

PALESTINE IN WORLD WAR II  
SOME ECONOMIC ASPECTS

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## Palestine in World War II: Some Economic Aspects

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The outbreak of World War II marked the beginning of the third and last decade of British rule in Palestine. It started with the British conquest of the country in 1918, received international recognition with the mandate (trusteeship) granted by the League of Nations as part of the First World War peace settlements, and ended in May 1948 after the United Nations' partition resolution in November 1947. With the termination of the British mandate, Palestine ceased to exist as an administratively unified territory. After waging a war of independence in 1948, the newly created State of Israel ruled a major portion of the land, with the remaining areas coming under the control of Jordan and Egypt (until 1967).

Under the British mandate, a rapidly growing immigrant Jewish community took coherent shape alongside the Arab community. The two autonomous and rival national communities pursued their separate institutional and social activities, turning Palestine into a binational, dualistic entity, administratively united by the mandatory government. Palestine had two distinct, albeit interrelated, economies: One was the low-income, primarily rural, and relatively backward Arab economy; the other was the relatively modern, high-income, and urban Jewish economy.

Palestine's interwar economic record was one of extraordinarily rapid average (though widely fluctuating) growth rates, facilitated by massive inflows of highly motivated Jewish immigrants, government-built infrastructure, advances in productivity, and substantial capital imports. The latter allowed for a continuous large import surplus, which in turn, made for high rates of domestic investment and continued growth.<sup>1</sup>

In World War II, thanks mainly to its strategic location and productive advantages and partly to the unequivocal support of the Jewish community for the Allied cause, Palestine was instrumental in the Allied military, logistic, and economic efforts in the Middle East. This role was the foremost factor shaping the scale and composition of economic activity in Palestine following the war-induced changes in its prewar attributes.

In this paper we document and examine, at both the aggregate and the industry level, the major developments in Palestine's World War II economy. In doing so, we will distinguish, whenever relevant and possible, between the Jewish and Arab communities and between the differential effects of the war on their economies.

### The Macroeconomic Picture

**PREWAR BACKGROUND.** The economic record of Palestine in the 1930s was a very mixed one. In the first half of the decade it experienced the most vigorous growth of the entire mandatory period, with real domestic product growing at 16.9 percent annually during 1929-1935, never rising less than 7 percent in any single year. But in the second half, the economy went through the most severe of the interwar depressions: domestic product declined at an average yearly rate of 2.6 percent, and its level in 1939 was only 90 percent of that of 1935 in constant prices (see Table 4.1).

This cyclical profile was quite different from that of the western economies. As shown in Table 4.1, the growth phase in Palestine roughly coincided with the trough of the Great Depression in the United States and with

Table 4.1. Average annual percentage rates of change of real product: Palestine, the United Kingdom, and the United States 1928-1947

Years	Net domestic product			Gross national product	
	Jewish economy (1)	Arab economy (2)	Total Palestine (3)	UK (4)	USA (5)
1928-1935	24.4	11.0	16.9	1.8	-1.6
1935-1939	-4.4	-0.6	-2.6	2.5	5.4
1939-1945	11.2	8.9	10.1	2.4	9.2
1945-1947	12.5	12.5	12.5	-2.9	-6.5

Sources: Columns 1, 2, and 3: Jacob Metzger and Oded Kaplan, *The Jewish and Arab Economies in Mandatory Palestine: Product, Employment and Growth* (in Hebrew) (Jerusalem: The Maurice Falk Institute for Economic Research in Israel, 1990), 138-39, 142, 145, 150, 154. Column 4: Angus Maddison, *Phases of Capitalist Development* (Oxford and New York: Oxford Univ. Press, 1982), 175. Column 5: Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970*, vol. 1 (Washington, D.C.: Government Printing Office, 1975), 226-27.

the sharp slowdown in the United Kingdom, while at the time of Palestine's depression, in the second half of the decade, the western economies were already on their way to recovery.

At first glance this may look like a lagged response to the world depression, but careful examination has shown that the major factors shaping Palestine's interwar economic fluctuations (as well as its secular growth) were local and "Jewish-specific." Most prominent were the volume and pattern of Jewish immigration and capital import, the intensity of the Jewish-Arab conflict and its implications for internal security, the budgetary policy of the mandatory government and fluctuations in crop yields (note that agriculture generated about 20 percent of the country's domestic product during the mandate period).<sup>2</sup>

Because the modern Jewish community played the role of an economic "leading sector" in Palestine, the pattern of Jewish immigration and capital inflows was probably the most instrumental factor shaping the profile of economic activity, not only in the Jewish community but in the country as a whole. The mass of immigration, which more than doubled the size of the Jewish population (from 175,000 at the end of 1931 to 384,000 by the end of 1936), and the accompanying capital influx<sup>3</sup> provided an impetus for accelerated investment in construction and in other industries (such as agriculture, manufacturing, banking, commerce, and professional services), for the intensification of Jewish-Arab trade, and, consequently, for fast growth in the first half of the decade.

The large immigration waves of the 1930s may have been partly motivated by the depressed state of the European economies at the time, but in the main they were a reaction to the intensified anti-Semitic push factor from Eastern Europe and, starting in 1933, from Nazi Germany. It thus could be argued that in certain respects the factors leading to World War II had already started to affect the economy of Palestine as early as the mid-1930s.

The 1935 downturn phase, which turned into a full-blown four-year depression in 1936, was also primarily "Palestine-specific" in cause and nature. In the mid-1930s difficulties arose in gainfully absorbing the extraordinary inflow of immigrants, reflecting both frictional problems of adjustment and a continuous decline in the amount of imported capital per immigrant (from about £790 in 1930 to £163 in 1935).<sup>4</sup>

These absorption difficulties were aggravated in 1936 by poor crops, overinvestment in citrus groves, and disruption of economic activity caused by the Arab general strike in the spring of that year and by subsequent violent incidents that undermined internal security for the following three years.

Arab discontent, encouraged and supported by Italy, was not, in it-

self, detached from Jewish immigration. It was partly a reaction to the growing weight of the Jewish population in Palestine, from about 17 percent in 1931 to 28 percent in 1936—about the time when the Jewish economy surpassed the Arab economy in product terms—and to 30 percent in 1939.<sup>5</sup>

The declining path of output during 1936–39 was accompanied by a sharp rise in unemployment. In the Jewish community, where unemployment was virtually nonexistent in 1933–34, it reached 5 percent of the labor force in 1936 and climbed to about 8 percent in 1939.<sup>6</sup> Although no comparable data are available for the Arab sector, it seems reasonable to assume, given the decline in output, that unemployment among Arabs also was increasing at the same time. This sizable unemployment created a substantial reservoir of unutilized resources on the eve of the war. In this respect, conditions in Palestine were similar to those in Great Britain and in the United States, which were still suffering from high unemployment.

A highly significant factor in the case of Palestine, however, was the large labor-supply component of the latest new immigrants, whose earning capacity was much more human capital-intensive than that of the immigrants who had arrived in the 1920s. Of the 50,000 Jewish earners who immigrated to Palestine during 1932–39, 15 percent were professionals (half of them were medical doctors and engineers) and only 13 percent were unskilled workers, whereas among the 54,000 earners who immigrated during 1919–31 only 8 percent were professionals and 16 percent had no skills.<sup>7</sup> Many of the professional and highly skilled newcomers were unable to find employment in their original occupations and thus could only contribute to Palestine's *potential* productive capacity. This potential could only be realized if the opportunity for these newcomers to gainfully utilize their professional skills were to arise. This was, indeed, the case during the war, as we will see below.

In considering Palestine's productive capacity on the eve of the war, one should also take into account the buildup of the country's infrastructure and industrial capital. Two major projects were particularly important. One was the government-constructed deep-water harbor in Haifa, which was completed in 1933. It was severely criticized while under construction as an extravagance, but proved invaluable during the war, serving as a major Allied naval base in the eastern Mediterranean and as a major maritime trade center for the entire Middle East. The second major project combined the oil pipeline laid down by foreign investors between Mosul (in Iraq) and Haifa and the British-owned oil refineries at Haifa. The completion of the latter in 1939 rendered Palestine and neighboring countries virtually independent of sea-borne fuel supplies and assured the uninterrupted provision of fuel for production purposes during the war.

**THE WARTIME ECONOMY.** The predominant effect of the war on aggregate economic activity in Palestine was to restore prosperity and growth. Notwithstanding the disruption of maritime trade, the severance of sea-borne citrus export, and other disturbances that made for continued economic decline in the first year of the war, the average annual growth rate for the entire war period was a high 10.1 percent. As shown in Table 4.1, this resembled (and even slightly exceeded) the growth rate of the booming American war economy and was substantially higher than the British wartime economic expansion.

In the growth-resumption process, unemployed resources became fully utilized, with unemployment in the Jewish community falling sharply from 12.6 percent of the labor force in 1940 (this high rate reflected the frictional problems of adjustment to wartime conditions in its first year) to a negligible 2 percent for the rest of the war years.<sup>8</sup> Although most of the reduction in unemployment was caused by new war-generated demand for Palestine's products (to be discussed below), part of it was due to the relatively large number of Jewish volunteers to the British army: about 27,000 Palestinian Jews had served in the army by 1945 (the number of Arab volunteers did not exceed 12,500) or about 10 percent of the overall Jewish labor force—a very substantial proportion considering the fact that there was no conscription in Palestine. In Great Britain, for example, the share of the labor force mobilized (including conscripts) was 21.4 percent.<sup>9</sup>

An interesting feature of Palestine's wartime growth record was the relatively small difference between Jewish and Arab growth rates (11.2 and 8.9 percent, respectively) compared with the substantial gap between the two sectors in the prosperity phase of the 1930s (see Table 4.1). These changes in relative growth performance may be partly due to the fact that the fast growth during 1929–1935 was facilitated primarily by Jewish immigration and capital import, whose direct effect was to stimulate the Jewish economy, whereas their contribution to economic growth in the Arab economy was secondary. The impetus for the wartime boom, on the other hand, was provided mainly by exogenous developments that contributed directly, albeit differentially, to the level and growth of economic activity in both national communities.

Of major weight in this respect were the rising demand of the British and Allied armed forces in the Middle East for locally produced goods and services, the expanding mid-eastern market for Palestine's exports, and the growing domestic production of import substitutes. These developments were largely fostered by the British dual strategic response to the fall of France and Italy's entry into the war (June 1940), which was to turn the Middle East into a major supply center for the Allied forces in the area and to make the region as economically self-sufficient as possible. The purpose

of this strategy was threefold: Logistically, it sought to reduce the dependence of the army and the economies in the region on the disrupted Mediterranean trade routes and on the limited shipping space available. Economically, it was directed at easing the demand both for nonsterling currencies and for British resources. And politically, the aim of the strategy was to provide a stable supply of consumption goods for the population of mid-eastern countries and thus assure contentment and stability behind the Allied lines.

Coordination of supplies in the region was carried out by the Cairo-based Middle East Supply Center, established by the British in May 1941 (in April 1942 it became a joint British-American operation). The center allocated shipping space for civilian cargo and soon became a major organ for regulating and coordinating production and distribution within and between the countries under British control in the Middle East. Besides the regional coordinating activities of the supply center, the mandatory government of Palestine resorted to typical wartime measures of quantity regulation and price controls, supported by rationing and subsidization, to assure the overall provision of necessities (particularly imported foodstuffs) and to maintain some distributional equity within the country.<sup>10</sup>

Of all the exogenous output-increasing factors in Palestine, the demand of the British army for goods and services seems to have been quantitatively the most important one. Some relevant figures are provided in Table 4.2, which shows that the ratio of military purchases to Palestine's domestic product (column 4) increased from almost 9 percent in 1939 to a

Table 4.2. Net domestic product, military purchases, and total Palestine's export, 1939-1945

Year	Millions of pounds in current prices			Ratio (%)		
	NDP purchases (1)	Military purchases (2)	Total exports (3)	Military purchases to NDP (4)	Military purchases to exports (5)	Total export to NDP (6)
1939	30.3	2.6	8.4	8.6	31.0	27.8
1940	38.8	8.5	14.2	21.9	59.9	36.6
1941	54.6	20.7	27.3	37.9	75.8	50.0
1942	94.7	25.4	38.3	26.8	66.3	40.4
1943	122.7	31.5	49.8	25.7	63.3	40.6
1944	133.6	25.0	46.8	18.7	53.4	35.0
1945	155.3	24.3	47.4	15.6	51.3	30.5

Sources: Column 1: Jacob Metzger and Oded Kaplan, *The Jewish and Arab Economies in Mandatory Palestine: Product, Employment and Growth* (in Hebrew) (Jerusalem: The Maurice Falk Institute for Economic Research in Israel, 1990), 142, 154. Column 2: *Supplement to Survey of Palestine* (Jerusalem: The Government Printer, 1947), 109. Column 3: 1939-1944: *A Survey of Palestine*, vol. III (Jerusalem: The Government Printer, 1946), 1296-1301; 1945: *Supplement to Survey*, 65.

All exported goods and services including oil products and military purchases.

wartime peak of 38 percent in 1941. The ratio subsequently declined but did not fall below 25 percent until 1944; even by the end of the war, it was 15 percent.

Sales to the British armed forces were also the largest component of Palestine's export during the war, reaching 76 percent of the value of all goods and services exported in 1941—the year when the country's export reached its relative peak—and an average of 59 percent in the remaining war years without falling below 50 percent of total export in any single year. Moreover, the volume of goods and services sold to the army, which in balance-of-payments terms is recorded as "invisible export," more than compensated for the deficit in merchandise trade that the country continued to maintain during the war, turning the prewar current-account deficit into a substantial wartime surplus.

This structural change in Palestine's foreign trade position is shown in Table 4.3, which provides summary figures for the country's balance of payments during 1936-1946. It also shows (column 9) that the current-account surplus, combined with the continuing inflow of capital and transfers, made for a substantial accumulation of foreign exchange reserves during the war. The buildup of reserves was, on the one hand, an indication of the ability to meet the rising demand for export that facilitated Palestine's wartime economic growth; on the other hand, it reflected the fact that the war-related constraints on trade and international capital flows and the regulation and rationing of foreign exchange and import volumes imposed by the British government prevented Palestine from increasing its import.

Most of the accumulated foreign exchange was held during the war as frozen sterling reserves, in London, by the Palestine Currency Board (the statutory body appointed by the British government to issue Palestine's fiat currency at a one-to-one sterling exchange rate) and by Palestine banks. This mechanism provided for an immediate conversion of foreign exchange into domestic money. For example, goods and services sold to the British army in Palestine were paid for in newly created Palestine pounds against which the sterling account of the Currency Board in London was credited.

The automatic one-to-one convertibility made for close correspondence between the accumulation of sterling reserves (about £108 million between 1933 and 1945) and the increase in the quantity of money in Palestine (about £98 million during the same period). This monetary expansion, which meant an almost sevenfold rise in the money supply in the course of the war years, fueled the country's sharp wartime inflation, in which the price level (measured in terms of a cost-of-living index for the Jewish community) almost tripled between 1938 and 1945.<sup>11</sup> Such a price hike was in sharp contrast with the stable (even slightly declining) prices of the interwar period and evoked institutional measures to contain its effects. Note, par-

Table 4.3. Palestine's balance of payments, 1936-1946 (thousands of pounds)

Year	Current account				Transfers and capital movements (changes in reserves and balancing item)				
	Goods	Invisibles		Total	Private (6)	Government (7)	Total (6) + (7) (8)	Balancing item - [(5) + (8)] (9)	
	(1)	Military purchases (2)	Others (3)	All invisibles (2) + (3) (4)					(1) + (4) (5)
1936	-8,033	500	-1,660	-1,160	-9,193	7,300	1,520	8,820	373
1937	-8,479	1,000	-1,900	-900	-9,379	5,500	1,163	6,663	2,716
1938	-4,797	1,000	-1,800	-800	-5,597	6,300	1,432	7,732	2,135
1939	-6,826	2,600	-1,730	870	-5,956	7,600	1,262	8,862	-2,906
1940	-8,766	8,500	-700	-7,800	-966	4,700	1,700	6,400	-5,434
1941	-11,003	20,700	200	20,900	9,897	5,300	1,200	6,500	-16,397
1942	-16,507	25,400	2,200	27,600	11,093	6,500	770	7,270	-18,363
1943	-15,522	31,500	2,500	34,000	18,478	8,000	3,050	11,050	-29,528
1944	-18,107	25,000	3,300	28,300	10,193	12,000	735	12,735	-22,928
1945	-18,132	24,300	-2,500	21,800	3,668	12,500	-3,880	8,620	-12,288
1946	-42,617	23,500	-1,500	22,000	-20,617	20,500	-3,950	16,550	-4,067

Sources: Columns 1, 3, 6, and 7: 1936-1944: *A Survey of Palestine*, vol. III (Jerusalem: The Government Printer, 1946), 1296-1301; 1945-1946: *Supplement to Survey of Palestine* (Jerusalem: The Government Printer, 1947), 64-65. Column 2: 1936-1938: *Survey of Palestine*, 1296-1301; 1939-1946: *Supplement to Survey*, 109.

ticularly, the cost-of-living escalator clause incorporated into wage contracts as early as 1942, making wartime Palestine one of the early examples of wage indexation.

The war inflation in Palestine was similar in magnitude to that of the neighboring mideastern countries, who seem to have encountered a similar problem of accumulated reserves that could not be used to finance rising imports. But it was substantially higher than the price rise in the economies of the western Allies. In the United States, the consumer price index rose by only 50 percent over the entire war period; in the United Kingdom, the total inflation was even lower and did not exceed 30 percent.<sup>12</sup>

At the root of these moderate rates lay the relative success of the American and British governments in restraining the potential wartime monetary expansion (in neither the United States nor Britain did the money supply increase more than 3.5-fold during the war). They were able to do so by relying heavily on domestic borrowing as a means of financing the war demand. In Palestine, on the other hand, attempts to raise the outstanding public debt during the war failed. In view of the uncertainty about the political future of the country and the ongoing inflation, the public apparently had very little interest in buying government bonds at their quoted price. Alternative means, such as offers of gold for sale, also proved unsuccessful in curbing inflation, as were the fiscal devices, including an income tax newly established in 1941.<sup>13</sup>

Another factor that has often been cited to explain the high inflation rate in Palestine was the (presumed) relative ineffectiveness of price control measures.<sup>14</sup> However, one should not view the success in administratively controlling prices over an extended period of time as independent of the rate of monetary expansion. Moreover, the appreciable growth of real balances in Palestine at 15 percent annually between 1938 and 1945 (in the United States the comparable rate of growth was also around 15 percent per annum) implies a state of substantially suppressed inflation—at least with regard to the recorded price rise—and casts some doubt on the quantitative significance of this criticism.

The substantial rise in real balances and in other financial assets,<sup>15</sup> despite rapid inflation, was in part a reflection of the war-imposed supply constraints. They prevented consumers from turning much of their rising wartime incomes into consumption, particularly of housing (see the discussion below) and other durables.

We can thus summarize the macroeconomic record of Palestine in World War II as one of remarkable recovery from the prewar slump to fast growth, fostered by British, regional, and domestic war-related demand and facilitated by the country's large and growing productive capacity. This economic upturn, however, was achieved at the price of high inflation,

caused by a combination of external factors and internal constraints, which prevented the mandatory government from carrying through an effective policy of monetary restraint.

### Industrial Structure and Performance

The war-related increase and compositional changes in the demand for Palestine's domestic product, besides their scale effects discussed above, caused some allocational shifts between and within industries. In this section we elaborate on these shifts, first by looking at the pattern of change in the overall industrial structure, and then by separately examining the wartime developments in key industries and sectors.

**THE INDUSTRIAL MIX OF PRODUCTION AND EMPLOYMENT.** The structural changes in production are summarized in Table 4.4, which presents the distribution of domestic product by industry in selected prewar and World War II years for the entire country and for the two national sectors

Table 4.4. Industrial composition of net domestic product in current prices, selected years, 1935-1945 (percent)

	1935	1939	1942	1945
<b>Jewish economy</b>				
Agriculture	11.1	9.7	7.0	10.7
Manufacturing	19.7	24.2	29.5	33.1
Construction	15.0	3.9	7.1	6.0
Services	54.2	62.2	56.4	50.2
Total	100.0	100.0	100.0	100.0
<b>Arab economy</b>				
Agriculture	30.0	30.1	36.4	38.9
Manufacturing	9.7	10.8	11.1	10.3
Construction	5.2	1.3	4.8	2.4
Services	55.1	57.8	47.7	48.4
Total	100.0	100.0	100.0	100.0
<b>Total Palestine</b>				
Agriculture	19.3	18.9	19.5	22.5
Manufacturing	15.4	18.2	21.6	23.5
Construction	10.8	2.7	6.2	4.5
Services	54.2	60.2	52.7	49.5
Total	100.0*	100.0	100.0	100.0

Sources: Jacob Metzger and Oded Kaplan, *The Jewish and Arab Economies in Mandatory Palestine: Product, Employment and Growth* (in Hebrew) (Jerusalem: The Maurice Falk Institute for Economic Research in Israel, 1990), 88-90, 138-39, 142, 145, 150, 154.

\*Rounded value.

separately. At the all-Palestine level the major wartime developments were an acceleration of the secular rise in the product share of manufacturing, which reached almost a quarter of the country's domestic product in 1945, and a reversal of the prewar decline in the proportion of agriculture (from 18.9 percent of domestic product in 1939 to 22.5 percent by the end of the war). The rising weight of both manufacturing and agriculture in production should not be surprising; any traditionally food-importing country such as Palestine would have had to become more self-sufficient in food supply, and at the same time to respond to the rise in the war-generated demand for manufactured goods (Great Britain itself is another case in point).<sup>16</sup> These effects were intensified in Palestine by the need to use domestic production to substitute for the declining import of both manufactured and agricultural goods, and by the rising demand in the Middle East for its own industrial products.

When broken down by national community, the pattern of industrial structure reveals a "division of labor" between the Jewish and the Arab sectors that tends to fall along typical "dualistic" lines. As shown in Table 4.4, the Jewish sector was predominantly responsible for the rising product share of manufacturing both before and during the war—an expected outcome, given the Jewish advantage in industrial capital, know-how, and skills. The Arab sector was the major contributor to the small rise in the share of agriculture.

The compositional change in employment differed somewhat from that in the industrial product mix. As reported in Table 4.5, the country-wide rise in the share of employment in manufacturing during the war was even higher than production (from 13.4 percent of total employment in 1939 to 17.8 percent in 1945). But the employment share of agriculture, on the other hand, continued its long-term decline dropping from 44.4 percent on the eve of the war to 37.5 percent by its end. Consequently, relative labor productivity, which declined slightly in manufacturing during the war (from 1.36 in 1939 to 1.32 in 1945), grew substantially in agriculture: it was 0.43 in 1939 and 0.60 in 1945.

The increase in agricultural labor productivity, which was brought about by an expansion of the area cultivated (see the discussion below), investments in intensification of production, and a rise in total factor productivity, was particularly prominent in the Jewish sector. Jewish agricultural employment declined both relatively and absolutely during the war, while in the Arab sector the decline in the employment relative share of agriculture was accompanied by an absolute increase in the number of employed people from 163,000 in 1939 to 175,000 in 1945.

A comparative examination of the structural changes of employment by industry over the entire prewar decade and war years reveals some addi-

Table 4.5. Industrial distribution of employment in 1931, 1939, and 1945 (percent)

	1931	1939	1945
	(1)	(2)	(3)
<b>In the Jewish economy*</b>			
Agriculture	26.0	22.2	13.1
Manufacturing	20.1	22.8	30.8
Construction	8.3	3.0	4.6
Services	45.6	52.0	51.5
Total	100.0	100.0	100.0
Total (thousands)	70.0	174.1	237.0
<b>In the Arab economy*</b>			
Agriculture	63.2	58.2	54.5
Manufacturing	8.1	7.5	8.8
Construction	2.3	1.4	5.0
Services	26.4	32.9	31.7
Total	100.0	100.0	100.0
Total* (thousands)	220.0	280.0	335.0
Total Palestine	54.2	44.4	37.5
Manufacturing	11.0	13.4	17.8
Construction	3.8	2.0	4.9
Services	31.0	40.2	39.8
Total	100.0	100.0	100.0

Source: Jacob Metzger and Oded Kaplan, *The Jewish and Arab Economies in Mandatory Palestine: Product, Employment and Growth* (in Hebrew) (Jerusalem: The Maurice Falk Institute for Economic Research in Israel, 1990), 112, 115-16, 149, 153.

\*Arabs employed by Jews are included in employment figures of the Jewish economy and excluded from those of the Arab economy.

tional noticeable differences between the Jewish and Arab economies. In the Jewish economy, except for the relative decline in construction during the second half of the 1930s, the major occupational changes—the shift from agriculture, and to some extent from services, to manufacturing—were concentrated in the war years, reflecting the rapid wartime industrialization in the Jewish economy (elaborated on below). In the Arab economy, on the other hand, the relative shift from agriculture to services during the war continued a secular-trend of exodus, primarily from self-employment in agriculture, which had started in the early 1930s.<sup>17</sup> Before the war major employment-absorbing service branches were transportation and trade. During the war, however, it was primarily governmental war-related public works and military construction and maintenance (all classified in Table 4.5 as “services”) that absorbed the excess supply from declining peacetime industries such as citrus (in which about 20,000 Arab laborers were engaged

in the late prewar years) and maritime trade (which had provided employment for about 3,000 Arab dockworkers on the eve of the war).<sup>18</sup>

#### INTRAINDUSTRY CHANGES

**Agriculture.** Agriculture in Palestine had to adjust to two substantial war-generated developments. The major one was the sharp reduction in citrus exports. During the first two years of the war these exports declined from 15 million cases in 1938-39 to a mere 170,000 cases in 1940-41; even the partial revival in the following years could only increase the volume of exports up to 2.75 million cases by 1944-45. Correspondingly, the countrywide share of citrus in agricultural output sank from 37 percent in 1939 to about 5 percent by the last war season of 1944-45. The drop was particularly severe in the Jewish sector, where citrus crops accounted for 63 percent of agricultural output on the eve of the war, whereas in the Arab economy they constituted only 21 percent of output.<sup>19</sup>

Compared to the virtual collapse in production, the decline in the citrus planted area was only 20 percent—from 300,000 dunams in 1939 to 240,000 dunams in 1945.<sup>20</sup> This relatively mild reduction can be explained by two factors: One is the large fixed-cost component coupled with the long gestation period of six to seven years of investments in citrus groves. The second, related, factor was the reluctance of planters to reallocate their citrus grove areas to alternative uses, based on the expectation that the crisis would pass. This expectation was reinforced by governmental subsidized loans aimed at assisting citrus farmers to survive the crisis.

The second wartime development that domestic agriculture had to cope with was the reduction in agricultural imports. Before the war Palestine depended heavily on imported food. No less than 41 percent of domestic food consumption in 1939 was imported. The import share declined to 30 percent in 1943-44, whereas total domestic food consumption increased by about 8 percent in volume terms over this four-year period.<sup>21</sup>

What we observe happening is the development of partly complementary allocative adjustments: the decline in citrus exports freed agricultural inputs, whereas the need for a domestic substitute for reduced food imports (as well as the rising food sales to the British army and to the neighboring countries) increased the demand for these inputs. Indeed, for the country as a whole, the wartime increase in noncitrus agricultural production (by about one-third in volume terms) compensated for the sharp decline in citrus production, leaving the total volume of agricultural output roughly unchanged by the end of the war.<sup>22</sup>

The increase in agricultural produce other than citrus in the Jewish



sector was achieved partly by expanding the land area under cultivation. Total tilled area in the Jewish economy expanded by about 26 percent during the war (from 595,000 dunams in 1939 to 750,000 dunams in 1945), with land allocated to noncitrus crops rising by 45 percent. The fastest expansion occurred in the area of intensive cultivation of irrigated field crops and vegetables. It more than doubled during the war, accelerating a trend that had already started in the late 1930s with the decline (following the Arab strike of 1936) of Jewish purchases of Arab produce.<sup>23</sup>

The volume of the noncitrus output of Jewish agriculture about doubled during the war. Particularly noticeable (as shown in Table 4.6) was the rise in the production of potatoes, milk, fruit, and the newly introduced cultivation of fish raised in artificial ponds. This remarkable growth was facilitated by a combination of factors: the above-mentioned land expansion, intensification of production, spread of irrigation, and technological improvements, all of which made for a rise of 70–80 percent in the productivity of labor, whose input in noncitrus Jewish agriculture increased by only 20–30 percent during the war.<sup>24</sup>

The growth of output in Arab agriculture in percentage terms was far more moderate: noncitrus production increased by about 20 percent in volume terms and quite uniformly across various products (see Table 4.6). However, since on the eve of the war the Arab sector produced more than three-quarters of Palestine's (noncitrus) agricultural output, this 20 percent growth made for 72 percent of the absolute wartime increase in agricultural output in the country as a whole.<sup>25</sup> Unlike the Jewish economy, however, the growth of output in Arab agriculture came about with essentially no land expansion;<sup>26</sup> this implies that it was primarily the result of intensification, rising labor/land ratios, and probably increasing productivity as well.

**Table 4.6. Wartime agricultural output (volume indexes)**

	Jews		Arabs	
	(Average 1938–39 = 100) Average 1944–45	(Average 1935–39 = 100) Average 1942–44	(Average 1935–39 = 100) Average 1942–44	(Average 1935–39 = 100) Average 1942–44
Grains	130.0	113.0	113.0	113.0
Potatoes	733.0	147.1	147.1	147.1
Vegetables	146.7	113.3	113.3	113.3
Fruit (noncitrus)	195.6	100.0	100.0	100.0
Olives	—	125.0	125.0	125.0
Fish (grown in ponds)	3,600.0	—	—	—
Meat and poultry	161.0	121.7	121.7	121.7
Milk	202.6	115.0	115.0	115.0
Eggs	146.4	144.0	144.0	144.0

Source: David Horowitz, *The Economy of Palestine and Its Development*, 2nd ed. (Tel Aviv: Mosad Bialik, 1948), 211–212 (in Hebrew).

**Manufacturing.** A most prominent development of Palestine's war economy was the growth of manufacturing, which became a major source of supply for the Allied forces (second only to Egypt) and the civilian population in the Middle East.<sup>27</sup> The wartime growth of this industry, although widespread, was very unevenly distributed between the two national sectors. Arab manufacturing, which produced about 27 percent of the country's industrial product on the eve of the war, grew by only 42 percent during the war, compared with the 65 percent growth of total Arab domestic product. Moreover, most of the Arab industrial expansion was concentrated in traditional, small-scale and cottage-type industries, and only a small segment of it involved structural changes such as modern mechanization of some of its textile production.<sup>28</sup>

The scale and nature of Jewish industrial expansion, which dominated the development of manufacturing in the country as a whole during the war, was quite different. Industrial employment doubled between 1939 and 1945, whereas total Jewish employment had increased by only a third. Similarly, the product of Jewish manufacturing grew by 133 percent (thereby raising its share in the country's overall manufacturing product from 73 percent on the eve of the war to 82 percent by its close), an increase substantially larger than the 96 percent rate of total domestic product in the Jewish economy between 1939 and 1945.<sup>29</sup>

Jewish comparative advantage in the production of manufactured goods stemmed from several interrelated factors: the existing industrial overhead and equipment, a good portion of which was imported from Nazi-controlled central Europe as an agreed-upon means of transferring Jewish capital to Palestine; the scientific and technical infrastructure of the Jewish institutions of research and higher learning; and the professional, highly skilled and motivated people, many of whom, having immigrated to Palestine from central Europe in the 1930s, were instrumental in developing the country's technical and scientific potential. These complementary factors, which were largely underutilized before the war, combined with the large reserve of low-skilled unemployed laborers, provided the foundation for a modern, fast-growing, and diversified manufacturing industry in response to the war-related demand.

The largest single customer of manufactured foods, certainly in the first four years of the war, was the British army. Its direct purchases, according to some conservative estimates, constituted no less than 36 percent of total output produced by the Jewish manufacturing industry in 1943 and was probably much the same in the preceding war years.<sup>30</sup>

The assortment of goods sold to the British army and Allied forces in the Middle East was very diversified. Besides large numbers of "traditional"

goods such as footwear (over a million pairs of boots were produced for the Allied forces by the Jewish leather industry), a variety of new products was developed and produced in the course of the war in a number of industrial branches. In the food and textile industries, for example, these included canned and processed food products, camouflage nets, inflatable rubber belts and gloves, and silk for parachutes.

Particularly innovative and responsive to the war needs, however, were the metal, machinery, and chemical industries. They delivered, among other things, no less than 3 million antitank mines (produced by machines originally designed for the production of floor tiles); 6 million 2-gallon containers; a similar number of dry-cell batteries; 25,000 accumulators; spare parts for machines, tanks, trucks, and ships (including two complete minesweepers built in Tel Aviv); electrical equipment of all kinds; and a variety of optical and precision instruments. In addition, various chemicals, medical instruments, vaccines, and other pharmaceutical products were produced as part of the medical services and supplies provided to the British army by Jewish hospitals and medical research institutions in Palestine.<sup>31</sup>

The story of the war-caused developments in Jewish manufacturing would not be complete without mentioning the diamond industry, which, apart from a few tiny workshops, was virtually nonexistent in Palestine before the war. In the 1930s, about 90 percent of the global diamond cutting and polishing was performed in Belgium, Holland, and Germany, with Antwerp by far the largest center of the industry. Around 80 percent of the output was marketed in the United States and most of the rest in India. With the occupation of the Low Countries by Germany in May 1940, the established diamond industry was cut off from its markets and from its sources of supply. Outside Europe, a surging market for gemstones, induced by prosperity and inflation, was soon added to the war production demand for industrial diamonds. Alternative production centers therefore developed in New York, Palestine, South Africa, and Brazil, with the first two mainly run by Jewish refugees from Belgium.

In mid-1943, 33 diamond-cutting plants in Palestine were employing about 3,500 workers (about 8 percent of the labor force engaged in Jewish manufacturing), twice as many as in the United States. Practically all the workers had to be trained from scratch, and the machinery had to be constructed locally. Because of the development of efficient training and production methods, the Palestine diamond industry competed successfully in the world market and, besides providing the region with industrial diamonds, exported about 80 percent of its gem output to the United States and most of the remainder to Canada and India, thus establishing itself as a major production center on a global scale.<sup>32</sup>

**Construction.** The wartime activity in the construction industry was characterized by an intensive military buildup and expansion of strategic public works.<sup>33</sup> These trends had begun already in 1936-37, induced by the Arab revolt of 1936 (which was supported by Italy), by the threat to the Suez Canal and to other British imperial interests in the Middle East implied by the Italian takeover of Ethiopia, and by the imminence of a major military confrontation. In the three years preceding the war several army camps were built in Palestine, a barbed-wire fence was constructed along the country's northern border, and a program of building roads was launched by the mandatory government that doubled the country's all-weather road system between 1938 and 1940.

By mid-1940 the Allied forces in the Middle East numbered 90,000, of which about 30 percent were stationed in Palestine. In the following two years these forces grew more than threefold, substantially raising the demand for camps, housing, air-raid shelters, and fortifications. There were two major waves of military construction during the war, the first in the summer of 1941 when Palestine was the forward base for operations in Syria, and the second in mid-1942, following Rommel's advance in the North African desert.

In realizing their military construction plans the British relied heavily on local resources that consisted, in addition to raw materials and equipment, of both Arab and Jewish unskilled labor, and primarily Jewish skilled contractors, surveyors, foremen, managers, engineers, and architects. This professional core and the accompanying technical equipment of local construction firms were used by the British in the Middle East for construction projects all over the region: in Syria, Lebanon, Iran, Iraq, and Bahrain.

This intensive activity was in part directly undertaken by the mandatory government and the British army, but most of it was farmed out to independent contractors, mostly Jewish companies. Particularly active in the field was Soliel Boneh, the contracting firm of the Histadrut (The Jewish Federation of Labor in Palestine), which undertook a good part of the British wartime construction projects both in Palestine and abroad.

Part of the story of the upsurge in wartime public construction is revealed by the industry's output figures. They show a 5.8-fold increase of total construction output in constant prices between the depressed year of 1939 and 1945. This revival was large enough to raise the 1945 output level 35 percent above that of 1935—the peak year of activity in the industry during the entire interwar period.<sup>34</sup> Note, however, that these figures are only a lower-bound estimate of the growth performance of the industry during the war, because they do not include public construction directly undertaken by government agencies of all kinds and not farmed out to

contracting firms, which, as noted, was recorded in the disaggregate employment and output statistics as part of the services industry.

Moreover, the wartime expansion of military and other public construction projects was certainly larger than the all-industry figures might indicate, because part of the activity initiated by the government and by the army made up for the decline in the private construction of housing. The reduction in civilian housing construction was particularly sharp in the first four years of the war; during 1942-1943 it practically came to a complete halt, following the prohibition imposed by the government on the civilian use of building materials except for the construction of air-raid shelters. A severe housing shortage ensued, particularly in the urban areas, which led to rent control, "key-money" arrangements (as an alternative to the allocative and distributive mechanism of market-determined rents), and residential overcrowding. An impressionistic view of the evidence suggests that in World War II Palestine, residential services exhibited more than any other goods and services (with the possible exception of transportation) the shortage and dislocation attributes typical of war economies.

**Foreign Trade in Merchandise.** The scale and compositional changes in Palestine's merchandise trade with foreign countries provide a kind of capsule summary of the above-mentioned war-caused allocational effects. The pattern of overall export and import of goods (net of crude oil imports and of refined fuel exports, and excluding sales to the British army in Palestine) is reported in Table 4.7. The picture emerging from the data on the volume of trade reveals a decline in both imports and exports between 1939 and 1945, mainly concentrated in the first year of the war.

Particularly sharp was the reduction of imports, which shrank 37 percent between 1939 and 1940; it continued low thereafter, and even as late as 1945 it had not even caught up with the low level of 1940. This pattern reflected the supply constraints on wartime trade in general and the suspension of imports from specific sources; consider, for example, the case of continental Europe, which provided 40 percent of Palestine's imports in 1939 but only 2.4 percent in 1945.<sup>35</sup> The demand response—induced partly by market reaction to changing prices and partly by government directive—of the relative decline in import-intensive civilian uses, and the rise in the production of import substitutes, also contributed to the decline.

On the exports side, the pattern and extent of change during the war was quite different. Unlike imports, the level of exports started to recover already in 1942, and in 1945 it was almost twice as large as in 1940 and more than 3.5 times larger than at the low point of 1941. As can be seen in Table 4.7, the major contributing factor to the recovery of exports was the newly established diamond industry. Its weight in total merchandise exports

Table 4.7. Palestine's import and export of goods, 1939-1946\* (millions of pounds)

Year	Imports <sup>b</sup>		Exports <sup>b</sup>			
	Current prices (1)	1939 prices (2)	Current prices (3)	Current prices (4)	1939 prices (5)	1939 prices (6)
1939	14.6	14.6	5.1	5.1	5.1	5.1
1940	11.6	9.2	2.8	2.8	2.3	2.3
1941	12.3	7.0	1.9	1.1	1.1	1.2
1942	19.7	8.4	2.8	3.7	1.1	1.5
1943	20.2	6.2	4.7	7.4	1.6	2.4
1944	27.9	7.9	6.8	10.1	2.1	3.2
1945	31.2	8.9	8.0	14.0	2.5	4.4
1946	57.7	17.9	9.4	14.9	2.8	4.5

Sources: *Statistical Abstract of Palestine, 1943*, pp. 96-100 and 1944/45, pp. 66-77 for total (including oil) import and export figures 1939-44, for the derivation of crude oil import data 1940-44 and oil products export data 1940-42, and for import price index 1939, 1941-44. *Supplement to Survey*, pp. 42-49 for total (including oil) import and export figures 1945-46, crude oil import 1945-46, and import price index 1945-46; p. 69 for cut diamond exports 1940-46. *The Palestine Economy in the Transition Period* (in Hebrew), (Tel Aviv: The Jewish Agency, 1946), p. 23 for oil product export, 1943. M. Eitinger, ed. *The Yishuv Economy* (Jerusalem: Vaad Leumi, 1947) (in Hebrew), 369-76 for oil product export, 1944-46. Szerezewski, Essays, p. 68 for wholesale price index, which was used to deflate the current price export figures and the 1940 import figures.

\*Excluding import of crude oil and export of oil products, and net of sales to the British army.

<sup>b</sup>Plus sign indicates "with diamonds"; minus sign indicates "without diamonds."

kept rising during the war (as shown in Table 4.8) from less than 1 percent in 1940 to more than 42 percent in 1945. Correspondingly, the share of the United States—the major buyer of cut diamonds—in the country's merchandise exports increased from a mere 3 percent in 1939 to 34 percent in 1945, making the United States the single largest destination for Palestine's export during the war.

Instrumental as cut diamonds were in the recovery of export, one should not fail to appreciate the role played by other manufactured products. As demonstrated in Table 4.8, these accounted for about 70 percent of total exports in 1941 and 1942, and even the subsequent decline (reflecting the expansion of diamond exports) did not reduce their share below 37 percent during the remaining war years. Most of the nondiamond manufactured goods (excluding those sold to the British army) were exported to neighboring mideastern countries, for which Palestine's industrial products provided a practical wartime substitute for the declining European supply. Indeed, their combined share in Palestine's export increased from 10 percent in 1939 to 44 percent in 1943, with the recovery of some other sources of supply later reducing it to 31 percent by the end of the war.

Finally, it is vividly demonstrated in Table 4.8 that the rising export

Table 4.8. Composition of Palestine's export of goods in current prices (percent)

	Agricultural products		Manufactured goods			Total exports (3) + (6) + (7)
	Citrus (1)	Others* (2)	Total (1) + (2) (3)	Diamonds (4)	Others* (5)	
1939	74.5	4.1	78.6	—	21.4	100.0
1940	50.9	6.0	56.9	0.9	42.2	100.0
1941	1.8	16.6	18.4	10.0	71.6	100.0
1942	1.6	3.6	5.2	25.2	69.6	100.0
1943	4.3	2.3	6.6	35.5	57.9	100.0
1944	15.5	3.0	18.5	32.6	48.9	100.0
1945	14.8	5.8	20.6	42.3	37.1	100.0
1946	31.9	7.1	39.0	36.9	24.1	100.0

Sources: *Statistical Abstract*, 1941, p. 69; 1943, p. 99; 1944/45, p. 74 for citrus export data 1939-44. *Supplement to Survey*, p. 50 for citrus export 1945-46 and p. 69 for the export value of cut diamonds. Horowitz, *The Economy of Palestine*, pp. 228, 278 for total manufacturing export; Table 7 for total export.

\*Excluding export of oil products and sales to the British army.

\*Derived as a residual by (2) = 100 - [(1) + (6)].

\*Calculated by subtracting diamonds from total manufacture.

share of manufactured goods roughly paralleled the declining share of citrus. This implies that the capacity of Palestine's manufacturing industry to quickly respond to the changing conditions of the war enabled it to compensate for the sharp reduction in the overseas sales of citrus and thus not only prevent the collapse of the country's merchandise exports but, as shown above, bring about a real increase in it after the initial decline early on in the war.

### Postscript

The end of the war completes our main story; there are, however, two additional questions that typically arise in the context of war economies. One has to do with the economic changes brought about by the adjustment to peace, and the other concerns the long-run effects of the war on the structure and operation of the economy.

As to the first, the "morning after" question: the two remaining years of mandatory Palestine were, despite widespread early misgivings, a period of continued and even accelerated growth.<sup>36</sup> Unlike the United States and the United Kingdom, which experienced a substantial decline in their national product in the two years immediately after the war because of the sharp reduction in the production of military goods (see Table 4.1), Palestine's domestic product (and that of each of the two national sectors) increased in 1946-47 at an annual average rate of 12.7 percent, faster than the 10.4 percent wartime average.

The postwar prosperity was partly due to the continued demand,

albeit at a slightly reduced pace, of the British army for Palestine's goods and services. It was maintained by the gradual nature of the down-scaling of the military presence in the area, which was further slowed by the political tension and security problems that required the presence of large British forces in Palestine during the three-year period between V.E. day and the termination of the mandate. In 1946 (the last year for which such data are available) the British army purchased a total of £23.5 million worth of goods and services in Palestine, only 3.3 percent less than the 1945 figure and 6 percent less than in 1944 (see Table 4.3). Another factor working in the same direction was the large expenditure for immigration, settlement, and security of the Jewish Agency—the autonomous public sector of the Jewish state-in-the-making—facilitated primarily by unilateral transfers from the United States.

In the main, however, Palestine's postwar boom was generated by vigorously renewed activity in the war-depressed citrus and private construction industries. The first was made possible by the recovery of European demand for Palestine's oranges (as shown in Table 4.8, the export share of citrus increased from about 15 percent in 1945 to about 32 percent in 1946), and the second by the lifting of war-imposed constraints on the construction of private housing, which accommodated the accumulated and postwar demand for dwellings.

Consequently, net agricultural product increased in the Jewish economy by about 38 percent in real terms between 1945 and 1947, and construction grew at no less than 179 percent over the same period (production data by industry are not available for the postwar Arab economy).<sup>37</sup> This remarkable growth and its "backward linkage" effects on other industries more than compensated for the decline in some manufacturing branches—namely textiles, diamonds, and metal products—caused by the decline in military demand for various combat-related products, by the postwar industrial reconstruction effort in continental Europe, and by the partial elimination of the wartime constraints on international trade (note in this regard the decrease in the export share of manufacturing from 79.4 percent in 1945 to 61 percent in 1946 as reported in Table 4.8).

An immediate outcome of the postwar revival of international trade was the sharp (twofold) rise in imports between 1945 and 1946 (see Table 4.7) and the restoration of the prewar pattern of a large import surplus in Palestine's balance of payments. As shown in Table 4.3, the small current account surplus of about £3.7 million in 1945 had, by 1946, turned into a large £20.6 million import surplus. This surplus was financed mainly by a substantial rise in unilateral transfers and capital imports and to a lesser extent (about 20 percent) by a reduction in foreign exchange reserves.

Operating with a large import surplus (which in 1946 was about 19 percent of Palestine's domestic product) the economy could once again

draw on a flow of resources substantially larger than its own domestic product for investment and consumption uses. In addition, the rising import and import surplus provided a partial outlet for the rapidly increasing aggregate demand, thus allowing the postwar expansion to be accompanied by much lower inflation rates than the wartime boom (the cost-of-living index in the Jewish sector, which had increased 7.5 percent in 1945, rose 5.7 percent in 1946 and only 1.3 percent in 1947).<sup>38</sup>

As far as the long-run effects of the war are concerned, the case of Palestine is quite complicated to analyze. Following Israel's statehood and the War of Independence (which, unlike World War II, was fought in former Palestine) the country underwent tremendous changes that altered its political, institutional, and demographic setup and introduced a substantial element of discontinuity in the history of the land. Nevertheless, when carefully examined, one can identify in the structure and operation of the economic system of the state of Israel some significant characteristics that originated, or came to fruition, in the wartime economy of World War II.

A short list of these characteristics would include, first and foremost, the high degree and the instruments of government involvement in economic life, particularly in controlling capital movements and foreign exchange markets and intervening in the pricing of mainly subsidized goods and services. In addition, it would certainly include the continued inflation and the wage indexation schemes aimed at smoothing its effects, and last, but not least, the development of the modern manufacturing industry in Israel, which was largely built on the foundations laid down during the massive industrial upsurge in the Jewish economy in World War II.

In pointing to the economic legacy of the war, as well as in the discussion in the main body of the paper, we have not established causal relationships in the counterfactual sense. We have neither claimed nor tested the possibility that World War II was necessary for such developments as the resumption of growth in the 1940s, the formation of a modern industrial sector in Palestine, or the evolution of the public-private mix in Israel. It is, indeed, highly probable, given the country's prewar record and postwar circumstances and needs, that alternative paths of growth, industrialization, and institutional evolution, which would have generated similar outcomes, could have emerged in a nonwar environment.

However, in a broader, more fundamental sense it is quite possible that the dynamics leading from the rise of Nazism in Germany to World War II and to the destruction of European Jewry did play an indispensable role in bringing about the basic changes in late mandatory Palestine and its transformation into the State of Israel; these changes provided the background, framework, and drive for the economic developments of the time.

## Notes

1. On the issues of economic structure and development in mandatory Palestine see Nachum T. Gross "The Economic Policy of the Mandatory Government in Palestine, *Research in Economic History* 9(1984):143-85; Nachum T. Gross and Jacob Metzger, "Public Finance in the Jewish Economy in Interwar Palestine," *Research in Economic History* 3(1978):87-159; Nadav Halevi, "The Political Economy of Absorptive Capacity: Growth and Cycles in Jewish Palestine under the British Mandate," *Middle Eastern Studies* 19(October 1983):456-69; Said B. Himadeh, ed., *Economic Organization of Palestine* (Beirut: American University of Beirut, 1938); Jacob Metzger, "Fiscal Incidence and Resource Transfer Between Jews and Arabs in Mandatory Palestine," *Research in Economic History* 7(1982):87-132; Jacob Metzger and Oded Kaplan, "Jointly but Separately: Arab-Jewish Dualism and Economic Growth in Mandatory Palestine," *Journal of Economic History* 45(June 1985):327-45; Jacob Metzger and Oded Kaplan, *The Jewish and Arab Economies in Mandatory Palestine: Product, Employment and Growth* (in Hebrew) (Jerusalem: The Maurice Falk Institute for Economic Research in Israel, 1990); Robert R. Nathan, Oscar Cass, and Daniel Creamer, *Palestine: Problem and Promise* (Washington: Public Affairs Press, 1946); Robert Szereszewski, *Essays on the Structure of the Jewish Economy in Palestine and Israel* (Jerusalem: The Maurice Falk Institute for Economic Research in Israel, 1968).
2. See Gross, "Economic Policy," and Halevi, "Political Economy."
3. Roberto Bachì, *The Population of Israel* (Jerusalem: The Institute of Contemporary Jewry, The Hebrew University, 1977), 399; and Szereszewski, *Essays*, 60.
4. Szereszewski, *Essays*, 60; and Halevi, "Political Economy," Table 1. Note that one Palestine pound was equal to and equivalent with one pound sterling.
5. See Bachì, *Population*, 399; Metzger and Kaplan, "Jointly but Separately," Table 2.
6. Halevi, "Political Economy," Table 1.
7. Moshe Siron, *Immigration to Israel, 1948-1953: Statistical Abstract* (Jerusalem: Falk Project for Economic Research in Israel and Central Bureau of Statistics, 1957), 17.
8. Halevi, "Political Economy," Table 1.
9. Government of Palestine, *A Survey of Palestine*, vol. 3, (Jerusalem: The Government Printer, 1946), 1316-17; Derek H. Aldcroft, *The British Economy*, vol. 1, *The Years of Turmoil 1920-1951* (London: Wheatsheaf Books, 1986), 167.
10. See A. R. Prest, *War Economies of Primary Producing Countries* (Cambridge: Cambridge University Press, 1948); E. M. H. Lloyd, *Food and Inflation in the Middle East 1940-1945* (Stanford: Stanford University Press, 1956); Julian L. Finegold, "British Economic Policy in Palestine 1920-1948" (Ph.D. diss., London School of Economics, 1979); and Gross, "Economic Policy."
11. See Szereszewski, *Essays*, 56, 64.
12. Lloyd, *Food and Inflation*, part 4; Angus Maddison, *Phases of Capitalist Development* (Oxford and New York: Oxford University Press, 1982), Appendix F.
13. See Lloyd, *Food and Inflation*, part 4; Finegold, "British Economic Policy"; and Gross, "Economic Policy."
14. See for example Prest, *War Economies*, chap. 3; and The Jewish Agency for Palestine, *The Palestine Economy in the Transition Period* (in Hebrew) (Tel Aviv: The Jewish Agency, 1946), 32-48.
15. See David Horowitz, *The Economy of Palestine and Its Development*, 2d ed., (in Hebrew) (Tel Aviv: Mosad Bialik 1948), 190-93; Haim Barkai, *The Genesis of the Israeli Economy*, (in Hebrew) (Jerusalem: The Falk Institute for Economic Research at the Hebrew University, Department of Economics, 1983), part 1.
16. See Alan S. Milward, *War, Economy and Society* (Berkeley and Los Angeles:

- University of California Press, 1977); Aldcroft, *The British Economy*, chap. 7.
17. Rachelie Leah Taggu, "Arab Labor in Mandatory Palestine 1920-1948" (Ph.D. diss., Columbia University, New York, 1977).
18. Z. Abramowitz, "Wartime Development of Arab Economy in Palestine," *The Palestine Year Book* 1 (1945):130-44.
19. See Horowitz, *The Economy of Palestine*, 215; P. J. Loftus, *National Income of Palestine 1944 and 1945* (Jerusalem: The Government Printer, 1947); and Metzger and Kaplan, *The Jewish and Arab Economies*, chap. 1.
20. M. Eitinger, ed., *Book of the Yishuv (Jewish Community) Economy*, (in Hebrew) (Jerusalem: Vaad Leumi, 1947), chap. 13. Dunam is a Turkish measure of area used in the territories of the former Ottoman Empire. Four metric dunams is approximately equal to one acre.
21. See Horowitz, *The Economy of Palestine*, 203-05; and Nathan, Gass, and Creamer, *Palestine*, 217.
22. This assessment is based on the disaggregated figures of changes in agricultural output and on an evaluation of the overall increase in the volume of noncitrus output in Horowitz, *The Economy of Palestine*, 205-17.
23. Eitinger, *The Yishuv Economy*, 265.
24. Gad Nahir, "The Development of Mixed Agriculture in World War II," (in Hebrew) (B.A. thesis, The Hebrew University, Department of Economics, 1978). Nahir's thesis was based on the Agricultural Censuses of the Jewish Agency.
25. Metzger and Kaplan, *The Jewish and Arab Economies*, chaps. 1 and 8.
26. Abramowitz, "Wartime Development."
27. Finegold, "British Economic Policy," 152.
28. Abramowitz, "Wartime Development"; Metzger and Kaplan, *The Jewish and Arab Economies*, Chap. 8.
29. Loftus, *National Income*; Ludwig Gruenbaum (Gaathon), "The National Income of Israel," (in Hebrew), *Shivrit Zion* 1 (Jerusalem, 1950):269-81; Szczerzewski, *Essays*, 27-69; and Metzger and Kaplan, *The Jewish and Arab Economies*, chap. 8.
30. *The Palestine Economy in the Transition Period*, 90.
31. The Jewish Agency of Palestine, *The Jewish Case* (Jerusalem, 1947), 468-82.
32. Nathan, Gass, and Creamer, *Palestine*, 235-36; and Joel Esterson, "The Development of the Diamond Industry in Palestine," (in Hebrew) (B.A. thesis, The Hebrew University, Department of Economics, Jerusalem, 1975). Esterson's thesis was based on Government of Palestine files in the Israel State Archives and on the Central Zionist Archives.
33. The discussion in this subsection draws heavily on the factual material uncovered and summarized in Oded Kaplan, "Changes in the Jewish Construction Industry in World War II," (in Hebrew) (B.A. thesis, The Hebrew University, Department of Economics, Jerusalem, 1975). Kaplan's thesis was based on the Central Zionist Archives and numerous published and unpublished industry reports.
34. Loftus, *National Income*; Szczerzewski, *Essays*, 70-86; Metzger and Kaplan, *The Jewish and Arab Economies*, chap. 8.
35. For these and the additional country shares of trade mentioned below see Government of Palestine, *Statistical Abstract of Palestine 1944/45*; and Government of Palestine, *Supplement to Survey of Palestine* (Jerusalem: The Government Printer, 1947), 45-47.
36. The discussion of the economy of postwar mandatory Palestine is based on Barkai, *Genesis*, part 1.
37. Barkai, *Genesis*, Table 3.
38. Szczerzewski, *Essays*, 56.

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