

The Economics of World War I

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4 The Ottoman economy in World War I

Şevket Pamuk

Introduction: the economy on the eve of the war

On the eve of World War I the population of the Ottoman Empire, comprising present-day Turkey, Syria and Palestine, Iraq, and parts of the Arabian peninsula, was close to 23 million. Of these roughly 17 million lived within the modern borders of Turkey, more than 3 million in Syria and Palestine including Lebanon and Jordan, and about 2.5 million in present-day Iraq. In addition, approximately 5.5 million lived in Yemen and the Hijaz on the Arabian peninsula under nominal Ottoman rule (Eldem, 1970: 49–66; McCarthy, 2002). Despite considerable economic transformation and some economic growth during the nineteenth century and especially after 1880, the Ottoman economy was still mostly agrarian on the eve of World War I. Moreover, the real GDP of the empire in total and per head of the population was substantially below that of the countries of western and central Europe. Perhaps more than anything else, these basic limitations of the Ottoman economy hold the key to understanding the capacity and performance of the Ottoman military during World War I.

For the Ottoman Empire the nineteenth century had been a period of political, social, and economic reforms designed and implemented by the centre in order to keep the empire together in response to external and internal challenges. For the Ottoman economy it had also been a period of rapid integration into the world economy. Between 1820 and 1914 the foreign trade of the empire had expanded more than tenfold. On the eve of World War I, about 12 per cent of Ottoman output was being exported. More than 90 per cent of the exports were a diversified basket of agricultural commodities, foodstuffs, and raw materials, led by tobacco, cotton, barley, raisins, figs, raw silk, and raw wool. Rapid expansion of foreign trade had also turned the empire into an importer of manufactured goods, most importantly of cotton textiles, both cloth and yarn, but also of machinery and intermediate goods. The empire also imported some foodstuffs, most importantly wheat and flour for Istanbul, Beirut,

and some other urban centres, as well as sugar, coffee, and tea. Coastal areas were supplied with grains and other foodstuffs from imports because of the shortcomings of the internal transportation network. In many regions the grains from the interior could not compete with imports since the free trade treaties in effect made it impossible to favour domestic producers. More than three-fourths of Ottoman external trade was directed towards industrialised Europe with Germany, France, and Great Britain the most important trading partners.

On the eve of World War I, the Ottoman economy remained predominantly agrarian. In the countryside, small peasant holdings co-existed with larger enterprises. Family enterprises with a pair of oxen and a plot of land large enough to be cultivated by them remained the basic unit of production. Peasant households that did not own a pair of oxen or land of reasonable quality offered their services as sharecropping tenants to larger landowners. While the coastal plains were densely cultivated, scarcity of labour and lack of availability of land prevailed in the interior regions. The commercialisation of agriculture during the nineteenth century was accompanied by a shift from cereals and other subsistence crops towards cash crops and industrial raw materials.

Manufacturing activity was still largely based on artisanal forms. Modern factories such as tanneries, textile mills, flour mills, glass works, and brick factories under private ownership began to emerge only towards the end of the nineteenth century. The Ottoman Industrial Census of 1913 indicates that within the present-day borders of Turkey there existed only about 600 manufacturing establishments employing ten or more workers. Total manufacturing employment in these establishments remained around 35,000 or about 0.2 per cent of the population. Most of this industrial employment was in textiles, food processing, paper and printing, and construction materials. The numbers of enterprises employing at least 100 workers remained fewer than sixty. The Ottoman government had agreed, through a series of international treaties in the 1830s, to fix *ad valorem* tariffs on imports at 5 per cent. While these low tariffs met with considerable criticism from guilds and manufacturers, they were raised only slightly and remained at 15 per cent on the eve of World War I. Low tariffs on imports made it especially difficult for new manufacturing enterprises to take root in the empire.

Another important dimension of nineteenth-century globalisation for the Ottoman economy was the large amount of direct foreign investment by European capital. On the eve of World War I, total direct foreign or European investment in the Ottoman Empire had reached £75 million. Close to 60 per cent of this amount had been invested in various railways, especially in Anatolia and Syria. By linking the fertile agricultural regions

to major ports, these railways facilitated the commercialisation of agriculture and integration of the Ottoman economy into world markets. European direct investment also went into other forms of infrastructure such as ports, utility companies, insurance, and shipping. In contrast, foreign investment in agriculture, mining and manufacturing remained limited (Pamuk, 1987: 55–81).

Another aspect of foreign investment and a source of long-term vulnerability for the empire was the external debt outstanding. Ever since the Crimean War, the government had attempted to finance the budget deficits that often arose from the need to increase military expenditures by borrowing in the European financial markets. The Ottoman state had declared a moratorium on its debt payments in 1876 and the subsequent negotiations had led, in 1881, to the establishment of the Ottoman Public Debt Administration, an organisation of European bondholders. This institution was given the right to develop and collect taxes from some of the leading revenue sources of the empire and direct them towards debt payments. Even though the Ottoman state managed to generate a budget surplus and maintain orderly payments on its outstanding debt during the last two decades of the nineteenth century, rising military expenditure after the turn of the century and especially after 1908 began to create serious fiscal problems once again. Budget deficits began to be financed by further borrowing and the need to secure additional loans created important complications for Ottoman foreign policy. By 1914, the outstanding debt of the government had reached £140 million or close to 60 per cent of the GDP of the empire. French investors held more than half and the German investors held more than 20 per cent of this debt. The share of the British was less than 15 per cent.

Even though the external debt burden was rising and the empire's industry was in poor condition, the Ottoman economy was not in a bad state on the eve of World War I. Except for the loss of territories due to the Balkan Wars of 1912–13, the population of the empire had been growing at 1 per cent annually during the decades leading up to World War I. Standards of living and incomes per head were also rising slowly at a little less than 1 per cent annually from 1880 to 1914. Some figures for Ottoman GDP in 1913 are shown in table 4.1. GDP per head in 1913 has been estimated at about £10 at the prevailing exchange rate (Eldem, 1970: 302–9). In US dollars at purchasing power parity of 1990, this was equal to about \$1,200. At such levels, average real incomes in the Ottoman Empire on the eve of World War I were above those of its southern and eastern neighbours, Egypt and Iran. They were, however, below those of eastern and south-eastern European countries such as Serbia, Bulgaria, and Greece. Moreover, Ottoman GDP per head in

Table 4.1. *Ottoman Empire: estimates of the GDP in 1913*

GDP at current prices:	
Ottoman liras, million	240
£ sterling, million	220
GDP per head, approximately:	
£ sterling and current prices	10
US dollars at PPP and 1990 prices	1,200
GDP by sector of origin, per cent	
Agriculture and mining	48
Industry	12
Trade	10
Government services	8
Other services	22
GDP total	100

Note: PPP purchasing power parity

Sources: Eldem (1970: 303–5) and Pamuk (2001).

1913 stood at approximately one-third of income levels in France and Germany and one-fourth those of the United Kingdom. Similarly, the total GDP of the Ottoman Empire on the eve of World War I at purchasing power parity was less than one-fourth of the French and less than one-sixth of that of Germany or the United Kingdom (Pamuk, 2001, which provides the basis for the figures for the GDP of the Ottoman Empire before World War I presented by Maddison, 2003: 156–7).

Military preparedness

The Ottoman Empire was less prepared than most of the other combatants to face the economic consequences of a general war of long duration. Excluding territories on the Arabian peninsula, the empire covered a large territory with borders of over 12,000 kilometres and a coastline in excess of 8,000 kilometres, exceeding 1.7 million square kilometres in area. Until the outbreak of the war, most of the external trade of the empire and a large part of its internal trade had been seaborne. After the Allied powers intercepted sea transport in the Mediterranean, the war effort had to rely almost entirely on land transport. In the years leading up to the Great War, government infrastructure programmes had gained momentum. The deposed sultan Abdulhamid II had been a builder of railways, roads, and telegraph lines and the Young Turk government continued this tradition. Nonetheless, the Ottoman transportation network over this sprawling geography remained poor. The total length of railways

over this large **territory** was less than 6,000 **kilometres**. Railways were lacking completely in eastern Anatolia, an important theatre of the war, because the Ottoman government had agreed not to build them in this region without the consent of the Russian government. Moreover, the railways did not yet **link Anatolia** to Syria and Mesopotamia when the war broke out. Until tunnels in the **Taurus** mountains in southern Anatolia were completed in January 1917, materials and men still had to be unloaded, transported by road and reloaded back on the trains in this region. The existing roads were poor and much of the transport was undertaken by draught animals. The empire was also poor in modern means of communication. The network of telegraph lines was very limited (**McCarthy**, 2001: 95–8; Erickson, 2001: 51–73).

Just as important is the fact that Ottoman manufacturing of war materials remained very limited. On the eve of the war, production of pig iron and steel was **insignificant**. There was very little chemical production and petroleum refining. There were one cannon and small arms foundry, one shell and cartridge factory, and only one gunpowder factory. All of these facilities were located just outside Istanbul. One of the key shortages to emerge during the war was energy. Although the empire had been self-sufficient in coal before the war, coal had to be imported from Germany after the Russian bombardment of the Ereğli coal mines on the Black Sea coast and the sinking of transport ships. As a result, wood was used on the railways in southern Anatolia and Syria for most of the war (**Eldem**, 1994: 78–9).

Despite these shortcomings, the Ottomans were forced to fight on several fronts: against the British and French at Gallipoli; against Russia in the southern Caucasus and eastern Anatolia; against the British in Iraq, in the Suez Canal area and later in Syria and Palestine; against the Arab insurgents in the Hijaz and Yemen in the Arabian peninsula; and on various **European** fronts, against Russia in Galicia, Hungary, and Romania; and against the British in Macedonia.

The Ottomans had made use of military advisers from western European countries since late in the eighteenth century. German military missions to the Ottoman Empire had begun in the 1880s during the reign of Abdulhamid II. By the early twentieth century, the Ottoman army was modelled mainly on the German army. Nonetheless, its disastrous performance against an alliance of other Balkan countries during 1912 and 1913 had made clear that radical changes were urgently needed. The military budget was immediately doubled and steps were taken to modernise the Ottoman military. New battleships were ordered from British shipyards, and an air force was established. In 1914 a new contingent of German officers led by General Liman von Sanders was invited to reform and reorganise the Ottoman army. There were important changes in the

short period of time leading up to the war. Ancillary corps such as the quartermaster corps, military intelligence, and communications advanced rapidly towards twentieth-century standards. Older officers were retired to make way for better-educated younger men. While the organisational chart of the army showed few changes, Ottoman military power increased considerably.

Nonetheless, in 1914 the military was still exhausted from its involvement in the Balkan Wars. It did not have mobilisation plans designed to manoeuvre an armed mass to a decisive point for early offensive operations (Erickson, 2001: 19, 51, 73). The Ottomans needed many years to develop an army up to European standards, not just one or two years of intensive effort. There also existed serious obstacles in the capacity of the government to mobilise the male population of the empire into the armed forces. Most of the non-Muslims, which made up 20 per cent of the population of the empire, could pay a tax and avoid the draft. The government also had difficulties in drafting and keeping the Muslim population under arms. The maximum size of the Ottoman army during the war was below 800,000. The government was thus able to mobilise less than 4 per cent of the population into the armed forces, a ratio well below that of most other belligerents. The Ottoman army also remained dependent on imported arms and military equipment until the end of the war. Until the restoration of railways lines and other overland communication lines with central Europe after the defeat of Serbia in late 1915, the empire suffered crippling shortages of **war supplies** and raw materials. **Despite** all these shortcomings, however, it is remarkable that the Ottoman military managed to stay in the war right until the end in October 1918 while many others were forced to abandon their effort, (**Zürcher**, 1996).

When the war broke out in 1914, German military assistance was primarily in the form of high-level advisers. Financial and material support was very small. These resources began to increase towards the end of 1914, however, and continued to rise in later years. Nonetheless, German fighting forces inside the Ottoman Empire remained small. In August 1916 there were 640 German officers and 5,900 German soldiers stationed within the Ottoman Empire. By the end of the war, German material assistance to the empire included as many as 20,000 men, 650,000 rifles, 600 guns, and other materials. In contrast, the total of Ottoman men mobilised during the war reached 2.8 million. The sterling value of materials given to the Ottoman side by Germany during the war has been estimated at about **£29 million** and those from Austria-Hungary at **£5.5 million**. Additionally, loans from Germany were used to finance imports of various non-military goods from that country. While the

importance of German logistical support is debatable, especially in view of the large distance between the two countries, German technical assistance and advisory support played an important role in enabling the Ottomans to make the most of their existing resources and keeping the Ottoman military in the war for as long as possible (Erickson, 2001: 51–73; McCarthy, 2001: 95–8; see also Swanson, 1975; Erickson, 2003; Trumpener, 1968).

To date various estimates have been offered for the total numbers of Ottoman soldiers that died during World War I; these range from over 400,000 to more than 1 million. The most recent figures fall roughly in the middle of these two extremes. In his latest work on the Ottoman army during World War I, Edward Erickson (2003) estimates 2.9 million as the total number of soldiers mobilised into the Ottoman army during the war and 770,000 as the total numbers of soldiers that died or were missing afterwards. To this number should be added the possibly even larger number of civilians who lost their lives due to armed conflict, disease, and malnutrition during the war (Erickson, 2001: chapter 8). Leading causes of civilian casualties are discussed further later in this chapter; the last section of the chapter also deals with demographic changes within Turkey's modern frontiers.

The disruption of external trade and production

It has been pointed out that the Ottoman economy relied on imports not only for its manufactures and war materials but also for meeting the food needs of some of the coastal areas, most importantly the capital city. The earliest and most immediate impact of the war was thus the disruption in external trade which was compounded by the commercial embargo of the Allies around the Mediterranean. As a result, external Ottoman trade was quickly reduced to the movement of goods obtained by rail from Bulgaria alone. Direct trade with Germany and Austria resumed overland only after the German occupation of Serbia at the end of 1915. By 1916, the volume of Ottoman external trade had declined to approximately one-fifth of its prewar levels and more than 90 per cent of this trade was being conducted with Germany and Austria-Hungary (Eldem, 1994: 66). As a result, shortages quickly appeared in both foodstuffs, such as grains and sugar, and various kinds of manufactures.

The shortages provided an opportunity to the supporters of policies of economic nationalism. Even before the war, in the aftermath of the Young Turk Revolution of 1908, an interesting debate regarding economic strategy had emerged between the two wings of these urban intellectuals, activist bureaucrats, and military officers. On one side were the defenders

of the western type of decentralisation and economic liberalism who emphasised an open economy model promoting trade and agricultural development. Arguing against them were the proponents of Listian protectionism and a more self-reliant strategy based on industrialisation. Of equal interest was the growing recognition by both sides that the traditional and overriding concern of the Ottoman state for fiscal revenue needed to be abandoned in favour of state policies that promoted economic development. The Ottoman government, however, had already committed itself to the free trade treaties and a concessionary regime that gave extraterritorial privileges to foreign companies and citizens in economic and legal affairs. As a result, these debates had had little impact on policy until the war. One notable exception was legislation passed in 1913 to encourage domestic industry (Toprak, 1982: 166–78).

After its entry into the war, the Young Turk government moved unilaterally to redefine the empire's external economic relations in three key areas. First, it eliminated the low rate ad valorem tariff structure in favour of higher specific tariffs on selected goods. In order to support domestic industry, the government also revised and extended the existing legislation that encouraged and supported domestic industry. Secondly, the government declared a moratorium on payments on the external debt, most of which was held by the citizens of France, Germany, and Great Britain. Thirdly, it abrogated the concessions and thus subjected foreign companies and individuals to Ottoman laws.

The first impact of the war on domestic industry was positive, as some import substitution occurred. Soon afterwards, however, raw material shortages began to emerge. In addition, the decline in coal production after the Russian bombing of the Ereğli coal mines on the Black Sea coast unfavourably affected the industrial production that was being carried on. Equally importantly, the urban areas had faced moderate labour shortages, especially of skilled workers, even before the war. The mobilisation of large numbers of males thus exacerbated labour shortages in industry. The mobilisation and employment of large numbers of women in urban areas did not resolve these shortages until the end of the war. Compared with the 1913–14 average, coal production was down by 40 per cent in 1916 and by 75 per cent by 1918. Production of various minerals also fell by between 50 and 80 per cent compared to prewar levels. Even cotton textiles production was down by 50 per cent in 1918 compared to its 1913 level. There is no estimate of the overall decline in industrial output during the war, but this was most probably between 30 and 50 per cent (Eldem, 1994: 75–82).

Wartime conditions also created difficulties for Ottoman agricultural production. Since mechanisation had remained limited, agricultural production

Table 4.2. *Ottoman Empire: wheat production, 1915 to 1918 (percentage of 1913–1914 average)*

	Area under cultivation	Yield per unit of land	Total production
1913–14, average	100	100	100
1915	93	86	80
1916	87	82	73
1917	79	80	64
1918	75	78	62

Note: Parts of eastern Anatolia, Syria, Iraq, and Arabia are excluded.

Source: Eldem (1994: 33–9), based on official statistics or official estimates.

did not depend on imported inputs or machinery. Nonetheless, it was **unfavourably** affected by the special requirements of the military during wartime. In an economy that experienced labour scarcities in both the rural and the urban sectors even during peacetime, the conscription of males and the requisitioning of draught animals created serious **difficulties**. As many as **2.8 million** males were drafted for military service during the four years of the war. In addition, requisitioning of draught animals by the military reached crippling levels in many parts of the country. The agricultural sector experienced a sharp decline in herds of draught and dairy livestock during the war. By **1918** numbers of draught animals had fallen by more than one-half, and numbers of sheep and goats by about **40** per cent. Even though women assumed a greater burden in agriculture, the acreage under cultivation and levels of output declined sharply. The official statistics (table 4.2) suggest that, as a result of these pressures, both land under cultivation and yields began to decline **from** the **first** year of the war. By **1916**, total wheat production had declined by nearly **30** per cent. Declines in the output of most of **the** exportable cash crops were even greater. By **1918**, the decline in production in comparison to the **1913–14** levels was close to **40** per cent in wheat, more than **50** per cent in tobacco, raisins, hazelnuts, olive oil, raw silk and cotton. It is possible, however, that these official **estimates** overstate the extent of decreases in production because the peasant producers hid or understated their production levels in order to avoid wartime taxes or forced deliveries to the military.

Estimates for Ottoman GDP have not been constructed for the war period. On the basis of the available **sectoral** evidence, some of which has been presented here, it appears that by **1918** the **GDP** of the empire had declined by at least **30** per cent, and perhaps **40** per cent or more, from its prewar level.

Food supply policies

Wartime conditions were often likely to create significant imbalances between the supply and demand for food. In this respect, however, there was a qualitative difference between the wartime experiences of developed economies and those of the underdeveloped or poorer economies. Typically, the more developed economies showed greater flexibility and a greater ability to maintain levels of food production close to peacetime levels. Since their agriculture used a variety of inputs, the reduction in the availability of one or more of them did not need to affect severely the levels of output. Other inputs could be substituted for the scarce input. If labour became scarcer, for example, it was easier to substitute machinery or fertilisers to maintain the earlier levels of production.

This flexibility was usually not available to the less-developed economies. Their structures of production were much more rigid. Since agricultural techniques of production were rather primitive, machinery could not be easily substituted for labour or draught animals. In addition, the less-developed economies had less-developed transportation networks which were so essential for linking the areas with food surpluses to the areas of food deficit during wartime. In short, less-developed economies were less flexible and much more vulnerable to the disruptions of wartime (Prest, 1948; Millward, 1977).

It is not very surprising, therefore, that wartime conditions created major difficulties for the Ottoman food supply. While imports and production declined sharply, demand for food did not decline during wartime. If anything, demand for food actually increased because of the need to feed a larger army to a better standard. In addition, the Ottoman transportation network could not respond satisfactorily to wartime pressures.

The shortages of food and hunger experienced in the Ottoman empire during World War I were not always due to a decline in food availability, however. As Amartya Sen (1981) has argued in an insightful study of poverty and famines, even though total availability of food may remain unchanged or decline only slightly, hunger and famine will result if some groups in society lose the ability to command food, or what he calls food entitlements. For example, wartime conditions may drive food prices beyond the reach of some segments of the population such as the urban poor or landless agricultural workers. Food shortages and hunger depended, then, not only on the total food availability but also on the distribution of the available food amongst different groups (see also Tilly, 1983).

In short, with or without a decline in total food availability, there was the potential for severe inequities in the distribution and consumption of

food among different groups in society to emerge, which would seriously affect morale and hamper the war effort. For this reason, securing the food supply of the urban population and the military, and distributing the available food in an equitable manner, were considered to be some of the most important economic policy issues facing the Ottoman government during World War I.

Governments' wartime food supply policies covered many areas, ranging from intervention in agricultural production to transportation and distribution and finally consumption. At one end, the government attempted to reduce consumption of the limited food supplies and ensure a more equitable distribution of the available supplies by implementing a more or less comprehensive system of rationing in the capital city. At the other end, the government attempted to intervene in food production and increase it directly. The Ottoman parliament passed an Agricultural Obligations Law in September 1916 which made large corporations in the urban areas responsible for securing the necessary equipment and labour and cultivating specified amounts of land. Moreover, all farmers were required to cultivate a minimum area for each pair of oxen that they had. The law also gave the government the power to require all men and women not under arms to engage in agriculture. The government could ask families or individuals to work on farms experiencing labour shortages due to wartime mobilisation. In extreme cases, battalions of women were organised by the army and were sent to the fields to help with the cotton harvest in southern Anatolia. In short, a system of war agriculture was apparently in place by the end of 1916. However, the real effectiveness of this dramatic legislation and the related measures was rather limited (Yalman, 1934: 119–34; Toprak, 2003: 81–98; *Okçün*, 1983).

Another area of intervention was the transportation of cereal supplies from Anatolia to Istanbul. The capital city relied heavily on grains and flour imported by sea until 1914 despite the availability of the Anatolian railway. With the outbreak of the war these imports were disrupted and Istanbul was forced to turn, for the first time, to the grain-producing plains of central Anatolia. Under more normal conditions Anatolian **agriculture** was capable of producing enough for Istanbul. The wartime decline in production combined with the transportation **difficulties**, however, to create severe problems for Istanbul.

For most of World War I, the bottleneck in provisioning Istanbul was lack of space on the railway connecting central Anatolia to Istanbul and in ships **arriving** from the Black Sea. There was an intense struggle regarding their allocation. The environment of shortages created by the provisioning needs of Istanbul gave the Union and Progress Party leadership the opportunity to select a small group of merchants close to the party and allow

them to supply the city. Railway truck space and shipping permits were allocated to Muslim merchants linked to the Union and Progress Party in power. This system enabled the Union and Progress Party to share in the wartime profits, as **some** of them were ploughed back into the party. Equally importantly, it provided an opportunity to create a new group of Muslim-Turkish entrepreneurs with close links to the party. Monopolies were created for importing and distributing many scarce commodities and these were then awarded to the Turkish supporters of the party in Istanbul and the provinces. This strategy, of course, was well in line with the embrace of Turkish nationalism during World War I, if not earlier, as the leading ideology of the Union and Progress Party (Toprak, 1982: 22–35; Yalman, 1934: 135–43; Tekeli and *Ilkin*, 2004: 1–26).

Another important aspect of food supply policies during the war involved the direct procurement of cereals from rural producers. This was where the government came face to face with the farmers, large and small. Three distinct stages can be observed in the evolution of government procurement policy and the farmers' response. In the first stage, early in the war, the government relied on the market mechanism to provide the cereal supply to the urban areas. The producers were left free to sell their produce at market prices to whomever they liked. The merchants were then expected to transport the cereals to the urban areas and sell it there. The basis for this non-interventionist attitude was the belief early in the war that the conflict would not last long (*Ahmad*, 1983, 1988; Eldem, 1994: 33–47; Toprak, 1982: 267–312; *Ogün*, 1999).

Shortages soon began to emerge, however, leading to sharp increases in food prices in some urban areas. The shortages were due to a combination of factors. They were, in part, due to a decline in production. There was also the poor transportation network. In addition, the expectation of shortages by merchants, shopkeepers, and even consumers led them to start hoarding. The second stage began with the emergence of shortages. At that point, it became clear to the government that the food supply problem could not be resolved by market forces alone and that intervention was necessary. This stage was reached in the autumn of 1916. The first response of the government was maximum intervention in the procurement process. It was announced that the government would allow all cereal producers to retain only enough for seed and the maintenance of their households and they were required to surrender the rest to designated government agents at fixed prices that were substantially below those prevailing in the market at the time. The government did not have the administrative capacity to implement this new and **ambitious** system, however.

All producers were affected adversely by this policy, but those who stood to lose most were the larger landowners who had greater market

surpluses. The response of all cereal producers was to resist. Small and large producers alike hid their crops, bribed government officials, and did all they could to minimise the amount they surrendered to the government. Although they were not allowed to move the harvest from the field until the government agent arrived, for example, the producers often attempted to smuggle the harvest from the field and hide it. They tried to bribe the local officials to underestimate their obligations and to deliver grains of lower quality. What they did not surrender, they either consumed themselves or sold to private merchants on the black market. In other words, resistance to wartime state demands often occurred covertly, on a local scale, employing the 'weapons of the weak' as James Scott (1984) has described them: foot dragging, concealment, and evasion. As a result of all of these, the amount of cereals reaching the urban areas declined after this government measure was put into effect. As the food supply problem in the urban areas became more acute, it was further complicated by the hoarding of cereals by others, especially merchants and shopkeepers. In short, not all of the difficulties in the urban areas were due to a decline in production. It is clear that the urban shortages were also due to government policies and the responses of agricultural producers, merchants, and shopkeepers (Yalman, 1934: 119–35; Toprak, 1982: 267–312; Tekeli and **Ilkin**, 2004: 1–26).

There was a good deal of regional variation within this general picture. Typically, rural areas fared better during the war since most of the rural population cultivated some land and had direct access to food unless the harvest collapsed altogether. It also made a big difference whether a region was a net food exporter or importer. Most of the difficulties occurred in large urban areas located in food deficit regions. Military operations or the presence of large numbers of troops in a region added to the difficulties. The prohibition of internal trade in grains and confiscation of the surplus grain by some local commanders exacerbated the shortages.

The most severe food shortages occurred in eastern Anatolia, **northern** Syria, and Lebanon. In eastern Anatolia, the forced deportation of Armenians to the Syrian desert by the government in 1915, as well as attacks on them by civilians and government-linked forces, and the subsequent flight of Muslim peasants when the region was occupied by the Russian army in 1916, resulted in the deaths of as many as 1 million civilians, both Armenian and Muslim. Most of these people died of disease and starvation. The policy of forced deliveries certainly also contributed to the difficulties in Lebanon and Syria after 1916. When shortages began to emerge in Syria, because of locusts and poor harvests, the government demanded deliveries from the producers at fixed prices and the producers resisted. As the government intensified the pressure on

the villages close to the urban centres, peasants began to flee to the interior where they were given seed and land to cultivate by the **Druze** shaiks. This only made things worse in the urban areas. But the wartime food problems in Syria and Lebanon were not only due to poor harvests and government policy. Tribal chiefs refused to sell grain to government agents or private merchants for political reasons, or they demanded payment in gold rather than paper currency. There was also a good deal of hoarding by the merchants. Moreover, the British and French governments **refused** to lift the blockade of Beirut despite widespread starvation. The shortages assumed catastrophic dimensions towards the end of 1916, resulting in hundreds of thousands of deaths, perhaps as many as half a million in Lebanon and Syria (**Schatkowski** Schilcher, 1992).

With the deteriorating situation in the urban areas, the government recognised that the policy of coercion was not working and it was necessary to provide better incentives to the producers. As a result, a third set of policies was adopted in 1917. In this third stage all cereal producers were asked to **surrender** some proportion of their produce to the government, either as tax in kind or at some fixed price below the market. They were then left free to sell the rest to anybody they wished. This was, in effect, a mixture of intervention and a free market. Moreover, the responsibility for provisioning both the army and the civilian population was given to the Ministry of War. This change in policy improved the food supply situation in the urban areas as producers responded to higher food prices by selling more. These policies remained in effect until the end of the war.

The freedom to sell at market prices did not mean that all cereal **producers** benefited from the new policy. The government continued to take away some of the output from the smaller producers, which left them very little or nothing for sale at the market. Since they were still required to surrender part of their crop to the government, they continued to carry the burden of wartime **difficulties**. The beneficiaries of the new policy were the larger landowners who still had cereal surpluses after delivering part of their crop to the government. They were able to take advantage of high market prices until the end of the war (Yalman, 1934: 132–5).

To sum up, Ottoman agriculture was less flexible and much more vulnerable to the disruptions of wartime than its counterparts in the more developed economies. Wartime conditions thus created major difficulties for the Ottoman food supply. While food production and imports declined, the provisioning and political stability of the urban areas and the army quickly became a matter of political and military survival for the government. There was much less regard for the welfare of the peasant producers. The Ottoman government also lacked the capacity to adopt and implement controls over the food surpluses. In response to the

various forms of coercion employed by the government, agricultural producers managed to avoid taxes and other demands and keep a large part of the food for themselves.

Financing the war

In the years leading up to World War I, the Ottoman government had used external borrowing as the basic method of financing its budget deficits, which arose mainly from increased military expenditure. As a result, the total debt outstanding had begun to increase after the turn of the century, and at a more rapid pace after 1908. On the eve of the war, **annual** payments on the external debt approached 40 per cent of government revenues. In addition, roughly 20 per cent of government revenues had been under the control of the Ottoman Public Debt Administration since 1881. While the outbreak of World War I sharply increased the need for military expenditure, it also eliminated the possibility of external borrowing.

One method of **financing** the war was to increase taxes. Before the war, the government's tax revenues equalled approximately 12 per cent of the GDP of the empire (Eldem, 1970: 243, 303). More than two-thirds of these revenues were collected from the agricultural sector. Most important amongst the taxes on the rural economy was the 10 per cent tithe collected in **kind** from agricultural producers by private tax-farmers. With the outbreak of the war, the government increased a variety of direct and indirect taxes that were collected from consumers as well as businesses. Taxes on consumer goods such as sugar, petroleum, matches, coffee, tea, alcoholic beverages, and cigarettes were put in place in 1915. These taxes were increased in 1916. The government also legislated new income and war profits taxes to be collected from individuals and businesses (Yalman, 1934: 157–8; Eldem, 1994: 83–94). In addition, the government and the local administrators, mostly civilian but also military in some cases, increased the tithe demanded from the agricultural producers to 12.5 per cent and even higher in some regions.

These efforts did not succeed in increasing tax revenues, however. One **important** reason for the decline in revenues was the decline in agricultural and industrial production that began after the outbreak of the war. With the sharp decline in foreign trade after 1914, tariff revenues, which had accounted for close to one-fifth of government revenues before the war, also declined despite the sharp increases in tariffs on some imported items after 1915. Secondly, many taxes, including payments to the government by the tax-farmers, who collected taxes in kind from the agricultural producers, were fixed in nominal terms. With the acceleration of

Table 4.3. *Ottoman Empire: estimated tax revenues and state expenditure, 1913/14 to 1918/19 (fiscal years and million liras at current prices)*

	Revenue	Expenditure	Deficit
1913/14	29.4	35.3	5.9
1914/15	24.9	57.8	22.9
1915/16	22.3	65.6	43.3
1916/17	25.2	83.0	57.8
1917/18	27.7	109.0	81.3
1918/19	34.0	122.5	88.5

Note: 1.1 Ottoman lira = £1 sterling in 1914.

Sources: Yalman (1934: 157–60) and Eldem (1994: 84).

inflation after 1915, **nominal** revenues lagged far behind prices. Government attempts to adjust the nominal rates of some taxes, such as income tax or the tax on sheep and cattle, with greater frequency were not very effective. Thirdly, and perhaps most importantly, with the emergence of hardships and falling production and incomes, the tendency to evade taxes increased and the government's capacity to collect them actually declined, both in the urban areas and amongst the rural producers. As a result, revenues from the tithe which accounted for more than one-fourth of all government revenues before the war, for example, fluctuated around their prewar levels in current Ottoman liras during the war years, despite the sharp increases in the price level. While the quality of the available data is not very good, they nonetheless indicate very clearly that state revenues in current Ottoman liras actually remained below their prewar levels until the last year of the war, while prices increased about twenty-fold until the end of 1918. As will be shown, most of the inflation occurred in the last two years of the war.

Since budget revenues in current Ottoman liras remained below or close to their prewar levels, rapid increases in expenditure led to increasingly large deficits which can be followed from the estimates of the Ottoman war budgets made after the war (table 4.3). The government **tried** hard to keep these deficits in check. One obvious target was official salary payments, which had accounted for at least 40 per cent of prewar outlays. During the early years of the war, the government levied minor taxes on **official** salaries. As inflation accelerated after 1915, the state provided only minimal increases in the salaries it paid. By 1918, therefore, the share of salary **payments** was reduced to less than 18 per cent of all state expenditure

despite an increase in the number of state employees during the war of more than 20 per cent. Reducing the salaries of state employees thus emerged as an important method of financing the war. In addition, many services and requisitions obtained by the government during the war remained unpaid. These have been estimated at 50 million Ottoman liras for the war as a whole (Yalman, 1934: 165; Eldem, 1994: 99).

The government also borrowed modest sums from its allies during the war, a total of 56 million Ottoman liras from Germany and 8.5 million Ottoman liras from Austria-Hungary in addition to the war materials obtained from these countries. In prewar terms, the value of these loans can be estimated at about £20 million. These debts were later cancelled by the treaties of Versailles and St Germain. In addition, in 1917 the Ottoman government attempted to sell German government bonds to the Ottoman public and use the proceeds for war finance, but this bond issue failed. The government also tried to sell its own bonds to the Ottoman public. However, it could manage to sell only 18 million liras (less than £4 million) worth of war bonds towards the end of the war in 1918 (Yalman, 1934: 161–5; Eldem, 1994: 83–93).

When all other methods fell short, especially in the later stages of the war, the government obtained additional revenue by issuing *kaimes* or paper bills. Printing paper money thus emerged as by far the most important instrument of war finance for the Ottoman government. In the prewar period, the only paper currency circulating in Ottoman markets was the gold-backed paper notes that the French-controlled Imperial Ottoman Bank issued in limited amounts. The government issued wartime paper bills with the promise that the state would buy them back in gold within a specified period after the end of the war. This period ranged from six months to seven years depending on the issue. For the first series of paper bills the government deposited their equivalent in gold with the Ottoman Public Debt Administration. For subsequent series, until the last year of the war, German treasury bonds borrowed from the German government were set aside as guarantees.

Paper bills started circulating in 1915. Their volume reached 46 million liras at the end of that year, 124 million liras at the end of 1917, and 161 million liras by the end of the war. They started exchanging at par against the silver and gold coins in circulation in 1915. As the volume of paper bills began to expand and their denominations began to get smaller, however, their exchange rates against gold-backed currency began to decline and the silver coinage soon disappeared from circulation. Most of the daily transactions during the later years of the war were thus undertaken with paper currency whose denominations began as low as 1 piaster. During this later period the Ottoman monetary system thus

Table 4.4. Ottoman Empire: money and prices, 1915–1918 (end of year)

	1915	1916	1917	1918
Paper bills in circulation (million Ottoman liras)	8	46	124	161
Exchange rate of gold lira against paper bills (par = 100)	105	188	470	438
Consumer price index in Istanbul, percentage of 1914	130	212	1,465	2,205

Note: 1.1 Ottoman lira = £1 sterling in 1914.

Sources: Yalman (1934: 144–54), Eldem (1994: 47–56), Toprak (2003: 169–8).

consisted of gold plus inconvertible paper with the gold circulating at the market rate against a paper currency which had become the unit of account. The exchange rates of the *kaime* in Istanbul rose from 120 piasters per gold lira early in 1916 to 400 in mid-1917 and 500 at the end of the war. Their rates were even lower in the provinces. In August 1917, for example, while 1 gold lira exchanged for 430 piasters of paper currency in Istanbul, it exchanged for 450 piasters in Bursa and Izmir, 540 in Aleppo, 555 in Beirut, and 766 in Mosul (Toprak, 1982: 232–63; Pamuk, 2000a: 222–4).

Partly because of this monetary expansion and partly because of the difficulties in provisioning the capital city, prices spiralled, especially during the last two years of the war. The cost of living index prepared by the Ottoman Public Debt Administration for Istanbul increased more than twenty-fold from July 1914 to the end of 1918 and more than eighteen-fold by the last quarter of 1918 (Toprak, 1982: 331–3) (see table 4.4). Since Istanbul experienced greater difficulties in its food supply during the war than most other regions, it is likely that the increases in consumer prices in the capital city were greater than the average. Nonetheless, even correcting for such regional differences, it is clear that Ottoman price increases during the war were unprecedented for this part of the world. The annual inflation rate of 600 per cent for 1917 remained unmatched in Turkey for the rest of the twentieth century. Moreover, the overall increase in Ottoman prices was much higher than that experienced not only in western Europe but also in Austria-Hungary and Bulgaria during the war. Ottoman price increases are comparable with the inflation in Russia before the Revolution of 1917.

While consumer prices in the capital city increased more than twenty-fold until the end of the war, increases in wages and salaries lagged far behind. Even though detailed statistics are not easily available, it is clear that real wages and salaries declined, on the average, by at least 80 per cent, in many cases by even more from late 1914 until the end of the war. The decline in the purchasing power of salaries and wages paid

by the state was greater than the decline in real wages paid by the private sector (Eldem, 1994: 55). Because of the acceleration in rates of inflation after 1916, most of the decline in real wages and salaries occurred during the last two years of the war (Eldem, 1994: 113).

It is very difficult to calculate the total financial cost of the war to the Ottoman government. Nonetheless, some calculations were made after the war during the period of Allied occupation. These studies have estimated the total cost of the war to the Ottoman government including debts incurred at 400 million current Ottoman liras. A similar estimate was provided in a postwar British study (Yalman, 1934: 144–51; Eldem, 1994: 83–117; Great Britain, Parliamentary Papers, Accounts and Papers, 1920). It is not easy to assess the reliability of these figures. Nonetheless, in the absence of better figures, we will use these estimates as the basis of a discussion of the Ottoman methods of war finance. These estimates suggest that cutting back civilian expenditure, and reducing state salaries, payment arrears, and borrowing abroad and domestically can explain how the Ottoman government met more than 50 and up to 60 per cent of the total financial cost of the war. The remaining 40 per cent was financed by printing inconvertible paper currency after 1915 in ever growing sums.

In the absence of annual series it is also not easy to calculate what percentage of the economy's resources the government was able to direct into the war effort. Nonetheless, the available figures suggest that the Ottoman government mobilised close to but still less than 10 per cent of the GDP of the empire during the four years of the war. In addition, the materials and loans obtained from Germany and Austria-Hungary for military purposes during this period amounted to a little over 1 per cent of the empire's GDP.

These rough estimates allow us to compare the total resources commanded by the government before and during the war. For the prewar period, the government's share in the GDP of the empire has been estimated at 12 per cent. Total resources commanded by the government as a percentage of GDP thus clearly increased during the war, perhaps to somewhere between 16 and 20 per cent. However, because of the considerable decline in the GDP during the war, which may have reached 40 per cent by 1918, the absolute increase in the real total of resources commanded by the government was quite limited.

The substantial decline in GDP and the rise of the government's share in GDP both point to a dramatic decline in private consumption during the war. The available evidence may not be sufficiently detailed for good estimates in this respect, but it would not be an exaggeration to suggest that aggregate private consumption in 1918 must have been 35 to

45 per cent lower in 1918 than prewar levels. In other words, the wartime decline in private consumption was not much greater than the decline in GDP. This is consistent with our earlier point that the government had only limited ability to squeeze private consumption and direct these resources to military purposes. Both the urban and the rural populations were in large part able to evade government demands. While the share of consumption in GDP may not have declined by much, there is no question that there occurred a sharp decline in both the level and the share in GDP of investment expenditure during the war.

The Ottoman case during World War I thus offers the example of an underdeveloped economy and a government with limited administrative capacity which were unable to function effectively under the extraordinary pressures created by war. The Ottoman economy was not prepared militarily or otherwise for a war of long duration. Production, both agricultural and industrial, declined substantially when faced with the pressures created by the war. The government was not able to increase substantially the resources it could direct towards the war effort. As the government's ability to collect taxes declined, reduced salaries and the printing of paper currency emerged as the most important forms of war finance. The government oscillated between coercion and markets as mechanisms for the mobilisation of resources during these four years. Both alternatives provided limited possibilities, however, because of the limitations of the underlying technology and production structure. Despite all these shortcomings, and the fact that they were forced to fight on many fronts, it is remarkable that the Ottoman war effort did not experience a total collapse. The Ottoman side managed to stay in the war and continue to hold its own on most fronts until the end in 1918.

The legacy of the war

To discuss the long-term consequences of the war in the Ottoman case, we need a wider focus than on these four years alone. From 1912 the Ottoman Empire and its principal successor state of Turkey were engaged in a series of wars that continued for a decade. The Balkan Wars of 1912–13 were followed by the World War and then the War of Independence from 1920 to 1922. Demographic changes were one important and long-lasting legacy of this decade. The population of the areas that were later included in Turkey was close to 17 million in 1913. Total casualties among Muslim Turks and Kurds during this decade, military and otherwise, are estimated at close to 2 million. Moreover, the Armenian population of Anatolia declined from close to 1.5 million to less than 100,000 as a result of the deportation of most Armenians to the Syrian desert by the Young Turk

government in 1915. Many Armenians as well as Muslims were massacred during this process, even more died of hunger and disease, and the rest of the Armenians fled Anatolia. Finally, in the largest agreement of population exchange signed between two governments, approximately 1.2 million Greeks left Anatolia, and in **return** approximately half a million Muslims **arrived** from Greece and the Balkans after 1923. These figures include the large numbers of Greeks who left western Anatolia after the defeat of the Greek occupation army in 1922.

As a result of these massive changes, the population of Turkey stood at around 13 million at the end of 1924; of the decrease of about 20 per cent on a decade previously more than half had died and the rest had fled or emigrated. Ethnically speaking, the population of Turkey emerged as much more homogeneous than the Ottoman population in the same areas, with Muslim Turks and Kurds making up close to 98 per cent of the total. Most of the remaining minorities, Greeks, Armenians, and Jews, now lived in the Istanbul area. The dramatic decline in the Greek and Armenian populations had long-term economic as well as political, social, and cultural consequences. Many of the commercialised, **export-oriented** farmers of western Anatolia, as well as the artisans, leading merchants, and moneylenders, who linked the rural areas with the port cities and the European trading houses in the long century before the war, had gone. In addition, agriculture, industry, and mining were affected adversely by the deterioration and destruction of equipment, draught animals, and vegetation during this decade. The private sector of modern Turkey would be led by a Muslim bourgeoisie that had benefited from the wartime nationalist policies of the Young Turk government and had also acquired the land and other assets of the departing Greeks and Armenians. Nonetheless, their power remained limited and their strength was confined to small and medium-sized enterprises until the second half of the twentieth century (Owen and Pamuk, 1998: 10–12).

Another important and related legacy of this decade of wars was nationalism, and specifically economic nationalism, both of which were strongly supported by the international environment of the interwar period. The leaders of the new Turkish republic, military **officers**, bureaucrats, and intellectuals were strongly influenced by the wartime experience. They had strong political and social ties to the Young Turk movement that governed the Ottoman Empire until 1918. The new leadership viewed the building of a new nation state and modernisation through westernisation as two closely related goals. They embraced the nineteenth-century westernising reforms of the Ottomans and, under the determined leadership of Mustafa Kemal, were to carry them further in the interwar period.

Their economic goals followed directly from this outlook. From the outset they strove to create a national economy within the new borders. The construction of new railways and the nationalisation of existing companies were also seen as important steps towards the political and economic unification of the new state. Even more importantly, **industrialisation** and the creation of a Muslim Turkish bourgeoisie were viewed as the key ingredients of national economic development. The Kemalist leadership was also keenly aware that Ottoman financial and economic dependence on European powers had created serious political problems. The economic policies of the war years, devised in large part out of necessity, would provide the new leadership with an important precedent for departure from the open-economy model and interventionist and protectionist economic policies during the interwar period.

In economic affairs, the **first** challenge to the new regime occurred at the Lausanne Peace Conference (1922–3) which was to **define**, among other things, **the** international economic framework for the new state. After protracted negotiations, agreement was reached in three key areas representing the beginning of a new era in relations with the European powers. First, the regime of privilege for foreign holders of concessions was abolished, and this restored greater freedom of action to the Turkish authorities. This shift also paved the way for the gradual nationalisation of many foreign-owned enterprises, most notably the railways. Secondly, the Ottoman external debt was renegotiated and apportioned to all successor states. The Turkish government assumed 67 per cent of the total to be paid in gold sterling beginning in 1929. Thirdly, the free trade treaties, which had been renewed periodically during the nineteenth century, were discontinued. It was also agreed, however, that the existing structure of low tariff rates and restrictions on the use of quotas would continue until 1929 when the new republic would be free to pursue its own commercial policies.

Beginning in 1930, the economic policies of the Turkish government turned increasingly protectionist, and this sharply reduced the share of foreign trade in the economy. In 1932 the government explicitly adopted *étatisme*, or state-led industrialisation, as the basic strategy of economic development. The acceptance of *étatisme* without much resistance from the private sector was due partly to the wartime experience of state interventionism and perhaps more importantly to the destruction and expulsion of the non-Muslim bourgeoisie during and following the decade of wars. By the 1930s the Muslim-dominated private sector was too weak and too dependent on the state to oppose this important shift. *Etatism* remained influential in Turkey after World War II right up to 1980. A strong case can thus be made here for path dependence – the importance of history and historical legacies in understanding long-term

change. This model also influenced the thinking of many Arab governments after World War II, beginning with Nasser in Egypt in the 1950s.

Another important and interesting legacy of the war years, especially for the 1930s, was the long-lasting memory of wartime inflation. This traumatic experience, combined with the bitter and lingering memories of Ottoman external debt, convinced the leadership of the Turkish republic that it should avoid public borrowing and deficit finance during the interwar period, even during the Great Depression. As a result, the macroeconomic policy mix in Turkey during the 1930s was unusual compared with activist government initiatives in other developing countries in Latin America and Asia. Government **interventionism** in Turkey was not designed, in the Keynesian sense, to increase aggregate demand through devaluations and expansionary fiscal and monetary policies. The preference of the government was for balanced budgets and a strong currency. Instead of expansionary macroeconomic policies, the emphasis was placed on creating a more closed, autarkic economy through protectionism and increasing central control through the expansion of the public sector. Such preferences were, in turn, directly related to the bureaucratic nature of the regime. These cautious policies still led to reasonably strong economic performance in the 1930s because of the performance of urban import-substituting sectors and the recovery of agriculture (Pamuk, 2000b).

The experiences accumulated during the decade of wars from 1912 to 1922 thus contributed strongly to the rise of Turkish nationalism and shaped the inward-looking economic policies of the new nation state. Self-sufficiency and preparedness for another war remained leading priorities for its economic policies during the interwar period.

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