

Recent Economic Developments 132

September - December 2011

Bank of Israel
Research
Department

Jerusalem, February 2012

© **Bank of Israel**

Passages may be cited provided source is specified

Catalogue # 601600

<http://www.bankisrael.gov.il>

Printed in Israel by Ayalon Press, Jerusalem

Part 1: Review of Recent Economic Developments, September to December 2011

Main developments

During the period September–December 2011, the rate of growth in business activity in Israel continued to moderate. It appears therefore that the economy has passed the peak of the business cycle, following 18 months of continuous growth, leading to a decline in the unemployment rate. The GDP grew at a rate of 3.6 percent during the third quarter of 2011, which is consistent with the long-term growth rate. Leading the growth during the third quarter was investment in fixed assets, while private consumption expenditure grew at a moderate rate and exports (excluding diamonds and start-up companies) grew only slightly. The negative impact on Israeli exports is a direct result of the crisis in the euro bloc and the slowdown in global growth, which are apparently the main factors weighing on Israel's economy. An additional indicator of the slowdown in growth of the Israeli economy is the sharp drop in imports, primarily consumer goods and raw materials.

Based on the narrowing of the output gap and the range of data on the labor market (the decline in the unemployment rate to a historic low, the accelerated increase in the wage per employee post and the moderation in the rate of employment and the rate of growth in employee posts), it appears that the economy reached the vicinity of full employment during the first half of the year. Slower growth in the third quarter leveled off the unemployment rate, and will likely reduce the need for new investment. Thus, without an increase in other uses, the slowdown in growth will continue.

The moderation in the rate of growth led to a shortfall in the collection of taxes, particularly indirect taxes. In 2011 as a whole, total local revenues (not including credit) were lower by about NIS 5.7 billion than the budget's forecast, while the expenditure budget was almost fully utilized. As a result, the overall deficit excluding credit totaled 3.3 percent of GDP, in comparison to the planned deficit of 2.9 percent of GDP.

In contrast to the slowdown in growth, there were a number of positive trends in 2011: the expansion of high-tech manufacturing production and exports; the return of indirect tax collection back up to its level in January–April, following the sharp decline in the previous period; and the greater willingness of the public to purchase consumer durable goods and homes.

Following the decision in principal to adopt the recommendations of the Trajtenberg Committee, the government approved additions to the budget at the beginning of January in order to fund the recommendations, as well other decisions taken by the government and the Knesset since the approval of the biennial budget. These include the wage agreement reached with the high school teachers union and with the physicians, and the raising of the minimum wage. In addition, the government decided to increase the 2012 defense budget by NIS 3.5 billion. Overall, the decisions made indicate a net increase in government expenditure of NIS 6.4 billion relative to the original budget. This is in addition to various decisions that have already been made or are being discussed, which are also expected to raise government expenditure. Despite the increase in total planned expenditure, there is at the moment no intention of exceeding the expenditure ceiling of the 2012 budget.

The rate of inflation, which had started to level off in March, continued to do so during this period and totaled 2.2 percent for 2011 as a whole. This is close to the center of the inflation target range (1–3 percent) while the expectations of the inflation rate over the next 12 months, as derived from the capital market, fell to even below the midpoint of the target range. Contributing to the fall in the CPI were the prices of food, education, culture and entertainment and transportation and communication. The housing component declined during the period, partly seasonally-related, and a decline began in the prices of resident-owned housing (which are not part of the CPI). These developments made it easier for the Bank of Israel to reduce the interest rate during the period by a cumulative 0.5 percentage points, with the goal of supporting real economic activity in light of the adverse effect of the global slowdown on the growth of the domestic market.

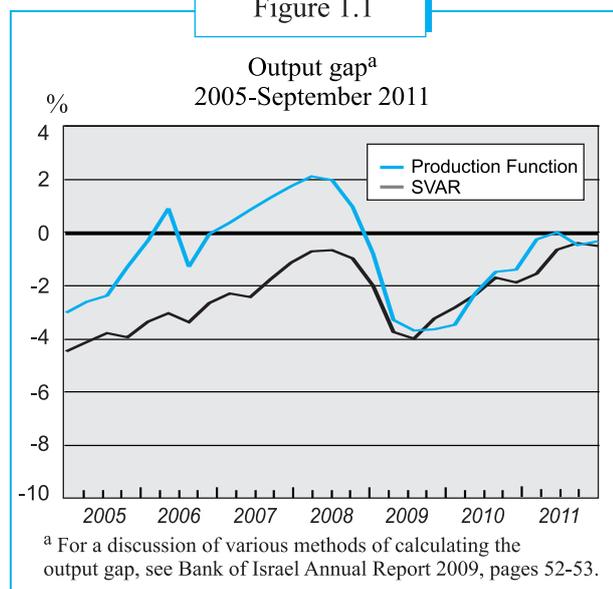
Aggregate real activity¹

National accounts data for the third quarter of 2011 indicate a continued moderation in the economy's growth rate (Table 1.1). GDP grew at a rate of 3.6 percent, implying per-capita growth of 1.7 percent. Based on this growth rate, which is close to the long-term average, and the slower pace of growth since the second quarter of 2011, it appears that the economy has passed the peak of the business cycle following

¹ All the data in this section are seasonally adjusted, and are presented at fixed prices and in annual terms.

a year and a half of persistent rapid growth. Although business sector product growth in the third quarter exceeded its potential, this partly compensated for the low rate of expansion recorded in the previous quarter. Calculation by various methods shows that the output gap has contracted as the result of high growth rates and a low unemployment rate in the previous quarters (Figure 1.1). The business sector output gap, as measured by the production function, decreased from -0.5 to -0.3 percent in the third quarter due to an increase in the number of employed persons in the business sector and in the number of work hours per employee.

Figure 1.1



The slower rate of growth in the third quarter mainly reflects reduced exports of goods and services, while domestic uses—investment, public consumption and private consumption—increased. Despite expectations of an activity downturn as a result of the global recession, investment in fixed assets increased considerably due to higher investment in the principal industries.² Construction investment fell because of a large drop in non-residential construction concurrent with a moderation in housing investment growth to 4.2 percent, following a 15 percent increase in the previous two quarters. Public consumption expenditure rose by 8.0 percent due to a large increase in local defense consumption, which

² The increase resulted from a large growth in investment in machinery and equipment and a decrease in investment in transportation vehicles. These items are usually notable for high volatility, and the decisions regarding the volume of investment may have been taken in the period when the economy was still growing rapidly and the level of production factor utilization was high.

is a particularly volatile item, while civilian consumption expanded at the population growth rate. Private consumption expenditure rose by a moderate 1.8 percent, implying a static level of per-capita consumption, following a decrease in the previous quarter. Current consumption expenditure increased by 2.5 percent while durables consumption expenditure fell by 3.8 percent. Durables consumption fell because of erosion in the public's wealth and the increased pessimism resulting from concern over the implications of the eurozone crisis on the Israeli economy. Nevertheless, both the Globes and the Bank Hapoalim consumer confidence indices show an improvement in the public's willingness to purchase durables in the fourth quarter.

Although total exports fell by 4.5 percent in the third quarter of 2011, exports excluding diamonds and startups rose by 1.6 percent. Decreases were recorded in diamond exports and agricultural exports, as well as in service exports apart from tourism. Non-diamond industrial exports expanded by 3.5 percent, and tourism service exports rose by 3.4 percent following a large decrease in the second quarter. Most of the adverse impact on exports derived from a large 9.7 percent drop in exports to the US, while exports to the European Union increased by 2.4 percent. The decline in exports, which was recorded despite the real depreciation of the shekel, can be attributed to the major impact of a downturn in global demand on Israeli exports. Imports fell by 7.4 percent due to a large decrease in service imports, except for travel abroad, and the level of imports of civilian goods remained unchanged.

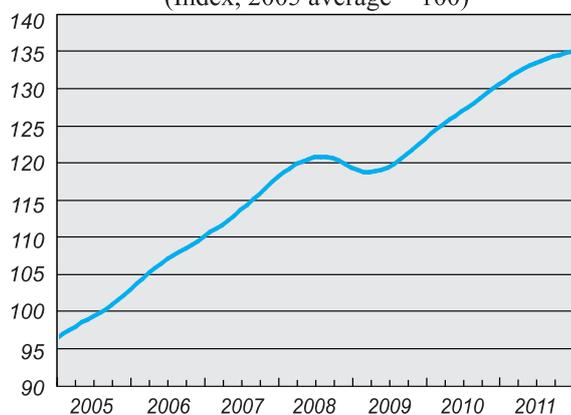
Real activity by industry

The slower pace of expansion in real activity is expressed by a reduction in the rate of increase in the Bank of Israel's Composite Index from an average of 0.4 percent in the first quarter of 2011 to an average of 0.2 percent in the second half of the year (Figure 1.2 and Table 1.2). Data from the Bank of Israel's Companies Survey³ show that business activity continued to expand at a moderate rate in the fourth quarter of 2011. However, according to data from the CBS Business Tendency Survey, a serious downturn was recorded in all branches of the business sector during the period reviewed. Stabilization in the volume of activity is expected in the first quarter of 2012 according to the CBS survey. Companies' reports in the Bank of Israel's Companies Survey reveal a greater degree of pessimism: The leading index shows a high probability of a slowdown in the next quarter, and

³ Publication of the Companies Survey will cease in 2012, and it will be replaced by the monthly Business Tendency Survey published by the Central Bureau of Statistics.

Figure 1.2

The level of economic activity,^a
2005-2011
(Index, 2005 average = 100)



^a The Bank of Israel composite index, including the change in economic activity trend growth.

pessimism is apparent mainly in the manufacturing and the trade and services industries (excluding advanced services).

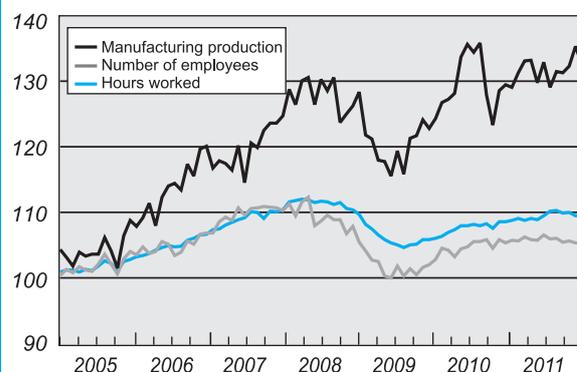
Manufacturing production indices indicate a renewed upturn since August, following a period of unchanged activity (Figure 1.3). The upturn was based on a growth in the activity of the hi-tech industries, which began in July, intensified and reached 13 percent annualized (trend data) in September-November. This followed a persistent downturn in those industries since the second half of 2010. The trend among the other technology groups was quite the opposite; a slower pace of expansion in the medium-high technology industries, which had grown strongly since the beginning of the year; and a contraction in the low and the medium-low technology industries (Figure 1.4).

Manufacturing revenue, apart from that of the hi-tech industries, fell in real terms during September-November, mainly because of reduced revenue from export sales. However, the revenue of the hi-tech industries increased due to sales growth to the local market and to a lesser extent, export sales growth.

According to the Labor Force Survey, the labor input in manufacturing rose by a moderate 0.7 percent quarter-on-quarter in the third quarter of 2011. In addition, Manufacturers Association data for the third quarter show a slight decrease in employee recruitment, concurrent with the increasing difficulty of recruiting skilled employees. Manufacturers expect a decrease in personnel levels in the fourth quarter, mainly in the traditional industries. In the electronics industry however, increased employee

Figure 1.3

Manufacturing production, 2005-November 2011
(Index, 2004 average = 100, seasonally adjusted)

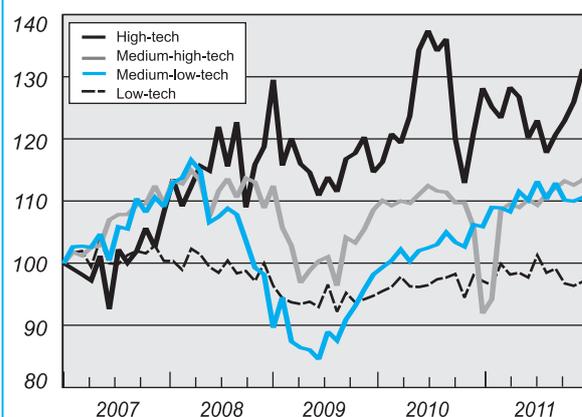


recruitment is expected. The rate of dismissals expected for the fourth quarter of 2011 is similar to that reported prior to the previous recession. The number of employee posts in the traditional and the mixed-traditional industries decreased during September-November, as did the number of work hours in manufacturing except for the hi-tech industries. In addition, the number of job vacancies in manufacturing fell during October-November according to CBS data.

The upsurge in residential construction continued in the third quarter of 2011, when 10.3 thousand housing starts were recorded.⁴ Although the number of starts was 10 percent

Figure 1.4

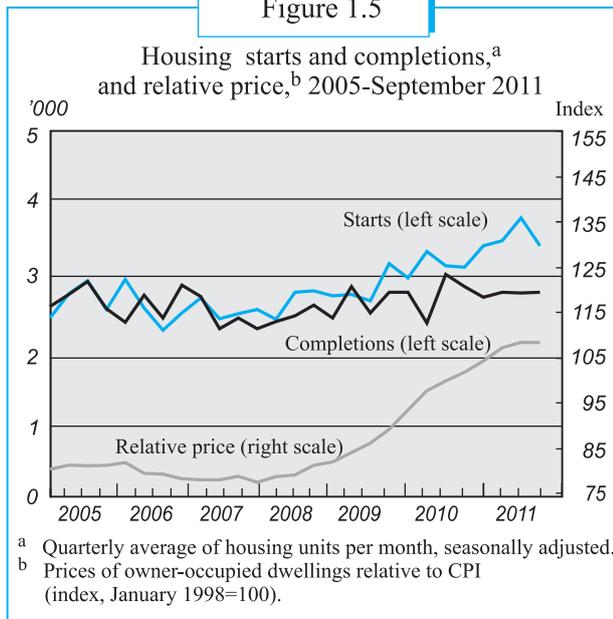
Manufacturing production by technological intensity of industry, 2007-November 2011
(Index, January 2007 = 100, seasonally adjusted)



⁴ Seasonally adjusted data.

less than in the previous quarter, their level was still high compared with previous years (Figure 1.5). This downward trend may likely have continued in the fourth quarter. This is because the number of building permits granted fell in September and October and according to the Companies Survey, a slight decrease in building starts was recorded in the fourth quarter.

Figure 1.5



Building completions remained unchanged because of the relatively long construction time resulting from the large proportion of high-density construction. For this reason, the number of apartments under active construction increased to 77.5 thousand at the end of the third quarter, a level not seen since 2001. The area of active residential construction in 2011 was 20 percent greater than in 2001, implying that apartments currently under construction are more spacious on average than those built a decade ago. Against the background of these developments, the number of employee posts in the construction industry continued to grow and the number of job vacancies in the industry surged to a record level. As result, building workers with various skills climbed to the top of the list of the most sought after workers in the economy and from the beginning of the year, the rate of increase in wages in the construction industry was the highest among the principal industries.

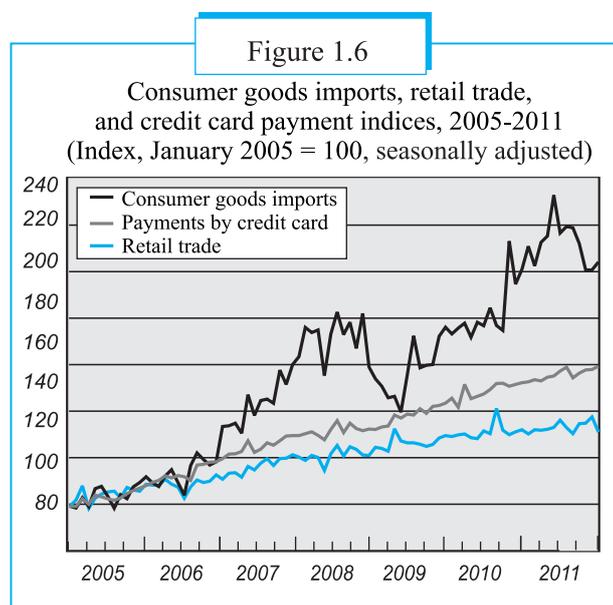
The decrease in the number of new apartments sold continued during the months September-November, and the monthly average dipped by 36 percent year-on-year. Despite this, the revenue of the construction industry was stable according to CBS data. The increase in building starts and the decrease

in sales of new apartments led to a growth in the stock of unsold apartments compared with the previous years. The number of months' supply (the period in which the stock of apartments will be adequate to fulfill demand, based on the rate of sales in the last three months) soared to 12.5 months compared with only 7 months in the same period of 2010. Although the uptake of new mortgage loans granted during the period reviewed was less than in the previous months, it increased slightly in November and December. In a situation of falling sales, the credit problem becomes the main problem for the construction industry. Companies Survey data for the fourth quarter show that financing difficulties have increased even among large and medium-sized construction companies. (Small companies reported this before the third quarter). These financing difficulties are a result of the increased risk in the construction industry due to its increased leverage in recent years, as well as the increased exposure of commercial banks to credit risks in this industry.

Despite the signs of a decline in the demand for housing during the period reviewed, the Ministry of Construction and Housing placed land for 17,300 housing units on the market, part of them in a price arrangement for home-buyers and part of them for the purpose of long-term rental.

A change is apparent in potential home-buyers' subjective assessment regarding the price of the apartments which they are seeking: according to the Globes biannual survey, the average price which Israelis are willing to pay for an apartment has fallen to less than a million shekels for the first time in two years, and reverted to its level of 2009—a decrease of 22 percent compared with the previous survey. The public are therefore prepared to compromise on smaller and less expensive apartments. The demand for apartments of 3 to 4 rooms has indeed increased, while the demand for apartments of 5 rooms and more has fallen heavily. However, signs of increased readiness to purchase an apartment have recently become apparent. Israelis are again showing an interest in apartment fairs, and the number of internet searches for apartments for sale on sites designated for this purpose has risen. According to the Globes consumer confidence index, the readiness to buy a new or second-hand apartment increased during the months September-December. In December, 9.9 percent of all respondents in the Globes consumer confidence survey declared such an intention, compared with a low of 7.1 percent in July and a high of 10.3 percent in March 2011. According to data from the Geocartography Institute's most recent survey, 68 percent of Israelis wish to own their own apartment, even if they are promised an apartment with a fixed rent for 10 years. According to the Mishkan Index of apartment buyers' position, this position improved consistently during the months September-December. This is a result of the fall

in apartment prices, the reduction in the interest rate on mortgage loans, the increase in the average wage in the economy and the low unemployment rate.

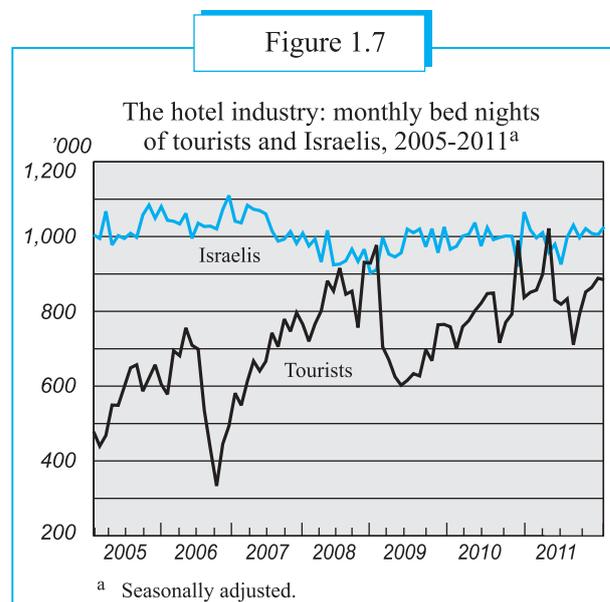


The revenue of the commerce sector, according to VAT data, fell during September-November due to the downturn in wholesale trade. However, the growth in retail activity continued and actually increased (Figure 1.6). A similar pattern is apparent from data on the revenue of the marketing chains and their food sales, which showed a rapid improvement during September-December, and from the continued rise in the credit card purchases index. The decrease in wholesale trade revenue may reflect expectations of an activity slowdown. Such expectations are indeed expressed in the Bank of Israel's Companies Survey. In addition, the number of vacant positions in the trade industry decreased year-on-year during September-December.

Despite the recession and the geopolitical uncertainty in the Middle East region, the number of tourists' bed nights in hotels increased considerably during the period reviewed, matching the increase in tourist arrivals to Israel (Figure 1.7). The number of bed nights by Israelis also rose. As a result, the total number of overnight stays increased and with it, the revenue of the accommodation and food industry. Employment in that industry rose in the third quarter, and the average number of working hours increased notably. However, the number of vacant positions in the industry fell by 15 percent year-on-year in the period reviewed.

Revenue in the business services industry was stable. The growth in employment in the industry was moderate, the average employee post size expanded slightly but the

number of vacant positions was high. Although exports of business services during September-November were particularly volatile, on a monthly average basis their level was similar to that of the months May-August.



The labor market

The main indicators in the labor market have stabilized while the average wage per employee post has risen and the output gap has narrowed. These results provide support for the view that the economy was in the vicinity of full employment during the first half of 2011. The slowdown in the rate of growth is expected to result in a dip in employment and an increase in the unemployment rate.

The data from the Labor Force Survey for the third quarter indicate that most of the labor market parameters have leveled off. Thus, the rate of unemployment remained at its historically low level⁵ and the rates of participation and employment did not change by more than one-tenth of one percentage point (Table 1.3 and Figure 1.8). The number of employed Israelis grew by 9.3 thousand, which occurred entirely in the business sector. During the third quarter, full time employment grew while part time employment declined; thus, the average number of weekly work hours per employee increased and the number of employees working

⁵ Essentially, the rate of unemployment recorded an increase during the third quarter from 5.54 to 5.56 percent though it was not statistically significant. However, the monthly trend of the unemployment rate continued to decline during September and October as well.

part time involuntarily decreased. In addition, the number of non-Israeli employees grew during this quarter.

Figure 1.8

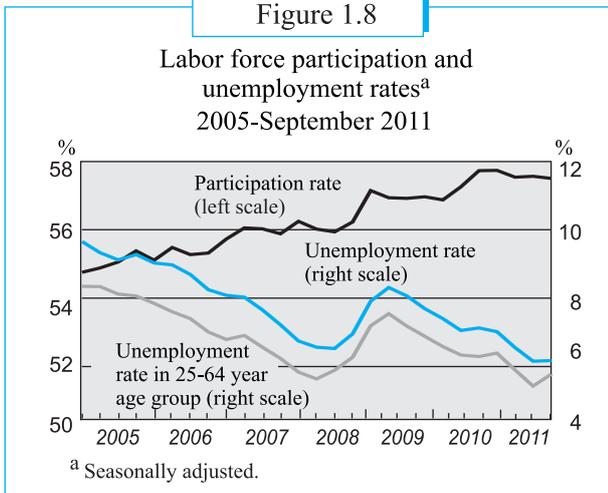
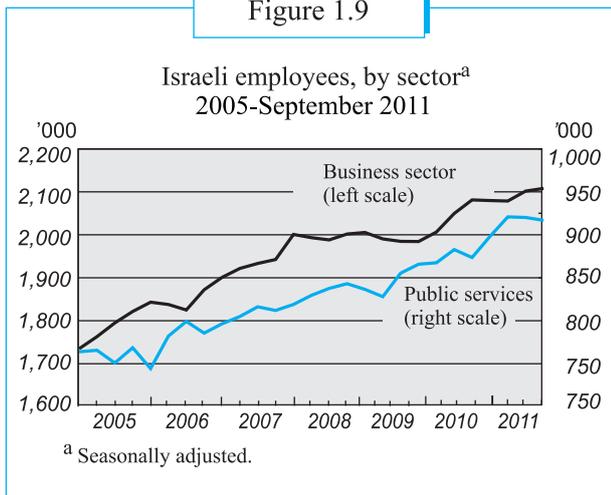


Figure 1.9

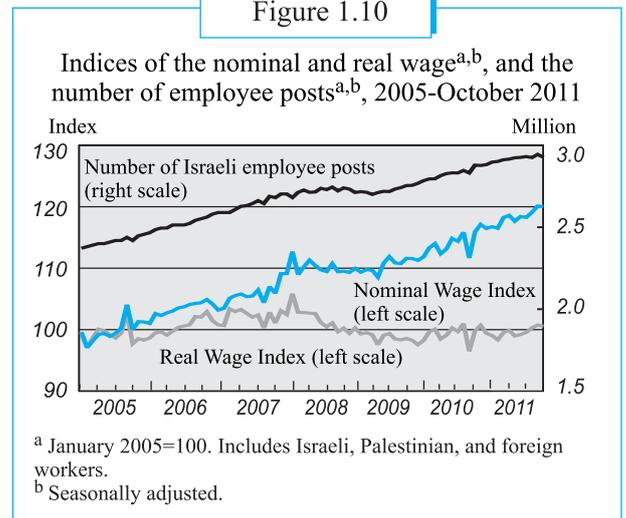


The number of employee posts filled by Israeli workers in the construction, banking and business service industries, as well as in public services, continued to expand at a moderate rate during the months of September and October while a decline began in other industries. The average nominal wage of Israeli workers per employee post continued along an uptrend in most industries, which became more pronounced starting in July. The increase in nominal wages was reflected in an increase in real wages due to the slower rate of inflation. In this situation, one would expect a corresponding increase in the cost of labor per unit of output, together with the creation of inflationary pressures; however, during the third quarter of 2011, the cost of labor continued to decline, a trend that is partly explained by the increase in

labor productivity. Two additional factors can explain the decline in labor cost per unit of output despite the rise in the wage per employee post: first, the real wage is calculated in relation to the increase in the CPI while the real cost of labor per unit of output is calculated in relation to the index of business output prices; and second, the shift from part-time to fulltime positions is manifested in an increase in the wage per employee post,⁶ even if the wage per hour of work remains unchanged, which does not affect the cost of labor per unit of output.

The rate of unemployment did not rise during October and November according to the monthly trend data and the average number of new unemployed during the period being reviewed, according to the figures of the Employment Service, was similar to its level since the beginning of the year. However, the number of first-time applications for unemployment benefits showed a noticeable upward trend and various labor market indicators led to the expectation of an increase in the unemployment rate. The Employers Survey carried out by the Ministry of Industry, Trade and Labor points to a decline of about 14 percent in the number of vacant positions in the business sector already in the third quarter. Since according to the data of the Job Vacancies Survey carried out by the Central Bureau of Statistics the number of job vacancies fell in most industries of the business sector during the period being reviewed, it can be assumed that this is not a result of a decline in the demand for labor in occupations where demand rose during the period of the High Holidays⁷ but rather is a result of

Figure 1.10

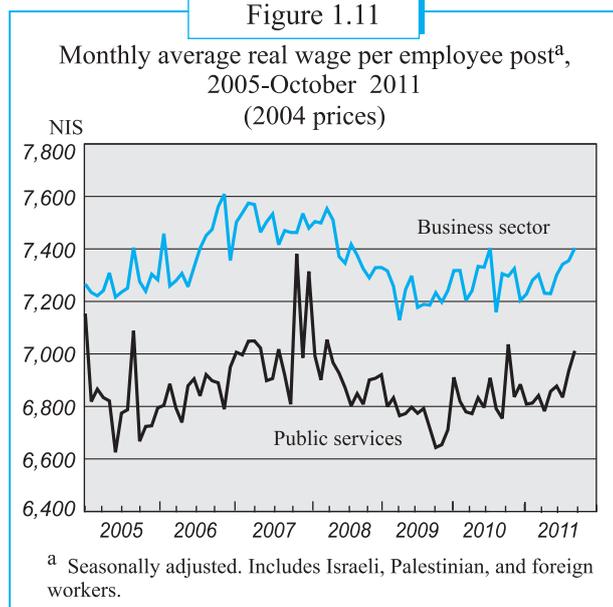


⁶ The number of employee posts does not differentiate between part-time and fulltime positions.

⁷ The time series on job vacancies published by the Central Bureau of Statistics is not seasonally adjusted since it is relatively short (the Survey began in May 2009).

a general slowdown in business activity. In the Survey of Companies, commercial companies reported a decline in number of employees during the third quarter of 2011 and the component of employment in the Purchasing Managers Index has been characterized by a contraction trend since August. According to the Business Tendency Survey carried out by the Central Bureau of Statistics, a moderate decline is expected in employment in all industries in the business sector during the first quarter of 2012, except for the business services and construction industries where employment is expected to remain unchanged.⁸

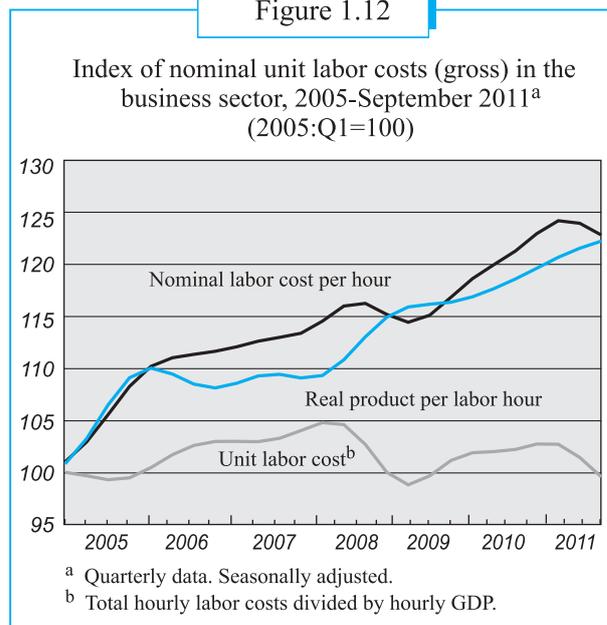
Figure 1.11



During the period being reviewed, there were a large number of labor disputes. At the beginning of November, the Histadrut declared a general strike to improve the conditions of subcontracted workers; however, the Labor Court limited the strike to only two hours. In February 2012, a general strike took place for several days, ending with an agreement signed between the Histadrut and the Ministry of Finance. According to the agreement, the terms of employment of subcontracted workers in cleaning and security services were improved. Concerning subcontracted workers in core occupations (so-called “shoulder to shoulder” workers) it was agreed to require employers to absorb these workers in direct employment after nine months of working, dependent on the discussion of a special committee.

⁸ Within business services, the companies surveyed expect continued expansion in employment in banking and a significant decline in transportation and communication.

Figure 1.12



At the beginning of December, the dispute with the interns, which had continued since the signing of a collective bargaining agreement between the Israel Medical Association and the employers at the end of August (following a five month labor dispute) came to an end. The agreement included a significant increase in the wages of interns who work in the periphery and in specializations where doctors are in short supply, an increase in positions and the limiting of hours on call per month. The rejection of the agreement by the interns created a precedent in labor relations, which included the refusal of a group of workers to accept an agreement signed by their union,⁹ the creation of an alternative union (“Arbel”) and the introduction of changes in an already-signed agreement (the addition of a number of benefits for interns, including a grant of NIS 60 thousand in two payments for every intern during the period of internship and the decision to examine the agreement, which was signed for a period of 9 years, in mid-period, i.e., January 2015).

In mid-December, a strike began among the junior teaching staff in most of the universities. The strike was deferred for a limited period after budget understandings totaling NIS 40 million were reached between the junior staff and the representatives of the universities.

At the end of December, the Knesset approved the second and third readings of proposed legislation that would freeze

⁹ In the labor relations system in Israel, whenever there is a representative union, the wage agreement is signed between it and the employer and not directly between the worker and the employer.

the age of retirement for women for the next five years. This law cancels the automatic raising of the age of retirement for women from 62 to 64, which was meant to go into effect in 2012 according to the Age of Retirement Law, 5764-2004. This went against the recommendations of the Public Committee for Examining the Age of Retirement for Women (the Nisan Committee) to raise the age of retirement for women to 64 and to raise it even further to the retirement age for men (67) by 2026.

The government

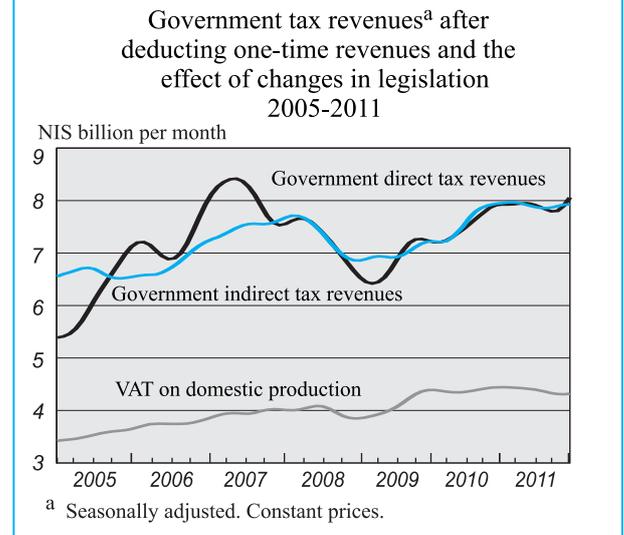
The State's tax revenues (seasonally adjusted and in constant prices) rose during the period being reviewed by about 4 percent relative to the previous period, though they were lower by about NIS 2 billion than the seasonal path according to the forecast of revenues in the budget. The collection of direct taxes rose by about 1 percent and that of indirect taxes by about 7 percent. The sharp rise in the collection of indirect taxes (primarily VAT) is essentially a correction following the decline in the previous period, which apparently was the result of the drop in private consumption. In 2011 as a whole, local revenues (not including credit) totaled about NIS 229 billion, which is about NIS 5.7 billion less than forecasted in the budget. Of this, about NIS 2.2 billion was the result of undercollection of taxes, which consisted of NIS 1.5 billion in undercollection of indirect taxes (of which about NIS 1 billion was due to the cancelation of the increase in the fuel tax) and about NIS 0.5 billion in undercollection of direct taxes.

Domestic expenditure (not including credit) was about 1 percent (about NIS 0.7 billion) higher than the seasonal path which is consistent with full utilization of the budget. This is due to the increase in expenditure in December, which was a result of the accelerated approval of changes in the budget and the bringing forward of expenditure. The rate of utilization of the 2011 budget was 99 percent of the original budget.

The domestic deficit (not including credit) was about NIS 2.7 billion higher than the seasonal path consistent with the budget forecast during the period being reviewed, which was entirely due to the undercollection of taxes. The overall deficit, excluding the provision of credit, totaled NIS 28.6 billion in 2011, which represents 3.3 percent of GDP and was higher than planned by about NIS 3.5 billion (the planned budget ceiling was equal to 2.9 percent of GDP.)

On December 5th, the Knesset approved the Law for Socioeconomic Change, which contains most of the recommendations regarding taxes contained in the report of the Trajtenberg Committee, apart from those related to

Figure 1.13



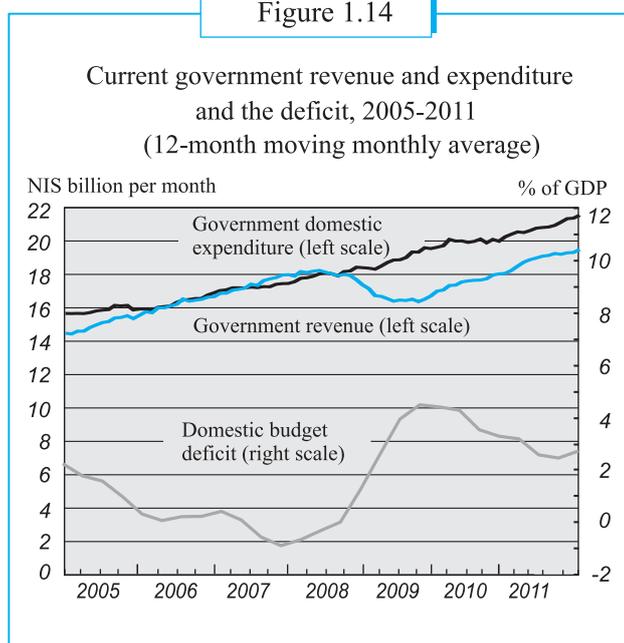
the surtax. The law halted the implementation of the long-term plan to reduce income tax rates on individuals and corporations, which was meant to continue until 2016. Instead, the rate of taxation on individuals in the highest tax bracket (above NIS 41,830 per month) was raised to 48 percent and the tax rate on corporations was raised to 25 percent.¹⁰ In contrast, according to the decision of the Knesset Finance Committee, and against the recommendations of the Trajtenberg Committee which were approved by the government, the rate of taxation on individuals was reduced for the third tax bracket (between NIS 8,881 and NIS 14,430 per month) from 23 to 21 percent. The rates of the betterment tax and the capital gains tax were raised from 20 to 25 percent (and for major shareholders from 25 to 30 percent). The law introduces a number of significant benefits for working families: fathers will receive two credit points for each child up to the age of three, in addition to the credit points of the mother; an increase in the Earned Income Tax Credit of 50 percent for working mothers and single-parent fathers; bringing forward the lowering of the ceiling on Social Insurance payments;¹¹ and the easing of conditions for Ministry of Construction and Housing loans to eligible individuals (a reduction in the rate of interest by one percentage point). In addition, the Finance Committee cancelled the automatic increase in the fuel tax (on gasoline,

¹⁰ The income tax rate for the highest tax bracket was 45 percent in 2011 and was meant to decline to 44 percent in 2012. The corporate income tax rate was 24 percent and was meant to decline to 23 percent in 2012.

¹¹ The ceiling was raised temporarily during the second half of 2009 from 5 times the average wage to 10 times. The ceiling was meant to return to its former level in 2010 but this was deferred until January 2013.

diesel and coal), which was planned for January 2012. With regard to the cancellation of tariffs on imports, a partial decision was reached which immediately canceled tariffs on goods not produced in Israel and which will gradually reduce tariffs in competitive industries. The government also approved other benefits that would have a lower cost: the reduction of the television levy by 5 percent, a reduction of 5-13 percent in the price of public transportation on lines that connect satellite communities in the periphery to the closest metropolitan center and the raising of the exemption from tariffs on online purchases abroad from only NIS 190 to NIS 1,200.¹² In contrast, purchase taxes on tobacco in bulk and cigars were raised.

Figure 1.14



In mid-December, the government adopted the recommendations related to competition and the cost of living from among the recommendations of the Trajtenberg Committee. Thus, an accelerated approval process for the building of 40 new gas stations¹³ which will be operated by small gasoline companies and cancellation of restricting arrangements with existing gas stations were approved. It was also decided to open the liquefied petroleum gas market to competition and the cement market to competitive imports; and to expand the powers of the Director of the Israel Antitrust Authority. At the beginning of January, the government also approved the application of the Free

Education law to 3-4 year olds, which was also one of the recommendations of the Trajtenberg Committee.

In addition to the discussion of a number of the Trajtenberg Committee's recommendations regarding the housing market and the integration of ultra-Orthodox men in the labor market which have not yet been adopted, the government will be discussing the recommendations of the Committee on Increasing Competitiveness in the Economy, which presented its interim report in September. The main recommendations are as follows: the separation between real and financial holdings which is meant to be implemented within 4 years; changing the structure of ownership in the economy and in particular, dealing with business groups that have a pyramidal structure; strengthening the independence of the board of directors of public companies by increasing the minimum number of external directors; strengthening the rights of minority share holders; and providing additional powers to the Director of the Israel Antitrust Authority.

Following the decision in principal to adopt the recommendations of the Trajtenberg Committee, the government approved the necessary budget increases at the beginning of January in order to implement them. At the same meeting, budget increases were also approved in order to fund additional decisions made by the government and the Knesset since the approval of the two-year budget, including wage agreements with the high school teachers union and the physicians union and the raising of the minimum wage. Apart from this, the government decided to increase the 2012 defense budget by NIS 3.7 billion (and by another NIS 500 million that was conditional on the evacuation of property and its sale by the Israel Land Authority). As part of the financing of these expenditures, it was decided to reduce various other expenditures in the amount of NIS 1.2 billion and to designate the special reserve in the 2012 budget for these expenditures. Overall, the decisions imply a net increase in government expenditures of NIS 6.4 billion relative to the original budget. Such a large net addition to the government's commitments at such an early stage in the year is exceptional in comparison to previous years and this is in addition to various other decisions which have already been made or are under discussion and which are also expected to increase government expenditures.¹⁴

Although the government decision increases total expenditure, no decision was made that the 2012 budget's expenditure ceiling would be exceeded and no such intention

¹² These purchases are exempt from tariffs but not from VAT.

¹³ Currently, it takes between 8 and 16 years to obtain approval to build a gas station.

¹⁴ Since the decision, the Knesset has approved, among others, the law to increase grants to demobilized soldiers which will cost about NIS 100 million in 2012 and the government has approved the reduction of its share in the revenues of the Miphal Hapayis lotteries from 70 to 50 percent.

was discussed. Maintaining the ceiling is highly important since one of the cornerstones of confidence in fiscal policy in Israel is the fact that in recent decades government expenditure has never exceeded the approved budget. (This year, for the first time, the budget was approved for a period of two years, which may explain the difficulty in precisely planning government expenditure at the time the budget was approved.) In order to deal with the shortfall, there will be a need to cut expenditures similar in size to the shortfall. The Ministry of Finance can indeed achieve underutilization to a significant extent and this has been done previously over the past decade; however, this year the level of required underutilization is quite large. Thus, the non-defense budget—if one excludes the least flexible components, i.e. interest payments, pensions to former government workers, transfer payments according to the National Insurance Institute Law and the funding of the “health basket” and wage payments—amounts to about NIS 85 billion and much of this cannot be shifted because of one law or another or because it is impractical. Thus, it is doubtful whether it will

be possible for the Ministry of Finance to avoid a budget overrun only by means of administrative measures.

In view of the scope of the required cuts, a significant backing from the political level is needed to carry out the task. This is true both in order to ensure that budget cuts are indeed carried out and because it is more appropriate that such large shift be scrutinized in accordance with the order of priorities. A transparent discussion of the budget lines that are not expected to be fully utilized and their reallocation already at the beginning of the year will also enable the ministries and budgeted entities to manage themselves more efficiently. Such prioritization is preferable to decisions being made based on how easily a cut can be made. A delay in making these decisions will increase the risk that later in the year the government will be forced to disrupt the implementation of the new programs in order to avoid a budget overrun.

The Effect on the Budget of Government Decisions on January 8, 2012, Changing the Composition of Expenditure (NIS million)

Increases in expenditure:	
Implementation of Trajtenberg proposals	3,275
Other budgetary commitments (teachers, the minimum wage, doctors)	2,200
Total defense budget	3,667
<i>of which:</i> Government decision approving the Gabbai tax proposals	3,450
Across-the-board cut to finance construction of the security fence along border with Egypt	-283
Conditional increase based on structural changes ^a	1,600
Advance from 2013	1,000
Reduction of the basis of the defense budget	-2,100
Total increase in expenditure	9,142
Reductions in expenditure:	
Across-the-board cuts of budgets of government ministries	760
Cuts to various itemst	455
Use of special rserve in the two-year budget	1,500
Total reductions in expenditure	2,715
Total unfinanced increase in expenditure	6,427
Unfinanced increase as percent of GDP	0.7%

^a There is an additional expenditure of NIS 500 million conditional on revenue according to the land release agreement.

Foreign trade

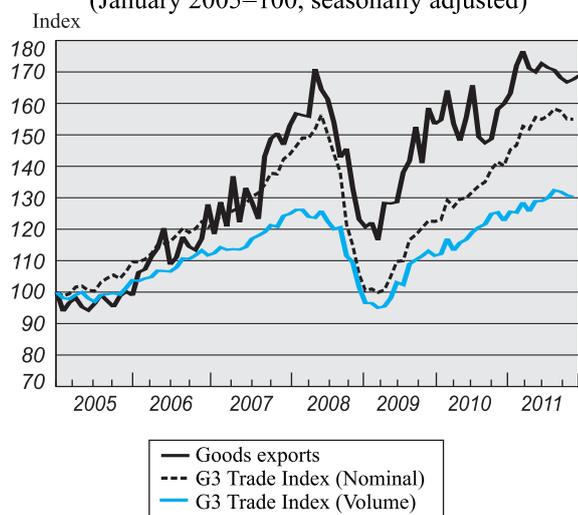
During the period being reviewed, the dollar value of the export of goods (excluding ships, planes and diamonds) fell moderately, in continuation of the static situation that characterized the previous period. The fall in the volume of trade was smaller in size since dollar prices also fell. The effect on Israeli exports has so far been limited relative to the intensity of the financial crisis and the slowdown in global growth; however, the weakness in global trade, which is reflected in the decrease of the G3 Trade Index (the US, Germany and Japan) portends continued stagnation in Israeli exports (see Figure 1.15). The drop in the export of goods occurred entirely in traditional and mixed manufacturing, while the exports of the hi-tech industries grew (Table 1.5). Despite the increase in the American Tech Pulse Index relative to the previous period,¹⁵ exports to the US, which are concentrated in the hi-tech industries, have shrunk significantly. Exports to the EU countries and Asia fell moderately.

There were sharp declines in the import of goods in all categories (Table 1.5 and Figure 1.16). The real decrease was more limited since dollar prices fell during the period. The slowdown in growth and the increase in uncertainty, which is reflected in the pessimism of consumers, were manifested in the relatively sharp drop in the import of consumer goods. The decrease in the import of goods for current consumption was even more pronounced than that of durable goods, which reflected the stability in the import of vehicles. In most industries, there was a decline in the import of raw

¹⁵ Nonetheless, during the period being reviewed the Tech Pulse Index fell continuously.

Figure 1.15

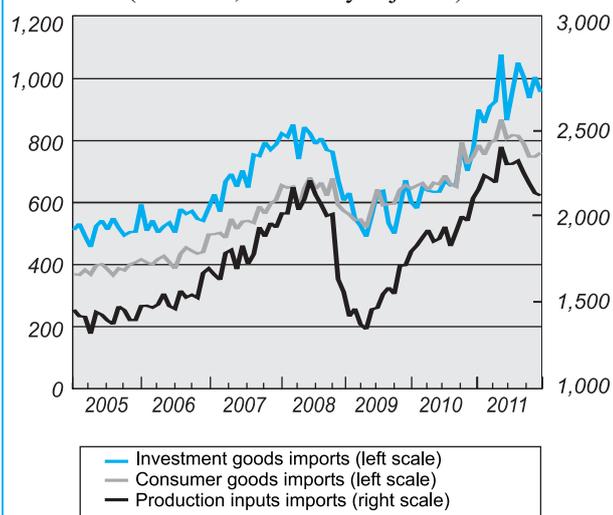
Goods exports^a and the G3 Trade Index^b
2005–November 2011
(January 2005=100, seasonally adjusted)



^a Excluding ships, aircraft, diamonds, and fuel.
^b The G3 Trade Index is a weighted index of trade data of Germany, Japan and the US.

Figure 1.16

Import factors: consumer goods, investment goods^a, and production inputs^b
2005–2011
(\$ million, seasonally adjusted)



^a Excluding ships and aircraft.
^b Excluding diamonds and fuel.

materials. This seems to indicate the intention of producers to reduce output in reaction to the fall in orders, which is indicated in all the relevant surveys (the Business Tendency Survey by the Central Bureau of Statistics, the Companies Survey by the Bank of Israel and the Purchasing Managers Index and the Survey of Expectations in Manufacturing by the Association of Manufacturers).

The trade surplus (excluding ships, planes and diamonds) contracted during the period being reviewed, primarily due to the fall in exports, and its monthly average stood at about \$1.44 billion (seasonally adjusted data).

During the third quarter of 2011, there was an improvement in the current account of the balance of payments which showed a surplus of \$0.6 billion, following an uninterrupted deterioration in the four previous quarters. The main sources of the improvement were the goods account, thanks to a decline in import expenditure (primarily on fuel and diamonds) alongside a lack of change in exports, and the income account, in which there was a decline in the income of foreign residents from their investments in Israel. An analysis of the financial account shows a total halt in the flow of investment that was driven by the interest rate gap. Thus, foreign residents sold their investments in makam as a result of the restrictions imposed by the Bank of Israel on this activity and shifted to government bonds with a term of more than one year. Apart from these restrictions, the change in trend was also the result of fears that the financial crisis would spread and that there will be a deterioration of the security situation in the Middle East, which was reflected in the increase in Israel's CDS spreads.

Inflation and monetary policy

The CPI fell during the period being reviewed by two -tenths of a percent. The seasonally adjusted index rose by half a percent, which is equivalent to an annual increase of 1.5 percent. The moderate rate of inflation in recent months is contributing to the dampened trend in the inflationary environment, which began in March. Inflation in 2011 totaled 2.2 percent, which is close to the center of the target range (1-3 percent).

Contributing to the decrease in the CPI were the prices of food, education, culture and entertainment, transportation and communication while the prices of clothing and footwear and housing maintenance rose. The latter was a result of the increase in the price of electricity, which was due to the interruption of the supply of cheap natural gas from Egypt and the resulting switch to more expensive sources of energy for the production of electricity. The fall in food prices is related primarily to the reduction in the prices of basic food

items by the supermarket chains, which was the result of social pressure and boycotts during the social protests. The fall in communication prices was the result of a series of steps taken by the government to increase competition in the cellular phone industry and the reduced ability of cellular phone companies and cable/satellite television companies to make it difficult for customers to switch companies. The steps taken in the cellular phone market included mobility of phone numbers, the cancellation of fines for leaving a company and the ability to purchase cellular phones in the open market and the entrance of virtual operators. During 2012, two new companies will enter the industry: Mirs and Golan Telecom. The reform introducing free television channels made it possible to watch a number of television channels after making a one-time investment in a digital converter.¹⁶ For more details on the equalization of private consumption prices in Israel to those in the developed countries, see Box 2.2.

The housing component fell by 0.2 percent during the period being reviewed, which was a result of a decline of 1.2 percent during the period October-December. Part of this decline was seasonal and indeed the seasonally adjusted Housing Index fell more moderately. It should be mentioned that the housing component in the CPI made the largest contribution to the changes in inflation during 2011.

A downtrend in the 12-month rate of inflation began in July and gained strength starting in September. During the period being reviewed, the 12-month rate of inflation converged to within the target range (below 3 percent) for the first time since December 2010 (Figure 1.17). Expectations of inflation for the next 12 months, as derived from the capital market, fell during the period being reviewed to even below the center of the target range (i.e. 2 percent) while the average expectation of analysts was slightly above it.

Prices of resident-owned housing (which is not included in the CPI) fell during the period being reviewed and declined by 1.5 percent during September-November 2011 (1.9 percent in real terms). The main factors behind the drop in housing prices include steps taken by the government to increase the supply of housing, restrictions imposed by the Bank of Israel on the demand side (limiting the variable interest rate component of housing loans to one-third of the total loan and limits on the rate of leveraging, which increased the interest on mortgages) and also the expectation of a decline in housing prices, which was the result of the atmosphere created by the tent protests. The ratio of housing prices to rent decreased during the months September-October, which reflected a combination of the decline in housing prices and

Figure 1.17

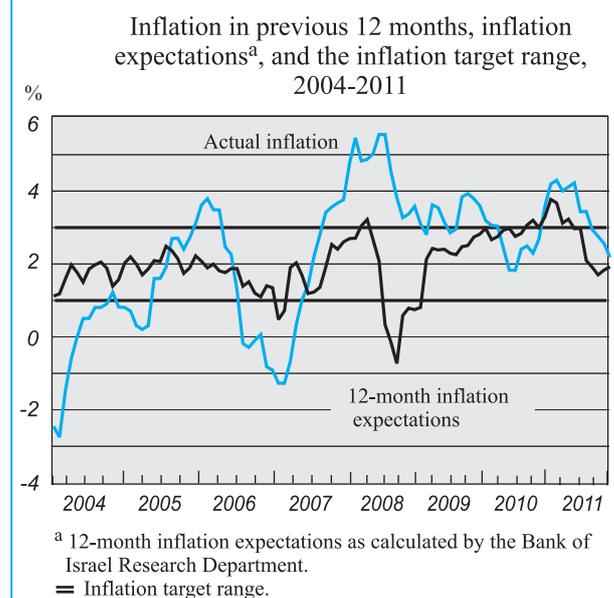
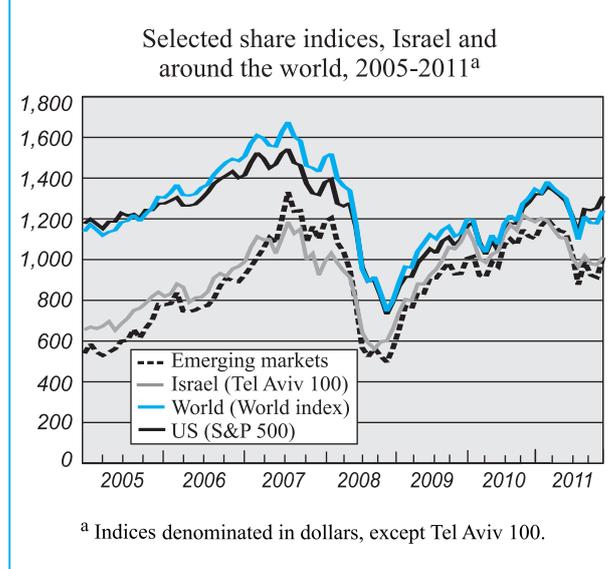


Figure 1.18



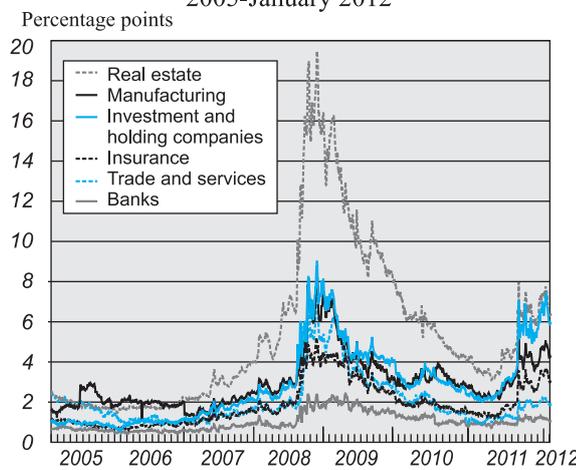
an increase in rent for contracts coming up for renewal. The price of an average house in terms of the monthly wage is still near record highs.

In October, the Monetary Committee began to operate at the Bank of Israel, in accordance with the new Bank of Israel Law, which was passed in March 2010. The Committee took

¹⁶ In 2012, the number of free channels will grow from 5 to 18.

Figure 1.19

The gap between the weighted average yield of CPI-indexed corporate bonds and *Galil* government bonds, by industry, 2005-January 2012



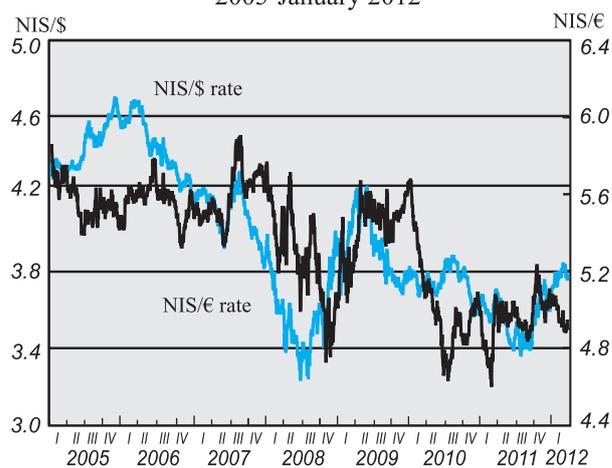
part in the interest rate decisions starting from November.¹⁷ The period being reviewed was characterized by a change in the direction of monetary policy. Thus, while during the first half of the year, the Bank of Israel maintained an upward path for the rate of interest and left it unchanged during the first three months of the second half, the Bank started to lower the interest rate towards the end of the year. The interest rate was lowered twice—in October and December—each time by one quarter of a percent, such that the interest rate stood at 2.75 percent in December. The main considerations in the decision to lower the interest rate were to minimize the negative effect of the slowdown in global activity on the Israeli economy and to support growth. The dampening of the inflationary environment and the moderate increase, and even the start of a decline, in housing prices (one of the main reasons for raising the interest rate) made it possible for the Bank of Israel to return to an expansionary monetary policy.

The debt crisis in Europe, the slowdown in global activity and the increase in uncertainty (stemming from the fear that the financial crisis would spread to other European countries) led to volatility in global financial markets and increased risk. The share index in Israel fell by 9 percent during the period being reviewed. Although this was larger than the decline in leading countries outside the euro bloc

¹⁷ The Monetary Committee is composed of three representatives from within the Bank of Israel, including the Governor and the Deputy Governor, and three external representatives who are appointed by the government. The Committee decides on monetary policy by voting, as opposed to the previous situation in which the Governor alone made the interest rate decision.

Figure 1.20

The nominal NIS/\$ and NIS/€ exchange rates, 2005-January 2012

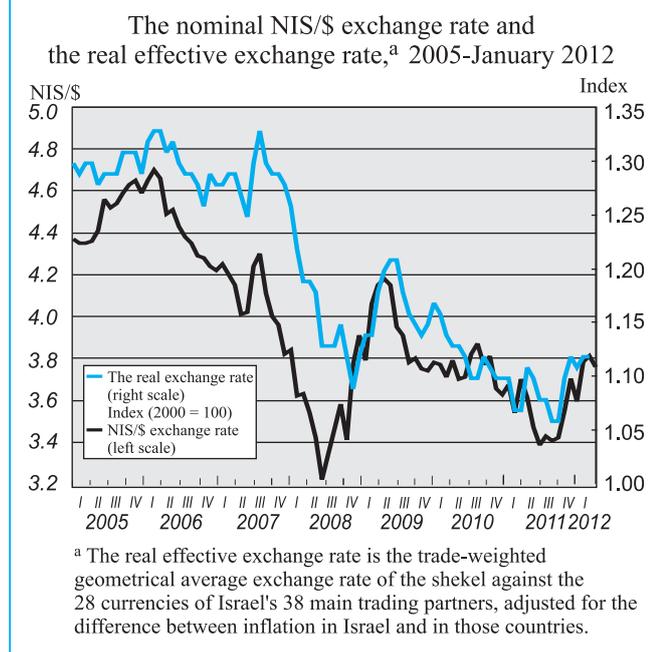


(Japan, Britain and the US, where the S&P 500 rose during the period being reviewed), it was similar to the declines in the emerging markets. Thus, it does not appear to reflect an increase in local risk. Although the value of the public's financial asset portfolio grew by 0.19 percent relative to August, when share indexes fell sharply, it was lower than at the beginning of the year by about 2.5 percent. The entire decline was a result of the sharp fall in the value of shares traded in Israel.

The nominal yield curve shifted downward during the period being reviewed for short and intermediate terms while it shifted upward somewhat for longer terms. The real yield curve shifted in a similar manner. The fall in short-term yields in recent months can be explained by the lowering of the Bank of Israel rate of interest. The increase in long-term yields was apparently the result of an increase in the level of risk in financial markets, as the crisis in the euro bloc worsened.

The yield spreads between corporate and government bonds shot up at the beginning of August and since then have remained high (Figure 1.19). Spreads widened in particular for the bonds of unrated companies (which are more risky) and at the end of the year they stood at 10 percentage points.

Figure 1.21



An increase in yield spreads reflects an increase in the risk premium required on corporate bonds, which implies that the market expects a slowdown in real domestic activity. The net inflow into mutual funds was negative during the period being reviewed. Redemptions were mainly in the financial funds and in those specializing in bonds, both corporate and government, while shekel funds had positive inflows.

The direction of the shekel/dollar exchange rate changed in August 2011 from a trend of appreciation (which had forced the Bank of Israel to intervene in the foreign currency market) to a trend of depreciation (Figure 1.20). The trend became more pronounced during the period being reviewed, and the Bank of Israel did not intervene in the foreign currency market during the period reviewed. The weakening of the shekel against the dollar was primarily the result of the strengthening of the dollar worldwide, as the economic situation in the US improved. This was in contrast to the deteriorating situation of the financial system and real economic activity in Europe. Also contributing to the depreciation were the appearance of a deficit in the current surplus of Israel's balance of payments, the imposition of a tax on the short-term investments¹⁸ of foreign residents (with the goal of reducing speculative activity) and the

¹⁸ During the second half of the year, the exemption enjoyed previously by foreign residents on makam and short-term government bonds was cancelled. This step reduced the effective interest rate gap between Israel and abroad and reduced the profitability of investment for foreign residents.

increased political risk in the region. During the period being reviewed, the real effective exchange rate also depreciated (Figure 1.21). In contrast, the shekel appreciated against the euro, as uncertainty increased regarding the future of the euro bloc, which became increasingly mired in recession.

The global economy

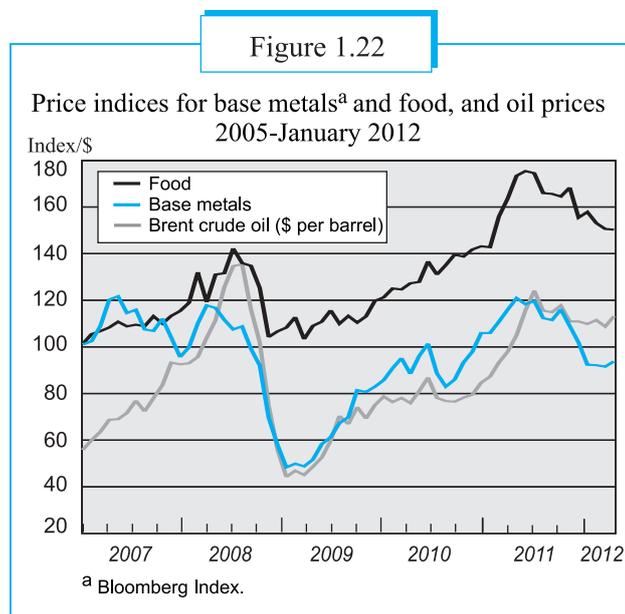
During the period being reviewed, the debt crisis in the euro bloc countries worsened and continued to threaten global growth. Despite a number of recent confidence-building measures, the debt crisis in Europe is still in full swing and even if a solution is found, many economies will have to deal with negative growth as a result of the contractionary policies required in order to reduce their public debt. The OECD Composite Leading Indicators point to a continuation of the slowdown in economic activity in most OECD countries and in other countries as well. Furthermore, for the euro bloc in general and including its large economies (Germany, France and Italy), as well as Britain, Brazil and India, the Index indicates that economic activity is below its long-term trend. The World Bank sharply lowered its forecast of growth for 2012, from 3.6 to 2.5 percent. It expects a contraction of 0.3 percent in the euro bloc and a growth rate of 2.2 percent in the US and 5.4 percent in the emerging economies (which is moderate in comparison to past rates). The S&P rating agency lowered its credit rating for 10 out of 17 countries in the euro bloc: Belgium, France, Austria, Malta, Slovakia and Slovenia had their rating lowered by one level while Italy, Portugal and Spain were lowered by two.¹⁹ The other rating agencies took similar steps.²⁰

During the third quarter of 2011, the slowdown in business activity in the euro bloc continued and growth totaled only about 0.8 percent on an annualized basis, which is similar to its level in the previous quarter. The only improvement was in the situations of Germany and France. The Purchasing Managers Index of the euro bloc indicates a continuing contraction in economic activity both in manufacturing and in services during the fourth quarter, in addition to the drop in the Industrial New Orders Index and in the volume of retail trade. The rate of unemployment in the euro bloc reached a record 10.3 percent in October and November. In view of the slowdown in activity, the ECB lowered the interest rate in November and December to a level of only one percent, even though the rate of annual inflation in the

¹⁹ The lowering of ratings occurred mostly at the beginning of January following the warnings issued in December.

²⁰ Moody's announced the lowering of Belgium's rating by two levels and Fitch issued a warning to Belgium, Italy, Spain, Ireland and other countries and put France on negative watch as a result of the lack of a comprehensive program to deal with the debt crisis in Europe.

euro bloc is relatively high. The decline in the prices of energy, basic metals and particularly food during the period being reviewed (Figure 1.22) contributed to the lowering of the inflation rate to 2.7 percent at the end of the year.



Towards the end of October, the discussions at the EU summit produced three main agreements: a haircut of 50 percent for holders of Greek bonds; the injection of capital into the European banking system following the write-off of Greek debt; and increasing the size of the European Financial Stability Facility (EFSF) from 440 billion to one trillion euro. About a month later, it was agreed to increase the EFSF by providing a safety net against losses to holders of European debt or through the creation of special funds whose purpose would be to buy the bonds of European governments in the secondary market. Due to the opposition of Britain, agreement was not reached for the transfer of 200 billion euro to the IMF for the purpose of lending to debt-ridden countries.²¹ At the end of November, the transfer of 8 billion euro to Greece was approved. This was the sixth payment within the framework of the overall aid package, which totals 110 billion euro. This followed the retraction by then Greek Prime Minister Papandreou of his announcement that a plebiscite would be held on the rescue plan for Greece.

Volatility in the financial markets was high as a result of the uncertainty regarding the future of the euro bloc. However, some degree of calm was achieved at the end of the period being reviewed as a result of a number of stabilizing

²¹ As of now, an injection of only 150 billion has been agreed on and four countries who are not members of the euro bloc (Sweden, Denmark, Poland and the Czech Republic) will each contribute.

measures: the central banks of the US, Canada, Britain, Japan, the euro bloc and Switzerland agreed to provide liquidity to banks around the world starting from December 5th, in order to increase liquidity and reduce the cost of credit; and on December 21st, the ECB took an exceptional step by providing credit in the amount of 489 billion euro to about 523 banks and financial bodies in Europe at an average interest rate of only one percent, with the goal of alleviating the credit shortage. This step will encourage the banks to purchase bonds of debt-ridden governments and allow them to raise capital at reasonable prices. Following this, short-term yields fell in the South European countries. The leaders of Germany and France proposed a new covenant for Europe, whose goal would be to ensure the creation of a fiscal union. At the core of the covenant is the requirement that members of the euro bloc maintain deficits at below 3.0 percent of GDP. However, there was uncertainty as to the exact details of the plan and its implications.

New governments have recently been established in Italy, Greece and Spain, with the primary goal of gaining approval for broad cuts and stabilizing the fiscal situation. The new government in Greece was created as a temporary national unity government which is meant to serve until February 2012. In Spain, the government was replaced in general elections and the new prime minister made a commitment to meet a target deficit of 4.4 percent, as opposed to the current 6.2 percent target.

The fears in the markets regarding the ability of Italy to service its debt, which has reached about 120 percent of GDP, were manifested in an unusually large increase in the yields on its government bonds to levels that are not sustainable in the long run. At the end of November, the yield on a 3-year bond reached close to 8 percent and that on 10-year bonds jumped to 7.3 percent. The ECB was forced to buy Italian bonds in the market in order to reduce yields. The resignation of Italian Prime Minister Berlusconi, after the Italian Parliament approved an austerity package to reduce Italy's debt and encourage growth,²² paved the way for the creation of a technocratic government headed by Mario Monti. The new Prime Minister has already succeeded in passing a program of cutbacks in the amount of about 30 billion euro.

²² This plan includes wide ranging sales of government assets, reducing government ownership of local services, freezing salaries in the public sector through 2014, raising the retirement age for women in the private sector to 65, similar to men's, and continued raising of the retirement age for all workers from 65 to 67 by the year 2026, increasing the VAT rate, imposing new taxes on oil and gas, and increasing enforcement of tax collections. The plan also includes tax benefits for companies which hire young employees and increases the flexibility of the labor market and liberalization of closed professions.

The growth rate in the US was about 2 percent in annual terms during the third quarter of 2011, although most of the more recent data has been surprisingly favorable and they indicate better than expected growth during the fourth quarter. Some of the more positive developments include growth in manufacturing production and consumer expenditure, an increase in the Purchasing Managers Index, a sharp increase in the Index of Consumer Confidence, a drop in the unemployment rate from 9 percent in September to 8.5 percent in December and a drop in the number of jobseekers. For a number of months now, the American economy has been creating more than 100,000 new jobs per month and in December more than 200,000 jobs were added, some of them in the manufacturing industry for the first time in a long period of time. Nonetheless, the growth in the US is based partly on temporary tax benefits, which according to the estimate of economists add about one percent to the growth in GDP. The Federal Reserve continues to maintain the interest rate at a level of virtually zero and has announced its intention of leaving it there until 2014, even though the rate of inflation in 2011 reached 3.4 percent. As long as the American economy continues to grow at a reasonable rate, the Fed will avoid implementing a third round of quantitative easing.

The fiscal situation in the US continues to be unclear. The Special Joint Committee did not manage to agree on the cutbacks needed to reduce the national debt, which is currently more than \$12 trillion. In the absence of a solution to the deficit problem, the Senate in mid-December approved a plan of \$915 billion, which will ensure that the government can continue to operate until the end of September 2012. Fitch lowered its outlook for the US credit rating from “stable” to “negative” but left its perfect credit rating untouched.

Japan’s GDP grew by 6.1 percent in annual terms during the third quarter of 2011, the first time in four quarters that it recorded positive growth. Leading the growth was exports, which have recovered from the earthquake and tsunami that hit Japan in March. However, the rate of growth is expected to be more moderate in the fourth quarter due to the slowdown in demand for Japanese imports in Europe and the strengthening of the yen.

The increased uncertainty in Europe has also affected the emerging markets. The current economic indicators there point to a drop in growth, as a result of both the global economic slowdown and weak domestic demand. Thus, the Chinese economy continues to grow at a relatively high rate; the rate of growth has slowed significantly in India; and in Brazil there was negligible growth in the third quarter. Policy makers in the emerging markets have been forced to shift over to expansionary monetary policies.

Table 1.1. National Accounts, 2010-2011

(percentage change in annual terms, at constant prices, seasonally adjusted)

	2010 ^{a,b}	2011	Change from previous quarter					2011/III	
			2010		2011			Year-on-year change ^a	Last month for which data available
			III	IV	I	II	III		
GDP	4.8	4.8	4.9	7.3	4.9	3.8	3.6	5.3	September
Business-sector product	5.8	5.1	4.9	8.6	5.3	3.0	4.9	5.6	September
Private consumption expenditure	5.3	4.0	1.3	10.2	6.7	-0.2	1.8	4.2	September
Gross domestic investment	4.0	19.2	8.0	22.7	51.8	18.0	3.6	15.2	September
Fixed investment	13.6	15.8	16.0	25.5	19.6	14.5	13.5	20.4	September
Goods and services exports									
excl. diamonds	10.7	3.0	2.9	1.3	9.3	7.9	-0.5	6.9	September
Goods exports ^c	16.6	3.8	-2.2	-5.1	18.1	6.4	-1.6	8.6	September
Services exports ^c	6.4	6.0	21.2	19.7	5.7	5.8	-4.9	7.5	September
Goods and services imports									
excl. diamonds ^d	9.5	8.5	-0.6	13.7	21.3	5.8	-2.6	9.8	September
Goods imports ^e	18.6	11.3	8.8	11.1	45.1	-1.1	0.1	14.5	September
Services imports ^e	-2.4	3.9	5.9	-2.0	9.5	30.7	-19.4	2.2	September
Public sector consumption	2.5	4.5	6.6	5.8	2.8	-3.5	8.0	5.0	September
Public consumption excluding defense imports	2.2	4.2	5.9	6.1	3.2	-3.9	8.9	5.0	September
Domestic use of resources	4.3	6.6	3.5	10.6	13.3	2.9	4.3	6.6	September

^a Unadjusted data.

^b Compared with previous year.

^c New calculation - excluding subsidies.

^d Excluding defense imports, ships and aircraft.

^e New calculation - excluding taxes.

SOURCE: Based on Central Bureau of Statistics data.

Table 1.2. Indicators of Business Activity, 2011
(percentage change, in annual terms, seasonally adjusted)

	Change from previous month						September-December 2011		
	2011						Change from previous period	Year-on-year change ^a	Last month for which data available*
	Jul	Aug	Sep	Oct	Nov	Dec			
Composite state-of-the-economy index	0.2	0.2	0.2	0.2	0.2	0.2	0.8	3.9	December
Large-scale retail trade	-2.4	-1.9	3.2	0.1	2.0	-4.7	1.0	3.3	December
Industrial production (excl. diamonds)	1.9	-0.2	0.8	2.3	-2.1		2.1	4.4	November
Index of trade revenue	0.4	-2.7	0.5	-0.2	-0.6		-1.6	0.5	November
Index of trade and services revenue	-0.4	-2.5	1.5	0.0	-0.3		-0.4	2.1	November
Index of services exports	-7.8	-4.1	21.5	-15.8	1.2	0.1	1.3	4.1	December
Tourist arrivals	-2.7	-0.4	5.8	0.2	2.4	-3.1	4.3	-3.6	December
Residential construction									
Starts	5.3	-6.4	7.8	-9.1	-3.9		-2.8	-7.4	November
Completions	-6.4	6.3	-4.3	14.0	-26.9		-3.4	-0.3	November
ILA land permits (units) ^{a,b}	2,873	1,800	1,075	1,286					October
Findings of the Business Trends Survey (net balance) ^{a,c}									
Present weighted balance of the business sector ^d	-2.7	-6.4	-9.9	-11.4	-8.2	-10.5			December
Weighted balance of the business sector ^e	0.1	-2.2	-6.1	-7.1	-9.8	-9.3			December
Output of manufacturing companies ^e	-4.7	-6.6	-3.9	-5.6	-6.3	-3.5			December
Sales of trading companies ^e	13.0	0.2	-14.0	-28.0	-28.0	-37.2			December

* When the last month is December, the period of comparison is four months; when the last month is September, the comparison is quarterly; when the last month is November, the comparison is September–November vis-à-vis May–July.

^a Unadjusted data.

^b Land transactions authorized by the Israel Lands Administration in the relevant period.

^c The Net Balance is the difference between the percentage of companies reporting an increase and those reporting a decline.

^d In the month the survey was carried out.

^e In the three months before the survey was carried out compared with the previous three months.

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

Table 1.3. Indicators of Labor Market Developments, 2010-2011

(percentage change, seasonally adjusted)

	III/2011 ('000)	Percent change from previous quarter						September-December 2011		
		2010		2011				Change from previous period	Year- on-year change ^a	Last month for which data available *
		III	IV	I	II	III	IV			
Civilian labor force	3,214.0	1.4	0.5	0.0	0.5	0.3	0.3	1.2	September	
Israeli employees	3,035.2	1.3	0.6	0.6	0.9	0.3	0.3	2.4	September	
<i>of which</i> : in public services	917.9	-1.0	2.8	2.5	-0.1	-0.4	-0.4	4.7	September	
in business sector	2,110.3	1.5	-0.1	-0.1	1.1	0.3	0.3	1.4	September	
Foreign workers and Palestinians (unadjusted)	291.5	-2.2	0.8	3.0	2.3	1.7	1.7	7.9	September	
Average hours worked weekly per Israeli employee	36.6	0.6	1.1	0.0	-0.5	0.5	0.5	4.6	September	
Weekly labor input in business sector (incl. foreign workers and Palestinians)	103,225.9	1.2	1.3	0.3	0.5	1.5	1.5	6.4	September	
<i>of which</i> : Israelis	90,389.9	1.6	1.4	-0.2	0.3	1.5	1.5	6.2	September	
Weekly labor input in public services (Israelis)	20,451.7	2.1	4.7	3.1	1.6	-3.2	-3.2	11.7	September	
Unemployed	178.8	2.6	-1.3	-8.0	-6.8	0.7	0.7	-14.2	September	
Job seekers	182.1	0.1	-1.6	-2.5	0.6	-0.7			August	
Claims for unemployment benefit	73.3	-6.1	5.1	-5.2	-1.7	4.2	-1.1	1.9	-0.5	December
Balance of Employment ^b		0.9	1.5	2.0	1.3	1.5	0.8			December
Job vacancies ^a	67.2	6.8	5.7	0.7	8.4	1.2	-2.1	0.8	12.0	December
	(NIS)									
Real wage per employee post ^c		-0.2	0.9	-1.0	0.4	0.8	0.3	0.7	2.4	October
In public services		0.6	0.6	-0.6	-0.1	0.8	1.9	1.7	3.1	October
In business sector		0.5	0.2	-1.0	0.2	1.1	1.0	0.8	2.0	October
Nominal wage per employee post ^c	8,585.8	0.4	2.2	0.6	0.9	0.8	0.7	1.2	5.3	October
In public services	8,229.1	1.2	1.8	0.4	1.1	0.7	2.8	2.5	6.0	October
In business sector	8,755.4	1.2	1.4	0.8	0.6	0.9	1.3	1.1	4.9	October
Unit labor cost		0.2	0.4	-0.1	-1.1	-1.7			-2.4	September
		Percent, seasonally adjusted								
Participation rate		57.7	57.7	57.5	57.5	57.4				September
Employment rate		53.9	53.9	54.0	54.3	54.2				September
Unemployment rate		6.6	6.5	6.0	5.5	5.6				September
Depth of unemployment ^d		32.1	33.3	29.8	28.9	30.9				September

* When the last month is December, the period of comparison is four months; when the last month is September, the comparison is quarterly; when the last month is November, the comparison is September–November vis-à-vis May–July.

^a Unadjusted data.

^b Posts filled minus terminations of employment, as a percentage of the total number of employees in businesses in the Employers Survey Sample. The calculation is made by the Bank of Israel.

^c Including foreign workers and Palestinians. Seasonally adjusted data.

^d 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 (CBS) National Accounts estimates; job seekers, which are derived from the Israeli Employment Service; claims for unemployment benefit, which are derived from the National Insurance Institute; job vacancies, which are derived from the CBS Survey of Job Vacancies, and the Balance of Employment, which is derived from the Ministry of Industry, Trade and Labor's Employers Survey.

Table 1.4. Government Budget Performance, 2010-2011

			Change from previous quarter								September-December 2011		
	2010 ^a	2011	2010				2011				Change from previous period	Year-on-year change	Last month for which data available*
			III	IV	I	II	III	IV					
	(NIS billion)												
Domestic deficit, as percent of GDP	-2.5	-0.6	-0.4	-6.5	1.8	-1.9	-1.6						September
Total deficit excluding credit, as percent of GDP	-3.7	-3.3	-1.8	-7.8	0.5	-3.0	-2.2						September
Deviation from domestic budget path, excl. credit extended: ^b													
Revenue	10.5	-5.6	2.2	4.9	0.5	-1.0	-4.6	-5.6		1.8	-8.3		December
Expenditure	-1.3	-3.1	-2.8	3.7	-0.2	-2.1	-2.9	2.0		4.0	-0.3		December
Deficit	11.8	-2.5	5.0	1.3	0.0	0.6	-1.7	-2.0		-3.4	-7.9		December
Total deficit excluding credit	-30.2	-28.7	-3.7	-16.2	1.1	-6.4	-4.9	-18.5		-12.1	-5.0		December
			Real change year-on-year (percent)										
			2011										
			Jul	Aug	Sep	Oct	Nov	Dec					
Government domestic revenues excluding credit			-0.8	6.1	-6.3	2.5	0.8	12.0			2.0		December
Government tax revenue			2.4	3.0	-0.9	-2.7	1.1				-0.8		November
<i>of which</i> : income tax, net			4.8	8.6	-2.6	-4.1	-4.3	23.1			2.2		December
VAT, gross			5.1	3.0	7.6	-1.3	8.5	-3.3			3.2		December
Government expenditure excluding credit			-1.0	3.0	9.8	8.2	1.4	5.4			6.2		December
National Insurance allowances			1.4	-0.1	9.9	-2.7					3.4		October
<i>of which</i> : Unemployment benefit			-11.2	-4.6	7.5	-2.2					3.0		October
Income support ^c			-5.8	-5.7	-4.0	-7.8					-5.9		October
Payments to the National Insurance Institute by the public			2.9	3.9	2.3	5.6	3.8				3.9		November

* When the last month is December, the period of comparison is four months; when the last month is September, the comparison is quarterly; when the last month is November, the comparison is September–November vis-à-vis May–July.

^a Compared with previous year.

^b The path is determined in accordance with the deficit ceiling. The figures compared with the previous period and with the corresponding period are differences.

^c Not including income support 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, 2010-2011

(Seasonally adjusted)

	2010 ^{a,b}	Change from previous quarter						September-December 2011		
		2010		2011				Change from previous period	Year-on-year change ^b	Last month for which data available*
		III	IV	I	II	III	IV			
		(rate of change, percent) ^c								
Trade in goods ^d										
Goods imports	19.0	1.6	9.9	9.3	5.5	0.6	-5.8	-5.7	12.3	December
<i>of which</i> : Consumer goods	14.3	1.7	13.5	2.8	6.2	-2.2	-6.8	-7.8	4.7	December
Capital goods	12.8	4.1	13.4	18.1	7.6	5.1	-3.9	-1.3	32.9	December
Intermediates	23.4	0.6	7.0	8.7	4.3	-0.3	-6.2	-6.7	7.4	December
Goods exports	16.2	1.2	0.9	9.7	0.4	-0.7	-1.3	-1.9	9.7	December
<i>of which</i> : Manufacturing	16.3	1.6	0.7	9.7	0.7	-0.6	-1.4	-2.1	9.8	December
<i>of which</i> : High-tech	12.3	4.4	0.1	7.1	-2.9	-6.9	8.8	2.1	5.7	December
Balance of payments										
		\$ million								
Goods and services exports	80,437	20,124	20,827	21,992	22,658	22,939				September
Goods and services imports	76,010	18,710	20,113	22,598	23,350	23,151				September
Balance of trade in goods and services account	4,427	1,415	715	-606	-692	-212				September
Balance of trade in current account	6,542	1,973	730	307	-247	586				September
Surplus/deficit in financial account (excl. foreign exchange reserves) ^b	1,671	540	1,826	1,579	3,090	-450				September
<i>of which</i> : Nonresidents' direct investments ^b	5,152	1,650	2,426	2,358	1,397	2,326				September
Nonresidents' portfolio investment ^b	9,028	323	4,328	1,811	728	-1,662				September
Residents' direct and portfolio investment abroad ^b	17,621	6,292	2,500	3,192	1,316	1,359				September
Bank of Israel foreign currency reserves, end-period ^b	70,913	66,271	70,913	74,526	77,413	76,329	74,875	-4.1	5.6	December
Net external debt (percent of GDP) ^{b,c}	-24.0	-23.4	-23.7	-23.9	-23.9	-24.4				September

* When the last month is December, the period of comparison is four months; when the last month is September, the comparison is quarterly; when the last month is November, the comparison is September–November vis-à-vis May–July.

^a Compared with previous year.

^b Unadjusted data.

^c The change relates to the dollar values of imports and exports.

^d Not including ships, aircraft, diamonds, and fuel.

^e GDP is calculated at the end-of-period NIS/\$ exchange rate.

SOURCE: Based on Central Bureau of Statistics data.

Table 1.6. Selected Price Indices, the Effective Exchange Rate, Nondirected Bank Credit, Interest Rates, Yields, and the Share Price Index, 2011
(rates of change, percent)

	Change from previous month						September-December 2011		
	2011						Change from previous period	Year-on-year change	Last month for which data available*
	Jul	Aug	Sep	Oct	Nov	Dec			
CPI	-0.3	0.5	-0.2	0.1	-0.1	0.0	-0.2	2.2	December
Consumer price index, seasonally adjusted	-0.6	0.3	0.1	0.2	0.1	0.1	0.5	2.2	December
Price index of owner-occupied homes ^a	0.2	-0.3	-0.9	-0.3			-1.2	6.9	October
General share-price index ^b	-0.8	-9.5	-6.1	7.1	-3.2	0.1	-2.6	13.7	December
Real effective exchange rate ^c	0.0	3.4	1.9	-1.1	1.2	0.0	3.8	2.2	December
Nominal effective exchange rate	-0.2	3.7	1.3	-1.3	1.1	-0.2	3.1	1.6	December
Nondirected bank credit	0.7	1.2	0.6	0.6	0.2	-1.1	2.2	7.7	December
Effective interest rate in daily deposit auction ^b	3.3	3.3	3.3	3.1	3.0	2.8	3.0	1.9	December
Yield to maturity on 5-year notes ^b	1.4	1.4	1.3	1.2			1.2	0.6	October
Risk premium ^{b,d}	0.5	14.6	28.5	-18.6	21.1	8.9	38.1	67.3	December
	Change during previous 12 months ^e								
CPI	3.4	3.4	2.9	2.7	2.6	2.2		2.6	December

* When the last month is December, the period of comparison is four months; when the last month is September, the comparison is quarterly; when the last month is November, the comparison is September–November vis-à-vis May–July.

^a Not part of the CPI.

^b Daily average over the month.

^c The real effective exchange rate is the weighted geometric mean of the exchange rate of the shekel against 28 currencies, representing 38 of Israel's main trading partners (weighted by the extent of Israel's trade with those countries), adjusted for the difference between the rate of inflation in Israel and the rates of inflation in those countries.

^d As measured by 5-year credit-default-swaps (CDS). Calculated as the difference in percentage points.

^e Year-on-year period change.

SOURCE: Based on Central Bureau of Statistics data.

Table 1.7. Indicators of Economic Development in Advanced and Developing Economies^a
 (annual change, percent)^b

		2009	2010	2011 Projection	2012 Projection
World GDP		-0.7	5.1	4.0	4.0
	Advanced economies	-3.7	3.1	1.6	1.9
	Emerging and developing economies	2.8	7.3	6.4	6.1
World trade		-10.7	12.8	7.5	5.8
	Advanced economies				
	Imports	-12.4	11.7	5.9	4.0
	Exports	-11.9	12.3	6.2	5.2
	Emerging and developing economies				
	Imports	-8.0	14.9	11.1	8.1
	Exports	-7.7	13.6	9.4	7.8
Commodity prices (\$)	Oil ^c	-36.3	27.9	30.6	-3.1
	Nonfuel	-15.7	26.3	21.2	-4.7
Inflation (CPI)	Advanced economies	0.1	1.6	2.6	1.4
Short-term interest rate (%) ^d	Dollar deposits	1.1	0.5	0.4	0.5
	Euro deposits	1.2	0.8	1.3	1.2
Unemployment rate	Advanced economies	8.0	8.3	7.9	7.9

^a According to the World Economic Outlook, Israel is classified as an advanced economy. The advanced economies include the industrialized countries and some emerging markets.

^b Except for unemployment and interest rates (percent).

^c The average price of a barrel of U.K. Brent, Dubai and West Texas Intermediate crude oil in 2010 was \$79.03, excluding freight costs. Estimated price for 2011 is \$103.20 and for 2012, \$100.00.

^d Six-month Libor rate for US dollar deposits, and three-month Libor rate on euro deposits.

SOURCE: World Economic Outlook (IMF), September 2011.

Part 2: Broader Review of Selected Issues

Israel's Cyclically Adjusted Deficit¹

- The elasticity of government tax revenues in Israel with respect to the business cycle is 1.25 when calculated using the OECD method, higher than in the OECD and South American countries.
- The high elasticity of tax revenues in Israel derives from the highly progressive structure of the income tax in Israel and the relatively high elasticity of total wage payments with respect to changes in the output gap.
- The elasticity of total wage payments in Israel with respect to the output gap is higher than in the other OECD countries, which reduces the sensitivity of firms' profitability in Israel to changes in the business cycle and has contributed to the economy's resilience in the recent crises.
- Despite the higher elasticity of taxes in Israel, the effect of the output gap on the general government deficit—an increase of 0.46 percent of GDP for every one-percent increase in the output gap—is similar to the OECD average. This is due to the low level of unemployment benefits and the relatively low elasticity of unemployment in Israel with respect to the business cycle.
- The correction of several potential problems in the OECD method of estimation reduces the elasticity of tax revenues in Israel to 1.13, a level not significantly different from that obtained by direct estimation of the elasticity of total tax revenues, instead of the disaggregated OECD method.
- The consolidation policy adopted by the government between 2003 and 2007 contributed significantly to the reduction of the deficit, but an important part of this reduction resulted from the acceleration of economic activity as the economy recovered from the recession. In contrast, the increase in the deficit between 2007 and 2010 is accounted for almost fully by the government's policy of reducing statutory tax rates, with little effect from the business cycle.

1. Introduction

The cyclically adjusted government deficit is the current deficit net of the effect of the business cycle on tax revenues and on some components of expenditure (the “automatic stabilizers”). It is used in developed economies, including Israel, to characterize the government's fiscal policy and the economy's basic fiscal situation.

¹ Based on research by Adi Brender, Yuval Mazar, Guy Navon and Ela Shachar.

For this estimate to be used in international comparisons, a uniform method of calculation is necessary. The OECD has developed a method that uses data on the various tax bases and macroeconomic data,² which we use (below) to calculate Israel's cyclically adjusted deficit over the last fifteen years. However, the need for uniformity precludes the use of all the data available for each country, thus limiting the precision of the OECD estimation. We therefore analyze some potential problems in the use of the OECD method and examine their implications for the estimates obtained in the case of Israel.

The essence of the new OECD method is a differential estimation of the elasticities of the components of tax revenues with respect to the business cycle (measured by the output gap), which are then used to calculate a weighted average of the cyclically adjusted deficit with respect to potential GDP. This method, unlike that commonly used in other countries, including Israel, calculates the elasticity of tax revenues separately for each type of tax, in order to reflect the changes over time in the composition of tax revenues and the elasticity of individual taxes resulting from changes in legislation and the distribution of income. Thus, for example, legislative changes that would make Israel's income tax system more progressive³ will increase the elasticity of tax revenues with respect to GDP; but econometric estimation (the alternative method for estimating elasticity) would identify such a change only with a lag of several years. Moreover, the OECD method makes it possible to identify components of the differences in elasticities across countries. This method has also been applied to the cyclically adjusted deficits of countries in South America,⁴ thus making it possible to compare the results for Israel to those countries as well.

In recent years, Israel's tax burden has been similar to the OECD average. At the same time, there are differences in the composition of revenues: in Israel, payroll taxes collected by the National Insurance Institute, and primarily those paid by employers, are particularly low in comparison to the OECD average, while on the other hand, the burden of indirect taxes is higher in Israel. Since revenues from indirect taxes are less sensitive to the business cycle, their relatively high weight is expected to reduce the total elasticity of taxes

² N. Girouard and C. Andre (2005), “Measuring cyclically adjusted budget balances for OECD countries,” OECD Economics Department Working Papers No. 434.

³ A tax's progressivity is increased if the rate at which it increases with income is raised.

⁴ See C. Daude, A. Melguizo and A. Neut (2010), “Fiscal policy in Latin America: Better after all?,” *Economics*, 2010–24, Oct.

with respect to the business cycle in Israel relative to the OECD. In contrast, the smaller share of National Insurance contributions, which are less progressive than the income tax (and therefore their elasticity is also relatively low), works to increase the overall elasticity of taxes with respect to the business cycle.

There are four main components of tax revenues: the income tax on wages, National Insurance contributions and the health tax, the corporate income tax and indirect taxes. In the more disaggregated calculations we performed for Israel, a separate calculation was made for the taxation of income of the self-employed and, in addition, in the calculation for indirect taxes the elasticities of revenues from VAT, the purchase tax, tariffs and real estate taxes were each given separate treatment. In addition, we introduced specific assumptions regarding the elasticity of taxes on financial income and wealth and of levies.

The overall elasticity of a particular tax component with respect to the output gap is a product of the elasticity of its revenues with respect to the tax base and the elasticity of the tax base with respect to the output gap. These two elasticities reflect two different forces: the business cycle which affects the collection of taxes primarily through the tax base and whose effect is estimated by the elasticity of the tax base with respect to the output gap and the elasticity of tax collection with respect to the tax base which is, in contrast, a structural parameter and is also dependent on the distribution of income and legislative changes.

The stage of the business cycle is estimated by means of the output gap, i.e. the difference between the economy's actual GDP and its potential GDP (that which would be achieved at full utilization of the factors of production).⁵ According to the estimates for Israel, the economy produced beyond its potential in 2000 while in 2003 a record output gap was recorded. In 2007 and 2008, prior to the global crisis, the economy produced at its potential.

2. Calculation of elasticities using the OECD method

a. Elasticity of the income tax and National Insurance contributions with respect to wage income

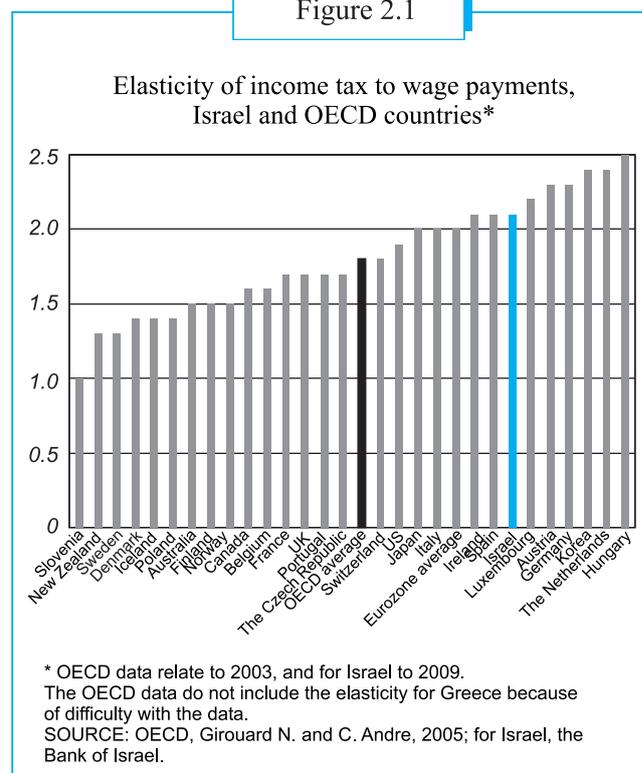
The elasticity of revenues from the income tax and National Insurance contributions with respect to their tax bases is calculated as the ratio of the marginal tax rate to the average tax rate. These rates are weighted according to

⁵ The estimate for Israel is based on the estimation method of: Y. Menashe and Y. Yakhin (2005). "Mind the gap: structural and nonstructural approaches to estimating Israel's output gap", Israel Economic Review, No. 2.

the proportion of taxpayers at each level of income within total wage earners (according to the number of taxpayers, rather than their weight in total wage payments; see the discussion below). The elasticity is influenced by changes in the structure of the tax system (tax brackets, the tax rate for each tax bracket and the size of tax credits). In the absence of tax brackets and tax benefits (such as in a flat tax system, which exists in a number of Eastern European countries), the elasticity is unitary and it increases with the degree of progressivity of taxes on labor income.

In accordance with the OECD method, a distribution of fulltime salaried workers was created using the 2009 Survey of Income published by the CBS. For each level of wages (in terms of the average monthly wage), a representative household was defined. Such a household has two children and two wage earners, where one earns only 50 percent as much as the other, who works fulltime.⁶ The elasticities were estimated according to the weight of each group in the number of wage earners, as described above. The marginal tax rate was defined according to the effective tax rate, which means that wage earners who do not reach the tax threshold as a result of tax credits they are eligible for were assigned a marginal tax of zero.

Figure 2.1



⁶ A discussion of the significance of these assumptions and an alternative calculation can be found in Section 3 below.

The results indicate that the taxation of labor income in Israel is more progressive than in other OECD countries. The elasticity of the income tax in Israel with respect to the tax base is 2.1 (Figure 2.1) as compared to 1.8 on average in the OECD and 2.0 in the EU countries. Only a small number of countries had a higher elasticity than Israel. In contrast, the elasticity was lower in Israel than in South American countries (particularly Brazil, Argentina and Uruguay where the elasticity exceeds 3.0). An examination of the Israeli data indicates that the elasticity has not changed significantly during the last decade, despite the major changes in tax rates.

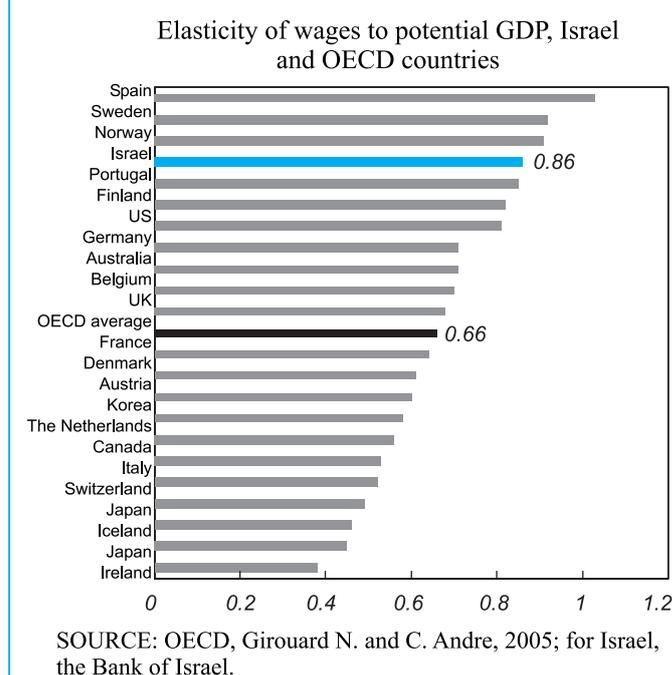
The elasticity of National Insurance contributions that are paid by wage earners in Israel with respect to wages is the highest among the OECD countries and is estimated at 1.35. The elasticity is close to unity in the South American countries as well, except for Brazil where it is 1.8. The high level of progressivity of National Insurance contributions in Israel is explained by the existence of two tax brackets, whose tax rates differ by a large amount (7.35 percent versus 17.43 percent in 2009, including the employer's portion and the health tax). This contribution schedule is different from most OECD countries where National Insurance contributions are fixed, and are subject to a ceiling in most cases, while in others the ceiling is significantly lower than in Israel.⁷ Israel is similar to Britain, where National insurance is not paid on low wages (neither by the employee nor the employer),⁸ and to Ireland, where the tax rate for the first tax bracket is negligible, countries whose elasticities are among the highest in the OECD.

b. Elasticity of wage payments with respect to the output gap

The elasticity of the tax base with respect to the output gap is estimated by means of a regression, which examines the relationship over time between the share of total wage payments in GDP and the output gap. Total wage payments in a particular year are estimated as the product of the average wage in the economy and the number of wage earners that year, in line with the OECD calculation.⁹ A regression for the years 1995–2008 found that in Israel the elasticity of the proportion of wages in GDP with respect to the output gap is

0.86,¹⁰ which is high relative to the OECD countries.¹¹ The average value of this parameter in OECD countries is 0.66, with a range between 0.38 and 0.91 (Figure 2.2) and Israel is located in the upper part of the distribution of this elasticity, close to Norway, Sweden, Portugal and Finland. In contrast, in most of the South American countries that were included in the study by Daude et al. mentioned above, the elasticity is greater than unity. The highly flexible labor market in Israel is an important factor in understanding the economy's ability to deal with crises during the past decade.

Figure 2.2



The products of the elasticity of wage payments with respect to the output gap and the elasticities of revenues from the income tax and National Insurance contributions with respect to wage payments, which were calculated above, yield the elasticities of revenues from the income tax on wages and National Insurance contributions with respect to

⁷ In Israel, as in most other countries, there is a ceiling, but no floor, on National Insurance contributions.

⁸ On a weekly wage of up to 105 pounds; about 17 percent of the average wage in annual terms.

⁹ The correlation between this series and the National Accounts estimate of labor income (which also includes the attribution of wages to the self-employed) is 0.92 and 0.88 when estimated from 1995 and 1988, respectively.

¹⁰ The estimate of the elasticity is not sensitive to different versions of the estimation equation, such as lengthening the sample period or using the business output gap instead of the overall output gap.

¹¹ We present here the results that were actually used in the OECD calculations and which were based on an additional estimation stage using panels for sub-groups of countries. The data for the first stage of the estimation, which were prepared using the same method as that presented here for Israel, were similar but included a number of outlying values.

the output gap, respectively. The estimated elasticities are 1.81 (0.86*2.1) for the income tax and 1.16 (0.86*1.35) for National Insurance contributions. These elasticities are higher than in the OECD countries, where the average elasticity was estimated to be 1.3 for the income tax on wages (1.5 in the EU) with a range of 0.9 to 1.9, and an elasticity of 0.7 for National Insurance contributions, with a range of 0.0 to 0.9. In contrast, the average elasticity of the income tax in the South American countries is much higher than in Israel while the average elasticity of National Insurance contributions was similar to that in Israel.

c. The elasticity of the corporate income tax

According to the OECD method, the elasticity of corporate income tax revenues with respect to the output gap is a function of the elasticity of labor income to GDP, which was estimated above, and the proportion of capital income in GDP.¹² The average proportion of capital income in GDP in the OECD countries in 2008 was 0.41. At the extremes of the distribution were Mexico, Slovakia and Greece, where the proportion of capital income is high, and the Scandinavian countries where it was low (Figure 3). In Israel, the average proportion of capital income in GDP was 0.31 during the last decade and was characterized by a clear uptrend that reached 0.34 in 2008.

The average elasticity of the corporate income tax with respect to GDP in the OECD countries is 1.5 (Figure 2.4), with a range of 1.1 to 2.1. In Israel, the elasticity estimated according to this method is 1.31, which is similar to that in Ireland, Australia, New Zealand, Poland and the Czech Republic. This elasticity has a high negative correlation with the elasticity of labor income with respect to GDP, which is high in Israel (indicating that the elasticity of wages protects the profitability of firms from the business cycle), and is negatively correlated with the proportion of capital income in GDP, which is low in Israel. In South American countries, the elasticity of corporate income tax revenues with respect to GDP is significantly lower than in Israel and in most of the countries is even smaller than one.

Nonetheless, the effect of the elasticity of labor income with respect to GDP on the elasticity of total tax revenues with respect to the output gap is small, since the effect of the latter on the elasticity of the tax on wages with respect to GDP is the opposite of its effect on the elasticity of the corporate income tax with respect to GDP.

¹² The exact equation is $\epsilon_{CIT,y} = \frac{1-(1-PS) \cdot \epsilon_{WB,y}}{PS}$ where $\epsilon_{WB,y}$ is the elasticity of total wage payments with respect to the output gap and PS is the share of capital income in GDP, including the self-employed.

Figure 2.3

The share of capital income in GDP, Israel and OECD countries

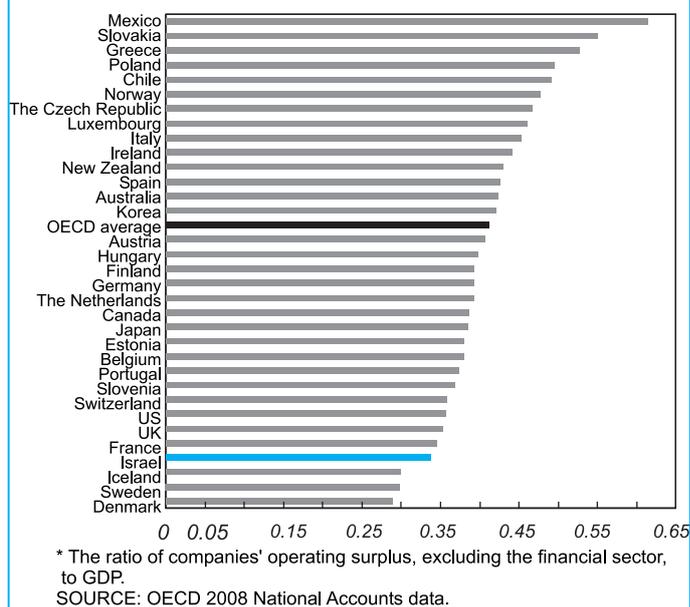
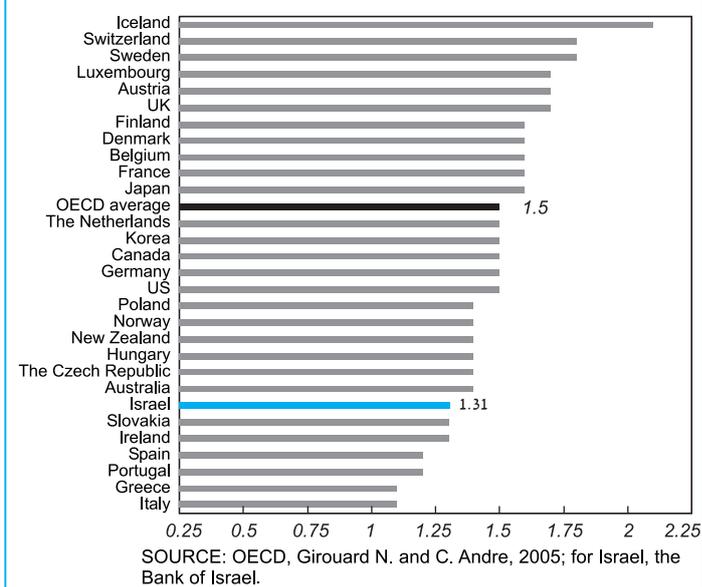


Figure 2.4

The elasticity of corporation tax to the output gap, Israel and OECD countries



d. The elasticity of indirect taxes

Indirect taxes include the value added tax (VAT), the purchase tax, the excise tax on gasoline and tobacco, the stamp duty and tariffs. Girouard and Andre (2005), and following them

the OECD estimates, assume that the elasticity of indirect taxes with respect to GDP is unitary. In other words, an increase of one percent in GDP will lead to an increase of one percent in the tax base and in revenues from indirect taxes. This is because indirect tax rates are uniform, so that the marginal tax rate is equal to the average tax rate. In their calculations, this assumption replaces earlier estimates produced by the OECD that found an average elasticity of 0.9, with a range from 0.4-0.5 in Australia, Japan and Ireland to 1.6 in Denmark and Norway (excluding the tax on the production of oil and gas).

e. The elasticity of public expenditure

The calculation of the cyclically adjusted deficit also takes into account the effect of the business cycle on public expenditure. In fact, the OECD calculation assumes that only unemployment benefits react endogenously to changes in GDP (in contrast to changes resulting from policy decisions).¹³ The estimation is based on the correlation between the rate of unemployment and the output gap, with the assumption that the elasticity of unemployment benefits with respect to the rate of unemployment is unitary. In Israel, unemployment benefits on average constituted 0.8 percent of current expenditure during the sample period and 0.3 percent of GDP, as opposed to 2.1 percent of GDP on average in the OECD countries. The elasticity of unemployment with respect to GDP is also low in Israel (-2.41 as compared to an average of -4.9 in the OECD countries). According to the OECD’s estimate, the elasticity in Israel is similar to that estimated for Japan, Greece and Austria, slightly higher than that estimated for Italy and lower than that estimated for the remaining countries.

The product of the elasticity in Israel and the proportion of unemployment benefits in current expenditure indicates that the effect of unemployment benefits on the deficit is negligible (-0.019 for every one percent of GDP, as opposed to an average of -0.1 in the OECD countries).

f. The total elasticity of taxes and the deficit with respect to the output gap

The elasticities for Israel as estimated using the OECD method are presented in Column 1 of Table 1 and the average for the OECD countries is presented in Column 3.

¹³ In past analyses (Bank of Israel (2007), “2006 Annual Report”; J. Zeira and M. Strawczynski (2007), “The cyclicity of fiscal policy in Israel”, Israel Economic Review, 80, 43–71), it was found that public expenditure in Israel is pro-cyclical, with an elasticity of about 0.5. However, this elasticity reflects the reaction by means of specific policy decision rather than the mechanical response of expenditure, to which the cyclically adjusted deficit relates.

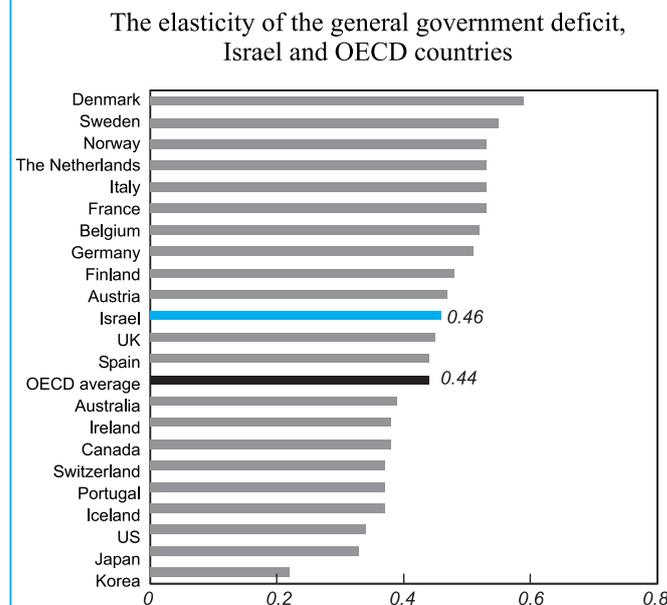
Estimates of elasticity of tax revenues in Israel and Other OECD countries/total OECD

Type of tax	[1] Israel using the OECD method	[2] Israel including extension to OECD estimates	[3] OECD average
Tax on wages	1.81	1.54	1.26
Income tax of self-employed ^a		3.17	Not calculated
National Insurance and Health Tax	1.16	1.03	0.71
Corporate income tax	1.31	1.31	1.5
Indirect taxes	1.00	0.76	1.00
Total taxes, weighted	1.25	1.13	1.04
Deficit ^b	0.46	0.41	0.44

^a In the OECD calculation, the elasticity of revenue of taxes on the self-employed is not estimated, although it constitutes a significant component of total tax revenues—between seven and eight percent in Israel. We have used that method in Column 1 for uniformity, to enable the international comparison to be made.

^b The effect of a one percent change in the output gap on the general government deficit.

Figure 2.5



SOURCE: OECD, Girouard N. and C. Andre, 2005; for Israel, the Bank of Israel.

The table indicates that the effect of the business cycle on the government deficit in Israel is similar to the average for the OECD countries. The elasticity of tax revenues in Israel is higher than the average for these countries but the small effect of unemployment benefits on expenditure in Israel offsets the difference. The elasticity calculated in this way is higher than unitary and the gap relative to the OECD countries is primarily the result of the high elasticity of taxes on labor income in Israel, which in turn is the result of the high level of progressivity of these taxes and the relatively high elasticity of total wage payments in Israel with respect to the output gap. Of the OECD countries, only Mexico has an elasticity of tax revenues with respect to GDP which is similar to that of Israel. Nonetheless, when account is taken of the elasticity of expenditure, Israel is located near the middle of the distribution (Figure 2.5).

3. Expansions and additions to the OECD method for the estimation of Israel's cyclically adjusted deficit

The OECD method of calculation is simple, in order to maintain uniformity in international comparisons. However, this approach leads to various compromises in the precision of the analysis, which are necessary in order to accommodate the data available in each country. In this section, we examine the implications of some of those compromises on the estimates obtained for Israel. Since the analysis relates only to Israeli data, the estimates obtained are not comparable to those for other countries. They are intended to reflect the lack of precision that is the result of using partial data in the international comparison.

a. Elasticity of the tax base with respect to GDP

The weighting of income levels in order to calculate the total elasticity of the income tax and National Insurance contributions with respect to the tax base was calculated, as mentioned, according to the number of wage earners. This approach essentially answers the following question: by how much will tax revenues grow if each worker receives an additional shekel of income? However, it is more likely that in reality wage increases will take the form of a similar percentage increase in wages of all workers rather than an equal absolute amount. Weighting the income levels according to the weight of each sub-group within total wage payments (instead of according to the number of wage earners in each sub-group) results in a lower elasticity than that obtained by the OECD method (1.54 for the income tax on wages and 1.03 for National Insurance contributions; Column 2 in Table 1).

b. Elasticity of the income tax on self-employed income

The OECD method does not calculate separately the elasticity of taxes on self-employed income.¹⁴ Since the tax revenues from the self-employed have different characteristics than those of salaried workers (even though the tax rates for the two groups are identical), the elasticity of income tax revenues from the self-employed was estimated separately for Israel, using the same method as for salaried workers. The calculation was carried out using the Survey of Incomes, by means of a simulation of the tax liability and tax benefits of the self-employed. The elasticity of tax revenues from the self-employed with respect to their incomes was estimated to be 1.7 (according to the weight of each income group in total self-employed income) while the elasticity for individuals who are only self-employed (about 85 percent of the self-employed) is 1.8 and for individuals who are both salaried workers and self-employed is 1.2.¹⁵

The total elasticity of tax revenues from the self-employed is calculated as the product of the elasticity that was estimated here (1.7) and the elasticity of their income with respect to the output gap. The estimate of this elasticity is 1.87, which is quite similar to that of firms' capital income with respect to the output gap, and therefore the total elasticity obtained is 3.17 (Column 2 in Table 1).¹⁶

c. Elasticity of indirect and other taxes

In contrast to the assumption underlying the OECD estimates that the elasticity of indirect taxes with respect to the output gap is unitary, Sancak, Velloso and Xing (2010)¹⁷ found that the efficiency of the collection of the value added tax (the main indirect tax) varies over the course of the business cycle since tax evasion increases and enforcement by the tax authorities decreases during periods of downturn. The estimated elasticity of the efficiency of VAT collection

¹⁴ In the OECD calculations, tax payments by the self-employed are included in the income tax base, but the calculations of the elasticity of this tax base implicitly assume that the elasticity of the self-employed is identical to that of salary earners.

¹⁵ The self-employed who are also salaried workers have higher incomes than other self-employed. In most cases, the individual's tax credit points are offset by the tax he pays on his salary income. Therefore, the average tax in this group is relatively close to the marginal tax rate.

¹⁶ Although the tax bases of the corporate income tax and profits of the self-employed are particularly sensitive to the output gap, the difference in the elasticity of tax revenues is a result of the fact that the corporate income tax is not progressive while the profits of the self-employed are taxed according to the tax brackets of individuals, which are progressive.

¹⁷ Sancak C., R. Velloso and A. Xing (2010). "Tax revenue and the business cycle", IMF Working Paper 10/71.

(which is defined as the ratio between the collection of VAT as a percentage of the tax base and the statutory tax rate) with respect to the business cycle in European countries is equal to 0.90. (An additional reason for the less-than-unitary elasticity is the existence of differential VAT rates in these countries.)

The estimation results for Israel showed that the elasticity of the efficiency of VAT collection with respect to the output gap (0.97) is close to unitary, apparently because the rate of VAT in Israel is identical for almost all goods. Nonetheless, it was found that the elasticity of the VAT base with respect to the output gap is 0.80 and therefore the overall elasticity of VAT collection with respect to the output gap is 0.76, which is much lower than the unitary elasticity assumed by the OECD.¹⁸ The elasticities of tariff and purchase tax revenues with respect to the output gap are 1.67 and 2.13, respectively. Similarly, it was found that the elasticity of real estate taxes (which are on average 3 percent of GDP, including municipal taxes and the purchase tax but not VAT on new housing) and levies (which are on average half a percent of GDP) with respect to the output gap is equal to zero. We have assumed that the elasticity of deductions at source in the capital market is unitary.¹⁹

The weighting of the total tax elasticities shows that the elasticity of indirect and other taxes with respect to GDP is 0.76 (Column 2 in Table 1), which is significantly lower than the unitary elasticity assumed by the OECD calculation.

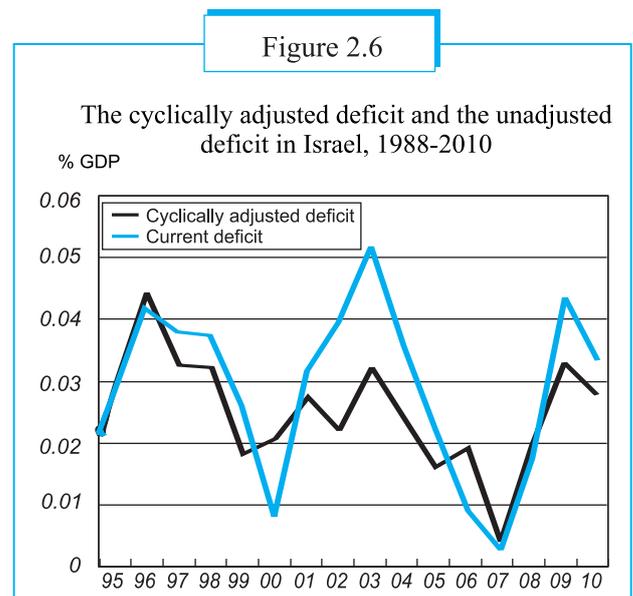
d. Overall elasticity

The calculation of elasticity for Israel following the various modifications to the estimation methods and using the maximum amount of data (Column 2 in Table 1) somewhat reduces the estimated elasticity of tax revenues. This calculation takes into account on the one hand the high elasticity of self-employed income, as described above, and on the other hand the calculated elasticity of indirect taxes, which is significantly less than unity, as assumed in the OECD calculations. Given the large weight of indirect taxes in Israel, this is an important difference. The overall elasticity (Column 2) is similar to that obtained in the direct estimation of the elasticity of total tax revenues with respect

to GDP in Israel.²⁰ This is consistent with the findings of Brender (2001),²¹ according to which there is little additional information in the disaggregated estimation of elasticities according to type of tax in Israel, relative to the aggregated estimation.

4. The cyclically adjusted deficit in Israel

Figure 2.6 compares the unadjusted and cyclically adjusted deficits. As expected, the unadjusted deficit is highly sensitive to the business cycle, which can be seen in its sharp increase during the period 2001–03 and its sharp decrease during the period 2003–07. The estimates therefore indicate that most of the increase during the period 2001–03 was the result of cyclical influences and similarly for most of the decline in the period 2004–08. The results also illustrate the sharp turnaround in fiscal policy in 2008, which became expansionary as a result of the reductions in statutory tax rates. The standard deviation of changes in the cyclically adjusted deficit (measured in percent of GDP) is lower by 0.3 percentage points (by 20 percent) than the standard deviation of changes in the unadjusted deficit (0.014 and 0.011, respectively). The correlation coefficient between changes in the cyclically adjusted deficit and changes in the output gap is low (-0.09) and not significantly different from zero. Thus, it can be concluded that government policy



¹⁸ This result reflects the low sensitivity of current private consumption, which is the main base for the collection of VAT, with respect to cyclical changes in GDP and the housing component in the VAT base, which is uncorrelated with the output gap.

¹⁹ These deductions constitute 0.4 percent of GDP on average. They include deductions for dividends and for goods and services, unrecognized expenses, deductions from interest payments and deductions from securities.

²⁰ A. Brender and G. Navon (2010). "Predicting government tax revenues and analyzing forecast uncertainty", *Israel Economic Review*, 7, No. 2, 81–111. The calculation of the cyclically adjusted deficit in the Bank of Israel Annual Report also removes the influence of the deviation of prices in the capital market from their long-run trends.

²¹ A. Brender (2001), "Estimates of the tax revenue function in Israel", Bank of Israel, Discussion Paper 2001.2.

since 1995 has been acyclical on average in comparison to the high negative correlation (-0.67) between the unadjusted deficit and changes in the output gap.

5. Conclusions

The use of the OECD method for estimating the elasticity of the government deficit with respect to the stage of the business cycle (the output gap) indicates that the elasticity in Israel is similar to that estimated for the OECD countries and higher than that estimated for the South American countries. The elasticity of tax revenues with respect to the output gap in Israel is higher, due to the higher progressivity of taxes in Israel and the relatively high elasticity of wage payments in Israel to the business cycle. In contrast, the elasticity of expenditure is lower, which offsets the effect of the elasticity of tax revenues. Modifying the estimation of the elasticity of tax revenues in order to use all the available information reduces the estimated elasticity to somewhat more than unity and the elasticity of the deficit by 0.05.

The analysis also demonstrates the influence of the composition of tax revenues on the elasticity of these revenues with respect to output and the effectiveness of “automatic stabilizers”. Since the weight of direct taxes in total tax revenues has declined in Israel during the past decade (from 55 percent in 2000 to 51 percent in 2008) the elasticity of taxes with respect to GDP has declined by about 0.05 (according to the disaggregated estimation for Israel). This is due to the fact that the elasticity of indirect taxes is much lower than that of direct taxes.

An examination of government policy during the last decade shows that the use of the cyclically adjusted deficit does help to reflect fiscal policy well. The significant decline in the cyclically adjusted deficit between 2003 and 2007 highlights the very significant direct effect of the policy measures included in the government’s consolidation program of 2003. Nevertheless, the even larger decrease of the unadjusted deficit indicates that the closing of the output gap also contributed importantly to the deficit narrowing. In contrast, the analysis shows that almost all the increase in the deficit between 2007 and 2010 was due to policy measures (statutory tax rates cuts), with negligible cyclical effect.

Price gaps between Israel and developed countries²²

- The following is a comparison of price levels in Israel and other OECD countries. The study shows that the

²² Based on a policy memorandum by Yoav Friedman.

average level of private consumption prices in Israel in 2010 was high in comparison with other OECD member countries. This is taking into account the fact that per-capita income in Israel is lower than the average for OECD member countries. The high price of consumer goods in Israel reflects a combination of the strong shekel and particularly high prices for certain consumer goods.

- It was found that food prices in Israel in 2008 were higher than expected for a country with per-capita income similar to Israel’s. Based on changes in the consumer price indices, and in the exchange rates and growth, it seems that these gaps remained in place, and possibly even widened, between 2008 and 2011. The price gap derives inter alia from an uncompetitive market structure for certain food products and from the relatively high VAT (compared with other countries) on food products.
- The openness of the clothing and footwear market to imports and the competition in that industry contribute to competitive price levels by international comparison in this component of private consumption. However, prices at hotels and restaurants, and prices of culture and leisure services and private vehicles are high in international comparison.

1. Background: Price gaps or the real exchange rate

The price gap between Israel and abroad was a major issue in the protest that erupted in Israel and peaked last summer. Press coverage comparing the prices of fuel and of dairy products in Israel and abroad provided support for the organizers of the protests, and backed the claim that a different economic policy would likely help reduce private consumption prices in Israel, and thereby benefit most of the country’s citizens.

Comparing domestic prices with those abroad at the aggregate level is actually an examination of the real exchange rate, an examination conducted on a regular basis at the Bank of Israel and in many economic entities which follow developments in Israel’s economy. Overseas as well, tracking the real exchange rate is done frequently. For example, in the IMF’s annual report on each of its member countries, it presents the real exchange rate in comparison to its long term equilibrium value.

There is a lot of research that deals with the issue of the level of the real exchange rate and related questions, such as the effect of the real exchange rate on the current account, on demand, supply, and growth. At the Bank of Israel, Eckstein and Friedman (2011)²³ recently examined the development of the real exchange rate in the years 1995–2010, with an

²³ Eckstein Z. and Friedman A. (2011), “The Equilibrium Real Exchange Rate for Israel”, BIS Papers No. 57, pp 201–214.

emphasis on the past decade. Eckstein and Friedman found that the real exchange rate in 2006 was undervalued by 8 percent compared with its long term equilibrium value, and that in 2010 it was slightly over valued.

Despite the tight and immediate connection between the real exchange rate and the gap between domestic prices and prices abroad²⁴, the discussion on the real exchange rate generally takes place with regard to the economy in general (“the real exchange rate is overvalued or undervalued relative to its equilibrium value”), and for the most part is not directly connected to the question of whether domestic prices of products are cheaper or more expensive than abroad. This is apparently because the real exchange rate is calculated based on an aggregate of all products in the economy, and thus conclusions cannot be reached from its level about gaps in the price of an individual product or a group of specific products.²⁵ Aside from that, averaging prices for the calculation of the real exchange rate is done not only at the product level, but also at the level of the countries with whom the local economy maintains trade ties, so that there is an intuitive difficulty in switching between the level of the real exchange rate to a comparison of prices between the domestic market and abroad. In addition to these issues, there is another difficulty: since the calculation of the real exchange rate generally depends on various assumptions, its result can be argued.

One of the accepted indices of international comparison of price levels is the purchasing power parity (PPP) index. Recently, Frish (2011)²⁶ compared prices in Israel to prices abroad using PPP, and found that private consumption prices in Israel in 2009 were about 15 percent higher than in countries with per capita GDP similar to Israel’s. Below we will make use of PPP price indices calculated by Eurostat and the OECD to compare prices of GDP, private consumption, as well as various aggregates which

comprise private consumption.²⁷ The figures show that the average level of private consumption prices in Israel in 2010 was high relative to levels in other OECD member countries; this is when taking into account that per capita income in Israel is lower than the OECD average. There are specific consumer products for which the price in Israel is particularly high, while for others the price in Israel is not appreciably different than prices of similar products in other industrialized countries.

2. Prices of GDP and private consumption in Israel

The literature widely acknowledges that the level of prices of output in the economy is coordinated with its per-capita income. The generally accepted explanation for the very close connection between these two variables, which exists both in a specific economy which is growing over time as well as in a wide swath across countries, is based on the differences in the relationship between the productivity of the tradable sector and non-tradable sectors (Balassa (1964) and Samuelson (1964)).²⁸ The assumption inherent in this explanation is that the ratio between productivity in tradable sectors and in non-tradable sectors is greater in wealthy countries, so that in these countries the ratio between prices of non-tradable and tradable products is also greater. Since we expect price equilibrium between economies for tradable goods, it transpires that prices of non-tradable products and the general price level in wealthier economies are higher.²⁹ There are alternative explanations as well for the positive correlation between income per capita and price levels. The

²⁴ By definition, the real exchange rate is the ratio of domestic prices to those abroad. Due to the difficulty in comparing price levels in different economies, the real exchange rate is sometimes calculated only as an index, so that tracking it means tracking rates of change in the index, without discussion of the level.

²⁵ The Economist’s Big Mac Index is different in this regard, as it directly presents the price of a Big Mac around the world.

²⁶ Frish, R. (2011), “Information for protestors in tents—are consumer prices in Israel high?”, Internal memorandum for monthly monetary discussion, Bank of Israel, September 2011 (Hebrew).

²⁷ The PPP (Purchasing Power Parity) comparative data that are published by the OECD and Eurostat are regarded as relatively good, and are generally accepted in the literature for the purpose of international comparison of price levels. However, it is important to note that these type of data are not flawless, because when compiling price indices it is necessary to overcome problems such as comparing prices of different consumption baskets (which are not the same from country to country) or comparing goods of differing quality. The difficulty in comparing goods of differing quality is especially notable in the case of non-tradable goods. These weaknesses could lead to a deviation in the indices, particularly with consumption baskets that differ to an exceptional extent from country to country. Nevertheless, it can be assumed that these problems are not acute when comparing indices of price levels between OECD member countries. For details of how the index is calculated by the OECD and Eurostat, see: www.oecd.org/std/ppp/manual.

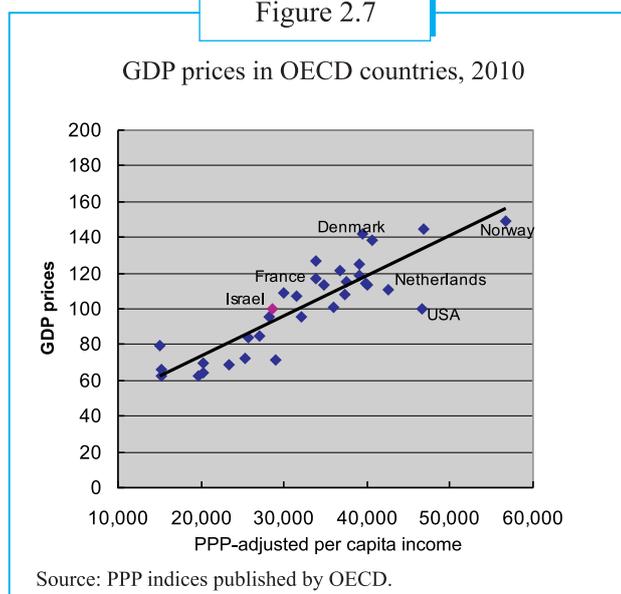
²⁸ B. Balassa (1964), “The Purchasing Power Parity Doctrine: A Reappraisal”, *Journal of Political Economy* 72(6), pp 584–596. P.A. Samuelson (1964), “Theoretical Notes on Trade Problems”, *Review of Economics and Statistics* 46, May, pp 144–155.

²⁹ The positive correlation between price level and per capita GDP level generally exists in tradable goods as well, since these products also contain a non-tradable component, such as marketing and distribution.

main one is that proposed by Kravis and Lipsey (1983)³⁰ and Bhagwati (1984)³¹, who claim that the positive correlation between per capita income and price levels in an economy stems from the fact that the ratio of capital to worker is higher in wealthier economies and from the fact that non-tradable products are labor intensive compared with tradable products.

Figure 2.7 presents the GDP price level in 2010 for Israel and other OECD countries.³² It can be seen that the level of GDP prices in Israel in 2010 was higher (by about 7 percent) than what would be expected, assuming that there is a linear relationship between per capita income and GDP prices, though this gap is not statistically significant, and is relatively small compared with the distance of other economies from the regression line. A similar examination of private consumption prices shows that they are about 20 percent higher than forecast by the regression line. This deviation is noteworthy although it is not statistically significant (Figure 2.8).³³

Figure 2.7



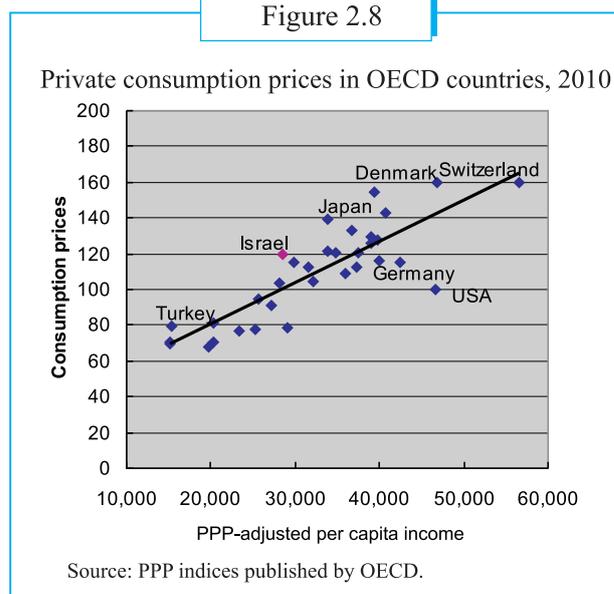
³⁰ Kravis, I., and R. Lipsey (1983), "Toward an Explanation of National Price Levels", Princeton Studies in International Finance, No. 52.

³¹ Bhagwati, J. (1984), "Why Are Services Cheaper in Poor Countries", Economic Journal, 94 (374), pp 279–286.

³² Except for Luxembourg, whose observation is unusual, as it is a small and open economy in which the level of per capita income is double that of its neighbor, the Netherlands.

³³ Running the regressions when the dependent variable and the independent variable are expressed through the natural logarithm gives similar results, and thus, for ease of presentation, we present in the figures the data on levels.

Figure 2.8



The price level in Israel compared with other countries is influenced greatly by the level of the nominal exchange rate. The relative price level in Israel over the past decade was volatile, and was affected to a great degree by the volatility in the exchange rate. For example, in 2005 and 2006, when the shekel-dollar exchange rate was near NIS 4.50/\$, and the nominal effective exchange rate was 15 percent weaker than its 2010 level, the private consumption price level in Israel was near the regression line, which illustrates the correlation between per capita income and the level of prices of private consumption in OECD countries. In 2001, which is generally viewed as a year in which the exchange rate was overvalued, the level of private consumer prices was about 20 percent higher than the regression estimation.³⁴ We note that despite the volatility of the nominal exchange rate in Israel, in only two of the past ten years has the price level in Israel been lower than the level expected for an economy with per capita income similar to Israel's. On average, over the past decade, the price level in Israel was about 6 percent higher than what would have been expected in such an economy.

3. International comparison of prices of products which comprise private consumption

The high price of consumer products in Israel reflects the combination of especially high prices (in an international comparison) of specific products, and reasonable prices of other products. We will present below an international comparison of various private consumption aggregates, based on comparative figures from Eurostat and the OECD.

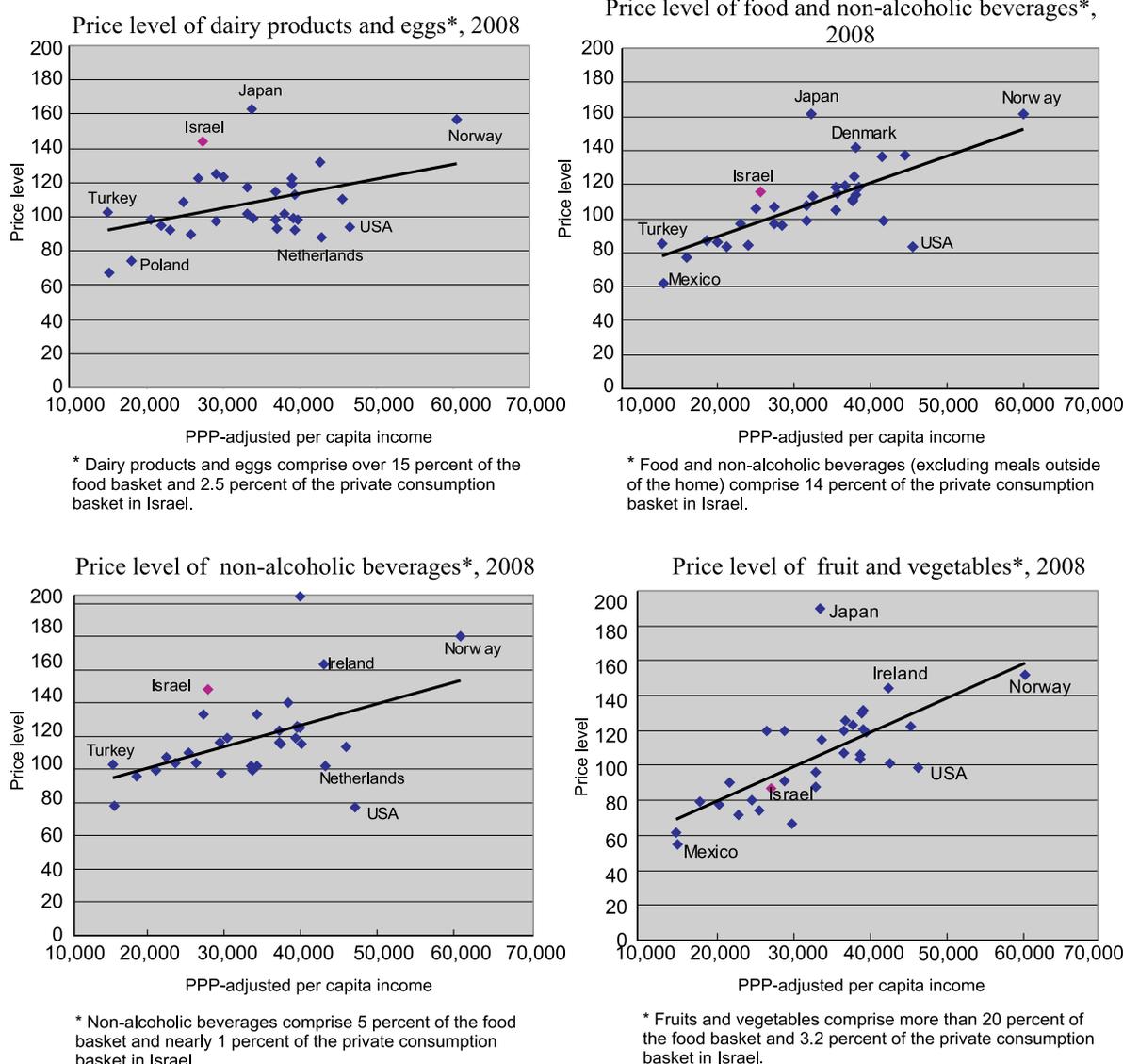
³⁴ Even though the price gap relative to the regression line is not statistically significant.

These figures are published once every three years. The most recent year for which they were published was 2008. Through the use of changes in consumer price indices and changes in the nominal exchange rate and GDP per capita, we will also present projections of the development of prices of various components of consumer products in an international comparison, updated through 2011.

Figure 2.10 shows the price levels of the food component, and selected items which comprise it, in Israel and in other OECD countries in 2008. In that year, food prices in Israel were 15 percent higher than the OECD average. A linear regression estimation shows that food prices in Israel in 2008 were 20 percent higher than that expected in an economy with per capita income similar to Israel's.³⁵ Based on development of prices, the shekel-euro exchange rate, and per capita GDP in Israel and Europe in 2008–11, it can

Figure 2.9

Price of food and selected food components in OECD countries^a



* Dairy products and eggs comprise over 15 percent of the food basket and 2.5 percent of the private consumption basket in Israel.

* Food and non-alcoholic beverages (excluding meals outside of the home) comprise 14 percent of the private consumption basket in Israel.

* Non-alcoholic beverages comprise 5 percent of the food basket and nearly 1 percent of the private consumption basket in Israel.

* Fruits and vegetables comprise more than 20 percent of the food basket and 3.2 percent of the private consumption basket in Israel.

^a Excluding Luxembourg and Chile.

Source: PPP indices published by OECD. Weightings in consumption basket in Israel: Central Bureau of Statistics.

³⁵ We note that this gap is not statistically significant.

be assessed that in the past three years food prices in Israel have continued to become more expensive compared with euro bloc economies by an additional ten percent. Compared with the US, they did not change noticeably in that period. It is plausible that the lack of reduced VAT on food products in Israel (except for fruits and vegetables which are exempt from VAT) contributes to the relatively high prices of food, but there are other contributing factors, related to the market structure of specific food products. Dairy products, fish, and non-alcoholic beverages stand out particularly in their high prices compared with other countries. In 2008, there was a gap of more than 30 percent between prices in Israel and those estimated by the regression.³⁶ Although the appreciation of the shekel in 2008 contributed to their increase to a certain degree, the main reason for the relatively high price of dairy products, fish, and soft drinks is found in other factors. Evidence of this is the fact that prices of other components in the consumption basket were not especially high in an international comparison (see below). Based on developments in the nominal exchange rate, prices, and per capita GDP between 2008 and 2011, it appears that the price gap with euro bloc countries in dairy, fish, and non-alcoholic beverage products widened over those years by 5–15 percent.

Dairy products would appear to be unique in terms of the protection and subsidies provided for them in various OECD countries, and the low explanatory power of the regression in which the dependent variable is the price of dairy products, as well as the low slope of the regression line, support that assessment. In Israel, customs duty on milk and butter is around 150 percent and the duty on cheese is also high. From this aspect, the milk market in Israel is closed and prices of dairy products are affected by a market structure that is not competitive, and in which supervision over prices to the consumer is limited. The fish products market is also constricted by high customs duty and low competition.³⁷ Like the milk market, the fresh meat products market is also not open to competition from abroad. The duty on fresh meat (beef and chicken) is very high, and effectively prevents competition from imported fresh meat. In addition, demand for kosher products, which are unique in their type, and the difficulty for non-kosher products to compete freely in the market constitute another barrier to competition.³⁸

³⁶ Regarding dairy products, the gap is significant at the 5 percent significance level, and for fish products, it is significant at the 10 percent significance level.

³⁷ There are three major distributors in the market. (Based on: Grinstein, I., (2011), "Economic aspects of environmental reform in the fisheries sector", Ministry of Agriculture and Rural Development.)

³⁸ Most marketing chains in Israel are kosher, which makes it difficult to distribute non-kosher products and for importers to compete in the market.

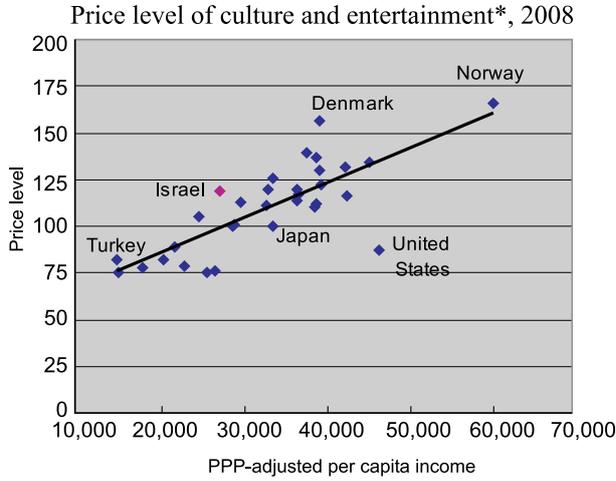
By hindering competition, these barriers support relatively high prices for some of the food products sold in Israel. With respect to non-alcoholic beverages, the main problem contributing to their relatively high price would appear to be the lack of competition in the industry, which is controlled by three large producers. In contrast to the high price of dairy products, fish and non-alcoholic beverages, fruit and vegetable prices in Israel are slightly lower than abroad. Major contributory factors in this respect are the VAT exemption on fruit and vegetables and the large number of foreign workers employed in the agriculture industry.

Figure 2.10 presents comparative prices of additional components in the private consumption basket. It can be seen, for example, that the prices of clothing and footwear in Israel are not high compared with other countries. This is in contrast to most of the components of the private consumption basket. It seems plausible that this is the result of significant exposure to imports and the competition in the sector. In the past three years there has not been a significant change in the relative price of footwear and clothing items in Israel; compared with countries in the euro bloc their relative price increased by four percent, and compared with the US their prices declined by about one percent.

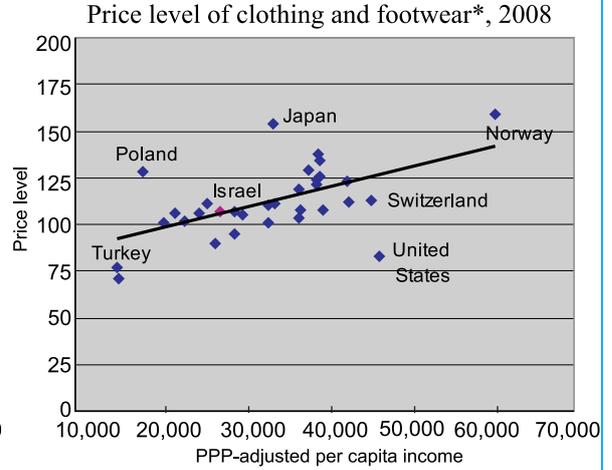
The slope of the regression line can be explained in most instances, as noted, by the extent of the tradability of the product. The more a product is tradable, we expect that the variance of its price between markets worldwide will be lower, and that the link between its price in a specific market to the per capita GDP in that same market will be weaker. For example, based on the various regressions, a ten percent increase in per capita income is expected to contribute to an increase in prices of clothing and footwear, which are tradable products, of three percent, in contrast to a contribution of more than five percent to the increase in prices of culture and entertainment. It appears that this general rule is not valid regarding prices of communications services. Communication is a non-tradable industry (even though the capital invested in it is tradable), with natural monopolies, or with a few companies which dominate the market. Due to economies of scale in the communication industry and the various barriers to entry, the sector is not competitive enough in many economies. It thus is plausible that differences in regulation and oversight of prices affect the prices of communication services much more than per capita income. The price of communication services in Israel in 2008 was slightly lower than the OECD average. However, between 2008 and 2011, the prices of communication services in Israel increased by about 20 percent relative to the euro bloc, and by ten percent relative to the US.

Figure 2.10

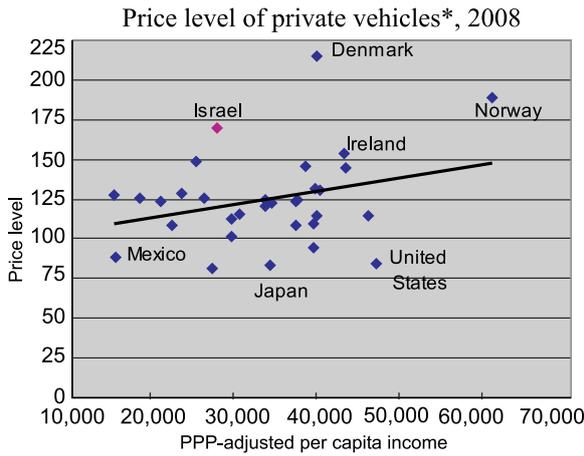
Prices of selected components of private consumption in OECD countries



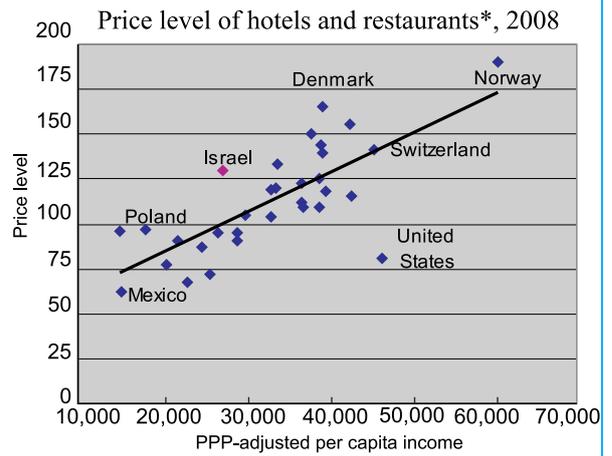
* Expenditure on culture and entertainment (excluding hotels) comprises about 6 percent of the private consumption basket in Israel



* Expenditure on clothing and footwear comprises about 3 percent of the private consumption basket in Israel.



* Expenditure on private vehicles (cars and motorcycles) comprises about 4 percent of the private consumption basket in Israel.



* Expenditure on hotels and restaurants comprises about 3 percent of the private consumption basket in Israel.

Source: PPP indices published by OECD. Weightings in consumption basket in Israel: Central Bureau of Statistics.

Diary of Events: September to December 2011

Month	Date	Event	Details
September	3	About 300 thousand people participated in the major rally of the social protest in Tel Aviv.	About 300 thousand people gathered in Tel Aviv for the major rally of the social protest, and others demonstrated throughout the country against the cost of living in Israel. This event was the climax of the protest, in the wake of which the Committee for Social and Economic Change was established.
	5	Turkey cooled its commercial relations with Israel.	The Turkish Government announced that it would discontinue military and inter-governmental trade with Israel.
	9	The S&P rating agency upgraded Israel's rating from A to A-plus.	In its announcement the agency stated that the upgraded rating reflects the responsible macroeconomic policy that Israel adopted during the global crisis, and the economy's high growth rate.
	11	The United States will launch a \$450 billion incentive program for the labor market.	The program presented by President Barack Obama will include mainly tax reductions, rescuing workplaces from closure, and infrastructure investment.
	15	The Committee on Increasing Competitiveness in the Economy presented its interim recommendations.	The Committee's recommendations would prohibit, among other things, a real corporation and an entity controlling a real corporation whose revenue from sales exceeds NIS 8 billion from controlling or holding a financial body that manages more than NIS 50 billion. This implies that a controlling shareholder cannot hold both a real corporation and the above financial corporation. The Committee also recommended limiting the simultaneous term of office of directors in a real body and in the above financial body.
	21	The S&P rating agency downgraded Italy's credit rating to A-minus.	S&P downgraded the rating by one level and warned about a growth slowdown and the political uncertainty in the country.
	23	The Bank of Israel reduced its growth forecast for 2012 to 3.2 percent.	The Bank of Israel reduced its growth forecast in the economy for 2012 from 3.9 percent to 3.2 percent. The reason: the expected decline in demand for Israeli products because of economic problems in the United States and Europe.
	26	The Bank of Israel interest rate for October was reduced by 0.25 percentage points, to 3 percent.	

BANK OF ISRAEL RESEARCH DEPARTMENT

October	9	The government approved the establishment of the Monetary Committee in the Bank of Israel.	The Committee will have six members: the Governor, the Deputy Governor, the Senior Adviser to the Governor—and three external members, public representatives from academia. If the vote is tied, the Governor has a casting vote.
	9	The government approved the Trajtenberg Committee's report.	The government approved the report of the Committee for Social and Economic Change headed by Prof. Manuel Trajtenberg, but decided that each section would be presented separately for approval. The Committee's recommendations focus on lowering the cost of living without breaching the budgetary framework.
	12	An agreement was signed between Israel and Hamas for the release of the kidnapped soldier Gilad Shalit.	As part of the transaction Shalit was returned to Israel, and 1,027 Palestinian prisoners were released, among them 22 Israeli Arabs.
	24	The Bank of Israel interest rate for November was left unchanged at 3 percent.	For the first time the decision was made by the Monetary Committee established under the new Bank of Israel Law.
	27	Economic reform agreement in the euro area.	Leaders of the euro area agreed to expand the European rescue fund to one trillion euros. It was also decided that the banks would write off half of Greece's debt.
November	3	The European Central Bank announced the lowering of interest of 0.25 percent, to 1.25 percent.	
	7	The Histadrut initiated a general strike for improving the employment conditions of contract workers.	The strike was stopped after several hours according to a court injunction; the court ruled that there is still room for negotiations between the Histadrut and the Ministry of Finance on the matter of contract workers.
	8	The Bank of Israel requires the banks to publish their exposure to all large borrowers.	The Bank of Israel demands from the banks, starting from the upcoming reports, to substantially expand disclosure of their loans to large groups in the economy, and to assess their attendant risks.
	10	The stock exchange launches options on unindexed government bonds.	The stock exchange widens the derivatives market. The options on government unindexed bonds will enable leveraged trading and protection against interest risks.
	17	Spain has difficulties in selling bonds.	Spain issued 10-year bonds at a record interest of 7.1 percent—an interest environment that forced Greece, Ireland and Portugal to request assistance.
	25	The credit rating of Belgium, Hungary and Portugal was downgraded.	The S&P rating agency downgraded Belgium's credit rating from AA-plus to AA-minus because of its high debts, which, according to the agency, will continue to grow. Moody's downgraded Hungary's and Portugal's credit rating to "junk bond" level, at Ba1, because of fears about repayment of accumulated debts, and Fitch warned France that it would downgrade its rating if its bond yields continue to rise.

November	28	The Bank of Israel interest rate for December was reduced by 0.25 percentage points, to 2.75 percent.	The major reasons for lowering interest were the situation in Europe and fear of disintegration of the euro area, as well as indications of moderation of the growth rate of the Israeli economy, particularly because of the decline in exports.
December	1	In order to forestall a credit crisis, 6 central banks initiated a coordinated move of injecting liquidity into the markets.	The US Federal Reserve announced the lowering of interbank interest from 1 percent to 0.5 percent. In the wake of this, Great Britain, Japan, Canada, Switzerland and China took steps to improve liquidity in the financial markets.
	4	The government approved the Trajtenberg Committee's recommendation on customs duty exemptions.	The government approved another part of the recommendations of the Committee for Social and Economic Change. The major change is an exemption from customs duty on products imported personally through the internet, up to NIS 1,200.
	5	The Knesset approved the Trajtenberg Committee's tax recommendations.	The major stipulations of the law: instead of reducing the income-tax rate, marginal tax will be raised from 45 percent to 48 percent on salaries exceeding NIS 40,000 monthly; company tax will be raised from 24 percent to 25 percent; capital gains tax will be raised from 20 percent to 25 percent; 2 income-tax credit points will be given to fathers of children up to age 3; and the excise duty on fuel will not be raised.
	7	The Ministry of Finance and the resident doctors reached agreement on salaries	Thus ended a labor dispute as part of which doctors went on strike against their employment conditions and the state of medicine in Israel, emphasizing particularly the working conditions of resident doctors.
	19	The government approved the competitiveness and cost-of-living section in the Trajtenberg Committee's report.	Among others, it was decided to approve the establishment of 40 new gas stations that will not be run by the four large fuel companies; open the cement market to overseas imports; reform the cooking-gas market; and examine the prices of price-controlled products, including eggs and milk. The power of the Antitrust Authority will be increased, and a unit will be set up in the Authority to examine competitiveness in the economy.
	21	The Knesset approved until 2017 a bill freezing the retirement age of women at 62.	The bill cancelled the automatic raising of the retirement age for women from 62 to 64, which was meant to come into force in 2012.
	26	The Bank of Israel interest rate for November was left unchanged at 2.75 percent.	
	28	The government approved a NIS 1.65 billion addition to the Ministry of Defense budget.	The joint committee of the Finance Committee and the Foreign Affairs and Defense Committee approved the transfer. The transfer is derived from money that was not used by various government ministries during the previous year.