SOCIAL AND ECONOMIC UNDERPINNINGS OF INDUSTRIAL DEVELOPMENT:

EVIDENCE FROM OTTOMAN MACEDONIA

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ABSTRACT

During the last decades of Ottoman rule substantial textile industrialisation occurred in Macedonia, most prominently in the region of the town of Naoussa. Focusing on the town, this paper demonstrates the economic processes through which trade liberalisation in the 1830s eventually led to industrialisation. The emergence of industrial capitalism relied on Christian communal institutions and mechanisms. These reflected sharp social stratification and were relatively independent of the central Ottoman state. It is further shown that there was no capitalist transformation of agriculture, even though industrialists and merchants often owned large landed estates. Lack of systematic access to the central Ottoman state and absence of agrarian transformation were hindrances to further industrial development.
1. Introduction

Economic development in the context of trade liberalisation requires both social and economic underpinnings. It is increasingly accepted that capitalist development depends not only on resources, skills and market-determined prices, but also on social contacts and reciprocal obligations, often with a communal dimension. Communal self-organisation, bridging and bonding practices among economic agents and an atmosphere of trust are necessary for markets to operate successfully.

Industrial development in the late Ottoman Empire provides some insight into such relations. Significant development did occur in the Empire in the second half of the 19th century under conditions of trade liberalisation. Moreover, Ottoman development had a strong communal aspect. To be specific, spontaneous Ottoman industrialisation occurred mainly in mechanised cotton spinning (Quataert 1993a: ch. 2; Palairet 1997: ch. 11). Fairly rapid growth took place after the 1870s, most prominently in contemporary central/western Greek Macedonia. This region stretches from the port city of Thessaloniki to the three provincial towns of Veroia, Naoussa and Edhessa. Its economic history has been little studied, while interest has focused almost exclusively on Thessaloniki. However, industrialisation took place earlier and independently in the three provincial towns, and their industrial capacity exceeded that of Thessaloniki in 1912, when Ottoman rule ended. Moreover, their industrial development was largely an affair of the Christian community and occurred under trade liberalisation, adopted by the Empire in the 1830s.

In this article the social and economic underpinnings of Ottoman industrialisation are examined through the economic history of Naoussa. This approach - essentially a case study - is appropriate because textile industrialisation in Ottoman Macedonia was to a large extent led by entrepreneurs from Naoussa. The town possessed the first viable cotton-spinning mill in

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1 Place names are a fraught issue in Macedonia. Here Greek names are used, but original Turkish and Slavic names are frequently given in Hellenised form. Naoussa was also commonly called Niaousta; its Turkish and Slavic names were Agostos and Negush, respectively.
Macedonia and exported industrial capital to the rest of the region, including Thessaloniki. In 1912, Naoussa families controlled around 30% of the total mechanised cotton spinning capacity of the Empire. They also held much of the Empire’s capacity in factory-produced woollen cloth.

The remarkable role played by Naoussa in Ottoman industrialisation was partly due to the social and political structures of its Christian community. During the late Ottoman period the town was dominated by the *chorbaji*, a group of Christian landowners, industrialists and merchants. It is shown in sections 2, 3 and 4 that the dominant group controlled productive assets, while dominating trade in cotton yarn and woollen cloth. Their ability to obtain investment funds, technology and market information depended on family and trade networks. It also depended on political and social power drawn from the mechanisms of local autonomy for Christians and the institutions of the Orthodox Church. Such power was instrumental in resolving conflicts among the *chorbaji* as well as between them and industrial workers. But the communal and provincial aspect of *chorbaji* power meant that they were ill equipped to deal with the broader requirements of further Ottoman industrialisation.

Particularly important in this respect were relations between the *chorbaji* and the Ottoman state. Following the *Tanzimat* proclamation of 1839 the Ottoman authorities re-centralised state power, restructured fiscal mechanisms, improved transport and communications infrastructure, and created a legal framework securing capitalist property. The authorities, meanwhile, kept aloof from spontaneous industrialisation processes. There was no question of industrial or other development policy. In this context, Naoussa *chorbaji* learned to negotiate their relationship with the local Ottoman state and became partially integrated into its lower reaches. The result was to strengthen *chorbaji* control over the mechanisms of communal autonomy deployed to confront social and economic problems. At the same time,
the chorbaji remained remote from the centre of Ottoman state power in Istanbul - and even Thessaloniki - despite their increasing economic importance.

Furthermore, textile industrialisation in central/western Macedonia took place while the agricultural plain lay firmly under landlord control. Landlords were typically Muslims but a significant minority were Naoussa Christians. The latter often had commercial and industrial interests, while generally lacking mechanisms of social and political control over the plain, where Muslim landlords predominated. Sections 6 and 7 show that industrialisation in Naoussa was not accompanied by capitalist transformation of agrarian relations. The estates of Christian landlords did not become large agrarian capitalist concerns and perhaps were less productive than Muslim-owned estates. The failure to bring about capitalist transformation of agriculture did not facilitate further industrial development in provincial Ottoman Macedonia.

Industrial capitalism thus emerged in Ottoman Macedonia against a background of trade liberalisation, political and institutional reform by the state, absence of industrial policy, and estate-dominated agriculture. The success of provincial Macedonia supports Palairet’s (1997: 356) conclusion that late Ottoman institutions were not inimical to development. But it should also be noted that this success remained precarious since, in 1912, provincial Macedonian industrialists faced fierce competition from cheap imported cotton yarn, unsteady supplies of cotton, lack of advanced technology, intense social and political tensions at home as well as friction with Jewish capitalists in Thessaloniki. Confronting these broad challenges required political and social power across much of the Empire - or at least its European parts - such as was available to the central state. To this power the capitalists of central/western Macedonia had limited access.

Put differently, Macedonian entrepreneurs remained a provincial group of Christian capitalists and neither became, nor were they integrated into a broader capitalist class. They

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2 Palairet’s further claim that the destruction of the Empire led to economic retrogression requires detailed investigation of the interwar evolution of the region’s economy. This is a complex issue that lies beyond the concerns of this article.
controlled community-based mechanisms that facilitated the emergence of industrial capitalism, but these were of limited value in dealing with problems of broader and more complex industrialisation. Thus, the experience of Ottoman Macedonia indicates that there are limits to how far community-based organisation and practices can take the process of industrialisation. Social and political mechanisms linking capitalists to the central state become necessary for further development. If the Ottoman Empire had survived longer in Europe, it is conceivable that the relationship between the Christian chorbaji and the central Ottoman state would have been renegotiated along such lines, despite the obstacles posed by religion and nationalism. But the Balkan war of 1912 forestalled this possibility by destroying Ottoman power in Europe.

2. Natural environment and historical background 3

Naoussa lies on the eastern flank of Mount Vermion (Karakamen), at the edge of the central Macedonian plain. It has a continental microclimate and is surrounded by deciduous forests. The river Arapitsa crosses the town offering opportunities for hydraulic energy. Access to Naoussa is gained via a turning off the main Veroia (Karaferye) -Edhessa (Voden) road on the plain, and even today the town feels slightly remote. But in the late Ottoman period, remoteness was very real. Prior to the arrival of the railway in 1892, the trip from Thessaloniki (a distance of 80-90 kilometres) took fourteen hours (Stougiannakis, 1924: 25). Trains cut the time to two and a half hours, but it took a further hour and a half by oxcart from the station, since Macedonian railways were typically built away from towns (Gounaris, 1993).

Naoussa is not an old town. There are legends connecting its foundation to Ghazi Evrenos Bey in the second half of the 14th century (Stougiannakis, 1924: 37-44). However, it is

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3 Primary material on the economic history of Naoussa is extremely scarce due to destruction of local archives and burning of factories in January 1949 in the course of the Greek Civil War. Analysis in this article relies on data primarily from the obscure, but reliable, sources of Stougiannakis (1911) and Dekazos (1913).
more likely that the town was founded in the 15th century by his grandson, Ahmed Bey Evrenosoglu, probably at the instigation of the influential dervish Sheikh Ilahi (Kiel, 1972). Its history until the early 18th century is little known, but it probably had a Greek public culture from early days. One significant piece of information refers to a revolt in 1705, apparently against the practice of gathering Christian boys for Janissary service (devshirme) (Vasdravellis, 1967: 20-1). Be that as it may, Naoussa appears to have been a settlement of Christians from the start, with rights of self-government and considerable tax privileges (Stougliannakis 1924: 48-9).

The town came under the administrative jurisdiction of the pasha of Thessaloniki. According to the traveller Evliya Celebi, Ottoman power in the late 17th century was represented by a resident officer (mutevelli) of the vakif (religious foundation) of Evrenos Bey, charged with collecting vakif incomes (Demetriades, 1973: 246). There was also a voevoda, collecting incomes for the sultan's mother, who had property in the area (hass); it is probable that the same person acted as both mutevelli and voevoda (Demetriades, 1973: 30, 34). Ottoman power was further represented by a low-ranking Muslim religious judge, a naip, who dealt with criminal and civil cases (Demetriades, 1973: 248). By the early 19th century the lowly naip had been upgraded to a kadi (Cousinery, 1831: 73).

In practice, Naoussa found itself under Christian self-government - a very unusual state of affairs for Macedonian towns and cities. As the authority of the central state declined across the Empire in the late 18th and early 19th century, self-government depended on two institutions: local authority and the Orthodox Church, both of which played an important role in the subsequent process of industrialisation. Christian power resided with a small band of elders (proestoi) running the affairs of the town, one of whom - referred to as archon by the traveller Cousinery (1831: 72-3) - was occasionally able to acquire tyrannical powers. The archon, supported by the elders, was in charge of significant Christian armed forces for the protection of the town (Pouqueville, 1826: vol. III, 94), and could arrest and imprison opponents. Christian
power also resided with the Church, and drew on the organisation of the community around parish churches and monasteries under the control of the bishop of Veroia.

Church and elders had judicial rights over Christian civil cases, including marriage, dowry, divorce and inheritance. Property and inheritance issues among Christians were also dealt with by the kadi, typically after failure of the communal judicial mechanisms to reach and enforce decisions acceptable to the parties involved. Parish committees brought together church and lay constituents of Christian power. Church and elders had the right to collect taxes from the Christian population in order to finance schools and other communal activities. Control over the fiscal affairs of the community, including external tax payments, together with money-lending activities were the basis of the power of elders, as also happened in the Greek south (Petmezas, 2005).

Land ownership in the region was tightly bound with the clan of the Evrenosoglu, based in Giannitsa (Yenije Vardar) from where the vakif of Evrenos was overseen. The vakif possessed a vast area extending from northeast of Thessaloniki to the river Aliakmon in the west. It included lands in the vicinity of Naoussa, reaching into the town, and had the right to receive land taxes. In the 18th century the vakif started to give way to private estates (chiftlik) held by landlords who were often absentee and engaged in usury (Demetriades, 1981). The precise pattern of chiftlik ownership in the broader area of Naoussa at the end of the 18th century is unknown.

Domestic manufacturing existed in Naoussa at the turn of the 19th century, especially in linen towels, wool fulling, silk, jewellery and weapons (Pouqueville, 1826: vol. III, 95; Cousinery, 1831: 72; Leake, 1835: 287; Stougiannakis, 1924: 56-7). The town was on traditional caravan routes connecting southern Balkan fairs, and there were Naoussa merchants in central Europe (Stojanovich, 1960). It was also famed for its wine, as it still is (Pouqueville, 1826: vol. III, p. 95; Cousinery, 1831: 72). Its wealth attracted the attentions of Ali
Pasha Tepelenli of Jannina, the effective ruler of south-western Balkans, who besieged it in 1795, 1798 and 1804. In 1822 the events of the Greek revolution encouraged Naoussa to revolt against the Porte, but the insurrection was crushed and the town was sacked. Official Ottoman documents, published by Vasdravellis (1967: 282-95), record the names of 640 inhabitants, a large part of the mature male population of the town, who were executed, pardoned or exiled. Property, both urban and rural, was extensively confiscated.

Recovery of population and economy started soon after the sack. The pardoned families possessed, in addition to land, a significant number of workshops, including some in wool processing (Vasdravellis, 1967: 291). Christian immigration took place from the surrounding areas, and the authorities also invited Muslim immigrants, with the transparent aim of forestalling future rebellions. In the 1850s Aravantinos (1856: vol. 2, 116) recorded the town's size as 'two thousand Christian families of Bulgarian race', but his information is problematic since he had not visited personally. Moreover, his figure is suspiciously similar to the 'two thousand houses' given by Pouqueville before the revolt (1826: vol. III, p. 94). More reliable is the information given thirty years later by Skhinas (1886: vol. I, p. 167), a Greek military officer engaged in reconnaissance, who estimated the size of the town at 900 Christian and 120 Muslim houses. Thus, population in the 1880s was perhaps in the region of 5000 people.

During the last three decades of Ottoman rule, however, the town’s population grew rapidly and, at the end of the period, it was reported at 12000 (Igglesis, 1910: 112; Dekazos, 1913: 23), of whom 1500 were Muslims, though Stougiannakis (1911: 145) gives 9000 in total. Rapid population growth is commensurate with the advance of commercial and industrial capitalism in the town as well as the acquisition of large landed estates by Naoussa Christians on the plain.
3. The extent of capitalist industrialisation in Naoussa and the broader region

When Ottoman rule ended in 1912, Naoussa could legitimately be described as an industrial town. Textiles were the primary field of capitalist industrial activity, the extent of which is demonstrated in table 1. Data for this section comes mostly from Stougiannakis (1911) but also Kofinas (1914), Palamiotis (1914) and Anastasopoulos (1947) (who reproduced verbatim Tsakalotos’s (1914) report). Stougiannakis, the head of education in Naoussa, was an ardent Greek nationalist and a meticulous observer. The others were connected in various ways to the newly installed Greek administration; their works are, in effect, official reports on Macedonia and sharply critical of the previous regime. The sources are in substantial agreement regarding data, but Stougiannakis is probably the most reliable.

Table 1 TEXTILE CAPACITY LOCATED IN NAOUSSA, 1912

<table>
<thead>
<tr>
<th>Cotton-spinning mill</th>
<th>Year of establishment</th>
<th>Horsepower in use</th>
<th>Spindles</th>
<th>Output (packets)</th>
<th>Output (Ottoman £)</th>
<th>Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Longos-Kirtsis-Tourpalis</td>
<td>1875</td>
<td>270</td>
<td>7.000</td>
<td>95.000</td>
<td>50.000</td>
<td>270</td>
</tr>
<tr>
<td>2) Bilis-Tsitsis</td>
<td>1891</td>
<td>148</td>
<td>4.000</td>
<td>65.000</td>
<td>32.500</td>
<td>160</td>
</tr>
<tr>
<td>3) Goutas-Karatzias</td>
<td>1903</td>
<td>200</td>
<td>5.000</td>
<td>50.000</td>
<td>25.000</td>
<td>160</td>
</tr>
<tr>
<td>4) Tsitsis</td>
<td>1911</td>
<td>220</td>
<td>200.000</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (excluding 4)</td>
<td></td>
<td>618</td>
<td>16.000</td>
<td>210000</td>
<td>107.500</td>
<td>590</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wool-weaving mill</th>
<th>Year of establishment</th>
<th>Horsepower in use</th>
<th>Spindles</th>
<th>Output (metres)</th>
<th>Output (Ottoman £)</th>
<th>Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Hajilazaros</td>
<td>1907</td>
<td>300</td>
<td>1.080</td>
<td>100.000</td>
<td>40.000</td>
<td>150</td>
</tr>
<tr>
<td>2) Lanaras-Pehlivanos</td>
<td>1910</td>
<td>75</td>
<td>900.00</td>
<td>8.500</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>375</td>
<td>1.080</td>
<td>48.500</td>
<td>225</td>
<td></td>
</tr>
</tbody>
</table>

Source: Constructed from Stougiannakis (1911), Kofinas (1914), Palamiotis (1914) and Anastasopoulos (1947).

The cotton output of the Tsitsis mill is in oka, equivalent to nearly 1300 gr. The woollen output of the Hajilazaros mill had width of 1.4m, while that of Lanaras-Pehlivanos 0.33m. The spindles of Goutas-Karatzias are given as 5000 by both Anastasopoulos (1914: 911) and Kofinas (1914: 218) but as 3200 by Stougiannakis (1911: 150).

The figures are consistent with Palairret’s (1997: 351) data for machine cotton spinning in the whole of Macedonia in 1912. Palairret records 10 factories with a total of 70000 spindles, of which 3 (with 22800 spindles) were in Thessaloniki and 7 (with 47200 spindles) in the
‘provinces’, i.e. Naoussa, Edhessa and Veroia. Palairet’s data almost certainly do not include factory (4), which commenced operations after World War I under the name of Tsitsis. However, its land and equipment had already been provided in 1911 by Kokkinos-Lapavitsas (Stougiannakis, 1911: 150), though family quarrels prevented the concern from starting. Even without factory (4), it is clear from table 1 that there were 3 cotton-spinning factories with 16000 spindles in Naoussa in 1912.

The actual weight of Naoussa capital in Ottoman textile manufacture, however, was considerably greater. Of Palairet’s remaining 4 ‘provincial’ factories, 2 were located in Edhessa and 2 in Veroia. Both factories in Edhessa belonged to Naoussa families, namely Tsitsis (established in 1895, possessing 16500 spindles in 1912) and Lappas-Hajidimoulas (established in 1907, possessing 6000 spindles in 1912). The entrepreneur who initiated industrialisation in Edhessa was Kirtsis from Naoussa. According to local tradition, furthermore, Naoussa entrepreneurs were also instrumental in starting the Veroia factories. Finally, of the 3 factories based in Thessaloniki, one belonged to a Naoussa family, namely Tourpalis (established in 1910, possessing 4900 spindles in 1912). The remaining two Thessaloniki factories belonged to Jews. Thus, capitalists with Naoussa roots controlled 6 out of 10 cotton-spinning factories and 43400 out of 70000 spindles in Macedonia in 1912, without even counting factory (4). This amounts to approximately 30% of the Empire’s total cotton-spinning capacity, given that Macedonia contained about half of the latter. Machine cotton spinning in the late Ottoman Empire was pretty much the business of Naoussa.

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4 The number of spindles in Macedonia are given at ‘around’ 70000 by Kofinas (1914, 221), 71680 by Anastasopoulos (1947: 91), and 73100 by Oikonomou (1999: 340).
5 Anastasopoulos (1914: 911) gives 18500 spindles for the Tsitsis mill.
6 Quataert (1993a: 45) notes that of the 10 spinning factories of Macedonia, 8 belonged to Christian Greeks and 2 to Thessaloniki Jews. The evidence given here shows that families with Naoussa roots owned 6 of the 8 and perhaps played a role in establishing the remaining 2.
7 Issawi (1980a: 310) notes that in 1914, after the loss of Macedonia, there were 82000 spindles in the Empire, 68500 of which were active. Macedonia possessed approximately 28000 more spindles than Adana in Anatolia, the second largest area (Quataert 1993a: 44).
The importance of Naoussa capital in Ottoman textile manufacturing becomes even more evident when the wool sector is considered. Bulgaria produced most machine-made woollen cloth in the Balkans in the late 19th century, but significant mechanisation took place in Macedonia in the 1900s, for reasons discussed in the next section. There were four wool-weaving mills in the European parts of the Empire in 1912 (Anastasopoulos, 1947: 913), two of which were located in Naoussa (table 1) and two in Thessaloniki (as well as a further mill producing hosiery). One of the Thessaloniki mills also belonged to Naoussa capitalists, namely Tourpalis-Kazazis (with 28 horsepower and 30 workers) (Kofinas, 1914: 228). In all, 80% of the horsepower and 90% of the employment in the mechanised woollen cloth sector in the European part of the Empire was controlled by Naoussa capitalists. 8

Finally, significant domestic production of *shajak* (woollen cloth) continued in Naoussa, with annual output of 66640 metres and value of 3-4000 Ottoman £ (Stougiannakis, 1911: 152). In 1912, the town also possessed three large water-mills (the largest operating separately within the spinning factory of Longos-Kirtsis-Tourpalis), two saw-mills, one electrically-powered saw-mill, a mechanised tile works, a large silk-processing plant, as well as dozens of smaller water-mills, sesame presses and wool-fulling workshops.

It is important to note, however, that this capacity represented a very small industrial base compared to European competitors in 1912. There were, for instance, 140000 workers employed in Bohemian mechanised cotton spinning and printing c1850, while even backward Spain had 10000 workers in 91 cotton mills in 1805 (Quataert, 1992: 28). Despite their considerable successes, Naoussa capitalists did not create deep foundations for the industrial transformation of Macedonia, far less the Empire as a whole. The economic, social and political reasons for this development are analysed in the following section.

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8 Anastasopoulos (1947: 912) gives 24 horsepower and 15 workers for Lanaras-Pehlivanos.
4. Familial and communal origins of industrial transformation

Ownership and control of Naoussa enterprises rested with a few families that often pooled together the equity of each concern. Bonds between families were cemented through marriage. Without the networks of money capital and land assets - but also skills and information - created by family units, capitalist production would have been unthinkable in Naoussa. Table 2 lists the major shareholding families of Naoussa-owned factories during 1875-1912:

<table>
<thead>
<tr>
<th>Mill</th>
<th>Location</th>
<th>Shareholding Naoussa Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Longos-Kirtsis-Tourpalis</td>
<td>Naoussa</td>
<td>Longos, Kirtsis, Tourpalis</td>
</tr>
<tr>
<td>2) Bilis-Tsitsis</td>
<td>Naoussa</td>
<td>Bilis, Tsitsis, Kokkinos, Tourpalis, Sefertzis, Tsiomis, Boyatzis</td>
</tr>
<tr>
<td>3) Goutas-Karatzias</td>
<td>Naoussa</td>
<td>Goutas, Karatzias, Tourpalis</td>
</tr>
<tr>
<td>4) Tsitsis</td>
<td>Naoussa</td>
<td>Kokkinos, Lapavitsas, Bilis, Tsitsis, Sefertzis, Kirtsis, Longos</td>
</tr>
<tr>
<td>5) Hajilazaros</td>
<td>Naoussa</td>
<td>Hajilazaros, Angelakis, Lamnides</td>
</tr>
<tr>
<td>6) Lanaras-Pehlivanos</td>
<td>Naoussa</td>
<td>Lanaras, Pehlivanos, Kirtsis</td>
</tr>
<tr>
<td>7) Lappas-Hajidimoulas</td>
<td>Edhessa</td>
<td>Lappas, Hajidimoulas</td>
</tr>
<tr>
<td>8) Tsitsis</td>
<td>Edhessa</td>
<td>Tsitsis, Kokkinos, Kirtsis, Sefertzis, Longos, Platsoukas</td>
</tr>
<tr>
<td>9) Tourpalis-Kazazis</td>
<td>Thessaloniki</td>
<td>Tourpalis</td>
</tr>
</tbody>
</table>

Source: Constructed from Stougiannakis (1911) and Oikonomou (1999).

Approximately twenty families supplied much of the industrial equity investment during the period, some providing land, others money capital and some both. Several families were involved in more than one concern. The overlap was often due to different branches of the same family becoming involved in separate concerns by inheriting parts of the family fortune, marrying into another, or simply setting up on their own. The families in table 2 typically belonged to the dominant social group of the town, the Christian chorbaji, which also included large landowners, merchants and large owners of urban real estate.

The rise of Naoussa chorbaji was facilitated by the transformation of Ottoman institutions during the Tanzimat. Christians and Jews acquired equal rights in court, there was a
new spirit of equality in the face of the state, and property rights became more secure. In Naoussa, these changes encouraged rapid social transformation in the 1840s and 1850s. There is little overlap between the families in table 2 and the families that were pardoned after the sack of 1822. Thus, many of the chorbaï were immigrants who moved into the town after 1822 (Goutas 1997). Urban and agricultural land were going cheap after the confiscations of 1822, and the newcomers were able to acquire productive assets. They also proved adept at entering the nascent domestic manufacture of shajak. Several began to acquire land in the plains around the middle of the century, leading to emergence of large Christian landownership, discussed in sections 6 and 7.

During the Tanzimat, Ottoman authority in the town took a far more organised and coherent form. In the 1850s the Ottoman state was locally represented by a resident civilian officer, a mudir, as well as a kadi, both of whom were charged with implementing Tanzimat reforms (Nicolaidy, 1859: vol. 2, 281). The mudir remained the leading official until 1912, supported by lower-ranking administrators for forestry, post and telegraph service, tobacco monopoly and the police (Igglesis, 1910: 112). At the same time, autonomy for the Christian community was re-established and, already in the 1850s, the ‘aristocracy’ of the town comprised ten Greek Christian elders (Nicolaidy, 1859: vol. 2, 282). An archon was elected through limited popular vote in 1849 after intercession by the bishop of Veroia to the Ottoman authorities (Stoyoglou, 2000: 46).

Accrual of local political power to the Christians became even more substantial after the imperial rescript (Hatt-i-Hümayun) of 1856, which made provision for formal Christian participation in local authority. The legislation remained in abeyance for more than a decade, probably due to local Muslim opposition. But it was enforced in 1868 and a Christian mayor was elected with limited suffrage, possessing formal power over town affairs and entitled to an armed guard. By the time of the first mayor’s election the chorbaï had become well versed in
dealing with the local Ottoman state, and capable of negotiating relationships that suited their economic and social interests. The mayor was a cog in the official Ottoman state machine as well as being the head of the Christian community.

The chorbaji of Naoussa controlled the office of the mayor from the first election in 1868 until the early 1900s. They also dominated an array of important communal mechanisms and institutions, including the electoral college, the council of elders, the education committees, the hospital committee, the committee for dowry contracts as well as parish and charity committees (Stoyoglou, 1999). Control over education was particularly important since it was the leading communal activity of the Christians of Naoussa, improving the quality of the labour force and strengthening the bonds that kept the community together as well as separate from its Muslim neighbours. Education also forged national and cultural links with the Kingdom of Greece, which proved vital for industrialisation.

Chorbaji domination of parish committees, furthermore, led to control over communal funds and provided opportunities for money-lending, in which the chorbaji typically engaged. It is also probable that communal funds were a ready source of working capital in a town sorely lacking in formal finance. More broadly, control of communal committees afforded power that could be deployed to influence economic affairs, for instance, access to the waters of Arapitsa. The river was a vital economic resource and subject to a multitude of conflicting demands, as is shown below. Finally, the availability of formal and informal power probably played a role in the chorbaji acquiring communal land as well as land that was close to the river and therefore suitable for industrial purposes (Goutas 1997).

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9 There is little evidence regarding the role of organised finance (trade credit and banking) in the process of industrialisation of Naoussa.
5. Economic and social forces of capitalist transformation

The economic background of capitalist transformation, against which the Naoussa chorbaji acquired and wielded power, was determined in large measure by the Free Trade Treaties of the late 1830s between the Empire and the European powers. The Treaties forced the opening of Ottoman markets to imports bearing a low tax of 5% (raised to 8% in 1861). The implications for domestic textile manufacturing were dramatic and complex (Quataert, 1992: 16-25; 1993a: ch.2; Palairet, 1997: ch. 2). Existing domestic cotton manufacturing shrunk rapidly in the face of English competition, especially the spinning of cotton yarn. 10 But new commercial possibilities also emerged in textile products that often used imported yarn. In the Balkans, there was a market in cheaper cloths (woollen and cotton) for low-income urban families, the army and the peasantry. These cloths were domestically produced and of sufficiently good quality to resist imports. The segmentation of the textile market eventually created a field for capitalist industrialisation in Naoussa.

The broad economic forces at work were evident in the upland towns of Bulgaria, where domestic production of woollen cloth (shajak and aba) increased strongly around the middle of the 19th century. Bulgarian woollen cloth prevailed in the Ottoman markets from the 1860s onwards, especially after mechanisation of production in Gabrovo and Sliven following Bulgarian independence in 1878 (Palairet, 1997: ch. 9). Along similar lines, the traveller Nicolaidy reported significant shajak production in Naoussa in the 1850s: ‘There is here a factory producing thick woollen cloth, quite similar to felt, which is called Saïak’ (1859: vol. 2, 282). Unfortunately, information is scarce on the volume of shajak production up to 1912, except for Stougiannakis’s 1911 figure, quoted in section 3 above.

Despite its successes, cheap woollen cloth was unable to find a large market among Macedonian or other peasants, who met their needs mostly by weaving their own wool at

10 Quataert (1993a: 40) judges the decline of homespun yarn far less dramatic than Pamuk (1986).
home, in traditional style. Peasant self-sufficiency in woollen cloth, however, created demand for coarse cotton yarn to combine with wool in domestic weaving. Moreover, handloom-produced coarse cotton cloth resisted imports with considerable success after the 1880s, its production approximately doubling between 1880 and 1914 (Pamuk, 1986). Such cloth was heavily produced in the region of Giannitsa and elsewhere in Macedonia (Palairet, 1997: 352). Similar sources of demand also existed in Albania, Bulgaria and other parts of the Balkans. Until the 1870s, this demand was met by homespun yarn (also commercially supplied) and coarse imported yarns.

In the 1870s it became profitable to mechanise the supply of coarse cotton yarn in Macedonia. The opportunity perhaps arose as falling international cotton prices made raw materials cheaper, while also lowering peasant incomes (Quataert, 1993a: 41). An attempt to mechanise cotton spinning was made in Thessaloniki in the 1860s by the Allatini, a prominent Jewish family; two further efforts were also made in the vicinity of Thessaloniki but without lasting results (Zografski, 1967: 481-2). In contrast, the Naoussa factory of Longos-Kirtsis-Tourpalis, established in 1875,11 survived and proved a catalyst for further industrialisation.

In woollen cloth manufacturing, finally, Bulgarian exports to the Ottoman market started to decline in the 1900s because producers had allowed quality to decline. The declining quality of Bulgarian cloth was especially problematic for the Ottoman army, and loss of the Ottoman market became catastrophic for Bulgarian producers after imposition of duties in 1910 (Palairet 1967: 257). The newly-established woollen cloth factories in Naoussa and Thessaloniki took advantage of these fresh openings. In particular, the large and advanced Hajilazaros mill in Naoussa dominated this sector and supplied the Ottoman army (Stougiannakis, 1911: 151).

Naoussa capitalists were able to grasp the opportunities for industrialisation after the 1860s because of already significant shajak production in the town. To start with, shajak

11 Though some productive capacity was already in place by 1874.
manufacture provided the opportunity to accumulate capital. This is evidently true for the early cotton spinners who were heavily involved in the domestic manufacture of *shajak* (Goutas, 1997). Shajak manufacture and trading, furthermore, created networks that provided technology and information about textile markets. These networks also drew on cultural and national affinities, considering that the main export destination of Naoussa *shajak* was the Kingdom of Greece. The link proved important as mechanised cotton spinning emerged and grew rapidly in the Greek port of Piraeus during 1868-1875 (Agriantoni, 1986: 114-188)

The leading exporters of *shajak* to Greece were Lapavitsas, Longos and Tsitsis from ‘the days of old’ (Stougiannakis, 1911: 147-8). There is a direct connection, therefore, with the owners of the first Naoussa spinning mill, Longos, Kirtsis and Tourpalis. The *shajak*-makers-become-cotton-spinners bought the equipment of the smallest of the new industrialists in Piraeus (who had just failed), shipped it to Thessaloniki by boat, and transported it to Naoussa by oxcart over appalling roads. A Greek engineer from Patra installed the spindles and built the wooden turbine to set them in motion (Hajiiosif, 1993: 40). Greek engineers continued to repair the machinery and transfer technical know-how in years to come.

Naoussa capitalists were also able to take advantage of the technical knowledge available in the town. Apart from technical skills in domestic textile manufacture, the town also had skills in harnessing the waters of Arapitsa for hydraulic energy. The first two spinning factories were established on the sites of already existing water-mills. The family of Bilis, instrumental in starting the second factory, remained in possession of still other water-mills to the end of the Ottoman period. After its establishment, the Longos-Kirtsis-Tourpalis mill provided further training ground for the skills and customs necessary for industrial capitalism.

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12 Goutas (1997) records, if extremely sketchily, an interview with Hajimalousis, the first democratically elected mayor of Naoussa. The material is important, given that the private archive of Hajimalousis is currently out of reach.

13 Stougiannakis (1911: 149) calls it an ‘industrial Academy’.
The supply of water to set the machines in motion was largely free, but the significance of this is more complex than it appears at first sight. Free water certainly offered a competitive advantage relative to the cotton spinners of Thessaloniki, who used coal. However, obtaining a share of the flow of Arapitsa was far from straightforward, in view of the dozens of competing industrial, agricultural and urban uses. Water access was carefully regulated, entailing social conflict and the exercise of power. It also put a premium on ownership of land, as factory sites had to be reasonably close to the course of the river. Reduced flow in the summer, moreover, forced factories to curtail production. Without the social and political power of the chorbaji it would have been extremely difficult for the cotton spinners to obtain stable and free supplies of water. Taking advantage of the water, finally, required significant initial and maintenance investment (blocking and redirecting the river, channelling the water and creating a drop).

The emergence of industrial capitalism also relied on the broader trading networks and commercial knowledge available to Naoussa. Wine, dairy products and preserved meats were traded with Thessaloniki, but also with Bosnia and Egypt. Trade with Egypt, initially in wine and foodstuffs, was particularly important around the middle of the 19th century, leading to substantial emigration and the setting up of trading offices in Cairo and Alexandria after the early 1860s (Goutas, 1999b). In 1911 the town possessed 12 ‘large’ (20000 Ottoman £) and more than 20 ‘smaller trading houses’ (8000 Ottoman £) (Stougiannakis, 1911: 148). A tentative list of families with significant commercial capital in 1911 is as follows:

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14 Evidence of the conflicts engendered by access to Arapitsa is indirectly given by Quataert (1993a: 169) who notes that the response of the authorities to the application to establish the first factory in 1875 stipulated that the supply of water to the fields should not be affected.
Table 3 COMMERCIAL CAPITAL IN NAOUSSA, 1911

<table>
<thead>
<tr>
<th>Area of trading</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ottoman Empire</td>
<td>Kirtsis, Longos, Tourpalis, Platsoukas, Pehlivanos, Angelakis, Lamnides, Lanaras, Petrides, Tsitsis</td>
</tr>
<tr>
<td>Egypt</td>
<td>Goutas, Lappas, Mathaiou, Kokkinos, Pehlivanos</td>
</tr>
<tr>
<td>Bosnia</td>
<td>Sefertzis, Gourouliatatos</td>
</tr>
<tr>
<td>Greece</td>
<td>Lapavitsas, Longos, Tsitsis</td>
</tr>
</tbody>
</table>

Source: Igglesis (1910), Goutas (1999b), Stougiannakis (1911)

It is notable that almost all trading families were also involved in cotton spinning and production of woollen cloth. The overlap is partly inevitable, since textile output had to be marketed. But it also suggests a degree of primitive accumulation of capital in commerce that was subsequently directed to industry. The family of Goutas provides an example, having originally engaged in trade in Egypt in the 1860s, subsequently to set up a spinning factory in Naoussa in 1903. Even Goutas, however, established the factory after contracting a marriage with Karatzias, who was a shajak trader.

The counterpart to the emergence of a group of industrial capitalists in Naoussa naturally was the creation of a sizeable working class. In 1912, there were probably 2000-3000 wage labourers in a total population of around 10000, including 815 directly employed in the textile factories (table 1). However, wage labourers were often also engaged in cultivating their own smallholdings, as is discussed below. The process of creation of this urban class is obscure. It is certain, though, that in 1912 factory employees were mostly women: Kirtsis-Longos-Tourpalis employed 200 women out of a total of 270, while Bilis-Tsitsis ‘mostly’ 160 women, as did the other factories (Stougiannakis, 1911: 149-151). Children were also commonly employed (Zografski, 1967: 482). It is also clear that a significant proportion of workers came from villages around Naoussa even in 1912.

It can be fairly assumed, therefore, that most of the 80 workers initially employed by Longos-Kirtsis-Tourpalis were young girls recruited from surrounding villages. Factory employment was unsuitable for the married women of Naoussa, who typically produced shajak
domestically. Indeed, one of the official concerns of the Ottoman state regarding the establishment of the first factory regarded the implications for women’s domestic employment (Quataert, 1993a: 169). The first factory hands were probably young peasant girls from the surrounding villages, sent to work for a few years prior to marriage. Since factory operations slackened in the summer, as the flow of Arapitsa lessened, they could combine urban and rural work. In later years, barracks and other housing were constructed for workers in both Naoussa and Edhessa.

Very low wages offered a major competitive advantage to Naoussa industrialists. Quataert (1993b: 163) notes that wages in Thessaloniki may have been three times higher than those of Naoussa in 1913. Working hours were long – from ‘sunrise to sunset’ according to the British traveller Upward (1908: 188) or ‘dawn to dusk’ according to Quataert (1995: 70) exactly the same expression as in the interview of Hajimalousis published by Goutas (1997). Worker organisation was also weak compared to Thessaloniki. Armed goons were typically employed by management to police clocking in times and intimidate workers (Goutas, 1997). Nevertheless, a grassroots movement gradually emerged in the 1890s, the “Poupoulo”, which had populist sympathies and a constitution that demanded better conditions for workers.

Intense political struggle took place between the Poupoulo and the chorbaji focusing on control of the mayor’s office, with all that this implied for the economic and social life of the town. Payment of community taxes and charging for water appear to have been further focal points of conflict (Goutas, 1997). Regular social conflict also occurred over the finances and curriculum of schools. Divisions constantly emerged among the chorbaji, often related to

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16 Stougiannakis (1911: 148) notes that the founders of the first mill faced considerable ‘difficulties’ and ‘obstacles’, associated with ‘prejudices and superstition’ against the ‘unprecedented and odd’ enterprise. His elliptical writing suggests that more than mere ‘superstition’ was involved. It is likely that there was also social conflict regarding access to water and employment of women.

17 Upward (1908: 188-9) was appalled by labour conditions: ‘It is progress, it is civilisation, but even when the Turk has gone there will still be something left for the Labour Party to do in Niausta’. But his greatest surprise came when he realised that ‘in this small Greek town away in the Macedonian highlands’ people regularly engaged in ‘English football’. Here was the unmistakable sign of the working class.
control of the institutional and political mechanisms of the community, and possibly exacerbated by their struggle against the Poupoulo. Gradually the Poupoulo prevailed and its leader was the first mayor elected with full male suffrage. However, the *chorbaji* resisted surrendering control over the financial and political resources of the community. The church hierarchy was itself divided, some of it siding with the Poupoulo, which had strong religious leanings.

It is important to note that such conflicts were normally resolved without the mediating services of the Ottoman state. Thus, a bitter dispute in 1896 between the church and some powerful Naoussa *chorbaji* regarding teacher appointments appeared to have left the Ottoman authorities of Thessaloniki uninterested, and was eventually resolved by the bishop of Thessaloniki (Stoyoglou, 1999: 120-2). Similarly, the conflict between the Poupoulo and the *chorbaji* was partly fought out in the pages of Athens newspapers and involved mediation by the Greek consul in Thessaloniki.

At the same time, the *chorbaji* of Naoussa had close relations with the local representatives of the Ottoman state, and knew how to take advantage of Ottoman reform of politics and society. There are parallels here with the negotiated interaction between the Ottoman state and local trader-notables in provincial Palestine, discussed by Doumani (1995: 111-4, 216-7). To be sure, the dominant ideology among the *chorbaji* was Greek nationalism drawing on a particular version of Christian Orthodoxy, which put them in a different position from similar Muslim social groups within the Empire. But it is interesting to note that the memoirs of Mazarakis (1963) - a Greek officer who led the armed irredentist struggle in the region of Naoussa at its peak, 1904-5 - are replete with bitter complaints against the Naoussa *chorbaji*. Mazarakis (1963: 61-2) accused them, above all, of wanting to maintain good

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18 Struggles over local government also took place in Bulgaria after the 1860s, involving the *chorbadzija* and the artisan/merchant social layer (Lampe and Jackson, 146-8).

19 Mazarakis’s memoirs were originally published in 1937. Posthumous editions in 1963 and 1984 were doctored along lines more compatible with official Greek perceptions of the national character of
relations with the Turks in order to protect their economic activities. According to the officer, the 
*chorbaji* were at once subservient to and influential over the Ottoman authorities.

Nonetheless, the central Ottoman state was remote for these Christian provincials. The 
British traveller Baker (1877: 408-9) - who visited the first factory soon after its establishment 
and met its founders, Longos and Kirtsis - conveys the distant and troublesome aspect of the 
central Ottoman state for the capitalist entrepreneurs: a three month stay in Istanbul to obtain 
the license, bribes for various officials, as well as administrative and tax difficulties with 
customs authorities in Thessaloniki over the import of machinery. There is little evidence that 
relations grew closer during the rest of the period.

In short, Naoussa *chorbaji* possessed community-based mechanisms of political and 
social control that eased the path of capitalist development. They were also integrated into the 
lower reaches of Ottoman local administration, thus increasing their political power. But they 
lacked systematic access to the central state, and this did not augur well for their ability to 
become a broad-based capitalist class in Macedonia. This issue is considered in the next 
section.

### 6. Expansion in the 1900s and the limits of social and political power of Naoussa capitalists

A surge in industrial capacity took place in Naoussa in the 1900s. The spinning 
operations of Longos-Kirtsis-Tourpalis were fully renovated in 1902 and reached 7000 spindles 
by 1912. Cotton-weaving capacity had already been installed (40 looms) and an annex built in 
the second half of the 1890s. The new mill of Goutas (1903) had horsepower of 500, of which it 
used only 200. The investment made by Kokkinos-Lapavitsas in 1911 added further capacity, 
though it operated after the First World War under the name of Tsitsis. By 1911, all factories

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Slavic speakers in Macedonia (Karavas, 1999). The doctoring does not impinge on the points made 
here. Mazarakis, incidentally, noted the acute social struggles in Naoussa but could only interpret them 
from the narrow viewpoint of nationalism.
produced a range of yarns from low to fairly high grade (4-24) (Stougiannakis, 1911: 149-150). None produced grades higher than 32, but the extent of technological progress can be glimpsed by noting that in 1875 Longos-Kirtsis-Tourpalis had 1500 spindles and produced only the coarsest yarn (Zografski, 1967: 482). However, the technology acquired by the mills (typically British imports) was not of the most advanced type.

Naoussa-owned spinning capacity was also created during the same period in Edhessa (Lappas-Hajidimoulas, established 1907) and even Thessaloniki (Tourpalis, established 1910). Most notably, the factory of Tsitsis in Edhessa grew into the largest spinning unit in the Empire in 1912 (16500 spindles) also possessing weaving capacity. Finally, industrial capacity was added in the technically more demanding field of woollen cloth manufacture, with three new Naoussa-owned factories (one in Thessaloniki). In particular, Hajilazaros was the largest wool-making factory in the Empire and technically advanced (Stougiannakis, 1911: 150-1).

The surge in the provinces was partly due to lower costs compared to Thessaloniki. Worker organisation was more effective in Thessaloniki and the 1900s witnessed significant wage hikes (Issawi, 1980b; Palairet, 1997: 352-4). 20 Jewish-owned spinning mills in Thessaloniki faced serious profitability and debt problems in 1911 (Kofinas, 1914: 216). A boost had also been given to Naoussa capitalists by the expansion of Ottoman railways in the 1890s connecting the hinterland to Thessaloniki. But lower wage costs cannot be a full explanation for the rise of the provinces, since Tourpalis opened a new spinning mill in Thessaloniki in 1910.

There were deeper processes at work, related to cartelisation among Christian-owned concerns (Quataert, 1993a: 46). After 1908 Ottoman exports to Bulgaria shrunk, forcing producers to concentrate on Macedonian and Albanian markets (Quataert, 1993a: 45). At the same time, competition at home became fiercer as cheap imported yarns, mostly Italian,

20 Though Quataert (1993c) has claimed that real wages in Thessaloniki did not rise.
gained market share. The latent contest between Christian-owned factories in the provinces and Jewish-owned factories in Thessaloniki was thus exacerbated. Provincial cartelisation was further spurred by the desire to stabilise cotton supplies as agricultural production in the Serres region - the main source of cotton - shifted toward tobacco. The emerging cartels began to put vertical integration in place. Thus, in 1911 Longos-Kirtsis-Tourpalis in Naoussa and Tsitsis in Edhessa merged and created the largest spinning concern in the Empire, which also possessed some weaving capacity (Hajiiosif, 1993: 90-5). Anatolian cotton was imported, and the cartel took steps to secure supplies by developing steam-powered cotton ginning capacity in Kato Joumaia (for Serres cotton) and Thessaloniki (for Anatolian cotton) (Kofinas, 1914: 220; Anastasopoulos, 1947: 910).

To recap, in the 1900s the Macedonian provinces emerged as the pre-eminent textile region within the Empire. The rise of provincial production is remarkable in view of the vicious nationalist struggle for Macedonia during precisely the same period. At the peak of their success, however, provincial Macedonian capitalists found themselves in a precarious position since they faced sharpened European competition, narrowing markets, lack of advanced technology, uncertain cotton supplies, and intense social and political struggle at home. It is notable that no domestic capacity in capital goods had emerged after four decades of industrialisation.

Successfully to confront these problems, Macedonian capitalists needed access to greater financial, technological and political resources. To put it differently, they had to shake off their provincialism and become a fully-fledged capitalist class, with a direct presence in Thessaloniki. Thus some cartelised and began to integrate vertically (Longos, Kirtsis, Tourpalis, Tsitsis), while others set up factories in Thessaloniki (Tourpalis). Still others acquired substantial commercial property in Thessaloniki and made large brewery investments (Longos, Platsoukas and either Tsitsis or Kirtsis) (Kofinas 1914; Anastasopoulos, 1947: 914). Friction
with the better-connected - although economically troubled - Jewish industrialists of Thessaloniki loomed large.

Naoussa capitalists had outgrown their small town, where command of social and political power had sustained their emergence. To confront new and more complex problems, they needed access to broader mechanisms of social and political power. At the very least, they had to construct a new relationship with the central Ottoman state.

7. Absence of capitalist transformation of agriculture

The difficulties faced by Naoussa capitalists in becoming a fully-fledged capitalist class can also be seen in relation to agriculture. This section considers the link between capitalist industrialisation and transformation of agrarian relations in central/western Macedonia. Information is scanty, but the data collected by Dekazos (mostly 1913 but also 1914) allow for some conclusions, especially when combined with Stougiannakis (1911). Dekazos was an agriculturist sent by the Greek state to survey the agrarian economy of the newly incorporated region. Inevitably, he thought of the old Ottoman regime as deleterious to agriculture. But his fieldwork produced valuable (though occasionally faulty) data, reconstructed in table 4 below.

There were two distinct agrarian sectors in the broader region of Naoussa in 1913. The first was small in area, comprising the gently rising land in the immediate vicinity of the town, while the second was vast and comprised the plain beyond. The distinction could also be found in 1822 and, much ameliorated, exists even today. In 1912, the total area of the former sector was parcelled out among town inhabitants, ‘almost all’ having some connection with agriculture (Dekazos, 1913: 23; Stougiannakis, 1911: 145-6). Naoussa inhabitants cultivated their smallholdings themselves, or rented them out, but rarely used hired labour. Muslims owned perhaps 1/7 of the land, also renting much of the rest, and were reputedly the best farmers (Stougiannakis, 1911: 146). Crops included mostly vines and mulberries cultivated without
fertiliser, though agricultural skills were reasonably high. In short, the sector close to the town comprised typical Balkan smallholding agriculture aimed at the market – grapes, wine and mulberry leaves for silkworm. The only direct result of industrial capitalism was that agricultural income and urban wages frequently complemented each other.

The plain was a different world, far from the town and dominated by chiftlik estates. Chiftlik were formed across the European parts of the Empire in the 18th and early 19th century (Lampe and Jackson, 1982: 33-7). Chiftlik formation received a boost from rising grain prices in the 1840s and 1850s that made exports more attractive (Palairet, 1997: 43). Local Muslim notables (ayan) and their descendants held much of the chiftlik land, often brought under their control through tax farming and extra-economic power. It is shown below that almost half the Muslim chiftlik owners of the plain near Naoussa resided in Veroia, where ayan were extremely powerful already from the second half of the 18th century (Anastasopoulos, 1999). Veroia ayan probably took advantage of the collapse of the vakif of Evrenos in the plain, which had commenced in the 18th century and continued unabated in the 19th. A higher proportion of chiftlik land emerged on Evrenos’s vakif than elsewhere in the Empire (Demetriades, 1981), and was reflected in the distribution of chiftlik across Macedonia (Dekazos, 1914: 53).

Table 4 reconstructs Dekazos’s data for the 29 ‘villages’ of the ‘police district’ of Naoussa in 1913. This is a large part of the Macedonian plain, bordering Mount Vermion and the marshy lake of Giannitsa. Entries 20-29 were forest and grazing land, thinly populated and hilly or mountainous. Of those, 27, 28 and 29 were proper villages belonging to their inhabitants, though 27 and 29 had only recently been bought from landlords. Entry 26 comprised the estates of a local monastery. Entries 20-25 were sparsely inhabited chiftlik forests or grazing fields, except for Osliani, which belonged to an Istanbul Greek and was exploited by the British Miller Tracing Company for railway timber. The Osliani estate certainly represented advanced capitalist activity, but it affords too narrow a basis on which to draw
conclusions about agrarian relations. For that we turn to entries 1-19, chiftlik villages that held about 95000 stremmata (15000 hectares) of arable land. To appreciate the size of this sample it should be noted that Petmezas (2006) estimates total arable land in the part of Ottoman Macedonia annexed by Greece to have been around 230000 hectares.

Table 4 CHIFTLIK ECONOMY IN THE REGION OF NAOUSSA, 1913

<table>
<thead>
<tr>
<th>Village/ Chiftlik</th>
<th>Muslim landlors</th>
<th>Christian landlors</th>
<th>Available land</th>
<th>Arable land</th>
<th>Cultivated land</th>
<th>Families</th>
<th>Cereals (land)</th>
<th>Garde n crops (land)</th>
<th>Draught animals</th>
<th>Sheep, goats, pigs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Vetista</td>
<td>4</td>
<td>13.500</td>
<td>7.500</td>
<td>2.890</td>
<td>60</td>
<td>2.580</td>
<td>200</td>
<td>1.750</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>2) Lykovitsa</td>
<td>3</td>
<td>8.000</td>
<td>5.500</td>
<td>1.170</td>
<td>23</td>
<td>1.170</td>
<td>120</td>
<td>1.800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Zervokhori</td>
<td>2</td>
<td>8.000</td>
<td>3.000</td>
<td>1.355</td>
<td>25</td>
<td>1.025</td>
<td>350</td>
<td>1.620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Rizovo</td>
<td>2</td>
<td>8.000</td>
<td>4.000</td>
<td>1.610</td>
<td>25</td>
<td>1.570</td>
<td>15</td>
<td>45</td>
<td>2.450</td>
<td></td>
</tr>
<tr>
<td>5) Bania</td>
<td>2</td>
<td>3.000</td>
<td>1.000</td>
<td>530</td>
<td>6</td>
<td>530</td>
<td>46</td>
<td>1.065</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Palasntisiovo</td>
<td></td>
<td></td>
<td>10.000</td>
<td>4.000</td>
<td>2.005</td>
<td>22</td>
<td>1.655</td>
<td>350</td>
<td>2.045</td>
<td>2.100</td>
</tr>
<tr>
<td>7) Aghia Marina</td>
<td>3</td>
<td>9.000</td>
<td>6.000</td>
<td>2.960</td>
<td>30</td>
<td>2.960</td>
<td>200</td>
<td>2.300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Kameniki</td>
<td>3</td>
<td>8.000</td>
<td>5.720</td>
<td>5.720</td>
<td>50</td>
<td>5.600</td>
<td>80</td>
<td>600</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>9) Arseni</td>
<td>3</td>
<td>13.000</td>
<td>7.100</td>
<td>7.100</td>
<td>60</td>
<td>6.600</td>
<td>400</td>
<td>1.700</td>
<td>823</td>
<td></td>
</tr>
<tr>
<td>10) Yantsista</td>
<td>5</td>
<td>10.500</td>
<td>9.000</td>
<td>3.760</td>
<td>30</td>
<td>3.760</td>
<td>430</td>
<td>10.250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Tsarmorinovo</td>
<td>3</td>
<td>1</td>
<td>8.000</td>
<td>3.000</td>
<td>1.220</td>
<td>30</td>
<td>1.180</td>
<td>30</td>
<td>240</td>
<td>1.055</td>
</tr>
<tr>
<td>12) Golo Selo</td>
<td>1 2</td>
<td>5.000</td>
<td>3.000</td>
<td>2.930</td>
<td>60</td>
<td>2.630</td>
<td>300</td>
<td>1.545</td>
<td>1.110</td>
<td></td>
</tr>
<tr>
<td>13) Giannakovo</td>
<td>1</td>
<td>15.000</td>
<td>1.050</td>
<td>1.050</td>
<td>18</td>
<td>1.050</td>
<td>18</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14) Diavornitsa</td>
<td>1 2</td>
<td>4.500</td>
<td>4.000</td>
<td>1.870</td>
<td>25</td>
<td>1.520</td>
<td>140</td>
<td>1.580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15) Ano Kopanos</td>
<td>1</td>
<td>1</td>
<td>6.500</td>
<td>6.500</td>
<td>2.480</td>
<td>26</td>
<td>2.450</td>
<td>150</td>
<td>1.100</td>
<td></td>
</tr>
<tr>
<td>16) Monospita</td>
<td>3 2</td>
<td>8.000</td>
<td>6.000</td>
<td>3.275</td>
<td>30</td>
<td>3.250</td>
<td>197</td>
<td>1.100</td>
<td></td>
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</tr>
<tr>
<td>17) Kato Kopanos</td>
<td>3 2</td>
<td>11.000</td>
<td>10.000</td>
<td>3.300</td>
<td>30</td>
<td>3.220</td>
<td>260</td>
<td>1.010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18) Golesiani</td>
<td>1 1</td>
<td>5.000</td>
<td>3.000</td>
<td>1.685</td>
<td>15</td>
<td>1.645</td>
<td>40</td>
<td>1.055</td>
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<td></td>
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<tr>
<td>19) Episkopi</td>
<td>4 1</td>
<td>11.000</td>
<td>5.500</td>
<td>5.000</td>
<td>35</td>
<td>5.000</td>
<td>600</td>
<td>700</td>
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<td>20) Osliani</td>
<td>1</td>
<td>forest</td>
<td>200</td>
<td>17</td>
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<td>68</td>
<td>1.295</td>
<td></td>
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<tr>
<td>21) Marousa</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>22) Kaliva-Seli</td>
<td></td>
<td>forest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>23) Skotina</td>
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<td>forest</td>
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<tr>
<td>24) Golema Reka</td>
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<td>forest</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25) Petitsa</td>
<td>1</td>
<td>grazing</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26) Prodromos</td>
<td></td>
<td>3.000</td>
<td>400</td>
<td>115</td>
<td>40</td>
<td>100</td>
<td>2.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27) Arkoudokhori</td>
<td></td>
<td>forest</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>102</td>
<td>2.500</td>
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<td>28) Tsornovo</td>
<td></td>
<td>forest</td>
<td>3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>29) Khoropani</td>
<td></td>
<td>grazing</td>
<td>1750</td>
<td>135</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Constructed from Dekazos (1913). Land in 'Turkish' stremmata (1600 sq. m.). For construction and further details, see Appendix A.

Several conclusions follow from table 4. First, the villages were large land units by Ottoman standards: the averages for available, arable and cultivated land per village came to, respectively, 8700, 5000 and 2700 stremmata (or 1390, 800 and 430 in hectares). However, villages typically had several chiftlik owners. Without double counting, there were at least 40
Muslim and 12 Christian *chiftlik* owners in total. If the private holdings of villagers are disregarded, the averages for available, arable and cultivated land per owner of *chiftlik* come to, respectively, 3200, 1800 and 1000 stremmata (or 510, 290 and 160 in hectares). These are not out of line with the rest of the Balkans, though toward the high end of the spectrum (Lampe and Jackson, 1982: 280-4). Absentee landlordship was not prevalent: of the Muslims, 17 came from Veroia, 15 from Edhessa, a few from other towns and none from Naoussa; of the Christians, 8 came from Naoussa, 2 from Veroia and 2 from Edhessa.

Second, the agricultural population was relatively small. The *chiftlik* villages had a total of 600 families, though these were sizeable groups of 3-4 and 5-7 mature men and women, respectively. The average of cultivated land per family came to 87 stremmata - varying from 125 in Yantsista to 41 in Tsarmorinovo - while the average for arable stood at 158. Considering that the soil of the region is generally fertile, these were very high ratios. Clearly, there was labour shortage. A wave of emigration toward the end of the 19th century, including to the USA, contributed to labour shortage (Dekazos, 1914: 38).

Third, land was not very intensively cultivated: 43% of the available land was not used for agriculture, while 46% of the arable lay fallow. Both unused and fallow land produced an income through forestry, hay making, or by being rented to transhumant shepherds for grazing. Plentiful land and labour shortage made for low land prices on the plain: 1-2 Ottoman £/stremma compared to 2-4 Ottoman £/stremma in the vicinity of Naoussa (Dekazos, 1913: 17). Cultivated land was given overwhelmingly to grain - more than 95% of the total. The balance went to garden crops, and negligible proportions to cotton, rice, mulberries and tobacco. This mix of crops was typical of Ottoman *chiftlik* of the period (Issawi, 1980a: 199-200; Petmezas, 2006).

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21 Certainly compared to Inalcik’s (1984: 106) figures of 60-80 dönüm (920 sq. m.) of fertile arable land per peasant household.
Sharecropping prevailed but there was also fixed-rent tenancy and immigrant hired labour (*aylekci*) was brought in when the crop had to be gathered (Dekazos, 1913: 16-22; 1914: 47-52). The landlord typically provided the land, the seed and housing, while the peasant supplied animals, a cart and labour. For winter wheat, the crop was divided in half, after subtracting the seed and the tithe. For maize, the landlord received a fixed (quantity) rent per stremma that varied with the fertility of the soil. Peasants retained the remaining output, thus had a strong incentive to raise maize production. The landlord and his estate manager displayed force, including violence, typically at the time of the division of the crop. But the peasant was protected by labour shortage and had considerable freedom in selecting fields and types of cultivation.

Dekazos (1914: 43-6) notes the absence of mechanisation and fertilisers, and bemoans the poor technique of the peasants, including the nearly universal use of primitive wooden ploughs. Fields belonging to different landlords lay indiscriminately next to each other, further reducing productivity. However, the yields were generally respectable: the seed yield stood at 1:8.5 for winter wheat, 1:11 for barley, 1:14 for oats, 1:17 for rye, 1:25 for maize, 1:17 for millet, 1:15 for moha and 1:15 for sesame; the land yield (oka/stremma) at 170 for winter wheat, 200 for barley, 250 for oats, 200 for rye, 250 for maize, 100 for millet, 80 for moha and 60 for sesame (Dekazos, 1913: 16-7). These were comparable to yields in the rest of the Empire (Issawi, 1980a: 214-5; Palairet, 1997: 343).

Despite producing for the market, the *chiftlik* sector as a whole showed few signs of capitalist transformation, such as regular use of wage labour, integration of dispersed strips of land, improved rotation and seeds, mechanisation and use of chemical fertilisers. One factor contributing to lack of capitalist transformation of agriculture was lack of security, associated with the nationalist struggle for Macedonia that was at its most acute in the local area. It is

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22 Palamiotis (1914: ch. VI, IX) makes similar observations.
possible, however, that the absence of aggregate transformation concealed important underlying changes. To be specific, industrial capitalism in Macedonia was mostly a Christian (and Jewish) affair, led locally by Naoussa entrepreneurs. Naoussa Christians also had substantial *chiftlik* holdings. Perhaps they had started to transform their estates in a capitalist direction, in line with the industrial and commercial activities thriving in the town. If so, we would expect Christian-owned to have had higher productivity and greater value-added activities than Muslim-owned *chiftlik*. This issue is considered in the next section.

8. Christian-owned versus Muslim-owned *chiftlik*

Regular acquisition of *chiftlik* by Naoussa Christians probably started around the middle of the 19th century, and received a boost from the Land Code of 1858 which strengthened property rights in land in an effort to reorganise land taxation. Estimating the extent of Christian landownership is a necessary first step in assessing its impact on agrarian relations. Dekazos gives the area of *chiftlik* villages and the names of Christian landlords, but not the area they owned. However, Stougiannakis (1911: 146-7) lists Naoussa landlords and their estates by monetary value. On this basis, and given the previously quoted average price of land on the plain at 1.5 Ottoman £/stremma, it is possible to arrive at an estimate of Christian landownership in *chiftlik* villages held jointly by Muslims and Christians (for the method of estimation, see Appendix B).
Table 5 CHRISTIAN LANDLORDSHIP IN THE REGION OF NAOUSSA, 1913

<table>
<thead>
<tr>
<th>Village/ Chiftlik</th>
<th>Christian-owned arable land</th>
<th>Christian landlords</th>
<th>Muslim-owned arable land</th>
<th>Muslim landlords</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Diavornitsa</td>
<td>2,000</td>
<td>2</td>
<td>2,000</td>
<td>1</td>
</tr>
<tr>
<td>2) Kato Kopanos</td>
<td>4,000</td>
<td>2</td>
<td>6,000</td>
<td>3</td>
</tr>
<tr>
<td>3) Ano Kopanos</td>
<td>3,250</td>
<td>1</td>
<td>3,250</td>
<td>1</td>
</tr>
<tr>
<td>4) Monospita</td>
<td>2,200</td>
<td>2</td>
<td>3,800</td>
<td>3</td>
</tr>
<tr>
<td>5) Episkopi</td>
<td>1,100</td>
<td>1</td>
<td>4,400</td>
<td>4</td>
</tr>
<tr>
<td>6) Giannakovo</td>
<td>1,050</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Tsarmorinovo</td>
<td>1,500</td>
<td>1</td>
<td>1,500</td>
<td>3</td>
</tr>
<tr>
<td>8) Golesiani</td>
<td>1,500</td>
<td>1</td>
<td>1,500</td>
<td>1</td>
</tr>
<tr>
<td>9) Golo Selo</td>
<td>1,800</td>
<td>2</td>
<td>1,200</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>18,400</td>
<td></td>
<td>26,650</td>
<td></td>
</tr>
</tbody>
</table>

Source: Constructed from Dekazos (1913) and Stougiannakis (1911). Areas in 'Turkish' stremmata (1600 sq. m.) and values in Ottoman £. For construction see Appendix B.

Tables 4 and 5 together show that the bulk of agricultural land on the plain was firmly in Muslim hands in 1913: Christians possessed only 19% of the entire arable land, though they held 43% of the arable in villages with mixed ownership. There is no evidence that the fertility of soil possessed by the two groups differed systematically. It is notable that Naoussa landlords (8 in total) owned nearly 3/4 of the Christian share. Four among them (Kokkinos, Lapavitsas, Platsoukas and Pehlivanos) were heavily involved in shajak manufacture and trading as well as in mechanised cotton spinning. Thus, Naoussa families that had accumulated profits in shajak and other trading proceeded to invest in land in the second half of the 19th century. After all, around 1900, Macedonian chiftlik were highly profitable, generating returns of 18-25% (Issawi, 1980a: 208). Profitability was probably boosted by tax-farming of the tithe, widely practiced among the chorbaji of Naoussa (Goutas 1997). On these grounds, it seems plausible that Christian-owned estates could have engaged in capitalist transformation.

Unfortunately, the data do not allow for differentiating between purely Christian- and purely Muslim-owned chiftlik in terms of crops, labour and animals. However, since it was estimated that Christians held 43% of the arable land in villages with mixed ownership, it is reasonable to partition the sample into a group of purely Muslim-owned villages, 1-10, and a group of villages with mixed ownership, 11-19. Mixed ownership villages could then be treated
as proxy for Christian-owned *chiftlik*. Even so, the paucity of the data rules out econometric testing; moreover, there are so few observations that meaningful statistical testing is also not possible. The best approach in the circumstances is to use descriptive statistics that shed light on analytical arguments. Thus, juxtaposition of Figures 1 and 2 shows that both groups suffered similar labour shortage:

<Figures 1, 2 here>

Given universal labour shortage, draught animals were of critical importance for productivity. Draught animals represented by far the largest capital outlay and typically belonged to the peasant. Here the difference between the two groups was pronounced: figures 3 and 4 show that Muslim-owned villages had greater availability of draught animals. On this basis, productivity was probably higher in Muslim-owned *chiftlik*.

<Figures 3, 4 here>

The large numbers of draught animals in some of the Muslim-owned villages suggest that cattle ranching also took place (and possibly horse breeding) as was observed in *chiftlik* elsewhere and in past centuries (Inalcik, 1984: 111). The herds would have produced a marketable output of animal products and probably belonged to both landlords and peasants. Figures 5 and 6 further show that Muslim-owned villages also had higher numbers of sheep/goats and pigs. It is clear that some commercial sheep herding also took place.

<Figures 5, 6 here>

The patterns of cultivation were very similar between the groups, cereals taking up at least 95% of the land under the plough for both. However, Figures 7 and 8 reveal a further significant difference: garden crops were more common among Muslim-owned villages. These crops were marketed and represented far higher value-added than grains. They were typically sent to Macedonian urban centres using the railway (Dekazos, 1914: 87). On this score too,
purely Muslim-owned villages probably generated more commercial opportunities and wealth for owners and peasants.

<Figures 7, 8 here>

Recapping, it appears that purely Muslim-owned *chiftlik* villages had higher productivity than villages of mixed ownership, hence higher than Christian-owned *chiftlik*. They also offered greater wealth opportunities to peasants. On these grounds, the hypothesis that Christian *chiftlik* owners brought a capitalist transformation of agrarian relations can be rejected.

This conclusion is surprising but also significant. It is well known that capitalist agrarian transformation is a widely varied historical process (Byres, 1996). In this part of Ottoman Macedonia there is no evidence of agrarian transformation led by *chiftlik* owners, even when they were industrial and commercial capitalists from Naoussa. Christian landlords appear to have treated their estates as sources of surplus to be extracted partly through non-economic means, and perhaps invested in urban commerce and industry. But even if they had the desire to effect a capitalist transformation of their estates, they would have lacked adequate mechanisms of social and political power. Muslim landlords predominated on the plain. Radical social action by Christian landlords, though by no means impossible, would have suffered for lack of access to broader mechanisms of Ottoman power.

Failure to transform agriculture was an obstacle to further industrial development, though it clearly did not prevent the emergence of industrial capitalism. Naoussa capitalists, for instance, were not able to achieve integrated production of cotton and cotton yarn, despite often possessing huge expanses of land. Secure access to cotton supplies remained a perennial handicap in competition against imported yarns. Moreover, agrarian transformation accompanied by rising productivity and peasant incomes could have augmented the domestic market in textiles, also providing greater scope to beat imports.
At the same time, there are tantalising indications that some agrarian transformation was taking place across Macedonia in the 1900s independently of chiftlik owners. There was a wave of selling by Muslim landlords toward the end of Ottoman rule. Heavy speculation in chiftlik land took place, much of it undertaken by Jewish capitalists from Thessaloniki (Demetriades, 1981). Nationalist unrest was the most probable cause of these developments, particularly as frightened Muslims left for Anatolia. The buyers frequently were peasant collectives that proceeded to re-divide the land. The peasants had monetary wealth, often generated through emigrant remittances from the USA, and were prepared to invest in land (Dekazos, 1914: 41).

The selling trend was certainly present in the Naoussa region and affected Christian landlords. Thus, entries 27 and 29 in table 5 were bought by their inhabitants - the former from a Muslim landlord, the latter from a Naoussa landlord (Dekazos, 1913: 41-3). Entry 20 was sold by its Muslim landlord to an Istanbul Greek. Land sales by Christian landlords also took place in chiftlik villages 9, 11 and 14 (see Appendix B). It is certain that peasants, both Muslim and Christian, held significant arable land in villages 9, 17 and 19. Agriculture was stirring in the 1900s but, on current evidence, it is impossible to tell the direction that change might have taken.

9. Conclusion

The emergence of industrial capitalism in provincial Ottoman Macedonia, led by the Greek Christian town of Naoussa, offers general insights into the social and economic underpinnings of development. Capitalist industrialisation occurred without trade protection and state industrial policy; it depended on institutional reforms - including secure property rights - and infrastructure improvements by the Ottoman state; it also occurred in the absence of capitalist agrarian transformation. Under these conditions, provincial Macedonian
industrialisation was slow and precarious compared to other European countries and regions. Moreover, it relied on the social and political resources of the Christian community to deal with intrinsic tensions. Communal resources were certainly able to sustain emergence of industrial capitalism, but they had limited effectiveness in confronting problems of growth and maturity. The need for state power to facilitate further industrialisation loomed large.

To be specific, trade liberalisation in the 1830s segmented the Ottoman textile market, creating opportunities for domestic production of coarse cotton yarn and woollen cloth, shajak. In the 1870s cotton spinning was mechanised in Naoussa, drawing on capital and skills accumulated in shajak manufacture. Systematic export of shajak also made possible the import of cotton spinning equipment and technology. Further advantages were provided by free water supply and very low wages.

Capitalist industrialisation also drew on the Tanzimat reforms of the Ottoman state and the communal resources of provincial Greek Christians. A dominant social group emerged in Naoussa, the chorbaji, controlling the institutional and political resources of the community. Chorbaji power dealt with thorny economic and social issues, including access to water and conflict with the nascent working class. The chorbaji were adept at dealing with the local Ottoman state, to an extent becoming integrated into its lower reaches. However, their access to the centre of Ottoman power and decision-making remained limited.

In 1912 provincial Macedonia stood as the leading area of textile industrialisation in the Empire, its rise facilitated by economic, social and political processes. But its industrial base was very small, its equipment imported and mediocre, and its supplies of raw materials unstable. Despite its remarkable success, Ottoman Macedonia was precariously placed relative to European competitors. By the same token, the industrial capitalists of the region remained a provincial group, never becoming a broad-based capitalist class. Their power was resolutely local, affording them little influence over the central Ottoman state. Lack of access to more
extensive mechanisms of power also contributed to failure to transform agrarian relations, despite landlords often being industrialists and merchants. This failure, in turn, limited the prospects of broader capitalist development in Macedonia.

For industrialisation to advance further, both the Christian *chorbaji* and the central Ottoman state had to prove capable of negotiating a new relationship, and it is far from certain that either party possessed this capability. But the issue soon became irrelevant as the Balkan war of 1912 ended five and a half centuries of Ottoman rule in Macedonia.
Appendix A

Marginal crops are (in stremmata): Rye (100 in Diavornitsa) rice (250 in Diavornitsa, 40 in Goleian) mulberries (80 in Kato Kopanos, 30 in Ano Kopanos, 25 in Monospita, 30 in Vetista) cotton (10 in Tsarmorinovo, 100 in Arseni, 40 in Kameniki, 50 in Vetista, 15 in Rizovo) tobacco (30 in Vetista, 10 in Rizovo) beans (20 in Osliani) vines (1000 in Tsornovo) hay (10000 bales in Zervokhori, 10000 bales in Palasnitsiovo). Cereals include mostly winter wheat and maize but also barley, oats, millet, moha, vetch and sesame. Garden crops include melon fields and vegetables. Draught animals are mostly oxen, buffaloes and cows but also significant numbers of horses and donkeys. The owners of Palasnitsiovo are not given by Dekazos (1913: 38) but they were almost certainly Muslim. For Arseni, Kameniki and Giannakovo, Dekazos's (1913: 31-33) figures for arable are actually less than the totals by type of cultivation. The figures for arable have been adjusted accordingly. It is worth noting that Dekazos's labour figures are suspiciously clustered around 30. The figure of 25 given for Kameniki (1913: 32) is incredibly low, given the cultivated land, and has been adjusted to 50. The labour figures for Yantsista and Rizovo are estimates on the basis of arable land.
Appendix B

For Diavornitsa, Stougiannakis (1911: 147) notes that 1/2 belonged to the sisters of Bellas from Naoussa. Bellas was a powerful chorbaji with interests in silk and wool fulling. Dekazos (1913: 25) on the other hand, mentions that the whole of the estate belonged to Salfatas and Hajigogos, who were Christians from Veroia. We shall use Dekazos’s information, and assume that it was bought by them during 1911-3.

For Kato Kopanos, Dekazos (1913: 26) notes that Kionses and Petsos - Christians from Edhessa - shared ownership with 3 Muslim landlords.

For Ano Kopanos, Stougiannakis (1911, 146) mentions that 1/2 belonged to Pehlivanos from Naoussa, while Dekazos (1913:25) simply notes that ownership was shared between Pehlivanos and a Muslim landlord. It is worth stressing that Stougiannakis records the value of Pehlivanos’s estate at 5000 Ottoman £, which is independent confirmation of our method of area estimation.

For Monospita, Stougiannakis (1911, 146) notes that it belonged to Kokkinos and Platsoukas from Naoussa, while giving the total value of their holdings at 3500 Ottoman £. Dekazos (1913: 27) mentions that there were also 3 Muslim landlords. Allowance must be made for non-arable land. Given that the chiftlik of Fetitsa (entry 25) comprised 6500 stremmata of mostly non-arable (grazing) land (Dekazos 1913: 40) and was valued at 1500 Ottoman £ (Stougiannakis 1911: 147) the price of non-arable land will be taken as 0.25 Ottoman £/stremma. Assuming that the proportion of non-arable to arable for each landlord was the same as for the village as a whole, the Christian share of the arable at Monospita was 2200 stremmata.

For Episkopi, Stougiannakis (1911: 146-7) mentions that it belonged to Lapavitsas from Naoussa, whose estate he values at 2500 Ottoman £. However, he also notes that Lapavitsas’s estate included part of Arseni. On the other hand, Dekazos (1913: 30-1) mentions
a further 4 Muslim landlords in Episkopi but no Christian interest in Arseni. We will assume that Lapavitsas’s share of Arseni amounted to 1/4 of the value of the family’s estate, and was sold during 1911-3. Using the same method as for Monospita, the Christian share of the arable in Episkopi is thus 1100 stremmata.

For Giannakovo, both Stougiannakis (1911: 146) and Dekazos (1913: 33) note that it belonged entirely to Hajidimitriou from Naoussa.

For Tsarmorinovo, Dekazos (1913: 34) notes that Hajidimitriou owned 1/2, though Stougiannakis (1911: 146) states ‘the whole’. It is probable that the family sold the other 1/2 during 1911-3. This assumption is in line with the ‘recent’ sale of the forest of Khoropani (Dekazos: 1913, 43), which had also belonged to Hajidimitriou (Stougiannakis 1911: 146).

For Golesiani, Dekazos (1913: 34) mentions 1 Christian landlord (Hajinotas from Naoussa) and 1 Muslim.

For Golo Selo, Stougiannakis (1911: 146) notes that Yamalis and Markobitsis from Naoussa each owned a part of the estate, valued jointly at 3000 Ottoman £. Dekazos (1913: 37) further mentions 1 Muslim landlord. Using the same method as for Monospita, the Christian share of arable is estimated at 1800 stremmata.
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Fig. 1 Cultivated land per family
Muslim-owned villages

Fig. 2 Cultivated land per family
Muslim/Christian-owned villages
Fig 5 Sheep, goats, pigs per family
Muslim-owned villages

Fig 6 Sheep, goats, pigs per family
Muslim/Christian villages
Fig. 7 Land given to garden crops
Muslim-owned villages

Fig. 8 Land given to garden crops
Muslim/Christian-owned villages