EMPLOYMENT AND WAGES

After recovering somewhat in 1983, the labor market weakened this year, when the slack evident since the beginning of the decade became more pronounced. The number of Israeli employed rose 1.5 percent, following increases of 1.4 percent in 1982 and 3.2 percent in 1983, while the unemployment rate reached 5.9 percent, compared with 5 and 4.5 percent respectively in the two preceding years. Real wages[1] per employee post fell 2.7 percent, after a 4.9 percent growth in 1983. In the business sector the number of Israeli employed inched up 1.6 percent, as against 4.3 percent last year, and the labor input rose 2.4 percent,[2] compared with 3.3 percent in 1983. Real wages per employee post in this sector sagged 3.6 percent, after a 3 percent increase in 1983. In public services wages drifted down 1 percent, following a formidable 8.3 percent increase the year before. The downtrend in labor productivity[3] evident in the last few years continued in 1984; since 1983 product per manhour in the business sector has declined 3 percent.

These labor market trends were consistent with the sluggish growth of product in the last three years, which trailed behind the long-term growth of the civilian labor force: since 1982 the gross domestic product has moved up 3.9 percent,[4] compared with 7.1 percent for the civilian labor force. This slack in product and productivity can be attributed, in our opinion, to a combination of factors which have heightened uncertainty in the business sector and adversely affected the economy's performance in recent years: sharp swings in relative prices due to

[1] Nominal wages deflated by the consumer price index. In all real wage estimates in this chapter an adjustment has also been made this year for the bias arising from the fact that wages are on average paid at the beginning of the month and are deflated by the average price index for the preceding month, which implies a two-week discrepancy.

[2] The 0.8 percent increase in the number of manhours per employed this year should be viewed against the striking changes that occurred in this variable in recent years. In 1982 and 1983 it fell by an unprecedented 2.3 percent, owing primarily to the longer spells of reserve duty entailed by the war in Lebanon, while this year's 0.8 percent rise was influenced by the easing of this burden. Another factor this year was an increase in the number of possible mandays: more holidays fell on the Sabbath than in 1983, and this in itself increased the number of manhours per standard employee post by 0.8 percent.

[3] In this chapter estimates of the business sector product and labor productivity (product per manhour) are based on the Central Bureau of Statistics' national accounts data, which are calculated from the expenditure side. Alternative estimates based on sectoral origin are presented in Chapters II and VI.

[4] The growth of the business sector product was even smaller—3.1 percent.

frequent shifts in government policy, the aggravation of inflation, and a change in the composition of demands.

The year reviewed witnessed an exacerbation of balance of payments strains. The collapse of bank share prices last year and the reversal of government policy dampened domestic demands in 1984 while boosting exports, but there was also a marked acceleration of inflation. Labor market developments revealed a somewhat irregular pattern (Figure IV-2): The slack in employment that became apparent at the end of 1983 worsened in the first half of 1984; in the third quarter there was a temporary recovery with the expansion of economic activity during the period of the Knesset elections; but in the fourth quarter the trend again swung down and the unemployment rate reached 6.3 percent.

In the business sector gross real wages per manhour fell 6.3 percent this year from the employee's perspective (in consumption purchasing-power terms), and by 8.1 percent from the employer's perspective (in terms of business sector product at factor cost). Given the 2.2 percent drop in labor productivity, real labor cost declined 6 percent, after rising by 6.2 and 2.6 percent in 1982 and 1983 respectively (see Table IV-1B). Real labor cost is defined as the weight of labor compensation in total value added of the firms (the business sector product at factor cost). An increase in labor cost implies a decrease in the return to

Table IV-1A

POPULATION, EMPLOYMENT, AND WAGE PER EMPLOYEE POST, 1976-84

(Percent annual increase)

	1976	1977	1978	1979	1980	1981	1982	1983	1984
Working-age (14+) population	3.2	2.1	2.0	2.6	2.5	1.8	1.8	2.0	2.2
Civilian labor force	1.9	3.2	4.2	1.6	3.2	2.3	1.3	2.6	3.0
Israeli employed	1.3	2.8	4.6	2.3	1.1	2.0	1.4	3.2	1.5
Total manhours of Israelis	0.8	0.7	4.6	4.0	-1.1	2.6	0.0	2.3	1.7
Residents of Judea, Samaria, and Gaza District employed in Israel	-2.2	-2.9	8.2	8.7	-3.0	1.0	4.2	8.4	2.8
Total employed in Israel	1.1	2.5	4.8	2.6	0.8	2.0	1.6	3.5	1.5
Total manhours worked in Israel	0.7	0.6	5.1	4.4	-1.3	2.6	0.3	2.6	1.9
Real wage per employee post									
Estimate A[a]	1.0	10.4	1.3	7.9	-3.5	11.0	-1.0	4.9	-2.7
Estimate B[b]	1.4	10.6	1.5	9.5	-3.2	10.4	-0.4	6.1	-0.4

[a] CBS data based on employers' returns to the National Insurance Institute; deflated monthly by the consumer price index and corrected for the lag in adjusting wages: wages are on average paid at the beginning of the month and are deflated by the average price index for the preceding month, which implies a two-week discrepancy.

[b] Like (a), with no correction of the bias.

SOURCE: Central Bureau of Statistics—*Monthly Bulletin of Statistics*, labor force surveys, and surveys of families in Judea, Samaria, and Gaza District; and Bank of Israel calculations.

Table IV–1B

GROWTH OF BUSINESS SECTOR WAGE EXPENDITURE, 1976–84

(Percent annual increase)

	1976	1977	1978	1979	1980	1981	1982	1983	1984
1. From employee's perspective, gross[a]	8.8	8.5	6.1	1.8	-2.2	10.0	2.2	1.0	-6.3
2. From employee's perspective, net[b]	7.1	6.7	5.0	-3.5	-3.3	13.6	0.8	-0.2	-7.7
3. From employer's perspective[c]	11.6	2.7	6.4	3.4	-3.8	0.9	5.0	1.7	-8.1
4. Real labor cost[d]	11.6	3.0	6.7	2.5	-8.8	-0.6	6.2	2.6	-6.0
5. Relative price of business sector product $P_y/P_c = [1 + (1)]/[1 + 2)]$	-2.5	5.6	-0.3	-1.5	1.7	9.0	-2.7	-0.7	2.0
6. Labor productivity[e] $\{1 + (3)\}/[1 + (4)]$	0.0	-0.3	-0.3	0.9	5.5	1.5	-1.1	-0.9	-2.2
7. Effect of direct taxes $[1 + (1)]/[1 + (2)]$	1.6	1.7	1.0	5.5	1.1	-3.2	1.4	1.2	1.5
8. Effect of changes in specific tax rates[f]	1.6	0.0	0.8	3.3	1.9	-4.5	1.4	-0.1	2.8

[a] In purchasing-power terms: business sector employee compensation per manhour (including nonwage employee compensation) deflated by the consumer price index and adjusted for the bias described in note a to Table IV–1A.

[b] Adjusted for the effect of changes in direct taxes (income tax and national insurance) on wages. The data here are rough estimates. In estimating net taxes the child allowance was not deducted.

[c] In real product terms: business sector employee compensation per manhour deflated by the implicit price index of the business sector net domestic product (at factor cost).

[d] Like (c), adjusted for the changes in labor productivity (product estimated from the expenditure side).

[e] Business sector net domestic product per manhour.

[f] Estimated for average wage levels in various years.

SOURCE: Central Bureau of Statistics and Bank of Israel calculations.

employers and in the profitability of production. It follows that this variable influences growth and employment trends, as well as the country's competitive strength in foreign markets.[5] A protracted rise in labor cost and a shrinking profitability of production have characterized a number of western economies since the energy crisis of the 1970s. In Israel real labor cost jumped precipitately at the end of the decade and again in 1982 and 1983 (Figure IV–1). It is reasonable to assume that this was one of the reasons for the slackening of GNP in the 1980s.

[5] A change in real labor cost reflects a change in the supply of business sector product, which influences the level of economic activity. The last is also influenced by other important factors originating in the demand for the sector's product.

Real labor cost is influenced by several factors.[6] One is the lack of correspondence between wages and labor productivity: if wages go up faster than labor productivity, this will bring up the weight of labor compensation in the product and thereby increase the cost of labor to the employer. The fact that wages do not adjust to the price of the product also affects real labor cost: a number of factors influence the relation between the value of a unit of product and the cost of living, and if wages are not adjusted for these changes, real labor cost will vary. To take one example, a deterioration in the country's terms of trade because of rising imported input prices will depress the value of the product relative to the increase in the consumer price index, and will push up real labor cost as long as this effect is not offset by a decline in wages per worker or, alternatively, by a growth in labor productivity. Changes in taxation, subsidy, and exchange rate policies can have a similar effect: increasing the net tax burden (taxes less subsidies) on the business sector product will reduce the value of a unit of product relative to the cost of living and increase real labor cost, if real wages do not decline and labor productivity does not rise. Conversely, subsidizing the consumption basket more heavily or, alternatively, lowering its cost by a real appreciation of the currency reduces the cost of living relative to the value of a unit of product and increases wages per worker at the expense of government subsidies.

The excessive increase in labor cost at the end of the 1970s can be largely attributed to the government's expansionary fiscal policy, which resulted in a much greater demand for workers in the public sector, along with a much more onerous direct tax burden on wages (Table IV–1B and Figure IV–1).[7] This policy also generated wage pressure in the business sector and staved off a rise in unemployment as long as public sector employment continued to expand rapidly. Accordingly, when the latter trend was checked in 1980, the number of jobless rose and the growth of wages per worker came to a halt; together with an improvement in labor productivity, this depressed real labor cost in 1980, after

---

[6] We denote Pc—price of the consumption basket; Py—price of the business sector product at factor cost; W—hourly wages; Y—real business sector product per manhour (labor productivity); C—real labor cost.

Employers' labor cost will therefore be:

$$C = \frac{W}{PyY} = \left(\frac{W}{Pc} \times \frac{Pc}{Py} \times \frac{1}{Y} \right)$$

Wage per worker (purchasing power)	Price ratio (index/ business sector product)	1/labor productivity

[7] Employment and wages in public services rose appreciably in the second half of the 1970s: in 1975–79 the number of employed in this sector went up 20 percent and real wages by 28 percent. In the business sector the increases during this period were 9 and 22 percent respectively. It should be stressed that the wage growth rates relate to gross wages, and also reflect the increase in the tax burden; in the business sector net wages rose only 12.5 percent.

Figure IV-1

GROSS HOURLY WAGES, TAX BURDEN, AND REAL UNIT LABOR COST IN THE BUSINESS SECTOR, 1975-84[a]
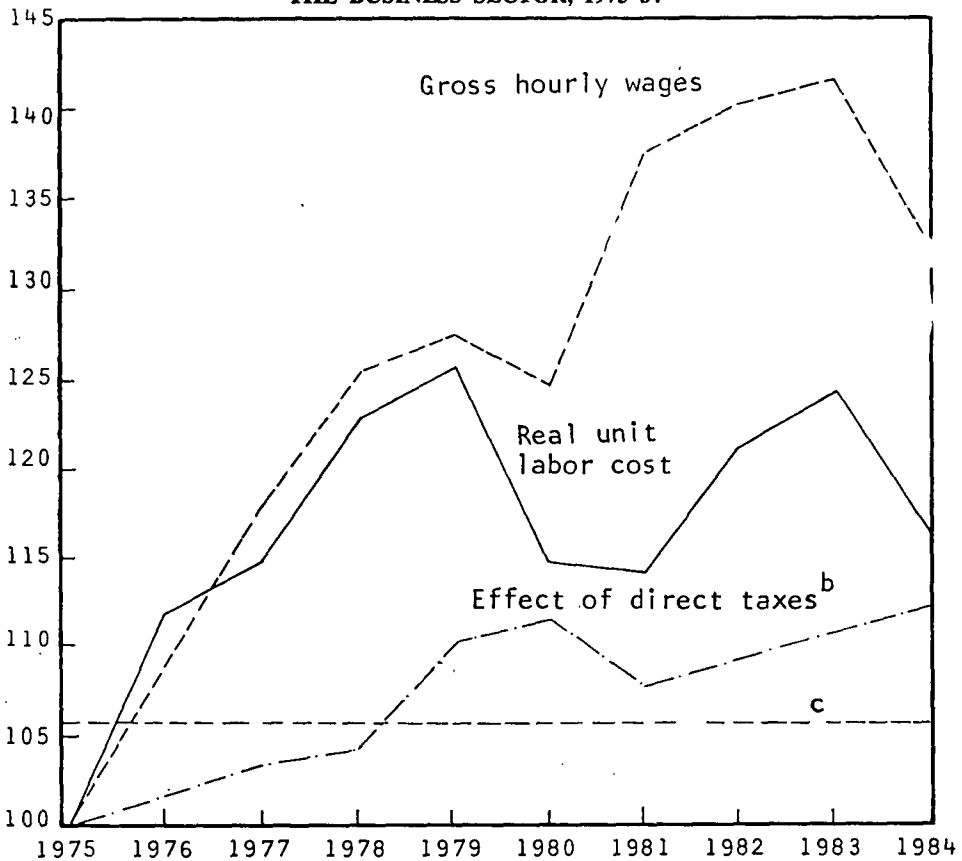
a See Table IV-1B.

b The effect of changes in specific tax rates amounts on average to 60 percent of the changes in the direct tax burden (cf. lines 7 and 8 in Table IV-1B).

c Real unit labor cost—average level in 1971-75.

it had reached an especially high level in 1979. The renewed uptrend in real labor cost in 1982 and 1983 was largely due to marked shifts in government policy: in 1981 a heavier subsidization of the consumption basket lowered its price relative to the business sector product and sharply drove up wages per worker. The change of direction in government policy in 1982-83 again made the consumption basket dearer in relation to the product, but wages per worker did not decline correspondingly, and since labor productivity remained flat, real labor cost again reached an inordinately high level. It turned down once more in 1984, when mounting slackness in the labor market led to the contraction of real wages per worker.

The frequent veering of government policy has heightened uncertainty in recent years and harmed the profitability of production and the country's ability to compete abroad. Hence the clear importance of a consistent long-term policy, which would keep real labor cost at a modest level while striving to bring about a restructuring of the economy. In order to ensure that a weakening of domestic demands does not lead to a big increase in the number of jobless, it is necessary to greatly step up employment in the export sector, thereby off-setting the contractionary forces. Maintaining labor cost at a modest level would help to achieve this goal by enhancing the business sector's competitiveness. To this end, the tax burden on labor must be lightened as part of a contractionary fiscal policy, and the relation between the wages and the economic contribution of workers must be strengthened.

The development of real wages per employee post was influenced in 1984 by the growing slack in the labor market. The escalation of inflation eroded wages at the beginning of the year, but in the final months the package deal had a moderating effect. There was a striking intersectoral difference in the development of wages: a relatively mild trend in the business sector, in contrast to a steep preelection jump in public services, with the gap remaining wide since then. This pattern also deviated from the long-run fluctuations in the public sector,

Table IV-2

SECTORAL COMPOSITION OF ISRAELI EMPLOYED, 1970-84

(Percent)

			Business sector		
				Thereof:	
	Total	Public services	Total	Fin. & bus. services	Industry
Composition					
1970	100.0	23.9	76.1	5.2	24.2
1975	100.0	26.9	73.1	6.9	24.4
1977	100.0	27.8	72.2	7.2	23.9
1979	100.0	29.2	70.8	7.8	24.0
1980	100.0	29.3	70.7	8.2	23.5
1982	100.0	29.8	70.2	9.0	22.7
1983	100.0	29.3	70.7	9.4	22.7
1984	100.0	29.3	70.7	9.5	22.9
Average annual rate of change					
1970–75	2.7	5.2	1.9	8.8	2.9
1975–79	3.0	5.1	2.2	6.3	2.7
1979–84	1.8	1.9	1.8	6.0	0.9

SOURCE: Central Bureau of Statistics labor force surveys.

Figure IV-2

LABOR FORCE PARTICIPATION AND EMPLOYMENT RATES ADJUSTED FOR EFFECT OF CHANGES IN AGE, EDUCATION, AND SEX COMPOSITION OF THE POPULATION, AND THE UNEMPLOYMENT RATE, 1979-84

(Percentages)

Annual Data   Quarterly Data[a]
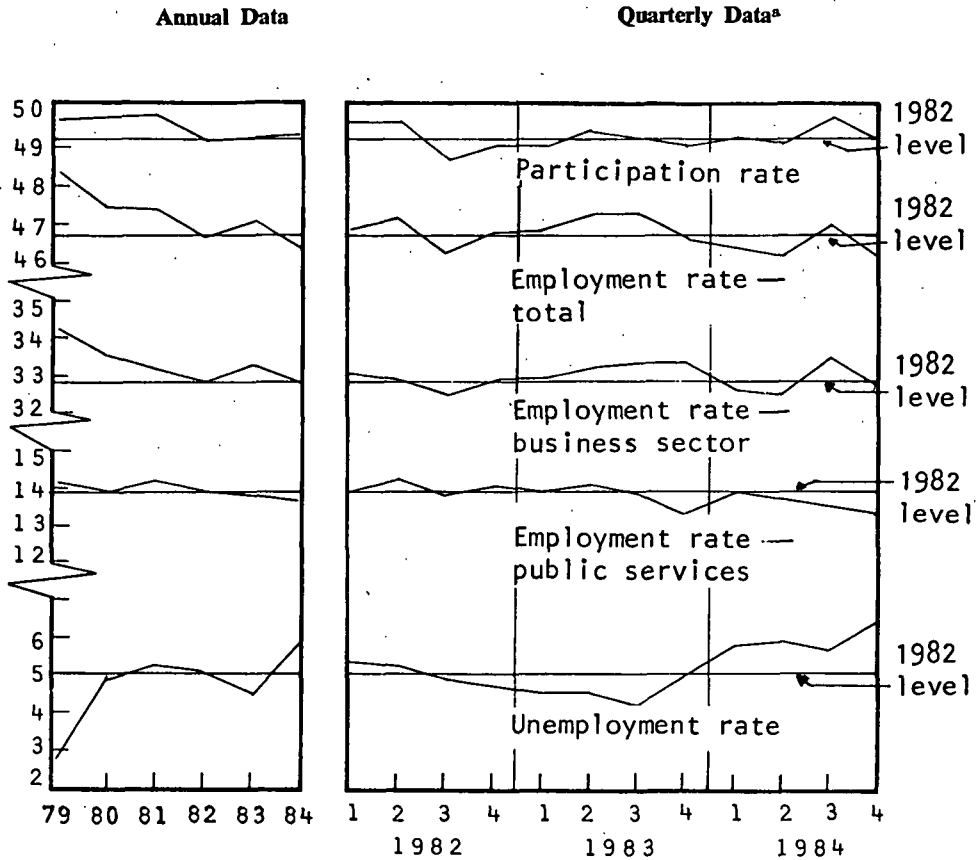
a Seasonally adjusted.
SOURCE: Central Bureau of Statistics labor force surveys and Bank of Israel calculations.

which are influenced by the timing of the biennial wage agreements signed in this sector. In the short run wages here are influenced primarily by institutional factors and only marginally by macroeconomic conditions, but since public sector wages influence those in the business sector, a policy of wage restraint in the public services is necessary for meeting the aforementioned policy targets.

The cyclical influences in the labor market are illustrated by the development of the labor force participation rate and the employment rate[8] over time, adjusted for the effect of variations in the composition of the population. A glance at Figure IV-2, which compares these rates in 1979-84, shows that in 1984 employment sagged while the participation rate remained steady on average,[9] implying an increase in unemployment. There was an upward deviation from this trend in the third quarter, which was apparently connected with the growth of economic activity during the election campaign.[10] A comparison with previous years attests to the continuation of the downtrend in employment prevailing since the beginning of the 1980s, apart from a slight rise in 1983.

The weights of public services and the business sector in employment held steady this year, when the uptrend in the business sector was arrested. The weight of industry in Israeli employed edged up from 22.7 to 22.9 percent, with the number of persons employed rising 2.6 percent and the labor input by 3.9 percent. This positive development is explained by the formidable expansion of exports in 1984.[11]

---

[8] The employment rate is defined as the percentage of employed in the working-age population (the total number of employed or, alternatively, the number employed in the various sectors).

[9] Participation in the labor force is determined primarily by personal characteristics—sex, education level, and age—while cyclical developments in the economy affect specific participation rates in these various categories. To estimate the effect of these factors one must first discount the changes in the participation rates caused by variations in the composition of the population according to the aforementioned characteristics. We have done so using the standardization method, which involves estimating the participation rates that would have prevailed had the specific participation rates of the different groups not varied from year to year—i.e. assuming that the sole change during these years was in the distribution of the population by these characteristics. For a formal exposition of this adjustment method see the Bank of Israel Annual Report for 1980, p. 76. Following are, the adjusted and unadjusted participation rates for 1979-84 (in percentages; base year for adjustment—1981):

Labor force participation rate	1979	1980	1981	1982	1983	1984
Unadjusted	49.2	49.5	49.8	49.6	49.9	50.3
Adjusted	49.7	49.8	49.8	49.2	49.2	49.3

[10] The increases were especially large in personal services and in commerce, restaurants, and hotels.

[11] About half of the industrial product is marketed abroad (see Chapter VI).