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The Ottoman Empire in the "Great Depression" of 1873–1896

ŞEVKET PAMUK

Contrary to the view that the periphery of the world economy benefited from rapidly expanding trade, the Ottoman economy actually faced a distinctly unfavorable world conjuncture during the last quarter of the nineteenth century. Rates of growth of foreign trade dropped, external terms of trade deteriorated, declining wheat prices affected peasant producers, and the establishment of European control over Ottoman finances led to large debt payments abroad. Indirect data indicate that rates of change of agricultural and aggregate production were also lower during the "Great Depression" as compared to the later period.

THERE is considerable evidence, most of it recently compiled, indicating that 1873–1896 was a period distinct from both the mid-century boom lasting until 1873 and the long-term upswing until World War I, for the major industrialized economies and for the world economy as a whole.¹ Our knowledge, however, of how the peripheral countries fared during this period is limited. Reliable statistics on foreign trade, let alone statistics on levels of production, are unavailable for many countries. Equally important, the available data have rarely been arranged with the purpose of examining whether the period of the Great Depression represented a distinct economic conjuncture for one

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At the time the article was written, the author was Assistant Professor of Economics, University of Ankara, Turkey. He is now Assistant Professor, Department of Economics, Villanova University, Villanova, Pennsylvania 19085. He would like to thank Hasan Ersel for comments on an earlier version of the paper that was also presented to the Eighth International Economic History Congress in Budapest, 1982.

¹ Whether the Great Depression of 1873–1896 was limited to purely monetary phenomena has been the subject of much debate during the last two decades. See, for example, S. B. Saul, *The Myth of the Great Depression, 1873–1896* (London, 1969); Donald N. McCloskey, "Did Victorian Britain Fail?" *Economic History Review*, 23 (Dec. 1970), 446–59; Jeffrey G. Williamson, "Late Nineteenth-Century American Retardation: A Neoclassical Analysis," this *JOURNAL*, 33 (Sept. 1973), 581–607; W. W. Rostow, *The World Economy: History and Prospect* (Austin, 1978); and W. Arthur Lewis, *Growth and Fluctuations, 1870–1913* (London, 1978). For the three largest industrial economies—Great Britain, United States, and Germany—this was not a period of absolute decline but of lower rates of increase in the levels of industrial production compared to before and after. See, in addition to the above, Brian R. Mitchell, *European Historical Statistics, 1750–1970* (New York, 1975); Walther G. Hoffmann, *Das Wachstum der Deutschen Wirtschaft seit der Mitte des 19. Jahrhunderts* (Berlin, 1965); Robert E. Gallman, "Commodity Output, 1838–1899" in *Trends in the American Economy in the 19th Century*, Vol. 24 of *Studies in Income and Wealth* (Princeton, 1960); U.S. Bureau of the Census, *Long-Term Economic Growth, 1860–1966* (Washington, D.C., 1970); and Lewis, *Growth and Fluctuations*, Appendices 1 and 2. Moreover, rates of growth of world trade were distinctly lower during this period. See Rostow, *The World Economy*, p. 679; and John R. Hanson II, *Trade in Transition, Exports from the Third World, 1840–1900* (New York and London, 1980), p. 14.

or a group of Third World countries. A major exception is the recent study by Hanson who reaches the conclusion that:

most countries evidently did not experience an export boom during the late nineteenth century, and retardation seems to have been the normal condition. . . . Perhaps some nations managed to buck the trend, but at a minimum the conventional assertion that world and LDC exports flourished near the end of the nineteenth century requires a good deal of qualification.

As to the causes of this retardation, Hanson appears unwilling to link it to the Great Depression and lower rates of growth of demand in the industrialized countries. While not eliminating that possibility completely, he argues that "some as yet unspecified structural change" might also explain much of the fall in the rate of growth of Third World exports and of world trade.²

I shall attempt to show that the quarter of a century following 1873 represented a distinct conjuncture for the Ottoman economy in terms of the impact of the external forces and, as far as can be documented, long-term changes in the levels of domestic production.

LONG-TERM MOVEMENTS IN FOREIGN TRADE

During the nineteenth century, Ottoman foreign trade basically consisted of the exportation of primary products and importation of manufactures. Starting in the last quarter of the century, imports of certain foodstuffs such as grains, rice, and sugar also became important.³ The rates of growth of Ottoman trade with Europe had remained below 1½ percent per year between 1780 and 1830.⁴ In contrast, a reconstruction of nineteenth-century Ottoman foreign trade summarized in Table 1 indicates that average annual compound rates of growth of exports and imports, measured in current and in constant 1880 prices, was at or above 5 percent for 1839/41 to 1852/54 and 1857/59 to 1871/73.⁵ It is probable that the rate of growth began to accelerate in the aftermath of the Napoleonic Wars.⁶ The free trade treaties signed after 1838

² Hanson, *Trade in Transition*, pp. 16, 90–92.

³ Celal Aybar, *Osmanlı İmparatorluğunun Ticaret Muvazenesi, 1878–1913* (Ankara, 1939) for a compilation of the official foreign trade statistics of the Empire; also Charles Issawi, *The Economic History of Turkey, 1800–1914* (Chicago, 1980), pp. 74–145.

⁴ Based on Charles Issawi, *The Economic History of the Middle East, 1800–1914* (Chicago, 1966), p. 30; Robert Paris, *Histoire du Commerce de Marseille, Tome V, 1660 à 1789, le Levant* (Paris, 1957), pp. 572–77; and Paul Masson, *Histoire du commerce français dans le Levant au XVIIIe siècle* (Paris, 1911).

⁵ As most European foreign trade statistics began to treat present-day Roumania separately after the Crimean War, trade volumes of the 1840s cannot be compared directly with those in the early 1870s. See notes to Table 1.

⁶ This was certainly the case for Ottoman trade with Great Britain. See Public Records Office, *Customs 4, Customs 8, and Customs 10* series. Also Roger Owen, *The Middle East in the World Economy, 1800–1914* (London and New York, 1981), chap. 3.

TABLE 1
ESTIMATED RATES OF GROWTH OF OTTOMAN FOREIGN TRADE
(average annual compound rates in percent; prices in pounds sterling)

End Years	Exports		Imports	
	In Current Prices	In 1880 Prices	In Current Prices	In 1880 Prices
1839/41 to 1852/54	5.3	5.3	5.5	6.4
1857/59 to 1871/73	5.0	6.2	4.9	5.2
1879/81 to 1897/99	1.2	2.7	0.6	2.5
1879/80 to 1887/88	-0.9	2.8	-0.8	2.0
1887/88 to 1898/99	2.3	2.2	1.4	2.7
1897/99 to 1905/07	4.3	3.4	6.0	4.3
<i>Annual Trade Volume in Millions of Current £</i>				
	Exports		Imports	
1850/52	8.8		9.5	
1880/82	15.2		15.4	
1910/12	26.9		38.3	

Source: The author's calculations based on a reconstruction of nineteenth-century Ottoman foreign trade utilizing the statistics of most of the countries with which the Empire had commercial relations. For details, see Şevket Pamuk, "Foreign Trade, Foreign Capital and the Peripheralization of the Ottoman Empire, 1830-1913" (Ph.D. diss., University of California, Berkeley, 1978), chap. 3, pp. 17-63, and Appendix 1, pp. 163-251.

between the Ottoman Empire and the European countries also played an important role in the increasing world market orientation of the Ottoman economy.⁷ Most of the expansion in foreign trade came from the coastal regions of Syria, Anatolia, and Northern Greece, areas that remained part of the Empire in the later periods.⁸ The share of Western and Central Europe and the United States in Ottoman foreign trade remained above 70 percent until the early 1870s.⁹

In examining long-term trends one must exclude the years 1874 to 1878 because the War of 1877-1878 with Russia led to the secession of considerable population and land from the Empire. The upturn in Ottoman foreign trade did not come until 1898, and the Ottoman Greek War of 1897 may have been an important reason. The analysis of Ottoman foreign trade during the "Great Depression" will focus, therefore, on the period 1879 to 1898.

Rates of growth of Ottoman trade were distinctly lower during the 1880s and 1890s. As shown in Table 1, the volume of exports and of imports measured in fixed prices of 1880 increased at annual rates below 3 percent during 1879/81 to 1897/99. The break with the long-term trends of the midcentury becomes even more pronounced if we examine annual rates of change in current prices. Exports at current prices

⁷ For a study of the economic and political consequences of the Free Trade Treaties, see Vernon J. Puryear, *International Economics and Diplomacy in the Near East* (Stanford, 1935).

⁸ Issawi, *The Economic History of Turkey*, p. 82.

⁹ Şevket Pamuk, "Foreign Trade, Foreign Capital and the Peripheralization of the Ottoman Empire, 1830-1913" (Ph.D. diss., University of California, Berkeley, 1978), pp. 36-37.

showed a decline at an average rate of 0.9 percent per year between 1879/80 and 1887/88. They recovered somewhat during 1887/88 to 1898/99, thereby averaging 1.2 percent annual growth for 1879/81 to 1897/99. Imports, measured in current prices, also declined during the first subperiod and recovered after 1887/88, averaging an annual rate of growth of 0.6 percent for 1879/81 to 1897/99.¹⁰

The slowing down in the rate of growth of Ottoman foreign trade was accompanied by little change in its country distribution. The share of the industrialized economies of Central and Western Europe and the United States edged upwards to a little more than 75 percent. In the 1880s Germany began to expand its share in Ottoman foreign trade primarily at the expense of Great Britain, which nonetheless retained until 1913 the largest share in Ottoman exports and imports.¹¹

As shown in Table 1, the eve of World War I witnessed, once again, higher rates of growth of Ottoman foreign trade. Because of the Young Turk Revolution of 1908 and the subsequent loss of territory, meaningful comparison of aggregate trade figures can be extended only until 1907. Between 1911 and 1913 the Empire lost about a quarter of its population and over 10 percent of its territory in the commercially and agriculturally more advanced European provinces, where standards of living were above average.¹² But by 1913 the volume of exports had regained the 1907 levels and the volume of imports was more than 25 percent higher than the 1907 levels. In the remaining areas of the Empire the volume of exports and imports continued, therefore, to grow at high rates until World War I.

By 1913 the Empire had a relatively open economy with a large foreign trade sector. According to one estimate, in 1913 over 14 percent of the gross national product was being exported and the value of imports had exceeded 19 percent.¹³ Because the rate of growth of foreign trade had remained well above the rate of growth of aggregate production, the share of foreign trade in national product was lower in earlier years. Around the mid-nineteenth century the shares were probably lower than half their levels in 1913.¹⁴ Nonetheless, the foreign trade sector was large enough that the long-term fluctuations in its rate

¹⁰ Annual rates of change for the entire period are somewhat different from the weighted average of the two subperiods, because the years 1881 and 1897 were included in the calculation of the former.

¹¹ Pamuk, "Foreign Trade, Foreign Capital," chap. 2.

¹² Vedat Eldem, *Osmanlı İmparatorluğunun İktisadi Şartları Hakkında Bir Tetkik* (Istanbul, 1970), pp. 56–62, 80b, 305–7.

¹³ The author's calculation based on Eldem's estimates of the gross national product of the Empire for 1907, 1913, 1914. See *ibid.*, pp. 302–5.

¹⁴ For purposes of comparison, note that for South America as a whole, share of exports in national product is estimated at 10 percent in 1860, 14 percent in 1880, and 18 percent in 1900. The comparable shares were distinctly lower in Asia, averaging 1.0 percent in 1860, 2.1 percent in 1880, and 4.6 percent in 1900. The share of exports in the national product of Jamaica fluctuated around 20 percent during the same period. See Hanson, *Trade in Transition*, pp. 22–23.

TABLE 2
PRICE INDICES FOR OTTOMAN FOREIGN TRADE WITH INDUSTRIALIZED
COUNTRIES, 1870-1913
(chain-linked Fisher indices; 1880 = 100)

Years	Export Prices	Import Prices	External Terms of Trade
	P_x	P_m	P_x/P_m
1870/72	122.2	115.7	105.6
1887/89	71.1	82.1	86.6
1894/96	66.9	72.8	91.8
1911/13	85.3	80.5	106.0

Source: The author's calculations utilizing the foreign trade statistics of the United Kingdom, France, Germany, Austria, and the United States. Calculations take into account the decline in freight and insurance rates. For the procedure employed and detailed results, see Pamuk, "Foreign Trade, Foreign Capital," chap. 3, pp. 64-90, and Appendix 2, pp. 253-308.

of growth must have had significant repercussions in the rest of the economy. The correlation between long-term fluctuations in levels of industrial production in the larger industrial countries and fluctuations in Ottoman foreign trade strongly suggests that demand conditions were an important determinant of Ottoman exports.

LONG-TERM MOVEMENTS IN EXTERNAL TERMS OF TRADE

The Ottoman Empire can be considered a small country in international trade. The only commodity in which it maintained an important share of world trade was in the exportation of "Turkish" tobacco. Yet, until 1913 the share of this commodity in total Ottoman exports never exceeded 10 percent.¹⁵ The terms of trade can therefore be safely treated as being external to the Ottoman economy.

The analysis of Ottoman terms of trade is limited to trade with the major European countries and the United States. As summarized in Table 2, Ottoman terms of trade with these countries declined rapidly between 1871 and 1889 and recovered somewhat between 1889 and 1896. As the demand of industrial economies for primary products picked up after 1896, Ottoman terms of trade improved, regaining by 1911/13 the levels of the early 1870s.

One dimension of the adverse movements in the external terms of trade during the period of the Great Depression that had a strong impact on the Ottoman economy and finances was the rapid and steady decline in world wheat prices. Between 1865 and 1891 American wheat production increased by 350 percent, making the United States a larger producer of wheat than all of Western Europe and Russia combined.

¹⁵ The value of tobacco exports is taken from Eldem, *Tetkik*, p. 134b.

Mostly as a result of the entry of American wheat into the international markets, world wheat prices declined by more than 60 percent between 1873 and 1894, a rate of decline twice as rapid as the decline in the prices of Ottoman nonwheat exports.¹⁶

Ottoman exports of wheat declined rapidly. Because the free trade treaties prohibited protection, imports of wheat and flour began to expand.¹⁷ Potentially the most important wheat-growing areas of the Empire, the Konya and Ankara provinces of Central Anatolia, continued to remain outside the reach of Istanbul and other domestic and export markets until after the arrival of the Anatolian Railway in the early 1890s.¹⁸ The results must have been devastating for the small and middle-sized peasant producers.¹⁹ Ottoman government finances were also hurt because the government derived more than a quarter of its revenues from agricultural production in a country where close to 90 percent of all land under cultivation was in cereals.²⁰

LONG SWINGS IN FOREIGN INVESTMENT

As summarized in Table 3, direct foreign investment in the Ottoman Empire remained limited during the two decades before 1874. A large part of the foreign funds were invested in railways. By contrast, indirect investment was high and rising. Both inflows of funds due to Ottoman state borrowing in the European financial markets and total debt payments escalated sharply from 1854–1864 to 1865–1874. It is clear in retrospect that there were no realistic prospects that the Ottoman state would be able to pay back the debt. By agreeing to increasingly unfavorable terms, however, the state continued to borrow funds large

¹⁶ See the Appendix "World Supply of Wheat," prepared by M. A. O'Connor in Lewis, *Growth and Fluctuations*. Also, Morton Rothstein, "America in the International Rivalry for the British Wheat Market, 1860–1914," *The Mississippi Valley Historical Review*, 47 (1960), 401–8; W. Malenbaum, *The World Wheat Economy, 1885–1939* (Cambridge, Massachusetts, 1933).

¹⁷ See Aybar, *Ticaret Muvazenesi*.

¹⁸ Donald Quataert, "Limited Revolution: The Impact of the Anatolian Railway on Turkish Transportation and the Provisioning of Istanbul, 1890–1908," *Business History Review* (Summer 1970), 139–60.

¹⁹ Commercial Reports sent from the Ottoman Empire by British consuls are replete with accounts of the unfavorable impact of declining wheat prices on Ottoman producers. See, for example, Great Britain, *Parliamentary Papers, Accounts and Papers*, 1884–1885, Vol. 78, "Report by Consul Dickson on the Trade and Commerce of Damascus for the year 1884"; 1887, Vol. 86, "Report by Consul Dennis on the Trade and Commerce of Smyrna for the years 1882 to 1885"; 1890–1891, Vol. 88, "Report by Consul General Blunt on the Trade and Commerce of Salonica for the year 1889."

²⁰ Stanford Shaw, "The Nineteenth-Century Ottoman Tax Reforms and Revenue System," *International Journal of Middle East Studies*, 6 (1975), 451–53; Turkey, Orman ve Maadin ve Ziraat Nezareti, İstatistik İdaresi, *1323 Senesi Avrupay-i Osmani Ziraat İstatistiği* (Istanbul, 1326/1910) and *1325 Senesi Asya ve Afrikay-i Osmani Ziraat İstatistiği* (Istanbul, 1327/1911).

TABLE 3
ESTIMATED FUND FLOWS ARISING FROM FOREIGN INVESTMENT IN THE OTTOMAN EMPIRE
(annual averages in millions of British pounds sterling)

Years	State Debt		Direct Foreign Investment			Total Flows		(7)
	(1)	(2)	(3)	(4)	(5)	(6)		
	Capital Inflows from New Borrowing	Total Debt Payments	Net New Investment	Profit Transfers	Capital Inflows Cols. (1) + (3)	Debt Payments and Profit Transfers Cols. (2) + (4)	Net Cols. (5) - (6)	
1854-1875	4.7	3.1	0.6	0.2	5.2	3.3	2.0	
1880-1898	0.9	2.8	2.3	1.1	3.1	3.9	-0.8	
1899-1913	2.7	4.6	1.4	2.7	4.1	7.2	-3.1	
1854-1864	2.0	0.8	0.4	0.04	2.4	0.8	1.6	
1865-1875	7.3	5.4	0.8	0.3	8.1	5.8	2.3	
1876-1879	0.7	0.6	0.04	0.3	0.7	0.9	-0.2	
1880-1887	0.8	2.1	0.3	0.7	1.1	2.8	-1.7	
1888-1898	0.9	3.4	3.7	1.3	4.6	4.7	-0.1	

Note: Some lines do not add up because of rounding-off.

Source: The author's calculations based on information regarding Ottoman bond floatations in the European financial markets, Ottoman Public Debt Administration records, records of the more than 80 joint stock companies, partly or entirely foreign-owned, operating in the Empire; and other sources. For details, see Pamuk, "Foreign Trade, Foreign Capital," chap. 4, pp. 91-132, and Appendix 3, pp. 310-16.

enough to cover the rapidly growing debt payments and its often extravagant expenditures.²¹

The collapse of the Ottoman state finances came with the stock exchange crises of 1873 in Europe and the United States. With the cessation of capital exports from the industrial countries, the default followed quickly. Debt payments were reduced by half in October 1875, and were stopped altogether in 1876.²² The establishment of the Ottoman Public Debt Administration in 1881 initiated European control over Ottoman finances. The period was characterized by a sharp reversal in the direction of net fund flows. During 1880–1898 new borrowing remained low and debt payments net of new borrowing averaged £1.9 million per year, about 1.5 percent of the gross national product of the Empire within its smaller post-1878 borders and 12 to 15 percent of the total revenues of the Treasury.²³ Moreover, rapidly declining prices until 1896 meant that the real burden on the Ottoman economy and finances of the net payments abroad was rising steadily.

Direct foreign investment in the Empire during the same period presents a somewhat different picture. As shown in Table 3, capital inflows and profit transfers remained limited until 1887. The rivalry between German and French capital to divide the Empire into spheres of influence led to an intense wave of railroad building between 1888 and 1896.²⁴ The building literally paved the way for the incorporation of new areas of the Empire, especially of Central Anatolia into the world markets and for higher rates of growth of Ottoman foreign trade after the mid-1890s.²⁵ Direct foreign investment averaged £3.7 million per year during 1888–1898, well in excess of profit transfers. As a result, capital inflows arising from state external borrowing and direct foreign investment roughly equaled debt payments and profit transfers during the decade.

The period after 1898 represented the culmination of the earlier trends in foreign investment. As summarized in Table 3, external borrowing rose rapidly after the turn of the century. Higher levels of borrowing

²¹ Donald C. Blaisdell, *European Financial Control in the Ottoman Empire* (New York, 1929), chap. 3; for lists of the Ottoman floatations and their magnitudes, see Issawi, *The Economic History of the Middle East*, pp. 94–106; Owen, *The Middle East in the World Economy*, p. 104.

²² Blaisdell, *European Financial Control*, pp. 80–84. The Ottoman Empire was hardly alone in this respect. From 1822 to 1825 and the 1870s are regarded as the two periods with widespread defaults on government borrowing during the century preceding World War I. Honduras, Costa Rica, Santo Domingo, Paraguay, Spain, Bolivia, Guatemala, Liberia, Uruguay, Egypt, and Peru also defaulted or obtained rescheduling between 1872 and 1875. See Edwin Borchart, *State Insolvency and Foreign Bondholders, Vol. 1: General Principles* (New Haven, 1951), pp. xx–xxi; Leland H. Jenks, *The Migration of British Capital to 1875* (London, 1938).

²³ For the level of fiscal revenues, see Shaw, "Ottoman Tax Reforms," pp. 451ff.

²⁴ For an account of the rivalry and this particular wave of railroad building, see Herbert Feis, *Europe, the World's Banker, 1870–1914* (New Haven, 1930), chap. 15; also Edward M. Earle, *Turkey, the Great Powers and Baghdad Railway, A Study in Imperialism* (New York, 1923). After the 1860s, British investment in the Ottoman Empire, in the state debt, in railways, and elsewhere declined.

²⁵ Quataert, "Limited Revolution"; Owen, *Middle East in the World Economy*, pp. 200–9.

owed as much to the conditions in the European financial markets and the French-German rivalry over the Empire as to the intensification of the fiscal crisis.²⁶ But debt payments also escalated, so that the direction and magnitude of net fund flows arising from external borrowing remained unchanged after 1898.

Railroad construction and direct foreign investment in other areas continued, but their volume was not comparable to the building of 1888–1896. Foreign capital, mostly in infrastructure, accounted for about 10 percent of the gross domestic investment during 1899–1913.²⁷ On the other hand, profit transfers rose rapidly, averaging £1.3 million per year in excess of direct foreign investment. As a result, during the period after 1898, debt payments and profit transfers exceeded new capital inflows by £3.1 million per year, a sum equal to about 1½ percent of the GNP of the Empire.²⁸ As shown in Table 3, net fund flows had been in the other direction during the mid-century boom. Net outflows had not exceeded £0.8 million per year during 1880–1898.

ON RATES OF CHANGE IN THE LEVELS OF PRODUCTION

What can be said about the performance of the Ottoman economy from 1873 to 1896? Should the period be interpreted, as has been argued for the industrial countries, primarily in terms of monetary phenomena, with limited decrease in the rates of growth of aggregate production, or was the Ottoman experience more severe? It should be noted at the outset that no appreciable shift can be observed during the quarter century following 1873 in the composition of aggregate output and in the position the Ottoman Empire occupied in the international division of labor. Unlike the 1930s, when industrialization was underway, the basically agrarian nature of the economy and its increasing specialization in the exportation of primary products continued unchanged. There was no revival in the manufacturing activities based on handicrafts. On the contrary, all evidence points to a stagnation and possible decline in production by urban artisans, primarily due to the stagnation of agricultural and commercial incomes.²⁹ The emergence of modern industrial establishments such as cotton yarn spinning mills was very slow.³⁰

²⁶ Feis, *Europe, the World's Banker*, chap. 14.

²⁷ Based on Eldem's estimate of the level of gross domestic investment after the turn of the century. Eldem, *Tetkik*, p. 290.

²⁸ Based on Eldem's estimates of the gross national product of the Empire for 1907, 1913, 1914; *ibid.*, pp. 302–5.

²⁹ See, for example, British consular reports from the Syrian and Eastern Anatolian provinces of the Empire during the 1880s and 1890s. *Parliamentary Papers, Accounts and Papers*, "Commercial Reports" from Damascus, Aleppo, Diyarbakir, Erzurum, *passim*.

³⁰ For the decline of handicrafts-based manufacturing and the weak beginnings of industrialization, see Issawi, *The Economic History of Turkey*, pp. 272–78, 298–320; Owen, *The Middle East in the World Economy*, pp. 209–13.

Direct statistics are not available for an assessment of the changes in aggregate production levels. But for 1879 and the following years we have data on agricultural tithe revenues and total revenues of the Treasury. If the assumption can be made that rates of change in these revenues reflect, or at least approximate, the underlying rates of change in production levels, it is possible to make some crude estimates regarding trends in production levels.³¹

The results summarized in Table 4 indicate that the rates of change of tax revenues were quite different before and after 1897/98. Measured in constant liras, assessments and actual collections of the tithe and of total revenues of the Treasury increased at rates below 1 percent per year between 1879/80 and 1897/98. By contrast, rates of annual increase of the same ranged from 1.5 percent to 3.7 percent per year after 1897/98. As the rule of Abdulhamid II remained comparatively free of political and military turmoil for more than three decades, there is good reason to believe that the figures until 1908 reflect long-term changes in the levels of agricultural production.³² On the other hand, some of the increases, especially in actual collections, occurring after 1908 appear to be due to the more efficient methods of collection employed by the new Young Turk administration.³³

CONCLUSION

An assessment of the period from 1873 to the mid-1890s from the perspective of the world economy needs to take into account changes in the periphery as well as in the core. Our examination of the Ottoman case showed that its economy faced a distinct and unfavorable conjuncture. In addition to slower rates of growth of foreign trade and deteriorating terms of trade, both the rapid decline in world wheat

³¹ The agricultural tithe constituted the largest single revenue item in Treasury collections, accounting for more than a quarter of the total revenues. Donald Quataert, who undertook a similar exercise utilizing the tithe revenues of the Anatolian provinces of the Empire, offers the following description and assessment: "during the Hamidian period (1876-1908) . . . the tithe generally was collected by tax farmers who purchased the right at government auction. The amount paid for the tax farm was fixed by the state on the basis of the district's tithe yield for the previous three years. There was, therefore, a lag between increasing production and rising tithe revenues. . . . It is evident that tithe revenue changes only imperfectly registered increases in agricultural production. The conclusions derived from analyzing these revenues should be viewed as only an approximation of shifts in the value of agricultural production." In contrast, for example, "the animal tax, primarily the *agnam vergisi*, was perhaps the best administered (tax falling on the rural producers), but was often paid through an arrangement with the tribal chieftain and related more to the degree of state authority over him than to the number of animals owned by his group." Donald Quataert, "Ottoman Reform and Agriculture in Anatolia, 1876-1908" (Ph.D. diss., University of California, Los Angeles, 1973), pp. 15, 31.

³² For the 1910s the share of agriculture in the gross national product of the Empire has been estimated at slightly over one-half. Eldem, *Tetkik*, pp. 302-4.

³³ Quataert, "Ottoman Reform and Agriculture," p. 348.

TABLE 4
RATES OF CHANGE IN OTTOMAN TREASURY REVENUES, 1879-1910
(annual average compound rates in percent)

End Years	Agricultural Tithe		Total Revenues	
	In Current Liras	In Constant Liras ^b	In Current Liras	In Constant Liras ^b
<i>Assessments or Estimated Revenues</i>				
1879/80-1880/81 to 1897/98-1898/99 ^a	-0.6	0.9	See footnote c.	
1887/88-1888/89 to 1897/98-1898/99	0.7	0.4	-0.1	0.1
1897/98-1898/99 to 1906/07-1907/08	2.0	1.5	n.a. ^d	n.a. ^d
1897/98-1898/99 to 1909/10-1910/11 ^c	3.6	3.1	2.7	2.2
<i>Actual Collections</i>				
1887/88-1888/89 to 1897/98-1898/99 ^d	0.9	0.6	0.7	0.9
1897/98-1898/99 to 1906/07-1907/08	3.1	2.7	n.a. ^d	n.a. ^d
1897/98-1898/99 to 1909/10-1910/11 ^c	3.6	3.1	4.3	3.7

^a Ottoman fiscal years ran from March to March. Hence 1879/80-1880/81 in the first line of the table refers to the average of the two-year period starting in March 1879.

^b To arrive at revenues in constant liras, agricultural tithe revenues were deflated by a composite price index with weights of 50 percent for Ottoman exports, 50 percent for Ottoman cereal exports. Total revenues of the treasury were deflated by a composite index with weights of 75 percent for Ottoman agricultural prices as described and 25 percent for prices of Ottoman imports.

^c The rates of the agricultural tithe were raised from 10 percent of the gross product in 1880/82 to 11 percent in 1883, to 11.5 percent in 1884, to 12 percent in 1897, to 12.63 percent in 1900. It was lowered to 12.5 percent in 1906, where it stood in 1908. In Ottoman budgets and financial reports, these surcharges appeared under a separate heading. See D. Quataert, "Ottoman Reform and Agriculture in Anatolia, 1876-1908" (Ph.D. diss., University of California, Los Angeles, 1973), pp. 29-30, Appendix A, p. 347. As it is not clear whether such surcharges were applied to other revenue items as well, comparison of the estimated/assessed total revenue figures for the early 1880s with the later period was not included in the table.

^d Actual and estimated collection figures for total revenues for the fiscal years 1905/06 and 1906/07 and actual collection figures for agricultural tithe for the fiscal years 1879/80 and 1880/81 are not available.

^e Increases in all forms of revenues, especially in actual collection figures, after 1908 should be treated with caution. See the text. Wars and loss of territory after 1911 make the comparative use of aggregate data after this date rather difficult.

Sources: The assessed agricultural tithe figures for the years 1879/80 and 1880/81 are from E. Akarli, "The Problems of External Pressures, Power Struggles and Budgetary Deficit in Politics under Abdulhamid II, 1876-1909: Origins and Solutions" (Ph.D. diss., Princeton University, 1976), chap. 2. All others are taken from S. Shaw, "The Nineteenth-Century Ottoman Tax Reforms and Revenue System," *International Journal of Middle East Studies*, 6 (1975), 421-39. For price indices of Ottoman exports and imports, see Pamuk, "Foreign Trade, Foreign Capital," Appendix 2, pp. 279-81.

prices and the establishment of European control over Ottoman finances were products of the same conjuncture, the post-1873 Depression. Indirect data indicated that rates of change of agricultural and aggregate production were lower during the 1880s and 1890s as compared to the period after the turn of the century.

At least three considerations strongly suggest that world economic forces were an important determinant of the performance of the Ottoman economy during this period: after the establishment of the Ottoman Public Debt Administration, large net payments on the external debt did have a significant impact on the economy and state finances; the foreign trade sector was not small; and long-term trends in Ottoman foreign trade and domestic production closely paralleled the long-term fluctuations in the levels of economic activity in the major industrialized countries. On the other hand, it is not clear at this stage of the research which internal factors may have also accounted for the relative if not absolute stagnation of the Ottoman economy until the late 1890s. In any case, the findings here do not support the view that the periphery of the world economy benefited from rapidly expanding foreign trade during the last quarter of the nineteenth century. The Ottoman example has relevance at least for those Third World countries that faced slower rates of growth of exports, deteriorating external terms of trade, and large debt payments during the final quarter of the nineteenth century.