

# **Recent Economic Developments 124**

January - April 2009

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## Part 1: Review of Recent Economic Developments, January to April 2009\*

### Main Developments

The slowdown in economic activity which began in the second half of 2008 continued during the period reviewed—January to April 2009. National Accounts figures for Q1 indicate that the slowdown intensified, due to the steep drop in exports and a decline in private consumption. However, according to most of the recent indicators of the state of the economy, the rate at which the economy contracted moderated at the end of the period reviewed (March–April).

The financial crisis trickled down to real economic activity in both developed and developing economies, including Israel, and was expressed in the contraction of global demand and the reduction of the wealth of the public (especially in the second half of 2008). Reports submitted to the Bank of Israel's Survey of Companies for the first quarter of 2009 indicate that firms in all the principal industries expect a further reduction of activity. The trend towards the further exacerbation of financing constraints has been checked, however, and has even been eased in most firms, except for small ones.

GDP contracted by 3.9 percent in annual terms in the first quarter of 2009, after 1.6 percent decrease in the fourth quarter of 2008, and the Bank of Israel's State of the Economy Index fell by 3.8 percent in the period reviewed (Table 1.2). The sharp slowdown in economic activity encompassed all the principal industries: manufacturing production, commerce, and the services.

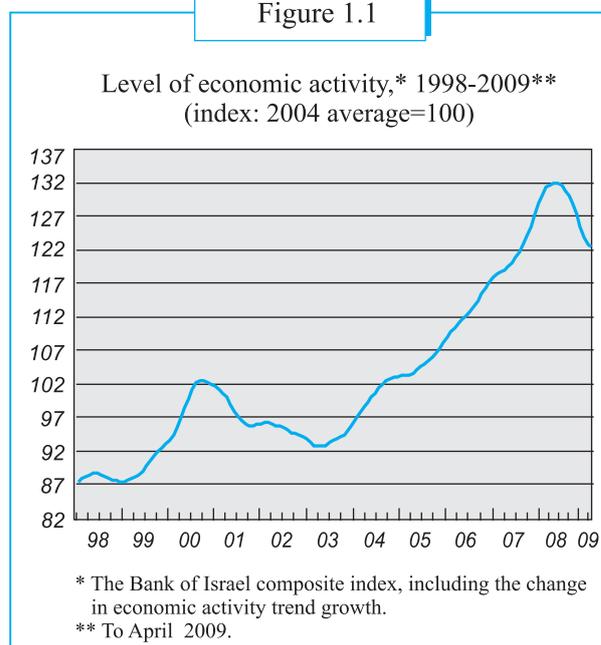
The effect of the economic crisis on the labor market intensified, and the number of employees who lost their jobs during the period reviewed was significantly higher than the number of positions filled, so that the number of work-seekers and claims for unemployment benefit rose. Most of the decline in the number of employed persons was in the public services. These developments were accompanied by a steep rise in unemployment, which reached 7.6 percent of the labor force. Employers' expectations regarding the extent of their economic activity in the second quarter of 2009 were negative, and their demand for employees is also expected to contract.

The decline in economic activity was also expressed in the contraction of the government's tax receipts. While at first receipts from direct taxes were affected, in the period

reviewed those from indirect taxes declined, too. Towards the end of the period reviewed receipts from indirect taxes on domestic production recovered.

The elections to the 18<sup>th</sup> Knesset were held on 10<sup>th</sup> February. At the end of the period reviewed the new government approved a biennial budget for the first time, introducing the budget for 2009–2010 as a two-year budget in the Basic Law: State Budget for 2009–2010, to be passed by the Knesset by 16<sup>th</sup> July. According to the budget proposal approved by the government, the expenditure ceiling for 2009 will be raised by 3.05 percent in real terms, and the budget deficit will be limited to 6 percent of GDP in 2009 and to 5.5 percent of GDP in 2010. In order to meet the deficit target in 2009, at the end of the period reviewed both the excise duty on fuel and the tax on cigarettes were raised, and the budget proposal includes additional tax increases. The framework of the budget proposal also includes a 'package deal' between the National Federation of Labour (Histadrut), the representatives of the employers and the government.

Figure 1.1



During the period reviewed the Bank of Israel reduced its declared interest rate sharply, bringing it down to 0.5 percent in April 2009—its lowest level ever. This was done

in order to enable the inflation target to be attained, stabilize the financial markets, and stimulate economic activity. In February, as the interest rate approached its lower limit, the Bank of Israel announced that it would buy government bonds on the secondary market in order to bring their yield down, thus supporting the reduction of interest on medium- and long-term credit. The Bank of Israel also continued to purchase foreign currency in order to augment the reserves, thereby supporting the exchange rate.

Alongside the exacerbation of the real economic crisis, the value of the public's asset portfolio increased as a result of the recovery of the financial markets during the period reviewed. Prices of shares and corporate bonds soared, indices of uncertainty fell, and corporate bond issues rose steeply. The increase in the public's asset portfolio is expected to stimulate real demand in the course of the year.

### Real aggregate activity<sup>1</sup>

The slowdown in economic growth intensified in the first quarter of 2009, encompassing most uses of resources (Table 1.1). GDP contracted by 3.9 percent (seasonally adjusted, in annual terms), and business-sector product fell by 5.4 percent. As was the case in the preceding quarter, the decline in the economic growth rate stemmed from a sharp drop in exports and a decline in private consumption. The development of GDP and resource use is consistent with the path derived from the Bank of Israel's annual forecast of a 1.5 percent fall in GDP in 2009. These figures are also in line with the steep drop in the Bank of Israel's Composite Index (Figure 1.1).

*Private consumption* fell sharply in the first quarter of 2009, by 3.4 percent (seasonally adjusted, in annual terms), after contracting by 4.3 percent in the fourth quarter of 2008. The decline in private consumption encompassed most of the subsidiary items, including food, fuel, electricity, and water. Current per capita private consumption, excluding durable goods, fell by 1.9 percent, for the first time since the beginning of the crisis, and per capita consumption of durable goods contracted by 7.4 percent. The slowdown in private consumption, particularly of consumer durables, is in line with the cumulative damage to the public's asset portfolio as well as to employment security in the wake of the rise in unemployment and the erosion of the real wage. The decline in consumer confidence (according to Globes Research) in the fourth quarter of 2008 and the first quarter of 2009, as well as the ongoing deterioration in respondents' assessment of their readiness to buy durable goods in the near

future, attest to a further slowdown in private consumption in the future, too. However, there was a sharp increase in the index of public confidence in April, and the value of the public's asset portfolio has risen since the beginning of the year—data which indicate expectations of the revival of demand later in the year.

*Fixed investment* declined by 14.9 percent in the first quarter of 2009, reflecting the steep drop in nonresidential investment as well as in machinery and equipment due to the contraction of demand and deferment of investment. There was also a sharp fall in vehicle imports. These declines were moderated by the expansion of investment in construction in the principal industries, and primarily of residential investment. Because of the contraction of business-sector product, the decline in investment will persist in the coming quarters.

*Public consumption* contracted by 7.1 percent in the first quarter of 2009 due to the sharp decline in defense consumption, which was concentrated in the purchases item, and the 2.0 percent fall in public civilian consumption. The decline in public consumption stemmed from extensive debt-repayment—of both principal and interest—in February and March, as had been planned in advance. This occurred against the backdrop of the restriction of total permitted monthly budgetary expenditure (including debt-repayment) to one-twelfth of the budget of the previous year—leading to a decline in expenditure on purchases.

*Exports of goods and services* (excluding diamonds) contracted by 37.0 percent in the first quarter of 2009 as a result of the decline in all their components. This came in the wake of the 46.0 percent drop in the fourth quarter of 2008. However, the Purchasing Managers' Index indicates that the extent of purchases from abroad has risen in the last few months (February–April) although its level continues to remain below the threshold that denotes the revival of economic activity; these data attest to the moderation of the downward trend.

*Manufactured exports* (excluding diamonds) contracted by 35.5 percent, continuing the trend that began in the second half of 2008. There was a clear downward trend in the mixed traditional technology and mixed high-tech industries, and this was evident to a lesser extent in the high-tech industries, alongside the slowdown in global trade and in imports of goods by the US and Europe—the main targets for Israel's exports. Israel's exports to the US were affected to a lesser extent than those to Europe because most of them are from the high-tech industry.

The activity of the diamond industry continued to contract rapidly in the first quarter of 2009, too, and the extent of

<sup>1</sup> National Accounts figures throughout this review are seasonally adjusted and in annual terms.

diamond trading plummeted. However, the economic repercussions of the slump in the industry were limited because its value added is low.

The slowdown in *services exports* was exacerbated in the first quarter of 2009, and these fell by 35.7 percent as a result of the contraction of all exports, including business services. Exports of *tourism services* plunged by 74.4 percent (in annual terms), similar to the decline in 2006:III at the time of the Second Lebanon War. The steep drop appears to stem from cancellations of tourist bed-nights due to increased security tension in the region<sup>2</sup> and the continued global recession.

*Civilian imports of goods and services* (excluding ships, planes, and diamonds) contracted by 46.0 percent in the first quarter of 2009. This primarily expressed the steep 70.9 percent drop in civilian goods imports (raw materials, investment goods, and consumer goods), as well as the 32.7 percent fall in services imports. The decline in imports was particularly acute, but in cumulative terms since the beginning of the crisis it resembles the contraction of exports. Civilian imports have fallen by 24 percent in the last four quarters.

The decline in civilian imports encompassed imports of both current consumption goods and durable goods, as well as imports of investment goods. These developments are consistent with reports by firms to the Survey of Companies of a rise in demand constraints as well as with the sharp contraction of economic activity, which impacts on consumption, investment, and production.

GDP prices (the GDP deflator) rose by 1.5 percent (in quarterly terms). The slowdown in economic activity was expressed in a moderate rise in prices of private consumption (adjusted for housing and energy prices).

### By-industry real activity

The expansion of the global economic crisis was expressed in the contraction of *manufacturing production* during the period reviewed. The index of manufacturing production declined by 6.4 percent in the first quarter of 2009 (trend, in annual terms), after declining by 12.7 percent in the fourth quarter of 2008 (Figure 1.2). The moderation of the rate at which manufacturing production contracted in the first quarter of 2009 reflects the recovery of the high-tech industry and the continued decline of the mixed and traditional industries.

Manufacturing production in the high-tech industries rose by 5.7 percent in annual terms in the first quarter of 2009, after falling by 3.9 percent in the fourth quarter of 2008. This recovery derives *inter alia* from the commencement of production at the new Intel plant in Kiryat Gat.

The slowing of the pace of contraction of manufacturing production in the first quarter of 2009 was also expressed in the Purchasing Managers' Index, which rose consistently in the first quarter of 2009 after declining in the second half of 2008. Orders from Israel and abroad have rallied in recent months, and purchases of raw materials began to expand once more. Operation Cast Lead in Gaza, which began in the first half of January, had very little effect on manufacturing production because its impact on this industry in the southern part of Israel was only partial and also because the campaign was short. According to manufacturers' expectations for the second quarter of 2009, as indicated by the survey of expectations in this industry undertaken by the Israel Manufacturers' Association, there will be economic recovery: sales to the domestic market as well as for export are expected to rally, and the rate at which employees are laid off is expected to slow.

In the first quarter of 2009 the downward trend of activity in the *commercial industry*, which had begun in the second half of 2008, moderated. The revenue of commercial firms contracted by 2.6 percent, after declining by 4 percent, in annual terms, in the fourth quarter of 2008. The revenue of wholesale firms fell slightly, by 1.4 percent, during the period reviewed, and that of retail firms fell by 3.1 percent.

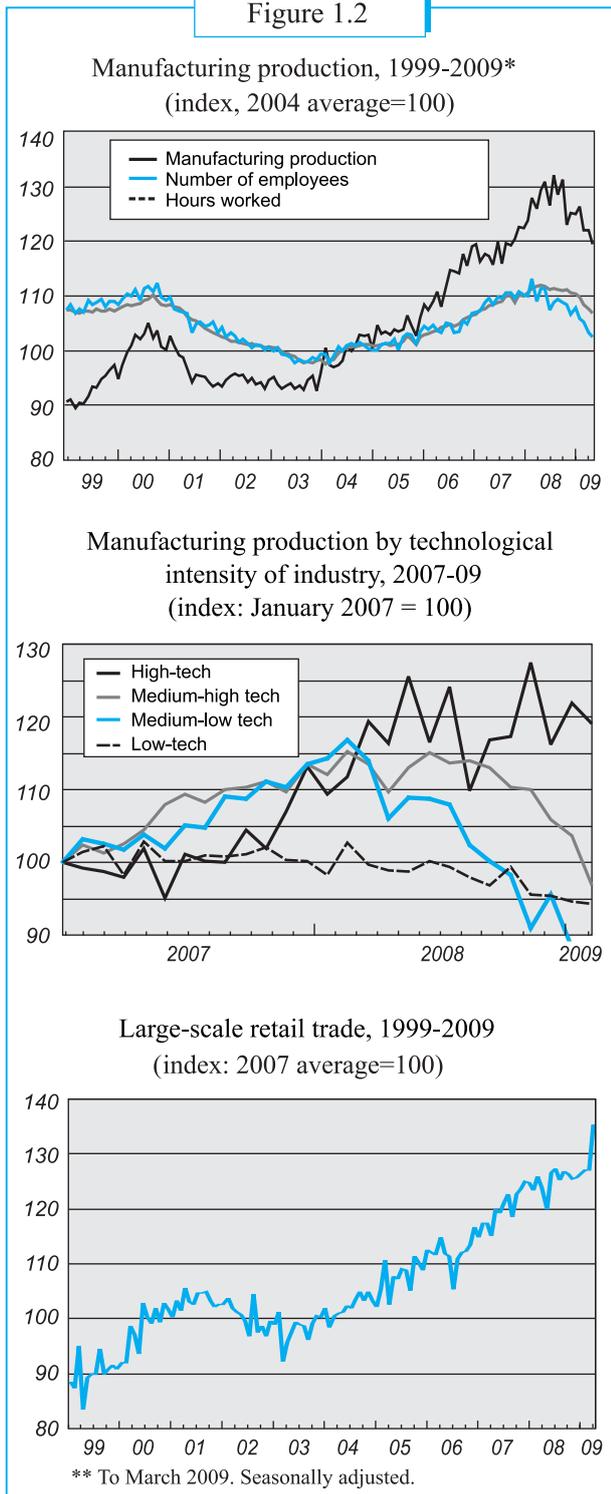
Sales by retail chains rose by 3.3 percent during the period reviewed (seasonally adjusted, in annual terms), after remaining stable in the fourth quarter of 2008. The acceleration of the rate of activity of retail chains was consistent throughout the period reviewed.

According to the Survey of Companies, it was the demand side which restricted the activity of firms in the first quarter of 2009, while supply constraints became weaker. In the wake of the decline in sales in the first quarter of 2009 and the fourth quarter of 2008, commercial firms predict a continued decline in activity in the industry and a decline in the number of employees.

The contraction of activity in the *services industries* during the first quarter of 2009 encompassed most of these industries, and was particularly evident in the financial institutions and insurance services. The revenue of firms providing these services indicates that the decline in activity in the first quarter of 2009 was slower than it had been in the fourth quarter of 2008. The upward trend in the activity of the health and welfare services industry continued. From

<sup>2</sup> Operation Cast Lead took place in January 2009.

Figure 1.2

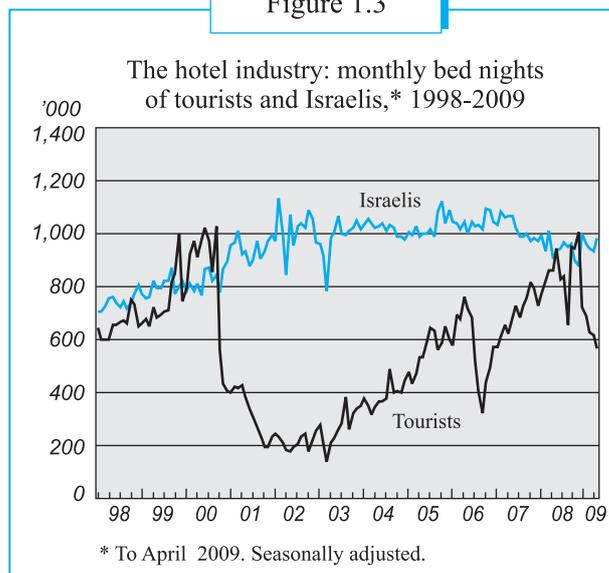


reports by firms included in the Survey of Companies for the first quarter of 2009 it is apparent that business activity continued to contract, mainly because the demand side limited their activity. The exacerbation of the financing

constraint was checked, however, and it was even eased in most firms, although not in the small ones.

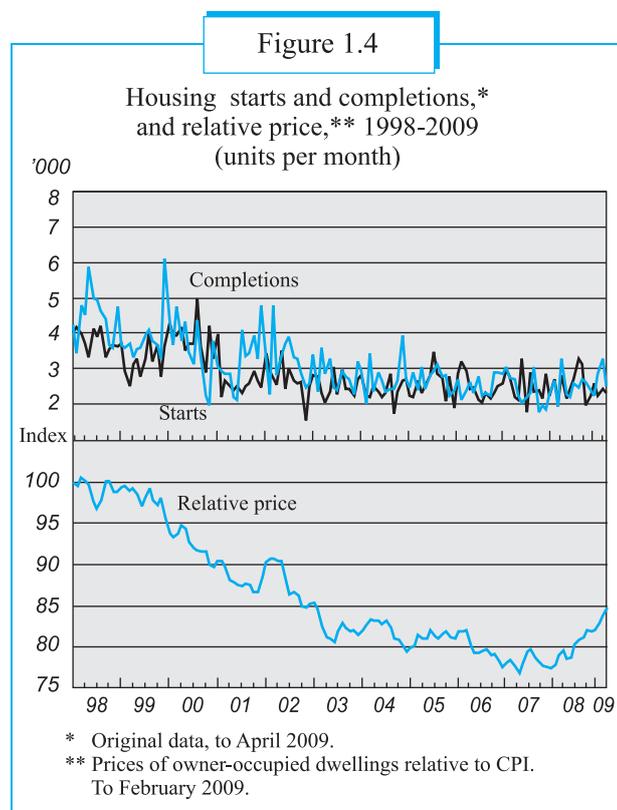
In the *tourism industry* the slowdown in activity was heightened during the period reviewed. After rising continuously since 2004, the revenue of tourist hotels was down by 13 percent in the first quarter of 2009 from 2008. This was due to the 16 percent drop in tourist revenue and the 10 percent decline in revenue from Israelis. The contraction in tourist revenue expressed a large drop in tourist entries into Israel alongside a fall in hotel bed-nights, so that hotel occupancy rates declined. The fall in hotel bed-nights of tourists encompassed all regions, and appears to have stemmed from the global economic crisis and the fighting in Gaza in January. However, hotel bed-nights of Israelis dropped only slightly (Figure 1.3). The decline in demand was also reflected in employment: the number of persons employed in the industry (including those employed via employment agencies) was down by 13 percent in the first quarter of 2009 from 2008. The Survey of Companies for the first quarter of 2009 attests to a recession in the tourism industry for the first time: the industry's net balance was particularly negative, and expectations for the next quarter are also of a slump.

Figure 1.3



*Activity in the construction industry* recovered to a moderate extent during the period reviewed, after contracting in the fourth quarter of 2008: privately-initiated sales of apartments and the extent of construction work on dwellings was up by 2.6 percent (seasonally adjusted) over the fourth quarter of 2008. However, the extent of activity in the industry is still lower than it was in the equivalent period in 2008: private sales of new apartments were down by 9 percent in the period

reviewed from the equivalent period in 2008. The revival of demand during the period reviewed led to a 2.5 percent increase in prices of owner-occupied apartments.<sup>3</sup>



Activity in the industry was affected by the increase in the value of the public's asset portfolio, the reduction of uncertainty in the financial markets (measured by the VIX index), and the decline in the average interest on mortgages to an unprecedentedly low level—3.21 percent in April.

The stock of apartments under construction fell in the first quarter of 2009, after rising in the second half of 2008, due to an increase in the risk premium and the cessation of financing for projects in the planning stage. The decline in the stock of apartments in the first quarter of 2009 was reflected in the sharp 12 percent drop in building starts, continuing the long-term trend, as well as in the rise in apartment completions.

### The labor market

During the first quarter of 2009 the effect of the economic crisis on the labor market intensified greatly (Table 1.3). Data from the Labor Force Survey, the Employment

Service, the Ministry of Industry, Trade and Labor's Survey of Employers, and the Manpower Company all indicate that the labor market became increasingly slack in the period reviewed. The unemployment rate rose steeply, and the demand for new employees fell (Figure 1.5).

In the first quarter of 2009 the *unemployment rate* rose very steeply indeed, continuing the trend evident in the fourth quarter of 2008, and stood at 7.6 percent, meaning that an additional 35,000 persons were unemployed. The unemployment rate among the prime age population (25–64) rose by a similar rate and reached 6.8 percent. The increase in unemployment was reflected by the 3 percent growth in claims for unemployment benefit in the first quarter of 2009; in March alone these were up by 10 percent over February.

The sharp rise in the unemployment rate derived from the decline in the number of employed persons, alongside the marked growth of the labor force, reflected in the expansion of the *participation rate* to 56.8 percent. The decline in the number of employed persons occurred almost entirely in the public services.

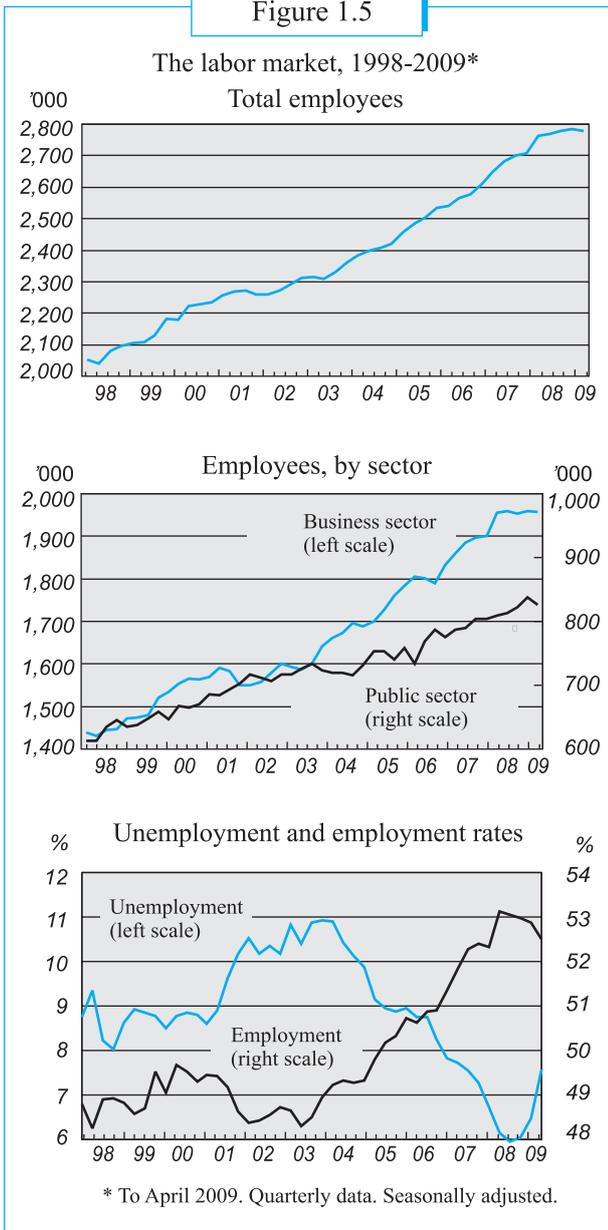
In the wake of the sharp increase in the unemployment rate in the first quarter of 2009, a 'safety net' was put in place for unemployed persons, involving mainly easing the terms for receiving unemployment benefit. These measures include reducing to nine months the period of employment that provides eligibility for unemployment benefit, in accordance with an agreement between the National Insurance Institute and the Ministry of Finance.

Data from the Employment Service indicate that the number of work-seekers continued to rise by a monthly average of 2 percent during the period reviewed, after four years in which the unemployment rate declined. In April there were 221,000 work-seekers.

The slackness in the labor market is also evident from the Survey of Employers, which reports a sharp drop in the number of positions available and a rise in the number of employees laid off at the employer's initiative. In the first quarter of 2009 the employment balance—the difference between the number of positions filled and the number of employees dismissed—deteriorated considerably. There was a negative net balance of 32,000 positions in the first quarter of 2009 (after a negative balance of 14,000 in the fourth quarter of 2008). The decline in the demand for employees and the deterioration in the employment balance situation encompassed all the principal industries and impacted on both large and small firms. Businesses were harmed both in the periphery and in the center of the country. In the business sector the decline in the number of persons employed in manufacturing was particularly apparent.

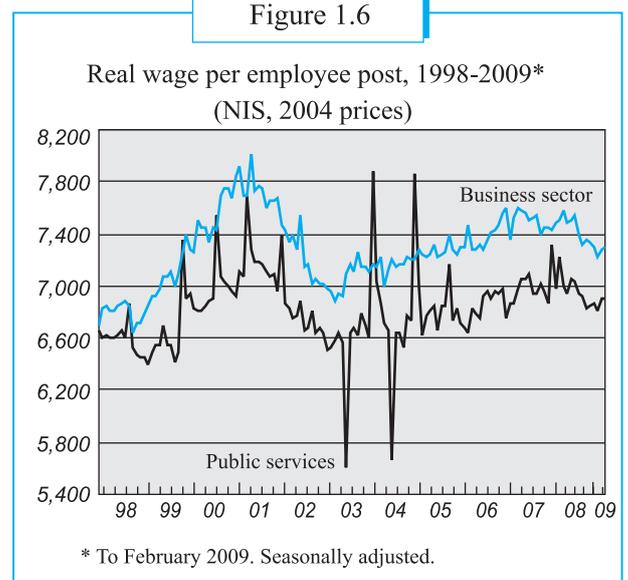
<sup>3</sup> According to the Review of Apartment Prices.

Figure 1.5



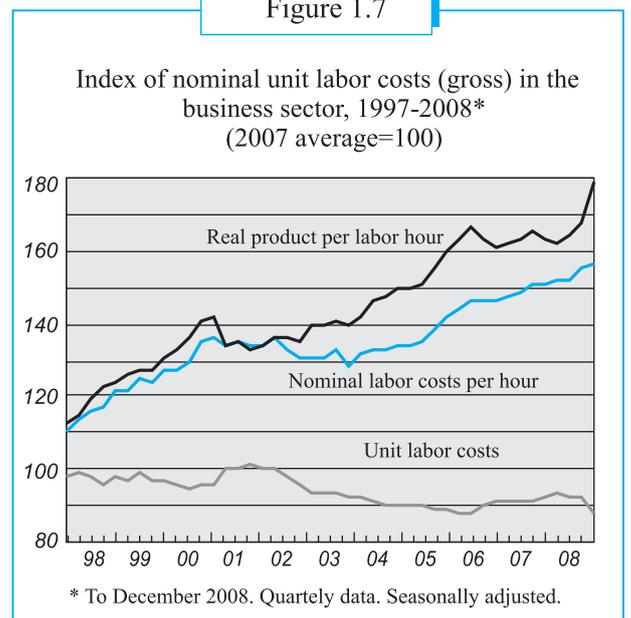
Despite the slackness in the labor market, the average nominal wage per employee post (January–March) did not decline, because of the wage increase in part of the public services, which offset the reduction of wages in the business sector. The wage increase in the public services stemmed inter alia from the expansion of the ‘New Horizon’ reform in the education system, the implementation of the wage agreement by the universities, and the execution of the arbitration ruling regarding physicians’ pay. In January 2009 employees in the public services were given a one-off payment of 1.5 percent of their wage, in accordance with the framework agreement signed in April 2008.

Figure 1.6



According to the arbitration ruling regarding physicians’ pay, this will rise by 24.2 percent in six stages. In January 2009 the physicians included in the agreement received a 6 percent wage increment, retroactive to January 2008, and as a result the nominal wage in the health services industry rose by 8 percent.

Figure 1.7



The decline in demand as well as in global prices of goods, energy, and food relative to their levels in mid-2008 led to a sharp decline in the inflation environment during the period reviewed. As a result, the average real wage per employee

post (January–March) is 2 percent lower than it was in the first half of 2008, before the economic crisis erupted (Figure 1.6). The decline in the real wage derived primarily from the contraction of wages in the business sector.

### The government

The contraction of economic activity also found expression in the activity of the government (Table 1.4). In the first four months of 2009 the overall deficit (excluding net credit) amounted to NIS 7.9 billion—most of it in domestic activity. This contrasts with the overall surplus of NIS 5.6 billion in the equivalent period in 2008. The high deficit in the period reviewed reflects the sharp decline in tax receipts and the implementation of expenditure in accordance with the level permitted by law<sup>4</sup> (Figure 1.8).

Domestic *revenue* in the first four months of 2009 amounted to NIS 64 billion—down by NIS 10.4 billion from the equivalent period in 2008, most of it due to a steep drop in tax receipts.

Adjusting for legislative amendments and one-off income,<sup>5</sup> *tax receipts* were down by 15 percent in real terms in the period reviewed from the equivalent period in 2008. Direct tax receipts fell in real terms by 17 percent, and indirect tax receipts by 12 percent. The contraction of tax receipts in comparison with 2008 is particularly evident in direct taxes—due to the steep drop in corporate tax receipts, capital market deductions, and land taxes.

The rate at which tax receipts fell slowed in the course of the period reviewed. Gross VAT receipts on domestic production were up in March–April over 2008, after falling sharply in January–February. An improvement was also evident in taxes on imports, due to the rise in vehicle imports.

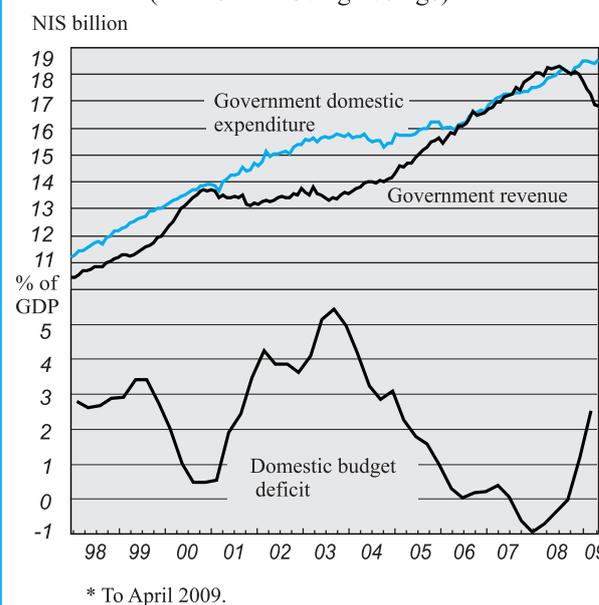
Elections to the Knesset were held on 10<sup>th</sup> February 2009, and the outgoing government operated without an approved budget framework during the period reviewed. Consequently, the *level of expenditure* in the first four months of the year was in accordance with the level permitted by law, but the expenditure of the government ministries was significantly lower than in the past, due to the high debt repayments of principal and interest in February and March which had been planned in advance.

<sup>4</sup> In April the Knesset amended the Basic Law: the Budget to enable the government to adopt the budget for 2009 and 2010 by 16<sup>th</sup> July. Until that date the government operates on a monthly basis of one-twelfth of the budget of the previous year.

<sup>5</sup> In April there was one-off income of NIS 1.4 billion. The legislative amendment reduced tax receipts by NIS 1 billion in the period reviewed.

Figure 1.8

Government revenue and expenditure,  
1998-2009\*  
(12-month moving average)



In view of the global economic crisis and the deceleration in economic activity, the implementation of the recovery program continued. In January a new loan fund amounting to NIS 1.3 billion was established to extend loans to small businesses. State guarantees were provided to the banking system in the amount of NIS 6 billion to enable the banks to raise capital and provide firms with credit. The government also extended additional aid to the construction and high-tech industries as well as to exporters.

Towards the end of the period reviewed the new government amended the Budget Basic Law, so that the central government budget for 2009 and 2010 will be a biennial one and is to be adopted by the Knesset by 16<sup>th</sup> July. According to the budget proposal that was approved by the government, the expenditure ceiling will be raised by 3.05 percent in real terms in 2009.

The budget deficit will be limited to 6 percent of GDP in 2009 and to 5.5 percent of GDP in 2010. The government also decided on the following subsequent downward deficit path: 3 percent of GDP in 2011, 2 percent in 2012, and 1.5 percent in 2013.

In order to meet the deficit target, at the end of the period reviewed the excise duty on fuel and the tax on cigarettes were raised (see Diary of Events), and the intention is to increase additional taxes: the budget proposal includes a 1 percent

increase in VAT for a period of eighteen months (from 15.5 percent to 16.5 percent) from July 2009, the cancellation of the exemption from VAT on fruit and vegetables, an increase in the tax ceiling on National Insurance payments to persons earning between NIS 38,415 and NIS 76,830, and higher tax rates on large, expensive, and polluting vehicles (in the framework of ‘ecological taxation’).

The budget proposal includes a ‘package deal’ between the National Federation of Labour (Histadrut), representatives of the employers, and the government. Within this framework, public services employees will forgo half the vacation supplement due to them in 2009 and 2010, and in exchange the government has agreed to make legislative amendments which will expand employees’ rights and to set up a fund to extend assistance to firms in the periphery.

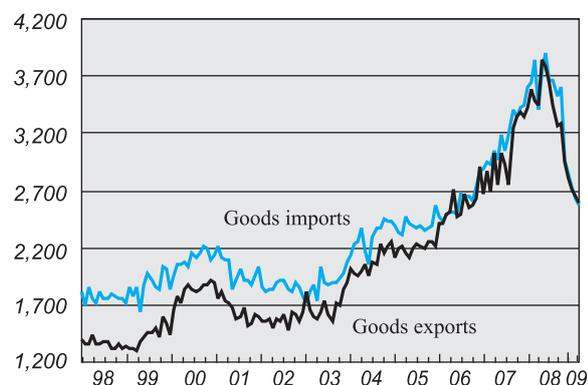
### The balance of payments

There was a current account surplus of some \$2.7 billion in the first quarter of 2009, after a surplus of \$0.8 billion in the fourth quarter of 2008. The current account surplus in the first quarter of 2009 mainly reflects developments in the goods account—marked declines in imports and exports against the backdrop of the global real economic crisis. The notable contraction of imports was sharper than that of exports, so that there was a surplus in the goods account. The services and income accounts stood at amounts similar to those evident in the fourth quarter of 2008.

National Accounts data for the first quarter of 2009 attest to a steep drop in goods exports (excluding diamonds) and the continued decline of goods imports (Figure 1.9).

Figure 1.9

Foreign trade,\* 1998-2009  
(\$ million per month)



\* Excluding ships, aircraft, diamonds, and fuel.  
To April 2009. Seasonally adjusted.

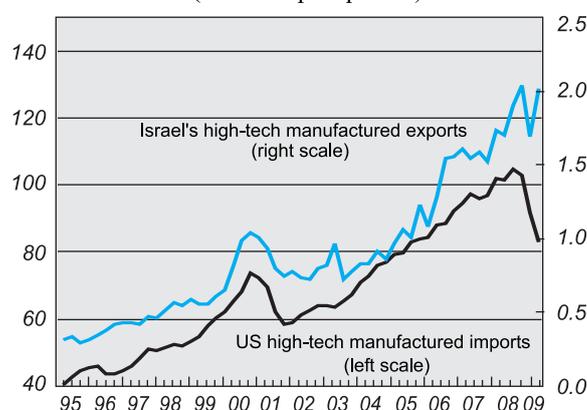
The sharp fall in imports of raw materials and investment goods continued, alongside a moderate decline in imports of consumer goods. Tax data for the first quarter of 2009 indicate a 44 percent decline in vehicle imports vis-à-vis 2008:1, and steep falls in imports of consumer durables (excluding entertainment electronics).

The external terms of trade deteriorated in the first quarter of 2009 because export prices rose by 5.5 percent and prices of civilian imports declined by 1.0 percent (price data in quarterly terms). The increase in export prices attests to real local-currency depreciation of 4.0 percent, supporting domestic exports and moderating the impact of the global economic crisis.

The economic crisis, which was exacerbated during the period reviewed, was accompanied by the downward adjustment of forecasts regarding the extent of global trade in 2009. According to the IMF’s updated forecast, goods imports by the developed countries will decline by 12 percent.

Figure 1.10

Israel's high-tech manufactured exports to the US  
and US high-tech manufactured imports,  
1995 to 2009\*  
(\$ billion per quarter)



\* To March 2009. Seasonally adjusted

### Global developments

The global financial crisis served to slow real economic activity in both developed and developing economies (Table 1.6). National Accounts data for the first quarter of 2009 show that there has been a marked reduction in economic activity in most of the developed countries. GDP in the US was down by 2.6 percent in the first quarter of 2009 from the fourth quarter of 2008, and in Europe (EU27) it contracted

by 2.5 percent. In Japan economic activity contracted by 4 percent in the same period—its largest quarterly decline ever. According to new estimates made by the IMF for 2009,<sup>6</sup> the GDP of the developed countries declined by 3.8 percent. Alongside the decline in economic activity, the IMF predicts a lower inflation environment in these countries.

Against the backdrop of the deepening recession, fiscal expansion programs were implemented, direct aid was extended to sectors which had been adversely affected by the crisis, and financial institutions were nationalized, at least in part. These measures, which were aimed at stimulating demand and reviving the orderly flow of credit, deviate from the customary counter-cyclical policy employed during downturns in the business cycle. According to the IMF estimates, the extent of the fiscal rescue packages in the G20 countries is expected to reach 1.5 percent of their GDP in the course of 2009.

Intervention measures will serve to expand budget deficits beyond the effect of the automatic stabilizers, as a result of which the deficits of the developed countries are expected to reach 7 percent of GDP in 2009. According to official estimates, the budget deficit of the US will reach 12 percent of GDP in 2009, its highest rate since the Second World War.

The slowdown in economic activity and apprehensions of deflation in the short term have led to expansionary monetary policy in most countries, involving the injection of liquidity alongside cuts in interest rates. During the period reviewed supply-side-driven price increases in the developed countries were replaced by falling prices—the result of the contraction of demand in the developed economies and the decline in goods prices relative to the period prior to the crisis. The rapid growth of the developing economies, foremost among them China and India, led to the ongoing rise of prices of goods, energy, and food. The exacerbation of the global economic slowdown brought about the contraction of demand in the developed economies and moderated the growth rate of the developing economies, hence depressing goods prices. As global goods prices declined, the inflation rate in the developed countries plummeted.

Concurrent with the contraction of real economic activity, the financial markets recovered: in the developed countries during the period reviewed, prices of shares and corporate bonds soared, indices of uncertainty (primarily the VIX and CDS) plummeted, and new issues of corporate bonds rose steeply.

<sup>6</sup> 'World Economic Outlook,' April 2009, International Monetary Fund.

The rise in the value of the public's asset portfolio in the developed countries and the decline in uncertainty resulting from the recovery of the financial markets are expected to increase real demand in the course of the year.<sup>7</sup>

### Prices, monetary policy, and the money and capital markets

The *Consumer Price Index* (CPI) rose by 0.9 percent in the first four months of the year, and by 0.8 percent seasonally adjusted. In the last twelve months it has risen by 3.1 percent—beyond the upper limit of the inflation target, but its uneven development indicates that the inflation environment is moderating after the exacerbation of the global economic crisis in September 2008 (Table 1.7).

The development of the CPI in the period reviewed expressed moderation of the inflation environment as a result of the decline in domestic demand; this was offset by the revival of increases in the price of energy and the moderate rise in the price of housing. The contraction of demand is reflected in the moderate increase in the prices of tradable goods and the CPI excluding prices of energy and housing—by only 0.1 and 0.2 percent respectively.

The index of housing prices rose by 1.7 percent in the period reviewed, and because of its large share in the CPI its contribution to inflation in this period amounted to 0.4 percent. The rise in the index of housing prices expressed a 1.4 percent increase in the index of owner-occupied housing and a 3.6 percent rise in that of rents.

The index of energy prices went up by 4.1 percent in the period reviewed, reflecting expectations that the US economy would recover in the course of the year. After a substantial and continuous drop in global energy prices, there was a trend reversal, and as of January they began to rise once more. Thus, for example, the price of a barrel of Brent crude oil<sup>8</sup> rose from an average of \$39 in December 2008 to \$50 in April 2009. However, energy prices are still significantly lower than they were in the fourth quarter of 2008.

The wholesale price index rose by 0.8 percent during the period reviewed, after plunging by 10.9 percent in the fourth quarter of 2008. The development of this index was affected by shifts in prices of goods as well as by the rise in prices of food and basic metals in the period reviewed. During this

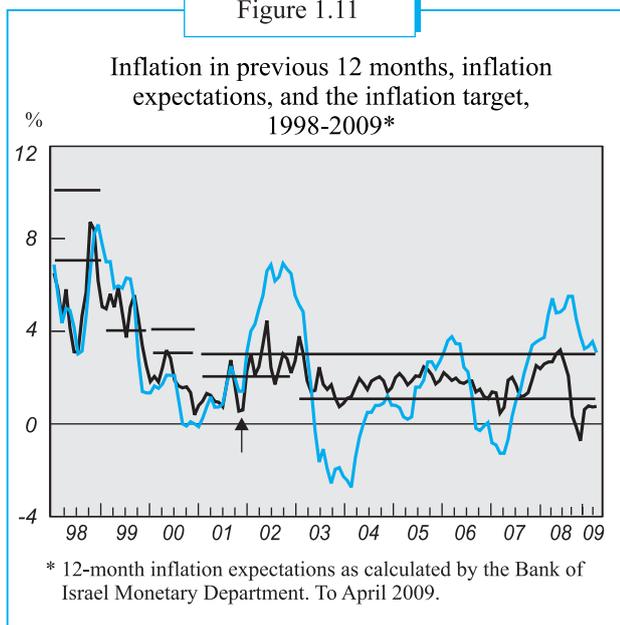
<sup>7</sup> See R. Eldor and R. Melnick (2006). "The Stock Market as a Leading Economic Indicator in Israel," *Economic Quarterly* 53 (3) 554–464 (Hebrew).

<sup>8</sup> Excluding transportation costs.

period goods prices went up by 13 percent.<sup>9</sup> In the last twelve months the wholesale price index has fallen by 6.3 percent.

*Inflation expectations derived from the capital market and forecasters' predictions*, which declined steeply in the fourth quarter of 2008, rose in the period reviewed: in December these inflation expectations stood at -0.7 percent, but as the capital markets calmed somewhat during the period reviewed the yield gaps between indexed and unindexed bonds narrowed, reflecting the stabilization of expected inflation at 0.8 percent.<sup>10</sup> Forecasters' predictions of inflation for twelve months ahead also rose, from 0.5 percent in December to 1.3 percent in April (Figure 1.11).

Figure 1.11



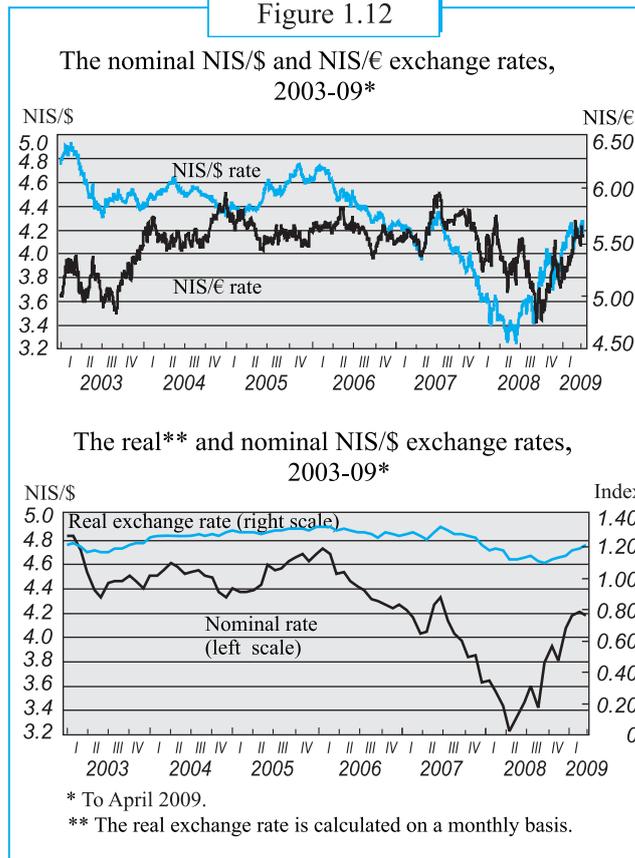
Expected inflation in the medium and long term (for four years ahead and subsequently), which was at the upper limit of the inflation target in the second half of 2008, began to decline during the period reviewed and reached the mid-point of the target range. In view of the shocks to the economy in the last year, the fact that expectations stabilized in the mid-point of the target range reflects the credibility of monetary policy in the public's eyes, as well as the government's commitment to restoring inflation to within the target range.

Further to its activity in the fourth quarter of 2008, the *Bank of Israel* adopted an expansionary monetary policy during

<sup>9</sup> According to the Merrill Lynch Commodity Index, in US dollars.

<sup>10</sup> Since mid-February the Bank of Israel has purchased government bonds on the secondary market. As a result of this intervention there is a possibility that the yield gap between indexed and unindexed bonds does not accurately reflect the public's inflation expectations.

Figure 1.12

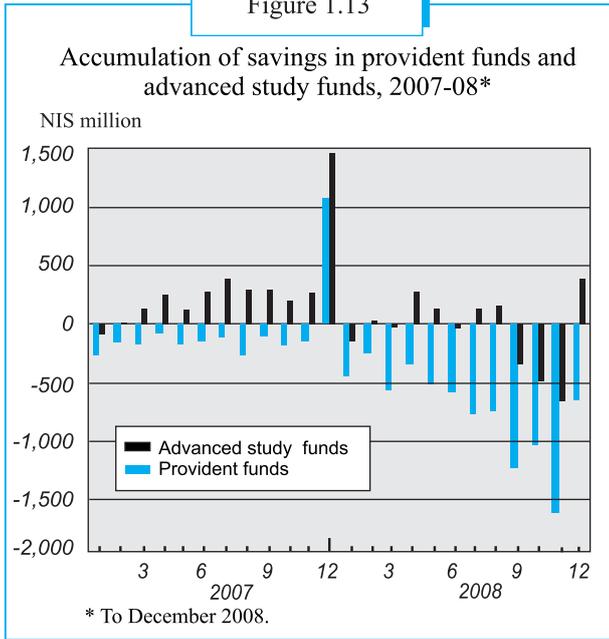


the period reviewed, in order to bring inflation to within the target range, stabilize the financial markets, and stimulate economic activity. The Bank operated by means of three principal instruments: reducing the interest rate, buying foreign currency, and purchasing government bonds.

The Bank of Israel slashed the interest rate, bringing it down to 0.5 percent in April 2009—its lowest level ever. At the beginning of the period reviewed the interest rate was 2.5 percent, but the trickle-down of the financial crisis to real economic activity caused the Bank to cut its key interest rate in January and February by 0.75 percentage points a month, and by 0.25 percentage points each month in March and April.

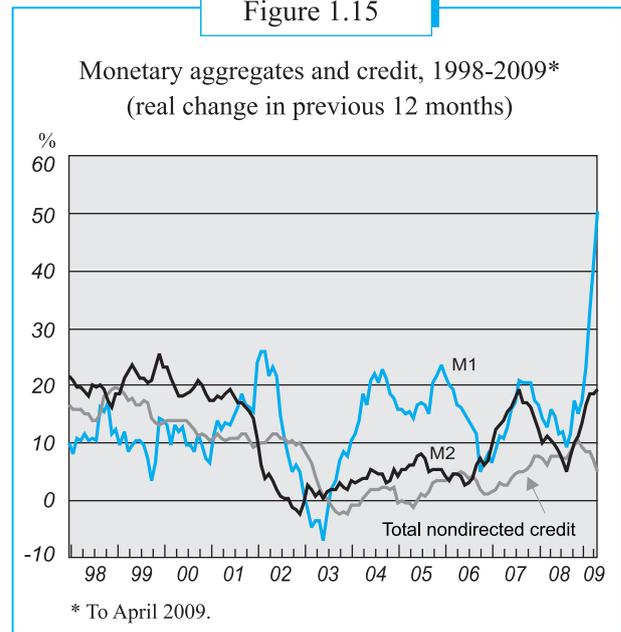
As the announced interest rate approached its lower limit in February, the Bank of Israel declared that it would purchase government bonds on the secondary market in order to reduce their yield, thereby supporting the reduction of medium- and long-term interest rates. The Bank of Israel also continues to purchase foreign currency in an average amount of NIS 100 millions a day, in order to augment the foreign reserves and sustain the exchange rate.

Figure 1.13



The value of the *public's asset portfolio* rose by 8.5 percent in the first four months of 2009, returning to its value in July 2008. There was positive accrual in the advanced study funds and the mutual funds compared with withdrawals in the fourth quarter of 2008, while withdrawals from the provident funds contracted. The low interest rate and the recovery of the capital market led to the decline in the share of time deposits in the portfolio (especially in money funds), after rising steeply in the second half of 2008, as well as to

Figure 1.15



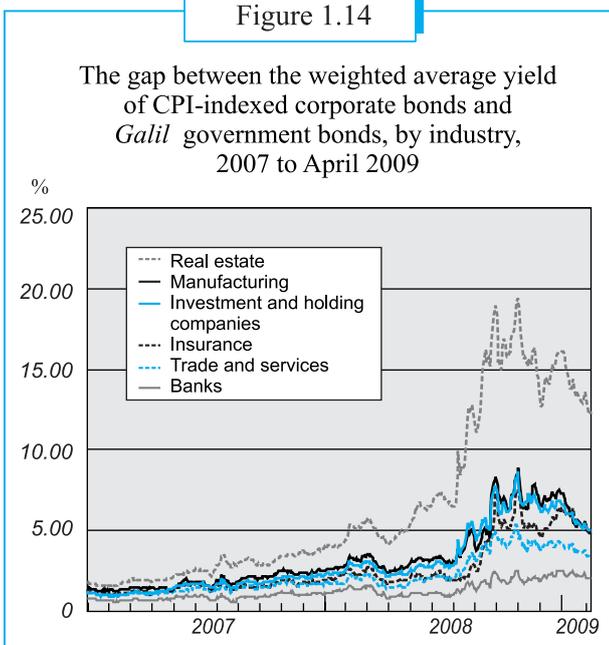
an increase in the share of stocks and corporate bonds. The weight of the share component (in Israel and abroad) in the portfolio rose by 3.4 percent, while that of tradable corporate bonds (including convertible bonds) rose by 1 percent. The recovery of the capital market also served to make the asset portfolio more liquid: the share of tradable assets rose by 3.4 percentage points during the period reviewed.

The *General Share-Price Index* rose again during the period reviewed, after declining consistently for six months (Table 1.9). In April alone the share-price index rose by 8 percent, completing a 30 percent increase over the preceding period. Notable increases were also evident in the shares of the banks, the large real-estate companies, and the Yeter indices. In the wake of the rise in the price of oil shares, the latter are included, inter alia, in the Yeter indices. The index of partnerships and oil companies rose by 265 percent in the period reviewed, following reports that impressive undersea gas deposits had been found in the Tamar and Dalit exploration drillings opposite Israel's coast.

Nonbank *credit taken* revived during the period reviewed, after this had come to an almost complete stop in the fourth quarter of 2008. The expansion of nonbank credit was accompanied by the contraction of bank credit, which fell by 1.6 percent in nominal terms in the first quarter of 2009, after expanding in the fourth quarter of 2008 despite the economic crisis.

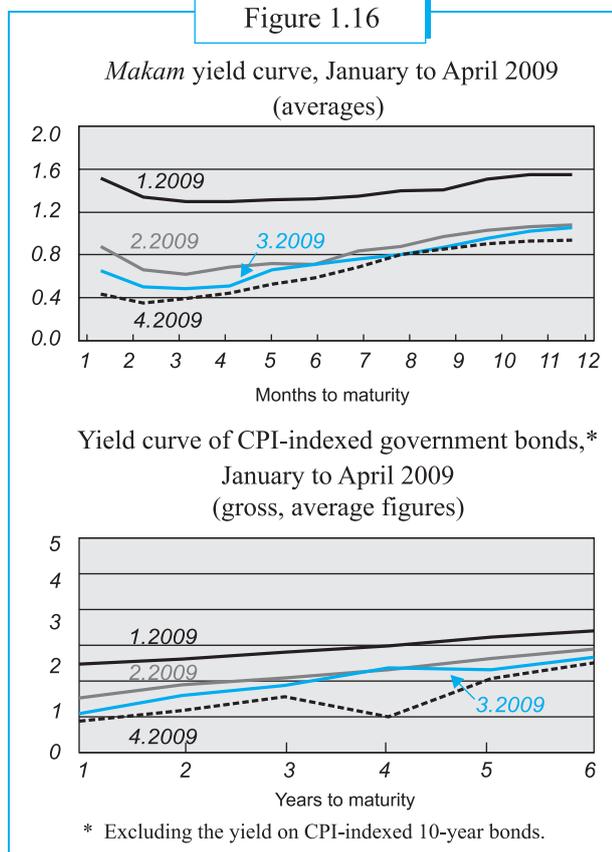
The *cost of bank credit* in the indexed and unindexed segments fell. According to the Survey of Companies, the credit constraint on firms' activities eased slightly in the

Figure 1.14



first quarter of 2009 in comparison with the fourth quarter of 2008. The recent rise in assessments of risk reduced both the demand for credit and its supply. From the easing of the credit constraint, together with the reduction of its cost, it can be assumed that the contraction of bank credit stemmed largely from the decline in the demand for it rather than from a supply constraint.

Figure 1.16



Against the backdrop of expansionary monetary policy, the upward trend in the various *monetary aggregates* continued during the period reviewed (Figure 1.14). The expansion of the narrow money supply (M1), which grew by 33 percent during the period reviewed, was particularly notable. M2 also rose, albeit at a more moderate rate (Table 1.8). The steep increase in the narrow money supply vis-à-vis the other components of M2 reflects the divergence of the composition of the asset portfolio away from interest-bearing deposits and towards cash, in view of the recent reduction in the interest rate.

The NIS was weakened during the period reviewed vis-à-vis most of the principal currencies. There was nominal local-currency depreciation of 8.4 percent against the dollar during the period reviewed—and the NIS exchange rate fell from NIS 3.87 to the dollar in December to NIS 4.19 in April. There was also 6.3 percent depreciation against the euro in the period reviewed—down from NIS 5.20 to the euro to NIS 5.53 (Figure 1.13). Among the factors behind the local-currency depreciation were the Bank of Israel's foreign-currency purchases, averaging \$100 million a day, which began in March 2008 and at present are intended to continue in the future, too.

The nominal depreciation was accompanied by real depreciation: the effective real exchange rate depreciated during the period reviewed for the first time since 2007: III—by 4.0 percent. Real depreciation supports Israel's exports and moderates the contractionary effect of the global economic crisis. The implied volatility of NIS/\$options also declined towards the end of the period reviewed, returning to its level before the exacerbation of the crisis in September.

Figure 1.17

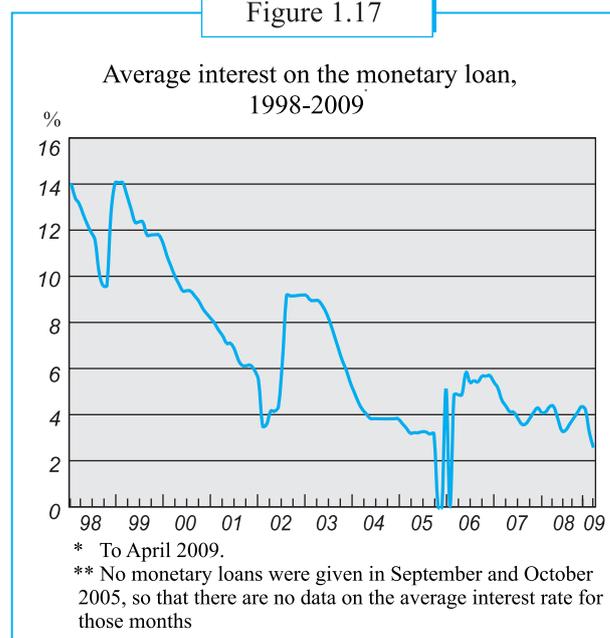


Table 1.1 National Accounts,<sup>a</sup> 2008-09

	Change from previous quarter					2009	2009:QI	
	2008 <sup>b</sup>	2008	2008	2008	2008		Change from previous quarter	Year on year change <sup>b,c</sup>
		I	II	III	IV			
GDP	4.0	4.7	3.4	1.3	-0.5	-3.6	-3.6	0.1
Business-sector product	4.4	5.7	3.7	1.0	-1.6	-4.2	-4.2	-0.3
Private consumption	3.9	7.6	0.2	0.6	-3.1	-4.3	-4.3	-1.7
Gross domestic investment	3.8	-19.0	22.4	9.8	40.7	-21.7	-21.7	10.3
Fixed investment	5.1	9.5	0.7	-10.2	2.4	-27.8	-27.8	-9.6
Goods and services exports								
excl. diamonds	8.0	29.4	-10.7	7.1	-31.6	-48.5	-48.5	-23.8
Goods exports <sup>d</sup>	0.3	1.6	-3.9	-1.7	-54.5	-44.7	-44.7	-30.2
Services exports <sup>d</sup>	9.5	58.8	-25.6	0.2	-2.2	-53.6	-53.6	-23.7
Goods and services imports								
excl. diamonds	7.0	11.4	-7.5	2.6	-2.5	-61.9	-61.9	-23.0
Goods imports <sup>e</sup>	1.1	4.5	-2.5	4.9	-32.5	-70.9	-70.9	-33.0
Services imports <sup>e</sup>	5.8	14.4	-7.2	3.0	-16.4	-32.7	-32.7	-14.4
Public sector consumption	2.8	10.8	-4.6	4.3	6.3	-13.0	-13.0	-2.0
Public sector consumption								
excl. defense imports	2.9	2.7	-0.7	7.6	5.8	-11.9	-11.9	-0.1
Domestic use of resources	3.9	0.6	4.2	3.7	7.5	-11.4	-11.4	0.7

<sup>a</sup> Percentage change in annual terms, at constant prices, seasonally adjusted.

<sup>b</sup> Unadjusted data.

<sup>c</sup> In quarterly terms.

<sup>d</sup> New calculation - excluding subsidies.

<sup>e</sup> New calculation - excluding taxes.

SOURCE: Central Bureau of Statistics.

Table 1.2. Indicators of Business Activity,<sup>a</sup> 2008-09

	Change from previous quarter					January - April 09			
	2008 <sup>b</sup>	2008				2009	Change from previous period	Year on year change <sup>b,c</sup>	Last month for which data available*
		I	II	III	IV	I			
Composite state-of-the-economy index	2.6	15.5	9.4	-0.5	-8.3	-14.0	-12.6	-4.5	4
Unit labor cost	0.7	3.0	1.8	1.7	-3.7				3
Large-scale retail trade	4.5	3.0	-3.7	10.1	-2.0	3.1	7.0	3.7	4
Manufacturing production									
(excl. diamonds)	7.1	16.5	6.7	-6.8	-6.4	-13.1	-13.1	-5.2	3
Index of trade revenue	0.4	8.6	-7.4	-5.6	-15.8	-12.2	-12.2	-10.3	3
Index of trade and services revenue	-0.3	4.2	-8.6	-4.3	-15.0	-8.2	-8.2	-9.1	3
Index of export - services	8.2	58.6	-43.7	10.9	-14.5	-31.1	-23.7	-18.6	4
Tourist arrivals	32.4	56.3	12.3	-7.7	9.5	-68.4	-57.8	-22.0	3
Residential construction <sup>b</sup>									
Starts	0.7	-4.6	1.2	9.2					2
Completions	7.0	-6.8	8.4	9.2					2
Nonresidential construction <sup>b</sup>									
Area of starts	19.5	19.3	72.7	19.7	-16.6				3
Survey of companies (net balance, percent) <sup>d</sup>									
Weighted balance of the business sector	1.0	18.0	** 12	** 3	** -28	** -39	** -39		3
Output of manufacturing firms	-7.0	10.0	** 3	** -6	** -34	** -33	** -33		3
Sales by trading firms	-6.0	29.0	** -5	** -3	** -46	** -55	** -55		3

\* When the last month is February, the comparisons are of two-month periods; when the last month is March, the comparisons are quarterly; and when the last month is April, the comparisons are of four-month periods.

\*\* Not significant at 10% level.

<sup>a</sup> Percentage change, in annual terms, seasonally adjusted.

<sup>b</sup> Unadjusted data.

<sup>c</sup> In quarterly terms.

<sup>d</sup> The net balance is defined as the difference between the number of firms reporting a rise and those reporting a decline, as a proportion of all reporting firms.

SOURCE: Based on Central Bureau of Statistics and Ministry of Construction and Housing data.

Table 1.3. Indicators of Labor Market Developments,<sup>a</sup> 2008-09

	2008	2008				2009	January - April 09		
	('000)	I	II	III	IV	Change from previous period	Year on year change <sup>b</sup>	Last month for which data available*	
		percent change from previous quarter							
Civilian labor force	3,004.9	1.3	0.1	0.4	0.7	0.9	0.9	2.0	3
Israeli employees	2,777.0	2.0	0.3	0.3	0.2	-0.3	-0.3	0.6	3
of which: in general government	825.4	0.7	0.3	1.2	2.0	-1.5	-1.5	1.7	3
in business sector	1,957.4	2.9	0.1	-0.3	0.3	0.0	0.0	0.1	3
Foreign workers and Palestinians (unadjusted) <sup>c</sup>	251.4	3.7	-1.9	1.6	-2.3	-3.2	-3.2	-5.8	3
Average hours worked weekly per employee	35.8	-0.3	1.4	-1.3	-3.0	0.6	0.6	-2.3	3
Labor input in business sector (incl. foreign workers and Palestinians)	93,557.0	1.8	0.6	-1.1	-1.7	-0.4	-0.4	-2.6	3
of which: Israelis	82,238.0	1.3	0.8	-1.4	-1.7	0.1	0.1	-2.2	3
Labor input in general government (Israelis)	17,563.0	2.3	1.5	1.1	-2.6	0.5	0.5	0.9	3
Unemployed	227.9	-7.2	-3.3	2.2	8.1	18.0	18.0	25.1	3
Work seekers	220.9	-3.4	-1.7	6.3	4.7	9.3	42.7	17.8	3
Claims for unemployment benefit	79.3	-4.7	2.3	6.8	8.2	20.6	96.7	47.1	4
	NIS <sup>b</sup>								
Real wage per employee post <sup>d</sup>	7,294.4	1.5	-1.3	-1.6	-1.2	0.6	2.4	-2.4	3
In general government	6,793.2	0.2	-0.8	-1.6	-0.7	0.8	3.2	-2.4	3
In business sector	7,537.3	1.1	-0.1	-1.9	-1.0	0.7	2.8	-2.3	3
Nominal wage per employee post <sup>d</sup>	7,997.7	2.9	-0.1	-0.4	-0.6	0.8	3.4	0.9	3
In general government	7,447.5	1.6	0.5	-0.3	-0.2	0.9	3.8	0.9	3
In business sector	8,264.2	2.4	1.1	-0.6	-0.3	0.8	3.2	1.0	3
		percent, seasonally adjusted							
Participation rate	56.8	56.6	56.4	56.4	56.5	56.8			3
Employment rate	52.5	53.1	53.1	53.0	52.9	52.5			3
Unemployment rate	7.6	6.1	5.9	6.0	6.5	7.6			3
Depth of unemployment <sup>e</sup>	30.0	34.0	36.2	32.1	30.5	30.0			3

\* When the last month is February, the comparisons are of two-month periods; when the last month is March, the comparisons are quarterly; and when the last month is April, the comparisons are of four-month periods.

<sup>a</sup> Percentage change, seasonally adjusted.

<sup>b</sup> Unadjusted data.

<sup>c</sup> Due to an error in the method of calculation, the data from January 2008 have been recalculated.

<sup>d</sup> Including foreign workers and Palestinians.

<sup>e</sup> Percent of unemployed seeking work for more than six months (unadjusted)

SOURCE: Central Bureau of Statistics, Labor Force Survey, except for data on Israelis, non-Israelis, and labor input in the business sector, and total Israelis employed, which are the Central Bureau of Statistics' National Accounts estimates.

Table 1.4. Government Budget Performance, 2008-09

	2008	2008				2009	January - April 09		
		I	II	III	IV	I	Change from previous period	Year on year change	Last month for which data available <sup>a</sup>
Domestic deficit as percent of GDP	-0.4	4.6	0.1	0.7	-7.1	-1.1	-1.1	4.6	3
Deviation from domestic budget path, excl. credit extended		NIS billion, current prices							
Revenue	4.4	2.1	0.2	-3.4	-3.3	-8.4	-8.3	-18.5	4
Expenditure	-18.5	-0.4	-0.8	-3.4	3.6	-1.3	-21.1	-18.3	4
Deficit	22.9	2.5	1.0	0.0	-6.8	-7.2	12.8	-0.2	4
Total deficit excluding credit (NIS billion)	-15.2	5.2	-3.1	-0.9	-16.5	-4.7	8.8	-13.1	4
		Real percentage change, year on year							
Government tax revenue	-6.5	-2.9	-2.8	-9.2	-11.3	-15.5	6.1	-15.5	3
<i>of which:</i> income tax, net	-12.9	-14.1	-7.5	-15.7	-14.1	-20.9	5.9	-20.9	3
VAT, gross	1.0	10.2	3.4	-1.3	-8.1	-14.1	-3.5	-13.3	4
Government expenditure	1.0	4.1	1.2	-7.6	6.1	-6.1	-10.4	-2.2	4
National insurance allowances	1.7	2.9	1.7	0.9	1.3	6.7	7.4	6.7	3
<i>of which:</i> Unemployment benefit	0.0	-12.1	-3.0	0.7	17.2	47.9	33.9	47.9	3
Income support <sup>b</sup>	-5.5	-6.5	-6.6	-4.7	-3.9	-3.0	5.2	-3.0	3
National insurance contributions received from the public	1.7	5.9	3.2	-1.5	-0.2	-2.2	-3.2	-2.2	3

<sup>a</sup> When the last month is February, the comparisons are of two-month periods; when the last month is March, the comparisons are quarterly; and when the last month is April, the comparisons are of four-month periods.

<sup>a</sup> Year on year change. Does not refer to the seasonal path.

<sup>b</sup> Not including income supplement in old-age and survivors' pensions.

SOURCE: Based on Ministry of Finance and National Insurance Institute data.

Table 1.5. Foreign Trade, Balance of Payments, and the Reserves,<sup>a</sup> 2008-09

	2008 <sup>b</sup>	2008				2009	January - April 09		
		I	II	III	IV		I	Change from previous period	Year on year change <sup>c</sup>
	percent change from previous period <sup>b</sup>								
Trade in goods <sup>d</sup>									
Goods imports	15.4	5.0	2.9	2.2	-10.2	-18.7	-21.6	-25.8	4
<i>of which:</i> Consumer goods	20.1	10.0	-1.6	5.7	-5.8	-9.5	-11.0	-12.7	4
Capital goods	16.6	8.1	-0.2	-2.7	-7.6	-19.4	-22.4	-30.6	4
Intermediates	13.3	2.0	5.8	3.3	-12.8	-21.7	-25.0	-28.1	4
Goods exports	16.7	4.0	4.1	0.8	-12.5	-14.0	-16.9	-22.2	4
<i>of which:</i> Manufacturing	17.8	4.7	4.4	0.4	-12.4	-14.5	-17.4	-22.8	4
<i>of which:</i> High-tech	8.6	-1.8	5.1	-1.8	-6.7	-2.1	-2.0	-4.9	4
Balance of payments									
		\$ million							
Goods and services exports	80,427 0	17,796	20,654	20,925	21,191				12
Goods and services imports	84,192 0	18,751	21,666	21,959	21,692				12
Balance of trade in goods and services	-3,765 0	-501	-1,034	-1,012	-955				12
Current account	1,595 0	853	-256	665	536				12
Financial account (excl. foreign exchange reserves) <sup>a</sup>	2,206	180	281	4,709	3,655			180	12
<i>of which:</i> Nonresidents' direct investment <sup>b</sup>	2,636	2,729	3,051	2,922	1,843			2,729	12
Nonresidents' portfolio investment <sup>b</sup>	64	208	524	-1,149	672			208	12
Residents' direct and portfolio investment abroad <sup>b</sup>	2,375	1,098	2,556	1,672	4,174			1,098	12
Net foreign debt (percent of GDP) <sup>a</sup>	-24.3	-23	-22	-22	-24			-23	12
Bank of Israel reserves, end-period <sup>a</sup>	42,337	29,486	31,265	36,152	42,337	44,1610			4

<sup>a</sup> Seasonally adjusted.

<sup>b</sup> The change relates to the dollar values of imports and exports.

<sup>c</sup> Unadjusted data.

<sup>d</sup> Not including ships, aircraft, diamonds, and fuel.

SOURCE: Central Bureau of Statistics.

**Table 1.6. Indicators of Economic Development in Advanced and Developing Countries<sup>a</sup>**  
(annual rate of change, percent)<sup>b</sup>

	2006	2007	2008	Estimate 2009	Forecast 2010
World GDP	5.1	5.2	3.2	-1.3	1.9
Advanced countries	3.0	2.7	0.9	-3.8	0.0
Developing countries	7.9	8.3	6.1	1.6	4.0
World trade	9.2	7.2	3.3	-11.0	0.6
Advanced countries					
Imports	7.4	4.7	0.4	-12.1	0.4
Exports	8.2	6.1	1.8	-13.5	0.5
Developing countries					
Imports	14.4	14.0	10.9	-8.8	0.6
Exports	10.9	9.5	6.0	-6.4	1.2
Commodity prices (US\$)					
Oil <sup>c</sup>	20.5	10.7	36.4	-46.4	20.0
Nonfuel	23.2	14.1	7.5	-27.9	4.4
Inflation (CPI) in advanced countries	2.4	2.2	3.4	-0.2	0.3
Short-term interest <sup>e</sup> (%)					
Dollar deposits	5.3	5.3	3.0	1.5	1.4
Euro deposits	3.1	4.3	4.6	1.6	2.0
Unemployment rate in advanced countries	5.7	5.4	5.8	8.1	9.2

<sup>a</sup> According to World Economic Outlook, Israel is classified as an advanced country. The advanced countries include the industrialized countries and some emerging markets.

<sup>b</sup> Except for unemployment and interest rates, which are actual rates.

<sup>c</sup> Average price of Brent crude in 2008 was \$97 per barrel, excluding transport cost.

<sup>d</sup> Six-month Libor rate for US dollar deposits, and three-month Libor rate on euro deposits.

SOURCE: World Economic Outlook (IMF), April 2009 update.

Table 1.7. Selected Price Indices,<sup>a</sup> 2008-09  
 (percent change)

	2008					January - April 09		Year on year change
	2008	I	II	III	IV	2009 I	Change from previous period <sup>b</sup>	
Change during the quarter <sup>a</sup>								
CPI	3.8	0.1	2.2	2.0	-0.6	0.9	3.1	4
CPI excl. housing, fruit and vegetables	2.0	0.4	3.0	0.1	-1.4	0.3	0.6	4
CPI excl. housing, fruit and vegetables, price-controlled goods, clothing and footwear	1.3	1.2	2.3	0.7	-2.9	1.1	0.0	4
Index of housing prices	12.1	-2.3	1.0	8.2	4.9	1.7	15.5	4
Wholesale price index	-4.4	1.0	6.2	-0.1	-10.9	0.8	-6.3	4
Nominal unit labor cost	2.6	1.5	1.3	0.1	-0.8			12
NIS/\$ exchange rate	-0.9	-10.1	-4.2	5.5	9.1	8.4	19.2	4
NIS/ € exchange rate	-8.4	-4.1	-4.1	-2.4	2.2	4.5	-0.2	4
Real effective exchange rate	-10.7	-6.8	-10.1	-13.3	-12.4	5.9	-1.0	4
Year on year change <sup>c</sup>								
CPI	4.6	3.6	5.0	5.1	4.6	-0.4	3.3	4
CPI excluding housing, fruit and vegetables, price controlled goods, clothing and footwear	4.5	4.2	5.3	5.6	2.9	-1.7	0.1	4

<sup>a</sup> Last month of each quarter compared with last month of previous quarter.

<sup>b</sup> Compared with September-December 2008.

<sup>c</sup> Period average.

SOURCE: Central Bureau of Statistics.

Table 1.8. Monetary Aggregates and Nondirected Bank Credit, 2008-09  
(annual rate of change, percent)

	2008					2009	January - April 09	
	2008	I	II	III	IV	I	Compared with previous period	Year on year change
Rates of change	Change from previous quarter							
M1 <sup>a</sup>	14.1	2.3	21.5	24.6	20.0	69.0	69.0	32.4
M2 <sup>b</sup>	9.8	4.9	12.2	8.0	22.7	29.9	29.9	17.9
M3 <sup>c</sup>	8.0	3.1	6.7	4.7	20.5	25.2	25.2	14.0
Nondirected bank credit	8.2	5.9	9.4	10.3	14.0	-2.7	-2.7	7.6
Unindexed local-currency credit	18.2	24.0	23.9	15.8	19.1	1.3	1.3	14.7
CPI-indexed credit	4.9	2.4	3.3	6.9	1.8	-17.4	-17.4	-1.8
Credit in and indexed to foreign currency	-12.8	-30.2	-19.7	-1.0	24.6	18.4	18.4	4.1

<sup>a</sup> Narrow money supply (demand deposits and cash in the hands of the public)

<sup>b</sup> M1 plus short-term local-currency unindexed deposits.

<sup>c</sup> M2 plus short-term CPI-indexed demand deposits.

SOURCE: Bank of Israel.

Table 1.9. Interest Rates, Yields, and the Share-Price Index, 2008-09  
 (quarterly average, percent)

	2008	2008				2009	January - April 09		
		I	II	III	IV	I	Change from previous period	Year on year change	Last month for which data available
<b>Nominal interest</b>									
SRO deposits	2.7	3.0	2.4	3.1	2.4	0.7	0.6	4.1	4
Nondirected local-currency credit	7.9	8.1	7.4	8.0	7.9	6.8	6.5	8.0	4
Effective interest on daily deposit auctions	3.6	4.1	3.3	3.8	3.3	1.2	1.0	4.1	4
LIBID 3-month dollar interest	2.8	3.1	2.6	2.8	2.6	1.1	1.1	3.0	4
<b>Yield to maturity on:</b>									
<i>Makam</i> (short-term Bank of Israel bills)	3.9	4.3	4.1	4.4	2.9	1.2	1.2	4.1	4
Yield on 5-year bonds	2.9	2.7	2.6	2.7	3.6	1.8	1.7	2.7	4
<b>Risk premium<sup>a</sup></b>									
Expected inflation, twelve months forward <sup>b</sup>	1.9	2.5	2.8	2.6	-0.2	0.7	0.7	2.5	4
<b>General Share-Price Index</b>									
(change from previous period)	-46.4	-16.8	5.5	-17.9	-25.8	20.3	30.1	-11.3	4

<sup>a</sup> As measured by the 5-year credit-default-swap (CDS) market.

<sup>b</sup> Derived from the yield gap between indexed and unindexed bonds held by tax exempt institutional investors, minus the X-day effect on the price of the bond.

SOURCE: Bank of Israel.

## Part 2: Broader Review of Selected Issues

### Trends in the supply of physicians in Israel and the world

- In many OECD countries there has been a decline in the growth rate of the number of physicians per 1,000 persons since 1990, and this has led to a shortage of physicians. Steps taken in some of the countries have succeeded in reversing this trend.
- As the influx of immigrants—primarily from the former USSR—to Israel has waned, a principal source of the increase in medical personnel in Israel has contracted.
- It is recommended that frameworks for training physicians be expanded, and a knowledge infrastructure for assessing the current and future shortage of physicians by geographical area and specialization be created so that future policy measures may be formulated.

The demand for and supply of health services is affected by demographic trends—fertility and mortality rates and immigration—as well as by changes in the standard of living, and the public’s expectations and demands from the health system. Technological and legislative processes, such as the implementation of the National Health Insurance Law, also play a part, as do the constant budget constraints.

The main input of the health system is human resources. Equilibrium in the labor market of the health system—the fit between the demand for and supply of labor—is derived from the composition of labor in the medical services and from such variables as population distribution, the structure of the health system, and patterns of consumption of health services. Accordingly, while the extent of labor in a given country may be perceived as being high, it may be insufficient in another country. Human resources are the main factor in the budgetary expenditure of the system and in its ability to provide services. There is considerable governmental involvement in its administration—because of the desire to ensure the quality of training and services due inter alia to the long period and high cost of training. In 2007 health service employees constituted 6.6 percent of employed persons in Israel, and national expenditure on health amounted to 8 percent of GDP (Central Bureau of Statistics data). Physicians and nurses are the predominant element among Israel’s health system employees, as regards quantity, budgetary costs, and the activity and services of the system. According to predictions, unless appropriate policy measures are introduced, by 2020 there will be a shortage of physicians, bringing the ratio of physicians to 1,000 persons

to below 3.0—the average level in the OECD countries.<sup>11</sup> In some areas of medical specialization the shortage is already apparent.

#### The global situation

In many of the OECD countries—and in Israel—the annual growth rate of the number of physicians per 1,000 persons has declined since the beginning of the 1990s (Figure 1). The resulting shortage of medical personnel, which is expected to exist also in the future, led to the introduction of policy measures that improved the situation in many of the countries.<sup>12</sup> The shortage in medical personnel has been defined as a global problem by the OECD and the World Health Organization (WHO).<sup>13</sup>

Differences in health services and medical personnel per capita between world regions and within countries are apparent, as well as those between developing and developed countries and between centers and peripheries. The factors which have the most significant effect on the current shortage of medical personnel in developed countries, and expected trends in this sphere, include not only demographic trends but also processes,<sup>14</sup> such as: 1. The decline in the number of hours worked by physicians—due mainly to legislative changes, e.g., in Canada, the US, and Europe; 2. The rise in the proportion of women in the medical and welfare workforce; 3. The increasing importance of medical and nursing specialization, which has augmented the demand for specialists; 4. The faster rate at which physicians and

<sup>11</sup> A seminal question that has not yet been discussed in Israel is what is the optimal rate of physicians per 1,000 persons—the accepted index for planning medical labor. The answer to this question depends on various factors, among them the demand for medical services, the proportion of specialists among physicians, the composition of labor in the health services, and the geographical distribution of the medical workforce. In England, for example, the desired value of this index is determined in terms of full-time posts of general practitioners in the community weighted by the needs of the population, and is measured separately in the various parts of the country. In the US it is customary to measure the ratio of G.P.s and of specialists to the population. The calculations of the Pazi Committee (note 11 below) and the Jonathan Halevy Committee (note 18) assume that the desired ratio of physicians per 1,000 persons is between 2.7 and 3.0. Note that their analyses did not examine the possibility of shortages on the basis of geographical area or areas of specialization.

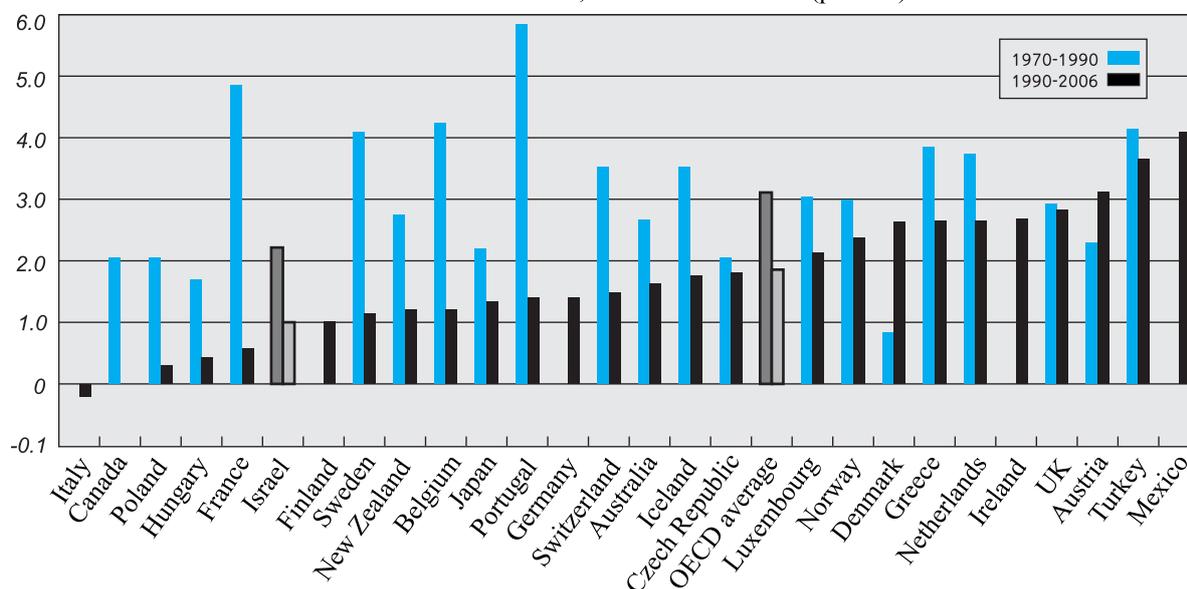
<sup>12</sup> OECD (2008). “The Looming Crisis in the Health Workforce: How Can OECD Countries Respond,” OECD Health Policy Studies, Paris.

<sup>13</sup> World Health Organization (2006). *The World Health Report 2006: Working Together for Health*, Geneva.

<sup>14</sup> S. Simeons and J. Hurst (2006). “The Supply of Physician Services in OECD Countries,” OECD Health Working Papers, No. 21, Paris.

Figure 2.1

The average annual increase in the number of physicians<sup>a</sup> per 1,000 persons, 1970-1990<sup>b</sup> vis-à-vis 1990-2006, in various countries (percent)



<sup>a</sup> In the OECD countries the data refer to the change in the number of practicing physicians per 1,000 persons. In Israel the data represent the number of physicians under the age of 65 licensed to practice per 1,000 persons. The average for the OECD countries refers to the countries in the figure.

<sup>b</sup> Because of data limitations, figures for 1970-1990 are not given for some countries.

SOURCE: OECD Health Data 2008 and Ministry of Health, Department of Economics and Health Insurance. Because of data limitations, the figures for some countries refer to years before or after the years noted.

nurses retire than that at which the medical labor force grows. Additional factors mentioned in the literature are the transition of physicians to other economic sectors, such as biotechnology and economic consultancy, and the ‘brain drain’ to other countries. The last two factors are apparent in Germany,<sup>15</sup> but also exist to some extent in many other countries, including Israel. Janus et al. (2007)<sup>16</sup> found that in Germany the effect of the physical working conditions, the nature of the job—e.g., having to perform administrative work—as well as labor relations and opportunities for further studies had a greater effect on physicians’ job satisfaction from their work in hospitals than did financial

incentives. In Israel<sup>17</sup> it was found that in professions where a labor shortage has been identified physicians’ satisfaction with their working conditions (work load, hours worked, wages, and professional recognition) was low. In the wake of the processes which have affected medical personnel all over the world WHO has recommended introducing policy measures which will affect recruitment into and retention of the medical profession, for example, by expanding training possibilities, improving working conditions, encouraging late retirement, and changing the composition of the workforce and the division of labor in the profession.

Many countries are preparing to deal with the current and expected dearth of medical personnel. In the UK, for example,

<sup>15</sup> S. Fellmer (2008). “How Recent Amendments in German Immigration Law Affects Decisions – The Case of Polish Doctors,” in H. Kolb and H. Egbert (eds.) *Migrants and Markets—Perspectives from Economics and Other Social Sciences*, IMISCOE Research, Amsterdam University Press, Amsterdam.

<sup>16</sup> K. Janus, V.E. Amelungh, M. Gaitanideas and E.W. Schwartz (2007). “German Physicians ‘On Strike’—Shedding Light on Roots of Physicians’ Dissatisfaction,” *Health Policy*, vol. 82.

<sup>17</sup> N. Nirel, R. Matzliah, S. Birkenfeld, and I. Ben-Bassat (2008), “Medical Professions in Distress: A Preliminary Study,” Smokler Center for Health Policy Research, Meyers-Joint-Brookdale Institute, Jerusalem (May). See also the decision handed down by the court of reconciliation in the case of the Israel Medical Association, the State of Israel, General Health Services, and Hadassah Medical Association (2008) (Hebrew).

in the late 1990s the Department of Health identified a shortage of medical personnel (primarily physicians and nurses) as the main reason for the decline in the ability of the National Health Service (the major provider of health services there) to provide and improve medical services. Accordingly, the National Health Service adopted four methods for increasing the workforce:<sup>18</sup> 1. Increasing the number of places at medical and nursing schools; 2. Improving and modernizing medical career tracks, e.g., by making changes in the process of physicians' specialization; 3. Encouraging members of the medical profession to remain in the field, and providing incentives to those who have left to come back—e.g., by improving working conditions and providing supplementary courses; 4. Encouraging physicians and nurses to immigrate to the UK. The attainment of the objective of increasing the medical workforce in the short term led to the cessation of the encouragement of immigration already in 2005, but the implementation of other measures, whose results will be felt in the medium and long term, has continued.

Australia is another important example of a country which has substantially increased the number of places in medical and nursing schools and encouraged the immigration of medical personnel, especially to employment in remote areas.<sup>19</sup> In the US the Council on Graduate Medical Education (COGME) found that assuming that the current trends which characterize the supply of physicians, and taking into account the assumptions regarding the future demand for health services, a total shortage of between 85,000 and 96,000 physicians is expected by 2020, which will find expression mainly in the remote areas. The Council recommends periodically updating the forecast in accordance with actual developments. The Council proposes coping with the shortage by increasing the number of medical students, improving the distribution of the medical workforce between geographical areas and spheres of specialization, and improving the composition of the workforce within the health services.<sup>20</sup> Many countries are coping with the differences between the center and the periphery in the supply of physicians by offering financial incentives, obliging immigrants to work for a specific period in peripheral areas (the US, Australia, New Zealand), exposing medical students to work in

peripheral areas (Canada), increasing the number of places at medical schools for students from the periphery (New Zealand), and expanding the frameworks for cooperation between physicians working in peripheral areas.

### The situation in Israel

In Israel, in common with other developed countries, the number of hours worked by the medical workforce has declined in recent years, the number of women employed in it has risen, the extent and importance of specialization has increased, and the number of physicians under 65 years of age per 1,000 persons has fallen (data of the Ministry of Health, 2007 and Pazi report).<sup>21</sup> Between 1990 and 1999, in the wake of the absorption of the influx of immigrants from the former USSR, the number of physicians almost doubled, and the ratio of physicians per 1,000 persons rose by about 20 percent. However, since the early 1990s the number of new licenses issued to physicians in Israel has declined constantly. In 2006 there were 3.53 physicians under the age of 65 per 1,000 persons in Israel;<sup>22</sup> this is still higher than the average in the developed countries, where it was 3.06 (Figure 2.2). However, according to the predictions of a committee set up by the Ministry of Health,<sup>23</sup> if steps are not taken to increase the number of physicians in Israel—such as expanding training frameworks—by 2020 there will be only 2.73 physicians per 1,000 persons. This figure does not apply solely to the future; there are indications that in some areas of specialization, such as intensive care, neonatal care, general surgery, family medicine, radiography, internal medicine, and anesthesia, there is a shortage of physicians already today.<sup>24</sup> In the framework of the decision of the mediator on physicians' wages, it was decided that in view of the acute shortage of physicians in such areas of specialization as intensive care, anesthesia, and internal medicine a 'special supplement' would be paid to physicians in those specializations. In addition, the studies of Shemesh

<sup>18</sup> J. Buchan, S. Baldwin and M. Munroe (2008). "Migration of Health Workers: The UK Perspective to 2006," OECD Health Working Papers, No. 38, Paris (October).

<sup>19</sup> L. Hawthorne, G. Hawthorne and B. Crotty (2007). "The Registration and Training Status of Overseas Trained Doctors in Australia," International Unit, Faculty of Dentistry and Health Sciences, The University of Melbourne (February).

<sup>20</sup> Council on Graduate Medical Education (2005). Physician Workforce Policy Guidelines for the United States, 2000–2020, 16th Report, US Department of Human Health and Services, Health Resources and Services Administration (January).

<sup>21</sup> Higher Education Authority (2002). Report of the Committee to Examine the Future Need for Physicians (Pazi Committee) (Hebrew).

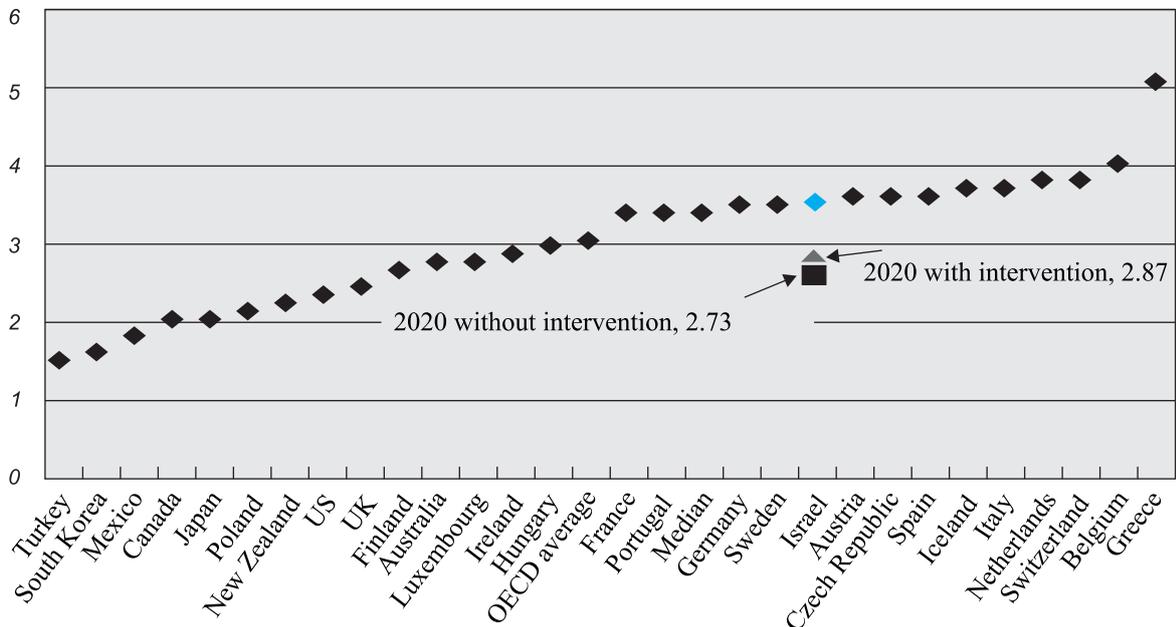
<sup>22</sup> These figures refer to head counts rather than to full-time posts, so that this statistic does not necessarily reflect the supply of medical services.

<sup>23</sup> G. Bennun (chairman), 2007. Preliminary Report of the Committee to Examine Estimates of Future Labor Force Needs in the Health System: Doctors and Nurses, Ministry of Health (Hebrew).

<sup>24</sup> See in Bennun (note 13), Nirel et al. (note 7); the National Institute for the Study of Health Services and Health Policy (2008). "Human Resources in the Health Professions," Conclusion of the Deliberations of the Ninth Dead Sea Conference (June) and the mediator's decision (note 7) (Hebrew).

Figure 2.2

Number of physicians per 1,000 persons in Israel and the OECD countries, 2006 and forecast for 2020, with and without intervention



<sup>a</sup> Intervention means expanding the training framework in the medical schools to 600 students a year, as proposed by the Bennun Committee in 2007.

SOURCE: Ministry of Health, Department of Economics and Health Insurance.

and others,<sup>25</sup> as well as interviews with senior medical personnel,<sup>26</sup> attest to an imbalance in the distribution of physicians between the various parts of the country, and in particular the difficulty of filling medical positions in the north and south of the country as well as in the Arab sector.

The sources of the growth in the medical workforce in Israel are the country's four medical schools, Israelis who are trained at medical schools abroad, and the immigration of physicians. The number of physicians graduating each year from the medical schools' regular training programs (six-year academic studies plus one year of internship) is currently

more than 400.<sup>27</sup> In the course of time the ratio of physicians trained in Israel to the total of those receiving licenses to practice medicine has risen, largely because of the decline in the number of immigrants (Figure 2.3). Accordingly, in 2007 56 percent (308) of the physicians who received licenses to practice medicine in Israel were graduates of one of Israel's medical schools, while the rest were Israelis who had studied medicine abroad or new immigrants—compared with 29 percent (265) in 1995. The predictions of the Central Bureau of Statistics regarding population growth in Israel by 2030 indicate a decline in the immigration balance, so that the immigration of physicians to Israel is not expected to remain a significant factor in the growth of the medical workforce. This is also borne out by the wage differentials in favor of countries which might constitute a source of immigration to Israel by Jewish physicians. As a result of these wage differentials it is also feared that the number of Israeli physicians leaving Israel will rise.

On the basis of expected trends of immigration to Israel and the situation of physicians in Israel, the Pazi Committee (note

<sup>25</sup> O. Shemesh, A. Sematnikov, M. Dor, M. Sherf, V. Shalev, Y. Rosenblum, and A. Metz (2007). *The Physician in the Community: Socio-Demographic and Professional Characteristics*, Ministry of Health, Department of Health Economics, Planning, Research, and Assessment Section (Hebrew).

<sup>26</sup> A. Tocker (2007). "An Examination of the Existing Situation in Israel and Elsewhere, and a Review of Guidelines for the Future Planning of the Medical Workforce in Israel," Ph. D. thesis, Ben-Gurion University of the Negev (under review, Hebrew).

<sup>27</sup> In addition, students from abroad are trained in Israel each year.

11), the Halevi Committee,<sup>28</sup> and the Bennun Committee recommended (note 13) that Israel's medical training framework be expanded by increasing the number of students in each of the medical schools to the maximum possible (to 100–150 students), and that the total number of physicians trained in Israel each year be increased to approximately 600. The Halevi Committee also recommended that another medical school be opened under one of the universities or in the Galilee. Some measures towards implementing this have already been introduced: as of the 2008/09 academic year a four-year program for training about sixty physicians in each graduating year has been established at Tel Aviv University. The program is intended for graduates of engineering, natural science or life sciences who have studied the required basic subjects as a precondition for acceptance.<sup>29</sup> As of the 2009/10 academic year the Faculty of Medicine of the Hebrew University of Jerusalem will establish a program to train about fifty military doctors over a time-frame that is similar to that for training general practitioners. Within the framework of the discussions regarding the 2009–10 budget, the Ministries of Health and Finance and the Planning and Budget Committee have agreed to increase the number of

students in the medical schools to at least 505 in the 2009/10 academic year.

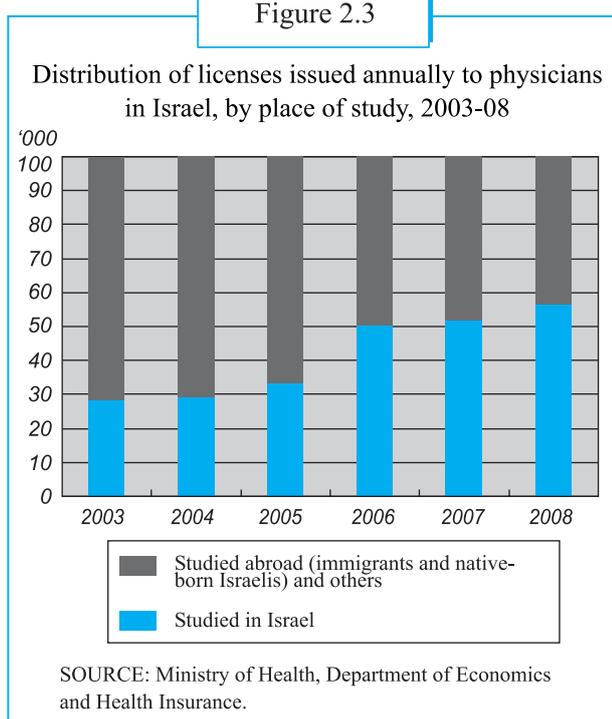
The lack of data about the extent of physicians' positions and their distribution across geographical areas and between areas of specialization makes it difficult to assess the supply, labor productivity and current and future needs of medical services, as well as hampering the planning of health workforce policy. There is also little information concerning active labor in the system, the extent and framework of its employment, physicians' productivity, the number of posts per physician, the difference between physicians' actual employment and the number of persons licensed to practice medicine, and changes in hours worked. Another important issue involves examining the possibility of enabling persons with medical training to perform some of the tasks currently undertaken by physicians, functioning as assistant physicians, for example, in order to ease the burden of work and make physicians' work more efficient.

### Conclusion and possible policy measures

The accepted index for measuring the ratio of physicians to the population shows that, in general, Israel is not suffering from a general shortage of physicians at present. However, the ongoing decline in this index in recent years, and its expected contraction in the future, indicates that Israel will probably experience a general shortage of physicians eventually. In some areas of specialization shortages are already apparent, and these are expressed in difficulties in filling posts, a dearth of interns who are regarded by heads of department as showing promise, and a heavy work load.

Notwithstanding, the index for identifying a shortage of physicians in Israel—the number of physicians per 1,000 persons—does not give the whole picture as it does not take into account differences in the allocation of the workforce between the various areas of specialization or by geographical area, and therefore does not reflect the supply of medical services. No far-reaching study has yet been made in Israel which provides a definition of the optimum ratio of physicians to the population, and there is no database which contains information about the extent of physicians' employment and their geographical distribution. The issue of the lack of data and its implications was emphasized by the State Comptroller (in his reports for 1987, 1994, and 2008), as well as by various committees (the Pazi Committee in 2002, the Halevi Committee in 2006, and the Netanyahu Committee<sup>30</sup> in 1990, inter alia). Recording these data is essential for examining the current situation regarding the

Figure 2.3



<sup>28</sup> I. Halevy (chairman) (2007). Report of the Committee appointed by the chairman of the Planning and Budgeting Committee to examine the establishment of an additional medical school in Israel (Hebrew).

<sup>29</sup> The intention is to also open this program to graduates of other disciplines in the future.

<sup>30</sup> S. Netanyahu (1990). Report of the National Committee to Examine the Functioning and Efficiency of Israel's Health System, Jerusalem (Hebrew).

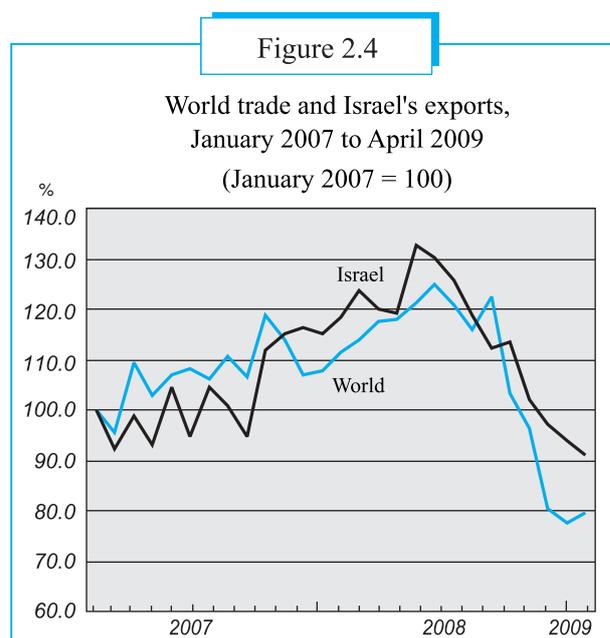
supply of the services provided by physicians in Israel, as well as for planning requirements regarding medical positions and instituting policy measures. Taking action in order to prevent a shortage of physicians requires first and foremost careful examination of the supply of medical services. Possible policy measures for coping with a future dearth of physicians include utilizing mutual relations and interaction between the health professions in order to alter the composition of the medical workforce without impairing the quality of treatment, expanding the frameworks for training physicians, and intervening in order to influence the geographical distribution of physicians.

### The economic crisis and the plunge in global trade<sup>31</sup> – implications for the Israeli economy

- From August 2008 until February 2009, global trade plunged by about 40 percent. Israeli exports also declined during this period but by a more moderate rate of about 30 percent.
- An analysis of the relationship between the composition of exports and the change in exports in 60 countries found that exports of countries with a relative advantage in hi-tech goods were less affected by the crisis.
- The sharp decline in global trade was a result of the global crisis, which intensified towards the end of the year, and the bursting of price bubbles in the mixed industries.
- A manifestation of the bursting of one such bubble can be seen in the effect of the global crisis on the mixed industries, which was significantly larger than the effect on the hi-tech and traditional industries. A clear example of this is the fertilizer industry.

In August 2008, global trade shrank by about 10 percent. This trend continued in the following months and from August 2008 to February 2009, global trade shrank by a total of 38 percent (Figure 2.4). Israel's exports dropped during this period by 28 percent. In the analysis to follow, we will examine whether the composition of Israel's exports, and in particular its specialization in high-tech goods, is responsible for the more moderate drop in Israeli exports as a whole, relative to global trade. A preliminary examination of the data indicates that the decline in the global trade of goods classified as mixed technology was larger than that for hi-tech and traditional goods. A more precise analysis of the trade data and composition of exports for about 60 countries confirms that countries which enjoy a relative advantage

in hi-tech goods were, on average, affected less than other countries.<sup>32</sup>



One of the characteristics of the Israeli economy is its specialization in the production and export of hi-tech goods. The question is whether this is the explanation for the more moderate effect of the crisis on the Israeli economy. Figure 2.5 presents total global trade according to technology intensity. It can be seen that the drop in trade of goods produced by mixed technology industries was more pronounced than for the hi-tech and traditional industries. The reason for this can be clearly seen in industries such as mining, quarrying, oil refining, chemicals and fertilizer, which are classified as mixed industries. Thus, the prices in these industries rose at an accelerated rate during the first half of 2008, which led to an accelerated increase in the total value of trade in these goods. In August 2008, their prices began to drop<sup>33</sup> and at a later stage (towards November) their quantities also began to decline.

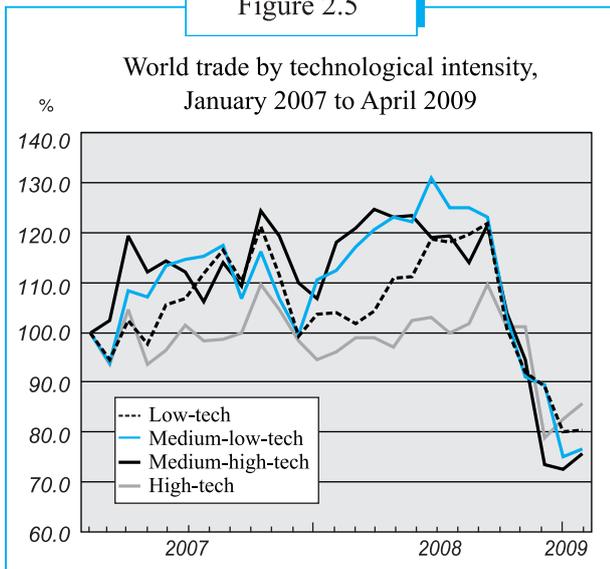
The direct impact of global developments on the Israeli economy can be seen in Figure 2.6, which presents Israeli trade according to technology intensity and for each level of intensity according to value, quantity and price. The graph presents the change in the prices of mixed goods, in

<sup>31</sup> The data used in this discussion were gathered from the following sources: IMF, OECD, ECB, UN, BLS and the Central Bureau of Statistics.

<sup>32</sup> Two additional analyses, which looked at the relationship between trade and changes in the real exchange rate and between trade and the classification of exports according to uses (raw materials, capital goods, durable goods, etc.), did not produce statistically significant results.

<sup>33</sup> Based on IMF data for the global trade prices of energy and chemical products.

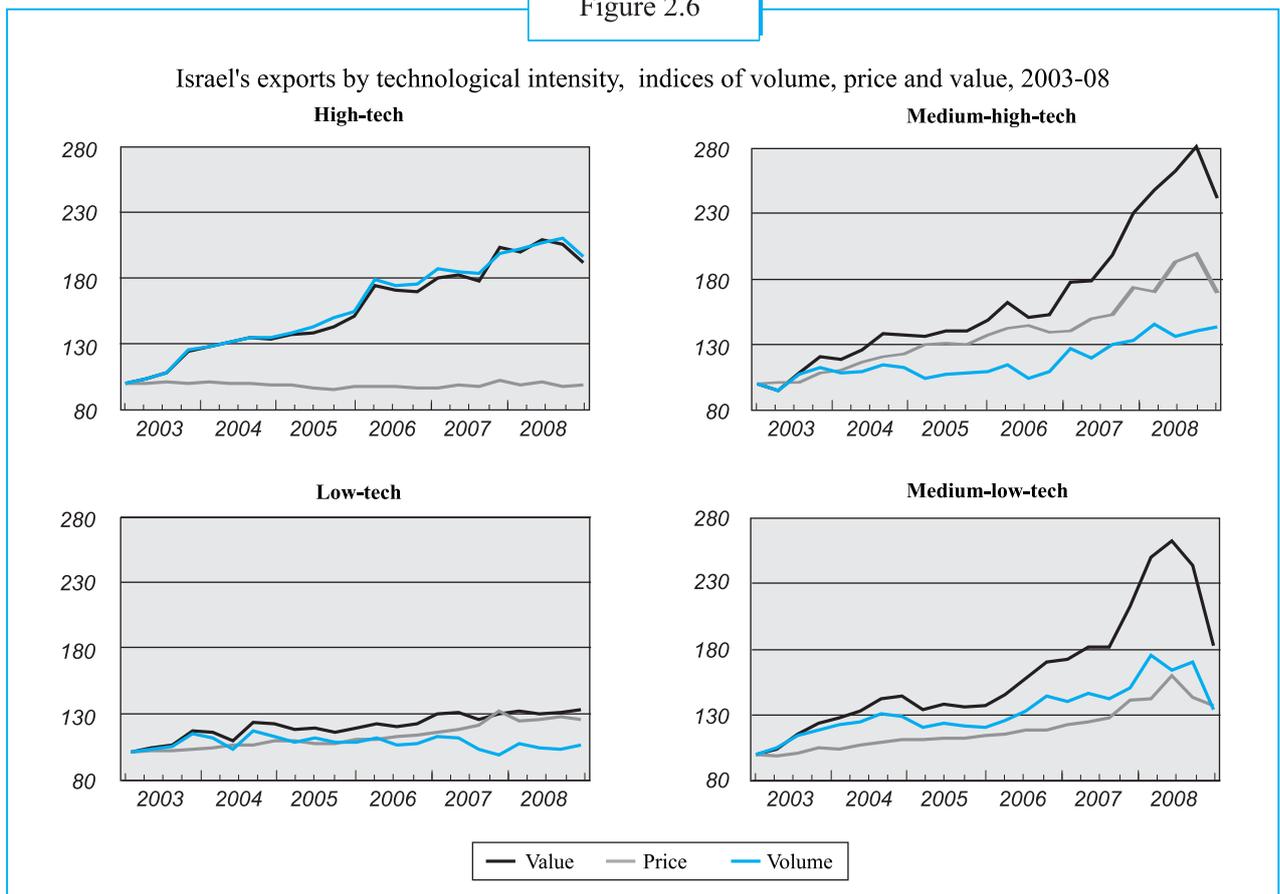
Figure 2.5



particular the sharp rise during the first half of 2008, and, in parallel, the accelerated rate of increase in the value of exports of those goods. It can also be seen that there was no major deviation in the prices of hi-tech and traditional goods. The drop in trade during the second half of 2008 was also in line with global trends. Thus, the export of mixed goods plunged by about 25 percent as compared to more moderate declines in hi-tech and traditional industries. The graphs also show that during 2008, the drop in the exports of mixed-hi-tech industries was completely the result of the drop in prices and in fact the quantity of exports continued to grow. In contrast, the increase in the quantity of exports from mixed-traditional industries continued only until the third quarter and then began to decline.

In order to examine the relationship between the composition of Israeli trade and the more moderate effect of the global crisis, an index of relative advantage<sup>34</sup> was constructed

Figure 2.6



<sup>34</sup> For an explanation of the construction of the indexes, see the 2008 Bank of Israel Annual Report, chapter on the Balance of Payments, Box 7.1

according to technology intensity:<sup>35</sup> hi-tech, mixed-hi-tech, mixed-traditional and traditional. Relative advantage is an expression of the economy's specialization in that market or the importance of the market/product to the economy. The index of relative advantage was calculated here as the ratio between the proportion of exports of a particular type of goods in the country's total exports and the average proportion worldwide. For example, hi-tech exports in Israel constitute about 50 percent of total exports as compared to an average of about 25 percent worldwide and therefore the index of relative advantage will receive a value of 2. If the difference in trends between goods is a result of demand shocks, this will affect the trade of individual countries according to their specialization. In particular, as a result of the plunge in prices in the mixed industries, we would expect to find that the exports of countries specializing in hi-tech or traditional goods would be less affected than the exports of countries specializing in mixed goods.

The index of relative advantage is used here to estimate the drop in exports in various countries. The estimation shows that the drop in countries with a relative advantage in hi-tech was indeed less severe than for other countries and the greater the relative advantage in hi-tech, the smaller is the drop in exports (Figure 2.7). The regression of the average rate of decrease in trade for all countries produced a significant and negative constant. The relatively moderate effect on the exports of countries with a relative advantage in hi-tech was

manifested in a significant and positive coefficient which offset the effect of the negative constant. The relatively moderate decline in hi-tech exports is explained by the relatively moderate decline in the demand for these goods.

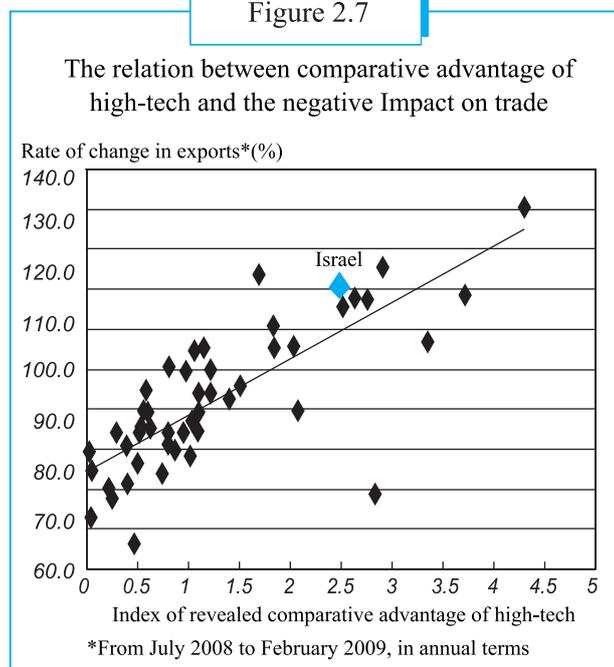
**The gap between men's and women's wages on their entry into the civil service during the period 1990–2008**

- The trend towards equalization of wages between men and women (with similar characteristics) at the point in time when they join the civil service came to a halt in 1999.
- Since the beginning of the decade, wage gaps in favor of men have remained relatively stable at a level of about 7 percent.
- One of the reasons for these developments is the consistent decline in the rate of hiring by the government sector from 1990 until 2002 within the Administrative Scale (which includes administrative, clerical and maintenance positions) in which the wage gap between men and women is relatively large. This decline leveled off after 2002.

An analysis of the trend in the average wage of young workers (under the age of 30) who joined the civil service<sup>36</sup> (in fulltime positions only)<sup>37</sup> from 1990 until 2008 shows that following the narrowing of the gap between the average wages of men and women on their entry into the civil service from 1990 until 2001 (until it was almost closed),<sup>38</sup> the gap again began to widen in 2005 and by 2008 had reached 9.4 percent (Figure 2.8). The median wage was characterized by a similar trend. The narrowing of the wage gap in the early part of the sample period reflected the fact that the proportion of men being hired in the top wage centile declined while it increased for the bottom wage centile. The widening of the gap is a result of the slower real increase in the wages of women joining the civil service relative to the men who joined.

Wages in general and in the civil service in particular are derived from the characteristics of the workers receiving

Figure 2.7



<sup>35</sup> Another index was constructed according to uses (BEC) but did not produce any statistically significant differences.

<sup>36</sup> The government sector primarily includes government employees in the government ministries and the Civil Service Commission and does not include professional military personnel, teachers and employees of the municipalities.

<sup>37</sup> According to the recorded classification; the data does not contain information on the number of hours worked.

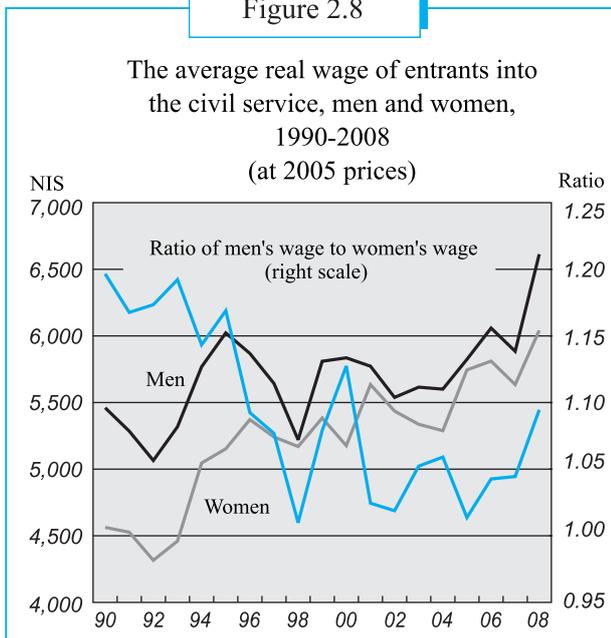
<sup>38</sup> Y. Mazar (2008) "The wage gap between men and women on entry into the civil service", *Israel Economic Review* 81

them, the return on those characteristics and an additional and unexplained component. In simple wage regression, the composition of workers, i.e. their distribution along the salary scale and among the government ministries, their age on joining the civil service and their seniority, are viewed as the characteristics (available to the researcher) that determine their wages.

In analyzing the wage differences between men and women, it is important to distinguish between the characteristics of workers that are not dependent on wages (such as age and experience prior to joining the civil service, which are exogenous) and other factors that affect the wage and are dependent on the decision of the employer (such as the wage scale of the worker on being hired, which is an endogenous variable) and therefore are likely to reflect gender discrimination in the setting of wage levels. The position (or grade) in which a worker is employed is not completely exogenous; nonetheless, in analyzing wage differences between men and women we will also consider these factors to be part of the composition of characteristics, i.e. factors to do with supply and preferences, rather than discrimination. All of these characteristics explain an average of 42 percent of the variance of wages among workers hired to the civil service during the sample period.

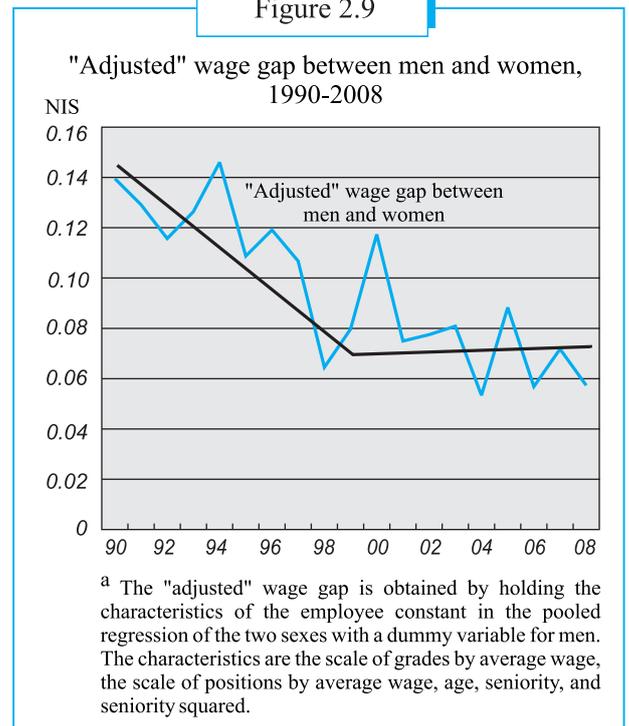
an identical return on characteristics for men and women. Subject to this assumption, it can be concluded from the regression that the widening of the gap in recent years reflects an improvement in the characteristics of men joining the civil service relative to the women who joined (since given these characteristics, the wage gap between men and women grew less during those years). Stated more precisely, the gap between the percentage of educated women and the percentage of educated men among the workers joining the civil service stabilized, which followed a widening gap in favor of women in the early part of the sample period.

Figure 2.8



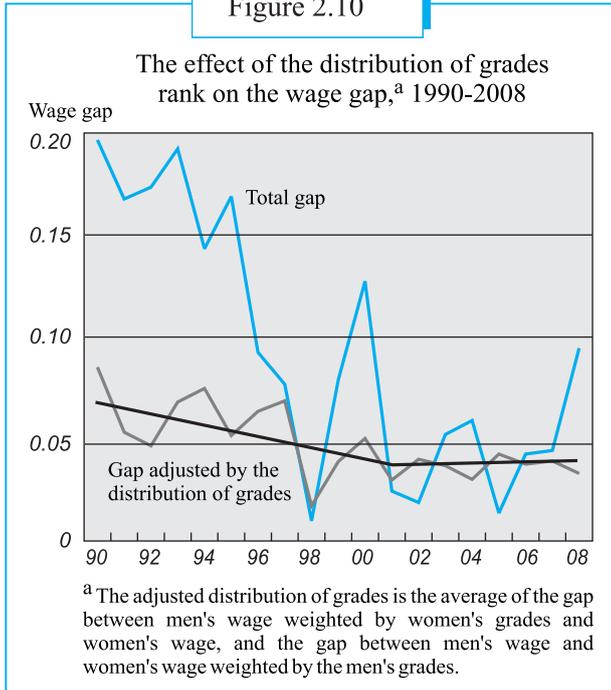
The econometric analysis points to a narrowing of the wage gap between men and men until the beginning of the 2000s, following which it more or less remained stable (the "men" parameter in Figure 2.9). An analysis using a joint regression and a dummy variable for gender imposes the constraint of

Figure 2.9



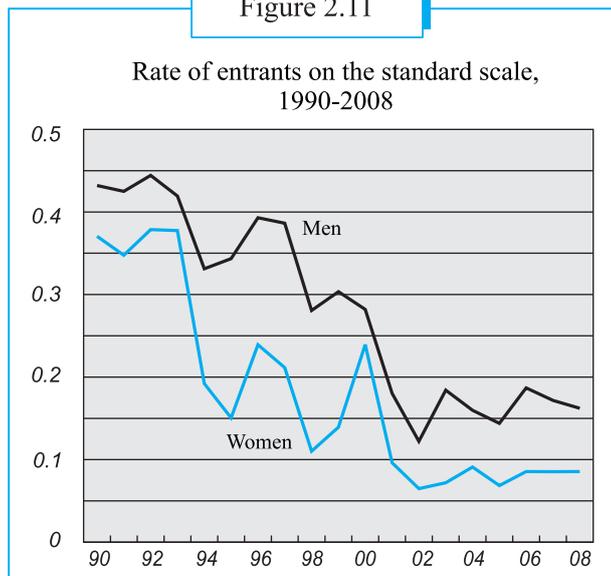
In order to avoid this assumption, separate regressions were run for men and women. The resulting coefficients showed that the surplus returns in favor of men continually declined until the end of the 1990s and that subsequently there was relative stability and even a slight rise in favor of men. With regard to characteristics, between the mid-1990s and 2005, there was preference for women which grew over the years; however, during the last seven years a certain improvement is noticeable in the average of men's characteristics relative to women (because the men joining the civil service were in professions with a higher average wage, they joined ministries in which the average wage was higher and their average wage when they joined was higher), an improvement that was manifested in a widening of the wage gap during those years.

Figure 2.10



The change in the professional composition of men and in their occupations relative to women was the most dominant in its effect on the trend in the wage gap. Figure 2.10 shows that were it not for the difference in the distribution between wage scales, the wage gap between men and women would have changed far less and since 2001 would hardly have changed at all.

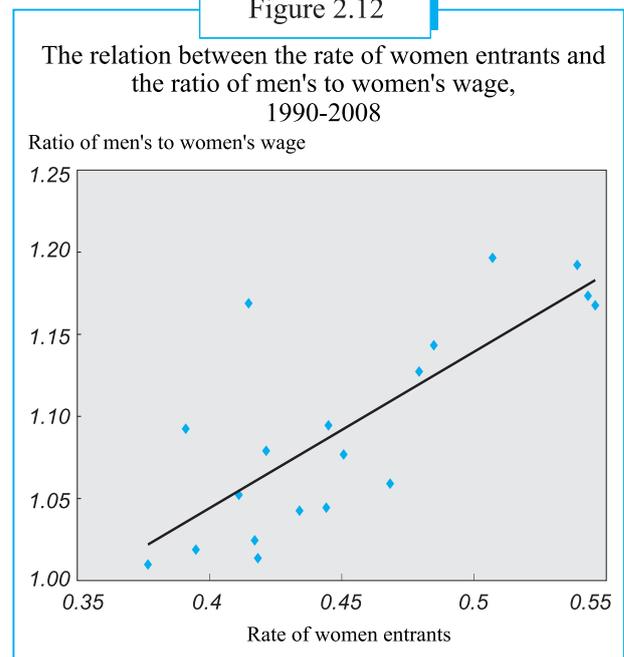
Figure 2.11



Over the years, with the rising proportion of university graduates and increased outsourcing of work to subcontractors, a smaller proportion of the workers joining the civil service entered on the Administrative Scale (i.e. administrative occupations). This trend, which characterized both genders, leveled off in 2002 (Figure 2.11). It was also found that the average wage gap (23 percent) in favor of men in the Administrative Scale was higher than for the rest of the scales (13 percent). Thus, the narrowing of the wage gap was a result of, among other things, the decrease in the proportion of those joining on the Administrative Scale and since this trend leveled off in recent years, the narrowing of the wage gap between men and women came to a halt.

It is well known that a worker's wage is also derived from his pay scale in his place of work; however, in contrast to the other explanatory variables, this variable is endogenous. This is because the determination of a workers' pay scale essentially determines his wage given his characteristics and therefore cannot be included as an explanatory variable. And indeed, an analysis of the gap in average pay scales between men and women shows that the trend in this variable is similar to that in average wages, i.e. shaped like a U, although its variance is greater.

Figure 2.12



The analysis did not examine if there had been a change in workers' preferences, which may have lowered the threshold wage for women and/or raised the threshold wage for men and which could be expected to widen the wage gap between men and women. Support for the effect of such a change

on the trend of the wage gap between men and women can be found in the increased percentage of women in the total number of workers joining the civil service in recent years (from 35 to 45 percent) and in the strong positive relationship between this proportion and the ratio of men's wages to women's wages over the years (correlation coefficient of 0.78) (see Figure 2.12).

### Analysis of State Budget Proposal for 2009 and 2010 vis-à-vis the Budget Targets and in a Long-Term Perspective

Implementation of the policy measures attendant upon the state budget proposal for 2009 and 2010 will make it likely that the expenditure and deficit ceilings proposed by the government are met. Compared with existing legislation, the budget plan expands expenditure in the next two years but more than offsets this expansion by raising taxes—mainly on a temporary basis—until the end of 2010. Since a large part of the restrictive measures approved are not permanent, and in addition the government approved a plan to reduce income and corporation tax rates between 2011 and 2016, there are serious misgivings as to the government's ability to return to a declining path of the debt/GDP ratio after the crisis, and also as to its ability to attain the deficit targets after 2010, especially if economic recovery is not rapid. These misgivings are intensified because our assessments indicate that there is a substantial discrepancy between the legal expenditure ceiling for 2011 and the level of expenditure derived from the government's decisions about specific programs in the spheres of defense, education, welfare, and transportation infrastructure.

#### 1. The 2009–2010 budget

The budget proposal for 2009–2010 submitted to the Knesset by the government includes the decision to increase the deficit ceiling determined by law from 1 percent to 6 percent of GDP in 2009, and to 5.5 percent of GDP in 2010, because of the economic slump and sharp drop in tax receipts. The government has also set a downward deficit path after 2010 which involves a particularly sharp drop—to 3 percent of GDP in 2011 and to 2 percent in 2012. Additionally, the government decided to temporarily increase its expenditure by NIS 3.25 billion (annually) beyond the ceiling determined by law for 2009 and 2010 and to return to the original expenditure path in 2011. Concurrent with this increase, tax rates will be raised in order to prevent the deficit from expanding beyond the level deriving from the effects of the slowdown in economic activity and the financial shocks.

An analysis undertaken by the Research Department of the Bank of Israel, based on the Department's macroeconomic forecast and models for analyzing the budget, the budget is

likely to conform to the proposed deficit and expenditure ceilings in 2009 and 2010, and it is reasonable to expect that it will even be below them. This situation will obtain provided the Knesset adopts all the measures included in the government's budget proposal and the Economic Arrangements Law for those two years.

According to existing law, the expenditure ceiling for 2009 should be higher by 1.7 percent in real terms than the original 2008 budget (not actual expenditure). However, this simple rule is supplemented by adjustments for one-off expenditure included in the 2008 budget, the correction of the discrepancy between the price forecast used when the 2008 budget was prepared and actual prices, and the estimate of price increases in 2009 (Table 1). In addition, as stated, the budget was increased by NIS 3.25 billion (approximately 1.35 percent of expenditure). Three factors will help the government maintain the increased expenditure ceiling in 2009: 1. The government has brought NIS 4 billion of expenditure forward from 2009 to 2008, so that part of the budget has been 'freed up,' thereby enabling the absorption of the unexpected increase in defense expenditure and other expenses connected with the economic crisis, coalition agreements (which will affect expenditure only the second half of the year), the cancellation of policy measures included in the original budget proposal for 2009, and the wage agreements with the university lecturers and physicians. 2. The increase in the budget ceiling due to the discrepancy between the low forecast regarding prices in 2008 and the actual price rise has also contributed about NIS 4 billion to the budget, while most budget items—including wages—are managed on a nominal basis (at least in the short run);<sup>39</sup> 3. Because of the delay in approving the budget, the government's activity since the beginning of 2009 has been on the basis of a temporary and limited budget. Even if in theory it is possible to "catch up" during the rest of the year, past experience shows that in effect some of the plans whose application was deferred will no longer be put into practice in the current year. Under the effect of these factors the 2009 budget can incorporate the government's new decisions regarding various one-off expenditures this year without departing from the original expenditure ceiling, and certainly without departing from the higher ceiling that has been agreed upon. Consequently, in the framework of the two-year budget the government will be able to transfer some of the expenditure from the 2010 budget to that for 2009, thereby making it easier to adhere to the expenditure ceiling in 2010, too. Technically, bringing payments of this kind forward is possible primarily with regard to non-

<sup>39</sup> For example, the wage agreement in the public sector determined nominal increases for 2008–2010 while inflation expectations were far lower than the actual rise in the CPI. These wage payments will not change in the wake of the higher than forecast price increase.

governmental public bodies, such as the National Insurance Institute, the pension funds, Israel Railways, etc.

**Table 1: The Change in the Expenditure Ceiling: A Comparison Between the Budgets for 2008 and 2009**

	(percent)
Real rise in accordance with the law	1.7
Adjustment for one-off items in 2008	1.4
Increment due to government decision to increase budget	-1.4
Price adjustment for underestimate for 2008 (2 minus 1)	1.9
1. Forecast price rise in 2008 budget <sup>a</sup>	2.7
2. Actual price rise in 2008	4.6
Total real increase in expenditure	3.6
Forecast price rise for 2009	1.8
Permitted nominal increase in budget	5.4

<sup>a</sup> According to the economic survey published by the Ministry of Finance together with the 2008 budget, prices were expected to rise by 2.2 percent in 2008. In addition, the price rise estimated in that survey for 2007 was 0.2 percent below the actual price rise. The compensation in the 2009 budget for the deviation of prices from the forecast does not fully offset these differences because in the final event some of them had already been incorporated in the preparation of the 2008 budget.

In contrast to the expenditure side, the expected level of revenue in 2009 is far below the path foreseen only last summer, and hence the government has been obliged to increase the deficit ceiling determined by law by NIS 37 billion, to 6 percent of GDP. An analysis of the reasons for the decline in tax receipts from their actual level in 2007 (about NIS 190 billion) to their forecast level in 2009 (NIS 174 billion) indicates three main causes: the exceptional developments in the financial markets in 2008, the substantial reduction of tax rates, and the sharp drop in imports of consumer goods. Since the levels of imports and the financial aggregates were exceptionally high before the crisis, it can be assessed that most of the decline in tax receipts is permanent in nature. However, given expectations of a considerable decline in revenue, the income forecast in the 2009 budget is a conservative estimate. Taking into consideration the path of revenues to date and the tax increases proposed in the framework of the budget and the Economic Arrangements Law, as well as those that have already been put into operation, it appears that revenues in 2009 will attain the level forecast in the budget, and may even exceed it. Against the backdrop of the considerable uncertainty regarding macroeconomic developments, which have a direct impact on tax receipts, the caution adopted in

predicting income assumes paramount importance, and it may help to keep the deficit for the year at 5–5.5 percent of GDP even if the budget is implemented in full. However, at the present time it is particularly important to stress the difficulty of forecasting income, which, in Israel—as in most other countries—stems from the sharp fluctuations in economic and financial activity as well as from the difficulty of predicting the intensity of the reaction of tax receipts to these fluctuations.

The 2010 budget has to contend with an accumulation of long-term plans, with considerable expenditure items that have been deferred from previous years, and with the cost of the coalition agreements. All these required cuts of over NIS 12 billion in order to adhere to the original expenditure ceiling. The government took several steps in order to deal with this discrepancy. First, as stated, the expenditure ceiling was raised by NIS 3.25 billion. Second, several temporary expenditure reductions were made by increasing National Insurance contributions (enabling an equivalent reduction to be made in government transfers to the National Insurance Institute) and reducing the vacation supplement by NIS 1.7 billion (combined). In addition, the government approved an across-the-board cut of NIS 1.6 billion, and an accounting amendment was introduced which reduces the expenditure subject to the ceiling by another NIS 1.5 billion.<sup>40</sup> The remaining gap, amounting to NIS 4 billion, is closed by introducing several additional restraining measures and, mostly, by bringing expenditure forward to 2009, as explained above.

The new tax measures which the government has decided to introduce in 2010 (some of them already in mid-2009) mainly involve raising indirect taxes; VAT will be increased by one percentage point, the exemption of fruit and vegetable and incoming tourism services from VAT will be annulled, a levy will be imposed on excessive water consumption by households, and the taxes on cigarettes and fuel will be increased. These measures are expected to augment government revenue by about NIS 9 billion, and even after offsetting the reduction in income and corporation tax planned in advance for this year, and in view of the fact that some tax hikes will be introduced in the course of 2009, the legislative amendments are expected to increase revenue

<sup>40</sup> According to the military aid agreement with the US, these amounts are expected to increase in the next few years. Since to date this aid has been included in the expenditure ceiling its increase will reduce the permitted rise in other expenditure—an outcome whose logic is questionable. Hence, it was decided that the increase in aid would be recorded under the rubric 'Expenditure contingent on income,' and hence would not be subject to the expenditure ceiling. This procedure is similar to the rule introduced by several European Union countries, which define the development aid received from the EU as not being subject to their expenditure ceilings.

by about NIS 4 billion over 2009. Assuming that the tax measures proposed by the government will be implemented in full, the revenue forecast for 2010 is a conservative estimate, and provides a margin in case macroeconomic developments do not come up to expectations. However, there is some uncertainty as to whether some of the proposed measures will in fact be approved.

Even if, as expected, the government meets the targets set for the next two years, the debt/GDP ratio is expected to rise markedly and exceed 87 percent of GDP at the end of 2010 (Table 2). This increase does not include the potential effect of the expansion of the deficit and the debt—and perhaps also Israel's fiscal vulnerability (see below)—on interest rates and potential investors' perception of risk in Israel, but even so, debt servicing costs are expected to rise in the next few years, from 3.8 percent of GDP in 2008 to 4.3 percent in 2012. This increase will reduce the sources available to the government for providing services and making transfer payments without alleviating the burden of financing the government which rests on the shoulders of the public.

#### **b. Structural changes in the tax system**

Beyond the need to check the rise in the deficit, the government's decisions include several important structural measures in the field of taxation. The implementation of these measures will make a significant contribution to increasing government revenue over time, as well as making it possible to reduce distortions in the tax system and enabling tax administration to function more efficiently. These measures include two whose quantitative and operational significance is particularly great:

1. The cancellation of the exemption from VAT on fruits and vegetables: this exemption reduces government revenue by more than NIS 1.5 billion annually, although neither its objectives nor the justification for its existence are clear. While there are indications that the proportion of expenditure on fruit and vegetables is higher among the weaker segments of the population, in the final event almost 80 percent of the lost revenue reaches the better-off segments of the population. For this reason, this exemption from VAT is a very inefficient way of helping the poor. Moreover, the exemption for fruits and vegetables impairs the uniformity of VAT and leaves a loophole for tax evasion, which depletes the resources available to the public sector, including for welfare programs. It is, however, important for the annulment of the exemption to be accompanied by enhanced enforcement of the reporting and payment requirements in those market segments where tax legislation is more commonly breached, both in order to maximize the revenue potential and in order to prevent unfair competition from tax evaders.

2. The annulment of the recognition of expenditure on child-care services for tax purposes: according to the Supreme Court decision, provided the law is not changed, the tax authorities will have to recognize expenditure on child-care services by working parents as a tax-deductible expense. The cost of implementing this decision involves the loss of over NIS 1 billion in revenue, all of it benefiting the upper percentiles of the income-distribution curve.<sup>41</sup> The proposal approved by the government was to amend the law, replacing the recognition of this expenditure with tax credits to mothers of pre-school-age children and bringing forward to 2009 the nationwide expansion of the earned income tax credit for mothers of children under two years old whose low income makes them eligible for it. This will lead to a more equitable utilization of the tax receipts forgone by the government, while keeping costs down to a reasonable level. Operating by means of tax points will also ease the administrative burden involved in extending aid to parents while at the same time reducing its potential for abuse.

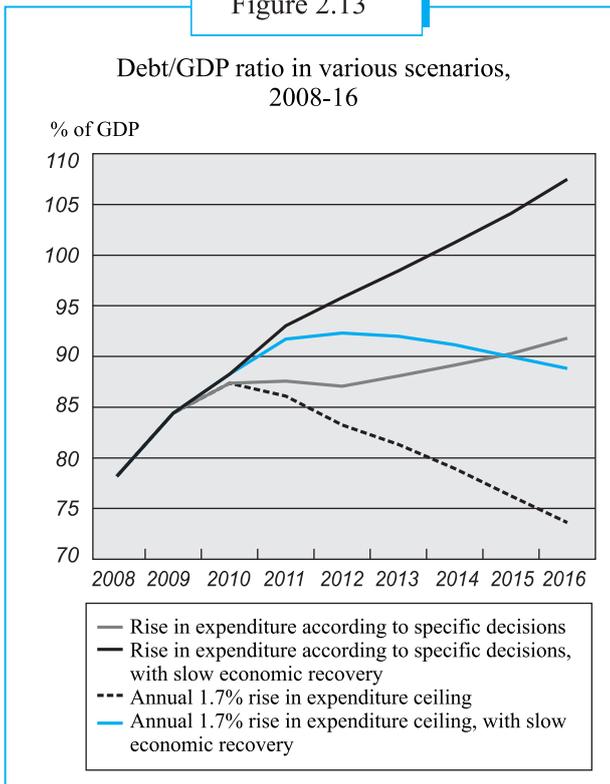
Public discussion of these topics has once again clarified the need for the rapid nation-wide implementation of the earned income tax credits program. As long as this is not done, the government is deprived of a tool for assisting the weaker segments of the population without impairing the incentive to work. The sooner the program is implemented nationwide, the earlier the pressure on the government to respond to social problems with more expensive and less efficient measures will be eased.

#### **c. Fiscal developments expected after 2010**

Whereas the measures approved are consistent with attaining the new deficit targets and expenditure ceilings for 2009 and 2010, the picture is very different with regard to 2011 and the subsequent years. The government has decided that as of 2011 the expenditure ceiling will revert to its original path, rising by only 1.7 percent from its planned level for 2010, before the aforementioned NIS 3.25 billion supplement. This expenditure ceiling ensures convergence to a deficit that is relatively close to the ceiling of 3 percent of GDP set for 2011, and will therefore make it possible to cancel a large part of the temporary tax measures planned for 2009 and 2010. However, because of the high level of the deficit, the debt/GDP ratio will return to its end-2008 level only in 2015 (Figure 2.13). This is due, inter alia, to the government's decision to further reduce income tax rates on individuals and corporations between 2011 and 2016. In addition, in contrast with the 'boxes' introduced as a result of the withdrawal from Gaza and the Second Lebanon War, this

<sup>41</sup> For a detailed analysis of the income levels of working mothers in Israel relative to the tax threshold, see Adi Brender, "Tax Rates on Income from Labor in Israel in an International Perspective, 2008–2009," position paper, Bank of Israel (Hebrew).

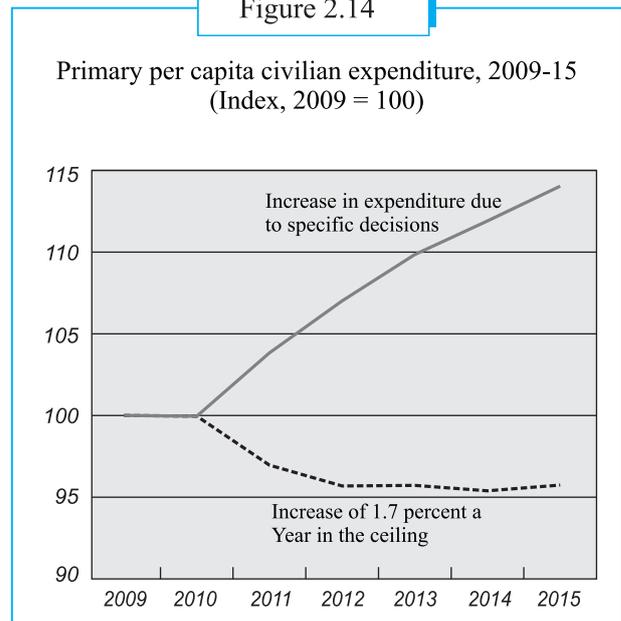
Figure 2.13



time the specific and temporary expenditure to be phased-out is not defined. While the budget includes several such plans, amounting to more than NIS 1.5 billion a year, at the same time the ‘package deal’ and the arrangements with the defense establishment include non-permanent cuts that are even greater, so that it will be necessary to find additional sources for restoring the expenditure ceiling to its original path. On the basis of the existing decisions, it would seem that maintaining the expenditure ceiling in 2011 requires cutting the budget by 1.3 percent of GDP<sup>42</sup> (over NIS 10 billion). In 2012 another reduction of almost 1 percent of GDP will be necessary, and in 2013 there will have to be a further significant cut. The implementation of these decisions will reduce primary civilian expenditure in 2011 and 2012 by a cumulative 1.5 percent (5 percent per capita, Figure 2.14). According to our predictions, this is supposed take place at a time of rapid economic growth and rising income. Moreover, additional policy measures will still be required in the order of 0.4 percent of GDP on the revenue or expenditure side in order to avoid exceeding the deficit ceiling. Past and present experience do not lend great credence to the likelihood that this policy will in fact be implemented, and the probability that the government’s expenditure/GDP ratio will be reduced

<sup>42</sup> ‘Cutting’ means reducing expenditure relative to the path derived from the implementation of the government’s decisions, not the absolute reduction of the budget year-on-year.

Figure 2.14



by over 4 percent of GDP between 2010 and 2015, as this path requires, is low (Figure 2.15).

If the government increases expenditure in accordance with the specific decisions that have already been made in the areas of defense, education, welfare, and the infrastructure, the deficit is expected to remain at between 4.5 and 5 percent of GDP in the years following 2010 despite the rapid economic growth, and the debt/GDP ratio is expected to continue rising to more than 90 percent (Figure 2.13). Moreover,

Figure 2.15

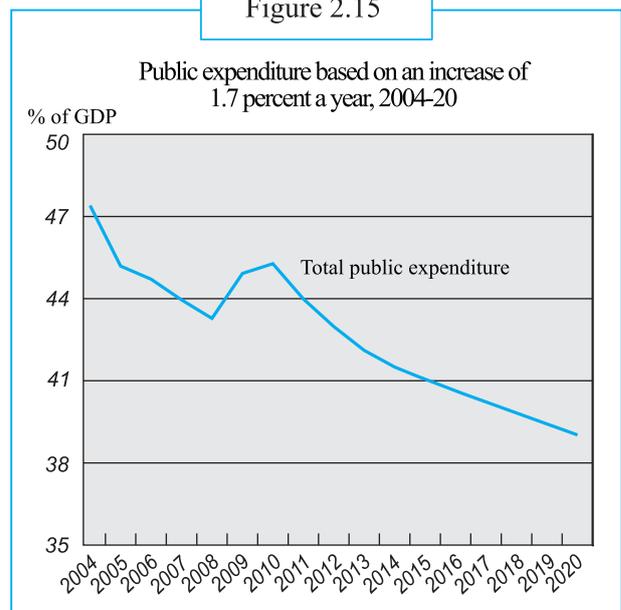


Table 2.2: Expected Path of Principal Budget Aggregates, According to Various Scenarios, 2008-2013 (percent of GDP)

	2008	Forecast				
		2009	2010	2011	2012	2013
Baseline scenario (growth rate)	4.0	-1.5	1.0	4.5	5.0	4.5
(1) Fixed increase in expenditure ceiling of 1.7 percent a year <sup>a</sup>						
Expenditure excl. credit	34.3	36.0	36.3	35.0	34.0	33.1
Required measures to stay below the expenditure ceiling	...	...	...	1.4	0.9	0.6
Real change in primary civilian expenditure excluding credit	-0.4	9.6	3.7	-1.6	0.2	1.5
Deficit excl. credit	-2.0	-5.3	-5.0	-3.4	-2.2	-1.3
Gross public debt	78.2	84.4	87.4	86.1	83.3	81.3
(2) Increase in expenditure in accordance with specific government decisions <sup>b</sup>						
Expenditure excl. credit	34.3	36.0	36.3	36.5	36.4	36.1
Real change in expenditure	-0.2	3.2	2.0	4.9	4.8	3.8
of which: primary civilian expenditure excluding credit	-0.4	9.6	3.7	5.4	4.6	4.2
Deficit excl. credit	-2.0	-5.3	-5.0	-4.8	-4.6	-4.3
Gross public debt	78.2	84.4	87.4	87.6	87.1	88.1
Slow growth recovery scenario (growth rate)	4.0	-1.5	0.0	1.0	3.5	6.0
(3) Fixed increase in expenditure ceiling of 1.7 percent a year						
Expenditure excl. credit	34.3	36.0	36.7	36.5	36.0	34.6
Deficit excl. credit	-2.0	-5.3	-5.0	-5.2	-4.6	-3.2
Gross public debt	78.2	84.4	88.3	91.7	92.3	92.0
(4) Increase in expenditure in accordance with specific government decisions						
Expenditure excl. credit	34.3	36.0	36.7	37.8	38.2	37.5
Deficit excl. credit	-2.0	-5.3	-5.0	-6.5	-6.8	-6.2
Gross public debt	78.2	84.4	88.3	93.0	95.8	98.5

<sup>a</sup> Assuming that the cuts required in 2009–13 will be made in civilian expenditure.

<sup>b</sup> Government decisions on specific plans already approved and measures included in the 2009 coalition agreement.

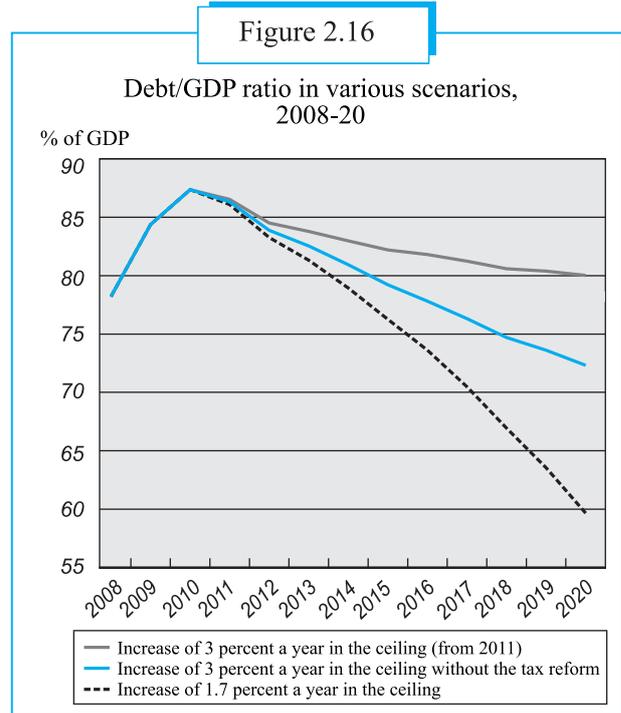
SOURCE: Bank of Israel.

if the economic crisis persists longer than expected—for example, according to the scenario described in the bottom panel of Table 2—the debt/GDP ratio is expected to rise more rapidly, reaching more than 100 percent in 2013–2016. In addition, both past experience and the current process of approving the budget have shown that once a substantial gap has been created between the government's commitments to a specific program and its macro-fiscal targets, in the final event it is the latter that are changed. Hence, the possibility that Israel's perceived sovereign risk will rise, and that the public will reduce private consumption because of fears that the tax burden will be increased, should not be ruled out. Similarly, the discrepancy between the government's long-term fiscal targets and the cost of the programs it has adopted also undermines the credibility of the latter, as the public is conscious of the difficulty of financing them within the framework of the targets set, and it is not certain which programs will be implemented. Consequently, it is very important for the government to adopt at this stage a realistic

medium-term policy while defining a sustainable path for the fiscal aggregates and deciding on the specific measures which will make it possible to adhere to this path.

One of the most significant decisions made by the government with regard to the long-term development of the budget is the tax reform intended for 2011–2016. This reform will substantially reduce income-tax rates for individuals and corporations in Israel, which already today are not high by international standards, involving a considerable loss of revenue and an increase in the debt and the deficit. A closer examination of the proposed reform, alongside maintaining the current expenditure ceiling—an annual increase of 1.7 percent—and the development of the debt and the deficit appears on the face of it to be reasonable. In this scenario, the debt/GDP ratio will decline by 60 percent by 2020 (Figure 2.16), a very reasonable target given the present international environment. However, as noted, in order to attain this target it is necessary to maintain zero

growth of per capita public expenditure for a decade, and for the share of public expenditure in GDP to decline by 6 percent between 2010 and 2020 (Figure 2.15). This is, of course, highly unlikely, and an examination of the effect of the reform vis-à-vis an expenditure path which is more appropriate given Israel's long-term economic development reveals a very different picture. In order to demonstrate this, Figure 2.16 shows the expected path of the debt/GDP ratio if government expenditure rises by 3 percent a year, a rate which constitutes an average of the present expenditure ceiling and the cost of the programs adopted by the government for the next few years. According to this path, once the tax reform is completed, in 2016, the debt/GDP ratio will remain at 80 percent. On the other hand, if the tax reform is not implemented, the same expenditure path will enable the debt/GDP ratio to decline to 72 percent in 2020. Since past and present experience indicates that chances are low that expenditure will over time as slowly as the current ceiling requires, it seems that the proposed tax reform increases Israel's long-term economic risk.



**Diary of Events from January to April 2009**

January 2009	1	Update of tax brackets	A further stage in the implementation of the long-term plan to reduce taxes, which began in 2002 and will be completed in 2010: in January, the tax brackets for earned income were reduced as follows:		
			Salary	Brackets in 2008	Brackets in 2009
			4,390	10%	10%
			7,810	16%	15%
			11,720	26%	23%
			16,840	33%	30%
			36,260	35%	34%
			Every additional shekel	47%	46%
			The corporate tax rate was lowered from 27% in 2008 to 26% in 2009.		
	1	Increase in the money equivalent of vehicle use	As part of an ongoing reform, the money equivalent of vehicle use was raised in January 2009 as follows:		
			Price group	Money equivalent per month (NIS)	
				2008	2009
			1	1,380	1,580
			2	1,530	1,730
			3	2,100	2,450
			4	2,570	2,980
			5	3,580	4,130
			6	4,590	5,320
			7	5,820	6,790
	1	National Insurance allowances	The basic amounts according to which allowances are calculated were increased by 4.5 percent (the rise in the CPI from November 2007 to November 2008). The minimum wage for January 2009 remained unchanged at NIS 3,850.18 per month.		
	5	Reinforcement of the emergency infrastructure of the local authorities in the South	The Ministry of Finance and the Ministry of the Interior have jointly formulated a program of assistance amounting to about NIS 8 million to reinforce the emergency infrastructure of the local authorities in the South. The funds will be allocated to, among other things, the firefighting service, the addition of equipment in bomb shelters and other unexpected expenses that are likely to be needed for proper functioning of the local authorities.		

January 2009	9	Implementation of the Acceleration Plan	<p>The Mercantile-Discount Bank, Bank Otsar Hahayal and Bank Hapoalim were chosen by the Accountant General's Office to set up and operate a new fund in the amount of NIS 1.3 billion, which will be used to provide loans to medium-sized businesses.</p> <p>The Ministry of Finance estimates that this measure will indirectly lead to the expansion of credit provided to businesses by other banks as well. Thus, the Fund will facilitate the partial recycling of existing credit for these other banks as well, which will provide them with an incentive to provide new credit.</p>
	12	Payment of compensation to public bodies for war damages	<p>The Socioeconomic Cabinet, headed by the Minister of Finance, Roni Bar On, decided to adopt the criteria for compensation for direct war damage to essential assets of public bodies.</p>
	15	The European Central Bank (ECB) reduced its interest rate by 0.5 percent to 2 percent.	
	18	The Israel Securities Authority created a unit for the regulation of financial instruments	<p>The global financial crisis demonstrated that the complexity of financial instruments makes it essential to maintain tight regulation in order to deal with the systemic risks implicit within this market. Until now, the Authority has dealt with these risks through a series of requests for disclosure, some of which became formalized and obligatory, even before the international financial crisis began.</p> <p>In the first stage, the Unit for Financial Instruments will operate as part of the Authority's Corporate Department. It will be responsible for financial instruments, including basket certificates, structured products, credit derivatives and new financial instruments. It will also be responsible for the legislative and regulatory processes needed to introduce new rules and regulations. Once the legislative process is complete, the Unit will operate as part of the Authority's Investment Department, which is responsible for regulating the financial intermediaries market.</p>
	19	Government guarantee to the banking system	<p>The Ministry of Finance has provided the banking system with government guarantees in the amount of NIS 6 billion for the purpose of raising capital. The guarantees will enable the banks to raise capital and to provide tens of billions of shekels in credit, which will help to alleviate the credit squeeze.</p> <p>The government guarantees will be provided to banks for the purpose of raising deferred deeds of liability which will be issued by the banks and recognized by the Supervisor of the Banks as upper secondary capital.</p>
	20	Israel's credit rating	<p>S&amp;P confirmed Israel's credit rating as "A" with a forecast of "stable". The confirmation of this rating reflects the commitment of the government to fiscal discipline and the Israeli economy's resilience during the last 5 years.</p>
	22	End of Operation Cast Lead	

January 2009	25	Update of real macroeconomic forecast for 2009 and 2010	<p>The macroeconomic forecast for 2009 was lowered following a number of developments in the global and Israeli economies.</p> <p>2009 forecast:</p> <ul style="list-style-type: none"> <li>• The expected rate of growth for 2009 is negative at -0.2 percent as compared to 1.5 percent in the previous forecast.</li> <li>• The expected average unemployment rate for 2009 is 7.6 percent, as compared to 7.0 percent in the previous forecast.</li> <li>• The surplus in the current account is expected to continue, despite the drop in economic activity, as a result of the significant improvement in the terms of trade.</li> <li>• The government deficit will grow to about 4 percent of GDP and the debt to GDP ratio will rise to over 82 percent as compared to the previous forecast of 79 percent.</li> </ul> <p>The forecast for 2010 is based on a certain degree of improvement in the global environment and particularly an increase in global trade and a small reduction in real interest rates. The rate of unemployment is expected to stabilize and the debt to GDP ratio will continue to rise to a level of 85 percent. If global trade does not improve, the forecasted rate of growth will be 2.0 percent and the average unemployment rate will rise to 8 percent.</p>
	25	Findings of the Poverty Report July 2007 to June 2008	<p>The semi-annual Poverty Report issued by the National Insurance Institute, which reports on the extent of poverty and socioeconomic disparities during the second half of 2007 and the first half of 2008 (2007/8), found that the rate of growth in the standard of living slowed relative to previous years. Thus, the standard of living, as reflected in adjusted median disposable income from which the poverty line is derived, rose in real terms only by about 0.5 percent in comparison to 2007.</p> <p>The indexes of the depth and severity of poverty rose by about 2 percent in comparison to 2007. The Gini index of inequality in economic income remained unchanged and index for disposable income rose by 7 percent from 2007 to 2007/8.</p> <p>The Director of the National Insurance Institute, Esther Dominicini, reported that these figures show that social intervention and the creation of targets for the reduction of poverty and socioeconomic disparities have started to bear fruit, even though there is a long way to go.</p>
	26	The Bank of Israel interest rate is reduced for the month of February	<p>The Bank of Israel interest rate for February 2009 was reduced by 0.75 percent to a level of 1.00 percent.</p>
	28	Implementation of the Acceleration Plan	<p>The Ministry of Finance and the Ministry of Housing have made hundreds of millions of shekels available to the residential housing sector for 6,000 new housing starts.</p>

February 2009	1	Implementation of the Acceleration Plan	<p>The Ministry of Finance has made available hundreds of million of shekels in assistance to the hi-tech and biotechnology industries.</p> <p>The Plan, which was formulated together with the Ministry of Industry, Commerce and Employment, the Chief Scientist and experts in hi-tech investment, is another component in the third stage of the Acceleration Plan that was prepared by the Ministry of Finance.</p> <p>The assistance will be fully disbursed during the first quarter of the year and is in addition to the budgets of the Chief Scientist, which will be disbursed throughout the year. The importance of a focused effort in the first quarter is that it will provide an immediate solution to the financing problems of companies carrying out high-quality R&amp;D, which, as a result of the global credit crisis, are having difficulty finding sources of finance. The increase in assistance will make it possible for these companies to implement R&amp;D programs immediately and will help preserve and further develop the R&amp;D infrastructure in Israel in readiness for future growth.</p>
	5	Tax revenues in January totaled NIS 14.3 billion which represented a 16.4 percent decrease from the previous January.	
	23	The Bank of Israel interest rate for March is lowered	The Bank of Israel interest rate for March 2009 was lowered by 0.25 percent to 0.75 percent.
	24	Stricter regulation of financial markets	The leaders of the EU agreed on a seven-point program to tighten the regulation of financial markets, hedge funds and credit rating companies. Among the points: imposing sanctions on tax shelters and increased capital requirements for banks.
	26	Bank of Israel helps the large borrowers in the economy	The Supervisor of the Banks at the Bank of Israel has come to the rescue of large borrowers in the economy and it is his intention to assist them in obtaining additional credit. A letter from the Supervisor of the Banks, Roni Hezkiyahu, stated that the banks can accept the bonds of foreign countries, if they are rated by the leading rating companies as AA, as collateral for loans. This step will enable borrowers to receive credit of up to 85 percent of the bank's shareholder equity.
	27	Reform of financial regulation in the US	US President Barak Obama has called for a comprehensive reform of the regulations that apply to Wall Street in order to avoid another financial crisis.
March 2009	1	Additional assistance to the financial giant Citibank	The US government again came to the rescue of the financial giant Citibank. This is the third time that the government has taken a dramatic step to assist the company. The government has increased its holdings in the company from 8 percent of the preferred shares to 36 percent of the common shares by means of converting preferred shares into common shares. In reaction, Citibank shares plummeted by 39 percent.
	1	Increase in the rate of unemployment in the euro bloc	The rate of unemployment in the euro bloc jumped to 8.2 percent in January, its highest level in two years.
	1	Wall Street falls to its lowest level in 12 years	The fall in prices in February put the indexes in the US back to their 1996 levels.

BANK OF ISRAEL RESEARCH DEPARTMENT

March 2009	5	The European Central Bank (ECB) reduced its interest rate by 0.5 percent to 1.5 percent, the lowest rate it has ever been at	
	10	Elections for the Knesset	
	13	Lowered rating for Leumi, Discount and First International	The Moody's international rating agency lowered the ratings of Bank Leumi, Bank Discount and the First International Bank based on concern about the continuing deterioration of the Israeli economy. The forecast for Bank Hapoalim's credit rating was reduced from "stable" to "negative".
	16	A new monetary instrument for the Bank of Israel	The Bank of Israel has activated an additional monetary instrument. It will operate in the open market to influence government bonds of various types and periods-to-maturity in the secondary market. The goal of these operations will be to increase the liquidity available to financial institutions, businesses and households and to increase the efficacy of monetary policy.  The Bank of Israel is of the opinion that these activities will also increase the impact of the Bank of Israel interest rate on longer-term interest rates.
	16	The members of the Bank of Israel Executive decide to reduce their salaries by 5 percent in view of the economic crisis	The Governor of the Bank of Israel and the 12 members of the Bank's Executive decided, on their own initiative, to reduce their salaries by 5 percent for a period of one year in view of the economic crisis. The reduction will go into effect starting with the March salary.  The decision was approved unanimously after the Governor of the Bank of Israel, Stanley Fischer, and the Director of the Bank, Hezi Kalo, formulated the proposal and presented it to the members of Bank's Executive.
	17	Improvement in benefits for the unemployed	An agreement was signed between the National Insurance Institute and the Ministry of Finance which widens the safety net with respect to unemployment benefits. This followed the sharp increase in the number of unemployed.  One of the main components of the plan, which was approved by the signing of the agreement, is the addition of a shortened qualification period. Thus, an unemployed individual who has worked for 9 months out the previous 18 will be eligible for unemployment benefits, a change that will increase the number of unemployed. It was decided that the agreement would go into effect when the rate of unemployment in the economy reaches 7.5 percent.
	18	Creation of new water corporations	The Minister of Finance, Roni Bar On, gave approval for 40 local authorities to establish some 17 new water and sewage corporations that will serve about 1.5 million additional consumers, as well as approving the addition of four local authorities to three existing corporations. This move is part of a reform of the municipal water system that is meant to improve service to the consumer and the channeling of water revenues into investments in the water system.

March 2009	19	The Ministry of Finance has completed its largest-ever issue of bonds abroad	The Ministry of Finance has successfully completed the issue of \$1.5 billion in dollar-denominated government bonds. The bonds were issued in a “global” format with a maturity of 10 years and a yield-to-maturity of 5.19 percent (which represents a 2.625 percent premium over the yield on 10-year US Treasury Bonds). The bond issue followed a two-day simultaneous road show in the US and Europe by three teams led by the Accountant General, Shuki Oren, the Assistant Accountant General, Ami Landau, and the representative of the Ministry of Finance in New York, Tsvi Halamish.
	23	The Bank of Israel publishes its full financial statements for 2008	
	23	The Bank of Israel reduces its rate of interest for April	The Bank of Israel interest rate for April 2009 was lowered by 0.25 percent to 0.5 percent.
	29	Implementation of the Acceleration Plan	The Minister of Finance, Roni Bar On, approved the decision of the Board of the Israel Lands Administration (no. 1184) according to which a permit fee will not be charged in the periphery (areas of Regional Priority A and the Confrontation Line) for a period of three years for building additions, changes in land zoning and the splitting of a lot. In the rest of the country, a permit fee will not be charged for a period of two years for building additions (when the lot does not exceed 240 square meters). This move is part of the implementation of the Acceleration Plan for the real estate market which was formulated by the Ministry of Finance, the Ministry of Housing and the Israel Lands Administration.
	30	An additional weakening of the euro bloc economy	There has been a worsening of the economic crisis in Europe. The euro bloc economy has weakened further since January, according to the President of the European Central Bank (ECB), Jeanne-Claude Trichet. At the same time, Ireland lost its perfect credit rating (AAA) for the first time since 2001 and Spain became the first country in the euro bloc to experience an annual decrease in its CPI.  S&P also lowered the rating of Hungary’s debt. Hungary became the first country in the EU to ask for assistance from the IMF.
April 2009	6	A new package of incentives in Russia	The Russian Prime Minister, Vladimir Putin, announced that his government is planning a package of incentives totaling 3 trillion rubles (equivalent to \$9 billion) in order to rescue Russia from the crisis.
	7	A jump in unemployment	New data from the National Insurance Institute show that unemployment in Israel has reached 7.5%. In March, 83,300 Israelis requested unemployment benefits, which represent a 10 percent increase relative to February.
	7	Approval of a two-year budget	A proposal to change the Basic Laws so that the State budget would be approved for a period of two years passed first reading with 64 votes in favor and 24 against.
	7	The Bank of Israel’s foreign exchange reserves	The foreign exchange reserves reached more than NIS 44 billion, the level which the Bank of Israel had sought to achieve. Nonetheless, the Bank of Israel announced that it will continue to purchase dollars at a daily rate of \$100 million.

BANK OF ISRAEL RESEARCH DEPARTMENT

April 2009	12	A new package of incentives in Japan	The Japanese government unveiled a package of economic incentives in the amount of at least \$100 billion. This package is in addition to the previous package of \$119 billion. Among the new measures to be taken are a safety net for workers without tenure, steps to support corporate financing and increased expenditure on solar electricity systems.
	19	The 2008 Bank of Israel Annual Report is published	
	26	Export Insurance guarantees	The government plan to provide export guarantees in the amount of NIS 6 billion is targeted almost entirely at insuring export transactions. Of this amount, NIS 4 billion is expected to go to secondary insurance on short-term exports and NIS 2 billion on long-term exports.
	27	The Bank of Israel interest rate for May 2009 is left unchanged.	
May 2009		Government budget for 2009–10	<ul style="list-style-type: none"> <li>• On May 21<sup>st</sup>, the excise tax on gasoline was raised by 30 agorot. The additional tax revenue will amount to about one billion shekels per year.</li> <li>• On April 30<sup>th</sup>, the sales tax on cigarettes was raised from 62 percent to 63 percent, and the lump-sum tax was raised from 99 agorot to NIS 1.25. The minimum tax was raised to NIS 8. The expected additional tax revenues will amount to about NIS 700 million per year. The effect on the price to the consumer is expected to be about two shekels per pack.</li> </ul> <p>As part of the two-year budget proposal for 2009 and 2010, it has been proposed that VAT be raised by one percent and that it be applied to fruit and vegetables. These measures are meant to increase government revenues and reduce the deficit, which is expected to reach about NIS 90 billion during these two years.</p>

