have changed and Islamic society now under a different property rights regime, welcomed small families. With property rights enforced, both men and women had an incentive to limit births as a mean to check access to gains and leave wealth as little divided as possible. Long-term low population levels in the medieval Middle East was the result.

The third structural change stipulated in North's model is the growing division of labour. Since Adam Smith described benefit from division of labor and specialization as accruing by maximizing efficiency in production, it became a central question whether and when division of labour occurred in historical economies (Persson & Sharp, 2015). Division of labour is widely represented in the Arabic sources, in market supervision manuals (*hisba*), for instance, and in lists of trade names from various cities (Shatzmiller, 1994). Recent study on labour in the medieval Middle East used those for statistical breakdown of tradenames and for the purpose of documenting division of labour and distribution of occupations in the labour force. As specified in North's mode, technological innovation, secured by property rights was needed for division of labour and specialization to occur (North, 1981). Division of labour and specialization were less common in agriculture, but even there the Middle East saw unique innovation (Watson, 1983). Early division of labour in the manufacturing sector was the rule while in the service sector, it followed increase in literacy and continued to grow exponentially with sub-division of professional and industrial services.

Division of labour was enhanced by additional developments. It became easier and cheaper to transmit knowledge, including technological knowledge, since the early developments in language and writing. Technology and science from Roman, Byzantine, Sassanian and Indian sources were collected and rendered into Arabic, which facilitated their diffusion at a later stage (Al-Hasan & Hill, 1986; Brentjes & Morrison, 2010; Gutas, 1998; Van Bavel, Buringh, & Dijkman, 2018; Van de Velde, 2010). By rendering the unfamiliar vocabulary and foreign terminology into Arabic, the translation movement enabled innovations to circulate within the expanding Arabic language world. Such was the case of the Iranian irrigation technique of the *Qanats* moving on to Iberia and North Africa, and of paper making from linen rags, expanding to every city in the Islamic world (Shatzmiller, 2018). Basic literacy was taught in primary schools, *kuttab*s, available in every city and secondary education in *madrasas*, available in most cities (Hirschler, 2012). Numeracy skills, essential for performing technological tasks also expanded, fully illustrated in the merchants' letters and the taxation ledgers (Goitein, 1966). The efficiency of the knowledge diffusion process is manifested by the speed and the quality of the diffusions. New knowledge, which was developed in the Middle East, was diffused quickly and efficiently to North Africa and Iberia from where Arabic science and technology passed to medieval Europe (Brentjes & Morrison, 2010; Vernet, 2016).

#### **ENDNOTES**

- <sup>1</sup> 'Cultural beliefs' is the term used by economic historians to refer to a variety of cultural factors that affect economic development. See Greif, 'Cultural beliefs and the organization of society," In this paper 'cultural beliefs' is replaced throughout with 'cultural factors'.
- <sup>2</sup> As measured in the AHDR, 2004, 2005, 2011, 2016. http://www.arab-hdr.org/
- <sup>3</sup> On the Geniza documents see Goitein, 1967.
- <sup>4</sup> For a comprehensive list of Kuran's publications, see https://sites.duke.edu/timurkuran/files/2016/08/Timur-Kuran-CV-042016.pdf. On the link with the recent economic underdevelopment, see Kuran, 2018 and on the link with Islamic law, see Kuran, 2011 and compare with Murat Çizakça's review of the latter (Çizakça, 2011).
- <sup>5</sup> Although Crone argued that these returns were minimal, they were sufficient to stir demand for protection (Crone, 1987).
- <sup>6</sup> It is possible that Arab tribes that settled previously near Sassanid or Byzantine ruled territories, had a "state" and may have experienced some property rights regime (Fisher, 2011).

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## <sup>8 of 11</sup> WILEY

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## 10 of 11 | WILEY-

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## WILEY 11 of 11

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