

DIVISION OF INHERITANCE AND CAPITAL ACCUMULATION :
CASE OF BURSA FROM PROBATE REGISTERS,1700-1840

by
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DIVISION OF INHERITANCE AND CAPITAL ACCUMULATION :
CASE OF BURSA FROM PROBATE REGISTERS,1700-1840

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ABSTRACT

DIVISION OF INHERITANCE AND CAPITAL ACCUMULATION : CASE OF BURSA FROM PROBATE REGISTERS,1700-1840

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In the light of the recent evidence from Thomas Piketty, the importance of intergenerational money transfer for capital accumulation is better highlighted in the last decade. Due to the lack of research, the share of the money received through inheritance remained ambiguous in the Ottoman Empire. To shed light on this matter, this thesis aims at tracking the division of inheritance in Ottoman Bursa for four consecutive periods of 20 years with 20 year gaps in between from 1700 to 1840, based on probate registers. Despite the predefined list of heirs according to Shari'a, the thesis aspires to distinguish theory from practice and observe the heir number and type in reality in the given time frame. In addition to calculating the total heir number for five different wealth quintiles; based on the primary heir list set in Islamic law which is studied under this topic, the data on the total number of heirs with primary and greater claims on estate for each wealth quintile is also analyzed. Contrary to Timur Kuran's argument about the lack of capital accumulation in the Ottoman Empire, attributed to egalitarian division of inheritance in Shari'a, the findings of this thesis indicate a gradual contraction of heirs between periods and especially among the wealthy quintiles, hinting at more wealth accumulation, especially in later periods. Although intergenerational capital accumulation in other cities should also be studied further, the evidence of this thesis is important for interpreting the practical consequences of Shari'a and depicting wealth accumulation in Bursa.

ÖZET

MİRAS BÖLÜMÜ VE SERMAYE BİRİKİMİ: TEREKE DEFTERLERİNDEN

BURSA ÖRNEĞİ, 1700-1840

FATMA PELİN TIĞLAY

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Anahtar Kelimeler: Servet, Tereke Defterleri, Miras

Thomas Piketty'nin araştırmalarından yakın zamanda gelen bulguların ışığında, kuşaklar arası para transferinin sermaye birikimi için önemi son on yılda daha çok vurgulanmıştır. Araştırma eksikliğinden dolayı, Osmanlı İmparatorluğu'nda miras yoluyla kalan paranın payı belirsiz kalmıştır. Bu konuya ışık tutmak için bu tez, tereke defterlerine dayanarak Osmanlı Bursa'sında arada 20 yıl boşluk olmak üzere 1700'den 1840'a kadar herbiri 20 yıldan oluşan ardışık dört dönem içindeki miras paylaşımını izlemeyi amaçlamaktadır. Şeriyat'taki önceden belirlenmiş varis listesine rağmen bu tez teoriyi pratikten ayırmayı ve belirtilen dönemde gerçek varis sayısını ve türünü tespit etmeyi hedeflemektedir. Beş farklı servet grubunun toplam varis sayılarını hesaplamının yanı sıra, bu konu altında çalışılan İslam hukukunda belirtilen birincil varis listesinden yola çıkarak, her bir servet grubu için miras üzerinde birincil ve daha büyük hak iddia eden varis sayısına ait veriler de analiz edilmektedir. Timur Kuran'ın Osmanlı İmparatorluğu'nda Şeriyat'ın eşitlikçi miras dağılımı öne sürülerek sermaye birikimi eksikliği üzerine kurulan argümanının tersine, bu tezin bulguları varis sayısında dönemler ve özellikle varlıklı gruplar arasında, daha fazla servet birikimini ima eden, aşamalı bir daralmayı işaret etmektedir. Her ne kadar kuşaklar arası sermaye birikiminin diğer şehirlerde de çalışılması gerekse de, bu tezin bulguları Şeriyat'ın pratik sonuçlarını yorumlamak ve Bursa'daki servet birikimini betimlemek açısından önem taşımaktadır.

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Chapter 1

WEALTH ACCUMULATION, INHERITANCE AND THE OTTOMAN EMPIRE: FROM THE EARLY MODERN TO MODERN ERA

This thesis examines patterns of inheritance and their possible implications for capital accumulation in Ottoman Bursa in 1700-1840. The change in number of heirs in a span of 140 years will be traced through probate registers of Bursa and the practice of division of inheritance will be analyzed to shed light on the relationship between inheritance and capital accumulation in the Ottoman Empire and help to place it in the broader debate on Ottoman modernity.

1.1 Role of Inheritance in Capital Accumulation and Purpose of This Thesis

Analysis of inheritance systems and practices is an important part of understanding the roots of capitalism and modernity, since especially in pre-modern times when employment mobility was limited and low compared to contemporary standards; inheritance was a major source of capital possession. Since the growing level of capital accumulation was one of the major triggers of modernity, its analysis in the Ottoman Empire is very important to place the realm into the debates on modernity.

Studies covering periods starting from the 19th century indicate the significant role of intergenerational wealth transfers in aggregate capital accumulation in modern countries. Explaining the tendency of large capital to be inherited in *Capital in the Twenty-First Century*, Thomas Piketty underlines that 20-25% of the annual aggregate income comprised inherited wealth in the Belle Epoque, which also explains the

obsession of the 19th-century novelists with inheritance¹. Similar to Piketty, Ohlsson et al. indicates that 12% of the national income of Sweden in the same period was generated through annual flow of inherited wealth and the share was even greater in UK and France². A recent example from US also demonstrates that intergenerational transfers account for the vast majority of aggregate capital formation and even in modern times only a negligible share can be traced back to life-cycle savings in the US³. As the significance of inheritance for capital accumulation is confirmed by various studies, the number of heirs becomes a crucial point in examining intergenerational transfers.

The importance of intergenerational transfers for capital accumulation necessitates the study of inheritance under the broad debate of modernity, and this is true for Ottoman history as well. The predominating legal system, Shari'a, stipulated a wide array of heirs, which could imply comparatively less capital accumulation per capita than Western Europe. However, examinations of Shari'a law of inheritance, as well as oscillating fertility and mortality rates over time raise the possibility of a different scenario. This thesis will focus on the question of the division of inheritance by examining the actual number of all heirs, as well as of all primary heirs who had priority over estate, that decedents left behind in Ottoman Bursa. I will look at the changing number and types of heirs as well as their correlation with wealth from 1700 to 1840.

1.2 Inheritance and the Ottoman Empire: Timur Kuran and Islam's Incompatibility with Capitalism

The relationship between capital accumulation and the inheritance system in the Ottoman Empire has been very little studied so far. The main work stands out as "Why the Middle East is Economically Underdeveloped: Historical Mechanisms of

¹ Thomas Piketty, *Le Capital au XXI^e siècle* (Paris: Seuil, 2013), 334–336.

² Henry Ohlsson et al. "Inherited wealth over the path of development: Sweden, 1810–2010," Uppsala Center for Fiscal Studies Department of Economics Working Paper 2014(7): 13.

³ Laurence J. Kotlikoff and Lawrence H. Summers, "The Role of Intergenerational Transfers in Aggregate Capital Accumulation," *Journal of Political Economy* 89(4) (1981):706.

Institutional Stagnation” by Timur Kuran, in which he attributes the phenomenon to Islamic law, namely, the egalitarian quality of Islamic law of Inheritance, lack of corporate bodies in Shari’a and the waqf system, which is the Islamic form of trust that ended up posing handicaps to the emergence of modern institutions, in his view. While emphasizing the complexity of the rules pertaining to inheritance in the Qur’an, the author indicates that the individual testaments could apply only to one-third of an estate and the rest was divided among a highly extended list of relatives of both sexes, which obstructed the concentration of wealth and preservation of successful enterprises. To consolidate his argument about Islam being an impediment to capital accumulation, Kuran maintains that due to legal pluralism, non-Muslims were at a more economically advantageous position, as they could exercise choice of law and opt between alternative contractual forms they found profitable, which was a right not granted to the Muslims of the realm. As a result, Middle Eastern Muslims fell behind the region’s non-Muslims, because the latter found it easier, partly as an unintended consequence of the Islamic law itself, to overcome the economic handicaps rooted in stagnation and began benefiting from advances generated elsewhere.”⁴

Kuran’s work leaves several points ambiguous and questions unanswered. Speculating about the impact of Shari’a laws in the Middle Eastern countries, he fails to elaborate on the modernization processes of these regions and the emergence of secular and modern legal systems in the 20th century. Postulating that “even in countries that have repudiated Islamic law to one degree or another, the prevailing inheritance system shares basic features with the traditional Islamic system, including rules against disinheriting relatives”⁵, without further examination he discards the models of Turkish civil law based on Swiss civil law in 1926⁶ or the socialist and post-socialist phases of

⁴ Timur Kuran, “Why the Middle East is Economically Underdeveloped: Historical Mechanisms of Institutional Stagnation,” *Journal of Economic Perspectives* 18(3) (2004):76.

Evidence from Bursa seems to contradict the economic superiority of non-Muslim citizens, as starting from 17th century, Muslim tradesmen dominated the silk trade (Kaygalak 2008, p.98). It may be argued that non-Muslims may have dominated manufacture as opposed to trade and the wealthier ones may have preferred non-Ottoman courts. It should be noted, at least, that the data used in this thesis also indicates an increase in the number of non-Muslims in the 19th century among the wealthiest quintile, which might imply the economic advantages of Shari’a in terms of division of inheritance, contrary to Kuran’s argument.

⁵ Kuran, “Why the Middle East is Economically Underdeveloped,” 88.

⁶ For instance, according to the law of inheritance of modern Turkey, the parents of the deceased can inherit the estate only if the decedent does not have a child. Otherwise, the only heirs defined by law are the nuclear family members (item 495-496). In addition to this, the decedent can also disinherit an heir, in the presence of sufficient legal reasons

the Balkan countries, such as Yugoslavia and Albania in the second half of the 20th century.

Another problematic issue is equating Islam with the Middle East, which is defined by the author as not only the entire Arab world and Iran, but also Turkey, and the Balkan Peninsula, for their legal systems were also under the influence of Shari'a for centuries. Leaving aside the labeling of the latter two as "underdeveloped" despite their economic performances, if Islam is a significant impediment to economic and legal modernization, then one would expect to include countries like Indonesia, Malaysia and other parts of Eurasia, and not to be restricted to his 'elastic definition' of the Middle East only.

This thesis project will focus in particular on Kuran's argument about the impeding role of the Islamic law of inheritance and its application in practice. Hinting at the relatively high number of heirs stated by Shari'a, which will be discussed in detail later, Kuran considers capital accumulation in such a system as rather unfeasible. In the light of the active economic scene throughout centuries in Bursa, followed by industrialization in the 19th century, which will be described in detail later on, it is difficult to ignore the presence of capital accumulation in the city. The argument that Shari'a rules on division of inheritance may have negatively affected the accumulation of capital has a point if estates were indeed divided among many heirs. However, the induction of Kuran is purely theoretical and does not have a practical side to it, for three reasons. First of all, it was not compulsory for any Muslim citizen of the Ottoman Empire to attend the kadi court for the division of inheritance. While estates with no heirs were confiscated by the state through mukataa officers who were usually informed by civilians such as local imams or shopkeepers, who were, in return for the valuable information, rewarded with a significant amount of money called *müjdegane*,⁷ in the remaining cases, the division would usually be made among the heirs and would not be submitted to the court⁸.

(item 510-512). Overall, compared to the list of heirs specified by Shari'a, as will be discussed later, the laws of Turkey on inheritance indicate a significantly smaller list which only include the members of the nuclear family in the first stage.

⁷ Arif Bilgin and Fatih Bozkurt, "Bir Malî Gelir Kaynağı Olarak Vârissiz Ölenlerin Terekeleri ve Beytülmal Mukataaları," *Kocaeli Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* 20/2 (2010): 8.

⁸ Bilgin and Bozkurt, "Bir Malî Gelir Kaynağı Olarak Vârissiz Ölenlerin Terekeleri," 3.

Although the presence of courts, especially in cities and closer to center, would incentivize Shari'a particularly in areas where the local custom would favor certain heirs over the others (as it was sufficient for one dissatisfied and underprivileged heir to bring up the matter to the court for the division to be made according to Shari'a), still the assumption of full representation of population at court is biased. Therefore, knowing the ratio of the court cases to total population in a given period is of great importance to observe whether the law had a significant impact on the economic life of Bursa. Evidence suggests that this ratio was rather low⁹. Secondly, even if we assume that estates of all decedents were registered at kadı courts, the family structure, as well as life expectancy, might not to have remained unchanged over centuries, especially during phases of demographic transition into modernity¹⁰. The change in question may have implied crucial differences between theory and practice. For instance, in a time period with low life expectancy, the article that assigns a fixed share to grandparents as heirs in Shari'a is very likely to have a negligible impact on the level of intergenerational transfers. Thirdly, as will be seen later, some heirs' shares were conditional on the absence of some other heirs. Thus, namely, if at all, all heirs specified in law would have received a share.

In his review of Kuran's article, Murat Çizakça emphasizes Kuran's "commitment to discrediting Islamic law" and underlines that Islamic law had sufficient flexibility to overcome most of the difficulties mentioned by Kuran that were rather theoretical. For instance, for division of inheritance, Çizakça suggests that "primogeniture or primogeniture-like solutions, could be realized through *hiba* (*inter vivos* gifts) or establishing family *waqfs*".¹¹ It should be noted that in wealthier inheritances, a third of the will (the limit of individual testaments) might have created a significant difference, especially if the decedent decided to bequeath it to one of the predefined heirs in a way to potentially increase his or her share of the inheritance. If this was a widespread

⁹ For the representation rate, see appendices in Canbakal and Filiztekin, 2015.

¹⁰ Preliminary research suggests that indeed, the age distribution and mortality rates changed between 1500 and 1840. (See "Pelin Tığlay, Examining Probate Registers: Age distribution of Bursa, 1500-1840, unpublished seminar paper, Sabanci University, 2014)

¹¹ Murat Çizakça, review of *The Long Divergence: How Islamic Law Held Back the Middle East*, by Timur Kuran, *EH.NET*, June 2011, Book Review, http://eh.net/book_reviews/the-long-divergence-how-islamic-law-held-back-the-middle-east/.

practice among the wealthy, contrary to Kuran's argument, the estate was actually concentrated in fewer hands, rather than dissolved. More importantly, evidence from some towns of the realm suggests that in some regions, the decedent could allocate all of his estate to an heir of his or her preference, which meant direct transfer of the whole capital to a single individual¹². Underlining the difference between theory and practice, Çizakça finally remarks that Kuran's "sensational conclusion with theoretical arguments supported by scant evidence" cannot be verified without extensive research on Islamic court registers. Based on documents probate registers from Islamic court of Bursa, this thesis also aims at highlighting potential differences between theory and practice, by tracking the division of inheritance in consecutive periods and to observe whether each predefined heir indeed receive a share from the inheritance or some of them could not due to the presence of heirs who had a privilege over estate specified by law, as will be discussed further below.

Related to the twist between theory and practice, "Intergenerational wealth accumulation and dispersion in the Ottoman Empire: observations from eighteenth-century Kastamonu" by Coşgel and Ergene (2011) indicates important findings. Based on the probate estate inventories of Kastamonu in the 18th century, the paper looks into the relationship between sons' wealth levels and a number of other parameters, including the number of inheritors. Evidence suggests that while there is a negative correlation between the sons' wealth and the number of inheritance, as expected, the relationship was not significant¹³. In other words, even though the higher number of heirs was negatively proportional to the sons' wealth, this number did not influence the wealth of the sons. Using probates, this thesis may also indicate similar findings in Bursa to those of Kastamonu.

¹² Bilgin and Bozkurt, "Bir Malî Gelir Kaynağı Olarak Vârissiz Ölenlerin Terekeleri,"15.

¹³ Metin Coşgel and Boğaç A. Ergene, "Intergenerational wealth accumulation and dispersion in the Ottoman Empire: observations from eighteenth-century Kastamonu," *European Review of Economic History* 15 (2011): 267.

1.3 Contribution and Structure of the thesis

The main question of this thesis is the change in the number of heirs in different sections of the probate population in Ottoman Bursa in 18th and early 19th century and to observe their implications for family size and capital accumulation. The underlying assumption is that despite the recognition in Islamic law of a large group of heirs, in practice the number of heirs may have been much more limited and estates may have ended up being divided much less than what the letter of law would suggest. In the light of this question, the heir list and wealth are going to be the key variables of the research. As this is also a question of demography, the current literature on demographic change in the Ottoman Empire should be mentioned before the actual analysis. Two major studies based on nineteenth century censuses have pioneered the research on life expectancy, family structure and the change in these patterns in the Ottoman Empire. The first one is Duben and Behar (1991)'s research on İstanbul households examining marriage and fertility rates in 1880-1940. Based on the 1885 census of both male and female populations, *vukuf defterleri* (registers for vital events such as birth and death) and *nüfus tezkereleri* (birth certificates), they observe a low fertility rate below estimates for pre-industrial populations and male and female marriage age which was delayed compared to earlier decades¹⁴. The second study, by Maria Todorova (2006), elaborates on the population trends and the family structure in the late 19th-century Ottoman Bulgaria. Combining four *defter*s of the region between 1865 and 1871, she first observes substantially higher mortality rates for Bulgarian women compared to Turkish women in their fertile period. At the same time, she comes up with a progressive age structure, characterized by a high birth rate and a high mortality rate¹⁵. Looking into these studies with different demographic trends and family structures brings up the possibility of different mortality and fertility rate combinations in Bursa as well.

¹⁴ Alan Duben and Cem Behar, *Istanbul Households: Marriage, family and fertility, 1880-1940* (Cambridge: Cambridge University Press, 1991), 14,16,18.

¹⁵ Maria N. Todorova, *Balkan Family Structure and the European Pattern: Demographic Developments in Ottoman Bulgaria* (Budapest: Central European University Press, 2006), 18.

The data used in this thesis is extracted from the project titled “Distribution of wealth in the Ottoman Empire” (Canbakal and Filiztekin, TUBITAK Project no: 108K034) based on probate inventories covering the period of 1500-1840 and includes six other cities in addition to Bursa. I follow the structure of Canbakal’s database and use the codes and weights as prepared by Filiztekin¹⁶. The database comprises 9 periods of 20 years each with 20 years in between. For this thesis I focus on the following periods: 1700-1720, 1740-1760, 1780-1800, and 1820-1840. As it is seen, there are three periods in the eighteenth century and one period in the nineteenth century.¹⁷ Due to the limitation of resources, the data is obtained through stratified random sampling on probate registers, which means that, based on the assumption that the wealthier had larger estates and therefore lengthy records, the registers were categorized into three groups of length random sampling on each group was applied for fair representation. In addition to this, the top 1% was trimmed in order to eliminate the weight of wealthiest outliers. Probates have certain problems in terms of structure, such as the overrepresentation of a particular wealth group or underrepresentation of genders. However, these are not going to be discussed in this thesis, as the arguments are already developed in the current literature (see Canbakal and Filiztekin).

While the overall sample size is 1636, the sample size of each period varies between 262 and 515, including the rural population for the sake of size and excluding visitors in order to have a more accurate data on Bursa. Within the overall sample, 89.18% is composed of urban population and 10.51% belongs to the rural population of Bursa. Another comparative advantage of probate registers with respect to other official surveys is that they include a significant number of female population registers within. As much as there is possible way of confirming it by additional sets, the data of this paper possesses a female population of 36.37% and a male population of 63.63%. As for each period, the female percentage varies between 31.03 and 40.87, a variation which is hard to speculate on due to lack of concrete data on female demographics. However, the 1831 census demonstrates a gender ratio of 0.98¹⁸, the ratio of women

¹⁶ For details about the data see, Appendices in Canbakal and Filiztekin, 2015.

¹⁷ Hülya Canbakal and Alpay Filiztekin, “Osmanlı İmparatorluğunda Servet Dağılımı (Distribution of wealth in the Ottoman Empire)”, TUBITAK Project no: 108K034.

¹⁸ Cem Behar, *The Population of the Ottoman Empire and Turkey, 1500-1927* (Ankara: Türkiye İstatistik Kurumu Matbaası, 2011), 39.

over men in the sample data of this paper for 1820-1840 is 0.44, which is significantly different than the previous result. As for the professions, although only 151 are known out of 1636, the list exhibits a wide spectrum of jobs from tailors and silversmiths to judges and soldiers, equally spread and which diminishes the selection bias of profession to an extent. Since non-Muslim subjects could also appeal to kadı courts, and were subject to Sharia partition of inheritance as well, the data includes a total number of 103 non-Muslim registers out of 1636. The 1831 population census indicates the ratio of non-Muslim to Muslim for the state of Hüdavendigâr as 0.16¹⁹, while the paper gives the same ratio for 1820-1840 as 0.15, which again demonstrates a parallel trend with wider data. The tables for the variables and figures listed above are demonstrated in the Appendix.

The variables which are of key importance for this thesis are gross wealth and the list of heirs. The total wealth of every individual was calculated by adding the values of all belongings including houses, stores, lands, and the accumulated cash at the moment of demise and recorded by officials. Keeping the questionable reliability of the values given for probated items aside, the data on wealth in Ottoman probate records is likely to be superior to its counterparts outside of the Ottoman Empire due its comprehensiveness, since both movable and immovable properties were recorded, or supposed to be recorded, thoroughly. As the other important variable, the heir list includes spouse, daughter, son, minor, unborn child, mother, father, siblings, grandfather, grandmother, grandchild and more distant relatives specified by law (Table 1). There are 95 registers with no heirs listed, which comprises 5% of the data. While the reasons behind the lack of heirs are not very clear, it should be noted that there is an increase in the number of decedents without heirs between 1820 and 1840 in wealthy quintiles, which is unusual as the default expectation suggests for some relatives to claim the greater estates at the court. Heirless estates were closely monitored by a team of state officials, and their collection as well as transfer to the state treasury was subject to abuse by the these same officials²⁰. It should be noted that large estates that appear as heirless may belong to state officials and confiscated by the state after the demise of the official. Nevertheless, among the twenty heirless registers in the two wealthiest quintiles

¹⁹ Behar, *Population*, 23.

²⁰ Bilgin and Bozkurt, "Bir Malî Gelir Kaynağı Olarak Vârissiz Ölenlerin Terekeleri," 17.

between period 1 and 4 in this thesis' dataset, only two of the top quintile between 1820 and 1840 belong to men with military titles, who were *ağa* and *paşa*.

Table 1. Number of Heirs by Period

Period	Spouse	Child	Parent	Siblings	G.parent	G.child	Other	No heir	Total number of registers
1700-1720	204	180	61	48	3	1	20	11	262
1740-1760	399	335	143	106	2	8	39	21	482
1780-1800	411	366	123	101	5	8	34	33	515
1820-1840	291	274	68	72	1	0	28	30	377

This thesis will focus on intergenerational transfers in Bursa between 1700 and 1820 based on probate registers. Bursa stands out as a good case for this study, because since the early times of Ottoman history, it was continuously one of the major centers of trade and had one of the earliest examples to industrialization in the empire from 19th century onwards. The research will contribute to the literature on intergenerational capital transfers in the Ottoman Empire based on probate registers in two ways. First, it will offer the mean heir number, as well as heir numbers by wealth quintiles for the given periods, to note changes in the average total heirs and the correlation between family size and wealth. Second, it will specify the three most common heir types for each period, and compare the sum of these heirs to the wealth quintiles, to show the changing trends between wealth and number of predominating heirs. This analysis is particularly important because if the most common heir types are the same with primary heirs, meaning the heirs whose presence cancel out the claim of secondary heirs, which will be discussed in the following sections, this will imply the concentration of wealth at fewer hands. Results of both of these questions will help to illuminate the socio-economic structure of Bursa in the transition from early modern era into modernity by shedding light on the division of capital according to wealth classes.

The structure of the thesis is as follows: In Chapter 2, the economic situation and economic dynamics in Bursa in the early modern and modern eras will be introduced; Chapter 3 will provide information on the division of inheritance according to Shari'a; Chapter 4 will present findings of this thesis with their respective analyses and; Chapter 5 will comprise the conclusion, which will highlight the important findings of the thesis.

Chapter 2

BURSA

The reasons for choosing Bursa as the focus of this thesis examining capital accumulation through inheritance are various and explained in this section. Although parts of this section cover periods of the 19th century that are not covered by the data used, the second half of this century is important for keeping the overall cohesion in the city's history and to indicate the extent of industrialization in the city, and consolidate the reasoning behind the possibility of sufficient capital accumulation for such levels of it, contrary to the impossibility suggested by Kuran due to the various aspects of Shari'a.

For any researcher who wants to analyze the economic potential of a given region, one of the first parameters which are looked into has been wealth, which always has a significant impact on the structure of a society. In the case of the history of the Ottoman Empire, it has been difficult to observe a general picture, due to the heterogeneity of the realm, as it possessed lands in three continents and regions varied in terms of their ethnic distribution, legal system, geopolitical position and relative economic strength. Bursa is a good example of this heterogeneity in the sense that it was comprised of various ethnic and religious groups and different religious courts as their corollary. For this reason, it should be taken into account that the data of this thesis is based on only the probate registers of Shari'a, which included predominantly the Muslim population, and excludes ecclesiastical courts, and ergo the majority of the non-Muslim population. Still, belonging to a significant commercial center and one of the largest cities of the Ottoman Empire, the probate registers of Bursa alone can reveal significant information on the wealth accumulation and the city's possible transition into modernity. Moreover, the economic analysis of Bursa is important to understand the overall picture of the

realm, since apart from being the first capital city of the empire between the years of 1326-1402, its relative proximity, ninety two kilometers, to the capital city İstanbul enabled Bursa, in addition to being a sub-provincial center, to connect to the capital via economic transactions.

Being a major center for the commerce of silk since 14th century, domestic silk production in the city started in the second half of the 16th century. Due to the scarcity of state registers from the 17th century²¹, it is difficult to make a sound statement about the silk production in this period. While Fahri Dalsar suggests that cheap silk coming from Europe harmed domestic silk textile during the 17th century²², since it was more profitable for Europeans to produce silk in this period, Halil Inalcık argues that such a statement was not valid until 19th century²³. To Dalsar's credit, price of the domestic silk indeed stagnated since profit of the domestic silk production indeed decreased because of the drop in European silk prices. In addition to this, the ongoing mercantilism policies also decreased the European demand for the silk of Bursa. On the other hand, in this century, due to the domestic production of silk, Bursa was no longer dependent on Iran for silk trade. Silk production began to be so popular that Evliya Çelebi notified that the city was expanding into mulberry gardens in 1640, as silk became a main source of income and thousands of merchants became rich through silk textile²⁴. In addition to this, evidence coming from Haim Gerber indicates that domestic silk production actually increased starting from the mid 17th century²⁵, which confirms Inalcık's point. By the 18th century, silk of Bursa had surpasses Iranian silk both in quality and price, a fact also confirmed by French traveler Aubry de la Motraye's account²⁶. More importantly, despite the drop in the trade with Europe, the overall trade did not stagnate because Bursa was also supplying the demand of the domestic market.

²¹ Sevilay Kaygalak, *Kapitalizmin Taşrası: 16. Yüzyıldan 19. Yüzyıla Bursa'da Toplumsal Süreçler ve Mekânsal Değişim* (İstanbul: İletişim Yayınları, 2008), 89.

²² Fahri Dalsar, *Türk Sanayi ve Ticaret Tarihinde Bursa'da İpekkilik* (İstanbul: Sermet Matbaası, 1960), 306.

²³ Halil Inalcık, "HARIR", *The Encyclopedia of Islam*. (Leiden: E. J. Brill, 1971), 215.

²⁴ Kaygalak, *Kapitalizmin Taşrası*, 104.

²⁵ Haim Gerber, *Economy and Society in an Ottoman City: Bursa, 1600-1700* (Jerusalem: The Hebrew University Press, 1988), 27.

²⁶ H. W. Lowry, *Bursa in Travel Accounts* (Indiana: Indiana University, 2003), 50-53.

Therefore, while importing silk for many years, Bursa in this century was now exporting its silk to major centers of the Ottoman Empire, such as Istanbul, Izmir, Salonika and Aleppo, and later on in the second half of the 18th century to foreign countries such as France, Netherlands and England²⁷. Moreover, according to Murat Çizakça, the drop in European demand for silk in the first half of this century also relieved domestic silk textile producers, who could not compete against their European counterparts in the past. Once that pressure was gone, the domestic fabric production reached its peak with 100.000 pieces of cloth per year between 1810 and 1820²⁸. The impressive increase in the fabric production starting from the second half of the 18th century is also confirmed by the studies of Mehmet Genç²⁹ and İlhan Tekeli³⁰, as well as the account of the German traveler Von Ignatz von Brenner³¹. Overall, evidence suggests that starting from this period on, Bursa became a major domestic and international producer of both silk and silk textiles. Moreover, with the search for minimization of cost, production for global markets, capital accumulation and the rapid increase in the number of professional moneylenders, preconditions for capitalist economy were mostly present in Bursa during the Early Modern Period³².

As a consequence of the aforementioned developments, in the 19th century the mechanization of silk industry and the investment of capital in industrialization took place in Bursa. With the boom of the textile market in Europe as a result of the Industrial Revolution, the European demand for silk increased to such an extent that a law that banned the selling of silk to foreigners before the needs of the domestic demand were met had to be passed on by the Ottoman Government in the early decades of this century. What even further accelerated the rise of this demand was the outbreak of pebrin, which reduced the growth of silk worms in Europe drastically. This epidemic

²⁷Kaygalak, *Kapitalizmin Taşrası*, 100-101.

²⁸ Murat Çizakça, "14.-19. Yüzyıllar Arasında Bursa İpekçiliği," in *Bir Masaldı Bursa*, ed. E. Yenal. (Istanbul: YKY, 1996), 80.

²⁹ Mehmet Genç, "Osmanlı Maliyesinde Malikane Sistemi," in *Türkiye İktisat Tarihi Semineri*, ed. O. Okyar and Ü. Nalbantoğlu. (Ankara, 1975), 291.

³⁰ İlhan Tekeli, "Evolution of Spatial Organization in the Ottoman Empire and Turkish Republic," in *From Medina to Metropolis, Heritage and Challenge in the Middle Eastern City*, ed. Charl Brown. (New Jersey: The Darwin Press, 1973), 259.

³¹ Lowry, *Bursa*, 62.

³² Kaygalak, *Kapitalizmin Taşrası*, 137.

in Europe not only increased the foreign demand on silk in Bursa, but also pushed French merchants to directly take part in the production of silk in Bursa. As a result, European capital made an entry to the city, but more importantly, the technique that brought out the silk from the cocoon mechanically was introduced. Therefore, a disastrous epidemic in Europe led to the mechanization of raw silk production in Bursa. Although there is controversy about the exact date of the foundation of the first factory, as well as the identity of its owner, the available information suggests that it most likely occurred sometime between 1835 and 1845, with the collaboration of European and local entrepreneurs³³. There were 8 silk factories by 1851³⁴, 29 by 1855³⁵, 36 by 1856 and 43 by 1858³⁶, and by 1872, 90% of silk production took place in factories³⁷. The consecutive foundations of these factories suggest that both foreign and domestic capital were incentivized to invest in silk production. Indeed, journals published reports written by engineers on how profitable it was to set up a silk factory in Bursa, even without the interest rate on initial capital used in investment³⁸. The emergence of two other epidemics, flacberie and muscardine, in 1853 in Europe, and the augmented demand on Bursa silk, also speeded up the process of factory building. It is also striking that in the time span of thirty years, what had initially started at the hands of foreign entrepreneurs quickly spread to their domestic counterparts, to such an extent that, according to French traveler George Perrot, only 14-17 % of the factories belonged to European businessmen³⁹. Although the relative lack of capital and being new to the technology used caused trouble to some of the Ottoman entrepreneurs in the beginning, this disadvantage was quickly compensated by their better access to regular labor force and cheaper input (such as wood), which increased the number of domestic investors in a

³³ L. Erder, *The Making of Industrial Bursa: Economic Activity and Population in a Turkish City 1835-1975* (Michigan: Xerox University Microfilms, 1976), 99.

³⁴ Kaygalak, *Kapitalizmin Taşrası*, 143.

³⁵ D. Quataert, *Sanayi Devrimi Çağında Osmanlı'da İmalat Sektörü*, trans. T. Güney. (İstanbul: İletişim Yayınları, 1999), 219.

³⁶ Kaygalak, *Kapitalizmin Taşrası*, 150.

³⁷ Ibid, 151.

³⁸ Dalsar, *Türk Sanayi*, 408; H. Kazgan, *Osmanlı'da Avrupa Finans Kapitali* (İstanbul: YKY, 1995), 109.

³⁹ N. Günaydın and R. Kaplanoğlu, *Seyahatnamelerde Bursa* (Bursa: Bursa Ticaret Borsası Yayınları, 2000), 141.

short time. Therefore, the relationship between European and Ottoman factory owners was more of mutual dependency than rivalry. In 1890, Bursa Chamber of Commerce and Industry, was founded with 105 members, and of all of its 750 members between 1890 and 1923, 58.3% was non-Muslim (could be a citizen of the realm as well as a foreign investor and further look into this list is required to make the distinction), while the remaining 41.7 % was Muslim.

Similar to what took place in Western European cities after the Industrial Revolution, labor force demanded by the industry emerged and the city went under major transformations in terms of urbanization. Starting from 1830s onwards, a direct and positive correlation seemed to appear between the size of the industry and the urban population. In 1830s, prior to the mechanization of the production of silk, the population of the town was around 60.000, which increased to 70.000 after the mechanization of silk production and peaked at 100.000 in 1855, as the production reached the maximum⁴⁰. In 1856, pebrin spread to Bursa cocoons as well, which initiated the long recession in silk industry that almost lasted for three decades. As a result, the urban population dropped down to 33.674 in 1879, and resuscitated back to 76.703 in 1895, after great efforts by Duyun-u Umumiye to revive the industry 1881 on⁴¹. As a result of the continuous expansion in silk production starting from the last decade of the 19th century, the town population increased to 137.653 in 1907⁴². The oscillation of population growth was also due to the labor market, which went under significant transformation in this time period. Due to the rising demand on silk, pressure on labor increased and workers became subject to strict working hours which was substantially different from the old mode of work at workshops. The fact that even children were subject to 7.5-13.5 hours of work per day indicates that, in terms of the rate of exploitation, the situation was not drastically different from Western Europe⁴³. One of the major transformations in the labor force was in terms of gender, since

⁴⁰ Erder, *The Making of Industrial Bursa*, 30.

⁴¹ Ibid, 66.

⁴² Kaygalak, *Kapitalizmin Taşrası*, 166.

⁴³ Ibid, 152.

according to Maling, in 1872, 96% of workers were women⁴⁴. Although in the beginning most of the female workers in question were Greek and Armenian, by 1869, the majority of them were Turkish. Alexander von Warsberg argued that Turkish women made an entry to the market when Armenian women asked for a raise in their wages. Although it is difficult to confirm this argument, what is important to note is that women, just as in the earliest industrial countries, became a major part of the labor force and they were capable of organizing against their employers, as strikes were part of the labor scene starting from 1859 to 1911⁴⁵.

19th century also demonstrates that Bursa's economy was almost fully incorporated to the global economy, as the type of production seems to be determined accordingly. For instance, by the 1880s, silk cocoon became an important good of export in Bursa, for the peasants found it less arduous to grow with the same price. Therefore, many peasants dropped out of silk production and concentrated on growing silk cocoons, which exemplifies sectoral division of labor and deindustrialization. Similarly, although the silk growth in Bursa flourished in the 19th century, the silk textile nearly collapsed, as a result of competition with European producers on silk and the replacement of silk with cotton in textile. For this reason, concentration on the production of raw silk rather than manufacturing silk textiles clearly indicates that Bursa in the 19th century became part of the international division of labor.

In addition to industrial activity going on in the city, Bursa's financial sector is also to be noted. Çızakça's study on cash waqfs in Bursa covering periods between 1555 and 1823 suggests that the local financial dynamics were influenced by the capital market to such an extent that in the course of 18th century, interest rate charged by Bursa cash waqfs was equal to the market interest rate in İstanbul⁴⁶. Therefore, the city's connection to the central network in the capital city, as well as the presence of cash waqfs which injected substantial amount of capital to the local economy, both

⁴⁴ Ibid, 151.

⁴⁵ Ibid, 151-154.

⁴⁶ Murat Çızakça, "Cash Waqfs of Bursa, 1555-1823," *JESHO* 38 (1995): 347.

contributing to the city becoming an important economic center, necessitates a thorough economic analysis of Bursa further.

Chapter 3

DIVISION OF INHERITANCE ACCORDING TO SHARI'A

To understand the theoretical part before looking at the practice, this section is going to introduce the rules on the division of inheritance according to Shari'a.

Probate registers in the Ottoman Empire were kept for people who came to *kadı* courts for the Islamic division of the estates. Although there were practices of other Islamic sects such as Shafi in some of the Middle Eastern cities of the Empire⁴⁷, it was the law of Hanafite sect which was practiced in Bursa and which therefore is going to be focused on this thesis. Canons of inheritance are specified in detail in Quran and the inheritors are divided into the following three groups; *Ahsab-ı Feraiz* (inheritors who have priority over the bequest), *Asabe* (the ones who collect the rest of the heritage after *Ahsab-ı Feraiz*) and *Zevilerham* (the group which has the last claim over the inheritance and whose status are often suspected⁴⁸). Only the first two groups are crucial for the methodology of this thesis, as the first group includes the spouse, father, mother, daughter, paternal granddaughter, sister, paternal half-sister, maternal half sister, paternal grandparents and the second group includes son, paternal grandson, brother, nephew, paternal uncle, and paternal cousin. Due to the nature of Sharia which levies more cash obligations to men such as *nafaka* or *diyet*, among the heirs of equal blood status with respect to the decedent, the man is allocated twice the inheritance of female relative. The list of inheritors demonstrates a much wider group of heirs compared to contemporary Turkish Civil Law, in order to avoid the collection of wealth in fewer

⁴⁷ Doris Behrens-Abouseif, *Egypt's Adjustment to Ottoman Rule: Institutions, Waqf and Architecture in Cairo (16th and 17th Centuries)* (Leiden: E.J.Brill, 1994), 147.

⁴⁸ Hamza Aktan, *Mukayeseli İslam Miras Hukuku* (Ankara: İşaret Yayınları, 1991), 34.

hands instead of spreading it. Moreover, as the share of each consanguineous heir is predetermined, it is not possible for the decedent to disinherit any of the heirs. What he or she can do instead is to allocate only one-third of his will to foundation of a *waqf* or to a relative by blood who is not an heir.

As the following calculation on the division of inheritance will point out⁴⁹, the basic purpose of Shari'a law of inheritance, in theory, is to ensure that the estate is distributed instead of accumulated in the hands of a few. Since our data contains a member of Ashab-ı Feraiz or Asabe for each decedent, the following part will be allotted to the explanation of the first two categories. However, before dilating on the heir types, it should be noted that the heir claim of the adopted children was against the Islamic law, as it was blood kinship which was essential for *feraiz*, science of Islamic inheritance, and for this reason they are not listed in Tereke registers. Therefore although their presence is important from a demographic perspective, the adopted children are omitted by the probates and from inheritance and capital accumulation debates of the realm.

The heirs with predefined shares, Ashab-ı Feraiz, are the following: Spouse(Husband/Wife), Parent(Father/Mother), Daughter, Paternal Granddaughter, sister, paternal half-sister, maternal half-sibling, grandfather, grandmother. This list shows that son, paternal grandson, brother, nephew, paternal uncle, paternal cousin are not part of the Ashab-ı Feraiz, as they receive only what is left from Ashab-ı Feraiz in terms of estate, which puts them under the Asabe group.

- If the decedent is a married woman, who has a child or a paternal grandchild, the husband receives $\frac{1}{4}$ of the estate. However, in the absence of children, he receives $\frac{1}{2}$ of the inheritance. In the meantime, even if the decedent has not other heir than her husband, the husband is still not entitled to more than what is specified for him.
- On the other hand, if the decedent is a man, his wife has a share of $\frac{1}{4}$, which drops down to $\frac{1}{8}$ if the decedent has a child or a paternal grandchild.
- The father of the deceased receives $\frac{1}{6}$ of the overall estate in the presence of a son, $\frac{1}{6}$ and the remainder from the Ashab-ı Feraiz (since there is no other

⁴⁹ The remaining part of this section is based on Aktan, *Mukayeseli İslam Miras Hukuku*, 41-120.

asabei nesebiyye) in the presence of a daughter, and the whole estate in the absence of another heir.

- The mother of the decedent obtains $\frac{1}{3}$ of the inheritance in the absence of child and grandchild, yet this decreases to $\frac{1}{6}$ in the presence of either of the two. However, if the spouse of the decedent is also present, then the mother receives only $\frac{1}{3}$ of what remains from the share of spouse.
- The daughter, if she does not have a brother, receives $\frac{1}{2}$ and if she has sisters, they receive $\frac{2}{3}$ of the overall estate and share equally. However, in the presence of a son, the status of daughter changes from Ashab-1 Feraiz to Asabe, and shares what remains of the estate from Ashab-1 Feraiz, in a way which allocates the daughter half of what the son receives. The weight difference between son and daughter on inheritance is usually attributed to the greater fiscal responsibility of men in the society, eg. alimony.
- Paternal granddaughter has a share of $\frac{1}{2}$ if the decedent has no child ($\frac{2}{3}$ if there are multiple paternal granddaughters), $\frac{1}{6}$ if the decedent has only one daughter, and has no share if the decedent has more than one daughter or he/she has a son. If there is a paternal grandson present, then the granddaughter receives the status of Asabe, and gets the exact same deal with the grandson as between a sister and a brother.
- The full sister receives half of the estate if the decedent has no brother of male lineage ($\frac{2}{3}$ if there are multiple sisters), and obtains the status of Asabe if the deceased has a brother (in an arrangement of 1-to-2 again) or there is only a daughter or a paternal granddaughter present. Nevertheless, in the presence of a male lineage, none of the sisters can inherit.
- Paternal half-sister is entitled to half of the estate ($\frac{2}{3}$ if there is more than one paternal half-sister), if there is no child, paternal grandchild and full sibling. While she receives $\frac{1}{6}$ in the presence of a single full sister, she has no share if there are more than only one full sister, or there is also a daughter or paternal granddaughter in addition to a single full sister. If the decedent has a paternal half-brother, then the paternal half sister becomes Asabe and obtains a deal of 1-to-2 with respect to the paternal half-brother. Similarly, in the presence of a daughter or paternal granddaughter, she becomes part of the Asabe group.

- Maternal half-sibling receives $\frac{1}{6}$ of the estate if there is no father, grandfather, child, paternal grandchild, and male lineage. If there is more than one maternal half sibling, then they receive a total share of $\frac{1}{3}$ and divide by the number of siblings. In the presence of any of the heirs stated above, the maternal half-sibling has no claim over the estate.
- The grandfather is entitled to the estate only if he is the paternal grandfather, and he has no share if the father of the decedent is alive. However, in the absence of father, the paternal grandfather receives $\frac{1}{5}$ of the estate.
- The grandmother, maternal or paternal, cannot be an heir in the presence of the mother. Moreover, the paternal grandmother's claim is cancelled out if the father is alive. However, apart from these situations, the grandmother receives $\frac{1}{6}$ of the inheritance.

Chapter 4

FINDINGS

The findings on mean number of heirs over time, the total number of heirs by wealth quintile, the frequency of heirs, the total number of most frequent heirs by wealth quintile, and their likely implications are going to be examined in this section. In the light of the question of the thesis, the results indeed indicate a general downsizing of heirs through four periods for the upper wealth quintiles, a reduction in the nuclear family size (which consists of the parents and their children only) in the family structure of wealthy people, and highlight the predominating heirs of probates that decreased the shares of other predefined heirs and increased the concentration of capital in fewer hands.

4.1 Mean Number of Heirs over Time

Before getting into the details of the relationship between wealth quintiles and heir numbers, it is important to observe whether a change occurred in the average number of heirs of a decedent to analyze a potential contraction or expansion in the inheritance division throughout the four periods between 1700 and 1840. The data on the heirs of the deceased indicates that from 1700 to 1840, the mean number of heirs of the average decedent continuously declined. The mean of total heirs from 1700 to 1840 are shown below (Table 2). The results show that the mean number of heirs has persistently declined throughout 1700 and 1840; from 4.24 to 4.11, 4.09 and finally, 3.82. Since the heir list in the probates not only includes first degree relatives like parents and siblings but also cousins and uncles, the analysis of this table is incapable of producing a

conclusive statement about the inheritance shares and distributions. However, since the same list of heirs stands for all periods, the change in the mean allows us to make a broad comparison. Although the decline between consecutive periods does not appear sharp, the overall decline from Period 1 to Period 4 seems sharp in the sense that 0.42 of an heir is lost on average. This decline can be attributed to both a decrease in fertility and an increase in mortality rates. However, since the population census of eighteenth century is not available, evidence to support or refute these hypotheses are not existent.

Table 2. Mean Number of Total Heirs by Period

Period	Size	Mean Number of Total Heir Number
1700-1720	262	4.24
1740-1760	482	4.11
1780-1800	515	4.09
1820-1840	377	3.82

*Total Heir Number includes all heirs stated in the registers, including spouse, daughter, son, minor, mother, unborn child, father, siblings, grandfather, grandmother, grandchild & others.

4.2 Total Heir Number by Wealth Quintile

The findings on the total heir number and wealth quintiles show that while in the earlier periods poor decedents had mostly very few heirs and wealthy groups had a big crowd of heirs, the picture changed and converged to a medium figure through the periods, and lower quintiles extended the heirs while their wealthy counterparts narrowed theirs down. The decomposition of total heir number by wealth quintiles for four periods, where Q1 stands for the lowest wealth quintile and Q5 represents the wealthiest quintile, are demonstrated below (Table 3, 4, 5, 6). A total heir number of 0 implies that the deceased was an orphan a bachelor/bachelorette or a widow without any relatives. On the other hand, if the value for the same variable is 1, it raises more possibilities. Due to the inclusivity of Islamic law of inheritance, a total heir number of one may be a parent, a spouse, a child, or a distant relative, like a paternal uncle, which may imply drastic differences in the portions of inheritance acquired by the heir (Since the ratios

are predefined, even in the absence of other heirs, the secondary heir is not allowed to receive all the inheritance). For this reason a more detailed examination of the heirs is going to be provided later in the thesis.

A first glance at these tables shows that a total heir number more than 7 appears rather infrequent and insignificant. An overall glance at these tables indicates that in Period 1 while lower wealth groups had fewer relatives, wealthier samples had more. However, over time, a gradual aggrandizement of family for lower wealth groups and a shrinking family structure for wealthier samples catches attention.

Between 1700 and 1720, there was a positive correlation with wealth and total heirs a decedent had, (Table 3). While the lowest wealth quintile also had the lowest number of total heirs, with the heir number distribution accumulated at 0 and 1; in contrast to this picture, the heir distribution of Q5 is concentrated between 4 and 6. While the same accumulation for Q2 lies between 4 and 8, for Q3 and Q4 it is located 3 and 6. It is also noteworthy that of 23 decedents who had 7 heirs, all quintiles have an almost equal share them, other than Q1. This may hint at the tendency to have large households was independent of one's wealth, and less wealthy families had the potential to have large households as much as wealthy ones.

In 1740-1760, while the frequency of decedents with fewer heirs increased in wealthier quintiles, the frequency of decedents with more heirs increased in lower wealth quintiles (Table 4). The distribution of heirs is concentrated across a wider range of heir numbers compared to the previous period, especially for Q1 and Q5, at 1 and 4 (peaking at 3, as opposed to 1 in the previous period), and 2 and 7(peaking at 3, as opposed to 5 in period 1), respectively. Moreover, among the 81 and 58 decedents with total heir of 4 and 5, Q2 has the highest ratio. In addition to this, in all quintiles except Q1, decedents with 6 heirs had a comparable share. However, unlike 1700-1720, the findings of 1740-1760 show that the distribution of the total heir number of 7 is concentrated mostly in Q4 and Q5.

Period 3, which stands for 1780-1800, shows similar trends with a more balanced spread of wealth quintiles into total heir numbers. In addition to this, the heir numbers

greater than 4 are almost equally distributed among the wealth quintiles and are not accumulated at the wealthiest instead. While Q1 has a higher density between 0 and 4, Q5 has its density in 2 and 7. While the distribution of 81 decedents with total heir number of 5 is rather equal between quintiles, the same distribution for total heir number of 6 has a higher density at Q4 and Q5. However, since the values for Q5 and Q1 are 11 and 9 respectively, the difference between top and bottom quintiles does not appear to be significant either. Apart from this, Q5 has almost one third of the decedents whose total heir number is 7, and the remaining quintiles had almost equal shares. This shows that although some fraction among the top wealth group continued to sustain bigger families, the same group decreased among the second wealthiest group. Nevertheless, it should be noted that despite the more equal distribution of heirs compared to the first period, there appears the inclination to peak at greater number of heirs (at 5 for the top three wealthiest quintiles) again, compared to the previous period.

The figures for period 4 are similar to period 3, in the sense that the lowest wealth quintile is denser between heir number of 0 and 3, though peaking at heir number 2 instead of 3 in the previous period, and the top wealth quintile has the highest density between 3 and 6 (Table 6). However, this time the distribution of the heir number of 6 is homogenous, and the densities of 4 and 5 are higher at Q2 and Q3. In addition to this, while the three wealthiest quintiles reached their peak density at the heir number of 5 in the period 3, in this period, the peaks dropped down to 3, and decreased by two heirs. Therefore, although a significant change did not occur for the lower quintiles with respect to the previous periods, it seems to have occurred for the rest.

Overall, the positive correlation between wealth and heir number in period 1 can be a result of affordability of bigger households in financial terms, in the sense that lower wealth decedents could not afford to have bigger families. In other words, this picture might also be a result of the differences in fertility and mortality rates among different wealth groups, under the assumption of the positive correlation between wealth and life expectancy. However, starting from Period 2, a more equally spread distribution of total heir numbers into quintiles is observed. While Q1 begins to have more decedents with larger total heir number, with densities moving up to 4, Q5's density shifts to lower number of heirs, down to 2 and 3. In other words, as decedents with greater heir numbers increase for lower income quintiles, the opposite takes place for the top wealth

quintile. Since there exist opposite trends in terms of family size, a potential decrease in mortality rates can only help to explain the trend of the least wealthy quintiles. Therefore, an educated guess would hint at a conscious decision among wealthier groups to downsize their families. Yet, an analysis of the data on mean wealth is necessary to have a more thorough interpretation of these findings, which will be made in the following subchapters.

Table 3. Total Heir Number by Wealth Quintile, 1700-1720

	Total Heir Number													
Q	0	1	2	3	4	5	6	7	8	9	11	12	13	Total
1	7	19	7	9	2	3	4	1	1	0	0	0	0	53
2	1	7	11	6	8	2	7	5	1	1	2	1	0	52
3	2	5	5	8	7	8	8	4	2	2	1	0	1	53
4	1	1	4	6	16	8	5	6	2	1	1	1	0	52
5	0	3	4	4	7	11	8	7	4	1	1	1	1	52
Total	11	35	31	33	40	32	32	23	10	5	5	3	2	262

Table 4. Total Heir Number by Wealth Quintile, 1740-1760

	Total Heir Number															
Q	0	1	2	3	4	5	6	7	8	9	10	11	14	16	Total	
1	13	12	13	25	12	10	6	3	2	0	1	0	0	0	97	
2	5	7	9	13	24	14	11	7	3	2	1	0	0	0	96	
3	2	4	14	25	15	14	10	5	2	1	3	2	0	0	97	
4	0	6	13	23	16	11	13	8	2	1	1	0	2	0	96	
5	1	3	13	18	14	9	13	12	6	4	2	0	0	1	96	
Total	21	32	62	104	81	58	53	35	15	8	8	2	2	1	482	

Table 5. Total Heir Number by Wealth Quintile, 1780-1800

	Total Heir Number														
Q	0	1	2	3	4	5	6	7	8	9	10	11	11	13	Total
1	13	15	15	17	12	10	9	7	2	3	0	0	0	0	103
2	4	11	15	24	21	15	4	5	1	1	2	0	0	0	103
3	7	7	12	19	17	20	9	7	1	4	0	0	0	0	103
4	2	4	14	9	19	19	13	7	8	6	0	2	0	0	103
5	7	4	11	11	15	17	11	16	2	1	1	3	3	1	103
Total	33	41	67	80	84	81	46	42	14	15	3	5	3	1	515

Table 6. Total Heir Number by Wealth Quintile, 1820-1840

	Total Heir Number													
Q	0	1	2	3	4	5	6	7	8	9	10	14	Total	
1	15	6	17	13	8	9	4	3	1	0	0	0	76	
2	5	5	8	19	15	10	5	5	1	1	1	0	75	
3	1	5	17	9	18	13	7	3	3	0	0	0	76	
4	4	4	8	17	14	9	8	5	4	2	0	0	75	
5	5	2	4	16	11	8	12	6	5	3	2	1	75	
Total	30	22	54	74	66	49	36	22	14	6	3	1	377	

4.3 Frequency of Heirs by Period: Practice of Division vs. Theory

To distinguish the theory from practice, this section examines the most common heirs for four periods to observe whether the presence of certain heirs was significant enough to restrict the share of other heirs to an important degree. The frequency of different kinds of heirs in the four periods under examination is illustrated below (Table 7). Though each heir has a predefined share according to Shari'a, depending on the gender of the deceased, his or her children, and fertility and mortality rates at a given moment, it is possible for certain heirs to predominate others. In other words, no matter what the predefined shares are, in reality some heirs do not receive a share, which is one of the

main reasons why this thesis tries to examine the actual practice of division. Therefore, it is important to define and examine the heirs which are included in most probate inventories for each period. The results, indeed, verify that the predominating presence of specific heir types indeed hindered or restricted the other heirs' claim on the inheritance, by showing the frequency of heirs and the change in the top three most frequent heirs throughout the periods.

Table 7. Frequency of Heirs by Period (%)

Period	Spouse	Daughter	Son	Minor	Unborn Child	Mother	Father	Siblings	G. father	G. mother	G. child	Other
1700 - 1720	77.86	53.05	52.67	50.38	3.05	21.37	6.49	18.32	0.76	0.38	0.38	7.63
1740 - 1760	82.78	50.00	43.78	53.94	3.94	25.73	10.79	21.99	0.00	0.41	1.66	8.09
1780 - 1800	79.81	47.96	52.62	50.87	1.55	20.39	8.54	19.61	0.19	0.78	1.55	6.60
1820 - 1840	77.19	49.87	53.32	43.50	1.86	16.18	4.24	19.10	0.00	0.27	0.00	7.43

The findings suggest that the most common heirs are members of the nuclear family, i.e., the spouse, the daughter, the son and the minor. For all periods, the spouse is always the most frequent heir of all without any exception, as it is possessed by always more than 70% of the decedent population. As described in the previous section, the gender of the spouse makes a significant difference in terms of dividing the inheritance, since a husband receives twice as much as a wife's share, regardless of the presence of children. (In the absence of any children, a husband receives half and a wife receives quarter of the inheritance, whereas if there are any children present, the husband's and wife's shares drop down to a quarter and one-eighth, respectively). For Period 1, 2 and

4, daughter is among the top three most common heirs. The daughter's allotted share comprises a significant portion of the overall inheritance (half of it if the decedent has no son). Yet, in the presence of a son, the daughter receives half of what her brother obtains. The son, on the other hand, is one of the most frequent heirs in Period 1, 3 and 4. The high frequency of sons is also noteworthy because as described in the previous sections, the presence of sons limits the inheritance rights, as well as portions, of many other heirs. The last type of heir which appears in Period 2 and 3 among the most frequent heirs is the minor. What is clear and expected in this list of top three frequent heirs, which are spouse, daughter, son and minor, is that they are part of the nuclear family, and although they restrict each others' share in inheritance, what is of greater significance is that they restrict the shares of secondary relatives to a substantial degree.

The results also indicate that, unlike in systems of primogeniture, relatives other than the oldest son, and especially female members have benefitted from the right to inherit. This implies that, unlike its European counterparts, the inhabitants of Bursa received a lesser share of the inheritance because they had to share it with their parents and their sisters. Nevertheless, certain possibilities should be taken into consideration, as what at first sight seems like a multiple division of inheritance might end up in the hands of son(s) in a patriarchal society. It was especially very common in guilds to continue the family tradition and to transfer the *gedik*, the document needed for the right of shop ownership⁵⁰, from father to son. Therefore in a hypothetical family of a guild member father, a daughter and a son, who have recently lost their mother, the inheritance received by the father was likely be eventually transferred to his son, if not immediately. Even though this assumption cannot be proposed as a certainty, the possibility of a difference between theory and practice should be taken into account. The same scenario may apply to wealthier families who established family businesses in trade. In another scenario where this time it is the father who has passed away, the son is at an even more advantageous position, for not only he acquires a greater share from the inheritance, but since he would be the financial head of the family from that point on, it would be very likely of him to make use of the share allotted to his mother, if he would ever want to use it for an investment. Similarly, while a married daughter might completely take her share and keep it to herself, a bachelorette living in the same

⁵⁰ Nikolai Todorov, *The Balkan City 1400-1900* (Seattle: University of Washington Press, 1983), 114.

household could also be likely to depend on her brother for income continuity and therefore, could be willing to allow him to make use of her share.

4.4 Frequency of Heirs by Wealth Quintile

This section examines the number of most frequent heirs for each wealth quintile between 1700 and 1840 to observe whether a decrease or increase occurred in quintiles to suggest a rise in the capital accumulation of Bursa. As the gender of minors is unknown in the database at hand, the fourth most frequent heir, who is daughter or son, replaced minor for the sake of argument in period 2 and 3. The findings indicate that in the course of four periods, the distribution of least wealthy groups shifted up whereas the distribution of wealthy groups shifted down, which hints at smaller groups of primary heirs for the rich, and more capital accumulation.

In the light of information presented by Table 7, the illustrations of this section will repeat the form illustrated by section 4.2; however, this time the total heir number will only consist of the three most frequent heirs for each period. While the first line for each quintile shows the number of decedents with the corresponding heir number, the line below shows the percentage of that quintile for various heir numbers. Different from the previous set of tables, this time a total heir number of zero have direct implications about the family, such that the decedent did not set a new family different from his parents'. Therefore, a total heir number of zero might imply that the deceased was a child, was an adolescent, was someone not wealthy enough to establish his or her own household, or someone whose heirs could not be identified. Some of these might also be estates confiscated by the state due to lack of identifiable heirs.

For Period 1 (1700-1720), a positive correlation between wealth and heir number reappears (Table 8). Looking at the distributions of percentages of Q1 and Q2, it is observed that their highest densities are at a total heir number of 1, with 35.85% and 36.54% respectively. As the quintiles get wealthier, the densities shift to right. While Q3 has its peak at total heir number of 3, the peaks for Q4 and Q5 are at 4 and 5 respectively. The findings of Table 8 suggest that, for the adult decedents, establishing a

separate household seems like a matter of financial resources. However, the possibility of a negative correlation between mortality rate and wealth should also be taken into consideration, which can also be used to explain the results. In either way, the results show that between 1700 and 1720, wealthier families tended to have bigger households and therefore more heirs and had their inheritance divided more compared to their less wealthy counterparts.

The findings of period 1740-1760 (Table 9), on the other hand, show a different configuration of peaks for the quintiles, which resulted in the shifting down of the peaks of three most wealthy quintiles down while shifting up the second poorest quintile and keeping the poorest group constant. While the two lowest quintiles are still concentrated at the total heir number of 1 and 2, the highest densities of the remaining ones are also located at 2, 2 and 1, for Q3, Q4 and Q5 respectively. The change and shift to the left for the higher wealth quintiles is noteworthy because it gives a different picture from that of the Table 4. In Table 4, Q5 had its highest percentage at the total heir number 3, and its density interval was between 2 and 7, whereas Table 9 indicates that for the most frequent heirs of 1740-1760, it concentrates at 1. From one perspective it is normal that the numbers are less than the set of tables described above, as this list of heirs refers to a smaller group. Having said that, this also shows that despite the higher number of heirs it possesses, the wealthiest quintile has a relatively lower number of predominating heirs, which equals to 1 in Period 2. In other words, even if there are eight inheritors registered at a wealthy decedent's probate, the presence of spouse and children restricts the remaining heirs; the presence of fewer numbers of children restricts the others, and decreases the division of the inheritance, which is larger for a wealthier decedent. Apart from this, it also strikes attention that the percentage of Q2 for the total heir number of 5 is higher than the percentage for Q4 at the same number, 7.29% and 3.13% respectively. This indicates that while a potential enlargement of the nuclear family occurred in Q2, there happens to be a significant reduction in the family size of the top wealth quintile (unless all decedents in the Q5 are children, which is unlikely since then the same would have applied to remaining quintiles as well).

This picture slightly changes in period 3, which represents the data for 1780-1800, as the increasing peak of the wealthiest and the decreasing peak of the second wealthiest groups balance out each other on average (Table 10). While the population of Q1 and

Q2 peak at the heir number of 1, Q3, Q4 and Q5 shift up to 3 heirs, which is more than the previous period. In addition to this, all quintiles except Q1 have similar percentages from their group at the heir number of 4. Overall, when the top two quintiles are examined, the fact that they condense around 3 shows that their peaks still shifted down compared to 1700-1720, nevertheless, the distribution still slightly shifted to the right.

The last period, 1820-1840, shows opposing trends for different quintiles (Table 11). While the highest percentages of Q1 and Q3 drop down to total heir number 0 and 2, the values for Q2 and Q4 increase to 2 and 3. In the meantime, the highest density of Q5 remains at heir number 3, with 18.67%. In addition to this, the concentration of Q5 increases at the heir number 0 and 1 compared to the previous period. Therefore, it can be concluded that the distribution of the wealthiest quintile shifted left.

Comparing four periods starting from 1700 to 1840, it is noticeable that all quintiles start off with significant differences in terms of their densities at total heir numbers. However, starting from Period 2, the gap between total heir numbers with highest concentration of each quintile begins to decrease. As a result, in the last period, Q2 and Q3 peak at the number 2 and Q4 and Q5 peak at number 3. Therefore, overtime wealthier members of the society begin to have smaller families. In addition to this, having 3 heirs on average is not a big number even by contemporary standards, which might, for instance, correspond to a spouse and two children. Therefore, especially after 1740, due to various potential reasons like life expectancy and mortality rate explained above, wealthier quintiles of the society ended up with fewer predominating heirs, which indicates that the inheritance was kept more intact compared to previous periods.

Table 8. Total Number and Percentage of Spouse, Daughter and Son by Wealth Quintile, 1700-1720

	Total Heir Number										
Q	0	1	2	3	4	5	6	7	8	9	Total
1	13	19	9	7	5	0	0	0	0	0	53
	24.53	35.85	16.98	13.21	9.43	0.00	0.00	0.00	0.00	0.00	100.00
2	3	19	7	12	6	1	2	2	0	0	52
	5.77	36.54	13.46	23.08	11.54	1.92	3.85	3.85	0.00	0.00	100.00
3	6	9	7	15	6	8	1	1	0	0	53
	11.32	16.98	13.21	28.30	11.32	15.09	1.89	1.89	0.00	0.00	100.00
4	4	10	8	9	11	6	1	2	1	0	52
	7.69	19.23	15.38	17.31	21.15	11.54	1.92	3.85	1.92	0.00	100.00
5	3	7	6	10	8	13	3	0	0	2	52
	5.77	13.46	11.54	19.23	15.38	25.00	5.77	0.00	0.00	3.85	100.00
Total	29	64	37	53	36	28	7	5	1	2	262
	11.07	24.43	14.12	20.23	13.74	10.69	2.67	1.91	0.38	0.76	100.00

Table 9. Total Number of Spouse, Daughter and Son by Wealth Quintile, 1740-1760

	Total Heir Number											
Q	0	1	2	3	4	5	6	7	8	9	10	Total
1	17	33	24	18	3	1	1	0	0	0	0	97
	17.53	34.02	24.74	18.56	3.09	1.03	1.03	0.00	0.00	0.00	0.00	100.00
2	6	24	33	16	6	7	3	1	0	0	0	96
	6.25	25.00	34.38	16.67	6.25	7.29	3.13	1.04	0.00	0.00	0.00	100.00
3	5	26	29	20	9	4	1	3	0	0	0	97
	5.15	26.80	29.90	20.62	9.28	4.12	1.03	3.09	0.00	0.00	0.00	100.00
4	4	24	26	21	13	3	1	2	1	1	0	96
	4.17	25.00	27.08	21.88	13.54	3.13	1.04	2.08	1.04	1.04	0.00	100.00
5	5	22	18	17	20	9	4	0	0	0	1	96
	5.21	22.92	18.75	17.71	20.83	9.38	4.17	0.00	0.00	0.00	1.04	100.00
Total	37	129	130	92	51	24	10	6	1	1	1	482
	7.68	26.76	26.97	19.09	10.58	4.98	2.07	1.24	0.21	0.21	0.21	100.00

Table 10. Total Number and Percentage of Spouse, Daughter and Son by Wealth Quintile, 1780-1800

Q	Total Heir Number									Total
	0	1	2	3	4	5	6	7	8	
1	18	30	26	13	10	5	1	0	0	103
	17.48	29.13	25.24	12.62	9.71	4.85	0.97	0.00	0.00	100.00
2	8	33	30	14	11	6	0	0	1	103
	7.77	32.04	29.13	13.59	10.68	5.83	0.00	0.00	0.97	100.00
3	15	22	25	25	11	3	2	0	0	103
	14.56	21.36	24.27	24.27	10.68	2.91	1.94	0.00	0.00	100.00
4	5	17	21	32	12	10	4	2	0	103
	4.85	16.50	20.39	31.07	11.65	9.71	3.88	1.94	0.00	100.00
5	9	11	17	23	23	10	2	4	4	103
	8.74	10.68	16.50	22.33	22.33	9.71	1.94	3.88	3.88	100.00
Total	55	113	119	107	67	34	9	6	5	515
	10.68	21.94	23.11	20.78	13.01	6.60	1.75	1.17	0.97	100.00

Table 11. Total Number and Percentage of Spouse, Daughter and Son by Wealth Quintile, 1820-1840

Q	Total Heir Number									Total
	0	1	2	3	4	5	6	7	9	
1	20	15	17	11	10	3	0	0	0	76
	26.32	19.74	22.37	14.47	13.16	3.95	0.00	0.00	0.00	100.00
2	7	14	23	18	8	2	2	1	0	75
	9.33	18.67	30.67	24.00	10.67	2.67	2.67	1.33	0.00	100.00
3	3	18	21	18	13	1	1	1	0	76
	3.95	23.68	27.63	23.68	17.11	1.32	1.32	1.32	0.00	100.00
4	6	14	16	19	13	7	0	0	0	75
	8.00	18.67	21.33	25.33	17.33	9.33	0.00	0.00	0.00	100.00
5	9	10	13	14	12	5	6	2	4	75
	12.00	13.33	17.33	18.67	16.00	6.67	8.00	2.67	5.33	100.00
Total	45	71	90	80	56	18	9	4	4	377
	11.94	18.83	23.87	21.22	14.85	4.77	2.39	1.06	1.06	100.00

4.5 Implications

The findings presented above generally outline a gradual expansion in the distribution of heirs in lower wealth groups and a leftwards shift in the heir distribution of the wealthier quintiles from 1700 to 1840. While this may be the direct consequence of a conscious decision regarding the number of children taken by the decedents in the database, more direct parameters of this picture are likely to be fluctuations in wealth from one period to the other and epidemics in the city. Therefore, the changes in wealth and factors that affected mortality are going to be analyzed and linked to the findings in this chapter.

Table 12. Mean Wealth (deflated by Pamuk CPI) by Period

Period	Mean Wealth (akçe)
1700-1720	278.084
1740-1760	367.461
1780-1800	352.826
1820-1840	127.697

The data on mean wealth indicates a boom from Period 1 (1700-1720) with 278084 akçes to Period 2 (1740-1760) with 367.461 akçes; however, the values drop in the following period (1780-1800) to 352826 akçes, and they hit rock bottom with 127697 akçes in Period 4 (1820-1840) (Table 12). This picture is consistent with the economic history of Bursa. The city started the century off with a great boom in silk production, yet, experienced a decline in the last decades of the century. Reasons such as 1768 war with Russia, 1778 plague and 1796 fire all must have had an impact on the decrease of mean wealth in the given time period⁵¹. Similarly, the recession between 1820 and 1840 may be explained by plague and cholera in 1814 and 1830⁵², as well as war with Russia in 1829-1829. When the mean wealth is compared to mean heir number across periods (Table 1), the fact that both values decrease starting from Period 2 may imply that as the

⁵¹ Hülya Canbakal, "A Long Term Perspective On Ottoman Economy: Bursa, 1500-1840" (paper presented at the EHS Annual Conference, University of York, 5-7April, 2013).

⁵² Canbakal, "A Long Term Perspective On Ottoman Economy: Bursa, 1500-1840" .

average wealth of the average decedent decreased, it became more difficult for people to sustain larger nuclear families. This may imply the decision to have fewer children in a time of crisis, as well as increasing mortality rates as a result of deteriorating living standards. However, even if this was the reason, it does not explain the increase in mean wealth and the decrease in mean heir number in Period 2. For this reason, a better understanding of this picture necessitates a closer look at different wealth groups across periods.

Table 13. Mean Wealth by Wealth Quintiles across Periods

Wealth Quintiles	Mean Wealth (akçe)			
	1700-1720	1740-1760	1780-1800	1820-1840
1	6.933	10.678	5.798	4.727
2	21.150	32.194	21.611	13.029
3	39.780	65.968	61.271	30.536
4	100.045	183.166	178.461	81.761
5	1.232.307	1.175.303	1.496.990	511.366

Comparing the figures on mean wealth and the number of heirs in Period 2 and Period 1, it can be observed that the number of heirs in the two bottom quintiles as well as mean wealth increased (Table 13). While a causal relationship is difficult to suggest at this point, nevertheless, the rightward shift in heir number might be explained by the affordability of a greater nuclear family due to increasing mean wealth. Again, this may imply lower mortality as a result of improvement of health, and the decision to have more kids. While the mean wealth of quintiles 3 and 4 also increased, an opposite trend is present in the number of heirs table. While the contraction in the nuclear families of these groups might be sheer coincidence, it may as well be a conscious decision to invest more in fewer numbers of direct heirs. The wealthiest quintile, on the other hand, both decreased in mean wealth and shifted the heir distribution to left, which might be a consequence of reduction in affordability of children or spouses, although it is unlikely to be an issue for this quintile.

Findings of Period 3 shows that the only group whose mean wealth increased was the wealthiest quintile and other groups experienced a decline, which is consistent with both

the overall mean wealth in this period, and the history of the city as mentioned above. Interestingly, despite this decline, the heir distribution of lower wealth quintiles still shifted rightwards, slightly compared to Period 2 and sharply compared to Period 1. Similarly, although the second wealthiest quintile had a decreasing mean wealth, a rightwards shift also took place in this group as well. This raises the possibility of the weakness of the link between affordability and actual family size, since despite the economic difficulties; nuclear family seems to expand, especially among lower quintiles. The top wealth quintile both increased in mean wealth and shifted the heir distribution to right, which may be attributed to increasing affordability but also to other unknown dynamics, such as fear for survival due to 1778 plague.

Evidence demonstrates that in Period 4, the mean wealth for all quintiles decreased drastically (almost by 50% compared to Period 3). However, this time the decline led to different consequences than the previous period. While the lowest wealth group's heir distribution shifted left, the distribution of the second lowest group shifted right. The different directions of the two lowest wealth groups put doubt on the relationship between nuclear family size and affordability again. Apart from these groups, the two top wealth groups shifted left in their heir distribution, while their mean wealth declined as well.

The overall picture indicates that the relationship between wealth and family size of Bursa across periods did not follow a linear trend, which is natural since the city itself experienced major changes such as wars, plagues and political transitions in the given timeframe. For this reason, correlations that hold true for one period usually became invalid in the following period. The nonlinear relationship between wealth and family size might be explained by a parameter not known at this point which affects these variables differently. Another possibility for the nonlinearity may be the fertility and wealth thresholds. In other words, there might be thresholds that need to be surpassed for a change in wealth to have an effect on fertility. Similarly, beyond certain thresholds, change in wealth may not have any effect on fertility. In addition to these, these thresholds may be different for different wealth quintiles, which may help to explain different correlations of wealth and fertility in different quintiles.

The ratios of wealth figures in the last period over the first period demonstrate another interesting picture. While the bottom quintiles in the last period are equal to 68% (Q1) and 62% (Q2) of their wealth in the first period, the values for upper quintiles are higher, 78% (Q3) and 82% (Q4). Based on the leftwards shift in the distribution of upper quintiles in the later periods, this might indicate an increase in the wealth per capita at the beginning of 19th century. However, the same figure for the wealthiest quintile is 42%, which means the wealth level in the last period is less than half of what this quintile possessed in the first period. This is important because even if an important leftwards shift occurred in the heir distribution of the wealthiest quintile in the last periods, because of the decline in wealth, the actual level of wealth accumulation of capital accumulation per capital might have not changed at all. However, since these are mean values for each quintile, it is difficult to make a statement without looking into the actual level of wealth inherited by each heir.

Chapter 5

CONCLUSION

The findings of this thesis can be summarized under four headings. First of all, from 1700 to 1840s the number of heirs of decedents continuously decreased in Bursa. A direct consequence of this decline is very likely to be an increase in the wealth accumulation per capita, due to fewer heirs to share the estates. Secondly, for the four periods under examination, the distribution of lower wealth quintiles shifted from lower numbers to higher number of heirs, whereas the opposite occurred for the wealthier quintiles. This result hints at a potential increase in the affordability of families for the poor groups, but more importantly, the significant difference in the distribution of the number of heirs between 1700 and 1840 suggests more wealth accumulation per capita among the wealthy quintiles. Thirdly, as one of the major aims of this thesis was to point out the practical power of certain heirs to cancel out others, the findings show that nuclear family (spouse, daughter and son) was always the most common for all four periods. A direct implication of this result is that despite the long list of heirs, the shares of most of these predefined heirs were significantly restricted by the members of the nuclear family. Therefore, despite the theory, in practice, few numbers of heirs were entitled to a significant share of the estate. In the light of this finding, fourthly, the distribution of frequent heirs followed a similar pattern to the total heir number, that is to say, while the peak of lower wealth quintiles shifted to a higher number of heirs from period 1 to period 4, the distribution of wealthy groups shifted down in the same time zone. All these findings suggest the possibility of a gradual increase in the wealth accumulation coming from intergenerational wealth transfers as a result of decreasing heir numbers and predominant heirs. However, although the rates of decline in wealth for each quintile is compared with the distribution of number of heirs, the values of

wealth accumulated by each heir is necessary to make a statement about changes in wealth accumulation per capita.

This implication is compatible with the economic scene in Bursa during the 18th and 19th centuries as described in detail in Chapter 2. Apart from this, as explained in Chapter 4.5, the findings on wealth also seem to corroborate with the history of the city, such that in times of high silk production the mean wealth is high whereas in more troubled times, like war and plagues, the same value is much lower. However, compared with the distribution of frequent heirs, the mean wealth for different quintiles does not possess a full explanatory power. In other words, the heir distribution of the decedents followed a non-linear path with respect to their average wealth. Nevertheless, since Bursa was a major commercial center with a flourishing industry in the 19th century, a certain level of wealth accumulation must have taken place in some form prior to these developments and this thesis hopefully sheds light to the reflection of these partially, as it suggests that intergenerational wealth transfer was likely to play a serious role in the wealth accumulation, due to the characteristics of the heirs as analyzed above.

Since the scope of this research does not go beyond Bursa, it is not possible to speak broadly for the Ottoman Empire at this point. For this reason evidence from other Ottoman cities is needed to highlight the share of intergenerational wealth transfers in capital accumulation in the realm on the eve of modernity. As for the scope of this thesis, comparisons with European probates can be made to compare and contrast the outcomes of Shari'a and Primogeniture on wealth accumulation. Moreover, with the predefined shares allocated to each heir, a simulation of division among the frequent heirs would be useful to determine the theoretical accumulation of wealth. As the share of each heir is recorded in the probate registers (but not in the data used in this research), the results can be verified and the actual division can be compared to the one proposed by the rough calculation as well. The findings of this thesis are hoped to encourage further research in that direction.

BIBLIOGRAPHY

- Aktan, Hamza. *Mukayeseli İslam Miras Hukuku*. Ankara: İşaret Yayınları, 1991.
- Behar, Cem. *The Population of the Ottoman Empire and Turkey, 1500-1927*. Ankara: Türkiye İstatistik Kurumu Matbaası, 2011.
- Behrens-Abouseif, Doris. *Egypt's Adjustment to Ottoman Rule: Institutions, Waqf and Architecture in Cairo (16th and 17th Centuries)*. Leiden: E.J.Brill, 1994.
- Bilgin, Arif, and Fatih Bozkurt. "Bir Malî Gelir Kaynağı Olarak Vârissiz Ölenlerin Terekeleri ve Beytülmal Mukataaları." *Kocaeli Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* 20/2 (2010): 1-31.
- Canbakal, Hülya. "A Long Term Perspective On Ottoman Economy: Bursa, 1500-1840." Paper presented at the EHS Annual Conference, University of York, 5-7April, 2013.
- Canbakal, Hülya and Alpay Filiztekin. "Osmanlı İmparatorluğunda Servet Dağılımı (Distribution of wealth in the Ottoman Empire)" TUBITAK Project no: 108K034.
- Cosgel, M. And Boğaç A. Ergene. "Intergenerational wealth accumulation and dispersion in the Ottoman Empire: observations from eighteenth-century Kastamonu." *European Review of Economic History* 15 (2011): 255-276.
- Çizakça, Murat. "Cash Waqfs of Bursa, 1555-1823." *JESHO* 38 (1995): 313-351.
- Çizakça, Murat. "14.-19. Yüzyıllar Arasında Bursa İpekçiliği." In *Bir Masaldı Bursa*, edited by E. Yenal, 69-81. Istanbul: YKY, 1996.
- Çizakça, Murat. Review of *The Long Divergence: How Islamic Law Held Back the Middle East*, by Timur Kuran. *EH.NET*, June 2011, Book Review. http://eh.net/book_reviews/the-long-divergence-how-islamic-law-held-back-the-middle-east/.
- Dalsar, Fahri. *Türk Sanayi ve Ticaret Tarihinde Bursa'da İpekçilik*. Istanbul: Sermet Matbaası, 1960.
- Duben, Alan, and Cem Behar. *Istanbul Households: Marriage, family and fertility, 1880-1940*. Cambridge: Cambridge University Press, 1991.
- Erder, L. *The Making of Industrial Bursa: Economic Activity and Population in a Turkish City 1835-1975*. Michigan: Xerox University Microfilms, 1976.

Genç, Mehmet. "Osmanlı Maliyesinde Malikane Sistemi." In *Türkiye İktisat Tarihi Semineri*, edited by O.Okuyar and Ü. Nalbantoğlu, 231-296. Ankara, 1975.

Gerber, Haim. *Economy and Society in an Ottoman City: Bursa, 1600-1700*. Jerusalem: The Hebrew University Press, 1988.

Günaydın, N., and R. Kaplanoğlu. *Seyahatnamelerde Bursa*. Bursa: Bursa Ticaret Borsası Yayınları, 2000.

İnalçık, Halil. "HARİR." In *The Encyclopedia of Islam*. Vol. 3. Leiden: E. J. Brill, 1971.

Kaygalak, Sevilay. *Kapitalizmin Taşrası: 16. Yüzyıldan 19. Yüzyıla Bursa'da Toplumsal Süreçler ve Mekânsal Değişim*. İstanbul: İletişim Yayınları, 2008.

Kazgan, H. *Osmanlı'da Avrupa Finans Kapitali*. İstanbul: YKY, 1995.

Kotlikoff, Laurence J. and Lawrence H. Summers. "The Role of Intergenerational Transfers in Aggregate Capital Accumulation." *Journal of Political Economy* 89(4) (1981): 706-732.

Kuran, Timur. "Why the Middle East is Economically Underdeveloped: Historical Mechanisms of Institutional Stagnation." *Journal of Economic Perspectives* 18(3) (2004): 71-90.

Lowry, H. W. *Ottoman Bursa in Travel Accounts*. Indiana: Indiana University, 2003.

Ohlsson, Henry et al. "Inherited wealth over the path of development: Sweden, 1810–2010." Uppsala Center for Fiscal Studies Department of Economics Working Paper 2014(7).

Piketty, Thomas. *Le Capital au XXIe siècle*. Paris: Seuil, 2013.

Quataert, D. *Sanayi Devrimi Çağında Osmanlı'da İmalat Sektörü*. Translated by T. Güney. İstanbul: İletişim Yayınları, 1999.

Tekeli, İ. "Evolution of Spatial Organization in the Ottoman Empire and Turkish Republic." In *From Medina to Metropolis, Heritage and Challenge in the Middle Eastern City*, edited by Charl Brown, 144-273. New Jersey: The Darwin Press, 1973.

Tığlay, Pelin. "Examining Probate Registers: Age distribution of Bursa, 1500-1840." Unpublished seminar paper, Sabancı University, 2014.

Todorov, Nikolai. *The Balkan City 1400-1900*. Seattle: University of Washington Press, 1983.

Todorova, Maria N. *Balkan Family Structure and the European Pattern: Demographic Developments in Ottoman Bulgaria*. Budapest: Central European University Press, 2006.

Appendix – Data Description

Table 1. Residency by Period

Residency	1700-1720	1740-1760	1780-1800	1820-1840	Total
Rural	26	38	35	73	172
Urban	235	443	480	301	1,459

Table 2. Gender Distribution (with percentage) by Period

Gender	1700-1720	1740-1760	1780-1800	1820-1840	Total
Female	90	197	191	117	595
	15.13%	33.11%	32.10%	19.66%	100.00%
Male	172	285	324	260	1,041
	16.52%	27.38%	31.12%	24.98%	100.00%

Table 3. Religious Distribution (with percentage) by Period

Religion	1700-1720	1740-1760	1780-1800	1820-1840	Total
Muslim	262	481	461	329	1,533
	17.09%	31.38%	30.07%	21.46%	100.00%
Non-Muslim	0	1	54	48	103
	0.00%	0.97%	52.43%	46.60%	100.00%

Glossary

Ađa: Aga

Düyun-u Umumiye: Public Debts

Defter: Register

Kadı: Muslim judge

Nafaka: Alimony

Nüfus Tezkereleri: Birth certificates

Paşa: Pasha

Shari'a: Muslim canonical law

Tereke: Probate

Waqf: Charitable foundation

Vukuat Defterleri: Incident book