

## Chapter 4

# Employment and Wages

### 1. MAIN DEVELOPMENTS

About 200,000 immigrants came to Israel in 1990, in an influx unprecedented since the mass immigration of the 1950s. During the year the rate of immigration speeded up, so that by its end immigrants constituted some 5 percent of Israel's Jewish population. Despite the dimensions of the influx, it had relatively little effect on the labor market as regards either employment or wages. This was partly because many immigrants arrived only towards the end of the year, and partly because of the lag between immigration and labor-market entry.

The labor market continued slack in 1990, despite widespread economic recovery. Employment grew only moderately (about 2 percent in both the business sector and the public services) after remaining static the preceding year, and the labor supply continued to grow. As a result the unemployment rate continued to increase, and reached 9.6 percent. The high level of unemployment continued to moderate the rise in nominal wages, and this was reflected by a 1.5 percent decline in real business-sector wages (deflated by the Consumer Price Index—CPI) and an increase of roughly 0.5 percent in the public services. Wages responded too slowly and weakly, however, to encourage a more significant expansion of employment. Moreover, unit labor costs were slightly up, since there was a relatively low rise in the implicit price index of gross business-sector product at factor cost (producer prices).

The continued increase in unemployment, despite higher employment, reflects the growth in the labor force due primarily to the rise in the established working-age population and its persistently high participation rate (especially of women). To a lesser extent it also reflects the entry of immigrants into the labor force.

As stated, real wages<sup>1</sup> again declined moderately in 1990, both nationwide and in the business sector. As in 1989, wages remained unchanged in industry and fell in all the services (with the exception of transport and communications), and this year fell by 1–3.5 percent. Construction wages fell by 4 percent, which is surprising in view of the rising demand, increased activity, and supply difficulties arising from the voluntary and enforced absence of workers from the administered areas at the end of the year (a problem which was further aggravated at the beginning of 1991).

<sup>1</sup> In this chapter real wages are wages deflated by the CPI. Labor costs are deflated by the implicit price index of business-sector product at factor cost.

**Table 4.1**  
**Israeli Labor Force, Selected Data, 1979-90**

(annual change, percent)

	Absolute figures						
	1990	1979-85	1986	1987	1988	1989	1990
<b>Total</b>							
<i>Thousands</i>							
Mean population	4659.2	1.9	1.6	1.6	1.7	1.7	3.1
Working-age population	3201.6	2.1	1.9	1.9	2.0	2.0	3.9
Civilian labor force	1649.9	2.3	1.8	1.5	3.9	3.2	2.9
Employed persons	51.5	1.6	1.4	2.6	3.5	0.5	2.1
Unemployed	51.0						
<i>Percent</i>							
Participation rate	1491.6						
Standardized participation rate <sup>a</sup>	157.0						
Unemployment rate	9.5						
Employment rate <sup>b</sup>	46.1						
<b>Men</b>							
<i>Thousands</i>							
Working-age population	1573.0	2.1	1.9	1.9	2.0	2.1	3.7
Civilian labor force	979.9	1.7	1.2	0.6	3.3	1.9	2.5
Employed persons	62.3	1.0	1.0	2.0	2.8	-0.6	2.0
Unemployed	897.7						
<i>Percent</i>							
Participation rate	82.2						
Unemployment rate	8.4						
<b>Women</b>							
<i>Thousands</i>							
Working-age population	1628.1	2.1	1.9	1.9	2.1	2.0	3.9
Civilian labor force	669.5	3.3	2.8	2.8	5.0	5.4	3.4
Employed persons	41.1	2.7	2.0	3.6	4.7	2.3	2.2
Unemployed	593.8						
<i>Percent</i>							
Participation rate	75.7						
Unemployment rate	11.3						
<b>Employed from administered areas (thousands)</b>	107.6	3.1	5.8	11.9	0.4	-4.1	2.6

<sup>a</sup> Age and schooling held constant (1984).

<sup>b</sup> Employment as percent of working-age population; age, sex, and schooling held constant (1984).

SOURCE: Central Bureau of Statistics, Labour Force Surveys and Family Expenditure Surveys in the administered areas.

The downward pressure exerted by unemployment helped to reduce real wages in 1990, as in 1989. Unemployment began to rise during the slump of 1988, and increased in 1990 due to the increment to the labor force. Downward pressure on wages was reinforced by the threat of an increase in the labor supply, as new immigrants joined the labor force and are expected to join it in growing numbers. Among other things, the decline in wages reflects the entry into employment of newcomers at relatively low wages. This might account for the decline in wages in just those industries where employment grew in 1990 (construction, water and electricity, trade and catering services, personal services, etc.).

**Table 4.2**  
**Business-Sector Employment and Labor Input,**  
**by Industry, 1985-90<sup>a</sup>**

	(percent change over preceding year)							
	Absolute figures							
	1989	1990	1985	1986	1987	1988	1989	1990
<b>Employed persons (thousands)</b>								
Business sector	1,130.8	1154.5	0.1	2.1	4.5	3.0	-0.4	2.1
Construction	127.6	139.9	-6.6	-6.1	7.3	8.9	-0.2	9.6
Industry	327.4	333.4	0.4	4.2	2.7	-2.8	-3.2	1.8
Agriculture	81.8	74.3	8.1	-1.4	2.8	-5.0	-1.9	-9.2
Transport	93.1	92.5	-3.6	0.5	5.7	3.5	-1.8	-0.6
Trade, personal services, business services <sup>b</sup>	415.7	426.4	2.2	3.8	6.7	8.3	3.3	2.6
Financial services	62.7	62.6	-2.1	0.3	-2.3	3.2	-3.2	-0.2
Public utilities	14.4	16.6	-8.6	5.1	9.7	6.6	-0.7	15.2
Not known	8.2	8.7						
<b>Labor input (mill. man-hours)</b>								
Business sector <sup>c</sup>	43.1	44.0	0.1	2.2	3.8	0.3	1.4	2.3
Construction	4.9	5.5	-5.6	-6.5	7.7	-4.6	5.1	11.8
Industry	12.8	13.0	0.3	4.8	1.5	-4.3	-0.5	0.9
Agriculture	3.2	2.8	10.6	-2.2	1.9	-8.4	-1.0	-10.5
Transport	3.6	3.7	-4.8	0.5	7.5	1.4	-2.3	2.7
Trade, personal services, business services <sup>b</sup>	15.4	15.7	1.7	4.8	6.0	6.9	5.0	1.9
Financial services	2.3	2.3	-0.2	0.3	-3.7	2.9	-1.4	0.4
Public utilities	0.6	0.7	-8.4	10.4	0.4	14.5	-1.4	15.0

<sup>a</sup> Employment figures are annual averages; labor input figures are weekly averages.

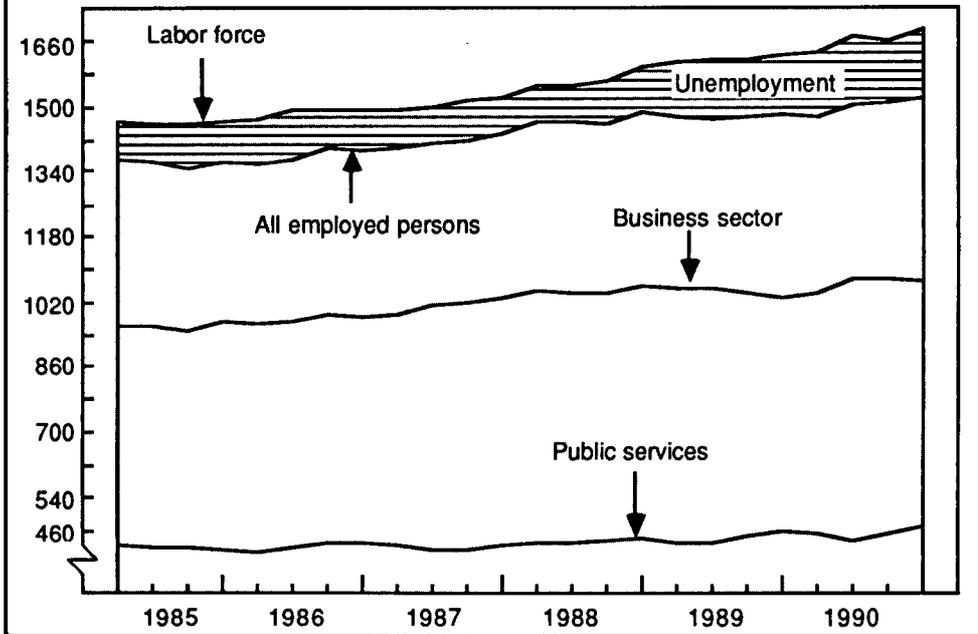
<sup>b</sup> Industries 50-59, 90-99, 73; including 'other employees from the administered areas except for those employed in public services.'

<sup>c</sup> Including 'not known.'

SOURCE: Based on Central Bureau of Statistics data.

**Figure 4.1**  
**Labor Force Employment and Unemployment, 1985-90**

(thousands, deseasonalized)



SOURCE: Labour Force Surveys.

Nonetheless, and especially in view of the challenges posed by the large-scale absorption of immigrants in employment, the labor market responded sluggishly. Even after the (relatively moderate) decline in wages of 1989 and 1990, business-sector real wages were 10 percent higher than in 1986, despite the fact that the unemployment rate has risen since then by 3.5 percentage points. The belated and moderate response of wages to the slack labor market is due to long-run factors connected with the character and structure of the labor market and its interindustry linkage agreements. These factors may have been aggravated in 1990 by producers' over-estimation of the rise in producer prices, making them less unwilling to raise wages, and thus raising unit labor costs. What appears to be a mistaken assessment of product prices may be due to the fact that in 1990 producer prices (the implicit price index of gross business-sector product at factor cost) rose by far less than the CPI, which continued to serve as the benchmark for prices (see below).

Unit labor costs (adjusted for producer prices and the increase in labor productivity) rose by 0.6 percent reaching a level which is 6 percent higher than just before the 1985 stabilization program, despite a decline of almost 5 percent in the preceding two years. The slight rise in unit labor costs, despite the decline in real wages and the increase in labor productivity, is due to the particularly low increase in the implicit price index of

gross business-sector product at factor cost in relation to the CPI in 1990. The reduction of subsidies, the rise in indirect taxes, and the steep increase in housing prices (whose effect on the CPI was far more pronounced than it was on producer prices) combined to create a particularly large gap between consumer and producer prices, preventing the decline in real wages from being translated into increased profitability.

## 2. EMPLOYMENT AND LABOR INPUT

The number of employed Israelis rose by 2 percent in 1990, in both the business sector and the public services. Business-sector employment was static in the first quarter, rose in the second, and then remained stable. Public-services employment was down in the first half of the year and up in the second. The new immigrants had little effect on employment in 1990, in contrast with the considerable effect they had on the population and, to a lesser extent, on the labor force. Preliminary data from Labour Force Surveys and other sources indicate, however, that towards end-year immigrant employment grew appreciably (see Section 5 below).

**Table 4.3**  
**Principal Labor Market Indicators, 1981-90<sup>a</sup>**

	Average 1981-84	1985	1986	1987	1988	1989	1990
<i>Percent change over preceding year</i>							
Permanent population	1.7	1.6	1.5	1.7	1.6	1.9	5.7
Migration balance, thousands	4.6	-5.3	-4.8	5.5	-0.6	11.7	185.3
Israeli employed persons	2.0	0.7	1.4	2.6	3.5	0.5	2.1
Business sector	2.0	0.3	1.7	3.9	3.2	0.0	2.1
Public services	2.0	1.7	0.7	-0.4	4.2	1.9	2.3
Labor input, business sector	3.9	0.1	2.2	3.8	0.3	1.4	2.3
Wages per employee post <sup>b</sup>	3.8	-9.0	7.8	7.9	6.0	-1.3	-0.9
Business sector	3.7	-6.4	9.1	8.1	4.7	-1.6	-1.5
Public services	3.9	-14.3	4.4	7.1	9.6	0.4	0.4
Minimum wage	14.4	-26.3	18.4	24.9	14.2	2.4	-0.1
Daily wage of residents of administered areas	1.1	0.4	28.8	15.7	10.8	-5.3	-7.9
Unit labor cost, business sector <sup>c</sup>	3.1	0.2	6.5	3.9	-3.7	-4.3	0.6
Labor productivity, business sector	-0.7	5.3	3.4	3.9	2.2	0.6	3.8
<i>Ratio<sup>d</sup></i>							
Labor force participation rate	49.9	50.7	50.6	50.4	51.4	52.0	51.5
Unemployment rate	5.1	6.7	7.1	6.1	6.4	8.9	9.6

<sup>a</sup> Wages and labor cost are in real terms.

<sup>b</sup> Deflated by CPI.

<sup>c</sup> Based on net product at factor cost.

<sup>d</sup> Participation rate, percent of working-age population; unemployment rate, percent of labor force.

SOURCE: Based on data of the Central Bureau of Statistics.

**Table 4.4**  
**Sources of Growth of Population, 1982-90<sup>a</sup>**

	1982	1983	1984	1985	1986	1987	1988	1989	1990 <sup>a</sup>
<i>Thousands</i>									
Beginning-of-year <i>de jure</i> population	3,977.9	4,033.7 <sup>b</sup>	4,118.6	4,199.7	4,266.2	4,331.3	4,406.5	4,476.8	4,559.6
Natural increase	68.9	70.5	70.7	71.2	69.9	69.7	70.9	72.1	73.9
Migration balance	4.8	14.4	10.4	-5.3	-4.8	5.5	-0.6	10.7	185.3
Gross immigration <sup>c</sup>	16.1	19.1	21.7	12.2	12.3	15.6	16.0	26.8	199.3
less Israelis abroad <sup>d</sup>	11.3	4.7	11.3	17.5	17.1	10.1	16.6	16.1	14.0
Total increase	85.7 <sup>e</sup>	84.9	81.1	65.9	65.1	75.2	70.3	82.8	259.2
End-of-year <i>de jure</i> population	4,063.6	4,118.6	4,199.7	4,265.6	4,331.3	4,406.5	4,476.8	4,559.6	4,818.8
<i>Rate per thousand</i>									
Total natural increase	17.2	17.2	16.9	17.1	16.4	15.9	16.0	16.0	15.9
Jews	14.3	14.3	14.5	14.5	14.0	13.1	13.0	12.7	12.5
Non-Jews	31.4	29.6	30.0	29.3	28.7	29.2	29.4	30.4	30.7

<sup>a</sup> Provisional.

<sup>b</sup> According to the 1983 population census.

<sup>c</sup> Immigrants and persons entering for reunion of families (including from East Jerusalem), etc.

<sup>d</sup> Israelis abroad more than 12 months less returning residents, potential immigrants, and Israelis who have not returned from a visit to Jordan.

<sup>e</sup> Including 12.0 from the Golan Heights.

SOURCE: Central Bureau of Statistics.

The employment of workers from the administered areas rose by 2.9 percent. This increase reflects a steep rise in the first three quarters of the year and a decline in the fourth as a result of the Temple Mount incident and the *intifada*. The swings in labor input from the administered areas were sharper, however, and this rose at an average annual rate of 6 percent, reflecting a 10 percent increase in the first three quarters in comparison with the same period in 1989, and a decline of 8 percent in the last quarter.

Industrial employment rose by 2 percent, after declining in the preceding two years; construction employment rose sharply, after remaining unchanged in 1989.

The moderate expansion of industrial employment, together with the continued increase in productivity, indicate that the process of streamlining continued and factor utilization improved after the slump of the preceding two years. In the traditional industries, where employment was reduced during the last two years—partly in response to large wage increases arising from the Minimum Wage Law—increased productivity made it possible to expand employment to some extent, although it remained lower than it had been in 1986 and 1987.

Nontradables continued to expand faster than tradables, with increased employment in construction and water and electricity in particular, contrasting with the continued decline in agriculture. These trends were moderated by increased industrial employment. The total number of man-hours remained almost unchanged in 1990. Labor input, reflecting employment and man-hours, rose by 2 percent both in the entire economy and in the business sector.

### 3. UNEMPLOYMENT

All indicators show that unemployment increased, reaching an annual average of 9.6 percent—some 160,000 out of work. Unemployment rose despite the 2 percent increase in employment of Israelis and a slight drop in the participation rate (Figure 4.1). This rate is a weighted average of the different participation rates of established residents, which remained virtually unchanged, and of new immigrants, which was only about 20 percent during their first year in Israel (this was because of the large proportion of immigrants who arrived towards the end of the year).

One third of the average increase in unemployment—approximately 5,000 unemployed—was due to the influx of immigrants, with their very high unemployment rate (about 50 percent). Thus, even without the increase in the supply of labor deriving from the influx of immigrants (and especially without the resulting demand) the unemployment rate would have stayed very high.

The relatively slow response of the labor market to economic recovery, reflected among other things by the persistently high unemployment rate and the moderate rise in employment, is connected with labor market rigidities. The slow response of wages to the slack market is due to the institutional structure of the labor market and the character of its wage agreements, although this also seems to have changed gradually in response

**Table 4.5**  
**Incremental Employment, by Sector, 1970-90<sup>a</sup>**

(annual average change, thousands)

	1970- 1973	1973- 1976	1977- 1979	1982	1983	1984	1985	1986	1987	1988	1989	1990
<b>Total population</b>												
Total increment	53.6	15.0	39.1	22.3	44.1	43.9	21.9	31.8	33.1	59.2	45.8	49.4
Business sector <sup>b</sup>	44.9	-1.7	24.3	16.2	46.2	15.9	-0.1	23.3	46.7	33.3	-5.6	26.4
Public services, employees	11.7	12.5	16.8	6.3	3.1	5.9	8.3	0.8	0.6	16.4	8.8	7.5
Israeli unemployed	-2.9	4.2	-1.9	-0.2	-5.2	22.1	13.7	7.7	-14.2	9.5	42.6	15.5
<b>Men</b>	<b>35.1</b>	<b>3.9</b>	<b>17.0</b>	<b>13.0</b>	<b>26.7</b>	<b>18.6</b>	<b>10.8</b>	<b>16.1</b>	<b>16.9</b>	<b>30.2</b>	<b>12.9</b>	<b>26.7</b>
Business sector <sup>b</sup>	34.1	-1.3	14.2	10.2	33.4	6.8	-4.2	14.8	28.2	22.3	-11.5	19.6
Public services, employees	2.9	3.3	4.3	1.9	-4.0	0.4	3.6	-1.3	0.2	2.1	2.1	0.6
Israeli unemployed	-1.9	1.9	-1.5	0.9	-2.7	11.4	11.4	2.6	-11.5	5.8	22.3	6.5
<b>Women</b>	<b>18.5</b>	<b>11.1</b>	<b>22.1</b>	<b>9.3</b>	<b>17.4</b>	<b>25.3</b>	<b>11.1</b>	<b>15.7</b>	<b>16.2</b>	<b>29.5</b>	<b>33.0</b>	<b>21.8</b>
Business sector <sup>b</sup>	10.8	-0.4	10.0	6.0	12.8	9.1	4.1	8.5	18.5	11.1	6.1	6.0
Public services, employees	8.8	9.2	12.5	4.4	7.1	5.5	4.7	2.1	0.4	14.3	6.7	6.9
Israeli unemployed	-1.0	2.3	-0.4	-1.1	-2.5	10.7	2.3	5.1	-2.7	4.1	20.2	8.9

<sup>a</sup> Figures may not add owing to rounding.

<sup>b</sup> Includes self-employed in public services.

SOURCE: Based on Central Bureau of Statistics data.

**Table 4.6**  
**Industrial Composition of Employment, 1980-90**

	(percent)		
	1980-84	1986-87	1988-90
<b>Tradables<sup>a</sup></b>			
Industry	23.2	23.6	21.7
Agriculture	4.4	3.8	3.4
Shipping and aviation	1.3	1.1	1.1
<b>Total</b>	<b>28.9</b>	<b>28.5</b>	<b>26.2</b>
<b>Nontradables<sup>a</sup></b>			
Trade, restaurants, hotels	12.2	13.5	14.4
Financial and business services	9.0	9.7	10.0
Water and electricity	1.0	1.0	1.0
Construction	6.2	4.7	5.0
Transport, storage, communications	5.4	5.4	6.2
Personal and other services	6.1	6.4	7.0
Public services	29.7	29.4	29.2
Agriculture	1.4	1.4	1.0
<b>Total</b>	<b>71.1</b>	<b>71.5</b>	<b>73.8</b>

<sup>a</sup> Owing to data limitations, the tradable/nontradable classification is only a rough one. In particular, agriculture includes subindustries belonging to both categories, while trade, restaurants & hotels, and financial & business services include tradable elements.

SOURCE: Based on Central Bureau of Statistics data.

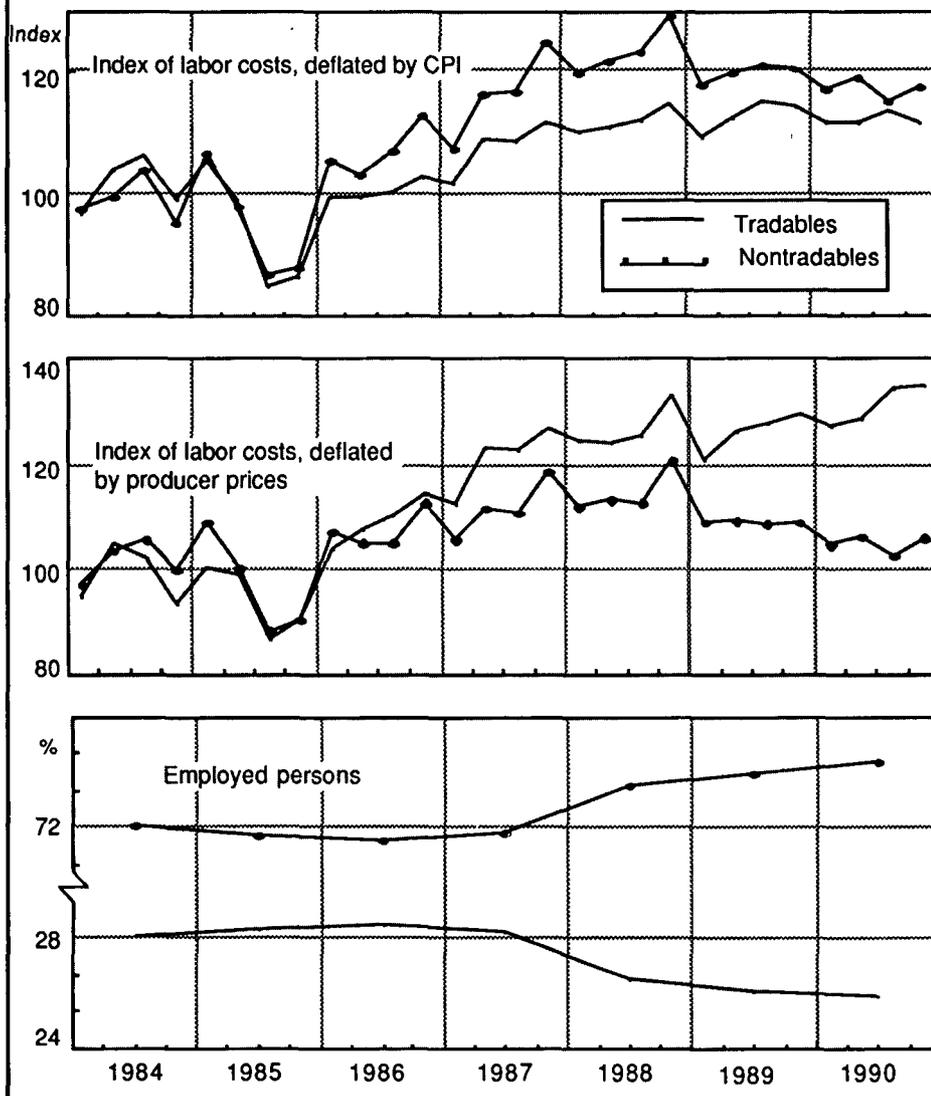
to the slump. The fact that large numbers of new immigrants have joined the labor force, and that their number will increase in 1991, will presumably help to make labor market institutions more flexible. The increased proportion of new immigrants (outsiders) will weaken the unions in wage-bargaining and strengthen the moderating effect of market forces—chief among them unemployment—on wage hikes.

#### 4. WAGES

Nominal wages per employee post rose by an average of 16.1 percent in 1990—15.4 percent in the business sector and 17.6 percent in the public services. These nominal increases represent a 1 percent decline in real wages—a 1.5 percent decline in the business sector and an 0.4 percent rise in the public services. The decline in business-sector wages in 1990 follows a similar decline in 1989, and the rise in public-services wages echoes the increase of the previous year. Even after the fall in wages of the last two years, however, the excessive wage-increases of 1986 and 1987—and the resulting increase in unit labor costs—have not yet been corrected.

Nonetheless, despite the relative strength of the unions vis-à-vis the employers, the nature of the wage agreements, and the rigidity of labor market institutions, the slack in

**Figure 4.2**  
**Real Wages and Employed Persons in the Business Sector, 1984-90**



<sup>a</sup> For the tradables and nontradables classification, see note a, Table 4.12.

SOURCE: Based on Central Bureau of Statistics data.

the labor market—which was reflected by the steep increase in unemployment and its levelling off at a very high rate—did exert considerable pressure on wages. This intensified in 1990, as immigrants entered the labor force and proved ready to accept work for relatively low wages. The tremendous potential for further growth of the labor supply arising from the influx of immigrants also constituted a threat, exerting downward

pressure on wages and causing institutional wage agreements to become somewhat more flexible. The Cost of Living Agreement providing only about 50 percent compensation for price increases was extended and no national wage agreement was signed. In addition, the nominal rate of increase of wages declined, and real wages fell in the last two years. The link between wages and profitability was reinforced, and this was reflected in the decline in real wages in some industries as well as the greater inter-industry spread of wages.

Increased capital utilization in industry led to a steep 5 percent rise in labor productivity, contributing to a relatively high (nominal) wage increase.

**Table 4.7**  
**Real Wages per Employee Post, 1985-90<sup>a</sup>**

	Over preceding year						(percent change)	
	1985	1986	1987	1988	1989	1990	1980-1984	1985-1990
<b>Deflated by CPI</b>								
Public services	-14.3	4.4	7.1	9.7	0.4	0.4	6.9	5.9
Business sector	-6.4	9.1	8.1	4.7	-1.6	-1.5	15.4	11.7
Agriculture	-9.3	9.9	9.4	4.2	-0.8	-4.8	10.3	7.4
Industry	-7.4	7.0	7.1	3.6	0.9	0.2	22.5	11.2
Water & electricity	-7.3	0.3	13.3	5.6	1.6	-1.9	18.5	10.9
Construction	-9.8	12.8	16.3	3.4	-2.2	-4.4	6.8	14.4
Trade, restaurants, hotels	-1.9	11.5	7.8	5.6	-2.6	-2.6	11.9	18.0
Transport etc. <sup>b</sup>	-7.3	9.2	10.1	3.5	-3.3	0.1	13.3	11.6
Financial & business services	-4.7	11.2	5.1	8.1	-4.8	-1.0	12.3	13.5
Personal & other services	-9.6	17.6	14.4	6.6	-5.3	-3.4	9.2	18.6
Total	-9.0	7.8	7.9	6.0	-1.3	-0.9	12.5	9.8
Real disposable income per employee post	-1.9	13.6	7.7	5.0	-0.5	1.2	8.1	26.5

<sup>a</sup> Central Bureau of Statistics data, from employers' returns to the National Insurance Institute, deflated by CPI.

<sup>b</sup> Transport, storage & communications.

<sup>c</sup> Adjusted for changes in direct taxes (income tax and national insurance contributions deducted from employees' salaries). The estimate is based on an approximation. (See Table 5.B5 for the estimating method.)

SOURCE: Based on Central Bureau of Statistics data.

Employment benefit continued to moderate the downward pressure on wages exerted by unemployment, but its effect was weakened as the slack in the employment market continued. This was because some workers had exhausted their rights, while others were not eligible for this benefit. In addition, for the first year since 1987, when the Minimum Wage Law was passed, the minimum wage rose by no more than the average wage, weakening the upward pressure on wages. This contributed to the increase in

**Table 4.8**  
**Gross Hourly Wage, 1985–90<sup>a</sup>**

	(percent change over preceding period)					
	1985	1986	1987	1988	1989	1990
CPI (1)	336.3	56.6	20.0	16.2	20.2	17.1
COLA as percent of CPI, (3) + (1)	58.3	68.6	54.0	61.7	43.1	49.7
Change in wage due to						
COLA (2)	196.2	38.8	10.8	10.0	8.7	8.5
COLA and nationwide agreements (3)	226.7	42.0	16.6	10.6	8.7	8.5
Total gross wage (4)	293.6	66.1	30.9	22.0	14.9	15.1
Rate of actual to 'agreed' wage increase (line 3) <sup>b</sup>	20.5	17.0	12.3	10.3	5.7	6.1
Real change <sup>c</sup>						
Line (2) <sup>d</sup>	-31.5	-12.4	-7.6	-5.3	-9.6	-7.4
Line (3) <sup>d</sup>	-24.5	-10.3	-2.8	-4.8	-9.6	-7.4
Line (4)	-9.4	6.3	9.1	3.8	-4.4	-1.9

<sup>a</sup> Lines 1, 2, 3, 4 = geometric mean of: the change from month *i* in the preceding year to month *i* in the current year (*i* = 1, 2, ..., 12).

<sup>b</sup>  $\{ [100 + (4)] / [100 + (3)] - 1 \} 100$ .

<sup>c</sup> Annual average of real monthly changes.

<sup>d</sup> Does not include the effect of changes in the minimum wage.

SOURCE: Data of the Institute for Economic and Social Research of the National Federation of Labour (Histadrut).

employment in the traditional industries—where many workers receive the minimum wage—following extensive cutbacks in employment in the last few years.

In the business sector real wages declined at the same rate as in 1989, but real unit labor costs rose by 0.5 percent in spite of a 4 percent increase in productivity,<sup>2</sup> a rise in the unemployment rate, the threat that the influx of immigrants would add considerably to the labor supply, and the weakening of the institutional factors operating to cushion the effect of market forces on wages. This may be due to the possibly mistaken assessment of the level of inflation by both parties to the bargaining process, relying as they usually do on the CPI. The latter was influenced this year to a considerable extent by the index of housing prices, which contributed 4 percentage points. The weight of the housing component (the price of which rose by 35 percent) is far greater in the CPI than in the index of producer prices and in the consumption basket of most employees (who tend to be owner-occupiers). The fact that the CPI was used as a yardstick meant that producers were less disinclined than usual to raise nominal wages, thus leading to an increase in unit labor costs. Real wages (in terms of the consumption basket of most of the working population) also rose.<sup>3</sup> The difference between the increase in the CPI (17

<sup>2</sup> The data is drawn from the report of the Israel Institute of Productivity, and is based on net business product at factor cost.

<sup>3</sup> We would have preferred to use net wages, but the Central Bureau of Statistics does not provide any data. Although we present an estimate of net wages (Table 4.7), this should be treated with caution. The

percent) and the relatively low rise in the implicit price index of gross business-sector product at factor cost (about 10 percent) was due to the reduction of subsidies to local producers and the increase in indirect taxes, as well as to the steep rise in the price of housing. (The reduction in subsidies accounted for some 0.7 percentage points, and the increase in direct taxes for 0.2 percentage points, of the difference between the market prices and factor cost of business product. The 1.2 percentage points increase in employers' National Insurance contributions in April 1990 also accounted in part for the fact that labor costs rose more than wages.)

The slight increase in unit labor costs—an indicator of profitability (for constant utilization of capital)—even though real wages (deflated by the CPI) went down, emphasizes the fact that a decline in real wages is not necessarily translated into increased profitability. Exogenous factors such as export prices affect profitability, as do other prices, the government policy aimed at encouraging local producers, and tax policy and its accompanying labor costs. These and other factors combined in 1990 to offset the improvement in profitability arising from the decline in real wages and increase in productivity.

## 5. IMMIGRATION

An almost unprecedented number of immigrants (about 200,000) came to Israel in 1990, 91 percent of them from the Soviet Union and most of them, as stated, at the end of the year. The rate of immigration accelerated during the year, with 87,000 arriving in the last quarter. The resulting increment to the mean population was 71,000, amounting to 1.5 percent. By the end of the year the immigrants accounted for 4 percent of the total population.

**Table 4.9**  
**Age Structure of Israelis and Russian Immigrants**

	Israelis (1989)	Russian immigrants (1990)
		(percent)
<i>Age group</i>		
0-19	41.0	30.0
20-64	50.0	58.1
65+	9.0	11.9
Total	100.0	100.0

estimate shows that real net wages rose by 1 percent because the readjustment of income tax brackets led to a reduction in direct taxation. Calculations made on the basis of these data indicate that the difference between real wages and labor costs would have disappeared (i.e. an increase in product per man-hour would be cancelled out by the gap between consumer and producer prices).

The age-distribution, level of education, and proportion of graduates among the immigrants from the Soviet Union differ from that of the resident population. The 0–18 age-group is relatively small and the number of old people (65+) relatively large. The immigrants have a higher average level of education as reflected by the greater number of persons with academic qualifications, particularly in engineering, technology and medicine.

**Table 4.10**  
**Occupational Distribution and Education Indicators of Immigrants and Israelis**

	Immigrants (1990)	Israelis (1989)
Scientific and academic workers	40.6	8.6
<i>of which</i> Physicians	6.3	1.1
Engineers	25.0	2.0
Other professional, technical and related workers	34.6	21.5
<i>of which</i> Nurses and paramedics	4.3	2.5
Technicians etc. <sup>a</sup>	6.6	4.3
Clerical, sales etc. <sup>b</sup>	12.2	46.7
Skilled and unskilled <sup>c</sup>	12.6	23.2
Years of schooling		
13–15	35	18.7
16+	20	16.1

<sup>a</sup> Technicians, programmers and systems analysts.

<sup>b</sup> Clerical and related workers, sales, services, and agricultural workers.

<sup>c</sup> Skilled and unskilled workers and laborers in industry, transport, and construction.

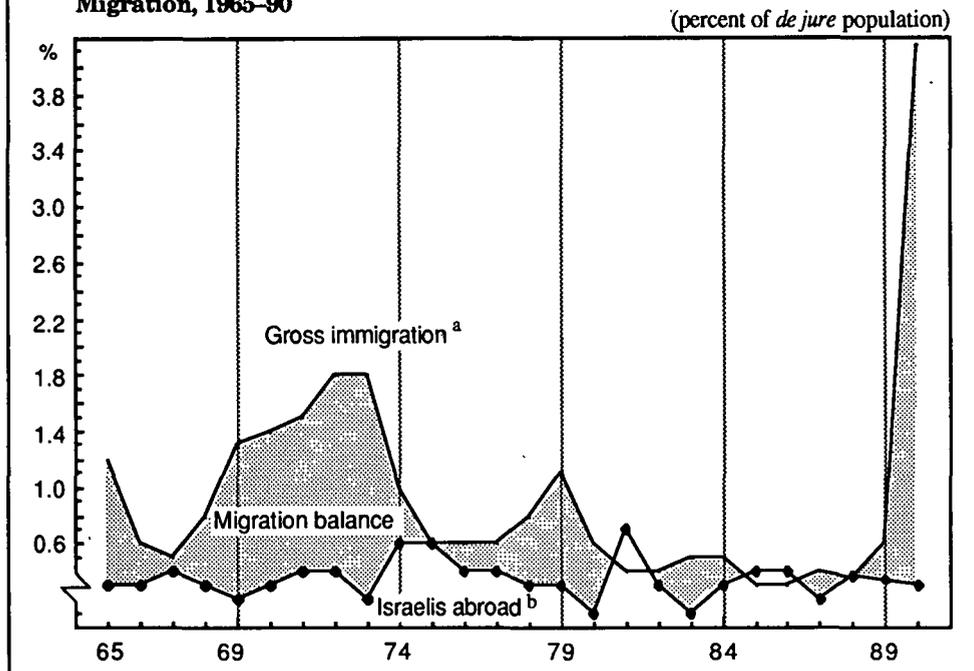
SOURCE: Based on data of the Central Bureau of Statistics, the Ministry of Absorption, and a study by G. Ofer, N. Kasir, and K. Flug.

The age-structure, with 58 percent in the principal working-age groups, compared with 50 percent of the resident population, contributes to the relatively high participation rate of the immigrants. On the basis of our knowledge of their work habits in the Soviet Union and past experience with immigrants, the participation rate of women immigrants is expected to be relatively high.

While the occupational structure<sup>4</sup> represents a tremendous potential which could boost economic growth and encourage structural change in ways which can utilize the human

<sup>4</sup> The number of years of schooling and occupations reported by the immigrants are not always equivalent to those of their Israeli counterparts. The downward occupational mobility of immigrants in the early 1980s was 40 percent on average (when the influx of immigration was smaller in relation to the resident population), indicating that their human capital was generally lower (and less adapted to local conditions) than their occupational structure implies. The data on the mobility of immigrants is drawn from the study cited in Table 4.10).

**Figure 4.3**  
**Migration, 1965-90**



<sup>a</sup> Immigrants, tourists settling, and persons entering for family reunion.

<sup>b</sup> Israelis resident abroad for more than 12 months less returning residents, potential immigrants, and Israelis who have not returned from a visit to Jordan.

SOURCE: Central Bureau of Statistics.

capital, it will make the absorption of the immigrants in employment difficult (especially in the short run). Among other things, this is due to the enormous investment required to employ the immigrants in their occupations and to the risky nature of investments based on large amounts of human capital.

Preliminary data on the immigrant labor force (from the Labour Force Surveys of the CBS)<sup>5</sup> show that their effect on the labor force in 1990 was relatively small on average for the year, but rose considerably towards the end of the year. Immigrants of working age constituted 1.7 percent of the working-age population, but their participation rate was very low (less than 20 percent) because their average duration of residence was still short. Thus, they constituted less than 1 percent of the civilian labor force and employment. By contrast, because of high unemployment rates among immigrants (estimated at 50 percent and also connected with the brief time since their arrival), immigrants accounted on average for more than 3 percent of the unemployed in 1990.

<sup>5</sup> The data should be treated with caution since relatively few immigrants are included in the Survey. There is no information about their date of arrival, and the averages include immigrants who have been in Israel for different lengths of time, with a particularly high proportion who have been in Israel for only a few months.

In the last quarter of 1990 there were 24,000 immigrants in the civilian labor force, half of them unemployed. In that quarter immigrants constituted 1.4 percent of the civilian labor force, 0.8 percent of all employed persons, and 7 percent of the unemployed.

**Table 4.11**  
**Immigrant<sup>a</sup> Work-Seekers and Work-Seekers not Referred<sup>b</sup>**

	Work Seekers			Not Referred <sup>c</sup>		
	Adults <sup>d</sup>	Graduates <sup>e</sup>	Total	Adults <sup>d</sup>	Graduates <sup>e</sup>	Total
1989	895	1798	2693	66.7	76.1	73.0
1990	4602	4190	8792	69.2	87.7	79.4
<i>Percent of all Israeli work-seekers</i>						
1989	1.2	29.4	3.4			
1990	5.5	50.5	9.5			
<i>Quarterly data</i>						
I	2306	2487	4217	66.7	77.7	72.4
II	3111	3298	2870	64.0	82.1	73.3
III <sup>f</sup>	4288	4152	8210	73.6	93.1	83.2
IV	8701	6811	15512	69.6	97.8	82.0

<sup>a</sup> Since 1990 the definition of a new immigrant has been extended from one to three years after immigration.

<sup>b</sup> Monthly averages.

<sup>c</sup> Work-seekers not referred by labor exchanges (as percent of work-seekers).

<sup>d</sup> Registered at labor exchanges for adults.

<sup>e</sup> Registered at labor exchanges for graduates (including some 400 non-graduates in 1990).

<sup>f</sup> Data for this quarter are influenced by sanctions employed by labor exchange staff in August.

SOURCE: Employment Service data.

Another indication of the proportion of immigrants who were unemployed is given by the labor exchange data (Table 4.11), which show that the percentage of immigrant work-seekers rose from 4.5 in the first quarter to 15.5 in the fourth. Among immigrant graduates the proportion rose from 29 percent in the first quarter to 60 percent in the fourth. The number of immigrant work-seekers rose from 4,200 in the first quarter to 15,500 in the fourth, an increase which is also striking.

A survey of immigrant employment in industry commissioned by the Manufacturers' Association<sup>6</sup> showed that in 1990 many more immigrants found employment in industry than the Labour Force Surveys indicate. Most of them found work as laborers (70

<sup>6</sup> The data should be treated with caution. The greater number of employed immigrants indicated by the Manufacturers' Association survey than by the Labour Force Survey may be due to the fact that immigrants who are working (primarily in part-time or shift work) report themselves as unemployed or as not part of the labor force because their work is temporary and not in their field (during the period they are entitled to receive an absorption grant).

percent of them as unskilled workers), only a very small proportion working in scientific, academic, and technical occupations, even though over a third of them are graduates. The survey also showed that a large proportion of the immigrants do shift-work.

**Table 4.12**  
**Real Wages, by Industry, 1985-90<sup>a</sup>**

	(percent change)								
	Over preceding year						1985-1987	1988-1989	1985-1990
	1985	1986	1987	1988	1989	1990			
<b>Deflated by CPI</b>									
Nontradables	-4.2	13.2	8.6	6.1	-3.0	-2.1	17.8	0.7	18.7
Tradables	-8.1	9.0	8.5	4.0	-0.3	-0.7	8.6	2.9	11.8
Public services	-14.3	4.4	7.1	9.7	0.4	0.4	-4.2	10.1	6.0
<b>Deflated by producer prices</b>									
Nontradables	-4.6	10.7	4.0	2.8	-5.0	-3.7	9.8	-6.0	3.2
Tradables	-5.5	16.2	10.6	5.7	0.4	5.1	21.5	11.6	35.6
Industry	-4.5	17.6	11.0	4.1	-2.4	5.2	23.3	9.9	35.6
Agriculture	-9.5	4.7	5.1	6.7	11.7	1.7	-0.5	21.2	20.6
Water & electricity	-13.9	13.1	22.6	9.5	-3.6	-7.8	19.4	-2.7	16.2
Construction	-7.2	34.8	19.9	1.5	-12.4	-16.4	50.0	-25.6	11.5
Trade, restaurants, hotels	5.0	11.9	0.9	0.3	-2.5	4.5	18.6	2.1	21.1
Transport etc. <sup>b</sup>	-21.5	10.1	13.2	10.9	-3.9	-0.7	-2.2	5.8	3.4
Financial & business services	-4.0	-8.7	-6.2	2.5	-6.9	-2.2	-17.8	-6.7	-23.3
Personal & other services	0.5	-4.0	-7.9	-1.2	-3.5	-0.4	-11.2	-5.1	-15.7

<sup>a</sup> Tradables industries comprise industry, part of agriculture, and shipping & aviation.

<sup>b</sup> Transport, storage & communications.

SOURCE: Based on Central Bureau of Statistics data.

**Table 4.A1**  
**Employment and Labor Input, by Sector, 1986-90**

(percent change over preceding year)

	Absolute figures					
	1990	1986	1987	1988	1989	1990
<b>Employed persons (thousands)</b>						
Israelis	1,491.6	1.4	2.6	3.5	0.5	2.1
From administered areas	107.6	5.8	11.9	0.4	-4.1	2.6
Public services	444.7	0.7	-0.1	4.0	1.9	2.3
Business sector <sup>a</sup>	1,154.5	2.1	4.5	3.0	-0.4	2.1
Total	1,599.2	1.7	3.2	3.3	0.2	2.1
<b>Labor input (mill. man-hours)<sup>a</sup></b>						
Israelis	53.8	0.8	2.3	3.5	1.7	1.8
From administered areas	4.0	7.7	9.7	-23.8	1.6	6.0
Public services	13.8	-1.2	0.2	3.8	2.4	1.6
Business sector <sup>b</sup>	44.0	2.2	3.8	0.3	1.4	2.3
Total	57.8	1.4	2.9	1.1	1.6	2.1

<sup>a</sup> Weekly average.

<sup>b</sup> Calculated as total *less* public services.

SOURCE: Based on Central Bureau of Statistics data.