THE ECONOMIC SITUATION OF THE OTTOMAN STATE AT THE BEGINING OF THE 20TH CENTURY

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İmza :

ABSTRACT

THE ECONOMIC SITUATION OF THE OTTOMAN STATE AT THE BEGINING OF THE 20TH CENTURY

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In this thesis, economic structure of Ottoman State and The Great Economic Powers are analyzed from the beginning of 19th century until First World War. It investigates economic performances and conditions that led to the First World War between the years of 1800 and 1913. The effects of industrial revolutions and modernization on Ottoman economy are also investigated in a detail manner along with other economic consequences. The main findings show that the collapse of Ottoman State was the results of administrative errors from the beginning of 1908. In addition, this thesis revealed that Ottoman State realized an economic growth between 1800 and 1913.

Keywords: *Ottoman State, Great Economic Powers, Economic Performances, Growth Rates*

to Mehmet Bulut

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List of Abbreviations

A&P	Accounts and Papers, British Parliamentary Papers
BOA	Prime Ministry Ottoman Archives
FO	Foreign Office, British Parliamentary Papers
GDP	Gross Domestic Product
GNP	Gross National Product
OL	Ottoman Liras
OPDA	Ottoman Public Debts Administration
TSI	Turkish Statistical Institute

UK	United Kingdom
USA/US	United States of America

INTRODUCTION

The nineteenth century witnessed economic transformations and triumph of industrialism in Western Europe. The forms of modern industry spread across the Great Britain to France, Germany and other nations of Europe, as well as across the Atlantic to America and, later on, to other areas of the world such as Japan and Russia. Ottoman State economy was undoubtedly influenced by economic and industrial transformations. However, Ottoman State conformed to these transformations within facilities. What is more, Ottoman State realized an economic growth from the beginning of 19th century to First World War. The transformations took different shapes in different states and nations, depending on local circumtances and the timing of the onset of industrialization. These differences are sketched out in this thesis. Furthermore, economic performances will be compared with different conditions of Great Economic Powers and Ottoman State. In the first chapter, the board general tendencies in the basic determinants- agriculture, industry, trade, finance and GDP will be considered for both Great Economic Powers and Ottoman State during 19th century. In the second chapter, economic conditions of Ottoman State and Great Economic powers will be analyzed with same determinants in the beginning of 20th century. In the

third chapter, economic competition of Great Economic Powers on Ottoman State economy will be examined in determinants of trade, industry and finance. In the forth chapter of thesis, economic performances will be compared among Great Economic Powers and Ottoman State by using estimations of GDP and GDP per cepita levels.

Chapter 1: 19th CENTURY

1. Economic Situation of the Ottoman Economy during the 19th century

19th century was a time of great transformations and economic integrations. This situation has affected the Ottoman State which was a world empire. Ottoman State government has closely followed the developments in 19th century's Europe. Furthermore, Ottoman State government has made reforms related on these developments. Economic structure of Ottoman State will be examined in consideration of the recent reforms.

1.1 Agriculture

Ottoman Empire was an agrarian society. Ottoman agricultural production was based on small size farmlands. According to census of properties, lands and profits, %82 percent of

farmlands were smaller than 60 *dönüms.*[1] British parliementary papers suggest that Ottoman agricultural units could be the most fertile lands in the world.[2]

Ottoman agricultural structure started to transform into a new system after 1840s. Agricultural production was made both for fulfilment of inner consumption and exportation. Ottoman government has supported domestic production for foreign trade. Especially, tobacco, silk and wheat were the main items in foreign trade.[3]

During the reform period, Ottoman goverment has continued to support agriculture. In the first year of Tanzimat Era, Ottoman rulers has decided to support farmers by giving seeds, cattels and also money for increasing agricultural production. Exemption from taxes, providing importation of modern agricultural equipments and machines were also the other incentive policies of Ottoman government. For instance, Ottoman governors have bought agricultural products with cash money from farmers and sent those products to Antalya port to support both agriculture and trade in 1835.[4] Farmers had saved the cost of transportation by this way. After declaration of using four wheel carts instead of two wheel carts, Süleyman Efendi, director of agriculture, has manufactured four Wheel carts at 302 gurushes in Manastır.[5] In sum to improve agricultural products, Ottoman governors have focused on three main areas in the 19th century; providing supports for infrastructure investments, transportations and providing loans and credits to farmers.

Scarcity of labour[6] and capital[7] has also affected the balance of economic sources of Ottoman State. Scarcity of labour set using of agricultural lands have drawn back and scarcity of capital set using labour on agriculture. Because of these reasons, continuity of agricultural production was based on land intensive system and underdeveloped technology. Land Law has allowed private ownership on agricultural areas in 1858 and foreigners could get agricultural lands from Ottoman State with the new regulation in

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[1] Güran, T. (1998). *19. yüzyıl osmanlı tarımı*. (1st ed., p. 55). Istahnbul: Eren.
[2] FO, (1852) *The Ottoman Empire and its Resources with Statistical Tables*(p.184).
[3] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 3). New York: Coloumbia University Press.
[4] BOA, Cevdet İktisat, 34/1654, 1835.
[5] BOA, Cevdet İktisat, 28/1358, 1846.
[6] FO, (1852) *The Ottoman Empire and its Resources with Statistical Tables*(p.186).
[7] FO, (1852) *The Ottoman Empire and its Resources with Statistical Tables*(p.186).

1867.[8] Foreign investors have established large scale farms and these farms have worked as export oriented cooperations in Ottoman State.[9]

According to Güran, "Ottoman State disbursed 15,5 million gurushes loan to farmers who stayed in different Ottoman provinces. "Nafia Sermayesi" was built from these loan repayments, which was approximately 10 million gurushes, and this institution has spent collected payment for infrastructures such as roads, bridges and provided credits to farmers in 1846."[10] Ottoman State sent 100.000 gurushes to indigent farmers of Hüdavendigar province in 1846.[11] Meclis-i Vala confirmed to clean up and improved Limni Lake as a farm land for expanding agricultural production.[12] Ottoman rulers have seen the benefits of supports and investments on agricultural production, and then, started to support other provinces. However, rulers declared that merchants and tradesmen could not get any support as farmers from Ottoman State. [13]

"*Memleket Sandıkları*" were the main institutions in Ottoman agricultural structural transformation. These instutions had provided credits and loans to farmers until 1878. By this means, farmers were no more depended on money lenders by these instruments. Farmers could get credits from *sandıks* and repayments of these loans could be carried out in long term.

Farmers get 72,8 million gurushes credits from *sandıks* until 1878.[14] After a few years, Ziraat Bankası was established by the government. Agricultural transformation was supported with establishment of Agricultural Bank. Agricultural bank granted more than 430 million gurushes loans and credits to approximately 525.000 farmers and per capita credits were almost 820 gurushes.[15] Both "*Memleket Sandıkları*" and "*Menafi Sandıkları*"

[8] A&P Reports (1870), *Industrial Classes (Foreign Countries,* (Vol. 28, p. 733).
[9] Baskıcı, M. (2003). *Osmanlı tarımında makineleşme: 1874- 1914*. Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi , 58(1), p. 32.
[10] Güran, T. (1998). *19. yüzyıl osmanlı tarımı*. (1st ed., p. 46). Istahnbul: Eren.
[11] BOA, Cevdet İktisat, 35/1727. 1846.
[12] BOA, Cevdet İktisat, 38/1856, 1844.
[13] BOA, Cevdet İktisat, 26/1286, 1846.
[14] Güran, T. (1998). *19. yüzyıl osmanlı tarımı*. (1st ed., p. 151). Istahnbul: Eren.
[15] Quataert, D. (2008). *Anadolu'da osmanlı reformu ve tarımı 1876-1908*. (p. 306). Istanbul: Is Bankası

approximately funds demanded %12 and %9 interest rates, however, Agricultural Bank has only demanded %6 interest rates which included %1 service tax.[16]

After these developments, Ottoman agricultural production levels have started to increase and also this can be measured by tithes and export values.

Table 1. Annually growth rates of tithes in Ottoman Provinces 1879-1904 (million gurushes)

Provinces	Avg. Annual Growth Rates(%)	1879	1904
Ankara	2,0	6,4	20,9
Bursa	1,7	16,5	44,3
Konya	1,7	9,6	24,9
Bitlis	1,4	3,3	7,2
Adana	1,0	6,6	11,8
Sivas	0,9	9,7	17,2
Erzurum	0,8	10,4	16,5
Aydin	0,7	34,2	50,3
Kastamonu	0,6	10,0	14,1
Izmit Sancağı	0,5	2,9	3,9
Trabzon	0,5	11,6	15,1
Van-Hakkari	0,4	3,2	4,1
Harput	0,4	6,2	8,0
Diyarbakir	0,1	6,4	6,9

Source: Quataert (2008)

Table 1 shows that 137 million gurushes tithes were collected in 1879 and revenues from tithes increased to 245 million gurushes in 1904. Thus, there is a %79 percent rate of growth in tithes.[17] Increases in tithes can be explained by increases in production levels. For instance, Cotton production levels started to increase in 1860s. Cotton production was

[16] Quataert, D. (1975). Dilemma of development: The agricultural bank and agricultural reform in ottoman turkey, 1888-1908. *Internatioal Journal of Middle East Studies*, *6*(2), pp. 210-227.
[17] Issawi, C. (1980). *The economic history of Turkey.* (p. 200). Chicago-London: The University of Chicago Press

made on 18.000 decare lands in 1862, and the following year cotton production areas expanded to 70.000 decare lands.[18] In addition to expands on arable lands, production level of cotton increased from 57.000 bundles to 83.650 bundles at the same period.[19] Not only cotton production but also production levels of other goods have increased at the last quarter of the 19th century. In Adana province, grain production has increased to %51, tobacco to %191, fig to %68, nut to %217, silk cocoon to %122 and cotton production has increased %471 in between years 1888 and 1911.[20]

Table 2. Total Exports of Anatolia and Share of agrigultural production in total production (1876-1908) (gurushes)

Timeline	Total Exports(a)	Agricultural Exports(b)	Share of (b) in (a)	Alteration of changes in shares
1876-80	5.577.368	3.869.796	69	--
1881-85	5.707.637	3.976.291	70	82
1886-90	5.911.458	4.136.240	70	78
1891-95	6.181.423	4.372.816	71	88
1896-00	5.551.670	3.771.554	68	95
1901-05	7.360.598	5.191.168	71	78
1906-08	8.102.360	5.799.614	72	82

Source: Quataert (2008)
Note 1: Column (a) shows annual averages of total exports from Izmir, Adana-Mersin, Samsun and Trabzon.
Note 2: Column (b) shows annual averages of 9 important exported agricultural products. (raw cotton, fig, tobacco, grape, grain, acorn, hash, nut and olive oil)

According to export values showed in table 2, total export values of agricultural products were more than 3 million gurushes in 1876. However, this value has increased to 5.8 million gurushes in 1908.[21] This must not be forgotten that agricultural export values of Ottoman State were only including 9 pieces of products such as raw cotton, fig, tobacco, grape, grain, acorn, hash, nut and olive oil. For this reason, this can be easily said that, total agricultural exports of Anatolian part of Ottoman State were more than shown amounts in Table 2.

[18] Kurmus, O. (1974). *Emperyalizmin Türkiye'ye girişi*. (p. 85). İstanbul: Bilim
[19] Owen, R. (2005). *The Middle East in the World Economy 1800-1914*. (p. 112). New York-London: I.B.TAURIS.
[20] Baskıcı, M. (2005). *1800-1914 Yıllarında Anadolu'da İktisadi Değişim*. (p. 133). Ankara: Turhan Kitabevi. . For further reading, Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir ~~t~~etkik*. (pp. 37-38). Ankara: TTK
[21] Quataert, D. (2008). *Anadolu'da osmanlı reformu ve tarımı 1876-1908*. (p. 44). Istanbul: Is Bankası

1.2 Industry

Ottoman State government has supported the establishment of the spesific industries since the begining of the 18th century. Ottoman government has started to establish large scale industries for military requirements. Import substitution policies were applied in established industries by Ottoman government from the begining of the 19th century. First industrial structures have been built mainly for military area. However, Ottoman textile industry started to move backward with the effects of industrial revolution. Sixteen printed cloth factories were closed due to collecting taxes from producted goods, which was %24, on the contrary, foreign investors only paid %3 taxes for their products, because of this reason local authorities asked for exemption from taxes to the Ottoman rulers but that offer has been declined.[22] There were 200 looms in Iskodra and 2000 looms in Tırnova in 1821; However the numbers of looms decreased to 40 in Iskodra and 200 in Tırnova in 1831.[23] Decreasing amounts of industrial factories have not just happened in textile but also other industrial branches have been affected in Ottoman world during 19TH century. Considerable numbers of handlooms closed down. According to Issawi, 2750 weaving looms have decreased to 25 pieces and 350 brocade looms have decreased to 4 pieces in Istanbul after 1868. Moreover, Bursa could produce 20.000 pieces of clothes in 1843, however, production levels have decreased to 13.000 pieces in 1846 and have decreased to 3.000 pieces in 1863.[24] Decline in textile industry can not be seen as an absolute proof of Ottoman industrial collapse. The main reason of the decline in textile was tied up with production costs. Production costs of some textile goods were more expensive than importation from Europe. This led to Ottomans to chose importation of final goods. This was not the collapse of the industry in the borders of Ottoman State.

Nine large scale factories were located in Ottoman State between 1800 and 1839. Table 3 shows these factories. Ottoman government has also supported steam factories by giving 120.000 gurushes aids monthly in this period.[25] Broadcloth factory has been established

[22] BOA, Cevdet İktisat, 28/1393, 1267 senesi.
[23] Seyitdanlıoğlu, M. (n.d.). Tanzimat dönemi osmanlı sanayii.*Ankara: DTCF Tarih Araştırmaları Dergisi*, *26*(46), p. 56.
[24] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 154). New York: Coloumbia University Press.
[25] BOA, Cevdet İktisat, 30/1483, 1836.

with the supports of foreign masters in 1805.[26] Ottoman government has also supported steam factories with 125.000 gurushes monthly payments from Mühimmat-ı Harbiye and sent 100.000 gurushes from the sources of mint in 1835.[27] Furthermore, Ottoman government has continued to supply with 150.000 gurushes monthly payment from Bolu assests sent to Akmise for continuity of production.[28]

Table 3. Ottoman Large Scale Manufacturing Plants, 1800-1839[29]

Year	Production	Location
1805	Paper Factory	Beykoz
1805	Broadcloth (çuha) Factory	Beykoz
1810	Leather Factory	Beykoz
1827	Yarn Factory	Eyup
1830	Tanner	Beykoz
1830	Shoe Factory	Beykoz
1835	Feshane	Eyup
1836	Wool Yarn Factory	Islimiye
1836	Weaving Factory	Islimiye

Source: Seyitdanlioglu (2005)

Industrialization movements maintained to expand between 1840 and 1860 in Ottoman territories. Ottoman government continued to invest until 1860s. Two descolated saltpetre factories were found out in Konya and Trade Ministry announced that those factories awarded of a contract for starting to produce again in 1848.[30] There was an iron factory in Samarkov and the government has decided that %8 share of production would sent to Istanbul in 1844.[31]

[26] BOA, Cevdet İktisat, 6/275, 1805.
[27] BOA, Cevdet İktisat, 34/1652. 1835.
[28] BOA, Cevdet İktisat, 9/448. 1851.
[29] Seyitdanlıoğlu, M. (n.d.). Tanzimat dönemi osmanlı sanayii.*Ankara: DTCF Tarih Araştırmaları Dergisi*, *26*(46), pp.58-59. Complied from article.
[30] BOA, Cevdet İktisat, 25/1236, 1848.
[31] BOA, Cevdet İktisat, 31/1541, 1844.

Not only the central government but also private entrepreneurs started to build factories and manufacturing plants in Ottoman world. Cubuklu Crystal Factory has been established in Istanbul and tanner has been established in Silivri in 1840. Iron foundry has been established in Besiktas and porcelain factory has been established in Pasabahce in 1844. Porcelain Factory produced "fagfuri", "cini pota" and "agnam tuglası" and Meclis-i Vala-yı Ahkam-ı Adliye has accepted to the application of factory authorities which includes priviliges and exemption about costs of production.[32] Ottoman military industry has grown in Zeytinburnu district. Military industry has been expanded rapidly in Zeytinburnu with investments of public sector. Rifles, guns, knife, cannons, iron, iron pipe, steel, swords, cotton clothes and socks have been produced in that area. These productions quality was as same as European goods.[33] Furthermore, Ottoman government has produced first steamship in 1848. One of the most important factories of Ottoman Empire was Hereke Factor expanded by Ottoman government in 1845. After improvements in factory, there were 125 jacquard looms.[34]

Table 4. Other Government Investment Factories, 1840-1860

Year	Production	Location
1840	Cut Glass	Cubuklu
1840	Tanner	Silivri
1842	Broadcloth Factory	Islimiye, Balikesir
1843	Broadcloth Factory	Izmit
1844	Iron Factory	Samakov
1844	Iron Foundry	Besiktas
1844	Porcelain Factory	Pasabahce
1847	Iron Foundry	Bagdad
1852	Humayun Silk Factory	Bursa

Ottoman government has started to support private investments after 1850s. Bursa and Izmir became the most significant areas for private entrepreneurs. Thirty-seven silk manufacturing units were located in Bursa in1856.[35]

German Krug and Stroh have constructed spinning and flour factory in 1850.[36] Merchant Huseyin Aga has constructed linseed processing factory in 1853.[37] Because of quality and

[32] BOA, Cevdet İktisat, 35/1742, 1845.
[33] Clark, E. (1974). Osmanlı sanayi devrimi. *Ankara: TTK Belgelerle Türk Tarihi Dergisi* , p.18.
[34] Seyitdanlıoğlu, M. (n.d.). Tanzimat Dönemi Osmanlı Sanayii, *Ankara: DTCF Tarih Araştırmaları Dergisi*, *26*(46), p.63.
[35] ibid, p.65
[36] A&P Reports, Industrial Classes (Foreign Countries), (Vol. 28. p.733.)
[37] BOA, Cevdet İktisat, 44/2183, 1853.

cheapness of productions against Beykoz Paper Factory Ottoman government has decided to buy papers from Izmir Paper Factory.[38] McAndrew and Forbes Co. have constructed 4 licorice processing factory between 1854 and 1875.[39] J.B. Gout has structed 10 cottons gin factory in the distinct of Izmir in 1863.[40] Ottoman government has allowed to establishments of willowing factory with 15 horsepower machines and has awarded to Governor of Selanik Mehmed Akif and head official of Siroz Abdurrahman Pasha.[41] In addition to these allowances, Ottoman State has also encouraged to establish wheat, barley and willowing factories to Hacı Muradzade Mehmed in Manisa in 1865.[42] Ottoman State has not just only made investments in western Anatolia but also has made some other investments in Eastern part of Anatolia after 1850s. Two cotton machines have been sent to cotton production areas of East Anatolia in 1865.[43] Five French, two British and two local yarn factories have been constructed in Lebanon in 1852.[44] Minimum 1000 looms and 2500 broadcloth workbenches have worked in Ottoman hinterland in the first years of 1890s.[45] According to Owen, carpet industrial production has been expanded from 150.000 square meters to 367.000 and 668.000 square meter between 1884 and 1909.[46]

Ottoman industrialization movements continued after 1880s. Table 5 shows industrial structures of Ottoman State.

Tablo 5. Ottoman Industry Classification in 19th century

	Until 1880	1881-1890	1891-1900
Food Industry	15	6	7
Soil Industry	1	2	3
Hide Industry	3	1	3
Wood Industry	3	0	6
Textile	17	4	6
Paper, Press	17	6	6
Chemistry	0	0	1
Total	56	19	32

Source: Eldem (2004)

[38] BOA, Cevdet İktisat, 39/1941, 1851.
[39] Kurmus, O. (1974). *Emperyalizmin Türkiye'ye Girişi*. (pp.140-141). İstanbul: Bilim.
[40] ibid, p.136
[41] BOA, Cevdet İktisat, 41/2035, 1281.
[42] BOA, Cevdet İktisat, 22/1097, 1281.
[43] BOA, Cevdet İktisat, 2/97, 1282.
[44] Sarc, O. C, (1940) *Tanzimat ve Sanayimiz, Tanzimat I*, Istanbul: Maarif Vekaleti.
[45] Owen, R. (2005). The middle east in the world economy, 1800-1914. *New York: I.B. Tauris*, p.212
[46] ibid, p.212

Table 5 points out the numbers of industries and branches. As it can be seen in table 5, there have been 56 available private sector industrial structures in Ottoman State until 1880. Developments in industrial areas have mostly affected industrialization policies of Ottoman State such as giving priviliges and exemptions to foreign investors in the middle of 19th century. 19 new factories have been established between 1881 and 1890. There have been also 32 new private sector factories established in Ottoman hinterland at the last ten years of 19th century.

Finally, according to table 5, Ottoman State had 107 factories at the end of 19th century. By using these statistics of factories and industries, it can be easily said, Ottoman State did not miss industrialization movements. However, Ottoman State could not industrialize as much as other Great Economic Powers. Some nations have specialized in heavy industries; some others in textile industry. On the other hand, Ottoman State has specialized in production of raw materials, food, textile and papers during the 19th century.

1.3 Trade

19TH century was very important period for the pattern of Ottoman trade. It could be easily said that the agreement of Baltalimanı Free Trade Pact with Great Britain has started a new era for Ottoman foreign trade. Moreover, the following Ottoman governments have signed same pact with other Great Economic Powers ongoing years. According to the agreement of Baltalimanı, free trade was the main regulation between the Ottomans and Britons. What is more, all monopolies prohibited and also both British merchants and merchants of Great Economic Powers could purchase any goods without payment of interior duties. However, customs duties have also levied with commercial conventions. Due to these pacts, Ottoman government has imposed duties %12 on exports and %5 on imports.[47] Ottoman government could prohibit exports of some strategic goods before commercial conventions. For instance, Ottoman State has allowed to the capable producers to build trading ships but selling out these trading ships was abandoned by Ottoman government until changed tariffs after negotiations with Great Economic Powers. Import

[47] BOA, Cevdet Maliye, 151/6400, 1839. For further reading, Genç, M. (2000), *Osmanlı İmparatorluğu'nda Devlet ve Ekonomi.* (p.95) İstanbul: Ötüken.

duties have increased from %5 to %8 and export duties has decreased from %12 to %8 in 1861/62.[48] In addition to these regulations on tariffs, internal custom duties, which were ranged from %2 to %8, were totally cancelled in 1873.[49] Other custom duties have imposed on tobacco trades. Ottoman tobacco exporters had to pay extra %3 duty in 1883.[50]

Export values of Ottoman State have increased averagely %6 annually between 1839 and 1873. Import values have increased averagely %8 annually at the same period.[51] Correspondingly, trade statistics of Izmir confirmed annual growth rates of Ottoman exports and imports. Export values of Izmir have increased from 800.000 gurus to 4.2 million gurushes between the years of 1845 and 1875. Western Europe had have faced with a global crises in 1873. These crises also have affected other nations around the Western Europe. Ottoman State has also been affected from this these crises. However, Ottoman trade volumes have maintained to increase but growth rates were more less than previous years of 1873-1896 crises. Pamuk determined growth rates of Ottoman trade volumes between 1857 and 1898 as;

> "Annually growth rates of Ottoman exports through the industrialized nations decreased from %5,6 in 1857-1873 to %3,5 in 1879-1898 with the fixed prices of 1880. Annually growth rates of Ottoman imports from the industrialized nations decreased from %4,9 in 1857-1873 to %2,5 in 1879-1898 with the fixed prices of 1880. More interestingly, trade with industrialized nations with the calculation of current prices, annually growth rate of exports decreased to %2 and annually growth rate of imports decreased to %0,6 in the years between 1873-1898. However, total Ottoman export volume increased from 15 milllion sterlin to 17,3 million sterlin between 1873 and 1898. On the other hand, total Ottoman import volume increased from 18,9 million sterlin to 19,8 million sterlin between 1879 and 1898."[52]

Ottoman foreign trade volumes have started to increase rapidly after the years of 1873-1896 crises. A total export value of Ottoman Empire was 28.4 million gurushes, and import was 39.4 million gurushes on the eve of First World War.[53]

Finally, wheat, grape and raw silk were the main exported goods of Ottoman foreign trade during the 19th century. On the other side, Amerikan cloth, pique and sugar were the

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[48] Issawi, C. (1988). *The Fertile Crescent 1800-1914*. New York: Oxford University Press. (p. 128).
[49] ibid, p.419
[50] BOA, Cevdet Maliye, 209/8630. 1883.
[51] T.S.I, (1995) 19. *Yüzyılda Osmanlı Dış Ticareti*. (p.31). Historical Statistic Series I.
[52] T.S.I, (1995) 19. *Yüzyılda Osmanlı Dış Ticareti*. (p.31). Historical Statistic Series I.
[53] ibid, p.32

common imported items until 20th century.[54] That should be noted that, Ottomans have a very large trade range during 19th century, and shares of exported goods in total export basket of Ottoman State never got over %15. That means, Ottoman trade goods had a wide range in both export and import. Ottoman government prefer to trade every kind of goods which fulfill the needs of society rather than to focus on trade in special commodity.

1.4 Finance and Banking

First of all, the Ottoman budget system was different before the Tanzimat era. Taxes have been collected by *ayans*[55]. Tax collectors have sent tax revenues to Istanbul. Because of this policy, tax revenues of Ottoman State have stayed in low rates. At the begining of Mahmud the second era, centrialization movements have started in Ottoman State. Mahmud the second has transformed and modernized structure of public finance instutition.

The transformation and modernization period in Ottoman public finance was started by the esbahlishment of "Umum-u Maliye Nezareti".[56] The ministry of public finance started to control all over the tax revenues in Ottoman territories. Therefore, the Ministiry of Public Finance became the main authority for tax collection after 1840s.

By following the new modern system, first Ottoman budgets have started to constitute in 1841 and these budgets have existed until 1918. Ottoman budgets have consisted from tithes, mine taxes, regional taxes, commodity taxes, personal taxes (head tax), income taxes, customs and other taxes. Profit tax was one of the important tax revenues with %3 in 1860 increased to %5 in 1886.[57] Before this regulation, profit taxes increased %4 in 1878.[58] According to Akarlı, profit taxes have increased from %3 to %4,5 for European merchants and artizans.[59] Therefore, producers have paid taxes on productions, earnings

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[54] Ibid, p.31
[55] Landed proprietor in Ottoman State
[56] Güran, T. (1989). *Tanzimat döneminde osmanlı maliyesi: Bütçeler ve hazine hesapları 1841-1861*. (p.7). Ankara: TTK.
[57] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 178). New York: Coloumbia University Press.
[58] Shaw, S. (1975). The Nineteenth Century Ottoman tax reforms and revenue system. *Cambridge: International Journal of Middle Eastern Studies* ,*6*(4), p. 428
[59] Akarlı, E. D. (1992). Economic policy and budgets in ottoman turkey, 1876-1909. *Middle Eastern Studies*, *28*(3), p. 455.

and wealth. Agricultural taxes were rised in the last quarter of the 19th century. The aims of these tax increases were provides funds to agricultural credit institutions and infrastructure investments. Taxes were have been increased to %11,5 in 1883, later on, taxes were have been raised to %0,5 more in 1897 and to %0,63 in 1900, and finally, total agricultural tax rates have reached %12,63, tax rate stabilized to %12,5 in 1906.[60] According to an another important land tax, individuals had to pay %0,4 tax, and if there was a rent revenue on land, individuals had to pay another %0,4 tax from gains on rents. Land tax applications have been expanded. Moreover, if lands worth was more than 20.000 gurushes, individuals had to pay %0,8 land tax.[61]

Ottoman budget revenues have rised 4.2 times until 1875. Furthermore, revenues have rised 6 times until 1914. In spite of foreign debts, wars and natural disasters, Ottoman budget revenues have continuously increased until First World War.

Ottomans had foreign debts experience in the second half of 19th century. Ottoman government has gotten loans from money lenders or made a *tagsis* policies before 1854. These kinds of loans were short term solutions and had heavy results on long term. Therefore, government turned towards foreign financial markets. Foreign loans were more favorable than internal conditions because of low interes rates and long term pay backs. Ottoman State has got these loans in suitable conditions until 1865. Most of those loans have been supplied by English and French governments. After these debts, Ottoman governent continued to apply for borrowing from Western Europe. Therefore, loans were obtained in bad conditions and these credits did not use for profitable investments. Thus, Ottoman foreign debt deepened in the following years of 1865. Foreign debt payments of Ottoman government were annually 2.25 million sterlin in 1862, however, foreign debt payments reached annually 12 million sterlin in 1865.[62] When Ottoman budget revenues calculated, there was approximately 15 million sterlin[63] income for the year of 1862, and also Ottoman foreign debt payments were one seventh of the budget revenues. Furthermore, Ottoman budgets could have surpluses time to time until 1865. However, the

[60] Genç M. & Özvar E. (2006) *Osmanlı Maliyesi Kurumlar ve Bütçeler I.* (p.68) İstanbul: Osmanlı Bankası
[61] Shaw, S. (1975). The Nineteenth Century Ottoman tax reforms and revenue system. *Cambridge: International Journal of Middle Eastern Studies* ,*6*(4), pp. 427-428.
[62] Genç M. & Özvar E. (2006) *Osmanlı Maliyesi Kurumlar ve Bütçeler I.* (p.108) İstanbul: Osmanlı Bankası
[63] 1 sterlin=110 Ottoman Gurushes.

second foreign debt of the year of 1865 was more than budget revenues. This debt caused to increases in annual repayments. That can easily be said that, Ottoman finance has started to go into a depression in 1865. A budget deficit rate was under one tenth of revenues until 1865. However, budget deficit rate was more than one tenth of the revenues and continued to deepening after 1865.

Budget deficits have started to increase in the years of 1866/67 and worsened until monatarium. Especially, Sultan Abdulaziz's excessive expenditures have been deepened budget deficits. Hence, Ottoman government started to get into a debt in heavy conditions after 1865. Debts with heavy conditions have mostly used for clearing the debts of previous years. According to Shaw, debts were going to deepened and Ottoman debts were 313,1 million gurushes (%18 of revenues) in 1862 have increased to 570,75 million gurushes (%33 of revenues) in 1869/70, later on, have rised into 1.089 million gurushes (%43,9 of revenues) in 1875/75 and finally debts have reached 974,5 million gurushes (more than %50 of revenues) in 1877/78. Table 6 also shows us the Ottoman foreign loans until monatarium.

Table 6. Ottoman Foreign Debts, Interest Rates and Issue Rates

Year	Quantity (million sterlin)	Interes Rates	Issue Rates (%)	Incoming Payment (million sterlin)
1854	3	6	80	2.29
1855	5	4	102,5	5.13
1858	5	6	76	3.44
1862	8	6	68	5.15
1863	8	6	71	4.98
1865	6	5	66	3.7
1865	32,9	6	60	19.8
1869	22	3	57	11.56
1870	31,68	6	32,125	9.54
1871-74	98,53	9,5	49,92	49,21

Resource: Eldem (2006), Çakır (2001).

Ottoman Public Debt Administration (OPDA) has been established in 1881. Then, Ottoman debts have decreased from 242 million sterlin to 128 million sterlin and annual repayments of foreign debts have declined from 13 million to 2.5 million sterlin in 1881.[64]

[64] Genç M. & Özvar E. (2006) *Osmanlı Maliyesi Kurumlar ve Bütçeler I.* (p.110) İstanbul: Osmanlı Bankası

1.2.5 GDP

From the public finance perspecive another important issue was population. According to censuses and estimates, table 7 shows population statistics of Ottoman State during 19th century.

Table 7. Ottoman Population

Year	Population
1844	35,35 million
1867	40 million
1872-74	29 million[65]
1897	19 million[66]

Source: T.S.I (1996)

Probably, population was one of the most important problems of the Ottoman State. Ottoman population has not increased as much as population growth rates of Western European nations or Russia from the begining of the 19th century.

Another important question about the Ottoman economy was GDP. According to Maddison, GDP level of Ottoman State was 6.478 million dollars and GDP per capita was 643 dollars in 1820. GDP level of Ottoman State could reach to 9.729 million dollars and GDP per capita reached to 825 dollars in 1870. Hovewer these estimates include only Anatolian part of Ottoman State. These estimates were based on stabil prices of 1990 in American dollars. The other parts of GDP levels and GDP per capita levels of Ottoman State are shown in table 8.

Tablo 8. Ottoman Lands and GDP levels in 1870

Nations	GDP (million $)	GDP per capita($)
Bulgaria	2.172	840
Yugoslavia	4.943	599
Romania	8.546	931
Albania	269	446
Iraq	1.136	719
Syria	1.335	844
Jordan	191	718
Egypt	4.573	649

[65] Includes only Asia and European minor.
[66] Includes Anatolia

Lebanon	402	845

Source: Maddison (2000)

Other estimates about GDP and GDP per capita levels of Ottoman State were made by Vedat Eldem. According to Eldem, GDP per capita level of Ottoman Empire was almost 10 punds in 1913. However, according to Pamuk, Eldem's calculation, which is approximately 10 sterlin for the year of 1913, is equal to estimation of Maddison, which is approximately 1213 US dollars with the purchasing power parity of the 1990.[67]

English parliamentary papers revealed annualy incomes of Ottoman working class in 1870. According to these reports, GDP per capita levels of Ottoman State were ranged from 1800 gurus to 7500 gurus in 1870.[68] Moreover, according to parliamentary papers, GDP per capita levels were ranged from averagely 16,36 sterlin to 68,18 sterlin for in 1870. However, detailed analyzes of GDP levels and GDP per capita levels of Ottoman State will be calculated in chapter 3.

2. Economic Overwiev of the Great Economic Powers in the 19th century

The processes of economic integration and major transformations have originated from Great Britain. According to general view of the historians, Great Britain was the first industrialized country in the world. In addition, the first outputs of industrial revolution occurred in Great Britain in the early years of 19th century. After a period of time, other Great Economic Powers such as France, Germany and U.S.A carried out industrial revolution. On the other hand, Russia, Japan, Italy and Ottoman State have slowly followed industrial developments of these four nations under the name of "Late Comers".

1.2.1 Great Britain

Great Britain has managed the specialization in agriculture. At the beginning, cotton textiles manufacturing became the most important sector in British industrialisation. Cotton textile production flourished in the nineteenth century. What is more, strong

[67] Pamuk , S. (2008). *Osmanlıdan cumhuriyete küreselleşme, İktisat politikaları ve büyüme*. (p. 143). Istanbul: Is Bankası.
[68] 1 Pound = 100 gurus = 1 Ottoman gold lira. Edhem Eldem, "Osmanlı Bankası Tarihi" Istanbul: Tarih Vakfı Yurt Yayınları 2000.

commercial infrastructure has realized the industrial revolution. In addition, rich coal mines have had an important role in the process of industrialization. Finally, Great Britain government has built a strong financial structure to support industrialization.

1.2.1.1 Agriculture

As it was known, agriculture was the crucial sector in transition towards the Industrial power. In the first place, industrialized nations have started to specialize in agricultural production by using technological and biological innovations. Great Britain was the first industrialized nations among the Great Economic Powers. One of the most significant factor in agricultural growth was "enclosure" and regulation of "enclosure" reached most available level in Great Britain at the middle of 19TH century. British government has adopted protectionist policies along with this "enclosure" against the other Great Economic Powers in agriculture at the begining of the 19th century. Thus, Great Britain has accomplished to increase demand in local market. It is needed to be expressed in numerical orders, the number of consumers increased from approximately 18 millions to 27 millions in between 1801 and 1841 in local markets of Great Britain. Wheat and Barley were the most important products in land production. On the other hand, milk and mutton were other important agricultural products in cattle dealing. Wheat had %28,8 share, barley had %10,3 share, milk had %11,6 share and mutton had %13,7 share in total agricultural production in the first years of 19th century. Then, share of wheat has decreased to %17,4, share of barley has increased to %14,3, share of milk increased to %16,1 and share of mutton has increased to %14,9 in 1870s.[69] Agricultural production of Great Britain has stepped into the golden age with the using of steam machines, drainage pipes and new fertilization techniques in agricultural production after 1840s. Furthermore, network of railways have also supported agricultural production in Great Britain. What is more, 250.000 farmers and 1 million waged workers have participated in agricultural production.[70] After all, Agricultural production of Great Britain has grown annually %0,77 between 1800 and 1839 and has grown annually %0,85 between 1830 and 1860.[71]

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[69] Broadberry , S., & Leeuwen , B. V. (2010). Britis economic growth and the business cycle, 1700-1870: Annual estimates. *The University of Warwick, Working Paper Series* , (20), p. 26.
[70] Heaton, H. (2005). *Avrupa İktisat tarihi*. (p. 359). Ankara: Paragraf.
[71] Broadberry , S., Campell , B. at all (2011). Britis economic growth, 1270-1870: an output based approach.*School of Economics Discussion Papers: University of Kent*, p. 32.

1.2.1.2 Industry

Great Britain maintained her domination on both industrial and commercial areas during the 19th century. Great Britain was the industrial leader nation around 1870s. England has expanded industrial production and growth rates this situation changed in the following decades.

First industrialization movements of Great Britain have started in textile (cotton), coal, iron and engineering branches. England had 81,3 million metric tone coal production which was the biggest production amount among the Great Powers in 1860.[72] What is more, Europe textile market was surrounded by British cotton manufactures in 1880s. Similarly, iron production of England has reached peak level and half of the world iron production occured in Great Britain in 1870s. 112.500 workers in iron industry, 274.000 workers in shoe industry and 219.000 workers in coal industry were employed.[73]

Table 9. GDP per person employed (UK=100)

Years	US/UK	Germany/UK	Japan/UK
1870	95.1	48.8	17.8
1890	98.1	53.3	20.0

Source: Broadberry (1975)

Advanced level of engineering also caused the first industrial revolution in Great Britain. Machines have been started to use in textile and powerful machines have been started to use in coal and iron production. Finally, railway networks have started to be constructed with increasing production of iron. Railroads have been the most effective tools of British industrial revolution. Moreover, steamships and using iron against wood in production of vessels have been the other significant factors in industrialization movements of Great Britain. By technological progress, factories have started to produce more qualified goods than blacksmiths. Productivity has also started to increase with modern production facilities. British industrial production has been expanded in a significant rate from the

[72] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 12). Research Memorandum GD-101, University of Groningen

[73] Cameron , R., & Neal , L. (2003). *A concise economic history of the world*. (p. 222). New York: Oxford University Press

begining of 19TH century until 1870s. Industrial production reached to annually %2, 87 between 1800 and 1840 and to %2, 91 between 1840 and 1870.[74] The share of industrial production in GDP was %24 in 1870.[75]

1.2.1.3 Trade

Great Britain was the leader with support services of sail powers at the begining of 19th century. Industrial revolution supported the increasing of foreign trade volumes of Great Britain.

Table 10. Shares of World Exports of Manufactures

Year	Great Britain	U.S.A	Germany	Japan
1881-1885	43.0	6.0	16.0	0.0
1899	34.5	12.1	16.6	1.7

Source: Broadberry (1975)

When shares of World exports of manufactures considered, Great Britain was the leader nation with %43 in total exportation of manufactured goods in 1881, but share of Great Britain has decreased to %34, 5 in 1899.[76] Share of foreign trade volume in GDP has increased from %13, 4 to %43,6 between 1820 and 1870. Furthermore, foreign trade volume of 1820 was 1.125 million dollars with the prices of 1990, and this has grown to %98 until 1870.[77] Great Britain has maintained the leader position in world trade until First World War.

1.2.1.4 Finance and Banking

[74] Broadberry , S., & Leeuwen , B. V. (2010). Britis economic growth and the business cycle, 1700-1870: Annual estimates. *The University of Warwick, Working Paper Series* , (20), p. 27.
[75] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 9). Research Memorandum GD-101, University of Groningen
[76] Broadberry, S. N. (1995). *Comparative productivity levels in manufacturing since the industrial revolution: Lessons from britain, america, germany and japan*. (p.73). doi: Structural Changes and Economic Dynamics 6
[77] Daudin, G., O'Rourke, K. H., & Prados de la Escosura, L. (2008). *Trade and empire, 1700-1870*. (Vol. 34, p. 24). FCE.

In Great Britain, banks began to be established in the middle of 17th century. First banks were mostly related with merchant activities and accounts. However, manifold banks have been founded which have been associated with industrialization during 19TH century. One of the most important banks, which were Lanchester Banking Company, was established in 1826. This bank was also a joint stock bank. Another important joint stock bank, Bristol Old Bank came later, was founded in the begining of 19TH century. Manchester and Liverpool District Banking Company and National Provincial Banks were also established in 19TH century. What is more, British government has introduced Bank Charter Act for regulating bank notes. For a while, smaller private banks have started to be founded at the end of 19th century. Barclay Company was the most important bank among family banking institutions. Thus, established banks of Great Britain mostly have supported industrialization and monetary investments contrary to earlier centuries.

1.2.1.5 GDP

When GDP levels of Great Britain considered, Great Britain had a significant growth until 1870s. GDP levels have grown annually %1, 85 between 1800 and 1830 and annually %2, 35 from 1830 until 1870.[78] In addition, GDP per capita levels have grown annually %0, 42 between 1800 and 1840 and annually %1, 20 from 1840 until 1870.

1.2.2 U.S.A

U.S.A was the fastest growing country among the Great Economic Powers. Despite the industrialization of U.S.A was later than Great Britain, U.S.A has achieved a rapid growth trend with rich resources and vast geography until the First World War.

1.2.2.1 Agriculture

U.S.A was an important nation among the Great Economic Powers. One of the most important features of U.S.A was to have vast lands. In addition to vast lands, % 90 U.S.A

[78] Broadberry , S., Campell , B. at all (2011). Britis economic growth, 1270-1870: an output based approach.*School of Economics Discussion Papers: University of Kent*, p. 34.

populations have worked in agricultural area at the begining of 19th century. Plenty of lands and sources were the most significant properties of structure of U.S.A. Using of water power; steam and electricity have significantly effected agricultural production of U.S.A with all vast lands and sources.

1.2.2.2 Industry

U.S.A has experienced an industrialized improvement during the 19th century. Technology and regional specialization have developed in a significant rate because of scarcity of labour. The scarcity of labour has led to increase in labour saving technologies. Pennsylvania was one of the biggest provinces of U.S.A. According to British reports, there were 642.000 industrial workers and merchants and approximately 250.000 agricultural labourers in 1870.[79] Other provinces of U.S.A were smaller than Pennsylvania and these provinces were sufficent with workers. Thus, industrialized productivity of U.S.A was higher than other Great Economic Powers. Same situation has also occured in both manufacture and agriculture in U.S.A. U.S.A had 4.855 factories, which operated with water and steam power, increased to 7.620 factories in 1880.[80] When industrial production of England consided as 100, industrial production of U.S.A was 203,8 in 1869, and also 195,8 in 1899.[81] As it is seen, the industrial production of U.S.A was 2 times more than industrial production of Great Britain. New England cotton industry has revealed since 1820s and has become leader manufacturing yard in the world until Civil War. Moreover, New England was the most productive area in cotton textile. Simultaneously, American iron and steel indutries have started to expand. Iron industry has started to develop and become very significant industrial branch after Civil War. Cotton, timber, boots and shoes were other important branches of manufacturing. Increased demand to American irons has caused to hold the high ground of iron industry. Thus, Revenues from industrial production has started to surpass agricultural revenues after 1880s. America has become headmost industrialized nation in 1890s.

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[79] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[80] Atack, J., Bateman, F., & Margo, R. (2006). Steam power, establishment size and labor productivity growth in 19TH century American manufacturing. *NBER*, (11931), p. 28.
[81] Broadberry, S. N. (1995). *Comparative productivity levels in manufacturing since the industrial revolution: Lessons from britain, america, germany and japan.* (p.73). doi: Structural Changes and Economic Dynamics 6.

1.2.2.3 Trade

When foreign trade of U.S.A considered, agricultural production levels have occupied a significant place until 1880s. Foreign trade volumes of U.S.A have fell behind from foreign trade volumes of other Great Economic Powers. However, U.S.A has caught up some of other Great Economic Powers in the last quarter of 19TH century. However, U.S.A had %6 shares in World exports of manufactures in 1881, and shares of U.S.A have reached to %12, 1 in 1899.[82] Foreign trade volume of U.S.A was 251 milion dollars in 1820 with the prices of 1990 and that number has grown approximately %1200 in 1870.[83]

1.2.2.4 Finance and Banking

Bank organizers have needed a special permission from government to establish a bank in U.S.A. Bank of U.S.A (Federal Resrve Bank), a central bank, was founded in 1791 as the initiative of Secretary of Treasury. After the establisment of central bank, many other banks have been founded in U.S.A. However, the most important problem of U.S.A banks was currency problem. Each banks made loans by issuing their own banknotes. Furthermore, more than 10.000 different bank notes have circulated in country by 1860s. In response, Congress passed the National Currency Act in 1863. These acts and laws have realized a new system of national banks and currencies would be controlled by government. These bank notes were ready for circulation. National bank notes were main stay of the nation's money supply until Federal reserve notes appeared in 1914.

1.2.2.5 GDP

U.S.A was the fastest growing nation among the Great Powers during 19TH century. The Population has approximately increased from 4 millions to 40 milllion between 1790 and 1870. That population growth was greater than populations of other Great Economic Powers except Russia. Revenues and standarts of living has grown more than population

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[82] Broadberry, S. N. (1995). *Comparative productivity levels in manufacturing since the industrial revolution: Lessons from britain, america, germany and japan*. (p.75). doi: Structural Changes and Economic Dynamics 6.
[83] Daudin, G., O'Rourke, K. H., & Prados de la Escosura, L. (2008). *Trade and empire, 1700-1870*. (Vol. 24, p. 24). FCE.

growing rates. Scarcity of labour has caused high level wages and affected standarts of living in a positive way. Moreover, America has had abundant and different sources because of wide geography. GDP per capita levels of America have doubled between constitution and civil war. Plenty of lands and sources were the most significant factors of high level GDP per capita levels. American population has mostly settled down along the Atlantic shore. Connection between Europe and inner parts of continent has been provided with by sea ways and primitive mail roads in the begining of 19th century. Growing of industry has affined with the developments of railways as in Europe. Railroads have been built with British capital. GDP levels of per person employed in U.S.A were quite smaller than Great Britain. When GDP per person employed of Great Britain considered as 100, GDP levels of per person employed was 95,1 in 1870 and 98,1 in 1890 for U.S.A.[84] Moreover, the purchase power of money is %70 in favour of Great Britain; that is to say, 1l. Sterling in England is equal to 1l. 14 s in U.S.A.[85]

1.2.3 France

Industrialization of France came after Great Britain. After the emergence of the first effects of industrial revolution, France government has decided to follow policies of industrial developments in Great Britain. France government has given priority to agriculture as Great Britain. After the agricultural developments, France industrialization has begun to show progress in the middle of 19th century.

1.2.3.1 Agriculture

When agricultural structure of France was concerned, agricultural transformations were perceptibly seen after 1850s. Railroads, new agricultural tools, importation of modern agricultural machines and reclamation of empty lands were the basic sources of agricultural growth in France during the 19th century. 680 thoU.S.And hectars land has been employed for agricultural production in 1870 and corn lands were the largest

[84] Broadberry, S. N. (1995). *Comparative productivity levels in manufacturing since the industrial revolution: Lessons from britain, america, germany and japan.* (p.75). doi: Structural Changes and Economic Dynamics 6.
[85] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)

agricultural areas with 224 thoU.S.Ands hectar.[86] Wheat was one of the most important agricultural good in productions of France. For instance, wheat plantation lands has increased %35 and production levels have increased %47 with modern farming methods.[87] Productions of vineyards and sericulture were other important components of French agriculture. Furthermore, France was the leader nation in production of wine and sericulture until the crisis of 1873-1896. Natural diseases in wineyards and sericulture farms also have caused to loss of market power of France in international trade.

1.2.3.2 Industry

France was one of the first industrialized nations after England. As a matter of fact France was counted as second industrialized nation in the world. France government has pursued closely British industrialization and promoted to using machines in industry towards 1850s. Textile industry has expanded rapidly in Lille, Normandy and Alsace Lorreine regions at the begining of 19th century. 15.000 British industrial workers have been remarked in France in 1824.[88] Coal production has increased six times and iron production has increased four times between 1815 and 1848. Industrialization has quickened with increases in productions of both coal and iron after 1850s. However, France did not have coalfields as much as England or Germany. France could produce 8.3 million metric tone coals, which was one tenth of British production, in 1860.[89] France handled that problem with finding out alternative energy resources. Hydro-energy, steel, aluminium and otomobile industries were Pioneer manufacture branches of France. France has enlarged economy and provided a low ebb tecnological progress with increased demand during Napoleon Wars. Jennies and steam machines have been fabricated but major progress happened in iron and chemistry industries. France economic boom years were between 1820 and 1848. Coal production was under 1 million tones between 1816 and 1820. Production of coal has increased more than 5 million tones in 1847.[90] Consumption of coal naturally has increased at the same period. Exports of machinary have grown three times

[86] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[87] Heaton, H. (2005). *Avrupa İktisat tarihi*. (p. 374). Ankara: Paragraf.

[88] Heaton, H. (2005). *Avrupa İktisat tarihi*. (p. 475). Ankara: Paragraf. .
[89] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 12). Research Memorandum GD-101, University of Groningen.
[90] Cameron , R., & Neal , L. (2003). *A concise economic history of the world*. (p. 233). New York: Oxford University Press

against import at the mid 19th century. The most significant goods in texiles were woolen and cotton. In addition to expand in wool and cotton production, consumptions of raw cotton have grown 5 times between 1815 and 1845 and consumption of raw wool has grown 6 times after 1830s.[91] Sugar, chemical goods, glass, porcelain and paper industries were other developing industries of France. Development of railroads, lowering and removing custom duties also have promoted industrialization in France. At the end, 33.278 people have worked in sort of industrial branches in 1870.[92] Industrial production levels in GDP have reached to England's level which is %34 in 1870.[93]

1.2.3.3 Trade

France was one of the most important commercial nations among the Great Economic Powers. Especially, one special feature of French trade was to have foreign trade surplus in commercial activities. Furthermore, France government has exported foreign trade surpluses to other nations as an investment during the 19th century. France was the second important nation after Great Britain in trade during 19th century. Total trade volume took place %9,8 in GDP and has increased to %23,6 in 1870, in addition to that growth, total trade volume of France was 487 million dollar with the prices of 1990 in 1820 has grown %621 until 1870.[94] However, protectionist policies of other Great Powers with outbreak of the 1873-1896 crises mostly have affected trade volume of France until 20th century.

1.2.3.4 Finance and Banking

Financial intermediaries were important in 19th century Europe, and also banks were the key modern intermediaries for continent economic growth. Banks have secured short-term funds for depositors and used these funds for long-term investments. However, banks were not only source of loans in France. Notaries have spread all over the country. Moreover, notaries had have acted as loan brokers in France before the establishment of banks. On the other hand, banks have started to appear during 19th century. Corporate banks have started

[91] ibid, p.234
[92] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[93] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 9). Research Memorandum GD-101, University of Groningen
[94] Daudin, G., O'Rourke, K. H., & Prados de la Escosura, L. (2008). *Trade and empire, 1700-1870*. (Vol. 24, p. 24). FCE.

to set up after 1850s. The privilege of monetary issue has been reserved for the Bank of France. Banks have had advantages with pool risk system and offering liquidity services unlike notaries. One of the most important banks was Credit Foncier de France which has been founded in 1852. This bank was also a mortgage bank. In response, banks and notaries have started to compete with each other after 1850s. There was 762 bank offices in 1829 and these bank offices have jumped from one third in 1829 to %87 in 1862.[95]

1.2.3.5 GDP

When financial structure of France was considered, population was primary problem for France like U.S.A. Total industrial and agricultural production levels of France have grown annually %2-%2,8 during the 19th century with the effects of industrial revolution. Transportation also has developed in France as other Great Powers. Steamships, canals and railroads have effected both industrialization and commerce positively. GDP per capita in France has had a significant growth between 1820 and 1870. According to Maddison's estimations, GDP per capita level of France was 1.135 American dollars in 1820 with the prices of 1990 has increased to 1876 American dollars until 1870. According to estimation, GDP per capita level has grown annually %1, 3 in that period.[96]

1.2.4 Germany

German industrialization barely has started after 1870s. Nevertheless, Germany has managed to catch the other Great Economic Powers in the competition. Germany has surpassed rest of other nations economically except U.S.A as a matter of fact. One of the most important features of Germany was to create their own economic and industrial policies during the 19TH century.

1.2.4.1 Agriculture

[95] Hoffman T.P. & at all (2012), *Entry, Information, and Financial Development: A Century of Competition between French Banks and Notaries* SSHA, 37th meeting November, p.11.
[96] Maddison A. (2000), *The World Economy: A Millennial Perspective*, Historical Statistics France: OECD.

Germany was also based on an agrarian sector at the begining of 19th century. Agricultural production level of Germany has started to increase in the first years of 19th century. Common rights of more than 40 million acre lands have been extincted between 1820 and 1870 by German government. Moreover, approximately 50 milllion acres lands were have been congregated for agricultural production after 1870s. Grain, wool, sugar and potato were the most significant productions of German agriculture in 19th century. At the same time, approximately 8 million sheeps have increased to 17 million from 1816 until 1837 in Prusia region. The agricultural labourer is not worse off than the unskilled labourer in towns. Agricultural labourers could be divided into two classes: the labourer with daily wages who keeps himself, and the labourer with wages who is fed by his employer. The wages of the labourer, who keeps himself, vary from 1s. 1d. to 1s. 3,5d. per diem; that of the fed labourer from 6d. to 7,5d. a day.[97] Growth of German agricultural production has quickened with using of chemistry after 1860s. Germany was also specialized in production of alkali metals and sulfric acid. Then, chemical goods have started to be engaged to agriculture. As a result of using chemicals in agriculture, production levels have started to grow paralelly to industrial production with innovation of artifical fertilization. That has affected not just productivity but also caused diversity in production.

1.2.4.2 Industry

As it is known that, industrialization of Germany has started in the second half of the nineteenth century. Some parts of Germany (Rhineland, Saxony, Silesia and Berlin) have been industrialized. However, those regions' industrialization was primitive and based on hand looms before 1870s. Germany had the most developed production levels and techniques in iron-steel industry, electric energy, machinery and chemistry. On the other hand, coal production level has gotten behind from production level of France. Similarly, iron production was also has gotten behind of France production. However, coal production has grown 2 times higher than France production with 16.7 million metric tone in 1860.[98] Coal production has become most important ingredient in German industry after 1860s. Finally, government incentives and protectionizm have effected industrialization in

[97] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28).
[98] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 12). Research Memorandum GD-101, University of Groningen.

Germany. First industrial investment was funded by foreign capital in 1824. Forging iron has started in 1840 and development appeared in Ruhr region after 1850s. Moreover, coal mines were still one fiftht of forges. Bessemer steel production has started in 1863. German steel production has quickened with permission of using phosphoric iron in 1881. However, total industrial production level of Germany has only reached industrial production level of Great Britain in 1875, and this situaiton has been continued until the begining of 20th century.[99]

Table 11. Manufacturing output per person employed (UK=100)

Years	US/UK	Germany/UK
1869	203.8	
1875		100
1879	187.8	
1889	195.4	94.7
1899	194.8	99.0

Source: Broadberry (1975)

Germany has not just specialized in production of capital goods but also in production of intermediate goods. That situation has affected German growth in depression years. Textile, cloth, hide and food were other growing sectors of German industries. German industrial production had %28 in GDP.[100] Therefore, Germany became the greatest industrial power on the eve of First World War.

1.2.4.3 Trade

Germany was formed with distributed provinces at the begining of 19TH century. That situation has also affected German foreign trade because of inner tariffs and customs. Firstly, Germany has become a union nation and inner tariffs and customs abolished by government. Then, "Custom Union Pact" was signed with France, Great Britain and Belgium in 1850s. Germany has started to imitate rivals and modern industry, transportation and financial system took final shapes with the effects of custom trade pacts until 1870. Custom union pacts had two important outputs for Germany. Firstly, inner

[99] Broadberry , S. N. (1995). Comparative productivity levels in manufacturing since the industrial revolution: Lessons from Britain, America, Germany and japan.*Structural Changes and Economic Dynamics 6*, p. 75.
[100] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 9). Research Memorandum GD-101, University of Groningen

custom duties have been abolished. Secondly, common custom duties have been revealed in foreign trade. After those regulations, Germany has become a union market. Furthermore, expanded railroads have increased both commercial and production. Thus, growth of economy has quickened. Total trade volume in GDP has been %19, 2 in 1850 and has reached %36,8 in 1870.[101] On the other hand, commercial activites were mostly controlled by guilding in Germany. A single Merchant had to be a participant of one guild for trade. The measures which really undermined the guilds have been passed to faciliate the establishment of factories; the causes which precipitated their fall were the construction of railways, the consequent extension of markets, and the demand for cheaper and better wares. As the trade in coals has increased, and machine spinning superseded hand spinning, the power-loom has begun to oust the hand-loom and cottage weaving to pine. As the factory system has expanded the quilds shrank, and the population has out-grew the old and stationary corporations. From 1840 to 1850 the factory system has rised. From 1850 to 1860 the guilds have languished. In 1861 guilds have abolished by law.[102]

1.2.4.4 Finance and Banking

When German economic structure considered, poor connection and transportation conditions have caused underdeveloped economy. What is more, politic seperation, different monetary systems and trade politics and some other obstacles have caused to stagnation in German economy. Germany has started to imitate rivals and modern industry, transportation and financial system has taken final shapes with free trade assignments until 1870. Then, German industries and whole economy have started to grow after 1870s. Another important factor in german economic growth was has been the corporatons. An economic and industrial performance of Germany in 1873-1896 depression was the basic indicator how Germany became a Great Power. In that period, Greman net production has grown annully %3 and per capita production has grown %2 annually conversely other Great Powers.[103] Cartels have been the other important players of German growth. The application of these truths was not accurately measured. Immediately after the repeal of the

[101] Daudin, G., O'Rourke, K. H., & Prados de la Escosura, L. (2008). *Trade and empire, 1700-1870*. (Vol. 24, p. 24). FCE.
[102] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[103] Cameron , R., & Neal , L. (2003). *A concise economic history of the world*. (p. 241). New York: Oxford University Press

guild laws in Saxony, 986 applications have been made at Leipzig for licences to trade, and a marked increase has been observed in the number of persons who established themselves as tailors, shoemakers and carpenters.[104] Moreover, 9360 trusts in 1856 and 8291 trusts were located in British reports.[105] Furthermore, custom duties, tariffs and unlimited exports have caused increase of export values.

1.2.4.5 GDP

Comparing GDP levels of per person employed with Great Britain, levels of Germany was half of Great Britain. For instance, GDP per person employed levels of Germany was 48,8 in 1870 and 53,3 in 1890 when levels of Great Britain considered as 100.[106] GDP per capita level of Germany was 1140 American dollars in 1800 and 1,428 American dollars in 1850 has increased to 1830 American dollars in 1870.

1.2.5 Italy

Unlike industrialized nations, Italian economy was based on agriculture and commercial during the 19th century. However, weak industrial activities have been performed. Industrialization level of Italy was still not as far as the four major nation. Owing to this reason, Italy could be called as "Late Comer" nation until the First World War.

1.2.5.1 Agriculture

Structure of Italian economy was also based on agriculture during the 19th century. Sectoral numbers of waged workers illustrates that situation. Table 13 shows statistical datas about waged workers in Italy.

Tablo 12 . Worker numbers in Italy

Years	Agricultural workers	Industrial workers	Service Sector workers
1861	8.615.517	2.306.016	1.943.986

[104] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[105] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[106] Broadberry , S. N. (1995). Comparative productivity levels in manufacturing since the industrial revolution: Lessons from britain, America, germany and japan.*Structural Changes and Economic Dynamics 6*, p. 73.

1871	9.309.789	2.156.076	2.209.144
1881	9.432.597	3.124.776	2.682.959
1891	10.056.730	2.764.891	2.815.602
1900	10.618.450	3.290.624	2.941.181

Source: Broadberry & Giardano (2011)

According to table 12, greatest numbers of workers have been seen in agricultural area from 1860s until 1900. On the other hand, according to British reports, Total Italian population was more than 21 million and 7 million of these numbers have worked in agricultural lands in 1870.[107] Most important agricultural products of Italy were silk, mulberry, wheat, linen and grape in the middle of the 19th century. However, Italy could only produce olive oil for both exportation and consumption. Wheat production could reach to fulfill the inner needs level in 1910. "Mezzadria" pacts were one of the most important developments in agricultural structure of Italy. According to "mezzadria", land lords have provided lands, buildings, heavy tools and were responsible for taxes. On the other side, villigers or farmers have provided working force for lands.

1.2.5.2 Industry

Italy was not a nation state contrary to other Great Powers. A few small indipendent kingdoms have formed Italy. So, industrial revolution and structure of a nation economy has started to take a shape after middle of 19th century. Generally, low scale industries worked in Italy. Furthermore, small part of total population has been engaged in industry. Only 634 thoU.S.Ands people have worked in industrial or commercial areas in 1870.[108] Lack of coal mines has caused to miss industrial revolution. Coal production level only has reached 34.000 metric tones in 1860, which was lower than production levels of other Great Economic Powers.[109] Using steam machines has latened and importation of steam technologies has become expensive at the end of 19th century. Thus, Italy got behind from other Great Economic Powers. Most important parts of Italian industrial productions were ships and metals. Despite shipping industry was very important for Italy. Production of sailing ships were more than steamships until 1890s. Italy had 17, 55 million lires value in

[107] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[108] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[109] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 12). Research Memorandum GD-101, University of Groningen.

building and overhoul of shippings in 1861 and that number has increased to 60,66 million lires in 1900.[110] Consequently, there was %1 growth annually in that industry. In metal industry, Italy had 9,6 million lires value on production and that increased to 45,6 million lires in 1900.[111] There was approximately %1 growth rate annually in that period on metal production. Italian industrial production had %24 in GDP in 1870.[112]

1.2.5.3 Trade

When Italian economy considered, total economy was mostly based on foreign trade. However, that trade has caused deficits. According to Cameron, exportation of Italy has grown %50 rate and importation has risen 3 times between 1850 and 1855.[113] Italy has showed oneself in trade after 1850s. Italian agricultural and industrial production levels have never reached to levels of foreign trade until 1850s. Moreover, trade volume had %16,1 rate in GDP in 1860 and has increased to %18,3 in 1870.[114] Italian foreign trade volume was 339 milion dollars in 1820 and grew %427 until 1870 with the prices of 1990.[115]

1.2.5.4 Finance and Banking

First of all, Italy was a merchant state. Kingdoms of Italy unioned in 1860s and formed a 22 million people nation. Density of population was the largest among Great Powers with 85 people in a square kilometer. Most of population has worked in low productive agricultural areas. Foreign trade deficits of Italy have been financed by France investments. Railroads, banks and corporations have constituted with encouragments of French government. First aim of Italian government was to solve public debts. Italian economy mostly has been depended on French investments. After that, Italian governors have dismissed foreign investments in Italy and started to apply custom duties against

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[110] Ciccarelli C. & Fenoaltea S. (2008), Ship Building and Repairing in Italy 1861-1913. (No. 10974. Table 1) Munich: MPRA.
[111] ibid, table 3.
[112] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 9). Research Memorandum GD-101, University of Groningen.
[113] Cameron , R., & Neal , L. (2003). *A concise economic history of the world*. (p. 260). New York: Oxford University Press
[114] Daudin, G., O'Rourke, K. H., & Prados de la Escosura, L. (2008). *Trade and empire, 1700-1870*. (Vol. 24, p. 24). FCE.
[115] Maddison A. (2000), *The World Economy: A Millennial Perspective*, Historical Statistics France: OECD.

France after 1887. That situation has affected both Italian and French economies negatively. Moreover, high rates of national debts, absent of regulator bank and exclusion of private sectors were other obstacles on Italian economic growth until 1890s. Italian Banks and corporations have played very important role during the 19th century. The number of the associates has increased from 27 to 119, and the amount of the funds of the society from 2,757 francs to 6,124 francs in the course of a year from 1868 to 1869.[116] Moreover, numbers of Italian Banks have started to increase paralely with increases in corporations. More than 427 thoU.S.Ands accounts have been opened with more than 224 million lires in 1869.[117]

1.2.5.5 GDP

Italy has been supported by Germany after custom duties wars with French government. Generally, Italian GDP levels has grown %1,82 annually from 1861 until 1913.[118] According to prices of 1990, GDP per capita level was 1117 American dollars in 1820 and has increased to 1499 American dollars in 1870. In tahe period, GDP per capita level has grown %0,68 annually.[119] On the other hand, an English workman would have to spend about 14l. to live at Brindisi province with the same comfort he would in England for 10l.[120]

1.2.6 Russia

Economic structure of Russia was based on agriculture as other "Late Comers". In addition this situation, financial institutions and industrial buildings were the most primitive among other nations include Ottoman State. However, Russian economy has started to expand with the investments of Great Britain, France and Germany. Thanks to foreign investments, financial structure and railroad networks could be expanded and strengthened at the last quarter of 19th century.

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[116] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)
[117] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28).
[118] Malaniama , P., & Zamangi, V. (2010). 150 years of the italian economy, 1861-2010. *" Journal of Modern Italian Studies , 15*(1), p. 2.
[119] Maddison A. (2000), *The World Economy: A Millennial Perspective*, Historical Statistics France: OECD. .
[120] A&P Reports (1870), *Industrial Classes (Foreign Countries),* (Vol. 28)

1.2.6.1 Agriculture

Russia was also based on agriculture as Italy during the 19th century. Two third of Russian population worked in agricultural areas. According to Borodkin, %43,7 Russian population has been engaged with rural production.[121] On the other hand, agricultural productivity was very low and structure of agriculture was primitive among the Great Economic Powers. "Stolypin" reforms caused to increase productivity in agriculture after 1890s in Russia. However, agricultural productivity has declined until 1890s. For instance, lands per unit farmers were 11 acre in 1860 and have decreased to 7 acre. Nevertheless, productivity did not increase until 1890. For instance, %1,35 in agricultural productivity growth between 1883 and 1887 was nearly equal to three forth of industrial productivity growth rate.[122] Lack of capital was the main reason of undeveloped agricultural structure. Russian government has started to collect heavy taxes for adding the capital from farmers. After that, foreign debts had have been receipted by government. Especially, Russian agriculture was in a fatal position. Farmers have starved because of low productive lands and foods shortage and also farmers could not pay installments of lands.

1.2.6.2 Industry

Russia was another late industrialized nation between the Great Economic Powers. However, First industrialization movements have been seen after 1830s. Only 100.000 workers have been employed in industries and that number has increased to 500.000 until liberation period.[123] First important industrialization branch of Russia was cotton textile. Sugar industry also has come after cotton textile. Crimean War (1853-1856) has caused to decline in agriculture and industries. New investments have started to fund agriculture and industries after liberation in 1861. The key factor of industrialization, which was coal production, has fellen behind against production levels of other Great Powers and Russia only has surpassed Italy with 300.000 metric tone of production in 1860.[124] However, coal production of Russia has increased %25 between 1870 and 1897. In additon to boom in

[121] Broadkin, L., & Leonard, C. S. (2000). The rural urban wage gap in the industrialization of russia, 1885-1913. *14*, p.3.
[122] ibid, p.3.
[123] Cameron , R., & Neal , L. (2003). *A concise economic history of the world*. (p. 263). New York: Oxford University Press
[124] Stephan, B. & at all (2006). *European industry, 1700-1870*. (p. 12). Research Memorandum GD-101, University of Groningen.

coal production, oil production has also increased more than two times in Russia. These improvements have caused expands in networks of railways at the last quarter of 19th century.

1.2.6.3 Trade

Industrial growth was significant for Russian government during the 19th century. Russia had new railroads and many workers, most of whom worked in textile industry by 1890s. Moreover, state budget had more than doubled. However, foreign trade was inadequate to meet needs. Until the state introduced high industrial tariffs in the 1880s, it could not finance trade with the West because its surpluses were insufficient to cover the debts. Owing to this reason, commercial activities were very restricted until 20th century. Russian government has tried to meet needs of the country with internal trade. Eventhough agricultural products mostly exported to both Ottoman State and Europe, trade volumes of Russia has remained in low levels.

1.2.6.4 Finance and Banking

Russian Empire hardly has taken part between Great Powers at the the begining of 20th century. First investments have made on railroads. Capital and technology have been imported and banks founded with western way. Modern banking system has started with foundation of State Bank in 1860. This bank mostly has credited with nobles. However, banks have been established before 1860. Because of military expenditures, Russian government has started to found banks for new revenues. For a while, these banks have abolished until 1859 and State Bank has founded as a new reform in Russia. What is more, monetary reforms have started after 1840s. Paper roubles were have withdrawn from circulation in the proportion of 1 new rouble to 3,5 old paper roubles.[125] Silver standart had has accepted with new monetary reforms. This has been transferred to gold standart at the end of 19th century. State Bank has become a bank of issue. After these reforms, Russian economy could open to foreign investments. Those investments have recompansed and

[125] A&P Reports (1870), *Industrial Classes (Foreign Countries)*, (Vol. 28)

output rates of Russia has grown %8 annually.[126] That growth rate was more than other Great Powers.

1.2.6.4 GDP

GDP per capita levels of Russia were less than half of France and Germany and one third of England and America. Wages were as same as in Great Britain; however rents and prices of provisions were more expensive. With regard to British workmen's wages in this country, to enable him to live and save in the same proportion as at home, he should have received more than double he would England.[127]

1.2.7 Japan

Japan Economy was mostly close to western nations. Japan government preferred to trade with China and other Asian countries until the middle of 19th century. However, Western nations have started to get some priviliges from Japan government in commercial area. After obtaining concessions, Japan economy has been integrated with western economy.

1.2.7.1 Agriculture

Economic structure of Japan was quite different from other Great Economic Powers in the begining of 19th century. Nevertheless, Japan economy was mostly based on agriculture during 19Tth century.

Table 13. Most valuable agricultural products of Japan in 1874. (million yen)

Agricultural Product	Values
Brewe	34,3
Sake	18,6
Soy Sauce	6,3
Soy Paste	6,1

Source: Tanitomo (2004)

[126] Cameron , R., & Neal , L. (2003). *A concise economic history of the world*. (p. 263). New York: Oxford University Press.
[127] A&P Reports (1870), *Industrial Classes (Foreign Countries)*, (Vol. 28).

According to table 13, most important agricultural goods of Japan were brewers which have accounted for approximately 34, 3 million yen. Another alcholic beverage which was sake has followed brewes. Another two important agricultural products of japan were Soy Sauce and Soy Paste. Rice, tea, sea foods were important agricultural products of Japan. Especially, tea was as important as silk in "Meiji Era".

1.2.7.2 Industry

In real terms, modern Japan has been constructed between 1868 and 1912 called as the Meiji era. Feudal system has been scattered and central authority has started to establish. Especially, industrial and financial structures have been built up with the patterns of America. Before the Meiji era, Japan economy mostly closed to other nations. Productions of both silk and cotton was has maden by handloom, while steam machines and other technological tools have been used in both U.S.A and Western Europe nations. However, things will have changed for Japan economy in the last decade of 19th. century. The first western style industrialization has started in military industry. Docks, cannons and war tools were the first industrial branches of Japan. Establishments of railroads were another important progress in Japan industry.First railroad Corporation has been established in 1884 in Japan. Thereafter, numbers of railroad Corporation has reached 41 with 169,9 mililion yen capital in 1899.[128] What is more, textile, glass, chemistry, cement and sugar were the other significant industrial branches. Those investments have been supported by foreign masters and imported machines. Japan had 2 important raw materials in textile. Those were raw silk and raw cotton. Starting to trade with western nations ended cotton industry. Nevertheless, 82 firms have been set up in cotton spinning industry in Japan before 1896.[129] However, silk industry has survived in a small portion. Yarn production with raw silk has increased in a substantial rate. Brewer industry was also counted in indutrial branch of Japan. Moreover, weaving industry with 17,1 milion yen values and production of raw silk with 6,1 million yen values were another two important

[128] Miwa, Y. & at all (2004). Industrial finance before the financial revolution: Japan at the turn of the last century. *CRF-F-018*, p.31

[129] Oyama, A. & at all (2004). Entrepreneurial ability and market selection in an infrant industry: evidence from the japanese cotton spinning industry. *Rewiev of Economic Dynamics , 7,* p.371.

manufactured productions of Japan.[130] Substantial amount of production has exported. In heavy industry, Japan fell behind far from Great Powers. Especially, protectionist policies before First World War have obstacled Japan industrialization.

1.2.7.3 Trade

A foreign trade policy of Japan was quite different from other Great Economic Powers. Most interesting economic policy of japan was encumbered foreign trade with western nations. Japanese governors have prefered to trade with eastern nations in the first half of 19th century. However, Western nations have achieved to get some priviliges from Japan. When foreign trade with western nations started, cotton industry of Japan has ended. On the other hand, exportation of soy sauces was has increased in a significant portion. According to Tanimoto, %88 of soy sauce (approximately 570.000 of 680.000 barrels) has been brought into Tokyo and re-shipped out.[131] However, Japan total exports have had %6-%7 in total production before First World War since 1890s.

1.2.7.4 Finance and Banking

In Meiji era, the most significant problem was capital as in Italy and Russia. Especially, Japanese banknotes haven't been accepted by other nations. Japanese governors have attempted to establish a new bank system to deal with financial problems. National bank system has been established as same as America's and that institution has financed civil war. Furthermore, exchangeable banknotes have been minted. In that frame, number of banks has increased from 4 to 1943 with 1730 branches between 1875 and 1899.[132] Modern Japan Bank has been established in 1851. That bank has been controled by government. What is more, The Bank had prerogative of coining money and has acted like commerical bank as a monopoly. Furthermore, The Bank has worked on treasury as a financial agent. These bank has granted approximately 54,5 million yen loan for

[130] Masayuki, T. (2004). Capital accumulation and the local economy: brewers and local notables. *CARF-F-005*, p.1.
[131] Masayuki, T. (2004). Capital accumulation and the local economy: brewers and local notables. *CARF-F-005*, p.5.
[132] Mira, Y. & at all (2004). Industrial finance before the financial revolution: Japan at the turn of the last century. *CRF-F-018*,p. 27.

enterpreneurs, and most important investments have been made in food, chemistry, brick, cement, metals and machine industries.[133]

1.2.7.5 GDP

GDP levels have grown %3 annually between 1870 and 1913, especially mining and manufacturing %5 annually until First World War.[134] GDP per person has employed levels of Japan were far behind from Great Britain. When levels of Great Britain is consiedered 100, GDP levels of per person of Japan was 17,8 in 1870 and 20 in 1890.[135]

[133] ibid, p.27
[134] Cameron , R., & Neal , L. (2003). *A concise economic history of the world*. (p. 268). New York: Oxford University Press
[135] Broadberry , S. N. (1995). Comparative productivity levels in manufacturing since the industrial revolution: Lessons from britain, America, germany and japan.*Structural Changes and Economic Dynamics 6*, p.73.

CHAPTER II: 20th CENTURY

1. Economic Structure of the Ottoman Empire in the 20th century

Ottoman government has completed many reforms until the beginning of 20th century. Financial institutions and economic situation of the Ottoman State have reached a stable structure together with applied reforms during 19th century. First of all, Ottoman State has become an expert nation in agricultural production. In addition, Ottoman State has accelerated industrialization steps and expanded trade volumes in the beginning of 20th century. Moreover, GDP per capita incomes has grown until 1914.

2.1.1 Agriculture

Economic structure of Ottoman State was specialized in agriculture at the begining of 20th century. However, small size farmlands have still dominated in agricultural production. Approximately 1 million land owners (%75 of total) had 5 hectare size farmlands or smaller in 1910.[136] Total agriculture production values of Ottoman State were higher %10 than total consumption before the First World War. This % 10 surplus has subjected to exportation.

Table 14. Percentages of agricultural exports in total production (million gurushes)

[136] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 146). New York: Coloumbia University Press.

Years	Value of Gross Agricultural Production	Agricultural Exports	Agricultural İmports	Net Exports	Percentages of Exports in Production
1899/1900	8.103	1.010	220	790	9,8
1900/1901	8.991	1.210	304	960	10,1
1907/1908	9.803	1.360	317	1.043	10,6
1909/1910	11.263	1.430	571	859	7,6
1913/1914	11.757	1.620	359	1.331	11,3

Source: Eldem (1994)

Table 14 shows agricultural product values, export and import values of Ottoman State. According to table 14, Ottoman State has increased agricultural production levels from the begining of 20th century until First World War. What is more, export of agricultural products was higher than import. As it is seen in table 14, Ottoman State has firstly fulfilled its needs later on, averagely %10 production exported.

Eldem revealed values of agricultural productions for the years of 1913 and 1914; grains were 5.078 million gurushes, legumes were 193 million gurushes, rooted foods were 108 million gurushes, industrial properties were 996 million gurushes, dry and wet fruits were 1.614 milllion gurushes and animal products were 10.239 million gurushes worth.[137] Values of these goods have increased %10. However, values of industrial goods and amounts of reaped products have decreased to one third of the previous production leves on the eve of First World War.

Table 15. Ottoman Agricultural Products 1897-1913

Goods	Measurements	1897/98	1909/10	1913/14	1914/15	1897-1913 Growth Rates
Wheat	Million bushel	126	140	169	232	134
Barley	Million bushel	79	113	106	111	134
Corn	Million bushel	13	20	19	19	146
Tobacco	1000 tone	15,3	21,4	49	41,3	320
Cotton (Adana)	1000 bundle	30,0	76	120	135	400
Dried Grape (İzmir)	1000 tone	36,0	54,6	69	60,8	192
Nut	1000 tone	22,0	28	51,2	51,8	233
Dry Fig (İzmir)	1000 tone	15,1	22	32	17,6	212
Wet Cocoon (Bursa)	1000 tone	4,2	7,71	6,82	3,07	162
Exports of Fleece and Mohair	1000 tone	16,1	12,3	15,8		98
Export of Olive Oil	1000 tone	14,1	10,7	7		50
Cattle Tax	Million Gurushes	30,7	35,3	38,6	39,6	126

[137] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p. 32). Ankara: TTK.

Milk Production	Milyon Kiyye	890,0		1,135	1,155	127
Export of Mast	1000 tone	70,2	73,2	55		79

Source: Eldem (1994)

Table 15 also shows agricultural products of Ottoman State at the begining of 20th century. Last pillar of table points out the growth rates of these goods for 15 years period. As it is seen in table 15, production of some goods has increased substantially. On the other hand, some of other products have increased in standart process. Production levels of tobacco, cotton, nut, cocoon and dry fig have increased substantially with the effects of increasing demands. 10.000 tones cotton have been produced on 100.000 hectare size lands in Izmir region and also 20.000 tones cotton have been produced on 200.000 hectare size lands in Adana region in 1912.[138] Cocoon production has increased after the establishment of Public Debts Administration. 7000 tone cocoon production in 1888 has increased to 20.000 tones until 1910 and 1912.[139] Fleece, mohair and mast productions have maintained in a same level or little decreases have happened. Monetary values of these goods, which were the most significant agricultural items, have increased 5.815 million gurushes to 8.406 million gurushes between 1897 and 1913.[140]

Other important indicators of determinating agricultural production levels were tithes and cattle taxes. Especially, tithes were averagely half of budget revenues.

Table 16. Tax Assesments of Tithes and Cattle Taxes (million gurushes)

	Includes Rumelia		**Except Rumelia**	
Years	**Tithes**	**Cattle Tax**	**Tithes**	**Cattle Tax**
1889/90	4.540	1.750		
1897/98	5.286	1.811		
1907/08	6.052	1.902		
1909/10	6.529	2.066	4.823	1.513
1910/11	6.245	2.183	4.761	1.635
1911/12	6.605	2.098	4.893	1.577
1913/14			5.091	1.615

Source: Eldem (1994)

[138] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 121). New York: Coloumbia University Press.
[139] ibid, p.123
[140] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p. 32). Ankara: TTK.

According to table 16, agricultural revenues were in a continuous increase from 1890 until First World War. Tithe tax assesments approcimately have grown %30 until First World War. One tenth of tithe tax assesments have been transferred to budget as tithes. When prices of 1890/1914 period were considered as constant, increases in revenues have depended on increases in production levels in a large measure. Agricultural production has increased %40 and annually %1, 6 with %1 growth rate of population between 1890 and 1914.[141] Thus, agricultural production per capita has increased more than growth rates of production wtih this calculation.

As it is shown in table 1, amount of collected tithes from Anatolia and growth rates of 1897 and 1904 was also important indicators. According to table 1, Ottoman State collected 245,2 million gurushes tithes from only Anatolia in 1904.

Budgets of Ottoman State were other significant indicators for revealing tithes. According to Genc and Özvar's findings, Ottoman State had 468 million gurushes tithes in 1905 and 1906 fiscal year[142], which shows that tithes have increased %90 in one budget year.

2.1.2 Industry

Industrialization movements of Ottoman State have taken in considerable steps since 1850s. Firstly, industries mostly have been established with government expenditures until 1860s. Furthermore, Ottoman government has started to support private enterprises after 1860s. So, Ottoman government has decided to give some priviliges to private enterpreneurs for expanding industries.

Ottoman government has promoted local producers for about establishing corporations. Moreover, Ottoman government has promoted to found industrial education schools, organized exhibitions and changed custom duties for protecting local industries. What is more, Ottoman government has given priviliges and provided tax exemptions for importation of machines and setting up industries.

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[141] ibid, p.34
[142] Genç M. & Özvar E. (2006) *Osmanlı Maliyesi Kurumlar ve Bütçeler I.* (p.88) İstanbul: Osmanlı Bankası

In the first stage, local producers have established 46 corporations and invested 110 million gurushes; foreign investors have established 39 corporations and invested 1 billion gurushes.[143] Ottoman industries can be analyed in 7 groups from the begining of 20th century; food industry, soil industry, hides industry, wood industry, weaving industry, stationer industry and chemistry industry.

Table 17. Structure of Ottoman Industries by 1913-1915 Censuses[144]

Branches of Industry	**Number of Institutions**		**Number of Employee (10.000)**		**Values of Productions (million gurushes)**	
	1913	1915	1913	1915	1913	1915
Food Industry	76	78	4,3	3,9	460	532
Soil Industry	20	21	1	0,3	13	4
Tanner	12	13	0,9	1,3	32	63
Wood Industry	19	24	0,7	0,4	11	6
Textile	75	78	7,8	6,8	100	91
Stationer Industry (Printing)	55	55	1,9	1,3	38	46
Chemistry Industry	12	13	0,4	0,1	17	17
Total	269	282	16,4	14,1	671	757
Armory	47	44	7,8	7,8	178	200
Total	316	326	24,2	21,9	849	957
Rest Of Turkey[145]						
Food Industry	152	161	4,6	4,2	396	523
Soil Industry	10	11	0,8	0,7	9	10
Tanner	8	8	0,6	0,7	19	24
Wood Industry	4	5	0,7	0,6	8	8
Textile	55	56	2,7	2,4	38	33
Stationer Industry (Printing)	6	6	0,2	0,2	4	5
Chemistry Industry	5	5	0,1	0,1	4	5
Hardware Industry	8	7	0,9	0,5	33	32
Total	248	259	10,6	7,9	511	640

Source: Industrial censuses of 1913 and 1915

Table 17 is constituted by compilation of 1913-1915 cencuses of industries. According to datas, the most significant industrial branches of Ottoman State were food industries with % 68 shares and textile with % 15 shares for the year of 1913. Although, shares of food industry have increased to %70 and shares of hide industry have increased from %8 to %4, however, shares of textile have declined to %12 in 1915.

[143] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p. 59). Ankara: TTK.
[144] İndustrial cencuses of Ottoman State, 1913/1915.
[145] Unpublished part. For further reading, Eldem (1994)

When production levels considered, production values of 269 corporations were total 671 million gurushes worth. If production values of military industries are counted with these industries, there were 316 corporations with 849 million gurushes worth of production. In additon to these datas, Table 20 shows industries from rest of Turkey. According to these datas, 242 corporations had been actively operated in rest of Turkey and a production value of these corporations was 511 million gurushes worth. Moreover, 242 industries with 440 milllion gurushes worth of production have been founded in Syria. According to industrial cencuses, Ottoman State had 806 factories, which employeed 10 or more workers, in 1913. A production value of all cencused factories was 1.800 million gurushes worth. An average production level of per factory was 2.2 million gurushes in 1913. Thus, total industrial production had %10 shares in total production on the eve of First World War.[146]

When the another census year of 1915 considered, in the first stage 282 factories remarked with 757 milllion gurushes worth of production. If military industries added on these industries, amounts of factories reached to 326 with 957 milllion gurushes worth of production. Eldem determined 259 more industries with 640 million gurushes of worth from the rest of Turkey fort he year of 1915. What is more, 250 industries with 500 million gurushes worth of production pointed out in Syria. According to datas, Ottoman State had 835 industries with 2.097 million gurushes worth of production. An average production level of per factory was 2.5 million gurushes in 1915. Eventhough the First World War and Balkan Wars, both numbers of industries and production values have increased in Ottoman State.

[146] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 36). New York: Coloumbia University Press.

Tablo 18. Rates of Inner Consumption in Total Production

Branches of Industries	Consumption Rates in Production (%)	Branches of Industries	Consumption Rates in Production (%)
Food Industry		Textile	
Miling	59,4	Worst and Weaving	82,5/41,3
Pasta	93	Sewing Cotton and Weaving	20,6/95
Sugar and Tahina	131,3	Raw Silk	
Canned Goods	43,9	Silk Fabric	4
Beer	91,6	Other Weaving	
Ice	103,1	Stationery Industry	
Tobacco		Cigarette Paper	
Soil Industry		Printing and Other Papers	
Brick	32,1	Chemistry	
Caustic Lime	64,4	Oil	3,1
Cement	69,8	Soap	18,9
Cement Products	52,7	Mast Pith	97,5
Porcelain		Other Chemistry	
Hide Industry			
Tanner	40,2		
Wood Industry			
Carpentry	41,2		
Box	94,5		
Wood Works			

Source: Industrial censuses of 1913 and 1915

According to table 18, industrial production of Ottoman State was used in both inner consumption and exports except sugar and tahina and ice productions. Established factories and productive facilities have been established for consumpiton patterns and only finished goods imported which could not produce in Ottoman State. Consequently, Ottoman industries have started to expand from 1850s and ripened at the begining of 20th century. Average production levels of Ottoman industries were higher than developing industries levels can easily be said.

2.1.3 Trade

Economic structure of Ottoman State was based on not only agriculture but also foreign trade from the begining of 19th century. Ottoman State mostly has exported agricultural goods and some kind of textile goods amd imported finished goods. Imported goods mostly included foods and textile, and %15 of imported goods included finished goods. Ottoman state had regulated custom duties from the begining of 20th century. Import duties have been increased form %10 to %15 bewteen 1907 and 1915.[147] Moreover, inner customs have decreased to %2 in 1900 and also abolished for certain goods.[148]

Table 19. Compounds of Ottoman Imports in 20th century (%)

	1905/1906	**1909/1910**	**1911/1912**	**1913/1914**
Food	32,9	37,1	33,6	34,7
Textile	35,9	31,7	31,7	31,1
Fuel	4,1	3,5	4	5
Other Goods	18,2	18,7	20,2	19,6
Investment	9,7	9	10,5	9,6

Source: Eldem (1994)

Table 19 shows compounds of Ottoman import goods with percentage rates. According to table 19, food and textile had the largest portions in import baskets. Shares of other goods follows food and textile and investment goods came after these goods with %10. Finally, imports of fuel with %5 stayed at the bottom of import basket.

Table 20. Compounds of Ottoman Foreign Trade Goods

Compounds of Export Goods	**Percentages**	**Compounds of Import Goods**	**Percentages**
Food	%33-35	Food	%31-38
Raw Materials	%56-58	Raw Materials	%6-10
Intermediate Products[149]	%2-3	Everykinds of Yarns	4%
Finished Goods[150]	%6-7	Weaving Goods	%36-38
		Investment Goods[151]	Under %8
		Other Finished Goods[152]	%8-10

Source: Pamuk (2005)

[147] Issawi, C. (1988). *The Fertile Crescent 1800-1914*. (p. 128). New York: Oxford University Press
[148] Ibid, p.419.
[149] Pelt vb.
[150] Mostly woolens and carpets vb.
[151] Railroads, construction materials, equipments
[152] Guns and ammos in the war years

Table 20 was constituted by Pamuk. According to table 20, food and raw materials were the most important products in Ottoman export. Weaving goods and foods had significant shares in export basket. Export of finished goods have started since the begining of 20th century in Ottoman State. Carpet production had a significant share in exports of finished goods. For instance, British entrepreneurs have been increased the capital of Oriental Carpet Manufacturers Co., which was established in 1860, from 400 million gurushes to 1 billion gurushes in 1908 and Ottoman State has exported 1.584 metric tone carpets with 600.000 pound values in 1913.[153]

Tobacco, grape, raw silk, nut, cotton, barley, mohair, silk cocoon, fig, carpet and mines were other important export goods of Ottoman State. These export goods were determined with tones and index of these datas formed by Eldem. According to index, Ottoman export has grown %51 with exportation of these goods until First World War with fixed prices of 1885/86.[154] The most important item of export basket had averagely %11 and also total shares of the most significant three products was %26 in export basket.[155] Tobacco has become leader exportation good in 20TH century. "Regie" administration has caused increases in both production and sales of tobacco. Production levels of tobacco varied between 10.000 and 13.000 tones in 1870 and this amount firstly has increased to 31.000 tones and then moved to 64.000 tones in 1911.[156]

Ottoman foreign trade balance had permanent deficits from the last quarter of the 19TH century until the First World War. However, dimension of those deficits are still objects of issue. Growth of trade volumes of Ottoman State have been moved paralelly with growth of deficitis. On the other hand, Eldem pointed out E. Pech's researches who worked in Ottoman Bank. According to Pech's research, foreign trade statistics of Ottoman State has showed 61,2 million Ottoman gold liras deficits between 1890/91 and 1897/98 years, however, foreign trade statistics of Ottoman Bank have counted 13,9 milion Ottoman gold liras; similarly, for 1905/06 year, foreign trade statistics of Ottoman State have showed 10,2 million Ottoman gold liras deficitis, but foreign trade statistics of Ottoman Bank again

[153] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 153). New York: Coloumbia University Press.
[154] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p.119). Ankara: TTK.
[155] Pamuk , S. (2008). *Osmanlıdan cumhuriyete küreselleşme, İktisat politikaları ve büyüme*. (p. 74). Istanbul: Is Bankası.
[156] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 124). New York: Coloumbia University Press.

have counted 0,5 million Ottoman gold liras deficits, and finally foreign trade statistics of Ottoman State has showed 17,6 million Ottoman gold liras deficits, besides foreign trade statistics of Ottoman Bank have counted 8,2 milllion Ottoman gold liras deficits.[157] Moreover, According to Pamuk's estimation, exports had %12 to %15 shares in total production in 1913.[158] Thus, statistics of Ottoman State might be shown hatful deficits than real deficits.

Exports per capita were another important proof of increasing foreign trade volumes. Exports per capita have increased from 0,66 british pounds to 1,25 british pounds between 1860/62 and 1910/12 with the stabil prices of 1880 and per capita export levels have grown annually %1,3 in Ottoman State.[159]

Table 21. Estimation of Ottoman Exports Before First World War

Years	Pamuk's Estimations (British Pounds)	Eldem's Estimations (Ottoman Liras[160])
1909/10	24,5	21,37
1910/11	26	24,38
1911/12	27,1	28,1
1912/13	27,6	26,62
1913/14	28,4	24,71

Table 21 shows both Eldem and Pamuk's estimations about Ottoman exports. When these estimations calculated with exchange rates, results are very close to each other. According to both estimations, Ottoman exportation has increased until Balkan Wars. However, According to Pamuk's estimations, Ottoman export has increased until First World War. On the other hand, according to Eldem's estimations, Ottoman export has started to decline with the Balkan Wars.

2.1.4 Finance and Banking

[157] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p.119). Ankara: TTK.
[158] Pamuk , S. (2008). *Osmanlıdan cumhuriyete küreselleşme, İktisat politikaları ve büyüme*. (p. 27). Istanbul: Is Bankası.
[159] ibid, p.69
[160] 1 İngiliz Sterlini=0,903 Osmanlı Lirası

Ottoman State has started to set budgets since 1840s. Ottoman budget revenues have increased six times until First World War. However, budget revenues of Ottoman State have faced with declines because of wars, financial crises etc.

Ottoman budget revenues have increased proportionately until 1879. However, budget revenues have declined to 1.5 billion gurushes because of Russian Wars. Budget revenues have started to increase again after the Russian Wars. However, some of Balkan provinces were lost as a result of Russian Wars. Owing to this reason, some proportions of budget revenues also have been lost since 1878. The years of 1906/07 budget revenues solely reached level of 1870s. Budget revenues were 2,5 billion gurushes and expenditures were 3 billion gurushes in the bdget years of 1906/1907.

Table 22. Ottoman Budget Revenues 1887-1913

	1887	**1897**	**1907**	**1911**	**1913**
Direct Taxes	933	1045	1356	1624	1297
Indirect Taxes	273	301	503	696	606
Monopolies	178	194	218	270	228
Business and Sales	42	53	132	191	245
Lump-sum Taxes (Maktu Vergiler)	77	84	101	87	87
Miscellaneous	53	67	144	248	457
Total	1556	1744	2454	3116	2920

Source: Eldem (1994)

Table 22 shows, budget revenues estimation of Eldem. According to these datas, budget revenues have increased until Balkan Wars and decreased in a small proportion because of the wars. On the other hand, absolute amounts of budgets can not be reached easily. Table 23 is also shows Güran's estimations about budget revenues

Table 23. Güran's Budget Revenue Estimations for same years to Eldem's

Revenues	
Financial Years	**Gurushes**
(1303)1887/88	1757382152
(1313)1897/98	1851132599
(1322)1906/07	2290492108
(1327)1911/12	2847739100
(1328)1912/13	3051415854

According to table 23, budget revenues estimations of Güran seems more than the estimations of Eldem. Consequently, Ottoman budget revenues have increased until Balkan Wars as to both estimations.

Foreign debts were other problems of Ottoman financial structure. Ottoman government has stopped half of debt payments in 1875. Then, Ottoman State has stopped all foreign debt payments in the following year. Because of this reason, foreign debts of Ottoman State has reconstructed with establishment of Ottoman Public Debts Administration (OPDA). Ottoman State has continued to get foreign debts after establishment of OPDA. On the other hand, Ottoman government has started to make credit arrangements with German Banks. Table 24 shows Ottoman State loans getting from Great Economic Powers until First World War.

Table 24. Ottoman Loans by 20th century (1000 O.L)

Years	Loans Amount	Annual Payments	Banks of Issue
1904	2.750	124	Ottoman Bank
1905	5.307	239	Ottoman Bank
1905	2.640	119	Deutcshe Bank
1908	4.752	194	Deutcshe Bank
1908	5.236	221	Deuctshe Bank
1908	4.711	191	Ottoman Bank
1909	7.000	350	Ottoman Bank
1910	1.712	72	Ottoman Bank
1910	7.040	352	Deutcshe Bank
1911	1.000	41	French Banks
1911	1.780	186	Turkish National Bank
1912	3.000	1000	Ottoman Bank
1913	819	50	Deutcshe Bank
1913	1.700	110	Earnest Money of Regie
1913	4.400	1100	Perier et Co.
1914	22.000	1213	Ottoman Bank

Source: Eldem (1994)

Accoring to datas, Ottoman State has gotten loans mostly from Deutcshe Bank. Only small parts of loans have been gotten from French Banks. Ottoman State got 76 million liras loans in those 10 years. On the eve of First World War, Eldem estimated 179,53 million ottoman liras debts for State and pointed that 133,81 million ottoman liras of this debt was

from loans.[161] According to Pamuk, foreign debts of Ottoman State from loans have reached 140 million British pounds in 1914.[162] It could easily be said that according to modern financial policies, foreign debts can be explained as an expenditure items. What is more, foreign debts of Ottoman State were also expenditure items. Ottoman State has gotten credits approximately 399,5 million British pounds between 1854 and 1913; and 135,5 million British pounds (%34) spent for bank charges, 178,9 million British pounds (%45) spent for repayments, 22,3 million British pounds (%6) spent for military, 20 million British pounds (%5) have been spent for closing budget deficits and rest of %10 for investments.[163]

2.1.5 GDP

GDP is one of the most important issue for Ottoman financial system. Ottoman GDP levels and GDP per capita levels were studied by Eldem and Pamuk. In addition to those studies, Maddison also had estimations about Ottoman GDP levels.

Table 25. GDP Estimations of Eldem (million gurushes)

	1907	**1913**	**1914**
Agriculture, Forestry, Fishery	11.385	10.422	13.060
Mining	165	156	105
Manufacturing	2.230	2.551	2.443
Construction	616	612	442
Transportation	687	729	681
Trade	1.894	2.170	1.832
Financial Activities	223	266	261
Government Services	1.374	1.774	1.878
Dwelling Revenues	742	664	664
Independent Businesses and Services	1.020	1.025	1.130
Domestic Revenues	20.336	20.369	22.496
Net Export	(-)149	(-)103	(-)103
National Income	20.187	20.266	22.393

[161] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p. 187). Ankara: TTK.
[162] Pamuk , S. (2008). *Osmanlıdan cumhuriyete küreselleşme, İktisat politikaları ve büyüme*. (p. 143). Istanbul: Is Bankası..
[163] Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world series*. (p. 65). New York: Coloumbia University Press.

Indirect Taxes	812	970	768
Net National Product	20.999	21.236	23.161
Depreciation	921	907	946
GDP	21.920	22.143	24.107

Source: Eldem (1994)

According to table 25, GDP levels of Ottoman State have reached 22 billion gurushes in 1907 and that numer increased to 24 billion gurushes on the eve of the First World War. As a result of agricultural economic structure, items of agriculture, forestry and fishery had the biggest share in total GDP. According to these calculations, Eldem put forward GDP per capital levels. Ottoman state per capita GPD levels were 824 gurushes for 1907, 974 gurushes for 1913 and 1.072 gurushes for 1913.[164]

Another estmitions about GDP per capita levels of Ottoman State was made by Maddison. Ottoman State GDP level was 18.195 million dollars and GDP per capita level was 1.213 American dollars for 1913 with the prices of 1990.[165] In addition to those statistics, Pamuk calculated growth rates of per capita GPD levels of Ottoman State. GDP per capita levels have grown approximately %1 per annum between 1880 and 1913, furthermore, per capita GPD levels have grown more than %50 percent between 1820 and 1913.[166] Moreover, Pamuk compared Eldem and Maddison's calculations, then mentioned that Eldem's 10 British pounds for GDP per capita level equals to Maddison's 1213 American dollars.[167] Calculations and comparisons about GDP levels and GDP per capita levels studied in detail in chapter 4.

2.2 Economic Overwiev of the Great Economic Powers in the 20th century

Economic competition among the Great Economic Powers has increased in the beginning of 20th century. Germany and U.S.A has come up from behind to catch Great Britain and France in both economic and industrial areas. Furthermore, Late Comers have realized

[164] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p. 187). Ankara: TTK
[165] Maddison A. (2000), *The World Economy: A Millennial Perspective*, Historical Statistics France: OECD.
[166] Pamuk , S. (2008). *Osmanlıdan cumhuriyete küreselleşme, İktisat politikaları ve büyüme*. (p. 27). Istanbul: Is Bankası.
[167] ibid, p.143

significant growth from the last quarter of 19th century to First World War. In this response, economic has increased and this process resulted with First World War.

2.2.1 Great Britain

As mentioned above, Great Britain was the leader industrialized nation among the Great Economic Powers until 1870s. However, leading state position of Great Britain has begun to fall with the effects of second industrialization process which was realized by Germany and U.S.A. Nevertheless, Great Britain could still control the political and economic issues of new globalized world. Agricultural and industrial productions have still increased in significant rates, and commercial activities and trade volumes have continued growth.

2.2.1.1 Agriculture

As it was known that agricultural productions was basic elements of Industrial Revolution during the 19th century. On the other hand, agricultural production shares in GDP of The Great Economic Powers have started to decline at the begining of the 20th century. Especially, an agricultural production share of 4 major Great Economic Powers have decreased significantly. These nations had have given great importance to heavy industry and military industry since 1900s.

When agricultural structure of Great Britain considered, as we mentioned in the second chapter of this thesis, productions of wheat, barley and livestock were the most important products of British agriculture. However, produced goods of British agriculture have also started to change from the first years of 20th century. Table 26 shows product distribution of British agriculture between 1870 and 1913.

Table 26. Product distribution of British Agriculture (%)

Products	**1870**	**1895**	**1909/13**
Crops	47.2	35.5	28.6
Wheat	12.7	2.3	4.0
Livestock	52.8	64.5	71.4
Cattle	10.9	13.8	20.2
Pigs	8.1	13.9	11.4

Milk	19.2	19.4	18.0

Source: Daunton (2007)

As it is seen in table 26, stockbreeding was still very important part of British agriculture. Especially, products of livestock and cattle have increased in a significant view. Furthermore, productions of milk and pigs have stayed in same levels at the begining of 20th century. On the other hand, a share of wheat was one of the most important agricultural products of British agriculture in the 19th century have decreased to a large extent. In addition to decreases in wheat production, crop productions of Great Britain also have decreased by percantage.

2.2.1.2 Industry

As it is known that, Great Britain was the first industrialized nation in the world. Owing to this reason, Thus, Great Britain had biggest output rates and factor productivity levels in the first half of the 19th century. Coversly, Great Britian has started to lose leader position in industrial area with the effects of competition between Germany, France and U.S.A. Table 27 gives a summary about results of competition.

Table 27. Annual growth rates during the British Industrial Revolution (1831-1913)

Years	Output	Capital Stock	Labor Force	Labor Productivity	TFP
1831-1873	2.4	0.9	0.75	1.65	0.75
1873-1899	2.1	0.8	0.55	0.85	0.75
1899-1913	1.4	0.8	0.55	0.85	0.05

Source: Field (2006)

As it seen in table 27, growth rates of both output and total factor productivity levels of Great Britain was %2.4 and 0.75 until 1873. The growth rates of ouput and TFP level decreased in a large extent until First World War. Furthermore, growth rates of other production factors have decreased, too. Even though aggregate TFP growth was low in the Great Britain, it seems that some sectors have experienced very high growth rates, thanks

to the introduction of the steam engine in their production processes. Total level of steam power in use has increased from 1.372.940 to 9.118.818 between 1870 and 1907.[168]

2.2.1.3 Trade

Great Britain was also a leader merchant nation during the 19th century. Especially, was specialized in textile trade. Moreover, largest share of manufactured goods in total world trade has been also belonged to Great Britain until the 20th century. Growth of trade has started to decrease since 1873. Accoding to Daunton, export growrth have realized annually %3,4 and growth of imports have realized annually %4,7 between 1856 and 1873. On the contrary, Daunton points out that these growth rates have decreased to %2,7 for exportation and %2,8 for importation annually until the First World War.[169] Further more, shares of gross commercial incomes in total GDP also have decreased until the First World War. According to Daunton, share of total trade volume was %35,6 in 1856 and this rate has decreased to %33,8 rate in 1913.[170]

2.2.1.4 Finance and Banking

Population was one of the most important pieces of total economy. As the first industrialiezed nation, population of Great Britain has increased in a significant rate from 1800 to 1910. According to Cippola, total population of Great Britain was almost 10.9 millions and later on population has reached to 40.9 millions in 1910.[171] Owing to this cencuses, population of Great Britain has increased nearly 4 times in 110 years period.

British banking system could be handled in two differet ways. First one included State Banks which have been mostly established in 19th century. Second part of British Banks has consisted of private banks such as investment and commercial banks. Most of private banks have been established at the last quarter of 19th century. There were 400 banks in 1844, but this number have fallen to 143 in 1891 because of small banks taken over by five

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[168] Field A.J. & at all. (2006) *Research in Economic History* (Vol. 24, p.13.)
[169] Daunton M. (2007) *Wealt and Welfare: An Economic and Social History of Britain 1851*-1951. (p. 170) Newyork: Oxford University Press.
[170] Daunton M. (2007) *Wealt and Welfare: An Economic and Social History of Britain 1851*-1951. (p. 176) Newyork: Oxford University Press.
[171] Cippola C. M. (1973). *The Fontana Economic History of Europe* (Vol.3, p. 29) London: Collins

major banks.[172] However, authority to mintage has only belonged to Bank of England in the early 20TH century.

2.2.1.5 GDP

When GDP levels and GDP per capita level of Great Britain are considered in the begining of 20TH century, it can easily be seen that, Great Britain has started to lose leader position. Especially, GDP per had and GDP per worker hour levels of U.S.A has overtaken the leadership of Great Britain. Table 28 points out that situation.

Table 28. Statistics of GDP per head and GDP per worker hour levels (1900 and 1913)

	GDP per head	**GDP per worker hour**
1900		
Great Britain	100	100
France	62	59
Germany	68	73
United States	89	105
1913		
Great Britain	100	100
France	69	67
Germany	76	82
United States	105	120

Source: Daunton (2007)

As it is seen in table 28, when GDP per head and GDP per worker hour levels of Great Britain is considered as 100, only U.S.A could pass Great Britain in GDP per worker hour in 1900. According to Cain and Hopkins, total British assets overseas amounted to somewhere between £3.1 and £4.5 billion, as against British GDP of £2.5 billion by 1914.[173] However, U.S.A could overtake the leader position in both statistics in 1913. On the other hand, France and Germany were the other follower industrialized nations.

2.2.2 U.S.A

By the late nineteenth century, U.S.A has become a major industrial power, building on new technologies, expanding railroads and abundant natural resources such as coal, steel,

[172] Heaton, H. (2005). *Avrupa İktisat Tarihi*. (p. 500). Ankara: Paragraf.
[173] Cain, P. J. & Hopkins A.G. (1994) *British Imperialism*. (pp. 161-163) London: Longman.

farmland to usher in the second industrial revolution. Moreover, strong financial institutions and economic structure ensured that the U.S.A was the major economic power in the world.

2.2.2.1 Agriculture

U.S.A was another important industrialized nation in the first years of 20th century. In addition to this, U.S.A was one of the greatest agricultural producer in the world. Especially, thank to abundant lands and low rate population, agricultural production levels and productivity of U.S.A has reached significant rates against Western Europe nations. For instance, U.S.A has shaped most qualityand cheapest cottons in fertile lands until Civil War. However, U.S.A has lost its monopol poisition with the side effects of Civil War. Conversely, agricultural production levels of U.S.A have reached production levels of Western Europe nations at the end of 19th century. Furthermore, U.S.A has become the leader nation in agricultural production in the begining of 20th century. According to Ward and Devereux, when the agricultural production levels of U.S.A considered as 100, agricultural output per worker levels of U.S.A was nearly more than 2 times against Great Britain's. When the years of 1910 handled, agricultural output per workerof Great Britain was 52.[174]

2.2.2.2 Industry

U.S.A was the fastest devepoled nation in industrial area from the begining of 20th century. In point of fact that U.S.A has caught up other Great Economic Powers since 1870s and also passed all others until First World War.

Table 29. Manufacturing output per person employed (1907-1913) (UK=100)

Years	**US/UK**	**Germay/UK**
1907	190.0	106.4
1913	212.9	119.0

Source: Broadberry(1975)

[174] Ward M. & Devereux J. (2004), Relative U.K./U.S. Output Reconsidered *The Journal of Economic History*, Vol 64. No.3, p.888.

Table 29 shows manufacturing output per person employed levels of U.S.A was nearly two times higher than levels of Great Britain in 1907. What is more, this rate became 212.9 for U.S.A on the eve of First World War. The key differences between Europe and America were in the areas of resource and factor endowments and demand conditions. Owing to this reason, U.S.A realized rapid developments in industrial area. However, share of raw materials gross output has also increased from %14 to %16.6 between 1880 and 1913.[175] This situation could also cause increases in manufactured production of U.S.A.

2.2.2.3 Trade

In addition to increases in agricultural production levels, trade volumes of U.S.A have increased significantly. What is more, industrial production levels have also caused to increases in U.S.A trade volumes. As it was mentioned before, raw and finished cotton goods were the most important exportation goods of U.S.A. Furthermore, wheat, barley and grain were other important exportation goods of U.S.A during the 19th century. On the contrary, iron and steel were the most important importation goods of U.S.A. However, importations of iron and steel have started to decrease at the begining of 20th century. U.S.A has started to produce these raw materials and other mines with the progress of technology. More interestingly, import duties of U.S.A were more restricted than both 2 major European industrialized nations which were Germany and Great Britain on the eve of First World War. According to Daunton's comparison, ratio of total imports to U.S.A was %21.1 in 1910 and besides that import duties of Great Britain was %4.5 and import duties of Germany was %7.4 in 1910.[176] It can easily be said, U.S.A has not encouraged importation for protecting national industries in the first years of 20th century. Thus, share of U.S.A in total world exports of manufactured goods was %13,7 rate on the eve of First World War.[177]

2.2.2.4 Finance and Banking

[175] Field A.J. & at all. (2006) *Research in Economic History* (Vol. 24, p.144).
[176] Daunton M. (2007) *Wealt and Welfare: An Economic and Social History of Britain 1851*-1951. (p.89) Newyork: Oxford University Press.
[177] Broadberry , S. N. (1995). Comparative productivity levels in manufacturing since the industrial revolution: Lessons from Britain, America, Germany and japan.*Structural Changes and Economic Dynamics 6*, p.75

Commercial Banks were important parts of financial structure of U.S.A. These banks have caused both commercial and industrial development from the half of 19th century. Numbers of these banks also have increased in a large extent at the begining of 20th century.

Table 30. Commercial Banks in the U.S.A

	State Banks		**National Banks**	
Years	**Numbers**	**Assest ($ million)**	**Numbers**	**Assets ($ million)**
1870	174	149	1.612	1.566
1880	650	882	2.076	2.035
1890	2.250	1.743	3.484	3.062
1900	4.659	2.625	3.732	4.944
1910	13.257	24.482	7.145	9.897

Source: Mathias (2008)

Table 30 shows numbers of commerial banks and assets between 1870 and 1913. When the first years of 20th century considered, numbers of banks have increased substantially. Especially, numbers of State Banks have increased from 4.659 to 13.257 in ten years period. What is more, amounts of total assets have increased more than 10 times in this period. These banks and investments have caused more and more railroads, factories and technological progress. Especially, networks of railways have been expanded in a large proportion between 1890 and 1910. According to Clark, completed railways of U.S.A have increased from 208 thoU.S.And miles to 352 thoU.S.And miles between 1890 and 1910.[178]

2.2.2.5 GDP

Growth rates of outputs also have increased significantly in U.S.A in the first years of 20th century. Acording to Floud, real GDP levels of U.S.A have increased %5.2 annually

[178] Clark G. (2007) *A Farewell to Alms A Brief Economic History of the World.* (p. 308) United Kingdom: Princeton University.

between 1900 and 1907 and %2.8 annually between 1907 and 1913.[179] Table 28 also illustrates GDP per capita levels of U.S.A. As it could be seen in table 28, GDP per capita level of U.S.A was lower than Great Britain, but the level of GDP per capita was much more than Great Britain on the eve of First World War.

2.2.3 France

France-Prussian War has effected economic growth of France at the last quarter of 19th century. Rich iron deposits have been lost as a result of war. In addition, Great Depression has started and prices of goods had fallen sharply. French economy could not grow until 1890s from 1870s. However, French economy has grown with the effects of new technologies in iron production and migration from villages to cities for working in industries until 1914.

2.2.3.1 Agriculture

Agricultural structure of France was based on mostly silk farmng and vineyards during the 19th century. However, structure of agricultural production of France did not change at the begining of 20th century. Production of silk, wine and grapes maintained importance in agricultural production. Productions of wheat, grain and barley have still fulfilled the needs of entire nation. However, share of agricultural production in total national production has decreased with the effects of industrial revolution.

Table 31. Distribution of National Product between 3 major sectors

	Agriculture	**Industry**	**Services**
France			
1825-35	50	25	25
1872-82	42	30	28
1908-10	35	37	28

Source: Cippola (1973)

As it is seen in table 31, agricultural production level in total national production has decreased until 1910. Share of agricultural production of France was %50 before the

[179] Floud R. & McCloskey D.N. (1981) *The Economic History of Britain since 1700* (Vol. 2, p. 8) Great Britain: Cambridge Press.

Industrial Revolution. However, this share has firstly decreased to %42 and then %35 with the effects of industrialization in 1910.

2.2.3.2 Industry

France was one of the major industrialized nations during the 19th century. However, lack of coal production has caused to trail of other major industrialized nations such as Great Britain, U.S.A and Germany. On the other hand, France government has supported to production of other energy resources. Eventhough the production of other energy resources, 3 major industrialized nations drew have drown away in production of manufactured goods from France until the First World War. An investment on military industries illustrates this situation meaningly.

Table 32. Expenditures on arms ($ million)

Years	Great Britain	France	Germany
1875	133.2	137.4	106.5
1907-08	291.8	243.7	290.5
1913-14	385.0	277.2	352.7

Source: Cippola (1973)

Table 32 also shows military expenditures of chief parts of First World War. As it can be seen in table 32, France was the leader nation with 137.4 million dollars expenditure on army in the last quarter of 19th century. However, Germany and Great Britain have increased military expenditures in 1907s. Finally, military expenditures of Germany and Great Britain have surpassed expenditures of France with the effects of competition among Great Economic Powers. It can be easily said that, industrial production of France was have grown meaningly but production levels of rivals grew more than France. Another important indicator could be the share of raw material production in gross industrial output. Share of raw materials in total output was almost %11 in 1880 and then that ratio was decreased to %7.5 on the eve of First World War.[180]

2.2.3.3 Trade

[180] Field A.J. & at all. (2006) *Research in Economic History* (Vol. 24, p.144)

As mentioned in chapter 1, France one of the most important commercial nation during the 19th century. Especially, France has started to give net export surpluses from the begining of 19th century. France government has exported these surpluses as direct investments of foreign debts. On the other hand, France has become a majör exporter of cotton yarns and clothes in 1910. When export values of yarn, gray woven cloth and colored cloth considered, trade volumes of France have given net export surpluses with 23 millions of dollar in 1910. This situation can be seen in table 32.

Table 33. Net Exports of cotton yarn and cloth, 1910 ($ million)

Nation	All	Yarn	Gray woven cloth	Colored cloth
Major Exporters				
United Kingdom	453	83	100	270
Japan	26	22	5	-1
Italy	24	4	3	17
France	23	-3	4	22
Germany	15	-11	-3	29

Source: Clark (2007)

Consequently, when table 33 considered, commercial volumes of France had almost %28 share in total GDP.

2.2.3.4 Finance and Banking

First of all, population of France has increased approximately twice times from the begining of 19th century to First World War. Population of France was 26.9 millions and that number has reached 40.7 millions between 1800 and 1900, furthermore, France population has increased to 41.5 millions which was more than the population of Great Britain in 1910.[181] On the other hand, networks of railways have been expanded from 1.8 thoU.S.And miles to 25 thoU.S.And miles between 1850 and1910.[182] As mentioned before, one of the most important parts of financial structure of France was direct foreign

[181] Cippola C. M. (1973). *The Fontana Economic History of Europe* (Vol.3, p. 29) London: Collins
[182] Clark G. (2007) *A Farewell to Alms A Brief Economic History of the World.* (p. 308) United Kingdom: Princeton University.

investments. France government mostly has chosen to send net export surpluses or banks for direct investments to other nations. In addition, Bank of France have had authority of mintage money. Other banks have worked as an investment bank. These investment banks have opened branches in other countries; France government has exported both banks and surplus of money in this way. Credit Mobilier was the most important bank of France with foreign investments and branches in early 20th century. On the other hand, Bank of France had specified limits to issue banknotes in early 20th century. Owing to this limitation, Bank of France mintaged 6.800.000.000 francs (1.300.000.000 $) which was the maximum limit for money surplus in 1913.[183]

2.2.3.4 GDP

When the whole economic structure of France is handled, annual production growth rates of France were averagely %0.72 between 1820 and 1913.[184] Table 28 was also illustrated GDP per capita level of France and comparison between four major industrialized nations. According to table 28, GDP per capita level of France was the lowest among four major industrialized nations in the years of 1900 and 1913 with 62 and 69 dollars.

2.2.4 Germany

Germany has realized second industrial revaluation with vast coal deposits. Even though most of German population was working in agriculture and forestry, country has become one of the most important industrialized nations during 19th century. Even more, two third of labor force had started to work in industrial production plants. Germany became has become the leader producer of iron, steel and chemical goods. Thus, Germany has caught up Great Britain in industrial area and pass over other great economic powers in many industrial branches.

2.2.4.1 Agriculture

[183] Heaton, H. (2005). *Avrupa İktisat tarihi*. (p. 502). Ankara: Paragraf.
[184] Field A.J. & at all. (2006) *Research in Economic History* (Vol. 24, p.137)

Economic structure of Germany was based on agriculture as the other Great Economic Powers until the last quarter of 19th century. Only 2 or 3 cities were available for industrial developments and investments such as Bremen, Prussia and Rhur provinces. Other provinces except these were specialized in agricultural productions or commercial activities. Wheat and grain was important agricultural products of Germany. However, structure of agriculture has turned to production area for industrialized raw materials with the technological progresses such as new chemical drugs and fertilization systems. Share of agricultural production in total production decreased until the First World War.

Table 34. Distribution of National Product between 3 major sectors

	Agriculture	Industry	Services
Germany			
1860-69	32	24	44
1905-1914	18	39	43

Source: Cippola (1973)

As it is seen in table 34, share of agricultural products was %32 and decreased to %18 on the eve of First World War.

2.2.4.2 Industry

First of all, production level of industry was % 39 total productions in Germany on the eve of First World War. As it is known that, Germany industrialization has been realized with Second Industrial Revolution. However, German industrial structure has become the most powerful strength with U.S.A. Table 29 also shows this situation with levels of manufacturing output per person in the years of 1907 and 1913. Table 29 also compares the most powerful industries which includes industries of Great Britain, Germany and U.S.A. According to table 29, when the levels of Great Britain considered as 100, manufacturing output per person of Germany was 106.4. Moreover, this level has increased to 119 in 1913. So, industrial production level of Germany was greater than Great Britain's.

2.2.4.3 Trade

As mentioned that commercial structure of Germany was based on guilds until 1860s. However, guilds have been abolished by German Government. In the wake of abolishments of guilds, inner customs and tariffs also have been abolished between German provinces in the second part of 19th century. On the other hand, German government has applied protective trade policies against other nations. Ratio of import duties to total exports of Germany was %7.4 in 1910 which was more than ratio of import duties of Great Britain with %4.5.[185] Germany was also an important exporter of cotton yarn and clothes in the 20th century. Table 32 also shows net exporters of cotton yarn and clothes in a comparison. According to these datas, Germany only has given net export surpluses in trades of colored clothes with 29 million dollars. However, Germany still had net export surpluses in trade of cotton yarns and clothes in 1910.

2.2.4.4 Finance and Banking

First of all, population growth of Germany was more than %200 between 1800 and 1910. This situation also has affected the economic structure of Germany in the ages of industrializations. Furthermore, population of Germany was 24.5 millions in 1800 and population increased to 58.5 millions until 1910.[186] In addition to population growths, network of railways have also expanded until 1910. According to Clark, railway networks of Germany have expanded from 27 thoU.S.And miles to 38 thoU.S.And miles between 1890 and 1910.[187] These developments have been realized with strong financial institutions such as cartesl and banks. As we mentioned before, cartels have played very important role in German industrialization in the last quarter of 19th century. In addition to cartels, German banks have started to expand in both domestic and foreign lands. German banks had also branchesin other countries. According to Heaton, Germany had 36 banks with 1500 branches in domestic provinces on the eve of First World War.[188] Thank to these investment banks financial growths and activies of Germany have increased in significant rates until 1914. Deutsche Bank, Disconto Bank, Dresden Bank and Darmstadter Bank were the major banks of Germany in early 20th century.

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[185] Daunton M. (2007) *Wealt and Welfare: An Economic and Social History of Britain 1851*-1951. (p.89) Newyork: Oxford University Press.
[186] Cippola C. M. (1973). *The Fontana Economic History of Europe* (Vol.3, p. 29) London: Collins.
[187] Clark G. (2007) *A Farewell to Alms A Brief Economic History of the World.* (p. 308) United Kingdom: Princeton University.
[188] Heaton, H. (2005). *Avrupa İktisat tarihi*. (p. 500). Ankara: Paragraf.

2.2.4.5 GDP

As mentioned before, manufacturing output per person of Germany was greater than Great Britain. However, GDP per person levels of Germany were still smaller than Great Britain and U.S.A. Table 28 compares GDP per person levels of major industrialized nations. According to table 28, GDP per capita levels of German workers was lower than British workers until the First World War. On the other hand, GDP per capita levels of Germany are also showed in table 35 in German marks. When the year of 1901 considered in both statistics, GDP per capita level of Germany was higher in table 35. Owing to this reason, GDP per capita levels compared in Chapter 4 with common datas and same resources.

Table 35. National income per capita in Germany (Marks)

Provinces	**1871/5**	**1881/5**	**1891/5**	**1901/5**	**1911/13**
German Empire	364	381	445	538	716
Prussia	352	369	428	516	698
Saxony	402	549	655	870	
Hamburg/Bremen	812	790	877	1011	1261
Hess	310	343	407	515	634
Baden	474	561	708		
Württemberg	688				
Bavaria	635				

Source: Borchardt (1991)

2.2.5 Italy

Italy economy was mostly based on agriculture during 19th century. Hence, Italy still has imported agricultural products, but Italian Government firstly has made investments for meeting agricultural needs of country in the beginning of 20th century. As a result of this production, Italy could only exported olive oil and some other agricultural goods in 1910. On the other hand, shipping industry and metal making industry have maintained growths with increasing mine production until 1914.

2.2.5.1 Agriculture

Italian economy was based on agriculture from the begining of 19th century. This situation has been maintained at the begining of the 20th century. Great percentage of Italy was also worked in agricultural areas. However, agricultural production levels of Italy only have fulfilled inner needs. Silk, mulberry, wheat, linen, grape and olive were the most important

agricultural products of Italy in the begining of the 20TH century.

Table 36. Consumption of the Labour Force

Years	Agriculture	Industry	Services	Public Administration
1881	61.8	20.5	15.8	1.9
19111	59.1	23.6	15.3	2.0

Source: Cohen (2001)

As it is seen in table 36, %61.8 of total labour force of Italy have been used in agricultural areas. One of the most important reasons of this situation was to be a late comer in industrialization. Furthermore, share of agricultural production in total production was %47 in the begining of 20th century.[189]

2.2.5.2 Industry

Italy as an industrialized nation was called as a late comer. Both industrialization levels and products have fallen behind from 4 major industrialized nations. As it is seen in table 36, only %23 percent of labour forces worked in industrial area. On the contrary, share of industrial labour force were nearly %50 in 4 major industrialized nations. In addition to this situation, Italy has realized a significant growth in industrial area.

Table 37. Growth rates of GDP, selected industries, 1861-1913

Selected Industries	Annual Growth Rates
Utilities	6.33
Mining	2.76
Construction	2.13
Wool	3.00
Silk	2.19
Cotton	6.32
Wool	2.98

Source: Cohen (2001)

As it is seen in table 37, these selected industries of Italy have realized significant growths until the First World War. However, these industries were not heavy industry or expensive industrial goods. These goods could be called as intermediate manufactured goods. Furthermore, %10 of total industrial production has been constituted with production of

[189] Cippola C. M. (1973). *The Fontana Economic History of Europe* (Vol.3, p. 156) London: Collins.

raw materials.[190]

2.2.5.3 Trade

Italy was a merchant nation. However, trade balances of Italy mostly give deficits during 19TH century. Especially, trades of agricultural products were very restricted because of inner consumption. Italy could not export agricultural products during 19th century. Only a little part of olive production has been exported since 1900s. Italy has become a major exporter in cotton yarn and clothes. Furthermore, Italy could produce more quality clothes contrary to other major exporters. Table 32 gives a brief summary about exportation of cotton yarn and clothes of Italy. As we can see in total net export values, net export value of Italy was more than both Germany and France. Moreover, it was nearly to Japan's. Subsequently, shares of agriculture and industrial production levels in total production considered, commericial values of Italy could occupy more than %25 places in total production at the begining of 20th century.

2.2.5.4 Finance and Banking

Italy was the most crowded nation according to land size among the other Great Economic Powers. Eventhough the 36.8 million people, per capita land size was the biggest in Italy. However, banking system and financial institutions were the most important players of Iatalin economy.

Table 38. The size of banking system and its structure

Year	a	b	c	d	e	f		Year	a	b	c	d	e	f
1870	15.3	NA	68.1	11.0	18.5	2.4		1881	31.3	18.1	36.2	20.0	37.4	6.4
1895	57.8	24.7	31.1	13.8	47.1	8.0		1914	113.9	31.2	25.9	19.0	45.4	9.7

Source: Cohen (2001)

Notes: a- Total liabilities of the banking system in real terms (1911=100), b- share of banks in total financial liabilities, c- banks of issue, d- joint stock banks, e- saving banks, f- cooperative banks.

Table 38 gives a brief summary about Italian banking system and structure. According to table 38, total liabilities of banks have started to increase with industrialization movements.

[190] Field A.J. & at all. (2006) *Research in Economic History* (Vol. 24, p.137)

When the levels of total liabilities are considered as 100 for 1911, total liabilities of Italian banks have increased %13 on the eve of First World War. On the other hand, numbers of saving banks have been passed over issue banks until the First World War. At the same time, numbers of joint stock banks have increased in a small proportion.

2.2.5.4 GDP

Table 39 gives a comparison between average growth rates of Italian economy and 4 major industrialized nations. According to datas, growth rates of total GDP and GDP per capita levels of 4 major industrialized nations was greater than levels of Italy. It can be easily seen that Italy could be closed to forerunner nations on the eve of First World War. However, growth rates of both GDP and GDP per capita levels were very close to 4 industrialized nations. What is more, growth rate of GDP per capita level of Italy was also higher than four industrialized nation in early 20th century.

Table 39. Growth rates of Italy

	a	**b**
Total GDP		
1861-1895	0.66	2.50
1895-1913	2.77	2.89
GDP per capita		
1861-1895	0.1	1.30
1895-1913	2.08	1.63

Source: Cohen (2001)

Notes: a- Italian growth rates, b- 4 major countries (U.S.A, Germany, Great Britain, France)

2.2.6 Russia

As mentioned before, Russian industry was very primitive. Industrial movement have started only after 1880s by Russian Government for meetimg of military needs. İndustrialization of Russia has been accomplished, but farmers and citizens had paid cost of economic growth with high taxes. Depression and revelation have stopped the economic growth between 1900 and 1906 in Russia. However, both economic growth and industrial growth have started to increase after revoluation period until 1913. Coal production and Turkistan cotton on production have increased in significant proportion.

2.2.6.1 Agriculture

Table 40 shows important economic indicators of Russia before the First World War. Russian economy was based on agriculture during the 19th century. Furthermore, agricultural products mostly were made up of grains. Wheat, barley and oat were important agricultural products of Russia. A major part of Russian population has worked in agricultural areas. Only %10 of population lived in urbans. Per capita grain output levels of Russia was more than per capita gross industrial output levels with 20.60 roubles in 1890. Furthermore, per capita grain output levels increased to 27.88 roubles with %35.3 growth until 1913. Similarly, total capital stock of farm sector also grew with %25,9 between 1890 and 1913.

Table 40. Selected economic indicators of Russia (roubles)

	1890	**1913**	**% change**
Population	117.787.000	161.723.000	37.3
Urban Population	11.774.000	18.604.000	68.9
Per capita Grain output	20.60	27.88	35.3
Per capita gross industrial output	19.16	42.91	124.0
Per capita trade turnover	34.24	72.68	122.66
Per capita exports	5.84	9.6	55.14
Whole sale price index (1913=100)	76.7	100.0	30.4
Employment in manufacturing, mining and railways	1.682.100	3.844.000	128.5
Length of railway network	30.596	70.990	132.0
Per capita currency in circulation	7.88	13.88	76.1
Per capita expenditures of state budget	8.97	20.92	133.2

Source: Mathias (2008)

Table 41 also shows growth rates of agricultural production areas and tools in use between 1890 and 1913. Total capital stock has grown %25 until 1913 in Russia. Especially, numbers of farm dwellings, buildings and equipments have grown in significant proportions which were mostly higher than %30.

Table 41. Estimates of the Capital Stock in the Farm Sector (million roubles)

	1890	**1913**	**Increase (%)**
Farm dwellings	5,244.0	7,005.1	33.6
Farm buildings	2,594.6	3,481.8	34.2
Productive livestock	3,782.7	4,003.2	5.8
Workstock	2,719.3	2,872.8	5.6
Transportation equipment	1,063.9	1,445.1	35.8
Farm equipment and machinery	366.4	1,053.0	87.4

Total	15,770.9	19,861.0	25.9

Source: Mathias (2008)

2.2.6.2 Industry

As mentioned, Russian economy was based on agriculture. However, industrialization developments have started to expand at the end of 19th century. Industrial production levels of Russia have grown considerably. Especially, per capita gross industrial production levels of Russia have increased significantly against other production areas. First of all, a per capita gross industrial output of Russia was 19.16 roubles in 1890. However, this amount has reached to 42.91 roubles with %124 rate growth until 1913. Moreover, numbers of industrial workers have increased from 1.682.100 employees to 3.844.000 employees between 1890 and 1913.

2.2.6.3 Trade

Russian economy was mostly exporter of grains and importers of finished goods during the 19TH century. Especially, wheat, cereal and grain were very important parts of exportation items. For instance, grain and wheat supplies of Istanbul were mostly provided from Russia. In addition to trades of grain, trade volumes of Russia have started to increase wtih the effects of industrialization at the begining of 20TH century. Although per capita export levels have also increased from 5.84 roubles to 9.6 roubles with %55 growths between 1890 and 1913. What is more, per capita trade turnover levels have increased more than per capita exports. According to table 40, a trade turnover level of Russia was 34.24 roubles in 1890. However, per capita trade turnovers have increased to 72.68 roubles with %122.66 growth rates in 1913. Increases in agricultural production, industrial production and also wages possibly have caused to growth of trade turnovers.

2.2.6.4 Finance and Banking

Growth of industrial, commercial and agricultural productions have also caused expands in financial structure of Russia. First of all, population of Russia has increased more than 161 millions on the eve of the First World War. Secondly, length of railways has been

expanded from 30.356 kilometers to 70.990 kilometers until 1913. All this developments also have caused increases money circulation in Russian market. A per capita currency in circulation of Russia was 7.88 roubles in 1890 and this amount has increased to 13.88 roubles with the effects of economic structural developments. Amount of currency in circulation also has illustrated increases in per capita currencies. 491 million roubles were in circulation in 1900 and this amount jumped to 1.495 million roubles in 1913.[191] What is more, numbers of credit instutions and saving banks have increased from 2969 to 5228 between 1908 and 1913 in Russia.[192]

2.2.6.5 GDP

Gross national per capita levels of Russia were still far behind from industrialized nations. As it is seen in table 42, per capita GNP level of Russia was lower than both Great Britain and Germany meaningly. GNP per capita level of Russia was one third of German GNP per capita level and nearly one fifth of British GNP level in 1913. This could be easily said that Russian economy was called as "late comer" same as Italy and Ottoman State.

Table 42. Gross national product per capita (roubles)

Year	Germany	Great Britain	Russia
1913	300.4	460.6	101.4

Source: Cippola (1973)

2.2.7 Japan

As we mentioned before, Japan economy have been close to western nations until the middle of 19th century. However, western nations have started to get privileges from Japan Government. Japan econmy was also based on agriculture and textile in the late 19th century. On the other hand, industries and railroad networks have started to build in whole country with the effects of western style banks and foreign direct invesments. In addition, Japan Government has established state banks and domestic industries for competition with western nations and mostly got great achievements in competition with industrial productions in early 20th century.

[191] Barnett V. (2004). *The Revolutionary Russian Economy, 1890-1940* (p. 47) New York: Routledge Press
[192] ibid, p.31

2.2.7.1 Agriculture

Economic structure of Japan was based on agriculture as other late comers. As we mentioned on the previous chapter, rice, tea, fish, brewe, sake, soy sauce and soy paste were important products of Japan agriculture. These agricultural products were also important agricultural goods of japan in the first years of 20th century. In addition to these products, production areas also have increased in agricultural area between 1901 and 1911. Table 43 shows amounts of properties and percentages in total production establishments. When agricultural establishments considered, amounts of agricultural properties have increased from 73 to 122 until 1911. However, shares of agricultural establishments have decreased because of industrialization movements. Similarly, numbers of forestry, fishery and mining establishments also have increased until 1911. Furthermore, total assets of each establishment were higher than 500.000 yen.

Table 43. Occupational distribution of property owners with the assets of more than 500.000 yen in agriculture

	1901		**1911**	
Agriculture	73	15%	122	11,50%
Forestry	12	2,50%	18	1,70%
Fishery	0	0%	8	0,80%
Mining	15	3,10%	23	2,20%

Source: Tanimoto (2004)

2.2.7.3 Industry

Technological increasing returns to scale have played only a minor role. During 1890–1914, the number of spinning mills rose five-fold; from 32 to 152, but the average size of the mill has increased only 1.6 times from approximately 10,000 spindles to about 16,000 spindles.[193] On the other hand, Tanitomo categorized as makers of sake, soy sauce or other brewed products together comprised 4 percent of the total in 1901 and almost 6 percent in

[193] Oyama, A. & at all (2004). Entrepreneurial ability and market selection in an infrant industry: evidence from the japanese cotton spinning industry. *Rewiev of Economic Dynamics , 7,* p.378.

1911.[194] However, total industrial production of Japan was equal to one fifth of British industrial production as seen in table 45.

Table 44. Manufacturing output per person employed (1907-1913) (UK=100)

Years	US/UK	Germany/UK	Japan/UK
1907	190.0	106.4	20.7
1913	212.9	119.0	24.4

Source: Broadberry (1975)

2.2.7.3 Trade

Commercial relations with western nations have started since 1880s for Japan government. Western Europe nations have achieved to get trade privilages from Japanese. However, trade volumes of Japan have started to increase with these new commercial relations. Especially, japan has become major exporter of cotton yarns and clothes in 1910. According to table 33, japan was the second greatest exporter of cotton yarns and clothes with 26 million dollars. What is more, Japan shares of world exports of manufactures have reached %2.5 on the eve of First World War. Table 45 also indicates this situation and more importantly share of Japan in total world export has increased in momentary period.

Table 45. Shares of world exports of manufactures (%)

Year	UK	US	Germany	Japan
1881-1885	43.0	6.0	16.0	0.0
1899	34.5	12.1	16.6	1.6
1913	31.8	13.7	19.9	2.5

Source: Broadberry (1975)

2.2.7.4 Finance and Banking

New and modern banks have played very important role in financial structure of Japan from the last quarter of 19th century. These banks have provided new banknotes which were convertible and this development has also effected commercial relations in a positive way at the begining of 20th century. Furthermore, banking has become more professional in early 20th century. New banking system has also affected growths in agricultural,

[194] Masayuki, T. (2004). Capital accumulation and the local economy: brewers and local notables. *CARF-F-005*, p.1

commercial and industrial areas. According to Tanitomo, bank numbers of Japan have increased more than twice from 31 to 63 between 1901 and 1911.[195] In addition, there were more than 63 banks in Japan, but numbers of tanimoto only shows banks whose assets more than 500.000 yen.

2.2.7.5 GDP

Table 46. GDP per person employed (UK=100)

Year	US/UK	Germany/UK	Japan/UK
1870	95.1	48.8	17.8
1890	98.1	53.3	20.0
1913	127.9	64.1	23.5

Source: Broadberry (1975)

Table 46 shows comparison of GDP per person levels of Japan and Great Britain between 1870 and 1913. As it can be seen in table 46, GDP per person levels of Japan have increased profoundly. Growths in agriculture, industry and commerce also have caused to increases in GDP per person levels of Japan. On the other hand, GDP per person employed levels of Japan was only one forth of Great Britain's levels and likewise one third of Germany's levels and one fifth of U.S.A's levels in 1913. Owing to this reason Japan economy was a "late comer" in early 20TH century.

[195] Masayuki, T. (2004). Capital accumulation and the local economy: brewers and local notables. *CARF-F-005*, p.18

CHAPTER 3: Competition of Great Powers on Ottoman World

3.1 Competition between Great Economic Powers[196]

The competition among great economic powers has gained different dimensions with the effects of first industrial revolution. Great Britain has stepped forward as a leader nation in the beginning of 19th century. After the event, France has followed Great Britain aspect from industrialization and financial instutitions. On the other hand, the U.S.A and Germany have realized second industrial revolution from the beginning of 1870s. Futhermore, 'late comers' have tried to expand industries by following four major economic powers. Due to this situation, competition has increased in a significant proportion in commercial, financial and industrial areas. Economically this competition had a huge impact on Ottoman World. In some cases, the competition has led to economic growth in Ottoman State until 1913. In response, trade volumes, banking issues and GDP levels of Ottoman achieved growth.

3.1.1 Trade Competition

Great Britain, France and Germany were the major economic powers of Europe. These three nations have started to compete in commercial, industrial and financial areas since 1850s. As it is known, economic competition among three major Great Economic Powers of Western Europe has caused to outbreak of First World War.

One of the most important competition areas of the three major Great Economic Powers were trade in Ottoman centers. Especially, export competition was crucial for the three major powers because these nations also had industrialized economies. The returns of industrial products were significant parts of financial system of three big nations.

Table 47. Percentages of World Exports (1900/1907/1913)

Nations	1900	1907	1913

[196]Mostly includes three big (Great Britain, France and Germany)

Great Britain	%14.6	%14.8	%13.5
U.S.A	%14.1	%13.1	%12.8
France	%7.9	%7.5	%6.8
Germany	%10.9	%11.3	%12.4
Italy	%2.6	%2.6	%2.5
Japan	%1.0	%1.5	%1.6

Source: International Trade Statistics (1962)

Table 47 shows percentages in world exports of three big nations and other warring factions from 1900 to First World War. As it can easily be seen in table 47, shares of Great Britain and Germany were close to each other. Share of U.S.A was also close to both Great Britain and Germany's share with %12.8 . However; the share of France was far behind from these nations. Thus, Great Britain and Germany have become the prominent nations with U.S.A on the eve of First World War. This should be kept in mind that, U.S.A was involved to First World War in the middle of the campaign.

3.1.2 Industrial Competition

Another important competition area among Great Economic Powers was industrial production until the First World War. As it was mentioned before, Great Britain was the first industrialized nations among the other industrialized nations and late comers. Germany and U.S.A involved to industrial production and production levels of these two nations have caught up with Great Britain with the effects of second industrial revolution. Furthermore, France also has become an industrialized nation after 1870.

Table 48. Industry in Europe, major branches and three big; 1870.

Products	**Great Britain**	**France**	**Germany**	**Big Three**
Food, drink, tobacco	21	16	19	56
Textiles, clothing	29	24	22	75

Metals	45	5	24	74
Other manufacturing	16	23	25	64
Construction	17	32	13	62
Mining	70	5	12	87
Utilities	43	20	11	74
Total Industry	30	19	20	69
GDP	26	16	21	63

Source: Broadberry (2010)

Table 48 shows major industrial branches and shares of Three Big nations in production of these goods for the year of 1870. First of all, as it can be seen in table 48, total production of Three Big was more than %50 percent of total production of Europre. Secondly, according to table 48, production levels of Great Britain were higher than other two nations in productions of major industries. Industrial production of France and Germany increased with the effects of second industrialization. Especially German industrial production levels were left behind to industrial production of Great Britain as it was mentioned before. Growth rates of industrial production of both Great Britain and France were annually %2.1 until the First World War. On the contrary, annual growth rates of German industrial production were %4.1 until 1913.[197]

3.1.3 Competition on Foreign Investment

Foreign investments were another competition area for Great Economic Powers. Great Britain has caught up with both Germany and U.S.A in industrial and commercial areas until the First World War. However, Great Britain has given a great importance to foreign investments more than other Great Economic Powers.

Table 49. Foreign Investments by Germany, France and Great Britain (1870-1913)

Years	**England**	**France**	**Germany**
1870-79	%32.5	%23.9	%10.2
1880-89	%38.5	%5.1	%18.8

[197] Broadberry S. & O'Rourke K. (2010) *Modern Europe: 1870 to the Present* (p.69) Cambridge University Press

1890-99	%30.9	%16.5	%12.1
1900-4	%29.4	%19.1	%8.3
1905-14	%49.6	%17.3	%7.5
Share of Global Foreign Investment (1914)	%41.8	%19.8	%12.8

Source: Broadberry (2010)

Table 49 shows foreign investments as % of savings of three big nations between 1870 and 1913. As it is seen in table 49, Great Britain exports great deal of savings to other countries as foreign investments. On the other hand, Germany and France spent only small proportion of savings as foreign investments. However, foreign investments of France were higher than Germany on the eve of First World War. Share of global foreign investment of Great Britain was % 41.8 in 1914. Thus, Great Britain has maintained prime position in competition of foreign investments by landslide until the First World War.

3.2 Competition of Great Economic Powers on Ottoman World

Economic structure of Ottomon State has been impreased from the competition amongst the great economic power. The competition has been realized mostly in commercial and financial areas. First of all, commercial competition has occurred in Ottomon State. Baltalimanı Trade Pact has caused to trade competition. In addition, foreign direct investments have increased the competition in following years. Great economic powers have opened banks and have been supported investments by these foreign banks. Finally, the competition has reached from state rivalry to the level of private corporates.

3.2.1 Competition on Trade

It is obvious that, competition of Great Powers on Ottoman World has started to appear in commercial relations. Globalization also has affected economic structure of Ottoman State in the 19th century; Great Economic Powers have applied protectionist policies between each other. Especially, France and Germany have adopted significant protectionist policies in commercial areas. Thus, Great Economic Powers have started to seek new markets for exportation of manufactured products. As Pamuk's term, Ottoman State as a "nearby country" was a notable market for Great Economic Powers.

Ottoman State has given a grand importance to trade and kept hold of trade relations with Western nations. Especially, Ottoman government has held the powerful nations close it by giving priviliges called “capitulation”. That situation has been continued until the begining of 20th century.

Competition of Great Economic Powers on Ottoman trade has started with the pact of Baltalimanı in 1838. However, Ottoman State has been attracted intensive attention in commercial area by Great Economic Powers. Furthermore, Ottoman trade volumes have started to increase and direction of trade changed after The Baltalimanı Pact. For instance, Austria Empire had significant share on both Ottoman exports and imports until 1830s. According to table 50 and 51, Austria Empire had % 30 shares in Ottoman exports and % 17 shares in Ottoman imports before the agreement of Baltalimanı Pact between 1830 and 1832.

Table 50. Great Powers share in Ottoman Exports 1830-1913 (%)

Years	England	France	Germany	Austria	Total	Industrialized Nations	Russia	Others	Average Exports with Current Prices (Million Sterlin)
1830-32	13,3	14,3	2,1	30,9	60,6	64,3	12,6	23,1	3,8
1840-42	19,8	16,6	1,9	29,1	67,4	70	10,4	19,5	5,2
1850-52	20,1	15,8	1,1	28	65	76,4	8,3	15,3	8,8
1860-62	23,5	29,9	0,5	16,8	70,7	73,4	10,2	16,4	12,4
1870-72	27,2	25,3	0,4	14,3	67,2	69,4	14,7	15,9	19,4
1880-82	23,5	28	0,5	6,1	58,1	62,9	13,6	23,5	15,2
1890-92	25,9	24,5	4,3	5,9	60,6	76,1	4,2	20,7	17,9
1900-02	25,9	19,2	7,2	7,8	60,1	78,3	3,9	17,8	20,3
1909-11	17,9	14,1	11,4	8	51,4	77	3,9	19,2	25,9

Source: T.S.I (1995)
Note: Industrialized Nations: West and Center Europe and U.S.A
Note 1: Germany datas of 1830-1862 sub period was %80 Ottoman exports transits from Austria
Note 2: Italy had attended to industrialized nations since 1890s.

According to table 50, shares of France and England as an industrialized nations were under %15 in the begining of 19th century. However, shares of England and France in Ottoman exports have started to increase and shares of Austria Empire in Ottoman exports have started to decline after the Baltalimanı Pact. What is more, shares of England and France have reached more than %50 in 1860s. Share of Germany, whose industries accelerated until the second half of 19th century, have reached significant level hardly in

the begining of 20th century. In the second half of 19th century, Share of Germany has hovered under almost %1. Russia as another important rival of Ottoman State had %10 shares in Ottoman export until 1880s but share of Russia has declined to %4 because of competition on Balkan provinces of Ottoman State.

Tablo 51. Great Powers share in Ottoman Imports 1830-1913 (%)

Years	England	France	Germany	Austria	Total	Industrialized Nations	Russia	Others	Average Imports with Current Prices (Million Sterlin)	İ+F +ALM	ABD +Jpn
1830-32	19	9,9	3,1	16,9	48,9	52,7	31,3	16	4	32	20,7
1840-42	29,3	8,6	4,6	22,1	64,6	67,3	16,5	16,2	5,7	42,5	24,8
1850-52	25,5	9,3	9,7	26,2	70,7	74,6	13,6	11,8	9,5	44,5	30,1
1860-62	26,5	12,2	9,5	17,2	65,4	67,5	11,5	20,9	12,9	48,2	19,3
1870-72	32,4	12,3	13,6	12,9	71,2	76,7	9,2	12,1	22,4	58,3	18,4
1880-82	45,2	11,8	2,4	11,8	71,2	74,9	9,7	15,4	15,4	59,4	15,5
1890-92	35,9	12,4	10,3	9,8	68,4	77,5	9,9	12,6	19,2	58,6	18,9
1900-02	29,8	10	9,8	14,5	64,1	78,7	10,3	11,1	20,3	49,6	29,1
1909-11	23,9	8,4	13,7	13,9	59,9	78,8	8,7	12,5	37,7	46	32,8

Source: T.S.I (1995)
Note: Industrialized Nations: West and Center Europe and U.S.A
Note 1: Germany datas of 1830-1862 sub period was %80 Ottoman exports transits from Austria
Note 2: Italy had attended to industrialized nations since 1890s.

Comparing Ottoman import patterns with exports has given different results than exports. Ottoman importation could be the most significant indicators for revealing competition of Great Economic Powers on Ottoman World. Half of Ottoman imports have been made with industrialized nations and another half have been made with Russia and other nations before free trade agreements. Foreign trade datas have started to change after 1838. Shares of Industrialized nations in Ottoman imports have increased to % 70 in 1840-42 period. Moreover, the shares of industrialized nations have reached %80 in the begining of 20th century.

Share of England has increased from % 19 to % 29 in Ottoman importation after 1840s. What is more, shares of England have reached to peak level with % 45 during 1880s. However, shares of England have continued decreasing path until First World War.

France had more permanent progress in the competition of trade. Shares of France have moved under %10 until 1860s and only reached %12 in Ottoman importation at the last quarter of 19th century. Importation ratios of France in Ottoman State have continued at %10 until First World War. Similarly, shares of Germany have continued with %10 until 1870s. However, shares of Germany have started to increase during the last quarter of 19th century. Import shares of Germany have passed shares of France and become second nation after Great Britain on the eve of First World War.

On the other hand, import shares of Russia have moved conversaly against Western Europe nations. Russia had % 30 shares in Ottoman importation during 1830s. However, shares of Russia have declined regularly until First World War. Import shares of Russia were only %8,7 on the eve of First World War. This ratio was close to shares of France but also lower than both Great Britain and Germany.

Shares of U.S.A, Italy and Japan were not pointed in statistical datas. However, shares of these nations are shown in industrialized nations' column. In addition to that, Italy has not been counted as an industrialized nation until 1890s. According to table 51, if shares of Great Britain, Germany and France substracted from shares of industrialized nations, shares of U.S.A, Japan and Italy could be revealed. First of all, total shares of Great Britain, Germany and France was %32 in Ottoman importation for 1830s. Conversly, shares of U.S.A and Japan were only %20 in during 1830s. Moreover, shares of U.S.A and Japan have started to increase from the mid 19th century. On the contrary, total shares of Great Britain, Germany and France have declined because of competition in Ottoman importation towards the end of 19th century. Thus, shares of U.S.A and Japan have reached %30 with the attendance of Italy in 1890s. Finally shares of U.S.A, Japan and Italy have reached %32 on the eve of First World War.

"Great Depression" (1873-1896) has affected Great Britain, France and Germany in the last quarter of 19TH century. Also, competition among these Western Europe nations has become rough. On the other hand, U.S.A and Japan industries expanded during "Great Depression" times. So, shares of U.S.A and Japan in Ottoman importation have started to increase against shares of Great Britain, Germany and France.

Consequently, Great Britain has procured significant shares in Ottoman importation and stepped forward in commercial competition between Great Economic Powers until First World War. However, participation of Germany into the competition has changed balances of commercial patterns of both Great Economic Powers and Ottoman State. Germany has pretended as second important nation in Ottoman foreign trade. Nonetheless, increasing shares of U.S.A and Japan also have effected competition among Great Economic Powers on Ottoman World.

3.2.2 Foreign Capital and Direct Investments[198]

Investments in Ottoman hinterland mostly have been made by government until 1860s. Thus, competition on foreign investments should be analyzed from 1860s. First of all, according to parliamentary papers of Great Britain, 100.000 camels have woked in land trade in Ottoman State between 1848 and 1852. Those cervans have traveled 24 or 28 miles per day and every single camel has been rented from 1 gurushes to 4 gurushes.[199] Secondly, enacted land law in 1858 and permission of property ownership for foreign investors have caused new big farms and large scale factories. What is more, banks have been established in Ottoman provinces with foreign capitals. Undoubtfully, the most significant investments of foreign enterpreneurs were railroads in Ottoman State. Building railway networks could be the most important competition area for the Great Economic Powers on Ottoman hinterland.

Tablo 52 . Costs and Dates of Ottoman Railroads

	Length of Networks (km)	**Dates of Privileges**	**Dates of Establishment**	**Capital of establishments (million gurushes)**	**Source of Capital**
Köstence-Çernavoda (Boğazköy)	66	1856	1859-60	32	Great Britain

[198] Industrial investments analyzed in part 1.3
[199] FO, (1852) *The Ottoman Empire and its Resources with Statistical Tables* (p.195).

Rusçuk-Varna	224	1861	1863-68	135	Great Britain
Oriental Railways					
İstanbul - Edirne	318	1868/69	1869-70	241	France-Belgium-Swiss-Austria (Banque de Paris et des Pays-Bas)
Şarki Rumeli	386	1868/69	1872-88	218	
Selanik - Mitroviçe	363	1868/69	1872-74	206	
Edirne - Dedeağaç	149	1868/69	1870-72	92	
Bosna kısmı	102	1868/69	1870-72	65	
Babaeski - Kırkkilise	46	1910	1911-13		
Total	1364			792	
Limits of Üsküp-Sırp	131	1884	1885-88	82	Ottoman Bank
Selanik - Manastır	219	1890	1881-94	220	Deutsche Bank
Dedeağaç - Selanik	508	1892	1892-96	488	Ottoman Bank
Networks of Aydın					
İzmir-Aydın	130	1856	1856-57	147	Great Britain
Aydın-Dinar-Eğridir	342	1879/1911	1879-1912	308	Great Britain
Tire-Ödemiş-Çivril vs.	137	1882/1911	1883-1911	124	Great Britain
Total	609			579	
İzmir-Kasaba and Extentions					
İzmir-Kasaba (Turgutlu)	93	1863	1863-1866		Bought with French capital from Great Britan
Kasaba-Alaşehir	76	1872	1885-86	249	
Manisa-Soma	92	1888	1888-90		
Alaşehir-Afyon	252	1884	1894-96	464	
Soma-Bandırma	184	1888	1888-90		
İzmir-Bornova	5		1865		
Total	702			713	
Mudanya-Bursa	41	1871	1872-92	18	France
Mersin- Adana	67	1883	1884-86	45	Great Britain, later on Germay
Anatolia Networks					
Haydarpaşa-İzmit	93	Emaneten	1872-73	26	Sold to Deutsche Bank
İzmit-Ankara	486	1888	1888-90	475	Deutsche Bank
Arifiye-Adapazarı	9	1898	1898-99		
Eskişehir-Konya	445	1893	1893-96	445	
Total	1033			946	
Baghdad Line					
Konya-Ulukışla-Karap.	291	1898	1904-12		Deutsche Bank
Durak-Mamure	115	1898	1904-12	550	Deutsche Bank
Toprakkale-İskenderun	59	1898	1904-12		Deutsche Bank
İslahiye-Resulayn	453	1898	1911-14	400	Deutsche Bank
Bağdat-Samarra	119	1898	1911-14	50	Deutsche Bank
Total	1037			1000	
Syria Lines					
Beyrut-Şam-Müzeyrib	258	1890	1892-94		France,Belgium
Riyad-Halep	332	1893/98	1900-06	444	France
Trablusşam-Humus	102		1909-11	88	France
Yafa-Kudüs	87	1888	1889-92	65	France
Total	779			597	
Hicaz Railroad	1564		1901-08	428	
Sarıkamış-Erzurum				6075	National
Mamahatun narrow line	296		1899-1916		Russia

Source: Eldem (1994)

Table 52 shows networks of railways and investments of Great Economic Powers on railroads comprehensively. Industrialized nations have given great importance to railroads and built railroad lines on their lands. Ottoman State had productive lands for both production and railroad lines. Production levels of Anatolia and trade volumes of ports were made Ottoman lands important for Great Economic Powers. By this way, Ottoman State has attracted the attention of Great Economic Powers and also railroad investors. Foreign investors have applied for building up two railway networks to Ottoman State governors in 1856. According to table 52, two railroad priviliges were given for only two lines. One of these two privileges was Izmir-Aydin line and the other one was Köstence-Çernavoda line. These privileges were also given to British investors by Ottoman government. Izmir-Aydin line was 130 kilometers and invested with 147 million gurushes. On the other side, Köstence-Cernovada line was 66 kilometers and invested with 32 million gurushes.

Railroad investments have started to increase after 1860s. Another railway network privilege was given to British investors for building up Izmir-Kasaba line, which was 93 kilometers, in 1863. Thereafter, that line has been extended to Alasehir in 1872. Finally, Izmir-Kasaba line has been extended from Manisa to Soma in 1888. However, Izmir-Kasaba line and extensions have been sold to French investors by British enterpreneurs. British inverstors have built up 261 kilometers line and invested approximately 250 million gurushes until sale transaction. Furthermore, this line has also been extended to Bandırma and Afyon with obtained concessions by French investors. What is more, this line has been expanded from 261 kilometers to 436 kilometers and had 464 million gurushes capital with French management.

Another important network of railway has been established by "Orient Railroad Company". This company hs been founded with participations of French, Belgium, Swiss and Austria corporations. According to table 52, Orient railway networks was 1.179 kilometers long and capital of this line was reflected with 792 million gurushes in 1875.

German corporations had an effective role in railroad investments after 1890s. First part of German investments has appeared with Salonica-Monastır line by the investments of

Deutsche Bank. This line was 219 kilometers long and Deutsche Bank invested 210 million gurushes for network. Second investment has been made in southern east part of Ottoman State by Germany. German investors have gotten the privilage of Baghdad railroad line in 1898. However, this line could have been completed solely at the begning of 20th century.

Important proportions of railways have been built in Syria with French investments at the last quarter of 19th century. Yafa-JarU.S.Alem railroad line has been the first establishment with 87 kilometers and also 65 million gurushes have been invested for this line. Priviliges of railroad construction of Syria has been given to France government after 1890s. France enterpreneurships have built 692 kilometers long railway networks with 532 million gurushes capital in the aggregate.

On the other hand, Anatolia railway networks have been built with German origin investments. These structures were 1033 kilometers long and have been established between the years of 1888 and 1896. Furthermore, 946 million grurushes have been spent for Anatolia railroad lines. Government of Germany has gotten the priviliges of Eskisehir-Konya railway network, which was put into operation in 1896, and spent 880 million gurushes for this line.

When railroad investments are handled with nation by nation, Deutsche Bank was the leader investor in railway constructions. German government has invested approximately 1.700 million gurushes for railway networks in Ottoman State by Deutsche Bank. Great Britain and France have fallen behind of Germany in railroad investments. Great Britain has invested 746 million gurushes and France has invested only 615 million gurushes for railways. Some other nations have made investments with consortium deals. Another important railroad investment has been made over Ottoman Bank with priviliges which have been procured between 1884 and 1892.

Mersin-Adana railway construction has started with British capital but completed by German investments with 45 million gurushes in 1873. Finally, consortium of France, Belgium, Swiss and Austria has procured the privileges of oriental railway networks in 1868 and this consortium has invested 822 million gurushes for construction of these lines.

Consequently, significant sizes of railway networks have been established with foreign direct investments. According to table 52, 4779 kilometers long railroad has been established in the 19TH century in Ottoman hinterland. 3.713 million gurushes also spent for these railway networks. Eldem estimated that 172,9 million gurushes returned from these railroads to Ottoman State budgets in 1897.[200]

3.2.3 Foreign Corporations

Another investment branch was foreign corporations in Ottoman World until the First World War. Establishment of such corporations has been led by Great Britain. For instance, "Euphrates and Tigris Steam Navigation Company" has been established with 15.000 sterlin capital by British enterpreneurs in 1861.[201] Great Economic Powers have not only invested on transportation but also in industrial areas after 1850s.[202] Great Britain was the leader nation in establishment of legal corporations in Ottoman World. British investments were based on large scale companies. On the contrary, other Great Economic Powers have invested on medium scaled industries. Most of industrial structures were built in Aegean or Marmara regions. One of the most important British enterpreneur J.B Gout constituted 10 pieces factories in Izmir, Manisa, Aydın, Tire, Bayindir and Menemen straights from 1863 to 1873.[203] Furthermore, McAndrews and Forbes Co. have constructed 4 pieces of licorice factories in Aydın, Söke, KU.S.Akli and Nazilli districts between 1845 and 1875.[204] German Corporation Krug, Stroh and Co. has constituted a spinning and flour factory in Amasya region which was 70 kilometers far from Samsun in 1850.[205] 9 pieces of yarn factory have been established in Lebanon with French, British and national capital in 1852.[206]

As it seen on those examples, British investors were mostly eager than other Great Economic Powers in direct investments. 9 pieces of British corporations have invested

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[200] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p.102). Ankara: TTK.
[201] Issawi, C. (1988). *The Fertile Crescent 1800-1914*. (p. 216). New York: Oxford University Press.
[202] For further information, see 1.3 Industry section.
[203] Kurmus, O. (1974). *Emperyalizmin Türkiye'ye girişi*. (p. 136). İstanbul: Bilim.
[204] ibid, pp.140-141
[205] FO, (1852) *The Ottoman Empire and its Resources with Statistical Tables* (p.733)..
[206] Sarc, O. C. (1940) *Tanzimat ve Sanayimiz, Tanzimat I*, Istanbul: Maarif Vekaleti.

more than 1 million sterlin in agricultural area. Table 53 also shows both companies and sizes of investments on Ottoman agriculture.

Table 53 . Capitalist Corporations in Agricultural Area

Company Name	Capital (sterlin)
Smyrna Vineyards and Brandy Distillery Co. Ltd.	20.000
Smyrna Dried Fruit Importers Association Ltd.	50.000
Asia Minor Tobacco Co. Ltd.	30.000
Ottoman Cotton Co. Ltd	100.000
Asia Minor Co. Ltd.	500.000
Asia Minor Cotton Co. Ltd.	100.000
Smyrna Fig Packers Ltd.	150.000
Ottoman Oil Co. Ltd.	30.000
Levant Trading Agency Ltd.	50.000

Source: Kurmuş (1974)

3.2.4 Finance and Banking

Transformations in economic structures have caused new financial institutions except bankers of Galata in 1844. The first step before constructing a bank was establishment of the Anatolia and Rumelia Companies, which collected public revenues in the name of treasury and guaranteed transfers of these revenues with insurance policies, in 1842.[207] Thereafter, Ottoman government has made a deal about the establisment of "Bank of Istanbul" with two Galata bankers, Alleon and Baltazzi, in 1847.[208] Bank of Istanbul has been established with 200.000 sterlin capital.[209] The main aim of this bank was to provide the value of the *kaimes* in market. However, Bank of Istanbul has failed in this mission and has been shuttered down in 1852.

Crimean War (1853-1856) was an important issue on Ottoman financial structure. Ottoman State has released kaimes to market because of covering expanses of Crimean War. So, values of kaimes plunged down. Thereafter, Ottoman government has accepted the offers of British enterpreneurs about establisment of a bank and "Ottoman Bank" has been

[207] Eldem E. (2000) *Osmanlı Bankası Tarihi* (p.20) İstanbul: Tarih Vakfı Yurt Yayınları.
[208] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p.159). Ankara: TTK. For further reading see, Eldem E. (2000) *Osmanlı Bankası Tarihi* (p.21) İstanbul: Tarih Vakfı Yurt.
[209] Pamuk S. (2000), *A Monetary History of Ottoman Empire* (p.212) New York: Cambridge University Press.

established with 500.000[210] sterlin capital after Crimean War.[211] Tasks of Ottoman Bank was quite different from other bank attemptions. Ottoman Bank had the privilage of money supply and rendered the payments of national and foreign debts.[212] British and French capitals have pioneered the establishment of Ottoman Bank. However, French capitals have moved forward in the competition of banking on Ottoman economic structure during the second half of 19th century.

Another important bank, "Bank-i Osmani Şahane" has been established in 1863. French capital has played an important role on establishment of this bank. Capital of "Bank-i Osmani Şahane" was 67,5 million francs in 1863 and has increased to 101 million francs in 1865 and finally has reached 520 million francs in 1875.[213] "Bank-i Osmani Şahane" has played a very effective role in withdraws of *kaimes* from market. Furthermore, "Bank-i Osmani Şahane" has supported economic development and growth with providing loans for both commercial and industrial areas. Other important banks of French enterpreneurs were Societe General de l'Empire Ottoman founded in 1864, Credit General Ottoman has been founded in 1869, Banque de Constantinapole and Societe Ottomane de Change et founded in 1873.[214]

Salonica Bank and Deutsche Bank were the other active banks in Ottoman State. Especially, Deutsche Bank has played important role in Ottoman State. Participation of Deutsche Bank to the establishment of banks also has effected the competition of Great Economic Powers in this area. Railway networks of Baghdad has constructed with the support of Deutsche Bank. More importantly, Deutsche Bank has become prominent institution in process of foreign indebtment of Ottoman State from 1881 until First World War.

Finally, when the total foreign investments of three big nations considered, Germany has invested %7.7 total foreign investments, and France has invested %7.3 total foreign

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[210] According to Eldem, capital of bank was 200 million gurushes (approximately 2 million sterlin).For further reading see Eldem E. (2000) *Osmanlı Bankası Tarihi* (p.24) İstanbul: Tarih Vakfı Yurt Yayınları.
[211] BOA, Cevdet İktisat, 38/1882, 1857. For further information, Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p.159). Ankara: TTK. and Issawi, C. (1988). *The Fertile Crescent 1800-1914*. (p. 410). New York: Oxford University Press.
[212] Sener A. (2007), *Sona Doğru Osmanlı* (p.48) Ankara: Birleşik 2007.
[213] Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir tetkik*. (p. 160). Ankara: TTK.
[214] Pamuk S. (2000), *A Monetary History of Ottoman Empire* (p.213) New York: Cambridge University Press.

investments to Ottoman State. On the other hand, Great Britain has invested only %1.0 total foreign investments to Ottoman State.[215]

CHAPTER 4: Comparing Economic Performances of The Great Economic Powers and Ottoman State

[215] Broadberry S. & O'Rourke K. (2010) *Modern Europe: 1870 to the Present* (p.69) Cambridge University Press.

4.1 Estimations on GDP levels and GDP per capita levels of Ottoman State

The basic indicator of economic performances is growth rates. There is some estimation about GDP levels and GDP per capita levels of Ottoman State. Similarly, there is some other estimation about GDP levels and GDP per capita levels of the Great Economic Powers. In this chapter, comparisons of economic performances were made by datas of Maddison estimations.

One of the most important GDP estimations for Ottoman State was studied by Vedat Eldem. This study was very restricted and includes only the first years of 20th century. Eldem estimated GDP per capita levels of Ottoman State for the years of 1907, 1913 and 1914. Eldem constructed GDP per capita estimates with utilizing fiscal datas and series of cencuses such as population, agriculture, industry and foreign trade. Table 54 also shows estimations of Eldem. According to table 54, GDP per capita level of Ottoman State was 8,85 sterlin for the year of 1913 and 9,7 sterlin for 1914.

Table 54 . Eldem's GDP per capita levels estimations (gurushes)

	1907	**1913**	**1914**
Rumelia and Islands (1913/14 East Thracian Provinces)	837	1040	1160
Salonica Province	1005		
Other Provinces	799		
Istanbul and Catalca	1790	2085	1934
Anatolia	765	911	1018
Marmara, Aegean and Mediterrenean	990	1180	
Other Provinces	667	771	
Syria	840	1030	1130
Lebanon	1046	1140	1205
JarU.S.Alem	999	1090	1192
Iraq	576	656	745
Average	824	974	1072

Source: Eldem (1994)

Another important datas about GDP per capita levels of Ottoman State were detaily examined in parliamentary papers. According to reports, productive classes of Ottoman State were seperated in that way;

"The first and lowest class shall comprise day labourers, porters, job-men, having no fixed profession, and dependent on casual employment in the coarser kinds of work and the like. The second class, somewhat higher up on the social scale, may consist of workmen belonging to a settled, though rough, profession, such as are stone cutters, common carpenters, boatmen, smiths, bakers, dyers, tanners, and so on. The third and highest class shall include the followers of sedentary professions, tailors, shoemakers, pipe-makers, weavers, confectioners, ornamental capenters, silversmiths and the like."[216]

Table 55. Annual Earning of Ottoman Productive Classes for British Parliementary Papers (1870-Gurush)

	Annual Earnings	**Annual Expenditures**	**Annual Savings**
Class I (Day-Labourers)			
Married day labourers	2.250	2.245	5
Unmarried day labourers	1.800	1.435	365
Hammal or Porter	3.000	1.910	1.090
Class II (Workmen)			
Carpenter, Mason, Smith etc.	3.800	3.595	205
Kaikjee or Long-shore Boatman	4.160	3.390	770
Class III (Artizan)			
Artizans	7.500	5.985	1.515

Source: A&P Reports (1870)

Annual revenues and saving rates of industrial classes of Ottoman State are shown in table 55. According to reports, Anatolia region includes Trebizond, Angora, Kastamonu, Sivas and shores of Black Sea cities. Annual expenditures of married daily waged labourers was 2.245 gurushes and annual earnings was 2.250[217] gurushes. On the other hand, non-married daily waged labourers spent annually 1.435 gurushes and earned 1.800[218] gurushes. Owing to these datas, married daily waged labourers retrenched only 5 gurushes annually. However, non-married daily waged labourers retrenched 365 gurushes. Housing (rents), clothes, foods, taxes and miscelleanus tools were main parts of consumption basket. Another member of that class was hammals or porters. Hammals spent 1.910 gurushes and

[216] A&P Reports, Industrial Classes (Foreign Countries), Vol. 28. s. 716-717.
[217] Married daily labourers worked 300 days and earn 6 gurushes daily. In addition, married daily labourers earned extra 450 gurushes from extra works annually.
[218] Non-Married daily labourers worked 300 days and earn 5 gurushes daily. In addition, non-married daily labourers earned extra 300 gurushes from extra works annually.

earned 3.000[219] gurushes annually. According to reports, a single hammal or porter could retranched 1.090 gurushes annually.

Second group of productive clases are seperated into two groups. First group includes smiths, masons, carpenters etc. and second group includes kaikjees. Annual expenditures of first group were 3.595 gurushes and earned 3.800[220] gurushes. According to datas, each members of first group could save 205 gurushes annually. On the other hand, kajikjees gained more than fitst group. Kajikjees spent 3.390 gurushes and earned 4.160[221] gurushes annually. Thus, a single kajikjee could save 770 gurushes annually.

Top level industrial classes of Ottoman State earned and paid more than other classes. Members of the thir class were artizans. Artizans spent 5.985 gurushes and earned 7.500[222] gurushes annually. Artizans also could retranched 1.515 gurushes annually.

Another important poductive class was agrarian producers. According to reports, agrarian producers are seperated into 3 groups. First "Muraba'lik" or an agreement for the half share of the produce at the end of the year, with tenant rights in the meantime. Secondly, "Tesarref" or lease on fixed terms. Nominally the fifth, but practically and in most instance only eighth, tenth, or even less, of the produce value roughly estimated. Thirdly, "Ijret" or day labourer for daiy hires. The ordinary wages for field work are 5 piastres. Hence "Ijret" is only resorted to occasionally, and to fil lup a vacant gap, especially about harvest time.

Table 56. Annaul Revenues and Expenditures of Agrarian Producers in Ottoman State (1870-gurush)

Classes	Annual Earnings	Annual Expenditures	Annual Savings
Landowners	2,048	1,945	103
"Muraba" or Produce-Partner Tenant	1,412	1,280	132

[219] A standart hammal works 300 days and earns 10 gurushes daily.
[220] Producers of this class works 300 days and earns 12 gurushes daily. In addition, In addition, married daily labourers earned extra 200 gurushes from extra works annually.
[221] A single kajikjee works 260 days and earns 16 gurushes daily.
[222] This class works 300 days in a year and earns 15 gurushes daily.

Tenant on "Tesarref" or Rent	2,048	1,891	157

Source: A&P Reports (1870)

According to table 56, land owner producers spent 1.945 gurushes and earned 2,048[223] gurushes annually. Owing to datas, land owners could only save 103 gurushes annually. Another way of agricultural production was called "Muraba"[224]. In this production form, producers spent 1,280 gurushes and gained 1.412 gurushes annually. Thus, procuders could retranched 132 gurushes.

Another production form of agricultural area was full charter producers in lands. Expenditures of producers were 1.819 gurushes and revenues were 2.048[225] gurushes annually in this production form. Furthermore, producers could save 157 gurushes annually in this way. Owing to these explanations, full charter producers gained maximum savings in agriculture.

Another important estimation about Ottoman GDP levels was studied by Sevket Pamuk. Pamuk was handled estimations of Maddison with stabil prices of 1990. Pamuk suggested that GDP per capita level estimation of Eldem with 10 sterlin equals to Maddison's 1213 American dollars with stabil prices of 1990 for the year of 1913. Furthermore, table 57 illustrates Pamuk's estimations.

Table 57. Total GDP and Total Tax Revenues of the Ottoman Central Government, 1840-1913

	1840-42	**1880-82**	**1913-14**
Population of the empire in millions	26	20	22
Total tax revenues of the central government in millions of current Ottoman liras	5.6	16	31
Tax revenues per capita in current Ottoman liras	0.22	0.8	1.41

[223] Revenues has been got from sales of items. 200 gurushes of revenues have earned from extra works.
[224] Partnership between farmer and landowner
[225] Product sales and other revenues.

Tax revenues per capita in 1913 Ottoman liras	0.38	0.96	1.41
GDP per capita (approx.) in current Ottoman liras	5	8	12
Total GDP in millions of current Ottoman liras	130	160	260
Tax Revenues/Total GDP	4.3	10.0	11.7

Source: Pamuk (2006)

Notes: The Ottoman State as defined here excludes Romania, Egypt, and the Arabian Peninsula but includes areas in the Balkans as well as Anatolia, Syria, and Iraq. The decline of the total population is due to the loss of territory in the Balkans. 1.10 Ottoman liras= 1 British pound. Revenues falling under the jurisdiction of the OPDA after 1881 are not included in the tax revenues for the last two periods.

Pamuk estimates GDP levels and GDP per capita levels of Ottoman State in three steps. In the first step, Pamuk used other GDP per capita level estimations about Ottoman State especially includes Turkey and Egypt for benchmark year of 1913. In the second stage, Pamuk also used Eldem's datas and other fiscal datas for Ottoman State before I World War period. Furthermore, Pamuk reconstructed and chech his estimates both longitudinally and cross sectionally. In the final stage, Pamuk utilize Ottoman fiscal resources and other datas such as tax revenues, output and trade to determine long-term rates of change in GDP per capitafor the periods 1870-1913 and 1820-1913. Finally, Pamuk constructed table 57 as a result of estimations. According to results of Pamuk's estimations, total GDP level of Ottoman State was 260 million Ottoman liras which equals to 236 million British pounds in 1913/14. Furthermore, GDP per capita level of Ottoman State is almost 10.9 British pounds in the same year. On the other hand, according to Pamuk, GDP per capita level of Ottoman State is 7.2 British pounds and total GDP is approximately 145 million British pounds for the years of 1880 and 1882.

4.2 GDP and GDP per capita levels of Ottoman State for 1820,1870 and 1913

Tablo 58. GDP per capita level calculations of Ottoman State

Years	GDP (million $)	GDP per capita($) (prices	Real Values ($) (for 1820-1870-1913)	Real Values (£) (for 1820-1870-1913)

	(prices of 1990)	of 1990)	Per Capita GDP	Per Capita GDP
1820	6.478	643	55,9	12,36725664
1870	9.729	825	81,8	14,6332737
1913	18.195	1.213	89,1	18,29568789

Source: Maddison (2000), Calculation is from Measuring Worth

Not:

1820	1£	4,52$
1870	1£	5,59$
1913	1£	4,87$

As a result of calculations, GDP per capita levels of Ottoman State was 12,36 sterlin for 1820, 14,63 sterlin for 1870 and 18,29 sterlin for 1913. In the first step of calculations, estimations of Maddison with stabil prices of 1990 were taken for linchpin years. Thereafter, real values for chosen years calculated. According to calculations, 643 American dollars of 1990 equal to 55, 9 American dollars in 1820. In terms of exchange rates of 1820, 55, 9 American dollars was equal to 12, 36 sterlin. On the other hand, Pamuk estimated that 1 sterlin is also equal to 35 gurushes for the same year. So, GDP per capita level of Ottoman State was also 432, 95 gurushes in 1820.

Similarly, when the years of 1870 and 1913 considered, GDP per capita levels of Ottoman State were calculated as 14,63 sterlin for 1870. However, 1 sterlin was equal to 110 gurushes in 1870. So, GDP per capita level of Ottoman State reached 1609, 3 gurushes at the same time. Finally, GDP per capita levels increased to 18, 30 sterlin and also 2103 gurushes in 1913. Owing to Maddison's datas and calculations, GDP per capita levels of Ottoman State was two times higher than Eldem's estimations.

Tablo 59. GDP levels of Ottoman State

Years	GDP (milliom $) (prices of 1990)	Real Values ($)	Real Values (£)
1820	6.478	563,000,000	124,557,522
1870	9.729	942,000,000	168,515,205

1913	18.195	1,340,000,000	275,154,004

Source: Maddison, Calculated from Measuring Worth

Not:

1820	1£	4,52$
1870	1£	5,59$
1913	1£	4,87$
1913	1£	110 kuruş

When GDP levels of Ottoman State considered, according to estimations of Maddison with the stabil prices of 1990, GDP levels of Ottoman State were 6.478 million American dollars for 1820, 9.729 million American dollars for 1870 and 18.195 million American dollars for 1913. If those GDP levels transformed to real values for linchpin years, 563 million American dollars for 1820, 942 million American dollars for 1870 and finally 1.340 milllion American dollars for 1913 procured. Furthermore, if exchange rates calculate on those amounts, 124,5 million sterlin for 1820, 168,5 million sterlin for 1870 and 275,1 million sterlin for 1913 were acquired. What is more, those amounts calculated in gurushes. As a result, GDP levels of Ottoman State were 4.359 million gurushes for 1820, 18,536 million gurushes for 1870 and 30,267 million gurushes for 1913 obtained.

Eldem estimated that GDP level of Ottoman State was 22.143 million gurushes (include Syria, Lebanon, and JarU.S.Alem, Iraq). On the other hand, estimations of Maddison showed that only GDP level of Anatolia was 30.266 million gurushes in 1913. On the other hand, according to table 57 which includes Pamuk's estimations, total GDP level of Ottoman State was 26.000 million gurushes for the year of 1913.

Tablo 60. GDP Levels of Other Ottoman Provinces, 1913

Nations	**GDP (million $) 1990' prices**	**GDP per capita($) 1990' prices**	**Real Values of 1913 ($) Total GDP**	**Real Values of 1913 (£)**	**1913 ($) Per capita GDP**	**Real value of 1913 (£)**
Iraq	1.136	1.000	83400000	17125257	73,5	15,09
Syria	1.335	1.350	98100000	20143737	99,2	20,37

Lebanon	402	1.350	29500000	6057494	99,2	20,37

Source: Maddison, calculated from Measuring Worth

Not:

1820	1£	4,52$
1870	1£	5,59$
1913	1£	4,87$
1913	1£	110 gurush

Table 60 shows GDP levels and GDP per capita levels of Iraq, Syria and Lebanon regions for the year of 1913. According to Eldem, total GDP level of Ottoman State with these three regions was 22.143 million gurushes. On the other hand, estaimations of Maddison indicated that total GDP level of Ottoman State was approximately 312 million sterlin or 35.000 million gurushes. As a result of calculations, total GDP level of Ottoman State was approximately 13.000 million gurushes higher than Eldem's estimations. What is more, according to these calculations, total GDP level of Ottoman State was approximately 9.000 million gurushes higher than Pamuk's estimations.

4.3 A new estimation on GDP per capita levels and GDP levels of Ottoman State

As it was known that one of the calculation methods of GDP are income approach. In order to income approach, GDP per capita levels and GDP levels of Ottoman State can be estimated. Basic formula of income approach is shown as;

$$Y = Wages + Interests + Rents + Profits$$

According to formula, wages can be obtained from British parliamentary papers. Table 55 and 56 also shows wages or incomes of both industrial classes and agricultural producers of Ottoman State. In addition to this, these incomes are only shown Anatolian part of Ottoman State. Furthermore, Anatolia region includes Trebizond, Angora, Kastamonu, Sivas and shores of Black Sea cities. According to reports, total population of these provinces of Ottoman State was 4 million and averagely 1 millions of total worked in industries and farms.[226] As it was known that half of Ottoman population worked in agrarian lands. Other parts of population mostly engaged with industrial production and

[226] A&P Reports (1870), *Industrial Classes (Foreign Countries)*, (Vol. 28, p.716)

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commercial. As we mentioned that British parliamentary papers divided industrial classes of Ottoman State into 3 parts. Owing to this classification, we assumed that, one forth of this population involved in class I. Furthermore, %15 population involved in class II and only %10 populations involved in class III as an artizan in Anatiolia province. As a result of these datas, Anatolia had 4 million inhabitans and only 1 million of inhabitans worked. 500.000 of working inhabitans employed in agricultural areas. 250.000 of inhabitans worked in class I, 150.000 of working inhabitans worked as a member of class II and finally, only 100.000 of working inhabitans worked a member of class III as an artizan. Table 61 shows working class populations and average annual incomes of working classes in Anatolia for the year of 1870.

Table 61. Population of Working Classes and Average Annual Earnings, 1870.

Working Classes	**Population of Classes**	**Average Annual Earnings per worker**
Agriculture	500.000	1836 gurushes
Class I (Day-Labourers)	250.000	1986 gurushes
Class II (Workmen)	150.000	3980 gurushes
Class III (Artizans)	100.000	7500 gurushes

Notes: These calculations were based on statistics of table 55 and 56. Average values are calculated from these datas.

When population of classes multiplied with average annual earnings per worker, total wages of Anatolia provinces can be obtained. Owing to this calculation, 2.761,5 million gurushes acquired as total wages for Anatolia. On the other hand, this result only includes only one tenth of Ottoman population. This can be thought as Anatolia was a sample with 4 million populations. However, total population of Ottoman State was 40 million. Owing to this reason, if total wages multiplied with 10, average total wages of Ottoman State can be obtained. As it has to be known that, this calculations only a kind of estimation with using of 4 million sample which belongs to Anatolian province. Thus, 27.615 million gurushes as total wages of Ottoman State can be calculated for the year of 1870. Now that, our estimation has two path. Firstly, we assumed total wages of Ottoman State was one forth of the totals GDP as far as income approach. Secondly, we assumed that economic structure of Ottoman State was mostly based on lobour intensive production. Owing to second assumption, total wages of Ottoman State was considered %40 of total GDP as far as income approach.

4.3.1 Standart GDP Estimation with Ottoman Wages

Total wages of Ottoman State assumed one forth of total GDP in the first estimation. Owing to this situation, total GDP of Ottoman State was approximately 110.460 million gurushes in 1870 and GDP per capita level was 2761,5 gurushes which equals to 25,10 British sterlin. However, this result can be high for Ottoman State. However, these estimations made for 1870. On the other hand, these results have to calculate for the year of 1913 because of comparisons. AS we known that, growth rates of GDP per capita levels of Ottoman State was annually % 0,58 between 1870 and 1913 averagely. What is more, total GDP level of Ottoman State grew %87 between 1870 and 1913. This was also equal to %2.02 growth rate annually. According to these growth rates, GDP per capita level of Ottoman State was calculated as 31.35 British sterlin. On the other hand, total GDP of Ottoman State was calculated as 206.560 million gurushes.

4.3.2 Estimation with Labour Intensive Structure

According to labour intensive estimation, total wages of Ottoman State was %40 total GDP. Owing to this calculation total GDP of Ottoman State was approximately 69.037,5 million gurushes in 1870. Furthermore, GDP per capita level of Ottoman State was 1725,93 gurushes which equals to 15,69 British sterlin in 1870. As we mentioned in 4.3.1, these calculations have to calculate for the year of 1913. According to growth rates of Ottoman State, GDP per capita level of Ottoman State was calculated as 19.60 British sterlin. On the other hand, total GDP level of Ottoman State was also calculated as 129.100 million gurushes. For more illustrated comparison, table 62 was constructed.

Table 62. Comparisons of GDP per capita levels Estimations (1913)

	GDP per capita(£)	**GDP per capita ($)**
Eldem	8,85	43,09
Pamuk	10,9	53,08
Maddison	18,29	89,07

Our Estimation with total wages were %25 of GDP	31,35	152,67
Our Estimation with total wages were %40 oF GDP	19,6	95,45

Source: Measuring Worth

Note:

1820	1£	4,52$
1870	1£	5,59$
1913	1£	4,87$

4.4 GDP levels and GDP per capita levels calcutation of The Great Economic Powers

Table 63 shows total GDP levels of the Great Economic Powers for the years of 1820, 1870 and 1913. First two columns show GDP levels and GDP per capita levels with the prices of 1990. Third column shows real values of GDP per capita levels in American dollars. Last column also show real values of GDP per capita levels in sterlin.

Tablo 63. GDP per capita levels estimation of The Great Economic Powers

	1820	**Real Values ($)**	**Real Values (£)**

Nations	**GDP (million $) 1990' prices**	**GDP per capita (million $) 1990' prices**	**1820**	**1820**
Great Britain	36.232	1.706	148	32,74336283
France	35.468	1.135	98,7	21,83628319
Germany	26.819	1.077	93,6	20,7079646
U.S.A	12.548	1.257	109	24,11504425
Russia	37.678	688	59,8	13,2300885
Italy	22.535	1.117	97,1	21,48230088
	1870			
Nations	**GDP (million $) 1990' prices**	**GDP per capita (million $) 1990' prices**	**Real Values ($) 1870**	**Real Values (£) 1870**
Great Britain	100.180	3.190	309	55,27728086
France	72.100	1.876	182	32,55813953
Germany	72.149	1.839	178	31,84257603
U.S.A	98.374	2.445	237	42,39713775
Russia	83.646	943	91,3	16,33273703
Italy	72.149	1.499	145	25,9391771
	1913			
Nations	**GDP (million $) 1990' prices**	**GDP per capita (million $) 1990' prices**	**Real Values ($) 1913**	**Real Values (£) 1913**
Great Britain	224.618	4.921	361	74,12731006
France	144.489	3.485	256	52,56673511
Germany	237.332	3.648	268	55,03080082
U.S.A	517.383	5.301	389	79,87679671
Russia	232.351	1.488	109	22,38193018
Italy	95.487	2.564	188	38,6036961

Source: Maddison (2000), calculated from Measuring Worth

According to calculation of 1820, Great Britain was the leader nation in GDP per capita levels with 32 sterlin. U.S.A has followed Great Britain with 24 sterlin. France, Italy and Germany tagged after U.S.A with 21 sterlin. Russia has followed those nations with 13 sterlin.

When the year of 1870 considered, Great Britain was in leader position in GDP per capita levels with 55 sterlin. U.S.A has followed Great Britain with 42 sterlin again. However, GDP per capita levels of Germany and France have increased in a significant rate because of second industrialization. Both GDP per capita levels of France and Germany have

reached 32 sterlin in 1870. On the other hand, Italy has fallen behind from France and Germany with 25 sterlin. Russia has remained last place in the queue with 16 sterlin.

U.S.A has become the leader nation in GDP per capita levels among the Great Economic Powers on the eve of First World War, GDP per capita level of U.S.A has reached 79 sterlin in 1913. However, GDP per capita level of Great Britain has increased only 74 sterlin. Another important growth was realized by Germany. GDP per capita level of Germany has reached 55 sterlin and Germany got the third place among the Great Economic Powers. On the other hand, France could only reach 52 sterlin levels in 1913. Italy and Russia have become late comers on the eve of First World War. Italy could not growth as fast as France or Germany until the First World War and GDP per capita level has reached only 38 sterlin. Russia has remained last position among the Great Economic Powers with 22 sterlin.

Tablo 64. Estimations of GDP per capita levels of Japan

Years	GDP (million $) 1990' prices	GDP (million $) 1990' prices	Real Values ($) (for 1820-1870-1913) GDP per capita levels	Real Values (£) (for 1820-1870-1913) GDP per capita levels
1820	20.739	669	58,1	12,8539823
1870	25.393	737	71,3	12,7549195
1913	71.653	1.387	102	20,94455852

Source: Measuring Worth
Note:

1820	1£	4,52$
1870	1£	5,59$
1913	1£	4,87$

When GDP per capita levels of Japan considered, it can easily be said, Japan was the slowest growing nation among the Great Economic Powers from the begining of 19th century to First World War. GDP per capita levels of Japan were 12 sterlin in both 1820 and 1870. GDP per capita level has solely reached 20 sterlin in 1913.

Table 65. GDP per capita levels of Great Economic Powers and Ottoman State (sterlin)

Nations	**1820**	**1870**	**1913**
Great Britain	32,74336283	55,27728086	74,12731006
France	21,83628319	32,55813953	52,56673511
Germany	20,7079646	31,84257603	55,03080082
U.S.A	24,11504425	42,39713775	79,87679671
Russia	13,2300885	16,33273703	22,38193018
Italy	21,48230088	25,9391771	38,6036961
Japan	12,8539823	12,7549195	20,94455852
Ottoman	12,36725664	14,6332737	18,29568789
Ottoman (Our estimations)	13,23	15,68	19,6[227]
	21,17	25,09	31,35[228]

[227] For further information, look table 62.
[228] For further information, look table 62

CONCLUSION

Table 66 shows growth rates of GDP per capita levels of the Great Economic Powers and Ottoman State between the years of 1820 to 1913. First column points out the growth rates between 1820 and 1870. Second columd also shows growth rates between 1870 and 1913. Last column indicates the growth rates from 1820 to 1913.

Tablo 66. Growth rates of GDP per capita levels between 1820 and 1913 (Annually)

Nations	**1820-1870**	**1870-1913**	**1820-1913**
Great Britain	1,37	0,79	1,35
France	0,98	1,43	1,51
Germany	1,07	1,69	1,78
U.S.A	1,51	2,05	2,48
Russia	0,46	0,86	0,74
Italy	0,41	1,13	0,85
Japan	-0,01	1,49	0,67
Ottoman	0,37	0,58	0,51

U.S.A was the leader nation with %1, 51 growth rate between 1820 and 1870. Great Britain followed U.S.A with %1, 37 growth rate in this period. Germany tagged behind Great Britain and U.S.A with %1, 07 growth rate in this sub-period. However, France could only catch %0,98 growth rate which was less than %1 rate. Ottoman State, Italy and Russia were seemed as late comers. Russia and Italy had %0, 4 growth rate in this fifty years period. On the other hand, Ottoman State had %0,37 growth rate which was very close to both Russia and Italy. More interestingly, annual growth rates of Japan in GDP per capita levels have downsized with %0, 01 rate between 1820 and 1870. As seen, growth rates of GDP per capita levels of Ottoman State were very close to some of other Great Economic Powers as Russia and Italy.

On the other hand, U.S.A remained leadership position in growth rates of GDP per capita levels between 1870 and 1913. U.S.A caught up %2, 05 growth rates in this sub period. However, Germany has surpassed other Great Economic Powers with %1, 69 growth rates. Second industrialization has also effected the 1870-1913 sub period. Japan and France have followed U.S.A and Germany. Both nations have grown more than %1, 4 between 1870 and 1913. Italy was the last nation whose growth rates were higher than % 1 Italy

grew %1, 13 from 1870 to 1913. On the contrary, Russia, Great Britain and Ottoman State could not reach %1 level in this sub period. Russia could only grow %0, 86 and Great Britain could grow %0, 79 from 1870 to 1913. Finally, growth rates of Ottoman State was %0, 58 rate in this sub period.

Final column includes 93 years period for all considered nations. U.S.A had the most significant growt rate among the Great Economic Powers in these 93 years. Per capita GDP levels of U.S.A grew %2, 48 annually from 1820 to 1913. Germany, Great Britain and France followed U.S.A until the First World War. GDP per capita levels of Germany has grown %1, 78 and France has caught up %1, 35 growth rate annually during 93 years. However, the golden age of living in Great Britain during the 19th century only could grow %1, 35 in this period. Other nations, which called late comers, grew less than %1 rate from 1820 to 1913. Italy has grown %0,85, Russia %0,74, Japan %0,67 and finally Ottoman State has grown only %0,51 annully in whole 93 years period.

Consequently, this can be easily said that, Ottoman State did not decline during 19th century. On the contrary, Ottoman State realized a growth proportionately. Growth rates have trailed from the U.S.A, Germany, France and Great Britain. On the other hand, growth rates of Ottoman State were very close to other late comers such as Russia, Japan and Italy. When annual growth rates of GDP per capita levels considered, growth rates of Ottoman State was one fifth of U.S.A, one third of France and Germany and approximately half of Great Britain rates. Similarly, Italy, Russia and Japan trailed from these nations as much as Ottoman State. So, Ottoman Statte did not collapse because of the economic caueses in that term.

References

Archival Documents and Primary Resources

A&P Reports (1870), *Industrial Classes (Foreign Countries*, Vol. 28)

BOA, Cevdet İktisat, 2/97, 1282

BOA, Cevdet İktisat, 22/1097, 1281

BOA, Cevdet İktisat, 25/1236, 1848

BOA, Cevdet İktisat, 26/1286, 1846

BOA, Cevdet İktisat, 28/1358, 1846

BOA, Cevdet İktisat, 28/1393, 1267 senesi

BOA, Cevdet İktisat, 30/1483, 1836

BOA, Cevdet İktisat, 31/1541, 1844

BOA, Cevdet İktisat, 34/1652. 1835

BOA, Cevdet İktisat, 34/1654, 1835

BOA, Cevdet İktisat, 35/1727. 1846

BOA, Cevdet İktisat, 35/1742, 1845

BOA, Cevdet İktisat, 38/1856, 1844

BOA, Cevdet İktisat, 38/1857

BOA, Cevdet İktisat, 38/1882

BOA, Cevdet İktisat, 39/1941, 1851

BOA, Cevdet İktisat, 41/2035, 1281

BOA, Cevdet İktisat, 44/2183, 1853

BOA, Cevdet İktisat, 6/275, 1805

BOA, Cevdet İktisat, 9/448. 1851

BOA, Cevdet Maliye, 151/6400, 1839

BOA, Cevdet Maliye, 209/8630. 1883

FO, (1852) *The Ottoman Empire and its Resources with Statistical Tables*

T.S.I, (1995) *Ottoman foreign trade in the 19th century*. Historical Statistic Series 1

T.S.I, (1996) *The population of Ottoman Empire and Turkey*. Historical Statistic Series 2

T.S.I, (1997) *Agricultural Statistics of Turkey during the Ottoman Period*. Historical Statistic

Series 3

T.S.I, (2003) *Ottoman Financial Statistics, budgets*. Historical Statistic Series 7

T.S.I, *Ottoman Industry, Industrial Census of 1913,1915*. Historical Statistic Series 4

United Nations Statistics Division, *International Trade Statistics* (May, 1962)

Articles

Akarlı, E. D. (1992). Economic policy and budgets in ottoman turkey, 1876-1909. *Middle Eastern Studies, 28*(3)

Atack, J., Bateman, F., & Margo, R. (2006). Steam power, establishment size and labor productivity growth in 19TH century American manufacturing. *NBER,* (11931)

Baskıcı, M. (2003). Osmanlı tarımında makineleşme: 1874- 1914. *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi , 58(1)*

Broadberry , S. & at all (2006). European industry, 1700-1870. *Research Memorandum GD-101,* University of Groningen

Broadberry , S., & Leeuwen , B. V. (2010). Britis economic growth and the business cycle, 1700-1870: Annual estimates. *The University of Warwick, Working Paper Series* , (20)

Broadberry , S., Campell , B. at all (2011). Britis economic growth, 1270-1870: an output based approach. *School of Economics Discussion Papers: University of Kent*

Broadberry, S. N. (1995). Comparative productivity levels in manufacturing since the industrial revolution: Lessons from britain, america, germany and japan. *doi: Structural Changes and Economic Dynamics 6*

Broadkin, L., & Leonard, C. S. (2000). The rural urban wage gap in the industrialization of russia, 1885-1913. *University of Oxford, Discussion Papers no:14.*

Ciccarelli C. & Fenoaltea S. (2008), Ship Building and Repairing in Italy 1861-1913. *Munich: MPRA, no:10974*

Clark, E. (1974). Osmanlı sanayi devrimi. *Ankara: TTK Belgelerle Türk Tarihi Dergisi*

Daudin, G., O'Rourke, K. H., & Prados de la Escosura, L. (2008). Trade and empire, 1700-1870. *FCE vol.34*

Field A.J. & at all. (2004) *Research in Economic History* (Vol. 22)

Field A.J. & at all. (2006) *Research in Economic History* (Vol. 24)

Hoffman T.P. & at all (2012), Entry, Information, and Financial Development: A Century of Competition between French Banks and Notaries *SSHA, 37th meeting November*

Malaniama , P., & Zamangi, V. (2010). 150 years of the italian economy, 1861-2010. *" Journal of Modern Italian Studies , 15*(1)

Masayuki, T. (2004). Capital accumulation and the local economy: brewers and local notables. *CARF-F-005*

Miwa, Y. & at all (2004). Industrial finance before the financial revolution: Japan at the turn of the last century. *CRF-F-018*

Oyama, A. & at all (2004). Entrepreneurial ability and market selection in an infrant industry: evidence from the japanese cotton spinning industry. *Rewiev of Economic Dynamics , 7*

Pamuk, S. (2006). Estimating Economic Growth in the Middle East since 1820. *The Journal Of Economic History, vol 66. No3.*

Quataert, D. (1975). Dilemma of development: The agricultural bank and agricultural reform in ottoman turkey, 1888-1908. *Internatioal Journal of Middle East Studies*, *6*(2)

Seyitdanlıoğlu, M. (n.d.). Tanzimat dönemi osmanlı sanayii.*Ankara: DTCF Tarih Araştırmaları Dergisi*, *26*(46)

Shaw, S. (1975). The Nineteenth Century Ottoman tax reforms and revenue system. *Cambridge: International Journal of Middle Eastern Studies ,6*(4)

Ward M. & Devereux J. (2004), Relative U.K./U.S. Output Reconsidered *The Journal of Economic History*, Vol 64. No.3,

Books

Akar, S. K., & Al, H. (2003). *Osmanlı dis borclari ve gözetim komiyonlari (1854-1856)*. (1 ed.). Istanbul: Osmanlı Bankası.

Barnett V. (2004). *The Revolutionary Russian Economy, 1890-1940.* New York: Routledge Press

Baskıcı, M. (2005). *1800-1914 Yıllarında Anadolu'da İktisadi Değişim*. Ankara: Turhan Kitabevi

Borchardt, K. (1991). *Perspectives on modern german economic history and policy*. (1st ed.).

New York: Cambridge University Press

Broadberry S. & O'Rourke K. (2010) *Modern Europe: 1870 to the Present.* Cambridge University Press

Cain, P. J. & Hopkins A.G. (1994) *British Imperialism*. London: Longman

Cakir, C. (2001). *Tanzimat dönemi osmanlı maliyesi* . (1st ed.). Istanbul: Küre.

Cameron , R., & Neal , L. (2003). *A concise economic history of the world*. (p. 222). New York: Oxford University Press

Cippola C. M. (1973). *The Fontana Economic History of Europe* (Vol.3) London: Collins

Clark G. (2007) *A Farewell to Alms A Brief Economic History of the World.* United Kingdom: Princeton University

Cohen, J., & Federico, G. (2001). *The growth of the italian economy, 1820-1960*. (1st ed.). Cambridge: Cambridge University Press.

Daunton M. (2007) *Wealt and Welfare: An Economic and Social History of Britain 1851*-1951. Newyork: Oxford University Press

Edhem Eldem, "Osmanlı Bankası Tarihi" Istanbul: Tarih Vakfı Yurt Yayınları 2000.

Eldem , V. (1994). *Osmanlı İmparatorluğu'nun İktisadi Şartları hakkında bir ~~t~~etkik*. Ankara: TTK

Floud R. & McCloskey D.N. (1981) *The Economic History of Britain since 1700* (Vol. 2) Great Britain: Cambridge Press

Genç M. & Özvar E. (2006) *Osmanlı Maliyesi Kurumlar ve Bütçeler I*. İstanbul: Osmanlı Bankası

Genç, M. (2000), *Osmanlı İmparatorluğu'nda Devlet ve Ekonomi.* İstanbul: Ötüken

Güran, T. (1989). *Tanzimat döneminde osmanlı maliyesi: Bütçeler ve hazine hesapları 1841-1861*. Ankara: TTK

Güran, T. (1998). *19. yüzyıl osmanlı tarımı*. (1st ed.) Istahnbul: Eren

Heaton, H. (2005). *Avrupa İktisat tarihi*. Ankara: Paragraf

Issawi, C. (1980). *The economic history of Turkey*. Chicago-London: The University of Chicago Press

Issawi, C. (1982). *The economic history of the middle east and north africa economic history of the modern world serie*. New York: Coloumbia University Press

Issawi, C. (1988). *The Fertile Crescent 1800-1914*. New York: Oxford University Press

Kasaba, R. (1993). *Osmanlı imparatorlugu ve dünya ekonomisi*. (1st ed.). Istanbul: Belge.

Kurmus, O. (1974). *Emperyalizmin Türkiye'ye girişi*. İstanbul: Bilim

Maddison A. (2000), *The World Economy: A Millennial Perspective*, Historical Statistics France: OECD

Mathias, P., & Postan, M. M. (2008). *The industrial economies capital,labour and enterprise the united states, japan and russia*. (Vol. 7 (2)). Cambridge: Cambridge University Press

Oner, E. (2007). *Osmanlı bütceleri (1864, 1869, 1877, 1880, 1897)*. (1st ed.). Ankara: Finance Ministry.

Owen, R. (2005). *The Middle East in the World Economy 1800-1914*. New York-London: I.B.TAURIS

Pamuk , S. (2008). *Osmanlıdan cumhuriyete küreselleşme, İktisat politikaları ve büyüme*. Istanbul: Is Bankası

Pamuk S. (2000), *A Monetary History of Ottoman Empire*. New York: Cambridge University Press

Pamuk, S. (2005). *Osmanlı ekonomisinde bağımlılık ve büyüme, 1820-1913*. (3 ed.). Istanbul: Tarih Vakfi.

Pamuk, S. (2010). osmanlı ekonomisi ve kurumları. (3 ed.). Istanbul: Is Bankasi.

Quataert, D. (2008). *Anadolu'da osmanlı reformu ve tarımı 1876-1908*. (p. 306). Istanbul: Is Bankası

Sarc, O. C, (1940) Tanzimat ve Sanayimiz, Tanzimat I, Istanbul: Maarif Vekaleti

Sener A. (2007), *Sona Doğru Osmanlı.* Ankara: Birleşik 2007

Sugihara, K. (2005). *Japan, China, and the growth of the Asian international economy, 1850-1949*. (1st ed., Vol. 1). New York: Oxford University Press.